OLIVENHAIN
Municipal Water District

2025 URBAN WATER MANAGEMENT PLAN

June 2026

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Olivenhain Municipal Water District

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ES.1 Introduction

Olivenhain Municipal Water District (OMWD) has prepared this 2025 Urban Water Management Plan (UWMP) to guide its conservation and water resource management programs and to comply with state law. The Urban Water Management Planning Act [California Water Code (CWC) §§ 10610 – 10656] (UWMP Act) requires urban water suppliers to report, describe, and evaluate various aspects of their water resources and plans for providing water service, including:

- Water deliveries and uses
- Water supply sources
- Water efficiency and demand management measures (DMMs)
- Water shortage contingency planning

OMWD is a California public water system providing potable water, wastewater, recycled water, hydroelectricity, and park services and is headquartered in Carlsbad, San Diego County, California. During Fiscal Year 2025, OMWD served 22,791 accounts and delivered approximately 17,946 acre-feet (AF) of potable water. Under the UWMP Act, as amended, OMWD is required to submit an updated UWMP to California Department of Water Resources (DWR) every five years.

ES.2 Lay Description

This section provides a summary description of this 2025 UWMP. In the interest of keeping this section brief, more information and detail is provided in subsequent chapters and referenced documents.

Customer Demand for Potable Water

OMWD customer demand for potable water peaked in 2008 at nearly 25,000 AF. Since that time, demand has declined due to increased water use efficiency (conservation), expanded use of recycled water, and rising cost of imported water from OMWD's wholesale supplier. As discussed in this UWMP, OMWD forecasts that future potable water demands will continue to decline for the same reasons. Decreases in potable demand will be driven by conservation mandated by legislation (SB 606 (2018), AB 1668 (2018), and AB 1572 (2023)), and particularly the extent of landscape conversions from turf to California-native or other low water use landscapes.

Customer demand for potable water in FY 2025 was approximately 17,946 AF. During 2025, OMWD served 21,682 residential accounts (21,212 single-family and 470 multi-family), 479 commercial and institutional accounts, 562 landscape irrigation accounts, and 68 agricultural irrigation accounts. OMWD's service area is nearly fully developed, and the small amount of remaining developable area is not expected to contribute significantly to future demands for potable water.

Customer Demand for Recycled Water

OMWD has implemented the use of recycled water (tertiary treated wastewater) for irrigation. Recycled water requires a separate distribution system from the potable water system. As new demands for recycled water are introduced, the recycled water distribution system is strategically expanded. It is currently not cost-effective to build a second distribution system across all OMWD's service area. Expansion efforts have been focused on areas where recycled water demands are geographically

concentrated to maximize efficiencies. Customer demand for recycled water in FY 2025 was approximately 3,001 AF and OMWD forecasts the demand to grow to approximately 3,204 AF by 2040.

OMWD provides sewer collection and treatment services to a portion of its service area and sells recycled water to golf courses and other commercial customers for irrigation. OMWD's 4S Ranch Water Reclamation Facility (4S WRF) collects and treats sewage from two portions of OMWD's service area, including Rancho Cielo and 4S Ranch. Sewage is processed in the 4S WRF through various treatment stages to produce California Title 22 tertiary treated recycled water that can be used for irrigation purposes. The 4S WRF currently produces an average of more than one million gallons per day (mgd) of its maximum capacity of 2.0 mgd; this water is used to meet recycled water demand in the southeast portion of OMWD's service area, along with additional recycled water that OMWD purchases from Rancho Santa Fe Community Services District (CSD) and City of San Diego.

In the northwest portion of its service area, OMWD serves recycled water customers through purchase agreements with Vallecitos Water District (VWD) and San Elijo Joint Powers Authority (SEJPA), which allow recycled water to be delivered to irrigation customers through metered interagency service connections.

Water Use Efficiency

Water use efficiency is often measured and expressed as gallons per capita per day (GPCD). OMWD's customer GPCD has decreased from approximately 400 GPCD in 2000 to approximately 139 GPCD in 2025 due to conservation and recycled water expansion. OMWD forecasts continued water use efficiency and decreases in GPCD, although not to the same extent as in the past 24 years. Water use efficiency varies throughout San Diego County based on land use. Agencies and cities that are urbanized with high-density and multi-family development tend to have lower GPCD rates than less dense areas such as OMWD's service area, which is characterized by predominantly single-family development, many with large lots and landscaping irrigation, which increase water use rates.

As required by the Water Conservation Act of 2009, Senate Bill X7-7, DWR developed urban water use targets of 20 percent water use reduction by 2020, which OMWD has achieved. Since its 2020 UWMP, OMWD has also initiated reporting for Urban Water Use Objectives (UWUO) as required by SB 606 and AB 1668 under the "Making Conservation a California Way of Life" legislation, which was signed into law in 2018 and finalized by State Water Resources Control Board (SWRCB) in 2024. UWUO reporting is provided in Chapter 9 of this 2025 UWMP.

Water Supply and Reliability

OMWD purchases 100 percent of its potable water supply from San Diego County Water Authority (SDCWA). This supply consists primarily of surface water from the Colorado River and the Sacramento-San Joaquin Delta (Delta) in Northern California. Water from the Delta consists of State Water Project (SWP) water allocated to Metropolitan Water District of Southern California (Metropolitan) and purchased from Metropolitan by SDCWA. Water from the Colorado River is obtained by SDCWA through Quantification Settlement Agreement (QSA) transfers consisting of 200,000 AF per year (AFY) from Imperial Irrigation District (IID) via long-term water transfer agreements and 77,700 AFY from water savings resulting from canal lining projects on the All-American Canal and the Coachella Canal, as well as purchases of Colorado River water from Metropolitan. Additionally, Colorado River water supplies are being maintained through collaborative conservation including a 2023 multi-agency agreement involving IID, Metropolitan, and Tribal representatives to conserve 1.6 million AFY in Lake Mead over three years.

OMWD treats the raw water supply purchased from SDCWA to meet or exceed all state and federal standards at its David C. McCollom Water Treatment Plant (DCMWTP). OMWD also purchases a small amount of treated water from SDCWA that consists of the same surface water sources but is treated at either Metropolitan's Skinner Filtration Plant in southern Riverside County or SDCWA's Twin Oaks Valley Water Treatment Plant in northern San Diego County. SDCWA's treated water supply may also include water from the Claude "Bud" Lewis Carlsbad Desalination Plant (Carlsbad Desalination Plant).

SDCWA considers its imported surface water supplies (SWP water purchased from Metropolitan and Colorado River water obtained through QSA transfers) and its desalinated seawater supplies (from the Carlsbad Desalination Plant) to be "drought-resilient," meaning they would remain available during a drought. As a member agency of Metropolitan, SDCWA also has access to additional supplies from the Delta and Colorado River, as well as other sources developed or procured by Metropolitan. SDCWA has analyzed its supplies under normal, single-dry, and five consecutive dry-year conditions through the year 2050 and has concluded there will be no shortages. SDCWA has also completed a Drought Risk Assessment (DRA) and has concluded there will be no shortages.

OMWD Local Supplies

OMWD has been investigating a brackish groundwater desalination project in the San Dieguito Valley, with a one-year pump test completed in December 2020 to confirm the technical feasibility of the project. Technical study of the project is ongoing. Should OMWD move forward with this project, it has the potential to provide additional supply reliability and local control over costs. In addition to potential desalination of brackish groundwater, OMWD also continues to expand recycled water use as a drought-resilient supply source that offsets potable water use, thereby increasing OMWD's local supply reliability.

Water Supply Reliability Challenges and Strategies to Manage Risks

As noted above, OMWD's potable water is sourced entirely from SDCWA. The primary sources of SDCWA contractual supplies are the Colorado River (QSA transfers) and the Pacific Ocean via the Carlsbad Desalination Plant. SDCWA also purchases Delta water (SWP) from Metropolitan. Water supply reliability challenges associated with both the Delta/SWP and the Colorado River are related to the effects of climate change and competing needs of development and the environment.

DWR is in the process of completing environmental documents and permitting for a project known as the Delta Conveyance Project, which will improve SWP reliability. The Delta Conveyance Project is a proposed underground tunnel that would move SWP water from the North Delta to existing SWP infrastructure in the South Delta. The Delta Conveyance Project would convey excess flows during high runoff periods to storage areas south of the Delta, where it would be stored for later extraction and use during dry periods. This would modernize aging infrastructure of the existing SWP system, while reducing reliance on through-Delta conveyance and avoiding ecologically sensitive and environmental justice areas in the Central Delta. Additionally, DWR's SWP delivery capability analysis forecasts hotter and drier conditions due to climate change, which has a direct impact on the amount of imported surface water that is forecasted to be available in the future.

On the Colorado River, seven basin states and Mexico share the river's water supply, including the upper basin states of Colorado, New Mexico, Utah, and Wyoming, and the lower basin states of Arizona, Nevada, and California. All seven basin states have implemented strategies to reduce demands on the river. Current operating guidelines for water deliveries and shortage sharing consist of the 2007 Interim Guidelines and 2019 Drought Contingency Plans, which are set to expire in 2026. The basin states and the federal government are working to develop post-2026 operating guidelines for managing Lake Mead and Lake Powell, the system's two major reservoirs.

The U.S. Department of the Interior (DOI), Bureau of Reclamation (USBR) set a deadline of November 11, 2025, for the seven basin states to indicate whether a consensus agreement would be likely and to provide a preliminary, consensus-based framework for post-2026 operating guidelines. However, Upper Basin and Lower Basin representatives were unable to reach agreement on how shortages should be shared or how Lake Powell and Lake Mead should be operated under continued drought conditions. As a result, the basin states failed to meet the November 11, 2025 deadline. As a result, the federal government has indicated it may take independent action to ensure continued management of the system beyond expiration of the 2007 Interim Guidelines in 2026. Meanwhile, the federal agencies have continued to develop a Draft Environmental Impact Statement (EIS) evaluating post-2026 operational alternatives.

On January 9, 2026, USBR released a Draft EIS for Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead (BLM 2026). The Draft EIR assesses a suite of operational management strategies but does not identify a preferred alternative. The formal public review and comment period for the Draft EIS began on January 16, 2026, following publication in the Federal Register Notice, and ended on March 2, 2026. Two virtual public meetings were held to provide information on the Draft EIS, on January 29, 2026, and February 10, 2026.

SDCWA's strategies to manage water supply risks include long-term contracts for a diverse set of supplies from Colorado River, Carlsbad Desalination Plant, and local water storage capacity in surface reservoirs. OMWD's strategies to manage water supply risks include ongoing investigation and study of the potential San Dieguito Valley Brackish Groundwater Desalination Project, as well as expanded recycled water use and increased water use efficiency, all of which reduce demand on imported water and improve reliability. In addition, OMWD is a founding member of the North San Diego Water Reuse Coalition (NSDWRC) comprised of nine water and wastewater agencies that are closely coordinating activities to maximize beneficial reuse and improve the reliability of water supplies for the region.

Updated Water Shortage Contingency Plan

The Water Shortage Contingency Plan (WSCP) is a detailed set of actions that OMWD may implement in the case of a water shortage condition. OMWD's WSCP, originally adopted in 2021, is presented in Chapter 8 of this 2025 UWMP. As detailed therein, should a water shortage condition occur, WSCP actions may include demand management (reduction) measures, operational changes, and mandatory restrictions.

ES.3 Key Elements of OMWD's 2025 UWMP

Key elements of OMWD's 2025 UWMP are summarized below:

- **OMWD's 2025 UWMP meets the requirements of the CWC and the UWMP Act.**

  This 2025 UWMP was prepared according to DWR's 2025 Final Urban Water Management Plan Guidebook for Urban Water Suppliers (2025 UWMP Guidebook), released on February 6, 2026 (DWR 2026). The 2025 UWMP Guidebook was prepared to ensure compliance of UWMPs with the CWC and the UWMP Act. A checklist to demonstrate compliance of this 2025 UWMP with the 2025 UWMP Guidebook and the CWC is included as Appendix A.

- **OMWD has completed an open and collaborative UWMP process.**

  OMWD has notified its wholesale supplier, SDCWA; the County of San Diego; the cities of Encinitas, Carlsbad, San Marcos, Solana Beach, San Diego, and other local cities; the local wastewater collection and treatment agencies; the San Diego Association of Governments (SANDAG); and others of the preparation of this 2025 UWMP and invited input and comment. The Draft 2025 UWMP was published on OMWD's website on March 31, 2026, and a public hearing was held April 15, 2026. No oral or written comments were received. OMWD's Board of Directors adopted the 2025 UWMP at its regular meeting on June 17, 2026.

- **OMWD has updated its population and water demand projections based on the latest forecast by SANDAG.**

  This 2025 UWMP is informed by SANDAG Series 15 Regional Growth Forecast data, which became available in 2025. Using these forecasts, OMWD has developed new water demand projections considering new development, reductions due to additional water use efficiencies, and the potential effects of climate change. OMWD utilized SANDAG Series 15 Regional Growth Forecast figures for regional consistency with SDCWA's 2025 UWMP. However, note that this alignment with regional population estimates for water planning purposes differs from the population reported elsewhere such as data derived from the Department of Finance through a special, in-depth population study

specifically tailored to OMWD's service area which was utilized for OMWD's Annual Comprehensive Financial Report.

- **OMWD's DRA has been completed with potable water supply availability assumptions consistent with its wholesaler, SDCWA.**

  OMWD has finalized its DRA using potable water supply availability assumptions consistent with those used by SDCWA. This coordination between OMWD's and SDCWA's DRAs ensures that planning scenarios reflect consistent regional supply conditions and support coordinated drought response efforts.

- **OMWD will complete all required 2025 UWMP submissions in compliance with established deadlines.**

  OMWD plans the following steps to complete the UWMP process:

  - Electronic Submittal to DWR: No later than July 1, 2026
  - Copies to Cities, County, State Library: No later than July 15, 2026
  - 2025 UWMP Available to the Public: No later than July 30, 2026

ES.4 References

DWR (Department of Water Resources). 2026. Final Urban Water Management Plan Guidebook. January. Available: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Urban-Water-Management-Plans/Final-2025-UWMP-Guidebook/Final-2025-UWMP-Guidebook-Accessible.pdf. Accessed March 2026.

USBR (U.S. Bureau of Reclamation). 2026. Draft Environmental Impact Statement, Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead. Available: https://www.usbr.gov/ColoradoRiverBasin/post2026/draft-eis/index.html. Accessed January 2026.

1 Introduction and Overview

An Urban Water Management Plan (UWMP) is a water supply planning document that guides the sustainable and efficient use of urban water resources. In alignment with California Water Code (CWC) Sections 10610.2(a)(2) and 10608(h), presented below, UWMPs recognize that while water conservation is a statewide priority, water supply reliability planning and the implementation of effective conservation efforts are best achieved at the local level.

> CWC Section 10610.2(a)(2) states, "[t]he conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level."
>
> CWC Section 10608(h) states, "[t]he factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency."

In accordance with the Urban Water Management Planning Act (UWMP Act) of 1983, as detailed below in Section 1.5.1, urban water suppliers with at least 3,000 service connections or providing at least 3,000 acre-feet per year (AFY) of water are responsible for developing a UWMP that accounts for region-specific factors, including but not limited to climate patterns and the effects of climate change, type and extent of existing and anticipated development, and planned conservation efforts. UWMPs are updated every five years, accounting for updated conditions and development characteristics with associated water demand forecasts and supply availability projections.

Olivenhain Municipal Water District (OMWD) is a public agency organized under CWC Section 71000 et seq. and is comprised of a five-member, publicly elected Board of Directors and appointed General Manager. OMWD's service area covers approximately 48 square miles in northern San Diego County, with approximately 74,200 residents in communities including Encinitas, Carlsbad, Solana Beach, and parts of San Diego. OMWD's 2025 UWMP has been designed to guide its conservation and water resource management programs, consistent with CWC and UWMP Act requirements. In addition, OMWD has updated its Annual Water Supply and Demand Assessments per CWC Section 10632.1, which allow OMWD to track progress and address any unanticipated factors that could affect water supply reliability. Information and analysis provided in OMWD's 2020 UWMP, adopted on June 16, 2021, has been updated and incorporated into this 2025 UWMP, as relevant to current and projected conditions.

This 2025 UWMP serves as a long-term planning document to provide water supply reliability at the local level. OMWD implemented its 2020 UWMP strategies and has made substantial progress towards diversifying supplies, promoting water use efficiency, and improving local supply reliability. Efforts continue towards the ongoing achievement of greater potable water savings, including reduced per capita water use, expanded use of recycled water, and progress on development of alternative sources of potable water supply.

1.1 UWMP Organization

Guidance provided by California Department of Water Resources (DWR) in its 2025 Final Urban Water Management Plan Guidebook for Urban Water Suppliers (2025 UWMP Guidebook) has been incorporated into this 2025 UWMP. Use of the 2025 UWMP Guidebook is intended to facilitate the DWR review process, support compliance with applicable standards for urban water supply planning and provide structural consistency with UWMPs produced by other public water suppliers. As such, this 2025 UWMP is organized with the chapter headings and contents directed by the 2025 UWMP Guidebook, as summarized below.

- Chapter 1: Introduction and Overview
- Chapter 2: Plan Preparation
- Chapter 3: Service Area Description
- Chapter 4: Water Use Characterization
- Chapter 5: SB X7-7 Baselines, 2020 Targets, and 2025 Reporting
- Chapter 6: Water Supply Characterization
- Chapter 7: Water Supply Reliability and Drought Risk Assessment
- Chapter 8: Water Shortage Contingency Plan
- Chapter 9: Demand Management Measures
- Chapter 10: Plan Adoption, Submittal, and Implementation

In addition to the chapters listed above, this 2025 UWMP includes an Executive Summary to provide readers with a lay description of the contents, findings, and recommendations.

1.2 Urban Water Management Plans and the California Water Code

1.2.1 Urban Water Management Plan Act of 1983

The Urban Water Management Planning Act (CWC Sections 10610-10656) (UWMP Act) requires urban water suppliers to report, describe, and evaluate various aspects of their water resources and plans for providing water service, such as:

- Water deliveries and uses
- Water supply sources
- Water use efficiency and DMMs
- Water shortage contingency planning

The UWMP Act directs water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies are available to meet existing and future demands. Urban water suppliers are required to assess current demands and supplies over a 20-year planning horizon (with an additional five-year option) and consider various drought scenarios. Among other things, the UWMP Act also requires plans to include water shortage contingency planning and drought response actions.

UWMPs are to be prepared every five years by urban water suppliers, which are defined by the UWMP Act as water suppliers providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 AFY of water. Updated 2025 UWMPs must be adopted and submitted to DWR on or before July 1, 2026. Although submitted in 2026, these UWMPs will be referred to as 2025 UWMPs because they include 2025 data. This naming convention also provides consistency with the five-year submittal cycle under the UWMP Act.

As discussed in Section 1.1, this 2025 UWMP was prepared following the DWR's 2025 UWMP Guidebook and addresses all requirements of the UWMP Act, as well as recent code changes and other relevant information.

1.2.2 New Requirements for 2025 UWMPs

Since the completion of OMWD's 2020 UWMP, several requirements have been clarified by DWR for the 2025 UWMPs. Clarifications include:

- **SB X7-7 Compliance and 2025 Reporting** – the 2025 Guidebook directs urban water suppliers to report on their progress in meeting the 2020 targets established in the 2020 UWMPs. Simplified guidance is provided to address the reporting requirements for continued compliance with the 2020 targets. Chapter 5 contains this information.
- **Double Counting of Stored Water** – tables provided by DWR for Chapter 4 provide guidance on the accounting of water placed into storage (via groundwater recharge) versus water recovered for use, to avoid inflating supply estimates.
- **Integration of Indirect Potable Reuse (IPR) and Direct Potable Reuse (DPR)** – regulations adopted by SWRCB in December 2023 (effective October 2024) require documentation of IPR and DPR projects. Minor changes to the tables provided by DWR for Chapters 4 and 6 allow for clearer accounting of potable reuse supplies.
- **Water Loss Standard Reporting –** guidance has been provided for how urban water suppliers can now report progress toward compliance with their Water Loss Standard which has been made available since the 2020 UWMPs.
- **Auto-Fill and Consistency Tools** – DWR table templates support auto-population to reduce reporting errors.

1.2.3 Water Conservation Regulations

Senate Bill X7-7 (Water Conservation Act of 2009)

SB X7-7, passed in 2009, defined a key goal to reduce statewide per capita urban water use and achieve a 20 percent reduction in per capita urban water use by 2020. In accordance with SB X7-7, UWMPs were required to support the achievement of this goal by reporting technical information such as base daily per capita water use (baseline), or gallons per capita per day (GPCD), as well as urban water use targets, interim urban water use targets, and compliance with daily per capita water use quotas. OMWD's 2020 UWMP demonstrated that OMWD was successful in achieving a 20 percent per capita water use reduction by 2020. Although the 2020 milestone has passed, this 2025 UWMP continues to report on OMWD's compliance with its SB X7-7 targets.

Senate Bill 606 and Assembly Bill 1668 (Urban Water Use Objectives)

The UWUO is a new water use efficiency legislation requirement authorized by Making Conservation a California Way of Life (SB 606 and AB 1668), which was signed into law in 2018 and finalized by SWRCB on July 3, 2024. Under this legislation, urban water suppliers were required to begin submitting annual reporting requirements to DWR and SWRCB on January 1, 2024, and to report UWUOs beginning January 1, 2025 (CWC Section 10609.60).

The Making Conservation a California Way of Life regulation uses SB X7-7 targets (for 20 percent water use reduction by 2020) as a backstop for its calculations setting customized water use efficiency standards for each urban water supplier. In comparison to SB X7-7, which sought to reduce overall per capita urban water use, the UWUO requires more granularity in water use reductions, incorporating standards for indoor residential use, outdoor irrigation efficiency, overall system water loss, and dedicated irrigation meters (DIMs) for commercial, industrial, and institutional (CII) customers.

While the UWMP Act does not require reporting on UWUO compliance in the UWMPs, OMWD's demand forecast considers mandated residential and CII water use standards in its application of future conservation savings. Below is an overview of the UWUO requirements considered in this 2025 UWMP:

- **Indoor Residential Use**: All urban water suppliers must adopt the statewide standard of 47 GPCD in 2025, reducing to 42 GPCD in 2030.
- **Outdoor Irrigation Efficiency**: Estimate outdoor water use objectives using Landscape Efficiency Standards (LES) including 0.80 for existing outdoor landscapes in 2025, reducing to 0.63 for outdoor landscapes in 2035, and 0.55 in 2040.
- **CII-DIM Budgets:** Report water budgets for DIMs serving CII customers to align actual water deliveries with performance standards.
- **Water Loss Audits**: Include validated water loss data (full compliance with water loss standards begins in 2028).
- **Annual Reporting**: Submit annual UWUO data starting January 1, 2024, and every year thereafter, via DWR's Water Use Efficiency Data (WUEdata) portal: https://wuedata.water.ca.gov/.

OMWD has submitted the required reporting documentation; it is available through the State's WUEdata portal: https://wuedata.water.ca.gov/uwuo_plans.

Assembly Bill 1572 (Nonfunctional Turf Ban)

Passed in 2023, AB 1572 enacted legislation to significantly reduce potable water use for irrigation of nonfunctional turf. Nonfunctional turf is defined as grass that serves no practical purpose for human activity or recreation, including ornamental grass strips along roadways, expansive lawns in business parks, unused patches of grass in front of commercial buildings, and other similar areas that are not regularly used for sports, play, or social gatherings. The rationale behind this ban is straightforward: in a state facing chronic water scarcity, dedicating potable water to maintain purely aesthetic or unused landscapes is considered an unsustainable and wasteful practice. AB 1572 features a phased implementation schedule to allow property owners and managers sufficient time to adapt and transition their landscapes, applying to government properties in January 2027, CII properties in January 2028, and HOA common areas in January 2029, with flexible compliance for properties in disadvantaged communities in 2031 or later.

1.2.4 Senate Bills 610 and 221 (Water Supply Assessments)

Passed in 2001, SB 610 (CWC Sections 10910-10915) and SB 221 (California Government Code Sections 65867.5, 66455.3, and 66473.7) added and amended provisions of state law to improve the link between water supply availability and land use planning decisions.

In general terms, SB 610 requires that when a proposed project meets the definition of "project" under SB 610, including that it is subject to California Environmental Quality Act (CEQA) and would rely on groundwater, the applicable public water provider is required to adopt a Water Supply Assessment (WSA) as part of the project's CEQA review. A WSA must demonstrate water supply availability for the project over a 20-year planning horizon and with consideration to various climatic (drought) scenarios and may be used to inform water demand projections in the applicable UWMP.

SB 221 generally requires the approval of a development agreement or tentative map that includes more than 500 dwelling units to be conditioned on a written verification from the applicable public water system that sufficient water supplies will be available. OMWD has no remaining development availability larger than 500 units.

1.3 UWMP in Relation to Other Efforts

This section outlines how this 2025 UWMP aligns with, informs, and supports compliance with other local, regional, and statewide planning efforts, providing consistency across water resources strategies, land use policies, and climate adaptation initiatives.

1.3.1 Demand Forecast

The demand forecast for this 2025 UWMP was based on San Diego Association of Governments (SANDAG) Series 15 Regional Growth Forecast population and demographic projections. These projections are based on the General Plans of the cities and unincorporated county areas that OMWD serves. Use of SANDAG Series 15 Regional Growth Forecast figures assures regional consistency with San Diego County Water Authority's (SDCWA) 2025 UWMP.

1.3.2 San Dieguito Valley Groundwater Sustainability

OMWD is investigating a brackish groundwater desalination project in the San Dieguito Valley, the San Dieguito Valley Brackish Groundwater Desalination Project. OMWD has conducted hydrogeologic studies and pumping tests to evaluate project feasibility. Since the 2020 UWMP, OMWD has conducted additional technical studies, as discussed in Section 6.2.1 of this 2025 UWMP. Should this project move forward, OMWD will consider the preparation of a groundwater sustainability plan or a groundwater management plan.

1.3.3 Potable and Recycled Water Master Plan Update

OMWD's Board of Directors approved the 2024 Potable and Recycled Water Master Plan Update (Water Master Plan) on November 6, 2024. OMWD uses the Water Master Plan to assess infrastructure condition, identify necessary upgrades, prioritize capital improvement needs, and maintain service standards for the treatment, conveyance, and delivery of potable and recycled water. Water demand projections are developed to assess whether existing infrastructure capacity and condition are sufficient to serve anticipated needs throughout OMWD's service area, and to identify, characterize, and plan for the implementation of infrastructure improvements where necessary. Development of the Water Master Plan is informed by hydraulic modeling, condition assessments, and planning criteria to guide system upgrades and help OMWD to ensure that appropriately sized and sited infrastructure is provided. OMWD's 2024 Water Master Plan is available at the following link: www.olivenhain.com/masterplan.

1.3.4 California Water Plan 2023 and Executive Order N-16-22

On February 25, 2026, Governor Gavin Newsom announced the formal launch of California Water Plan 2028, which is designed to modernize statewide water planning in response to climate-driven extremes and long-term water reliability challenges. In accordance with Senate Bill 72, DWR is convening an Advisory Committee to effectively engage regional communities while developing updates of the California Water Plan in both 2028 and 2033. Until the 2028 update is completed and adopted, California Water Plan 2023 is the most current published edition.

DWR released the final version of California Water Plan 2023 on April 2, 2024. The strategic focus of California Water Plan 2023 is on climate change and addressing climate urgency, watershed resilience, and equity in water management. California Water Plan 2023 promotes the following vision: "All Californians benefit from water resources that are sustainable, resilient to climate change, and managed to achieve shared values and connections to our communities and the environment." California Water Plan 2023 includes a progress-tracking dashboard, watershed planning toolkit, and scenario modeling to help agencies adapt to the impacts of climate change.

In response to the 2022 Executive Order N-16-22, the Executive Order on Embedding Equity Analysis in State Government, California Water Plan 2023 involved engagement with historically underserved communities and addressed equity throughout the document, as well as in a new chapter (Chapter 7) co-authored by California Native American Tribes. In accordance with the 2025 UWMP Guidebook, this 2025 UWMP also addresses climate change in Chapter 4 and Chapter 6.

1.3.5 San Diego Integrated Regional Water Management Plan

The California legislature passed the Integrated Regional Water Management Planning Act in 2000, which was enacted in 2002 through Senate Bill 1672 (CWC Section 10530 et seq.), establishing the legal framework for California's Integrated Regional Water Management (IRWM) Program. The IRWM Program is an integrated approach to water supply planning and management; it provides a framework for local agencies to cooperatively manage the local and imported water supplies that are available to them, and improve water supply quality, quantity, and reliability through the collaborative planning and execution of water projects.

The IRWM Program supports UWMPs by promoting regional planning and supporting projects that aim to increase water supply reliability and improve surface water and groundwater quality. The San Diego IRWM Program, established in 2005 by SDCWA, the City of San Diego, and the County of San Diego, was formed to develop the San Diego IRWM Plan and enable pursuit of funding to support regional water projects. OMWD is a member of the Regional Advisory Committee (RAC) formed in 2006 to assist in completing the San Diego IRWM Plan and prioritizing projects for grant funding.

The San Diego IRWM Plan was adopted in 2007, then updated in 2013 and 2019 to address DWR's revisions to its IRWM Program Guidelines. A copy can be found at www.sdirwmp.org and a map of the IRWMP region is provided in Figure 1-1, on the following page.

1.3.6 North San Diego Water Reuse Coalition

OMWD is also a member of the North San Diego Water Reuse Coalition (NSDWRC), which consists of nine public water and wastewater agencies in northern San Diego County that seek to optimize water reuse and recycled water development through collaborative regional projects.[1]

The NSDWRC has collaborated to prepare a 2017 NSDWRC Regional Recycled Water Project (RRWP) Feasibility Study, which was updated in 2025 with an expanded suite of recycled water projects. The RRWP would interconnect recycled water systems across nine agencies through a system of pipelines, pump stations, and storage facilities that would be used to offset potable water demand through increased use of recycled water. In 2020, NSDWRC members were awarded $2.82 million in funding through the San Diego IRWM Program, including $750,000 to OMWD for the South El Camino Real Recycled Water Pipeline Extension Project. The NSDWRC's RRWP was also awarded a total of $30 million from the U.S. Bureau of Reclamation (USBR) Title XVI Reclamation and Reuse Program over three rounds of funding from 2021 through 2025. OMWD will receive over $4,400,000 to offset costs for multiple recycled water pipeline extension projects along Manchester Avenue, South El Camino Real, Garden View Road, Willowspring Drive South, Four Gee Road, and Glen Arbor Drive, as well as additional projects.

[1] The NSDWRC consists of nine member agencies, including OMWD, Carlsbad Municipal Water District, City of Escondido, City of Oceanside, Leucadia Wastewater District, Rincon del Diablo Municipal Water District, San Elijo Joint Powers Authority, Santa Fe Irrigation District, and Vallecitos Water District.

Figure 1-1 San Diego Integrated Regional Water Management Region

Source: San Diego RWMG 2019

1.4 Urban Water Management Plans and Grant or Loan Eligibility

Completion of a UWMP, including discussion of the status of a water supplier's implementation of demand management measures (DMMs), is required for urban water suppliers to be eligible for water management grants or loans administered by DWR, State Water Resources Control Board (SWRCB), or the Delta Stewardship Council (CWC Section 10631.5(a)). A current UWMP must be maintained by water suppliers throughout the term of any grant or loan administered by DWR. Water suppliers must also comply with the water conservation requirements established by the Water Conservation Act of 2009 (see Section 1.5.3, below) and the "Making Conservation a California Way of Life" legislation, which was signed into law in 2018 and finalized by SWRCB in 2024 (see Section 1.5.4, below). While the Water Conservation Act and Making Conservation a California Way of Life legislation do not directly establish funding eligibility criteria, they influence water suppliers' access to state grants and loans because achievement of conservation targets and compliance with annual urban water use objectives and annual reporting are prerequisites for funding and loan eligibility.

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

1.5.1 Background

The Sacramento-San Joaquin Delta Plan (Delta Plan) is a long-term management strategy developed by the Delta Stewardship Council under the Delta Reform Act of 2009 to manage the Delta's environmental resources including water supply. Major water supply projects that rely on the Delta include the State Water Project (SWP), operated by DWR, and the federal Central Valley Project (CVP), operated by USBR.

An urban water supplier that anticipates participating in or receiving water from a proposed project, such as a multiyear 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 UWMP to demonstrate consistency with the Delta Plan's Water Resource Policy 1 (WR P1), Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code of Regulations, Title 23, Section 5003). The type of information that can demonstrate such consistency includes description of locally available, cost-effective, and technically feasible projects that reduce the water supplier's reliance on the Delta, such as but not limited to water conservation and efficiency, recycled water use, groundwater development, and stormwater capture and reuse. The UWMP should report the percentage of the supplier's total supply that would be sourced from the Delta, as well as demonstrate a measurable reduction in this reliance over time.

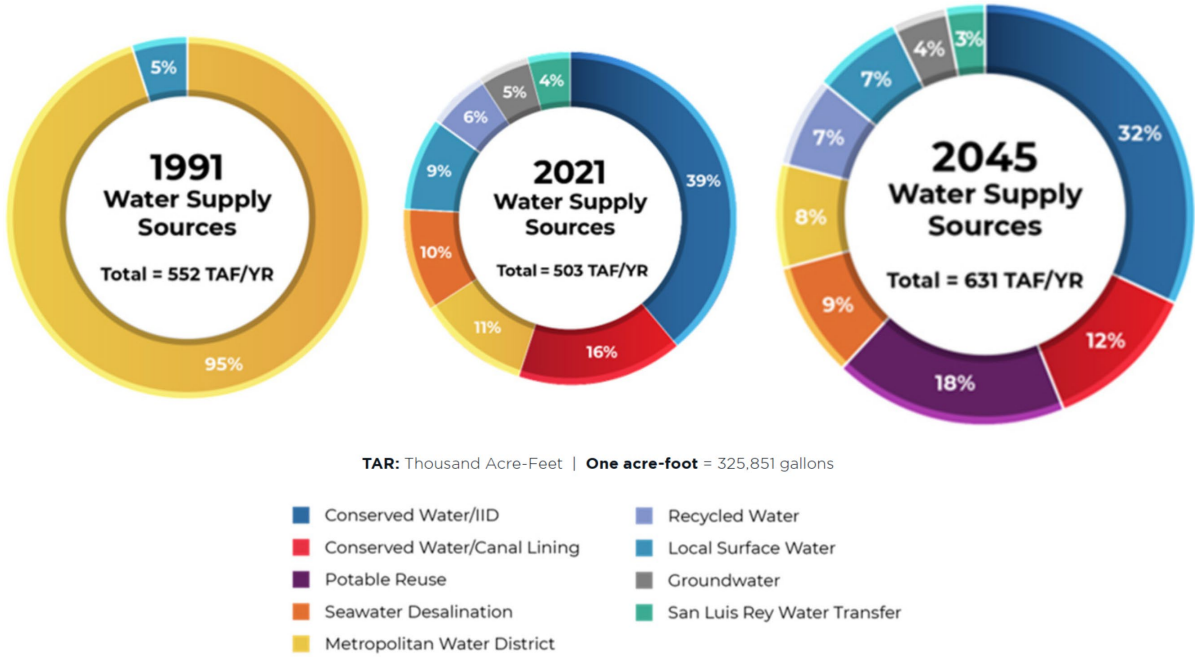
1.5.2 OMWD Consistency with WR P1

OMWD demonstrates consistency with WR P1 through a combination of its success in implementing water use efficiency strategies, developing its own local recycled water supply, and through the local and regional water supply projects it participates in as a member agency of SDCWA. OMWD's average water use has decreased from an average 400 GPCD in 2000 to 139 GPCD in 2025, a decrease of over 65 percent over the past 25 years. In addition, OMWD's recycled water demand is forecasted to increase from approximately 3,001 AFY in 2025 to 3,214 AFY by 2050, an increase of more than seven percent over the next 25 years. OMWD is also continuing to actively investigate the San Dieguito Valley Brackish Groundwater Desalination Project with a minimum capacity of 1,600 AFY. Although not included in the calculations, this project, if implemented, would further reduce reliance on the Delta watershed and improve regional self-reliance.

OMWD is a member agency of SDCWA and purchases 100 percent of its potable water supply as imported surface water from SDCWA. SDCWA is, in turn, a member agency of Metropolitan Water District of Southern California (Metropolitan), a SWP Contractor, who delivers surface water supply which is sourced from the Delta watershed. SDCWA's 2025 UWMP details the San Diego region's collective contributions to regional self-reliance and describes the self-reliance strategies implemented by SDCWA and its member agencies, including OMWD; as demonstrated therein, SDCWA's service area is consistent with WR P1 (SDCWA 2026). Water supplies that contribute to regional self-reliance are those that are locally generated and not imported from the Delta (such as the SWP) or from other non-local sources.

Figure 1-2, below, provides an overview of SDCWA's water supply portfolio in 1991, 2021, and 2045 (projected). As shown therein, SDCWA's reliance on imported SWP water from Metropolitan was approximately 95 percent in 1991, which decreased by more than 88 percent to approximately 11 percent in 2021, with further reductions projected by 2045, when reliance on imported water would be only approximately eight percent. This reduction in Delta reliance has been achieved by SDCWA and its member agencies through a combination of efforts, including water use efficiency, water recycling, seawater desalination, infrastructure and storage projects, local groundwater, brackish groundwater, surface water, and potable reuse.

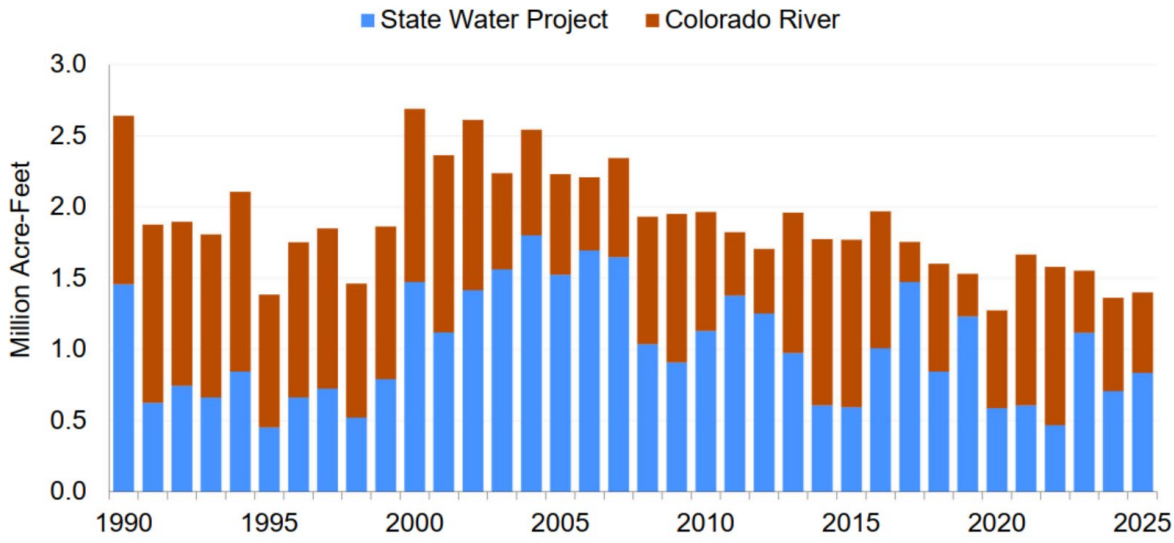
Figure 1-2 San Diego County Water Authority – Water Supply Portfolio 1991-2045



Source: SDCWA 2021

While SDCWA purchases a portion of its supply from Metropolitan, OMWD likewise purchases all of its potable water supply from SDCWA, and this water may contain SWP water delivered by Metropolitan. Metropolitan's 2025 UWMP indicates that in 2020, which was a particularly dry year, approximately 20 percent of its service area supply was from the SWP, increasing to approximately 25 percent in 2025 (Metropolitan 2026). However, Metropolitan's overall reliance on imported water has consistently decreased over time through investments in storage and flexible operations that allow Metropolitan to capitalize on available supplies in wet years and manage through drought years. Figure 1-3, below, provides an overview of imported water reliance since 1990.

Figure 1-3 Imported Water Supplies in Metropolitan's Service Area



Source: Metropolitan 2026

Dramatic swings in annual hydrologic conditions have characterized the past decade on the SWP, with very low precipitation and runoff rates beginning in the fall of 2019 that resulted in SWP Table A allocations of 20 percent in 2020, five percent in 2021, and five percent in 2022. This was the lowest three-year SWP allocation in the historical record. In 2024 and 2025, however, the SWP watersheds received above-average snowpack and Sacramento River runoff was also above average, resulting in SWP allocations of 40 and 50 percent, respectively (Metropolitan 2026). OMWD's current potable water supplies are likely to contain about 494 AF of Delta water, based upon OMWD's 2025 potable water use of 17,946 AF (see Chapter 4*, Water Use Characterization*), assuming 11 percent of SDCWA water from Metropolitan and 25 percent of Metropolitan from the SWP, with decreased reliance on imported water anticipated to continue through the planning horizon.

In summary, OMWD is complying with all aspects of WR P1 through its own activities, as well as the activities of SDCWA, its other member agencies, and Metropolitan.

1.6 References

Metropolitan (Metropolitan Water District of Southern California). 2026. 2025 Urban Water Management Plan. Available: https://d1q0afiq12ywwq.cloudfront.net/media/5ralzxit/public-review-draft-february-2026-uwmp.pdf. Accessed March 2026.

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San Diego RWMG (Regional Water Management Group). 2019. Integrated Regional Water Management Plan. Chapter 3 – Region Description. Available: www.sdirwmp.org/pdf/SDIRWM_03_Region_Description_FINAL_2019.pdf. Accessed December 2026.

2 Plan Preparation

This chapter provides an overview of OMWD and steps taken to assemble OMWD's 2025 UWMP, including but not limited to agency coordination, public hearings, and distribution of notices to stakeholders and the public on how to review and provide comments on the draft 2025 UWMP.

2.1 Basis for Preparing a UWMP

OMWD is a public water system serving portions of the cities of Encinitas, Carlsbad, San Diego, Solana Beach, and San Marcos, as well as all or portions of the unincorporated county communities of Elfin Forest, Rancho Santa Fe, Fairbanks Ranch, Santa Fe Valley, and 4S Ranch. OMWD serves more than 3,000 service connections and delivers more than 3,000 acre-feet per year (AFY) of water throughout its service area. As such, OMWD is subject to the requirement of the Urban Water Management Planning Act (UWMP Act) of 1983 to prepare a UWMP every five years. Formed in 1959, OMWD has adopted and submitted a UWMP every five years since the UWMP Act was passed into law.

2.1.1 Public Water System

OMWD meets the Health and Safety Code definition of a Public Water System:

> "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."

OMWD's Public Water System number is 3710029.

2.1.2 Agencies Serving Multiple Service Areas/ Public Water Systems

OMWD has one service area and one public water system. Required plan information is summarized in Table 2-1, below. There have been no changes to the number of affiliated public water systems since the 2020 UWMP.

Table 2-1 OMWD's Public Water System

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025[1]	Volume of Water Supplied 2025 (AFY)[2]
3710029	Olivenhain Municipal Water District	23,143	20,947

AFY = acre-feet per year

Notes:

1. Active meters do not include meters for construction, fire, or internal.
2. Volume includes both potable water (17,946 AFY) and recycled water (3,001 AFY)

2.2 Regional Planning

OMWD is reporting individual planning and compliance and this 2025 UWMP addresses only its service area. OMWD has notified and coordinated with appropriate regional agencies and constituents. OMWD has participated in SDCWA's regional planning efforts and considered regional plans and coordinated efforts in the development of this 2025 UWMP, though SDCWA produced a separate wholesaler UWMP for its water supplies.

In 2020, OMWD submitted as part of a regional alliance with San Dieguito Water District (SDWD), Vallecitos Water District (VWD), and Rincon del Diablo Municipal Water District (RDMWD) in reporting on and complying with 2020 water use targets. This 2025 UWMP provides an overview of the 2020 Regional Alliance Report and OMWD's individual compliance with SBx7-7 in Chapter 5, *SB X7-7 Baselines, 2020 Targets, and 2025 Reporting*. Required plan identification information is presented in Table 2-2, below.

Table 2-2 Plan Identification

	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)	

2.3 Supplier Identification and Units of Measure

The following notes, along with Table 2-3, below, provide information required for the UWMP, specifying the basis of data reporting:

- Fiscal Year (FY): OMWD is reporting data on a FY basis.
- 2025 Reporting Year: OMWD is reporting data for FY 2025, July 1, 2024, through June 30, 2025.
- Units in Acre-Feet (AF): OMWD's 2025 UWMP is using AF as the units of measure. One AF = 325,851 gallons.

Table 2-3 Supplier Identification

Type of Supplier	
☐	Supplier is a wholesale supplier
☒	Supplier is a retail supplier
Fiscal or Calendar Year	
☐	UWMP Tables are in calendar years
☒	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP	
Unit	Acre-Feet (AF); 1 AF = 325,851 gallons

2.4 Coordination and Outreach

2.4.1 Wholesale and Retail Coordination

OMWD relies upon SDCWA for 100 percent of its potable water supply, either as raw water for treatment at OMWD's David C. McCollom Water Treatment Plant (DCMWTP), or as treated water. OMWD has provided SDCWA with projected water demand in five-year increments for the next 20 years in a forecast workbook dated March 25, 2025. In addition, OMWD utilizes recycled water supplied by its 4S Ranch Water Reclamation Facility (4S WRF), as well as from VWD, City of San Diego, San Elijo Joint Powers Authority (SEJPA), and the Rancho Santa Fe Community Services District (RSFCSD); all of these sources

provide tertiary-treated water with the exception of the RSFCSD, which provides secondary-treated water.[1] OMWD regularly coordinates with these agencies regarding recycled water supply, distribution, and planning.

Table 2-4, below, presents agency coordination information. OMWD informed its wholesale supplier, SDCWA, of projected water use in accordance with Water Code Section 10631(h).

Table 2-4 Water Supplier Information Exchange

Water Suppliers Informed by OMWD of Projected Water Use (Water Code Section 10631(h))
Potable Water: • San Diego County Water Authority (wholesale)
Recycled Water: • Vallecitos Water District • San Elijo Joint Powers Authority • City of San Diego • Rancho Santa Fe Community Services District

2.4.2 Coordination with Other Agencies and the Community

OMWD coordinated the preparation of this 2025 UWMP with appropriate local agencies, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practical. Notification of the update of the 2025 UWMP was sent out more than 60 days prior to the public hearing to all water management agencies, wastewater agencies, and cities in and adjacent to OMWD's service area. Notice was also sent to the County of San Diego and the Building Industry Association. Table 2-5, on the following page, provides additional information on OMWD's coordination process.

The 2025 UWMP was made available on OMWD's website beginning on March 31, 2026, to encourage participation by OMWD customers. In addition, customers were invited to attend and participate in the public hearing held on April 15, 2026, and the Board of Directors (BOD) hearing for adoption of the 2025 UWMP on June 17, 2026. Within 30 days of the adoption of the final 2025 UWMP, copies will be sent to DWR, the California State Library, all cities within OMWD's service area, and the County of San Diego. Specifically, copies of the water service reliability portion of the final 2025 UWMP will be provided to the County and all cities within which OMWD provides water service. Furthermore, within 30 days of filing the final 2025 UWMP with DWR, the 2025 UWMP will be posted on OMWD's website and be made available to review in hardcopy form at OMWD's offices during normal working hours.

2.4.3 Notice to Cities and Counties

OMWD's service area covers portions of the County of San Diego and the Cities of Carlsbad, Encinitas, San Diego, San Marcos, and Solana Beach, and is close to the Cities of Del Mar, Escondido, and Poway. OMWD provided notice to all of these agencies at the start of the UWMP process with distribution on February 11, 2026, of the 60-day Notice of the draft 2025 UWMP hearing on April 15, 2026, at 5:30 p.m. Sixty days' notice is also required prior to the BOD meeting for adoption of the final UWMP on June 17, 2026, at 5:30 p.m. The Notice distributed on February 11 contained information about both meetings, thereby satisfying all noticing requirements for the 2025 UWMP.

[1] **Secondary treatment** uses microorganisms to break down dissolved and suspended organic matter, followed by clarification to remove biomass; secondary treatment produces "disinfected secondary effluent" which meets Title 22 standards for "Disinfected Secondary-23" or "Secondary-2.2" and is suitable for non-potable uses such as but not limited to industrial processes and environmental discharges. **Tertiary treatment** uses water that has already undergone secondary treatment, and involves both filtration (such as with sand filters, membranes, or other filtering materials) and disinfection (with chlorine, UV, Ozone, or a combination of UV and chlorine); tertiary treatment produces Title 22 "tertiary recycled water" and is suitable for unrestricted reuse.

Table 2-5 Coordination with Stakeholders

Coordinating Agencies	Was Sent Notice of Plan Preparation	Commented on Draft	Attended Public Meetings	OMWD Contacted for Assistance
Wholesale Water Supplier				
San Diego County Water Authority	✓			✓
Other Water Suppliers				
Carlsbad MWD	✓			✓
San Dieguito Water District	✓			✓
City of San Diego	✓			✓
Vallecitos Water District	✓			✓
Rincon del Diablo MWD	✓			✓
Santa Fe Irrigation District	✓			✓
Wastewater Agencies				
Encina Wastewater Authority	✓			✓
Fairbanks Ranch CSD	✓			✓
San Elijo JPA	✓			✓
Leucadia Wastewater District	✓			✓
Rancho Santa Fe CSD	✓			✓
Whispering Palms CSD	✓			✓
Cities and County				
City of Carlsbad	✓			
City of Del Mar	✓			
City of Encinitas	✓			
City of Escondido	✓			
City of Poway	✓			
City of San Diego	✓			
County of San Diego	✓			
City of San Marcos	✓			
City of Solana Beach	✓			
Other				
San Diego Association of Governments	✓			✓
San Diego LAFCO	✓			
SD County Board of Supervisors	✓			

CSD = Community Services District; JPA = Joint Powers Authority; LAFCO = Local Agency Formation Commission; MWD = Municipal Water District

3 System Description

This chapter presents a general description of OMWD's physical system, its service area, the climate, population, and demographics.

3.1 General Description

Figure 3-1 on the following page provides an overview of OMWD's service area. OMWD is a public agency providing water supply, wastewater services, recycled water, hydroelectricity, and operation of Elfin Forest Recreational Reserve in San Diego County in the southern portion of the State of California. OMWD has been serving water to its customers since 1961. OMWD was originally incorporated on April 9, 1959, for the purpose of developing an adequate water supply for the landowners and residents of its service area. On June 14, 1960, OMWD voted to become a member of SDCWA, which is a member of Metropolitan Water District of Southern California (Metropolitan), thus becoming eligible to purchase imported water from SDCWA aqueducts and distribute this water throughout its service area. OMWD is one of 22 member agencies of SDCWA. Member agency status entitles OMWD to directly purchase water for its needs on a wholesale basis. OMWD relies on SDCWA to plan for and provide a reliable water supply throughout OMWD's service area.

OMWD strives to provide a high level of service and to maintain close communication with its customers, and is proud of its reputation as an accessible, productive, and progressive public agency. OMWD is governed by a five-member Board of Directors, whose members are publicly elected by division. The public is notified of all board meetings pursuant to the Ralph M. Brown Act, and these meetings are open for public comment and participation.

OMWD serves portions of the cities of Encinitas, Carlsbad, San Diego, Solana Beach, and San Marcos, and portions or all the County of San Diego unincorporated communities of Elfin Forest, Rancho Santa Fe, Fairbanks Ranch, Santa Fe Valley and 4S Ranch; see Figure 3-1, below.

All customers in OMWD's service area are metered, and there are no significant areas using potable water that are not served by OMWD. The growth in number of installed meters has paralleled OMWD's growth in water use, with the number of installed meters increasing from 1,250 in 1972 to 22,791 as of June 30, 2025. The number of service connections for customer meters vary in size from 5/8-inch to 6-inch. Approximately 72 percent of customer meters are 3/4-inch and smaller, and these are mostly residential customers. Residential customers account for approximately 80 percent of OMWD's total potable water use.

To diversify its water supply portfolio, OMWD began serving recycled water to large landscape users in 2003. Given the costs associated with building a redundant distribution system for recycled water, OMWD has both constructed a water reclamation facility in 4S Ranch (4S WRF) and developed partnerships with multiple wastewater/recycled water entities to acquire recycled water in other portions of its service area, and then strategically expanded the recycled water distribution system. A map of OMWD's service area overlain with wastewater/recycled water partners is provided in Figure 3-2, below, on the page following Figure 3-1 which presents an overview of the OMWD service area.

Figure 3-1 OMWD Service Area

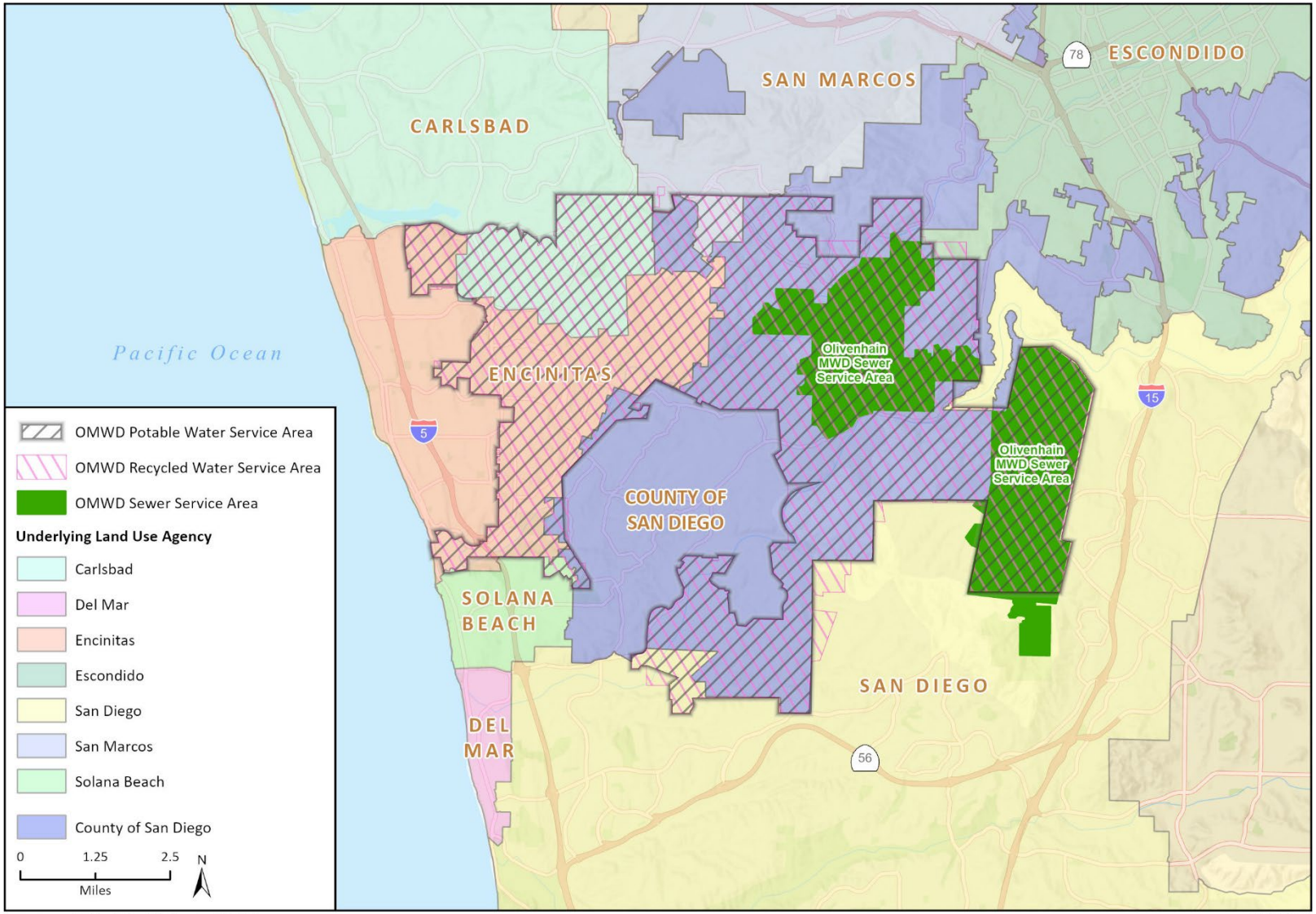
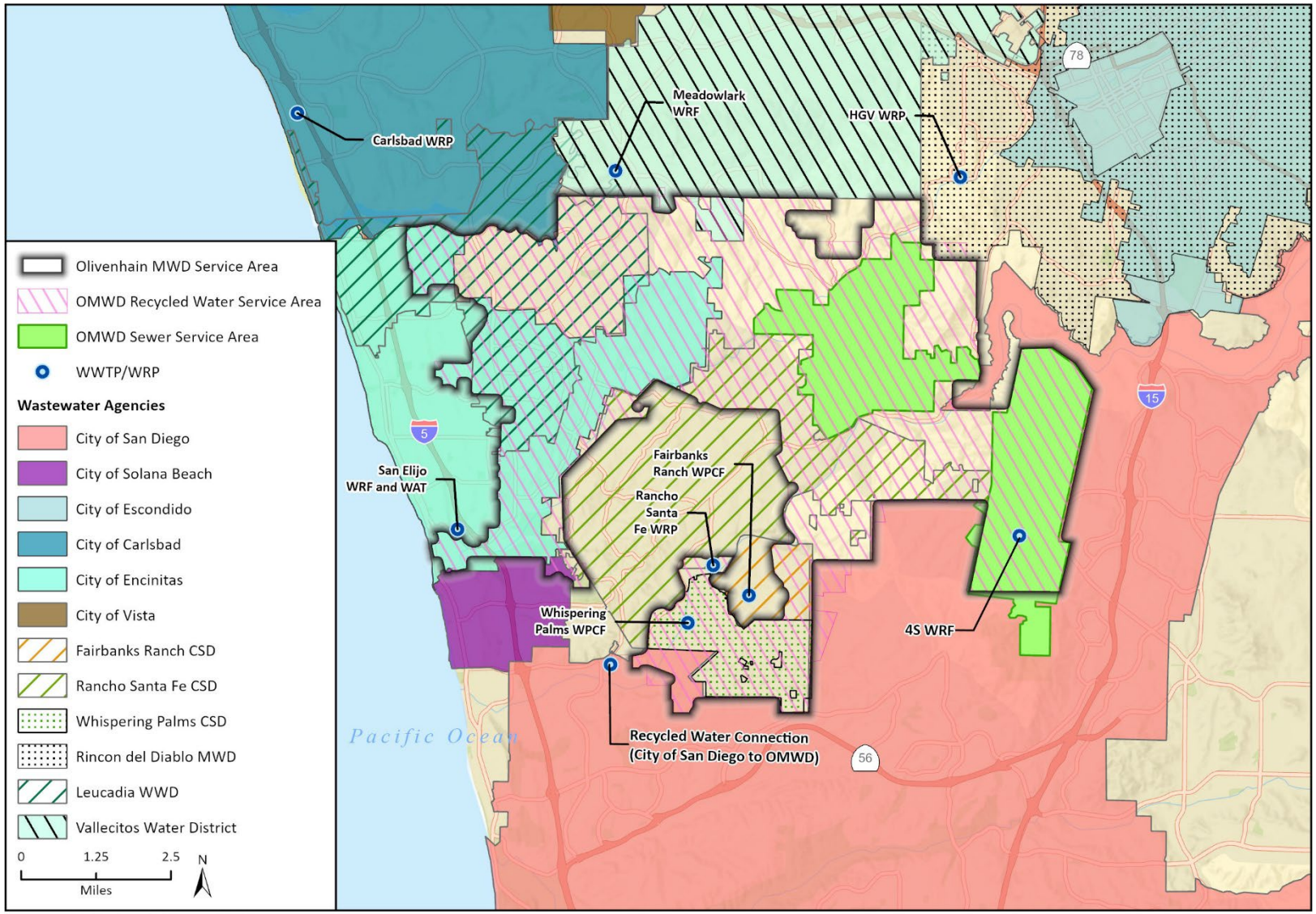


Figure 3-2 OMWD Service Area and Wastewater/Recycled Water Partners



Imagery provided by Esri and its licensors © 2026.

24_17051 EES
Fig 3-2 OMWD Service Area and Wastewater-Recycled Water Partners

3.1.1 Potable Water Sources

OMWD purchases 100 percent of its potable water supply from SDWCA, which in turn acquires water from Metropolitan, via transfer agreements with Imperial Irrigation District (IID), and from Channelside Water Resources (Channelside). Metropolitan imports its water from two sources: 1) the Colorado River which is conveyed to southern California via the 242-mile Colorado River Aqueduct, and 2) the State Water Project (SWP) via the Sacramento-San Joaquin Delta (Delta) which is conveyed via the 444-mile California Aqueduct. As part of the 2003 Quantification Settlement Agreement (QSA) on the Colorado River, SDCWA secured 200,000 AFY in conserved agricultural water supplies from IID as well as 77,700 AFY in conserved water from canal lining projects for the All-American Canal and Coachella Canal. To further enhance regional water supply reliability and diversification, SDCWA entered into a long-term purchase agreement with Channelside in 2012 for 42,000 AFY of desalinated seawater. A majority of SDWCA's water supply is conveyed from the Colorado River through Metropolitan's conveyance facilities and the remainder is sourced from local supplies such as groundwater, recycled water, and desalination (SDCWA 2026).

All the water supply delivered by OMWD for potable use is purchased from SDCWA as either treated or raw water. SDCWA water can be delivered to OMWD through five service connections, all from SDCWA's Second Aqueduct. Four are treated water connections and one is a raw water connection. The majority of water purchased from SDCWA is raw water treated by OMWD and then served to its customers. While SDCWA's desalination supply is blended into its treated water deliveries, raw water deliveries are generally a blend of SWP and Colorado River sources. OMWD provides potable water service to customers through a distribution system that currently includes over 466 miles of potable water pipelines, 17 closed storage reservoirs, six pump stations, and a 450 kW hydroelectric generation station.

3.1.2 Water Treatment

OMWD's purchased water travels long distances via the Colorado River and California Aqueducts to SDCWA's and OMWD's service areas. As the water travels through the aqueducts and evaporation occurs, the concentration of calcium and magnesium increases, which increases water hardness. In addition, raw water contains minerals and other contaminants that must be treated locally. OMWD's water treatment system consists of its David C. McCollom Water Treatment Plant (DCMWTP), as well as its wholesaler facilities—Metropolitan's Robert A. Skinner Treatment Plant, SDCWA's Claude "Bud" Lewis Carlsbad Desalination Plant, and SDCWA's Twin Oaks Valley Water Treatment Plant. Located at the base of the Olivenhain Dam and Reservoir, the DCMWTP was the largest of its kind in the world upon its completion in 2002 and incorporates the latest membrane ultrafiltration technology, providing more certain removal of waterborne health threats in a cost-effective, environmentally safe manner. The up to 34 million gallons per day (MGD) membrane treatment plant came online April 2002, initially capable of treating 25 MGD. It was expanded by 9 MGD in 2005 to its present capacity.

In 2012, OMWD was required to meet a more stringent set of water quality regulations that have been promulgated by the United States Environmental Protection Agency as part of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2 ESWTR). In order to meet the LT2 ESWTR regulations, various changes were made to the treatment plant with respect to how the water treatment membranes are operated and maintained. These improvements include addressing issues with equalizing flow changes at both the front end and back end of the treatment train and improving OMWD's ability to handle solids which are removed from the water during the treatment process. The Environmental Impact Report for the DCMWTP was certified by OMWD's Board of Directors in March 1994; a Notice of Exemption was filed with the County of San Diego in February 2011 for construction of LT2 ESWTR-related improvements at the plant. Bonds were sold by OMWD to fund the LT2 ESTWR improvements and construction was completed in 2014, and OMWD received a loan from California's Department of Public Health in the amount of $32,000,000 from the Safe Drinking Water State Revolving Fund. Other than scheduled maintenance shutdowns of the raw water pipelines in SDCWA's Second Aqueduct, the plant remains fully operational. OMWD purchases treated water from SDCWA during these aqueduct shutdowns.

The mechanisms supporting the DCMWTP result in significant savings to OMWD in terms of operating costs and increased reliability. The available hydraulic gradient from the pipelines which deliver water to the DCMWTP, is converted to energy through the use of turbines. This energy helps run the plant and can save OMWD over $1 million per year in power costs. Ancillary facilities including an electrical sub-station, pump station, and flow control facility are in place to better prepare OMWD for a catastrophic event such as a regional power outage.

3.1.3 Land Uses and Water Demands

OMWD's service area is approximately 95 percent built out. The remaining growth is spread across OMWD's service area except for 4S Ranch, which is nearly built out and has limited buildable lots remaining.

Land uses across OMWD's service area have shifted over time. As recently as 1970, agriculture accounted for over 70 percent of OMWD's total water use, but this percentage has decreased over the years. As total agricultural use has declined, domestic use has grown. Agriculture today represents only one percent of the total water demand in OMWD's service area, declining by over 2,000 AFY from 2,254 AF in 2000 to 200 AF in 2025.

Table 3-1, below, presents an overview of historic and current water use in OMWD's service area.

Table 3-1 Change in Water Use by Sector 2000 to 2025

	2000		2025	
Customer Category	**AFY**	**Percent of Total**	**AFY**	**Percent of Total**
Single Family Residential	10,884	62%	12,764	77%
Multifamily Residential	581	3%	691	4%
Commercial/Industrial	425	2%	802	5%
Landscape	3,297	19%	2,163	13%
Agriculture	2,254	13%	200	1%
Total	**17,441**	100%	**16,620**	100%

Domestic water consumption (single family residential and multifamily residential) covers both indoor and outdoor uses. Indoor water uses include sanitation, bathing, laundry, cooking, and drinking. Most outdoor water use entails landscape irrigation. Commercial water demands generally consist of uses that are necessary for the operation of a business or institution, such as drinking, sanitation, and landscape irrigation. Major commercial water users include service industries, such as restaurants, car washes, laundries, and hotels. Economic statistics developed by the U.S. Bureau of Labor Statistics indicate that over half of San Diego's residents are employed in commercial (trade, hospitality, and professional service) industries (U.S. Bureau of Labor Statistics 2025).

OMWD utilizes its Master Plan as a long-term capital planning tool to address existing and future facility needs within OMWD's three enterprise areas: potable water, wastewater, and recycled water. The Master Plan is updated approximately every five years. OMWD is approximately 95 percent built out and expects to be fully developed within approximately 10 years.

3.2 Service Area and Boundary Map

The exterior boundary shown in Figure 3-1 above is OMWD's potable water service area, the public water system boundary, the recycled water service area boundary, and the jurisdictional boundary. Within this boundary are two existing recycled water distribution systems, the Northwest and Southeast Quadrants. OMWD does not have an active raw water distribution system and there have been only slight changes to the service area since 2000.

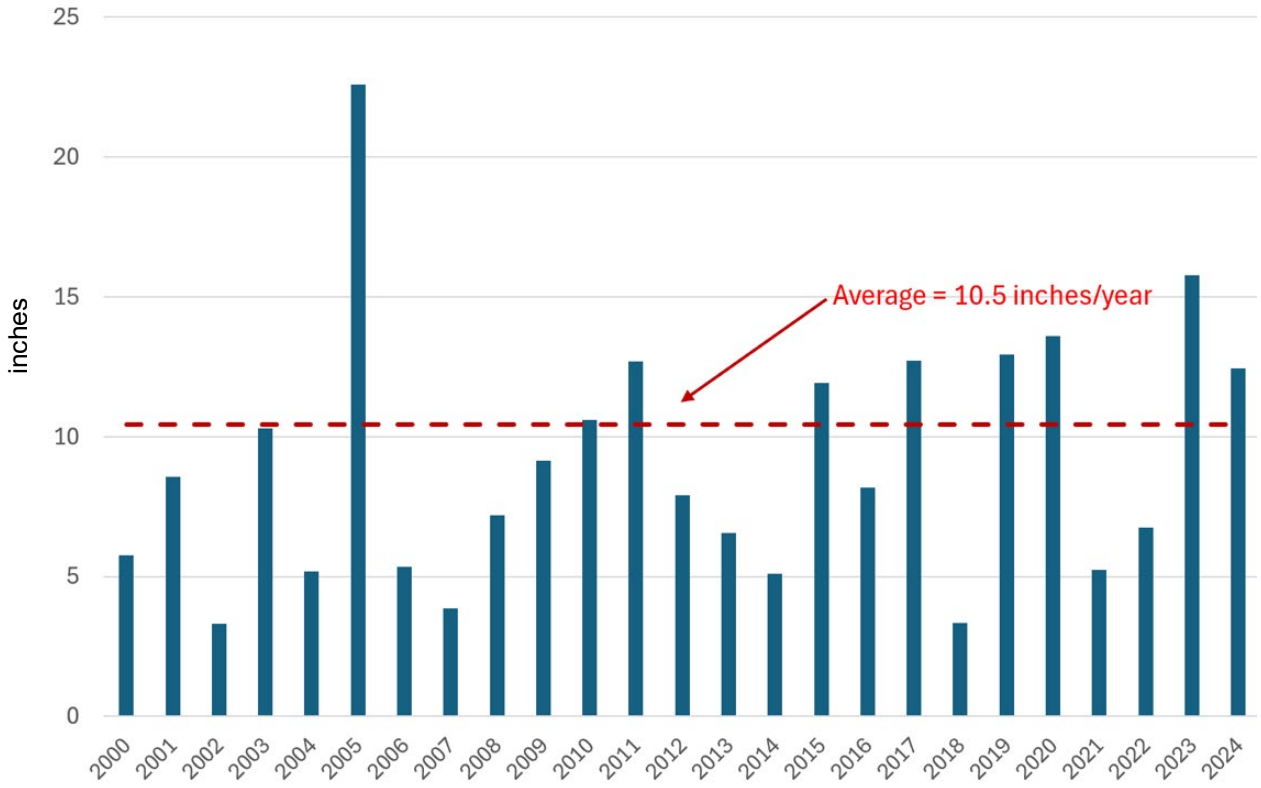
3.3 Service Area Climate

Many of the areas served by OMWD feature a mild coastal climate, varied topography, and convenient proximity to major urban areas. Inland areas are both hotter in summer and cooler in winter. Average annual rainfall is approximately 10.50 inches per year on the coast and in excess of 33 inches per year inland. Figure 3-3 on the following page presents data from the California Irrigation Management Information System (CIMIS) Lindbergh Field Station (Station #184), located in the City of San Diego, approximately 24 miles south of the City of Encinitas and OMWD, and represented local rainfall conditions. As shown, local rainfall exceeded the historic annual average nine times over the 25 years between 2000 and 2025. In water years 2005, 2010, 2015, and 2020, rainfall totaled 22.6, 10.6, 11.9, and 13.6 inches respectively. More than 80 percent of the region's rainfall occurs between December and March (SDCWA 2024).

Variations in weather affect short-term water requirements, causing demand spikes during hot, dry periods, and demand reductions during wet weather. On a monthly basis, water uses tend to increase during the summer months, when low precipitation occurs at the same time as high temperatures and high evapotranspiration, resulting in hot, dry conditions. Figure 3-4, presented below Figure 3-3 on the following pages, presents climate variables that affect water use rates.

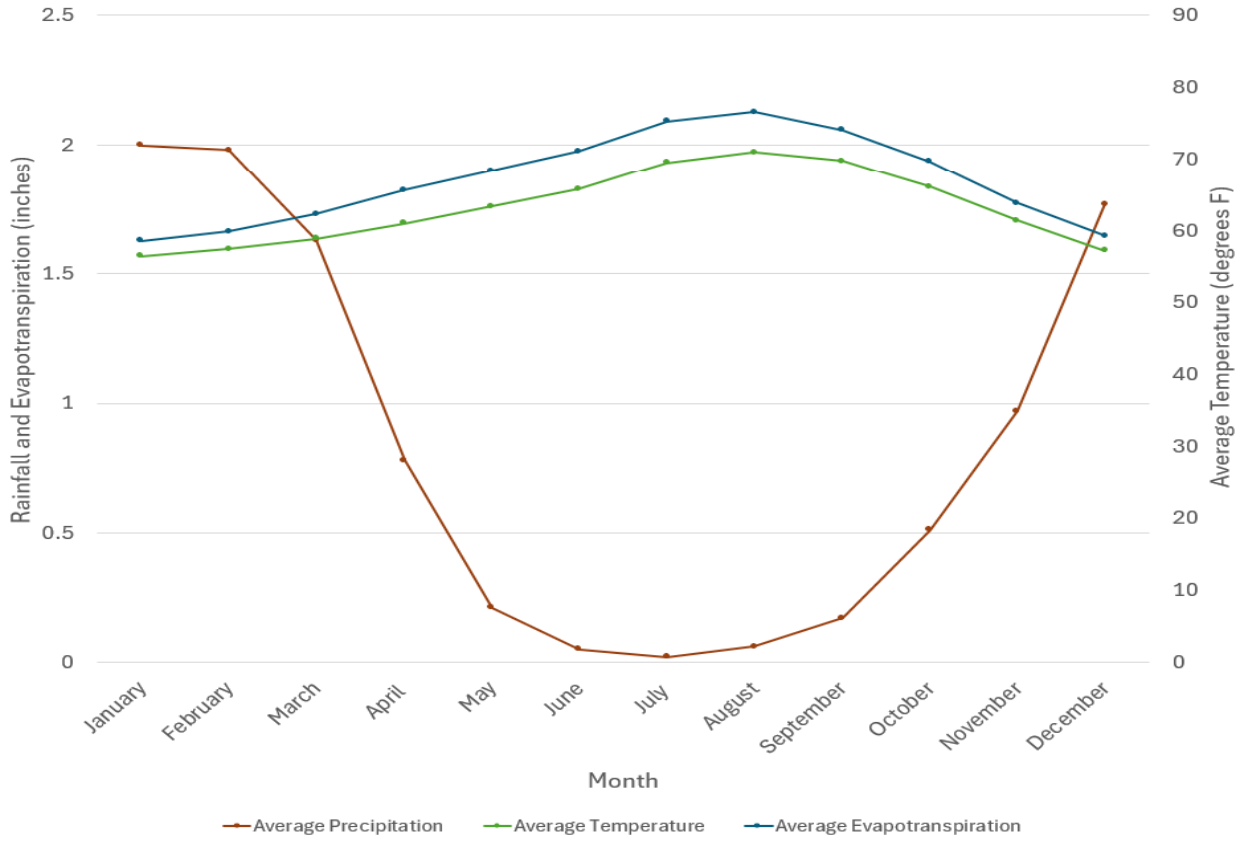
Predominantly dry conditions over the last 25 years resulted in record demands in 2004, which decreased substantially in 2005 due to record rainfall following the drought period. More recently, during 2016, 2017, 2019, and 2020, water use averaged approximately 16,900 AFY; in comparison, 2018 was characterized by hot, dry conditions that resulted in water use exceeding 19,400 AF for that year. Predominantly dry conditions occurred again in 2021 and 2022, and water uses exceeded 19,000 AF and 18,400 AF, respectively. Heavy precipitation occurred in 2023, with water uses totaling approximately 15,921 AF.

Figure 3-3 Annual Rainfall (CIMIS Station #184)



Source: SDCWA 2024

Figure 3-4 Average Monthly Climate Variables (CIMIS Station #184)



Source: SDCWA 2024

3.3.1 Climate Change

OMWD completed the Climate Change Vulnerability Assessment Screening Form for Urban Water Management Planning in Appendix I, Considering Climate Change Impacts, of the 2025 Guidebook. OMWD obtains 100 percent of its potable water supply from SDCWA which in turn receives a significant portion of its supply from the Colorado River and the Pacific Ocean, and a small portion from Metropolitan. SDCWA addressed the impact of climate change on its supply volume and reliability, as summarized in Section 6.3. Metropolitan's two sources of supply are the SWP via the Sacramento-San Joaquin Delta and the Colorado River, both of which are climate-sensitive. Metropolitan has taken climate change into account in its planning work for the Colorado River and the Sacramento-San Joaquin Delta. Climate change impacts, based on analysis performed by SDCWA, are further discussed in Section 4.5 and Section 6.3.

DWR has addressed climate change in its SWP Delivery Capability Report (DWR 2024b), its SWP Adaptation Strategy (DWR 2025a), and in its California Delta Conveyance Project (DWR 2025b), explained below.

SWP Delivery Capability Report: Published in July 2024, this report assesses multiple scenarios of future climate conditions to help examine the resiliency of SWP water supply to potential climate hazards. The Report suggests that climate change is shifting more precipitation from snow to rain, causing higher winter inflows and lower flows later in the year, which alters the timing and reliability of SWP supplies. Because winter reservoir storage is constrained by flood control rules, DWR suggests that much of this increased winter flow cannot be effectively stored for use during drier months.

SWP Adaptation Strategy: Published in August 2025, this report builds upon the Delivery Capability Report and provides and assesses how land subsidence, drought frequency and duration, changes in precipitation, and temperature increases are leading to reduced aqueduct capacity, strain on water supplies, altered water demands, and flood risks. The SWP Adaption Strategy identifies seventeen adaptation actions, focused on structural changes, operations and management changes, and nature-based solutions. Five strategies, including the Delta Conveyance Project, and Forecast-Informed Reservoir Operations (FIRO), were identified as being the most promising. These strategies are organized into four potential adaptation portfolios in the SWP Adaptation Strategy.

California Delta Conveyance Project: The Delta Conveyance Project is framed by DWR as a climate adaptation investment to protect the SWP from sea level rise, more extreme storms, and seismic risks that threaten existing south-Delta intakes. By adding a north-Delta intake and tunnel conveyance, it is intended to improve the ability to capture short-duration, high-flow storm events while reducing vulnerability to salinity intrusion under future climate conditions. In this way, the project is designed to stabilize long-term water supply reliability as climate change increases hydrologic variability and operational risk.

The summary of the results of the screening exercise along with approaches, not covered by Metropolitan or SDCWA, are as follows:

- **Water Supply and Demand**
  - OMWD water supply and demand are vulnerable to climate change. Imported supplies from the SWP and the Colorado River are increasingly affected by long-term aridification, reduced snowpack, declining runoff efficiency, and regulatory constraints.
  - Landscaping demand may be affected by changes in average precipitation and runoff volume, increasing temperature, and the frequency and intensity of droughts.
  - Groundwater is currently not a major supply source.
  - The San Dieguito groundwater basin has been affected by seawater intrusion in the past. Should OMWD move forward with this project, supplies will be planned to avoid seawater intrusion. This project is discussed in more detail in Section 6.2.2.
  - The Delta and Colorado River supplies are affected by snowmelt flows, precipitation timing, land subsidence, and changes in storage.

- **Extreme Heat**
  - Climate change may increase customer water usage. Extreme heat is projected to increase both average and peak customer water use, particularly for outdoor irrigation during prolonged heat waves. Recent regional data indicates that heat–demand coupling is strengthening, with hotter conditions driving higher short-duration peak demands that place additional stress on distribution systems.
  - Extreme heat can pose increasing risks to pumping efficiency, power reliability, workforce safety, and mechanical equipment performance.
  - To review the impact of extreme heat, OMWD analyzes water use peaking factors on a pressure zone level and compares them to historic levels for the prior 10 years. The peaking factors represent outdoor water use for irrigation during dry season.
  - In general, OMWD is finding a small change in peaking factors. OMWD does not own or operate open storage reservoirs for potable water storage and so increases in evaporative-related water losses are not expected to be an impact.
  - To date, OMWD has not experienced increased corrosion, wear from heat expansion, or difficulties operating cooling systems. Moving forward, OMWD will consider extreme heat in its infrastructure planning.

- **Water Quality in Water Supplies**
  - Lower dissolved oxygen levels, wildfire-related ash and metals loading, PFAS mobilization, salinity concentration during extreme drought, algal blooms, disinfectant biproducts, and lower assimilative capacity of a receiving water body could affect Metropolitan and SDCWA supplies.
  - There is potential for sea level rise and increased salinity in the Delta, which could affect SWP supplies.
- **Sea Level Rise and Water Supply Source Infrastructure**
  - Sea level rise poses a direct and growing risk to Delta conveyance infrastructure through increased salinity intrusion, levee instability, and reduced operational flexibility within the SWP system.
- **Flooding – Water Supply Sources and Associated Infrastructure**
  - The Sacramento – San Joaquin Delta supply relies on flood protection infrastructure including both levees and dams. Climate change is increasing the frequency and intensity of extreme precipitation events, which elevates flood risk to Delta levees, reservoirs, and conveyance infrastructure that support imported water deliveries. Flood-driven turbidity spikes and infrastructure outages also increase the risk of short-term supply and treatment disruptions.
- **Wildfire**
  - Wildfire activity within source watersheds serving imported water supplies has increased substantially and is expected to continue rising under future climate conditions. Wildfires pose risks to water quality, reservoir sedimentation, treatment complexity, power transmission, and emergency response coordination that directly affect Metropolitan and regional imported water reliability.
- **Sea Level Rise and Coastal Structures**
  - While OMWD does not rely on direct coastal intake structures, sea level rise indirectly affects water supply reliability by increasing salinity intrusion and infrastructure vulnerability within the Delta and coastal conveyance corridors that support imported supplies.

3.4 Population and Demographics

This section provides an overview of OMWD service area population and key demographic trends and characteristics that may affect water use.

3.4.1 Service Area Population

The current and projected population for OMWD was developed by SANDAG as a part of its most recent growth and demographic forecast, the Series 15 Regional Growth Forecast, which became available in 2025. The Series 15 forecast is based on regional demographic and economic forecasts, as well as adopted land use plans of the County of San Diego and its incorporated municipalities. Additional information on the forecast and SANDAG's forecast methodologies are available on the SANDAG website, www.SANDAG.org.

OMWD has developed new water demand projections based on the SANDAG Series 15 data for regional consistency with SDCWA's 2025 UWMP, which also reflect new developments and water use reductions resulting from additional efficiencies that and potential effects of climate change.

OMWD is approximately 95 percent built out and SANDAG forecasts the population will decrease from 2025 forward due to an aging population and fewer family members in each house. Current and projected future OMWD population counts are summarized in Table 3-2, below.

Table 3-2 Population - Current and Projected

	2025	2030	2035	2040	2045	2050
Population Served	74,200	72,951	71,860	70,519	69,836	69,153

As described above, this 2025 UWMP uses regional population estimates for water planning that differs from the population reported elsewhere (such as OMWD's Annual Comprehensive Financial Report). In 2010, OMWD contracted with the State of California, Department of Finance (DOF) to develop a special population benchmark for its service area, which OMWD then adjusted with annual growth factors provided by DOF for San Diego County. These customized population projections are used by OMWD as the basis for projecting its future growth, and for various reporting to the State. While SANDAGs population projections are significantly different, OMWD has consistently used the SANDAG projections for its UWMPs because it is consistent with SDCWA and its member agencies. Under both approaches to population projections, OMWD met its SB X7-7 target for per capita water use.

3.4.2 Other Demographic Factors

OMWD reviewed U.S. Census data and obtained 2023 American Community Survey estimates for the nine zip codes that underlay its service area. Unfortunately, Census data is not organized within the boundaries of OMWD. While the identified zip codes contain substantial land area both within and outside of the service area, this assessment provides a reasonable estimate of the demographic characteristics of the OMWD customer base.

3.4.2.1 Economic Factors-OMWD

Several new state mandates enacted since 2020 are expected to increase administrative costs and potentially reduce revenues for urban water agencies. SB 606 and AB 1668 (2018), collectively known as the "Making Conservation a California Way of Life" regulation, effective January 1, 2025, requires urban retail water suppliers to annually calculate and report individualized Urban Water Use Objectives (UWUO), with full compliance mandated by 2027. These objectives include performance measures for commercial, industrial, and institutional (CII) water use, and have increased administrative and operational costs.

SB 1072 (2024) requires that if a court finds a violation of Proposition 218, which requires property related fees including water rates to be proportional to the cost of service, then the agency must apply the overcharged amount as a credit in its next rate-setting process, reducing future revenues required from customers; the purpose of SB 1072 is to protect low-water users from subsidizing high-demand infrastructure.

AB 1827 (2024) affirms the use of meter size and peak usage to allocate service costs, reinforcing tiered rate structures but requiring robust documentation to comply with Proposition 218. SB 389 (2023) modernizes California's water rights system by authorizing SWRCB to verify all water rights claims, potentially impacting water availability and planning. DWR's Water Resilience Portfolio, updated through 2023, continues to guide state investment in water supply diversification, infrastructure upgrades, and ecosystem protection, with over $8.6 billion committed to resilience efforts including groundwater recharge, recycled water, and desalination.

Rising wholesale costs from both Metropolitan and SDCWA will impact OMWD's cost of water and there is further pressure to increase costs from major infrastructure projects like the Delta Conveyance Project. Water purchases from SDCWA are OMWD's largest expense. OMWD continues to take steps to be less reliant on imported water by diversifying its supplies through the development of local supplies such as recycled water and groundwater.

3.4.2.2 Economic Factors- Customers

The unemployment rate in San Diego County was 4.4 percent in December 2025, which was a decrease from the previous month's rate of 4.7 percent in November 2025, and an increase from the year-ago rate of 4.2 percent in December 2024 (CEDD 2026a). Since 2020, when the unemployment rate peaked at approximately 9.2 percent, likely as a result of the COVID-19 pandemic, average annual unemployment in San Diego County has fluctuated from 3.4 percent in 2022 to 3.7 percent in 2023 to 4.3 percent 2024 (CEDD 2026b).

3.4.2.3 Languages and Cultural Clusters

Data from the U.S. Census Bureau was reviewed for the nine zip codes (92009, 92024, 92029, 92067, 92091, 92014, 92007, 92075, and 92127) that underlie the OMWD service area to provide a representative overview of demographics of OMWD's service population. Table 3-3, below, provides the race distribution within the five zip codes that underly the OMWD service area. This table shows that OMWD's service population is predominantly white (73 percent) within Asian residents comprising the largest minority (14 percent). There are smaller populations of Black or African American, and Hispanic or Latino residents, collectively representing approximately 13 percent of OMWD's service population.

Table 3-3 Race Distribution in OMWD Vicinity

White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Hispanic or Latino- One Race	Hispanic or Latino- Two+ Races
73%	1%	0%	14%	0%	3%	9%

Source: USCB 2025a

Table 3-4, below, provides an overview of the languages spoken within the five zip codes comprising the OMWD service area. This table shows that nearly 78 percent of the households speak English only. Of the households speaking other languages, other Indo-European languages and Spanish were the largest at 7.4 percent and 7.2 percent respectively. The data do not factor in the level of English proficiency of those who speak a language other than English at home (e.g., the "Speak a Language Other Than English" percentage is not a report of customers that cannot speak English).

Table 3-4 Languages Spoken in OMWD Vicinity

Language Spoken at Home	Percent of Service Population Speaking
English Speaking Only	77.8%
Language Other than English	22.2%
Spanish	7.2%
Other Indo-European	7.4%
Asian and Pacific Islands	6.8%
Other	0.8%

Source: USCB 2025b

Table 3-5, below, presents the highest level of education achieved by different age ranges of OMWD's service population. As shown, the majority of OMWD's service population has a bachelor's degree or higher (71 percent) and an additional 19 percent have some college education.

Table 3-5 Educational Attainment in OMWD Vicinity

Education Level (highest attained)	Percent of Service Population
Less than high school	3%
High school diploma or equivalent	7%
Some college	19%
Bachelor's degree or higher	71%

Source: USCB 2025c

3.4.2.4 Age of Population Served

Table 3-6, below, provides an overview of the age distribution of residents within the OMWD service area. As shown, the age of the population served by OMWD is generally evenly distributed.

Table 3-6 Age Distribution in OMWD Vicinity

Age Range	Percent of Service Population
0 to 9 years	11%
10 to 19 years	14%
20 to 29 years	9%
30 to 39 years	12%
40 to 49 years	15%
50 to 59 years	15%
60 to 69 years	12%
70 years or older	12%

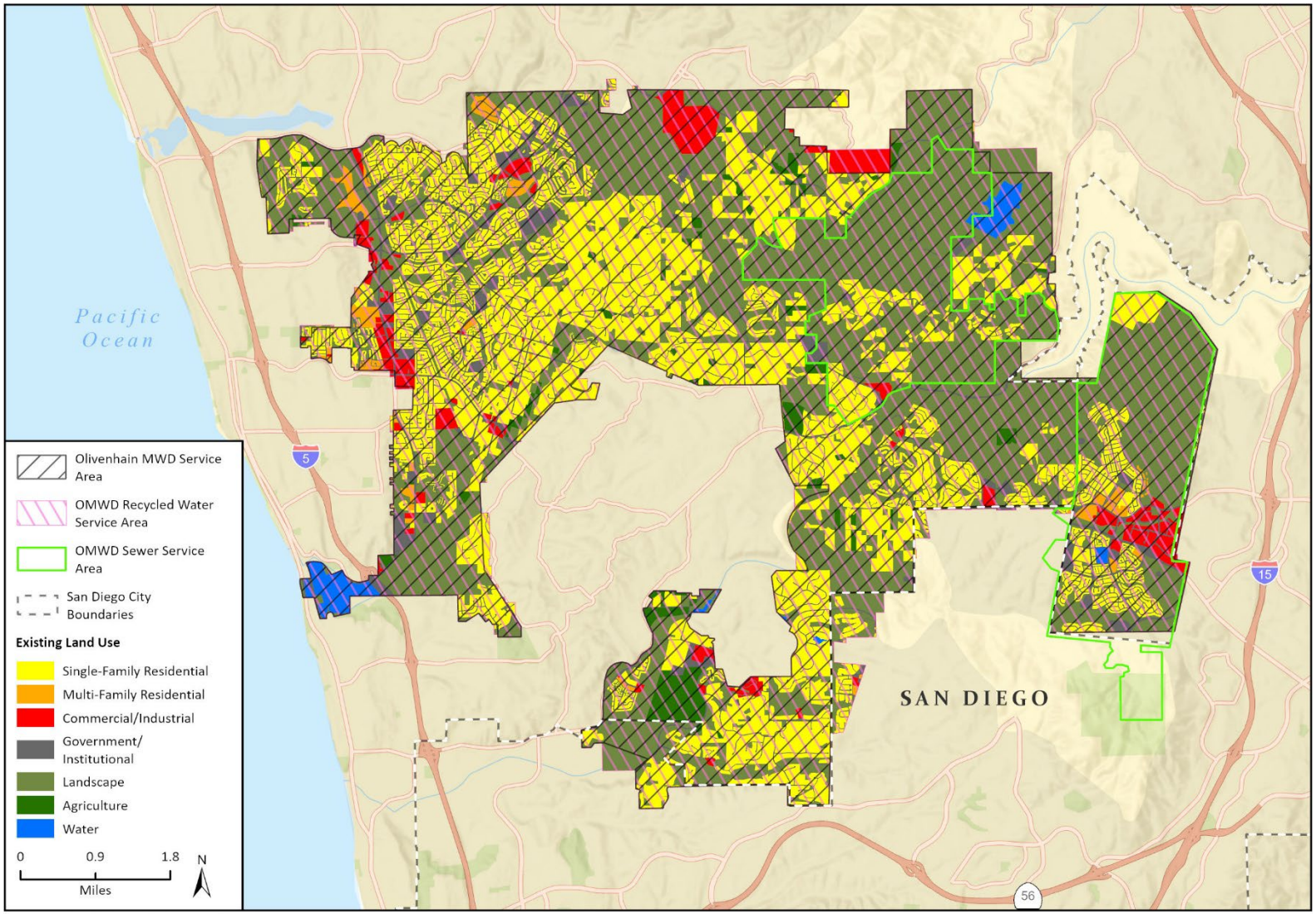
Source: USCB 2025d

3.5 Land Uses within Service Area

OMWD has a wide variety of land uses within its service area including residential, commercial, institutional, agriculture, and open space. The population, land use, and demographic projections in this UWMP were prepared by SANDAG, in five-year increments, based on the land use plans of the local and regional land use authorities. OMWD's potable water supplier, SDCWA, also utilized population and land use projections from SANDAG.

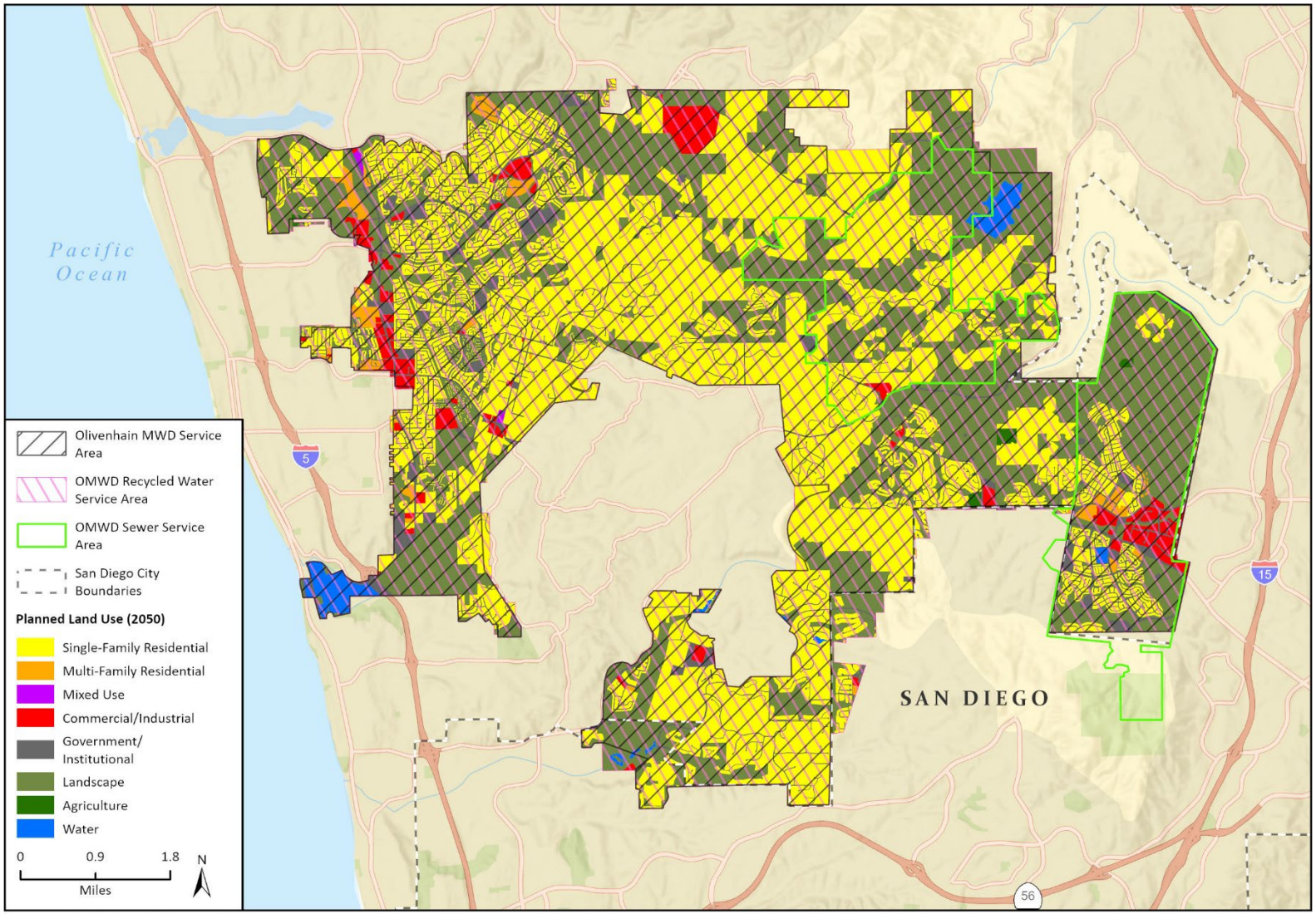
The SANDAG Series 15 Regional Growth Forecast contains 2024 existing land use and projected 2050 buildout land use from the local municipal plans. Figure 3-5 on the following page shows existing land use in the OMWD service area, followed by Figure 3-6, which shows projected future land uses. Land uses within the OMWD service area are anticipated to shift from less compact residential patterns to more urbanized and mixed-use development. Projected land uses indicate anticipated conversion of undeveloped and spaced rural residential areas into single-family and medium-density residential neighborhoods, particularly in the eastern and southern portions of OMWD's service area. Commercial and community shopping centers are expected to expand along major corridors, supporting increased population and economic activity. Although open space and parkland will continue to represent a major component of the landscape, the overall trend reflects a transition toward higher-density residential development and greater commercial presence.

Figure 3-5 OMWD Service Area and Existing (2024) SANDAG Land Use



Source: SANDAG 2025a

Figure 3-6 OMWD Service Area and Projected (2050) SANDAG Land Use



Source: SANDAG 2025a

3.5.1.1 Types of Housing

OMWD does not have significant non-residential populations. OMWD's service area does have diverse population densities ranging from high-density multi-family and mobile home communities to large estate lots and ranches. Water use among residential accounts varies significantly, from approximately 90 gallons per day per unit for multi-family residential (MFR) units to approximately 1,600 gallons per day per unit for the inland lower density single family residential (SFR) areas. The change in land uses between 2025 and 2050 is relatively small both in total numbers and percentage for each land use, as shown in Table 3-7, below.

Table 3-7 Changes in Future Land Use

	2025		2030		2035		2040		2045		2050	
Customer Category	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total
Single Family Residential	22,062	82%	22,606	82%	22,650	82%	22,651	81%	22,658	81%	22,666	80%
Multi-Family Residential	4,655	17%	4,758	17%	4,850	17%	4,942	18%	5,189	18%	5,436	19%
Mobile Home	233	1%	233	1%	233	1%	233	1%	233	1%	233	1%
Total	26,950		27,597		27,733		27,826		28,080		28,335	

Source: SANDAG 2025b

3.5.1.2 Types of Non-residential Land Uses

Commercial districts are scattered throughout OMWD with the largest being along El Camino Real and Encinitas Boulevard in the City of Encinitas, Rancho Santa Fe Road in the Cities of Encinitas and Carlsbad, and 4S Ranch in the County of San Diego. In general, these areas have been economically viable.

3.5.1.3 Age of Buildings

Table 3-8, below, presents a representative overview of housing age within the nine zip codes that comprise the OMWD service area. The table shows approximately 69 percent of the buildings were constructed since 1980, and 36 percent since 2000.

Table 3-8 Age of Housing in OMWD Vicinity

Year of Construction	Percent of Homes in OMWD Vicinity
2020 or earlier	1%
2010 to 2019	11%
2000 to 2009	24%
1980 to 1999	33%
1960 to 1979	25%
1940 to 1959	4%
Pre-1939	1%

Note: Figures are rounded for reporting purposes; therefore, totals may not equal the sum of listed components.
Source: USCB 2025e

3.6 References

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4 Water Use Characterization

This chapter characterizes potable and non-potable water use within OMWD's service area, to provide a foundation for subsequent chapters which detail supply availability. The following sections provide an overview of existing water demands by land use category (Section 4.1), as well as past, current, and projected water use by sector (Section 4.2), an overview of projected future demands (Section 4.3), consideration of socioeconomic factors (Section 4.4), and discussion of climate change (Section 4.5).

The information and analysis presented in the following sections was developed to address all requirements of DWR's 2025 UWMP Guidebook, while supporting the development of realistic water supply reliability planning and informing local strategies for long-term water supply sustainability and resilience.

4.1 Current Potable and Non-Potable Water Use

This section presents an overview of OMWD's current potable and non-potable water use by customer (land use) type, based on Fiscal Year (FY) 2025 data.[1] Potable water is water that is deemed safe for human consumption by meeting applicable health standards for drinking, cooking, and bathing. Non-potable water is not treated to drinking water standards and is commonly used for irrigation, industrial processes, and sanitary purposes.

OMWD reports water use by the following customer categories:

- **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. This is a retail demand.
- **Multi-Family Residential.** Multiple dwelling units within one building or several buildings within one complex. This is a retail demand.
- **Commercial.** Water users that provide or distribute a product or service, are a manufacturer, or are a processor of materials. Institutional and governmental uses are included in this category.
- **Landscape.** Water connections that supply water solely for landscape irrigation.
- **Agricultural.** Water used for commercial agricultural practices including irrigation and other agronomic uses.

Distribution system losses are also accounted for in water use projections, as discussed in detail below in Section 4.4.

Table 4-1, below, provides an overview of OMWD's total customer water use during FY 2025. This data was sourced from OMWD's water sales records, with all OMWD's metered water sales. The land use categories presented below reflect OMWD customer types classified for consistency with DWR's 2025 UWMP Guidebook.

[1] Water use rates for 2025 reflect fiscal year data produced by OMWD Finance Department from California's Safe and Affordable Funding for Equity and Resilience (SAFER) program. OMWD's previous UWMPs have used calendar year data from billing reports; this 2025 UWMP and future updates will use SAFER program data due to simplified data management requirements, and minimal differences observed between the data sources.

Table 4-1 Actual Total Uses for Potable and Non-Potable Water, 2025 (AFY)

Use Type	Additional Description	2025 Actual Water Use	
		Level of Treatment When Delivered	Volume
Single Family Residential	Includes other domestic and fire meters	Potable	12,764
Multi-Family Residential	n/a	Potable	691
Commercial/Industrial	Includes industrial, schools, and construction	Potable	802
Landscape	n/a	Potable	2,163
Sales/Transfers/Exchanges to Other Agencies	Raw water treated and then sold to VWD	Potable	0
Agricultural Irrigation	n/a	Potable	200
Distribution System Losses	Non-revenue water including actual losses	Potable	1,326
Subtotal (Total Potable)			17,946
Recycled (Total Non-Potable)	HOA and CII irrigation; golf course irrigation	Non-Potable	3,001
Total			**20,947**

AFY = acre-feet per year; CII = Commercial, Institutional, and Industrial; HOA = Home-Owners Association

The table above indicates the following regarding OMWD's potable and non-potable water uses:

- In 2025, OMWD provided approximately 17,946 AF of potable water (treated to drinking water quality standards) and 3,001 AF of non-potable water in the form of recycled water (tertiary treated to Title 22 standards) applied for irrigation of landscape areas and golf courses. Total water use in 2025 was approximately 20,947 AF.
- OMWD provides potable water for all customer categories (use types), including for purposes that could be met with non-potable water, such as Commercial, Industrial, Landscape, and Agricultural Irrigation; see Chapter 8, *Water Shortage Contingency Plan*, for discussion of strategies to reduce potable water use by providing non-potable water for suitable uses.
- OMWD did not provide water in 2025 for Sales/Transfers/Exchanges to Other Agencies in 2025. However, OMWD does treat raw water and sell treatment services to Vallecitos Water District (VWD), a neighboring retail water agency. See Section 4.3, below, for additional information.
- OMWD does not currently provide water for conjunctive use/groundwater recharge, saline water intrusion barriers, or wetlands or wildlife habitat. OMWD is considering potential development of brackish water desalination.

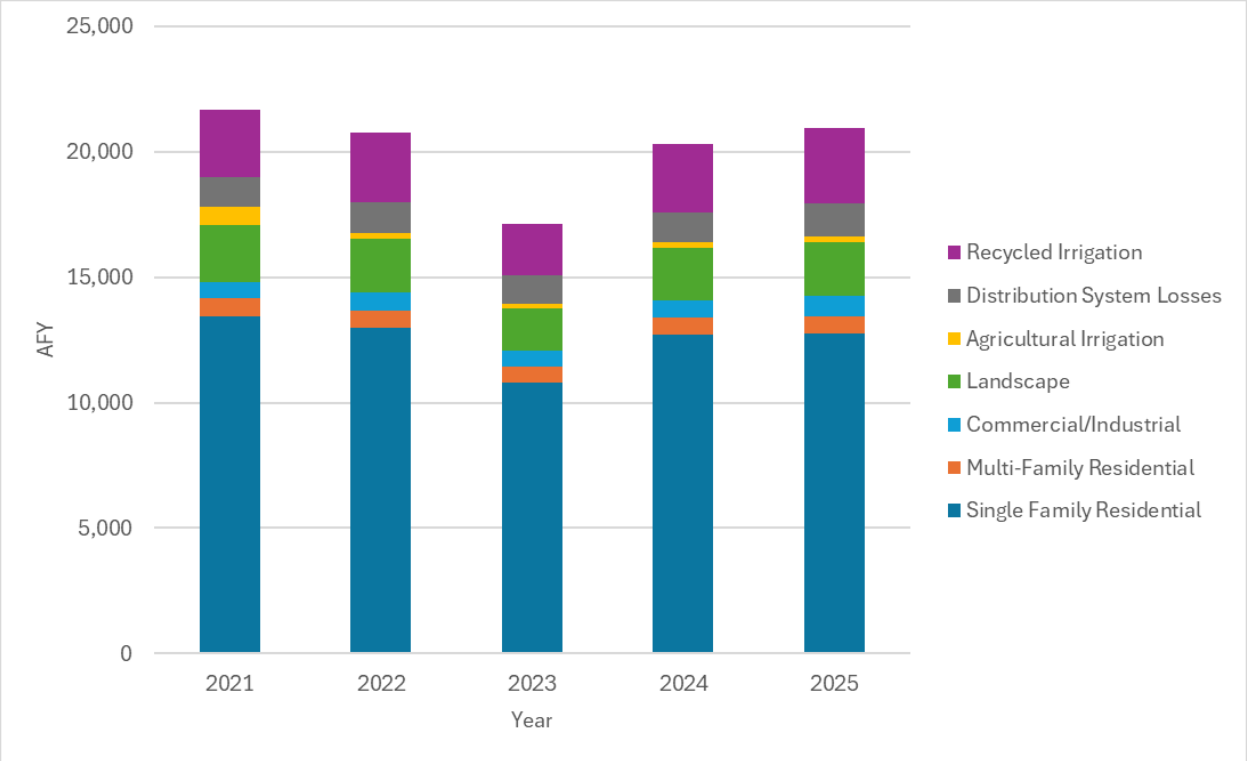
Table 4-2 and Figure 4-1, on the following page, present OMWD's water use for 2021-2025, reflecting customer billing data from monthly metered water deliveries. As shown, water demand for Residential uses decreased between 2021 and 2023, then increased again in 2024; these fluctuations likely reflect effects of the COVID-19 pandemic. Landscape, Irrigation, and Recycled water all decreased in 2023; this was likely due to wet conditions in 2023 that reduced the need for applied water, and similarly reduced the need for supplemental recycled water. The evaluation of past water uses help suppliers identify and understand trends, which are crucial for developing water use projections.

Table 4-2 Historical and Current Water Use by Customer Class, 2021-2025 (AFY)

Customer Class	2021	2022	2023	2024	2025
Single Family Residential	13,459	13,006	10,785	12,731	12,764
Multi-Family Residential	698	668	654	661	691
Commercial/Industrial	661	710	646	705	802
Landscape	2,279	2,150	1,675	2,082	2,163
Sales/Transfers/Exchanges to Other Agencies	0	0	0	0	0
Agricultural Irrigation	702	232	182	228	200
Distribution System Losses	1,201	1,237	1,135	1,191	1,326
Subtotal (Total Potable):	*19,000*	*18,003*	*15,077*	*17,598*	*17,946*
Recycled (Total Non-Potable)	2,672	2,748	2,046	2,704	3,001
Total (Potable + Non-Potable)	**21,672**	**20,751**	**17,123**	**20,302**	**20,947**

AFY = acre-feet per year

Figure 4-1 Historical and Current Water Use by Customer Class, 2021-2025 (AFY)



4.2 Past, Current, and Projected Water Use by Sector

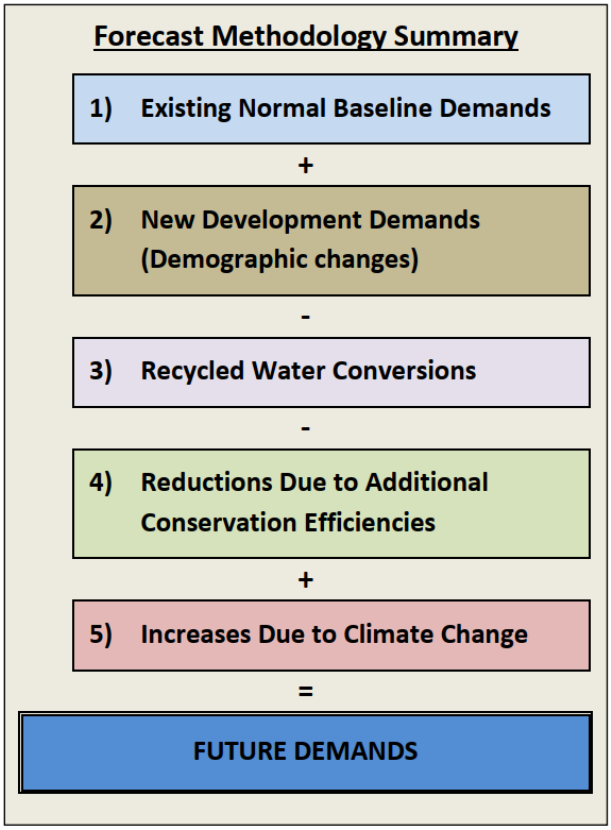
This section describes OMWD's approach and methodology to calculation of past, current, and future water uses by sector (customer / land use type).

4.2.1 Projected Water Use Approach / Methodology

OMWD forecasts potable water demands using existing normal condition demands as a baseline and scales these Baseline Demands based on the net effects of growth, conservation, and other factors. The forecast methodology is outlined below (OMWD 2025).

1) **Existing Normal Baseline Demands**. This UWMP uses the average water use during calendar years 2021 through 2024 as the baseline condition, representative of current normal water use. Precipitation measured by the San Diego County Water Authority (SDCWA) in the San Diego area varied during the four-year baseline, with two years above normal and two years below normal (SDCWA, 2025). The overall four-year average was approximately 10 inches, normal annual precipitation for the area. There were no emergency water use restrictions in place, and no recessionary economic effects. Average deliveries over the past four calendar years, 2021 to 2024, equal 17,200 AFY, which is approximately 3 percent lower than the 2021 forecast Normal of 17,800 AFY.

   Using the OMWD water sales database, the forecast calculates baseline condition use by customer class, including single family residential, multi-family residential, commercial, irrigation, agriculture, and other. The baseline unit use was also calculated by geographic region or Zone of Benefit for OMWD. This baseline condition unit use provides the foundational starting point for the forecast.



2) **New Development Demands (Demographic Changes).** New development demands are generated using the baseline unit use factors and the SANDAG Series 15 projections for OMWD at the Zone of Benefit level of spatial resolution. Transition of land use along the El Camino Real Mixed-Use Development, which was not included in the Series 15 forecast, was also considered.

   - Residential: Single-family residential (SFR) and multi-family residential (MFR) usage is scaled upwards proportionate to housing unit counts for each category, and adjusted downwards for projected declines in Persons per Household rates.
   - Commercial: Commercial, industrial, and governmental (collectively, COM) usage is scaled upwards from existing use proportionate to employment projections.
   - Irrigation: Irrigation usage is scaled upward as a weighted average of the change in SFR, MFR, and COM usage.

3) **Changes due to recycled water conversions.** This UWMP includes an adjustment for projected recycled water conversions scheduled to occur within the 4S Ranch, Rancho Santa Fe, Carlsbad, Encinitas, and Olivenhain areas. These conversions will shift potable demands to non-potable according to their scheduled construction.

4) **Changes due to active and passive water conservation.** This UWMP projects that unit use rates will continue to decline over time in response to water conservation from increased water rates, water use efficiency education, compliance with local and state ordinances, and shifting landscape preferences. These factors are summarized below:

   a. **Landscape Ordinances**: The Model Water Efficient Landscape Ordinance (MWELO) adopted by the State of California in 2010 and amended in 2024, requires local agencies to adopt ordinances promoting efficient water use in new and rehabilitated landscapes. Following MWELO requirements, all land use jurisdictions have adopted landscape ordinances limiting applied water use for landscapes. MWELO prioritizes efficient irrigation, mulching, soil improvement, and the use of non-potable sources like rainwater, graywater, and recycled water. The state requirements also limit turf coverage to 25 percent of total landscaped area and prohibit non-functional turf in commercial and streetscape uses. As a result, new construction in OMWD's service area will feature less turf and will use less water in comparison to pre-2010 construction.

   b. **Weather-Based Irrigation Controllers**: Newer landscape irrigation controllers can automatically adjust irrigation schedules consistent with actual climate conditions and plant water needs, reducing unnecessary use due to over-irrigation. The use of these controllers will become increasingly common during the planning horizon. OMWD estimates 25 percent implementation by residential customers by 2050.

   c. **Turf Retirement**: Metropolitan and SDCWA provide financial incentives to customers who replace turf with low water use landscapes, helping drive a transition of customer landscape preferences away from turf. A 2020 study of turf retirement shows that this transition will likely continue at an average rate of 1 percent per year within mature neighborhoods old enough for houses to have resold and remodeled (such as Village Park and La Costa). Newer neighborhoods (such as 4S Ranch and Fairbanks Ranch) have not had significant turf transitions yet.

   d. **Non-functional Turf Ban**: California regulations enacted in 2023 prohibit the irrigation of non-functional turf (ornamental grass not used for recreation purposes) on commercial, industrial, and institutional properties with potable water. The ban will be phased in starting in 2027 and will reduce outdoor potable water use by commercial properties in OMWD's service area.

   e. **High-Efficiency Clothes Washers**: Newer clothes washing machines, in particular front-loading versions, are more water-efficient than older traditional-style washers. OMWD estimates 25-30 percent implementation by residential customers by 2050.

   f. **High-Efficiency Dishwashers**: Efficient "Energy Star" dishwashers use 3.5 gallons per cycle compared to the 10 gallons per cycle of conventional units. OMWD estimates 25-30 percent implementation by residential customers by 2050.

   g. **High-Efficiency Toilets**: California regulations enacted in 2011 require new toilets to operate with a maximum of 1.28 gallons per flush, compared to 1.6 gallons per flush per the previous 1992 requirements. This will reduce water use at new SFR and MFR construction. Rebate programs funded by Metropolitan and others will support a gradual transition to the newer toilets. OMWD estimates 50 percent implementation by residential customers by 2050.

5) **Changes due to climate effects**. The median average daily maximum temperature for the SDCWA service area is projected to increase progressively over time, leading to increased irrigation demands as discussed in Section 4.6. The projected increase in evapotranspiration and associated increase in outdoor water use was 2.7 percent by 2050. Assuming outdoor use is 60 percent of total use, the resulting increase in these demands of 1.7 percent.

6) **Increasing real prices/behavioral changes.** Retail water rates may continue to increase at a faster rate than inflation, driven by increases in wholesale water rates. Customers typically respond to increasing costs with reductions in use. OMWD applied the SDCWA's estimated price-elasticity factor of -0.20 to that portion of water use not already accounted for by all the previous conservation adjustments.

OMWD forecasts non-potable water demands by identifying existing irrigation use by customer and then applying a timeline for expansion of the recycled water system to connect each user. Non-potable demands will increase as OMWD invests in expansion of the conveyance infrastructure needed to serve irrigation users. The non-potable forecast does not consider water use efficiency or climate change impacts.

4.3 Projected Water Demands

This section presents water demand projections over a 20-year planning horizon (through 2050), using the reporting tables provided in DWR's 2025 UWMP Guidebook.

4.3.1 Projected Potable Water Demands

Potable water use demands in OMWD's service area are anticipated to decrease in relation to decreasing population, fewer people per dwelling unit, and increasing implementation of conservation efforts detailed above in Section 4.2. Table 4-3, on the following page, presents OMWD's projected potable water use demands by customer type through 2050.

4.3.2 Projected Recycled Water Demands

This UWMP projects that recycled water use will increase slightly with increased production from each of OMWD's recycled water sources, including VWD's Meadowlark WRF and San Elijo Water Campus. Recycled water use is also summarized in Table 4-3, in the preceding section.

Table 4-3 Total Uses of Potable, and Non-Potable Water – Projected (AFY)

Use Type	Additional Description	Level of Treatment When Delivered	Projected Water Use				
			2030	2035	2040	2045	2050
Single Family Residential	Includes other domestic and fire meters	Potable	12,370	12,230	11,820	11,400	10,980
Multi-Family Residential	n/a	Potable	660	650	650	640	650
Commercial/Industrial	Includes industrial, schools, and construction	Potable	700	680	670	660	660
Landscape	n/a	Potable	1,960	1,930	1,890	1,890	1,870
Sales/Transfers/Exchanges to Other Agencies	Raw water treated and then sold to VWD	Potable	0	0	0	0	0
Agricultural Irrigation	n/a	Potable	320	300	290	270	250
Distribution System Losses	Non-revenue water incl. actual losses	Potable	1,060	1,040	1,010	980	950
Subtotal (Total Potable)			16,860	16,370	15,840	15,380	14,900
Recycled (Total Non-Potable)			2,489	2,499	3,204	3,209	3,214
Total			**19,349**	**18,869**	**19,044**	**18,589**	**18,114**

AFY = acre-feet per year; VWD = Vallecitos Water District

4.3.3 Conservation Savings

Water use projections account for anticipated savings through conservation, including both active and passive conservation. Water savings from codes, standards, ordinances, and land use or transportation plans are typically considered "passive savings" or "passive conservation" because reduced water use is achieved through design features and infrastructure changes, without requiring conscious action from customers.

Table 4-4, below, provides an overview of projected water savings through passive conservation. This table is included in DWR's 2025 UWMP Guidebook as an optional table and is included herein because passive water conservation savings are included in OMWD's demand projections for SDCWA as its wholesale water supply provider.

Table 4-4 Passive Water Savings Projections (AFY)

Description (Codes, Standards, Ordinances, or Plans)	Passive savings				
	2030	2035	2040	2045	2050
Non-functional Turf Ban	30	50	60	70	80
MFR Sub-Metering	0	0	0	10	10
Appliance Replacement[1]	80	150	220	290	390

AFY = acre-feet per year; MFR = multi-family residential

[1]Appliance Replacement includes the replacement of toilets, dishwashers, clothes washers, and irrigation controllers with more efficient units.

In addition to the passive water savings presented above, OMWD has also observed water savings associated with the use of Advanced Metering Infrastructure (AMI) technology instead of Automated Meter Reading (AMR) technology to read customer meters. Whereas the AMR technology provided a monthly "snapshot" of water usage at each meter, the AMI technology provides continuous, hourly reads transmitted every four hours, representing near real-time data through a fixed communication network. Since 2020, OMWD has completed its transition away from AMR technology and now exclusively uses AMI technology to read customer meters; see Section 8.4.3 for discussion of the AMI system transition.

With the AMI system, leaks can be detected in near real-time and leak alerts can be set up by each customer, which facilitates quicker actions to mitigate losses. The AMI technology also supports timelier and more effective monitoring of drought response actions, as OMWD staff are able to review continuously updated water use data across the service area without manually visiting each meter. In addition, customers have access to AMI data through an online portal, where customers can view water usage, set up leak detection alerts, set alerts for projected billing statement thresholds, and access other resources. OMWD has observed that customers who leverage the portal to its fullest extent reduce their water use by up to 10 percent.

4.4 Water Uses for Lower Income Households

CWC Section 10631(a) states that water use projections shall include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county, in the service area of the supplier.

OMWD's water demand forecasting methodology, as summarized in Section 4.2.1, incorporates all existing and planned housing for each of the land use jurisdictions within OMWD's service area. These housing elements, inclusive of low-income housing, are included in the demographic summaries and forecasts of SANDAG on which OMWD water demand forecasts are based. OMWD's water demand

forecast therefore incorporates the existing and planned low-income housing of each of its land use jurisdictions, as summarized in Table 4-5, below.

Table 4-5 Inclusion in Water Use Projections

Future Water Savings and Lower Income Residential Demands	
Are Future Water Savings Included in Projections?	Yes
If "Yes" to above: State the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Table 4-4
Are Lower Income Residential Demands Included In Projections?	Yes

OMWD has an existing policy adopted under SB 1087 (Government Code Section 65589.7 and CWC Section 10631.1) for the granting of priority for water services to proposed developments that include housing units for lower income households. Under SB 1087 (2005), water and sewer service providers were required to adopt a policy and procedures by July 1, 2006, and then at least once every five years.

4.5 Distribution System Water Loss

Distribution system water losses, or nonrevenue water, result from leaks from pipelines and storage facilities. OMWD has used the American Water Works Association Method and Guidebook Appendix L worksheet to report and calculate system losses. For CY 2024, OMWD's reported losses were 1,058 AF. The worksheets are provided as Appendix B and will be submitted electronically to DWR.

Table 4-6, below, provides an overview of OMWD's distribution water losses for 2020 through 2024, indicating total water loss of 5,819 AF, for an average annual loss of approximately 1,164 AFY or approximately 6.8 percent of total water produced per year. The data below demonstrate that distribution system water losses have been reducing since 2022.

Table 4-6 Last Five Years of Water Loss Audit Reporting

		Water Loss (AFY)				
Use Type	Additional Description	2020	2021	2022	2023	2024
Volume of Water Loss	Water Loss is a combination of apparent and real losses from the AWWA Worksheet.	1,188	1,201	1,237	1,135	1,058

AFY = acre-feet per year; AWWA = American Water Works Association

Note: The most recent available water loss data at the time of the preparation of this UWMP reflect 2024 conditions.

Table 4-7, below, addresses DWR's requirement to identify Water Loss Audit Program reporting.

Table 4-7 Water Loss Audit Reporting

Public Water System	Reporting Period	Submitted to DWR Water Loss Audit Program
ID #3710029	2020	yes
	2021	yes
	2022	yes
	2023	yes
	2024	yes

Table 4-8 on the following page addresses the State Water Resources Control Board (SWRCB)'s 2028 Water Loss Standard; background description of the Water Loss Standard is provided following the table. OMWD's baseline real loss rate in December 2025 was 34.5 gallons per service connection per day (SWRCB 2025). The SWRCB identifies OMWD as "No Reduction / Maintain Baseline" in its December 2025 release of its Individual System Water Loss Standards (SWRCB 2025).

OMWD follows industry best practices in its operations and maintenance to minimize system losses and other non-revenue water. OMWD practices include the following:

- **Meter Testing and Replacement**: OMWD's field services technicians routinely test water meters to ensure that meters are accurate within 1.5 percent in accordance with American Water Works Association guidelines. OMWD's meter-testing program prioritizes testing on high-capacity water users because meters are mechanical devices for which performance can degrade over time. OMWD manages a proactive residential water meter testing and replacement program. This program contributes to improved accuracy in determining when meter failures are likely to occur and to ensure meter accuracy. Thirty years ago, OMWD had many different brands of water meters including Hersey, Precision, Rockwell, and Badger. It replaced nearly all of these meters with Sensus meters. Sensus meters work in conjunction with their industry-leading Advanced Metering Infrastructure (AMI) system and certain other manufacturers (e.g., Master Meter and Badger) are Sensus-certified for AMI compatibility.
- **Cathodic Protection**: The soil in OMWD's service area is considered "hot," or highly corrosive by corrosion industry standards. OMWD has conducted corrosion engineering investigations since the 1970s and has installed cathodic protection systems throughout its distribution system, protecting steel water mains and copper service lines. These actions were highly effective in reducing the frequency of leaks. The cathodic protection program includes 28 rectifier-impressed current zones that are operational around the clock. OMWD has thousands of sacrificial systems that protect isolated pipelines and individual meter services. The cathodic protection system has worked well and is included in OMWD's specification guidelines.
- **Operations Control:** OMWD has proactively updated its distribution system with telemetry systems programmed to alert operators automatically of incidents and issues, such as rising reservoir levels. These systems have safeguards for every pressure zone in OMWD's service area. OMWD's service area is unique in that the majority of its water pressure is fed through hydraulic gradients, or gravity fed. OMWD has over 70 pressure reducing stations that feed into various pressure zones. Pressure reducing stations reduce high pressure down to acceptable levels for consumers. Each pressure reducing station has safeguards for over-pressurization of the zones. OMWD has telemetry for each zone to alert operators when a pressure relief valve opens to relieve pressure, allowing the operator to respond and prevent water loss.
- **Account Monitoring**: OMWD reviews pre-billing exceptions produced from monthly meter reading data that flag exceptions from average usage on each account. For example, exceptions are noted when accounts are 200 percent over or under average usage for irrigation customers and 150 percent over or under average use for other customers. Lower consumption can indicate a slowing or stopped meter. Higher consumption can indicate a leak. Field services technicians check these exceptions against the account's usage history and review hourly read data provided from the AMI system to determine whether the usage recorded for the month is reasonable compared to its monthly usage history. If considered unusual, technicians will notify the customer of higher usage, visit properties to check the meter reads, look for the appearance of a leak, and make contact with customers. Stopped meters are verified and replaced within several days of their discovery.

Table 4-8 Progress Towards 2028 Water Loss Standard

		Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			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	Real Water Loss Per Unit per Day	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
3710029	yes	34.5	Gallons per Service Connection per Day (GPSCD)	23,751	818	12.6	11.5	GPSCD	23,751	241	3.7

State Water Resource Control Board's Calculated Water Loss Standards

- **Continuous Use Report**: Field services technicians receive daily reports identifying meters in a state of constant flow. As a courtesy to customers, field service technicians are often able to notify customers who experience continuous flow outside their normal usage patterns that they may have a leak. Additionally, field services technicians meet with customers who question high usage or a change in their usage pattern. Customers are then notified of apparent leaks, which can be fixed to prevent further losses. Field services technicians also contact customers when neighbors report water flowing from their properties. When customers cannot be reached, meters will be shut off at the curb stop and cards hung to notify customers as to why their water was turned off.
- **Other**: Other miscellaneous water loss prevention measures include metering of OMWD's flushing program, firefighting water use metering, water loss trending of damaged fire hydrants, interconnect meter preventative maintenance, construction metering, and prohibition of unmetered connections.

4.6 Climate Change Considerations

As noted in Section 4.2 above, OMWD's water demand forecast incorporates predicted effects of climate change. As detailed in SDCWA's 2025 UWMP, climate change is expected to incrementally increase regional water demands over the coming decades, driven primarily by rising temperatures rather than major changes in precipitation patterns. Climate projections for mid-century (2045-2065) indicate continued concentration of precipitation in winter months with no substantial shift in seasonal timing, while average temperatures increase across all climate scenarios. When these projected temperature and precipitation conditions are applied to water demand modeling, total regional demand is estimated to increase by approximately 0.4 percent under moderate scenarios and up to 3.3 percent under warmer, drier scenarios by 2050 relative to historical weather. By late century (2080-2100), continued and more pronounced warming results in larger demand increases, ranging from approximately two percent to 11 percent under the most extreme warm-dry scenario. These results indicate that temperature-driven increases in outdoor irrigation and overall water use will influence future demand. Using data assembled by SDCWA in its 2025 UWMP, OMWD has adjusted irrigation unit use factors to account for a 1.7 percent increase in reference evapotranspiration by 2050 (SDCWA 2026). Additional review of climate change impacts for the San Diego County area and how the region is adapting to long-term climate change are presented in SDCWA's 2025 UWMP.

4.7 References

OMWD. 2025. OMWD 2025 Urban Water Management Plan, Demand Forecast Input Documentation. Draft. March 27, 2025.

SDCWA (San Diego County Water Authority). 2026. 2025 Urban Water Management Plan. Available: https://www.sdcwa.org/wp-content/uploads/2026/03/SDCWA-Public-Review-Draft-2025-UWMP-with-Appendices.pdf. Accessed March 2026.

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SWRCB (State Water Resources Control Board). 2025. Individual System Water Loss Standards. Released December 8. Available: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.waterboards.ca.gov%2Fconservation%2Fdocs%2Fwaterlosscontrol%2Fstandards-released.xlsx&wdOrigin=BROWSELINK. Accessed December 2025.

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

In 2009, the California legislature approved and the governor signed the Water Conservation Act of 2009, known as SB X7-7. This legislation required urban water agencies to achieve a reduction in per capita water use of 20 percent by 2020, relative to certain specified baseline conditions.

As a part of the Water Conservation Act of 2009, urban water suppliers were required to develop a 2020 urban water use target and a 2015 interim target that met the bill's water conservation intent. In 2010, DWR released *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*, which provided retail water agencies with specific requirements and methodologies for setting water use efficiency goals and compliance standards for 2020. The manual provided four alternative methods for calculating targets. OMWD selected Method 1 for use in its 2010 UWMP and identified a baseline period of 1999 through 2008. OMWD's resulting 2015 interim and 2020 targets were 317 and 282 GPCD, respectively.

5.1 Individual Target

OMWD is a retail supplier pursuant to the definition provided in Water Code Section 10608.12, as OMWD provides potable municipal water to more than 3,000 end users and supplies more than 3,000 AF of potable water annually at retail for municipal purposes. Water Code Section 10608.40 requires retail suppliers to report on their progress in meeting their urban water use targets, and the Water Code does not set an end date for reporting on this progress.

OMWD established its baseline period as 1999 to 2008 and its average baseline water use as 352 GPCD. OMWD calculated its 2020 target as 282 GPCD. OMWD's gross water use in 2020 was 16,666 AF (excluding agricultural water use), which resulted in an actual use rate in 2020 of 206 GPCD. As shown in Table 5-1 on the following page, OMWD met its 2020 target in 2020.

OMWD does not participate in a regional UWMP. OMWD does participate in a regional alliance, as discussed in Section 5.2, below.

Table 5-1 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	282	206	Yes

5.2 Regional Alliance

The Water Conservation Act of 2009 authorized urban retail water suppliers to determine and report progress toward achieving these targets either on an individual agency basis, or collectively as part of a regional alliance of neighboring water agencies. In accordance with the Water Conservation Act, OMWD, VWD, San Dieguito Water District, and Rincon Del Diablo MWD formed a regional alliance by entering into a cooperative agreement and jointly notifying DWR. All members of this regional alliance rely on wholesale water from SDCWA. In accordance with the 2020 UWMP Guidebook and DWR Methodologies, the regional alliance members identified a regional urban water use target as presented in their respective 2020 UWMPs. Each regional alliance member also identified their own urban water use targets and developed supporting data and determinations for inclusion in respective UWMPs.

OMWD's 2020 UWMP included the Regional Alliance Report as Appendix J. The Regional Alliance Report provides an overview of the regional alliance calculations. The 2020 regional target for the alliance was 204 GPCD, while the actual regional use rate in 2020 was 150 GPCD. As such, the regional target for 2020 was achieved.

6 Water Supply Characterization

This chapter describes the existing and planned sources of water available to OMWD, including purchased or imported water, groundwater, surface water, stormwater, recycled water, desalinated water, and exchanges or transfers. This chapter also includes a discussion of potential climate change and regulatory impacts to these supplies. Overall supply reliability is discussed in Chapter 7, *Water Service Reliability and Drought Risk Assessment*.

6.1 Water Supply Overview

OMWD's water supply portfolio includes a combination of imported water provided through the San Diego County Water Authority (SDCWA), locally produced recycled water, and long-term planning efforts that enhance water supply reliability through the continued development of local water supply sources. OMWD's supply strategy is guided by its UWMP and its 2024 Potable and Recycled Water Master Plan Update (OMWD 2024a), which evaluates supply and infrastructure needs to support future growth and resilience based on projected demands. OMWD also updated its Wastewater Master Plan in 2024, providing a comprehensive evaluation of OMWD's wastewater infrastructure focused on condition assessment findings and recommended capital improvements to address aging assets and maintain reliable recycled water production (OMWD 2024b).

In 2025, OMWD purchased 100 percent of its potable supply from SDCWA. OMWD has made significant progress in reducing overall demand for potable water through water conservation strategies, as well as through the development and expansion of its recycled water system. Ongoing diversification of water supply sources is critical to reducing OMWD's operational risks and reliance on SDCWA. Additional alternative water supplies have been identified for potential implementation within OMWD's service area, as detailed in Section 6.2, below.

California and San Diego County went through three severe multi-year droughts in the last two decades, resulting in reduced allocation of imported water supplies and calls for enhanced water conservation. Historically, SDCWA was dependent on water purchased from Metropolitan, which rationed supplies among its member agencies during drought periods. Over the last 30 years, SDCWA has invested in Colorado River water transfers and desalinated seawater which provide more reliable supplies during drought events. During the two drought events from 2009-2011 and 2014-2015, OMWD experienced cutbacks in its supplies from SDCWA and consequently adopted extraordinary conservation measures to manage the shortages. During the 2021-2022 drought, SDCWA declared itself "drought-safe this summer due to sound planning and decades-long ratepayer investments in new water supplies and storage and adoption of water conservation as a way of life" (SDCWA 2021). Meanwhile, in 2022, the SWRCB adopted emergency regulations requiring all urban water suppliers to implement Level 2 WSCP actions, discussed in Chapter 8, Water Shortage Contingency Plan. These actions included prohibiting irrigation of nonfunctional turf at Commercial, Industrial, and Institutional (CII) properties, intended to achieve immediate water savings during the ongoing statewide drought.

While recent drought experiences illustrate the importance of continued water use efficiency and preserving regional supplies and stored water reserves to cope with what is expected to be more frequent and extended droughts, the development of additional local drought-resilient supplies by OMWD is the most significant drought preparedness action that can be taken. Local supplies not only reduce the demand for imported water, but in a shortage, also help protect and maintain crucial stored water reserves for more extended periods of drought.

To become more drought-resilient and improve the reliability of its supplies, OMWD is striving to derive one-third of its total supply from local sources. A large portion of this is projected to come from recycled water sources through expansion of its existing recycled water distribution system and supplied through recycled water purchases from other agencies. The remainder is projected to come from other local

sources, potentially including desalinated brackish groundwater and/or desalinated seawater and potable reuse.

Chapter 7, Water Service Reliability and Drought Risk Assessment, provides an assessment of water supply reliability and concludes that OMWD's water supply is reliable through 2050 under single and multiple-dry year scenarios, with no shortages in dry years. This conclusion is based upon SDCWA's water supply reliability assessment provided in its 2025 UWMP. Despite the conclusion of sufficient water supply reliability through 2050, OMWD's continued development and expansion of local water supplies has never been more important. History has shown that the Colorado River and SWP, which are the major imported water supplies provided through SDCWA and Metropolitan, are subject to reductions from environmental and regulatory restrictions, over-allocation, and natural occurrences. The last three multi-year droughts mentioned above demonstrated the importance of developing hydrologically independent local water supplies like those being planned by OMWD.

Recycled water and brackish groundwater desalination are both highly reliable, virtually unaffected by variable weather patterns, and are cost-effective methods to adapt to drought conditions. Local supplies provide greater control and are generally easier to implement. Local supply projects are smaller, with fewer stakeholders, and with environmental and regulatory requirements that are more straightforward to evaluate, comply with, mitigate, and permit. OMWD also has greater control of the cost of producing local supplies, such as recycled water.

As noted above, OMWD's supply reliability conclusion is based upon SDCWA's supply reliability assessment. As discussed in its 2025 UWMP, SDCWA assumed that Metropolitan will allocate water under its Preferential Rights formula, which refers to a statutory priority system established in the Metropolitan Water District Act that allocates water based on each member agency's cumulative financial contributions. Metropolitan confirmed in a 2021 legal response that Section 135 of the Metropolitan Water District Act remains in effect and nothing in its Water Supply Allocation Plan (WSAP) alters Preferential Rights. The WSAP governs how Metropolitan allocates water supply during shortages and is effective because member agencies voluntarily agree not to invoke Preferential Rights during allocation decisions. SDCWA has previously noted that if agencies with large historical contributions invoke their Preferential Rights, they could claim more water than the WSAP would otherwise allocate during a shortage condition, which presents an uncertainty in future water supply availability.

SDCWA acknowledges additional critical uncertainties in its 2025 UMWP (Chapter 10), including the future amounts of imported water supply available through Metropolitan. Specifically, the success of the Delta Conveyance Project permitting process and the willingness of water users to pay increased cost can have a significant effect on SWP yield and available imported water supply under certain hydrologic and regulatory conditions. Other uncertainties include changing policies, regulations, laws, and social attitudes; new regulatory restrictions, emerging contaminants, and endangered species; and Sacramento–San Joaquin Delta (Delta) levee failures, prolonged multi-year droughts, and impacts from climate change. Continued development of local water supplies by SDCWA member agencies, such as those being contemplated by OMWD and other participants in the North San Diego Water Reuse Coalition (NSDWRC), is critical to both OMWD's and the region's water supply reliability.

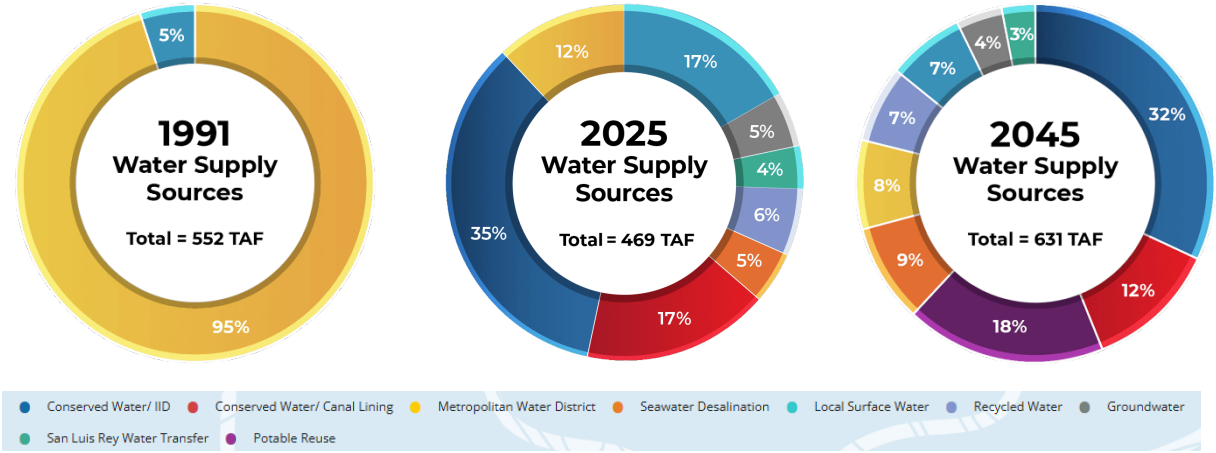
6.2 Water Supply Characterization

6.2.1 Purchased or Imported Water

In 2025, OMWD purchased 100 percent of its potable supply from SDCWA. A complete description of the SDCWA service area and its supplies can be found in SDCWA's 2025 UWMP (SDCWA 2026a). SDCWA and its retail member agencies, including OMWD, have greatly diversified the region's supply since 1991, when 95 percent of San Diego County's water supply was purchased from Metropolitan. SDCWA has developed firm supplies from an agreement with Imperial Irrigation District for conserved water (200,000 AFY), the Carlsbad Desalination Plant (50,000 AFY), and the All-American and Coachella Canal Lining (78,700 AFY), for a total of 328,700 AFY, a significant portion of its future demand and total regional

water use. The volume of water purchased from Metropolitan as a proportion of San Diego County water supply has further decreased from approximately 57 percent in 2015, to 32 percent in 2018, and 13 percent in 2020. Furthermore, SDCWA projections anticipate that no supplemental water from Metropolitan is needed under normal year conditions through 2050 after accounting for SDCWA supplies and planned member agency supplies (SDCWA 2026b). Under single and multiple dry year conditions, supplemental water can be purchased from Metropolitan as needed to meet regional demands. A breakdown of SDCWA's service area supplies is shown below in Figure 6-1, below.

Figure 6-1 SDCWA and Member Agency Supply Portfolios – Current and Projected



Source: SDCWA 2026b

Metropolitan has two main sources of supply, including the State Water Project (SWP) and the Colorado River. A complete description of Metropolitan and its water supply sources can be found in Metropolitan's 2025 UWMP (Metropolitan 2026). OMWD has used water supply data provided by SDCWA and Metropolitan to inform this 2025 UWMP and to fulfill the informational requirements of California Water Code (CWC) Sections 10631(b) and (c).

6.2.2 Groundwater

OMWD does not currently receive potable supply from groundwater. However, OMWD is investigating groundwater development, including the treatment of brackish groundwater, as a potential long-term strategy to diversify supplies and reduce reliance on imported water. To develop groundwater supplies, OMWD has evaluated local hydrogeologic conditions, water quality constraints, regulatory requirements for developing impaired groundwater sources, and treatment technologies such as reverse osmosis that would be required to produce potable water.

Groundwater basins within OMWD's service area include the San Elijo Valley Groundwater Basin (San Elijo Basin) and the San Dieguito Valley Groundwater Basin (San Dieguito Basin), described below. Both basins are small alluvial systems with limited yield and brackish or impaired water quality. According to DWR's 2020 update of Bulletin 118, both basins are designated as Low Priority and not in overdraft (DWR 2020). Although neither basin currently provides a municipal supply source to OMWD, groundwater projects are being explored to treat and develop groundwater as a local supply source, including through brackish water desalination. OMWD would manage any future groundwater project in these basins to avoid overdraft.

San Elijo Basin

The San Elijo Basin is identified by DWR as Basin 9-23, located within the Carlsbad Hydrologic Unit of the Carlsbad Watershed Management Area, and a portion of the Escondido Creek Hydrologic Subarea (HSA) 904.6. It is bounded to the north and south by semi-permeable marine deposits and to the west by the Pacific Ocean. Surface water features in the San Elijo Basin include Escondido Creek and the San Elijo Lagoon, both of which strongly influence groundwater flows in the basin. Natural recharge to the alluvial aquifer of the San Elijo Basin is primarily from percolation in Escondido Creek, with some recharge from precipitation and underflow from surrounding marine sedimentary units. Underflow contributes to variable mineral content and high levels of salinity and total dissolved solids (TDS) in the groundwater.

In 2017, OMWD completed a Feasibility Study for the San Elijo Valley Groundwater Project that was partially funded through Title XVI by the U.S. Bureau of Reclamation (USBR). The project would withdraw up to 1,600 AFY of brackish groundwater from deep bedrock and alluvial aquifer in the San Elijo Basin. Brackish groundwater would be treated using reverse osmosis to remove salts and minerals, then post-treatment and disinfection would be conducted to meet all state and federal drinking water standards. While the San Elijo Valley Groundwater Project was determined to be potentially feasible, OMWD shifted its focus to technical and environmental studies for San Dieguito Basin as described below.

San Dieguito Basin

The San Dieguito Basin is identified by DWR as Basin 9-12, located within the San Dieguito Hydrologic Unit of the San Dieguito River Watershed Management Area. It is bounded to the west by the Pacific Ocean and elsewhere by non-water-bearing geologic units. Surface water features include three main creeks that drain into the San Dieguito River; the Lusardi Creek, La Zanja Creek, and Gonzales Creek. Natural recharge to the alluvial aquifer of the San Dieguito Basin is primarily from percolation of flow in the San Dieguito River, with additional recharge occurring through percolation of precipitation to the valley floor, underflow beneath Hodges Dam, and underflow through water-bearing units.

OMWD is currently considering the San Dieguito Valley Brackish Groundwater Desalination Project, which would produce up to 1.5 million gallons per day (MGD), or over 1,600 AFY of desalinated groundwater for potable water supply. A dedicated pipeline would deliver the brackish groundwater to a reverse osmosis (RO) desalination plant for water quality treatment, and the treated water would be contributed to OMWD's existing potable water system. Brine from the RO process could be conveyed through a new pipeline to San Elijo Joint Powers Authority (SEJPA) San Elijo Water Campus and associated ocean outfall. Recharge of groundwater with recycled water could also be contemplated as part of this project. While OMWD does not currently operate groundwater production or desalination facilities, it continues to assess groundwater feasibility as part of its broader strategy to enhance local supply reliability and reduce dependence on imported water. Based on the findings to date, OMWD continues to treat this project as a long-term supply opportunity, with ongoing monitoring and feasibility evaluation.

6.2.3 Surface Water

OMWD does not currently use, or plan to use, self-supplied surface water. OMWD does have the rights to 3,449 AF of operational storage of surface water in the SDCWA system. There are two major water courses that traverse OMWD's service area, including Escondido Creek which recharges the San Elijo Basin, and the San Dieguito River which recharges the San Dieguito Basin.

Escondido Creek is a part of the Carlsbad Hydrologic Unit, drains the peninsular mountain ranges east of the Escondido Valley and is controlled by dams at Lake Wohlford and Lake Dixon. It flows through the City of Escondido, Harmony Grove, San Elijo Canyon, and the San Elijo Valley to the San Elijo Lagoon and the Pacific Ocean. Natural runoff is intermittent and is supplemented with urban and agricultural drainage. The runoff supplies riparian vegetation along the creek, recharges the groundwater basin, and any remaining flow discharges into the San Elijo Lagoon. Escondido Creek has not been developed for municipal supplies because of the low yield, water quality, and lack of cost-effective impoundment

projects. The Escondido Creek flow is the largest component of recharge for the groundwater basin and would be critical to the groundwater project described in Section 6.2.2.

The San Dieguito River drains the coastal mountain ranges with elevations in excess of 5,500 feet and is a part of the San Dieguito Hydrologic Unit. Runoff is controlled by the Sutherland Reservoir Dam and the Hodges Reservoir Dam, just upstream of OMWD, both of which are owned and operated for water supply by the City of San Diego. Water impounded at Sutherland Reservoir can be diverted to San Vicente Reservoir in the San Diego River watershed for municipal use. The City of San Diego, Santa Fe Irrigation District, and San Dieguito Water District use Hodges Reservoir for municipal water supply. Hodges Reservoir Dam controls an area of over 300 square miles and spills infrequently. The Hodges-Olivenhain Pumped Storage Project, constructed in 2012 by SDCWA, provides the ability to store 20,000 AF of water in Hodges Reservoir for emergency use. It also allows water to be pumped back and forth between Hodges Reservoir and Olivenhain Reservoir, generating hydroelectric energy. The ability to move water out of Hodges Reservoir allows SDCWA to capture runoff during rain events and further reduces the frequency of small volume spills. In 2023, the State of California, DWR, Division of Safety of Dams, placed limits on the maximum water level in Hodges Reservoir due to seismic concerns with Hodges Reservoir Dam, which the City of San Diego is addressing through structural repairs. The watershed downstream of Hodges Reservoir is relatively small and produces low, intermittent flow in the river and for that reason, has not been developed for municipal supply. San Dieguito River flow is a significant component of recharge for the San Dieguito Groundwater Basin and would be critical to the groundwater project described in Section 6.2.2.

6.2.4 Stormwater

OMWD does not intentionally divert stormwater for beneficial use. OMWD will consider stormwater as a source of recharge for the groundwater supply projects described in Section 6.2.2.

6.2.5 Wastewater and Recycled Water

Recycled water and wastewater management play an important role in supporting supply reliability within OMWD's service area. OMWD has long been a leader in water reuse in San Diego County and has strategically built and expanded its recycled water distribution systems to serve local beneficial uses that are cost-effective. OMWD manages recycled water production and wastewater treatment within portions of its service area through operation of 4S WRF, which treats wastewater to tertiary standards for non-potable reuse. OMWD recycles all wastewater entering its 4S WRF and has developed agreements with VWD, the City of San Diego, Rancho Santa Fe CSD, and SEJPA for additional recycled water supplies. OMWD currently meets approximately 15 percent of its water demands from recycled water. OMWD's goal is to provide 20 percent of its total supply from recycled water.

OMWD's 2024 update of its Potable and Recycled Water Master Plan (OMWD 2024a) highlights continued operation of 4S WRF, expansion of OMWD's non-potable distribution system, and targeted conversion of large landscape irrigation customers as potential opportunities for increasing recycled water use. It also analyzes system interconnections with regional partners, evaluation of future recycled water demands, and strategic infrastructure investments that maximize the use of locally produced tertiary-treated water.

6.2.5.1 Recycled Water Coordination

The production and distribution of recycled water within OMWD's service area is accomplished through cooperative interagency agreements between OMWD, City of San Diego, City of Carlsbad, Rancho Santa Fe CSD, VWD, and SEJPA. OMWD developed its recycled water systems in coordination with these participating agencies with the result of developing recycled water use programs that have a regional benefit and assist other agencies with meeting their water reclamation goals.

OMWD has taken a cooperative, regional approach in expanding the availability of recycled water to its customers by partnering with other agencies through the NSDWRC. The NSDWRC is a cooperative effort of nine northern San Diego County water and wastewater agencies collaborating on a plan to connect the region's infrastructure to maximize the reach of recycled water across jurisdictional boundaries. By working together, these agencies are demonstrating a commitment to provide a reliable, drought-resilient source of water for the region and reduce discharge of wastewater to the ocean. This cooperative, inter-agency effort also illustrates an integrated water management commitment that is a cost-effective, environmentally responsible approach to water supply planning.

The NSDWRC agencies developed the Regional Recycled Water Program, a multiagency effort to expand and interconnect recycled water systems across North San Diego County, increasing the capacity and connectivity of the recycled water storage and distribution systems of coalition members, and maximizing reuse of available wastewater supplies. To do this, the program would replace potable water uses with recycled water components, convert facilities to recycled water service, connect discreet recycled water systems to one another, increase recycled water storage capacity, distribute recycled water to effectively meet recycled water demands, and implement advanced water treatment to produce potable reuse water within the project area. As assessed in its 2025 Regional Recycled Water Feasibility Study (NSDWRC 2025), it is aimed at matching supplies with demands without regard to jurisdictional boundaries, optimizing cost-effective use of recycled water, and enhancing supply reliability throughout the region.

6.2.5.2 Wastewater Collection, Treatment, and Disposal

This section summarizes the collection and treatment of wastewater generated within OMWD's service area.

Wastewater Collected within the Service Area

Table 6-1, below, identifies the wastewater collection agencies within OMWD's service area. These agencies collect and treat wastewater from their respective service areas to advanced primary, secondary, or tertiary levels depending upon permit requirements and disposal methods.

Table 6-1 Wastewater Collection Agencies within OMWD Service Area

Agency	Facility	Description
OMWD	4S WRF	100% recycled for beneficial reuse in the Southeast Quadrant
Leucadia Wastewater District	Sent to Encina WPCF; Gafner WRF for tertiary (located in Carlsbad)	No recycled water distributed within OMWD service area
City of Encinitas	Sent to San Elijo Water Campus or Encina WPCF	Portion of recycled water supply for the Northwest Quadrant
City of San Diego	Sent to Pt Loma WWTP; some flow diverted at North City Water Reclamation Plant for tertiary	Portion of recycled water supply for the Southeast Quadrant
City of Solana Beach	Sent to San Elijo Water Campus	Portion of supply for the Northwest Quadrant
Rancho Santa Fe CSD	Rancho Santa Fe WRF Santa Fe Valley WRF	Percolation pond; 100% recycled for beneficial reuse in the Southeast Quadrant
Whispering Palms CSD	Whispering Palms WRF	Percolation pond
Fairbanks Ranch CSD	Fairbanks Ranch WPCF	Percolation pond

CSD = Community Services District; OMWD = Olivenhain Municipal Water District; WRF = Water Reclamation Facility

Note: Wastewater collected by the Cities of Encinitas, San Diego, and Solana Beach is treated outside of OMWD's boundaries and a portion is provided back to OMWD as recycled water.

The agencies identified above were contacted to collect data on either wastewater flow rates or the number of equivalent dwelling units (EDUs) served. Where data is provided with EDUs, typical unit flows in gallons per EDU per day were applied to estimate wastewater flows from customers within OMWD's service area.

Table 6-2, below, presents wastewater collection data for OMWD's service area in 2025.

Table 6-2 Wastewater Collected within Service Area in 2025 (AFY)

Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2025	Name of Wastewater Treatment Plant (WWTP) and Place ID Number	Is WWTP Located Within UWMP Area?
Encinitas – Cardiff	Estimated	532	San Elijo Water Campus 9 000000125	No
Encinitas – Encinitas	Estimated	101	Encina WPCF 9 000000030	No
Fairbanks Ranch CSD	Estimated	42	Fairbanks Ranch WPCF 9 000000257	No
Leucadia Wastewater District	Estimated	2,340	Encina WPCF 9 000000030	No
OMWD	Metered	1,403	4S WRF 9 000000371	Yes
Rancho Santa Fe CSD	Estimated	184	Santa Fe Valley WRF 9 000000899	Yes
Rancho Santa Fe CSD	Estimated	151	Rancho Santa Fe WRF 9 000000177	Yes
City of San Diego	Estimated	110	Point Loma WWTP 9 000000275	No
City of Solana Beach	Estimated	25	San Elijo Water Campus 9 000000125	No
Whispering Palms CSD	Estimated	290	Whispering Palms WRF 9 000000157	Yes
Total Wastewater Received from UWMP Service Area in 2025:		**5,178**		

AFY = acre-feet per year; CSD = Community Services District; JPA = Joint Powers Authority; MWD = Municipal Water District; OMWD = Olivenhain Municipal Water District; WA = Wastewater Authority; WRF = Water Reclamation Facility; WPCF = Water Pollution Control Facility; WWTP = Wastewater Treatment Plan

Wastewater Treatment and Discharge Within the Service Area

There are four wastewater treatment plants within OMWD's service area: OMWD's 4S WRF, Rancho Santa Fe CSD's Rancho Santa Fe WRF and Santa Fe Valley WRF, and Whispering Palms CSD's Whispering Palms WRF. All effluent from the 4SWRF and the Santa Fe Valley WRF is recycled within OMWD's service area for beneficial use, while effluent from the Rancho Santa Fe WRF and Whispering Palms WRF discharges to percolation ponds. Four additional wastewater treatment plants are located directly outside of OMWD's service area, including: VWD's Meadowlark WRF (to the northeast), Leucadia Wastewater District's Gafner WRF (to the northwest), SEJPA's San Elijo Water Campus (to the west), and Fairbanks Ranch CSD's Fairbanks Ranch WPCF (to the south). Table 6-3 , on the following page, presents an overview of data from the wastewater treatment plants within OMWD's service area.

Table 6-3 Wastewater Treatment and Outcomes within UWMP Service Area in 2025 (AFY)

Wastewater Treatment Plant Name	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area?	2025 Volume of Wastewater Received from UWMP Service Area	Total 2025 Volume of Water Treated	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area		Water Recycled Outside of UWMP Service Area		Effluent Discharge that is not a Permitted Recycled Water Use		Required Discharge for Instream Flow		Delivered to Another Entity for Additional Treatment		
				Treatment Level	Volume	Treatment Level	Volume	Treatment Level	Volume	Treatment Level	Volume	Treatment Level	Volume	Name of Other Entity
4S WRF	no	1,403	1,468	Tertiary	1,468	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Santa Fe Valley WRF	no	184	212	Tertiary	212	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Rancho Santa Fe WRF	yes	151	336	N/A	0	N/A	0	Secondary, Disinfected	336	N/A	0	N/A	0	N/A
Whispering Palms WRF	no	290	290	N/A	0	N/A	0	Secondary, Disinfected	290	N/A	0	N/A	0	N/A
Total		**2,028**	**2,093**	**-**	**1,680**	**-**	**0**	**-**	**626**	**-**	**0**	**-**	**0**	**-**

WRF = Water Reclamation Facility.

6.2.5.3 Recycled Water System

OMWD's recycled water system is organized into two hydraulically distinct service areas—the Northwest Quadrant and the Southeast Quadrant—based on topography, pressure zones, and the locations of recycled water supply sources. The two quadrants remain separate due to hydraulic grade differences, supply source locations, and water quality management requirements, but together they support OMWD's strategy to reduce potable water demand and expand local, drought-resilient supplies.

Northwest Quadrant Recycled Water Distribution System

The Northwest Quadrant is supplied through interconnections with regional partners—SEJPA, VWD, and City of Carlsbad—and serves customers in the coastal portion of OMWD's service area. Key infrastructure in this quadrant includes transmission pipelines, pressure-reducing stations, and distribution laterals that deliver tertiary-treated water for landscape irrigation at schools, parks, and homeowner association properties. In 2025, recycled water for irrigation uses in the Northwest Quadrant was provided by VWD (approximately 398 AF) and SEJPA (approximately 298 AF).

Recycled water became available in this area through the Northwest Quadrant Recycled Water Pipelines Project, which conveys recycled water from VWD's Mahr Reservoir. OMWD's 2024 Potable and Recycled Water Master Plan Update describes that OMWD's backbone recycled water distribution system was planned and constructed to prioritize customers with the largest demands and with logical sources of supply, which allows the maximum amount of water to be delivered for the lowest cost, and OMWD continues to expand its recycled water distribution systems with the same approach.

OMWD does not currently have the facilities to serve the Northwest Quadrant with recycled water from the 4S WRF. OMWD staff has identified irrigation customers not located along existing recycled water pipelines and organized them into logical potential pipeline extension projects. OMWD also installed or required developers to install pipelines in the Northwest Quadrant that eventually became dedicated recycled water services.

Recycled water supplied by SEJPA is conveyed from multiple locations, including a connection on Leucadia Boulevard via 8-inch pipeline to support irrigation needs for customers along Leucadia Boulevard, Calle Barcelona, El Camino Real, and the Encinitas Ranch Town Center in tandem with recycled water provided by VWD. An additional connection with SEJPA was completed in 2023 near the MiraCosta College San Elijo Campus on Manchester Avenue and South El Camino Real via a 6-inch pipeline to reach customers along the South El Camino Real corridor. SEJPA's Oakcrest Reservoir north also connects to OMWD's Wiegand Reservoir through a 12-inch pipeline. From Wiegand, the water is conveyed easterly through a 12-inch pipeline to a pump station just west of El Camino Real and then pumped through 12-inch and smaller pipelines to customers in the Village Park community within the City of Encinitas, to irrigate turf and plants in the common use areas of numerous homeowners' associations (HOAs). The Village Park Recycled Water Project Phase I distributes an average of 124 AFY of recycled water to the Village Park community. Pipeline extensions constructed in Encinitas in 2024 allow additional HOAs to convert to recycled water for irrigation of their properties, including pipeline extensions around Park Dale Lane and Gatepost Road off Village Park Way.

Southeast Quadrant Recycled Water Distribution System

The Southeast Quadrant is supplied by OMWD's 4S WRF, which produces tertiary-treated recycled water for non-potable use within the 4S Ranch and surrounding communities. Major facilities in the Southeast Quadrant include the 4S WRF, recycled water storage tanks, pump stations, and a dedicated distribution system. In 2025, the 4S WRF collected, treated, and distributed approximately 1,530 AF of recycled water.

In 1998, OMWD assumed responsibility for sewage collection, treatment, and disposal services for 5,300 acres encompassing 4S Ranch, Rancho Cielo, and a portion of the unincorporated San Diego County. These areas contain single family dwelling units in addition to a variety of other commercial and public uses. OMWD also provides sewer service to several areas outside OMWD's water service area

boundaries, including Santa Luz North Affordable Housing (10 acres), Black Mountain Ranch East Clusters (50 acres), the Heritage Bluffs Development (160 acres), and Avion (41.5 acres) within the City of San Diego, all of which have been annexed to OMWD's sewer service area.

Through an extensive sewage collection system and sewage pumping stations, 4S WRF treats all wastewater received and produces high-quality effluent for non-potable irrigation uses such as golf courses, parks, schools, and greenbelts within developed areas. 4S WRF has a design capacity of 2.0 million gallons per day (MGD) to provide sewer collection and Title 22 tertiary-level treatment services. Recycled water system facilities include a 3.0-million-gallon (MG) recycled water blending reservoir, a 410-AF recycled water storage pond, several pump stations, a 1.0-MG recycled water tank, and over five miles of recycled water pipeline ranging in size from eight inches to 20 inches.

In addition to producing recycled water at 4S WRF, OMWD also purchases recycled water from neighboring agencies. These include the City of San Diego's North City Reclamation Plant (355 AF in 2025) and the Rancho Santa Fe CSD's Rancho Santa Fe WRF (263 AF in 2025).

6.2.5.4 Potential, Current, and Projected Recycled Water Uses

Current and Planned Uses of Recycled Water

Recycled water uses in the Southeast and Northwest Quadrants are almost entirely for landscape and golf course irrigation. There are no current or planned commercial or industrial uses. Indirect potable reuse (groundwater recharge), surface water augmentation, and direct potable reuse will be considered in the future as regulations evolve.

The Southeast Quadrant is supplied by the 4S WRF as well as Rancho Santa Fe CSD's Rancho Santa Fe WRF and the City of San Diego Connection Numbers 1 and 2. The supplies are mixed within the system and delivered for irrigation uses, but it is not possible to determine which source provides which use. The Northwest Quadrant service area does not have large golf courses; VWD and SEJPA supplies are entirely used for landscape irrigation except for a nine-hole golf course in Encinitas.

Planned recycled water system expansion is focused on serving the greatest demand per unit of investment. Staff have organized potential recycled water customers into logical clusters and associated pipeline extensions. Three of the most viable projects are 1) Garden View Road Recycled Extension in the Northwest Quadrant (Quail Gardens Zone), served by the SEJPA Leucadia Blvd connection, 2) Willowspring South Drive Recycled Extension in the Northwest Quadrant (Village Park Zone), served by SEJPA via the Wiegand Tank, and 3) Four Gee Road Recycled Extension in the Southeast Quadrant, served by the 4S WRF and other existing sources (OMWD 2024a).

Table 6-4, on the following page, presents beneficial uses of recycled water within OMWD's service area.

Table 6-4 Recycled Water Direct Beneficial Uses Within Service Area

Name(s) of Facility/ies Producing (Treating) the Recycled Water:			**OMWD, VWD, SD, SEJPA, Rancho Santa Fe CSD**						
Name of Supplier Operating the Recycled Water Distribution System:			**Olivenhain Municipal Water District**						
Supplemental Water Added in 2025 (volume) Include units:			**0**						
Source of 2025 Supplemental Water:			**N/A**						
Use Type	**Water Type (after treatment if treated)**	**Additional Information**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	**Potential Recycled Water Use Volume**
Landscape irrigation	Tertiary	HOA and CII irrigation	2,501	2,079	2,089	2,394	2,399	2,404	2,404
Golf irrigation	Tertiary	Golf course irrigation	500	410	410	810	810	810	810
Total			**3,001**	**2,489**	**2,499**	**3,204**	**3,209**	**3,214**	**3,214**

Planned Versus Actual Use of Recycled Water

Table 6-5, below, provides a comparison between the volume of recycled water that was planned for use in 2025 (based on OMWD's 2020 UWMP) and the volume of recycled water that was actually delivered in 2025. The water year contributing to the actual usage for 2025 was considered dry.

Table 6-5 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual (AFY)

Use Type	2020 Projection for 2025	2025 Actual Use
Landscape irrigation (excludes golf courses)	1,855	2,501
Golf course irrigation	838	500
Total	**2,693**	**3,001**

AFY = acre-feet per year

6.2.5.5 Actions to Encourage and Optimize Future Recycled Water Use

Mandatory Use and Financial Incentives

California's Water Recycling Law (CWC Section 13500 et seq.) establishes a policy to encourage the use of recycled water and provides that the use of potable domestic water for the irrigation of green belt areas, cemeteries, golf courses, parks, and highway landscaped areas constitutes an unreasonable use of water where recycled water is available for such uses, as further set forth by statute. Among other provisions, CWC Sections 71610 and 71611 authorize OMWD to provide and sell recycled water within OMWD's service area. OMWD's Board of Directors has adopted policies to encourage and mandate the development of recycled water and non-potable water within OMWD's service area.

OMWD adopted Ordinance 492 in September 2021, updating OMWD's Administrative & Ethics Code Article 25, which was established by Ordinance 173 in 1988 to govern the use of recycled and non-potable water. Ordinance 492 amended and updated Article 25 to modernize the earlier framework for recycled and non-potable water use, which originally mandated the use of recycled water where available. Ordinance 492 superseded earlier provisions of Article 25 to align the recycled water requirements with current state regulations, including updated definitions, responsibilities, and compliance expectations. OMWD's Ordinance 492 is included in Appendix C. Conditions of the ordinance are incorporated into detailed "conditions of service" agreements that OMWD provides to all new customers.

OMWD's water rates for irrigation customers are set in two tiers with a Tier 1 allotment based upon water use by meter size. The cost of recycled water is approximately 65 percent of the Tier 1 cost of treated water used for irrigation and 58 percent of the Tier 2 cost (OMWD 2026). Customers pay reduced capacity fees for recycled water compared to potable water, because SDCWA does not deliver recycled water and recycled water customers therefore do not have to pay SDCWA capacity fees.

For developments constructed in OMWD's service area before Ordinances 492 and 173, the financial means to retrofit systems for recycled water may not be readily available. Therefore, OMWD's Board of Directors established the Recycled Water Loan Program, which provides the initial capital to start the retrofit project and requires the funds to be paid back to OMWD within seven years. Customers continue to pay the potable cost for water and the difference between the recycled rate and potable rate is used to pay off the loan.

There are some irrigation customers within OMWD's service area that are either too distant from recycled water sources, or whose demands are too small for an extension of the recycled water distribution system to be currently affordable. OMWD will continue to seek private, state, and federal funding for these opportunities.

Regional Recycled Initiatives

In addition to OMWD's efforts, agencies throughout San Diego County are pursuing water recycling planning and construction. OMWD is coordinating its recycled water system expansion with the NSDWRC and has received grant funding from USBR and from DWR via SDCWA. Additional information on area wide recycling planning is set forth in SDCWA's UWMP.

OMWD Recycled Water Projects

Building on its existing recycled water projects, OMWD has identified potential projects to further expand recycled water use and reduce potable water use in its service area in the most cost-effective locations, if funding is secured. OMWD proposed seven components of the NSDWRC Regional Recycled Water Program introduced in Section 6.2.5.1, including extension of recycled water to Surf Cup Sports Park in San Diego, Rancho Paseana horse ranch in Rancho Santa Fe, as well as Manchester Avenue, South El Camino Real, and multiple HOAs in Village Park in City of Encinitas.

Potential recycled water projects include the following:

- SEJPA extension to Gardenview Road and Willowspring South Drive – 54 AFY in 2035
- 4S WRF extension to Four Gee Road – 14 AFY in 2035
- City of San Diego NCWRP extension 153 – 300 AFY in 2040
- SEJPA joint transmission with SFID to Bridges – 400 AFY in 2040
- 4S WRF extension to Rancho Cielo (Phase 1 and Phase 2) – 100 AFY in 2040

Table 6-6 on the following page presents an overview of methods to encourage future recycled water use and the expected increase in recycled water from implementation.

Table 6-6 Methods to Encourage Future Recycled Water Use

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Mandatory Use Financial Incentives Regional Incentives	California's Recycling Law (CWC Section 13500 et seq.); Ordinances 492 and 173; Reduced capacity fees and commodity rates; Metropolitan and SDCWA programs and grant funding	In progress	Not quantifiable
SEJPA extension to Garden View Road and Willowspring South Drive	Pipelines, site conversions, common area and landscape irrigation	2030	54 AFY
4S WRF extension to Four Gee Road	Pipelines, site conversions, common area and landscape irrigation	2030	14 AFY
City of San Diego connection, Extension 153 Phase II	Pipelines, site conversions, common area and landscape irrigation	2040	300 AFY
SEJPA joint transmission with SFID, Bridges Golf Club and HOA	Joint pump station, pipeline, and steel tank project, golf course, common area, and landscape irrigation	2040	400 AFY
4S WRF extension to Rancho Cielo Phase I	Pipeline extension, site conversions, common area and landscape irrigation. Via Ambiente median and Village Center	2040	30 AFY
4S WRF extension to Rancho Cielo Phase II	Pipeline extension, site conversions, common area and landscape irrigation. Higher elevations	2040	70 AFY
Total			**868 AFY**

Potable Reuse

The wastewater flows and treatment facilities at two coastal treatment plants in northern San Diego County represent a unique opportunity for large-scale production of purified water, including the Encina Water Pollution Control Facility (EWPCF) owned and operated by Encina Wastewater Authority (EWA), and the San Elijo Water Campus owned and operated by SEJPA. In 2018, the two agencies partnered on a feasibility study to explore potable reuse alternatives for the area.

The EWPCF in the City of Carlsbad could accommodate an advanced water purification facility with capacity to produce an estimated 17,800 AFY to 22,200 AFY or more of purified water. EWPCF Secondary Improvements were detailed in EWA's 2018 Water Reuse Feasibility Study, which was updated in 2025 by EWA's Potable Reuse Strategic Plan (EWA 2025). Pilot work has been ongoing at the EWPCF to determine the best available technologies and practices for future treatment enhancements. Through this planning effort, EWA and its partners have developed a funding strategy, completed partners and stakeholder outreach efforts, developed a regulatory strategy, refined the needs and approach to EWPCF improvements, and updated cost estimates.

The San Elijo Water Campus in the Cardiff area of Encinitas could also accommodate an advanced water purification facility that could have capacity to produce an estimated 400 AFY to 3,100 AFY of purified water (SEJPA 2025). EWA and SEJPA have been working with multiple local water agencies to consider development of potable reuse through the North County One Water program, building on more than a decade of collaborative efforts in the region by the NSDWRC. With combined flows between the EWPCF and San Elijo Water Campus, an estimated 18,000 AFY to 25,000 AFY or more of purified water could be provided for potable reuse.

While no lead agency has yet been identified for the North County One Water program, OMWD is supportive of this concept and has expressed interest in purchasing up to 2,500 AFY of purified water for future irrigation customers, other uses, or to replace existing supplies.

6.2.6 Desalinated Water

As described in Section 6.2.2, OMWD is currently studying a project to produce 1,600 AFY (1.5 MGD) of desalinated groundwater for potable water supply. The source supply would consist of brackish groundwater produced from wells in the San Dieguito Basin. A dedicated pipeline would convey the brackish groundwater to a RO desalination treatment plant, and the treated water would be delivered into OMWD's existing potable water system. Brine from the RO membranes could be conveyed through a new pipeline to SEJPA's San Elijo Water Campus or directly to its ocean outfall.

OMWD is currently focused on brackish groundwater desalination, but seawater desalination is also available. The Claude "Bud" Lewis Carlsbad Desalination Plant started deliveries to SDCWA in December 2015 and provides up to 56,000 AFY and approximately eight percent of the county's supply. OMWD has supported this regional effort to develop a desalination facility and, as a member agency of SDCWA, can access this supply and benefits from the reliability it provides.

6.2.7 Exchanges and Transfers

OMWD has no existing or planned transfers. OMWD does not remove water from surface storage or a water bank.

Exchanges

OMWD has no existing or planned exchanges. Both SDCWA and Metropolitan are actively engaged in exchanges and transfers designed to increase the storage of wet year surplus water for use in dry years, as well as to directly supplement supplies during dry years. Additional information regarding the exchange and transfer activities of SDCWA and Metropolitan are set forth in their respective 2025 UWMPs.

In the future, there may be the possibility of purchasing water from other wholesalers. Currently, Metropolitan owns the infrastructure that delivers water to SDCWA who wholesales the water to local water retail agencies. The costs of maintaining the infrastructure are a large factor in the cost of water and therefore wheeling charges are significant.

As a member agency of SDCWA, which in turn is a member agency of Metropolitan, OMWD shares its imported water supply with all of the Southern California south coastal plain, using only what it needs when it needs it. OMWD does not currently control any water resources or major storage facilities of its own and therefore is generally not positioned to engage in significant exchanges and transfers.

OMWD has an agreement with VWD, immediately adjacent to the north, for the sale of treated water services. However, OMWD notifies SDCWA of the amount of water sold to VWD and SDCWA charges them for the raw water costs, and so this is not considered an "exchange." The agreement was executed in 2012 and the first deliveries were in September 2015. The agreement expires at the end of 2031 and the minimum volume is 2,750 AFY.

Emergency Interties

Emergency interties are described in Section 7.4.

6.2.8 Future Water Projects

To properly factor its member agency plans for local water supply development into its overall water supply planning, SDCWA uses the following terminology relative to future projects:

- Verifiable: CEQA satisfied, permits are in hand, or contracts have been executed.
- Additional Planned: Actively pursuing, feasibility studies completed, continue to fund advanced planning efforts.
- Conceptual: Project concepts, in pre-planning and pre-feasibility analysis phase.

Table 6-7 on the following page presents an overview of future water supply projects identified as "Verifiable" or "Additional Planned" projects. OMWD's conceptual future water projects include the North County One Water Program described in Section 6.2.5.5.

Table 6-7 Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description	Water Type (after treatment if treated)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier
	Yes/No	If Yes, Supplier Name					
Various recycled water projects	Yes	San Elijo JPA, City of San Diego, VWD	Recycled water for irrigation to replace use of potable water	Tertiary	2030-2045	Normal Year Dry Year	868 AFY
San Dieguito Valley Brackish Groundwater Project	No	N/A	Brackish groundwater recovery and treatment	Potable	2035	Normal Year Dry Year	1,600 AFY

AFY = acre-feet per year; JPA = Joint Powers Authority; VWD = Vallecitos Water District

6.2.9 Summary of Existing and Planned Sources of Water

Table 6-8, below, provides OMWD's actual source and volume of water for FY 2025. Table 6-9, on the following page, provides OMWD's projected source and volume of water that is reasonably available. OMWD will continue to produce and deliver recycled water for non-potable irrigation users throughout its service area. In addition, by 2035, a new OMWD-led local supply project will potentially be online to desalinate brackish groundwater and blend it into the potable water distribution system. All remaining potable demands will continue to be met with water purchased from its wholesaler, SDCWA.

Table 6-8 Water Supplies - 2025 Actual (AFY)

		2025	
Water Supply Source	**Additional Description**	**Water Type**	**Actual Volume**
Purchased or Imported Water	San Diego County Water Authority	Potable	17,946
Recycled Water	Recycled water from OMWD's 4S WRF and multiple sources	Tertiary	3,001
Subtotal Potable			17,946
Subtotal Non-Potable			3,001
Total			**20,947**

AFY = acre-feet per year

Table 6-9 Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Water Type	Projected Water Supply (AFY)									
			2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume	Total Entitlement	Reasonably Available Volume	Total Entitlement	Reasonably Available Volume	Total Entitlement	Reasonably Available Volume	Total Entitlement	Reasonably Available Volume	Total Entitlement
Purchased or Imported Water	San Diego County Water Authority	Potable	16,761	Not Applicable	15,081	Not Applicable	13,856	Not Applicable	13,371	Not Applicable	12,866	Not Applicable
Desalinated Water - Groundwater	Recovered from San Dieguito Groundwater Basin	Potable	0	Not Applicable	1,600	Not Applicable	1,600	Not Applicable	1,600	Not Applicable	1,600	Not Applicable
Recycled Water	Recycled water from OMWD's 4S WRF and multiple sources	Tertiary	2,489	Not Applicable	2,499	Not Applicable	3,204	Not Applicable	3,209	Not Applicable	3,214	Not Applicable
Subtotal Potable			16,761		16,681		15,456		14,971		14,466	
Subtotal Non-Potable			2,489		2,499		3,204		3,209		3,214	
Total			**19,250**		**19,180**		**18,660**		**18,180**		**17,680**	

AFY = acre-feet per year

6.3 Climate Change and Imported Water Supply Reliability

OMWD relies on SDCWA for 100 percent of its potable water supply. SDCWA has evaluated the impacts of climate change on its regional water supply portfolio. This section reflects updated scientific consensus, recent hydrologic conditions, and regional planning assumptions from SDCWA's 2025 UWMP. The main water supply sources for Metropolitan and SDCWA are the SWP, which diverts water through the Delta, and the Colorado River. Metropolitan is an active participant in the Delta Conveyance Project planning and permitting processes, as well as the Colorado River management programs. Both agencies consider regulatory and climate change conditions in their water supply planning.

Climate change refers to long-term shifts in temperature, precipitation patterns, and extreme weather conditions that directly affect water supply availability, timing, quality, and infrastructure reliability. Unlike earlier planning assumptions that characterized climate impacts as gradual and incremental, recent observations demonstrate that climate change is already producing abrupt hydrologic extremes, including multi-year droughts, record-breaking precipitation years, and sustained warming trends. These effects are now expected to intensify through mid-century and beyond, requiring proactive and adaptive water supply planning at both the regional and local levels.

Increasing atmospheric greenhouse gas concentrations are driving an increase in air and water temperatures, altering runoff timing, reducing snowpack storage, intensifying droughts, and increasing flood risk. While uncertainty remains regarding the precise magnitude and timing of future impacts, the direction of change and associated risks to imported water supplies are now well established. The primary climate-driven risk factors affecting OMWD's imported water supply reliability include the following, each of which are addressed in the sections below:

- Loss of Sierra Nevada snowpack and shifts in runoff patterns
- Sea level rise and Delta vulnerability
- Changes in precipitation, runoff efficiency, and evapotranspiration
- Imported water supply risks – State Water Project
- Imported water supply risks – Colorado River
- Regional climate resilience planning and local supply diversification

Loss of Sierra Nevada Snowpack and Runoff Shifts

Rising temperatures are causing a larger fraction of precipitation in the Sierra Nevada mountains to fall as rain rather than snow, reducing snowpack accumulation and accelerating spring runoff. The Sierra Nevada snowpack historically functioned as California's largest natural reservoir, releasing water gradually through late spring and summer to support deliveries through the SWP. Climate projections now indicate continued and substantial long-term declines in average snowpack, with more winter runoff occurring during periods when reservoir storage is constrained by flood control requirements. This shift reduces the effectiveness of traditional surface storage and increases year-to-year water supply volatility for agencies dependent on imported water supplies.

For Metropolitan (and therefore SDCWA and OMWD) and other agencies that receive imported supplies from the SWP, hydrologic changes translate into greater year-to-year allocation volatility. In years with warm, intense winter storms, large runoff volumes may be lost downstream because reservoirs cannot store them. In dry or warm years with minimal snowpack that produce very low spring and summer inflows, SWP allocations may be reduced even when reservoirs have available storage capacity. This means that imported water reliability is increasingly sensitive to climate-driven hydrologic variability. Even in years with above average precipitation, early season runoff may not translate into higher SWP

deliveries if it arrives when flood control rules force releases. Conversely, years with below average snowpack can result in sharply reduced allocations.

Sea Level Rise and Delta Vulnerability

Sea level rise poses a growing risk to water supply reliability by increasing salinity intrusion, levee instability, and infrastructure vulnerability within the Delta, which serves as the hub of SWP water conveyance. Higher sea levels, combined with seismic risk and extreme storm events, increase the probability of levee failure and operational disruptions. These conditions heighten the risk of short- and long-term interruptions to SWP deliveries that ultimately supply San Diego County through Metropolitan's conveyance systems. Increased upstream freshwater releases may be required to repel salinity intrusion, further stressing reservoir storage during dry periods.

Changes in Precipitation, Runoff Efficiency, and Evapotranspiration

Climate change is increasing hydrologic variability, with a rising frequency of both extreme wet years and prolonged dry periods. While total annual precipitation may not decline uniformly, runoff efficiency is expected to decrease due to higher evapotranspiration rates driven by warming temperatures. This reduces the proportion of precipitation that becomes usable surface water supply. These effects influence both SWP and Colorado River supplies, which have already experienced sustained declines in storage and long-term reductions in average inflows.

Imported Water Supply Risks – State Water Project

The 2025 SWP Delivery Capability Report and the 2025 SWP Adaptation Strategy show that warming temperatures are shifting precipitation from snow to rain, generating larger winter inflows but lower spring and summer runoff, when water is typically needed most for export and storage (DWR 2025). Modeling of future climate conditions indicates that long-term average SWP Table A deliveries could decline from historic levels of approximately 55 percent to approximately 41 percent of contract amounts by 2043, with even deeper reductions during multi-year droughts. These trends suggest reduced operational flexibility and lower overall reliability of SWP supplies for Metropolitan's service area, increasing dependence on local resources, conservation, and storage programs to stabilize supplies for agencies like OMWD (DWR 2025).

Imported Water Supply Risks – Colorado River

Warming temperatures and altered precipitation patterns are intensifying the frequency, duration, and severity of drought across the western United States. The Colorado River Basin is currently experiencing a long-term structural deficit driven by climate change and over-allocation, resulting in historically low reservoir storage and mandatory water delivery reductions for the Lower Basin states, including California, Nevada, and Arizona. Climate-driven pressures on the Colorado River also pose challenges to long-term regional reliability. Despite temporary improvements from the 2023–2024 wet season, hydrologic conditions across the Lower Basin continue to deteriorate due to persistent aridification, declining snowpack, and elevated temperatures that reduce runoff efficiency. The 2023 Lower Basin Voluntary Conservation Agreement committed California, Arizona, and Nevada to reducing their use of Colorado River water by 3 MAF through 2026, and Metropolitan has taken on a significant portion of these reductions to protect reservoir elevations in Lakes Mead and Powell. USBR forecasts warn that, without substantial long-term cuts, reservoir levels could again approach shortage thresholds later this decade (USBR 2025).

Regional Climate Resilience Planning and Local Supply Diversification

To address climate-related risks, SDCWA continues to implement a diversified supply portfolio that includes imported water, seawater desalination, local surface water, recycled water, groundwater storage, conservation, and emergency intertie capacity. This portfolio-based approach is designed to enhance

long-term reliability under increasing climate uncertainty. OMWD's reliance on SDCWA supplies, combined with regional supply diversification and long-term storage programs, provides resilience against individual supply source disruptions. However, climate change remains a defining risk factor shaping future water availability and operational planning.

6.4 Energy Use

The following sections summarize energy use for OMWD's and SDCWA's water systems.

6.4.1 Olivenhain Municipal Water District

Potable Water

OMWD purchases both untreated and treated water from SDCWA. These supplies are not within OMWD's operational control and therefore have not been included in the tables below. However, a summary of the SDCWA energy intensity calculations is provided in the following section. The complete discussion can be found in the SDCWA 2025 UWMP, Appendix I, Energy Intensity Calculations. SDCWA treated water is delivered directly to the distribution system with no storage or energy consumption required from OMWD. SDCWA untreated water is delivered directly to the David C. McCollom Water Treatment Plant (DCMWTP) with no storage or energy consumption required from OMWD. After treatment, the water is delivered directly to the distribution system. OMWD does not have an active raw water distribution system.

Table 6-10 on the following page presents the volume of water entering OMWD's system as the sum of untreated water and treated water delivered by SDCWA. The volume of water for Distribution includes losses through the treatment processes. Treatment energy consumption is the net of energy consumption and hydropower production at the DCMWTP. Distribution energy consumption is the net of energy consumption and the Roger Miller Hydroelectric plant production. OMWD does not have non-consequential hydropower.

Wastewater

OMWD has two wastewater collection systems under its operational control, Rancho Cielo and 4S Ranch. All flows are conveyed to the 4S WRF, owned and operated by OMWD, for secondary and tertiary treatment. Table 6-2 and Table 6-3, presented previously in Section 6.2.5.2, quantifies the volume of wastewater for collection/conveyance and treatment at the 4S WRF, while the discharge/distribution data reflects losses in the treatment process. Table 6-10 and Table 6-11, on the following pages, present the costs associated with conveyance and treatment. All WRF effluent is recycled; therefore, there is no energy consumption associated with discharge/distribution of wastewater. The treatment energy accounts for all processes through secondary treatment.

Recycled Water

Table 6-11 shows that there is no energy consumed for recycled water Conveyance/Collection as it just moves a short distance from the secondary to tertiary processes. The energy consumed for treatment to recycled water standards is for tertiary treatment, filtration, and disinfection. The energy consumed for Discharge/Distribution is for pumping.

Table 6-10 Recommended Energy Reporting - Single Delivery Product - Water Supply Process Approach, 2025

Water Delivery Product	Potable and Non-potable	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control							
Start Date of Reporting Period	June 1, 2024								
End Date of Reporting Period	July 31, 2025								
Is upstream embedded energy included in the values reported?	No	Water Management Process						Non-Consequential Hydropower (if applicable)	
	Units for Water Volume	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process	AFY	17,946	0	0	13,926	17,917	17,917	0	0
	MG	5,848	0	0	4,538	5,838	5,838	0	0
Energy Consumed (kWh)	kWh	0	0	0	1,592,700	1,610,006	3,202,706	0	0
Energy Intensity (kWh/MG)	kWh/MG	0	0	0	351	276	549	0	0
Quantity of Self-Generated Renewable Energy									
0 kWh									

FY = fiscal year; kWh = kilowatt hours

Table 6-11 Recommended Energy Reporting - Wastewater and Recycled Water, 2025

Start Date of Reporting Period	June 1, 2024	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control			
End Date of Reporting Period	July 31, 2025				
Is upstream embedded energy in the values reported?	No	Water Management Process			
Units of Measure for Water: acre-feet (AF)		Collection / Conveyance	Treatment	Discharge / Distribution	Total
Volume of Wastewater Entering Process (AF)		1,443	1,443	--	1,443 AF
Wastewater Energy Consumed (kWh)		815,622	2,189,075	--	3,004,697 kWh
Wastewater Energy Intensity (kWh/MG)		565	1,517	--	6,390 kWh/MG
Volume of Recycled Water Entering Process (AF)		--	--	1,530	1,530 AF
Recycled Water Energy Consumed (kWh)		--	--	556,046	556,046 kWh
Recycled Water Energy Intensity (kWh/MG)		--	--	1,115	1,115 kWh/MG
Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations					
0 kWh					

FY = fiscal year; kWh = kilowatt hours

6.4.2 San Diego County Water Authority

SDCWA provides wholesale water supply to 22 member agencies, including OMWD. SDCWA imports approximately 90 percent of the potable water used in San Diego County and operates and maintains the aqueduct delivery system, which consists of approximately 310 miles of large-diameter pipelines. The aqueduct system is primarily gravity flow and the majority of SDCWA's energy use is for treating, conveying, and storing the water.

Energy expended by SDCWA includes conveying raw water supplies to water treatment plants or member agency connections, treating water, and distributing treated water. It also includes consequential energy generation which is produced concurrent with water deliveries and nonconsequential energy generation that is not directly associated with water deliveries. The SDCWA 2025 UWMP, Appendix I, includes SDCWA's energy intensity calculations. Energy intensity does not include the Carlsbad Desalination Plant as it is operated by Poseidon Water. However, OMWD is primarily an untreated water customer of SDCWA and receives very little treated water from the Carlsbad Desalination Plant. The Lake Hodges Pumped Storage Project is not related to the delivery of water. Consequential energy includes the Lake Hodges pumping operations for deliveries to the aqueduct and the Rancho Penasquitos Pressure Control Hydroelectric Facility (PCHF). Non-consequential energy production includes the Hodges Reservoir water management generation used to regulate lake levels, where "nonconsequential energy use" refers to electricity consumption that does not change as a result of a particular project, operational decision, or water supply alternative being evaluated.

SDCWA reports that total energy use for delivery of water to member agencies is approximately 1.6 million kWh. Energy is used for conveyance and operation of the Rancho Penasquitos PCHF. In calendar year 2024, approximately 12.1 kWh was used for the conveyance of untreated water, while approximately 4.6 million kWh was used for treatment and approximately 0.2 million kWh was used for distribution of treated water to member agencies (SDCWA 2026a).

6.5 References

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7 Water Service Reliability and Drought Risk Assessment

OMWD's potable water service reliability and drought risk assessment are discussed below. Non-potable water (recycled water) supply reliability is addressed in Section 7.1.4.

7.1 Water Service Reliability Assessment

OMWD is 100 percent reliant on SDCWA for its potable water supply and, therefore, the potable water supply reliability assessment in this chapter is based upon the SDCWA assessment from its 2025 UWMP (SDCWA 2026). SDCWA has executed contracts for several sources of water including the Carlsbad Desalination Plant (50,000 AFY), water conserved from Imperial Irrigation District (IID) (200,000 AFY) and the lining of the All-American and Coachella Canals (78,700 AFY), and other sources as described in its UWMP. In addition, SDCWA is a member agency of Metropolitan whose major sources include the SWP and the Colorado River. OMWD is investigating a brackish groundwater desalination project that would reduce dependence on SDCWA, as described in Section 6.2.2. This project is in the planning stage and is not yet considered in the reliability assessment. OMWD met approximately 15 percent of its 2025 total demand for water through its existing recycled water supplies.

7.2 Constraints on Water Sources

Given that OMWD's potable water supply is primarily raw imported water from SDCWA, potential constraints to OMWD water sources include imported supply reliability and water treatment and quality.

Imported Supply Reliability

Historically, except for dry years, the water supply purchased from SDCWA is consistent in quantity and quality. SDCWA's and Metropolitan's main sources of supply are the SWP and the Colorado River and both sources face legal, environmental, and climatic challenges. The Delta is at the center of the SWP water distribution system, where streamflow from the Sierra Nevada mountains flows through the Delta and south to Metropolitan and other SWP contractors. Environmental constraints within the Delta and subsidence in the south-of-Delta conveyance system, along with climate change as described in Section 6.3, have reduced the volume of SWP water deliveries. To address these challenges to SWP supply, DWR has proposed the Delta Conveyance Project to modernize this conveyance system and improve delivery reliability. The Colorado River is currently facing severe water supply issues, with Lake Mead and Lake Powell at critically low levels. The Colorado River Compact of 1922 oversubscribed Colorado River supplies and, to address this, SDCWA and Metropolitan have implemented a number of conservation, land fallowing, transfer, and storage projects. Both the SWP and the Colorado River are described in the SDCWA and Metropolitan 2025 UWMPs.

Water Treatment and Quality

OMWD meets or exceeds all state and federal water quality standards for drinking water. OMWD's DCMWTP utilizes ultrafiltration membrane technology that provides more certain removal of waterborne health threats than conventional filtration, while also benefiting the environment through minimal chemical usage and residual production. In 2025, approximately 78 percent of all potable water delivered to OMWD customers was treated at the DCMWTP. The DCMWTP underwent several planned CIP projects in 2025, which required it to be offline more than normal. The remainder of the water is produced by the

Carlsbad Desalination Plant, SDCWA's Twin Oaks Valley Water Treatment Plant in San Marcos, or Metropolitan's Skinner Water Treatment Plant in Riverside County.

The DCMWTP is a robust plant and can handle many types of water quality changes without any impact on the quality of the product water. The primary impact of any such changes is a reduction in overall capacity as well as increased chemical and electrical costs. The plant does not, however, have extensive pre-treatment equipment because source water quality testing during design indicated it was not necessary. With this combination of consistent source water quality, and robust treatment processes, the DCMWTP is very rarely out of operation because of source water quality.

Prior to 2013, OMWD could receive raw water for treatment at the DCMWTP from either Olivenhain Reservoir or from SDCWA's Second San Diego Aqueduct through a 78-inch diameter pipeline. In 2012, SDCWA completed a project known as the Hodges-Olivenhain Pumped Storage Project that provided the ability to move 20,000 AFY of water between Hodges Reservoir and Olivenhain Reservoir. OMWD and SDCWA recognized the potential for Hodges Reservoir water quality to change the quality of Olivenhain Reservoir, making it difficult to treat. Water from the Olivenhain Reservoir would only be treated at the DCMWTP in the event of an emergency to prevent accelerated fouling of the ultrafiltration membranes. OMWD and SDCWA considered adding additional pretreatment capabilities but ultimately worked together to construct the Unit AA Pipeline which provides a dedicated raw water feed from the Second Aqueduct to the DCMWTP to resolve the potential water quality issue.

Should the raw water quality prove to be more than can be managed effectively at the DCMWTP or other maintenance issues arise, OMWD has four connections to the SDCWA Second Aqueduct system that can provide 100 percent redundancy of treated water supply for customers. In fact, these connections were used for 100 percent of the supply prior to the construction of the DCMWTP. In addition, OMWD has interconnections with neighboring agencies that can be used to supplement supplies, as described in Section 7.4.

OMWD publishes an annual water quality report, the Consumer Confidence Report (Appendix F is the 2025 Report); the report is made available to all its customers, posted on its web page, and displayed in its lobby. Water quality is a major factor in any OMWD endeavor; however, OMWD does not anticipate any shortage or impact to availability of supply due to water quality issues**.** SDCWA's UWMP Section 7 provides more information on the quality of water provided to OMWD.

7.2.1 Year Type Characterization

Historically, the SDCWA supply has been reliable with only occasional reductions during droughts in California or the Colorado River system. Table 7-1 on the following page shows the basis of water year data used to understand demand response in OMWD's service area. The supply reliability assessment is based on data provided in SDCWA's 2025 UWMP, Chapter 9 Water Supply Reliability. Due to their very high priority water rights, SDCWA's Colorado River supplies of conserved water from its IID transfer and the All American and Coachella Canal Lining projects are drought-resilient. For dry-year analysis, SDCWA assumes that the Metropolitan supplies will be allocated according to its Preferential Right formula. With these supplies, SDCWA projects no shortages to its member agencies during the normal, single, and multiple dry year scenarios. Any shortages that might occur would be handled through the use of SDCWA's dry-year supplies and carry-over storage program, described in Section 11.4 of the SDCWA 2025 UWMP, which includes both in-region surface water storage and out-of-region groundwater storage in California's Central Valley. The carryover storage capacity is approximately 100,000 AF in the San Vicente Reservoir and 70,000 AF in the Semitropic-Rosamond Water Bank Authority and the Semitropic Water Bank in Kern County.

Table 7-1 Basis of Water Year Data (Reliability Assessment)

Condition	Year	Volume Available	% of Average Supply
Average Year	2024	As Needed	100%
Single-Dry Year	2006	As Needed	100%
Consecutive Dry Years 1st Year	2006	As Needed	100%
Consecutive Dry Years 2nd Year	2007	As Needed	100%
Consecutive Dry Years 3rd Year	2008	As Needed	100%
Consecutive Dry Years 4th Year	2009	As Needed	100%
Consecutive Dry Years 5th Year	2010	As Needed	100%

7.2.2 Water Service Reliability

SDCWA Demand Forecast

Since the mid-1990s, SDCWA has utilized an econometric model to develop its long-range municipal and industrial (M&I) demand forecasts. This computer model is based on the U.S. Army Corps of Engineers Municipal and Industrial Needs (MAIN) model, which has over a quarter of a century of practical application and is used by many cities and water agencies throughout the United States. SDCWA's version of the model, known as SDCWA-MAIN, was modified to reflect the San Diego region's unique parameters. The SDCWA-MAIN model relates historic water demand patterns to variables such as household income, consumer response to the price of water, and weather to predict future M&I water demands. These datasets are compiled from various sources, including SANDAG, SDCWA member agencies, and the National Aeronautics and Space Administration. Under the terms of a 1992 memorandum of agreement between SDCWA and SANDAG, SDCWA utilizes SANDAG's official forecast, which is based on local land use jurisdictions' general plans and policies, to project consumptive water demands for the region. This coordination ensures linkage between local jurisdictions' general plans and SDCWA's projected water demands.

OMWD Demand Forecast

OMWD forecasts potable water demands using existing normal condition demands as a baseline, and scales these Baseline Demands based on the net effects of growth, conservation, and other factors. The forecast methodology considers the effect of recycled water conversions on potable water demands, reductions due to demand hardening with implementation of water efficient fixtures, and increases due to hotter and drier conditions under a changing climate. OMWD's demand forecast model was built and operated by a consultant, incorporating SANDAG's growth forecast.

Allocation of SDCWA Supplies to OMWD

SDCWA's WSCP includes an M&I allocation methodology to determine how SDCWA's available supplies will be equitably allocated to its member agencies. The complete allocation methodology can be found in Section 8 of the SDCWA WSCP which is Appendix E in its 2025 UWMP. If the water reliability assessments and Drought Risk Assessment in this chapter indicated shortages, this methodology would be applied to determine OMWD's supply.

In its 2025 UWMP Chapter 9 Water Supply Reliability, SDCWA concludes that it can provide adequate supplies for all member agencies, under all the normal and dry-year conditions analyzed. Therefore, there was no need to utilize SDCWA's water shortage allocation methodology to determine how much supply would be delivered to OMWD. Essentially, SDCWA's allocation model allocates available water supplies to member agencies based on their demand on SDCWA with adjustments for loss of local supply, conservation, growth, and development of highly reliable local supplies. In all normal and dry-year cases analyzed, given SDCWA's available surplus, there is more than adequate supply to meet OMWD's

demands. Consequently, OMWD's supplies were estimated as equal to OMWD demands in each water year type.

7.2.2.1 Water Service Reliability - Normal Year

SDCWA's normal and dry year assessments of supplies and demands are based upon its QSA supplies and seawater desalination supplies totaling 319,700 AFY, and also SDCWA's Preferential Right to Metropolitan supplies, under Section 135 of the Metropolitan Act, which vary by normal or dry-year condition. If Metropolitan, SDCWA, and OMWD supplies are developed as planned, along with achievement of its Urban Water Use Objective, no shortages are anticipated within SDCWA's or OMWD's service area in a normal year through 2050. As part of preparation of its 2025 UWMP, SDCWA identified OMWD's demands and in turn, Metropolitan identified SDCWA's demands in Metropolitan's UWMP, which are shown to be adequate to cover the demands for the entire San Diego region, including OMWD. If supplies do not develop as planned, SDCWA's 2025 UWMP Chapter 10 Scenario Planning—Managing an Uncertain Future provides scenario planning to address any shortages; SDCWA's conclusions are summarized in this UWMP, Section 7.5.

Table 7-2 provides the normal water year supply and demand assessment. To adapt the SDCWA assessment to OMWD, the following analysis was utilized.

1. Estimate OMWD's demand projection under normal water year conditions.
2. Consider SDCWA's available supply, including any surplus and/or carry-over storage available, to confirm all member agency supplies can be met.
3. Compare the OMWD supply and demand projection.
4. Consider whether implementation of the WSCP is needed and estimate how those actions would affect demand response.

Table 7-2 Normal Year Supply and Demand Comparison (AFY)

	2030	2035	2040	2045	2050
Supply totals	19,250	18,880	18,360	17,880	17,380
Use totals	19,250	18,880	18,360	17,880	17,380
Surplus/(shortfall)	0	0	0	0	0
Planned WSCP Actions					
WSCP - supply augmentation benefit	0	0	0	0	0
WSCP - use reduction savings benefit	0	0	0	0	0
Revised Surplus/(shortfall)	0	0	0	0	0

AFY = acre-feet per year; WSCP = Water Shortage Contingency Plan

As shown, no water supply shortages are anticipated during normal water year conditions through 2050. In a normal year, SDCWA does not anticipate requiring supplemental supplies from Metropolitan. These supplies include SDCWA's QSA supplies delivered under a Water Exchange Agreement with Metropolitan and San Luis Rey Water Transfer (SDCWA 2026).

7.2.2.2 Water Service Reliability – Single Dry Year

SDCWA's single dry-year assessment includes projected demands that reflect long-term water use efficiency, but do not incorporate potential savings due to extraordinary conservation occurring during extended periods of drought. Projected local groundwater and surface water yields were based on an average of dry-year (2013, 2018, and 2021) totals. SDCWA member agency projected verifiable supplies for recycling, potable reuse, seawater desalination, groundwater recovery, and water transfers were assumed to experience little, if any reduction in a dry year. SDCWA QSA supplies and seawater

desalination supplies are also considered drought resilient. SDCWA assumed Metropolitan supplies were limited to a historically low 1.3 MAF due to dry conditions and additional reductions would occur in Metropolitan's deliveries from the SWP (i.e., no Delta improvements) and Colorado River, and that SDCWA received its Preferential Right based on Metropolitan's current method of calculating such rights.

To estimate single dry-year demand projections, SDCWA developed a demand response index formula to identify the historical high temperature and low rainfall weather patterns that resulted in the maximum impact. SDCWA's single dry year demands were 6.3 percent higher than normal demands. OMWD's single dry year demand response assumed an escalating increase above normal year demands from 10.5 percent in 2030 to 11.7 percent in 2050. While this is greater than the regional average that SDCWA used in its single dry demand forecast, SDCWA's supply assessment shows well over 370,000 AFY of potential surplus supplies even without utilization of carryover storage. With a conservative assumption regarding limited Metropolitan supplies during a single dry year, SDCWA and member agency supplies are maintained and developed as planned, and the achievement of the additional conservation targets results in no shortages in the SDCWA service area, including OMWD, under single dry year conditions.

Table 7-3 on the following page provides the single dry-year assessment in five-year increments. To adapt the SDCWA analysis to OMWD, the same procedure described for the normal year assessment was utilized. OMWD assumes that the WSCP would not typically be implemented in a single dry year.

Table 7-3 Single Dry Year Supply and Demand Comparison (AFY)

	2030	2035	2040	2045	2050
Supply totals	21,280	20,830	20,390	19,910	19,410
Use totals	21,280	20,830	20,390	19,910	19,410
Surplus/(shortfall)	0	0	0	0	0
Planned WSCP Actions					
WSCP - supply augmentation benefit	0	0	0	0	0
WSCP - use reduction savings benefit	0	0	0	0	0
Revised Surplus/(shortfall)	0	0	0	0	0

AFY = acre-feet per year; WSCP = Water Shortage Contingency Plan

7.2.2.3 Water Service Reliability – Five Consecutive Dry Years

Table 7-4 and Table 7-5 on the following pages provide the supply and demand multipliers used for multiple consecutive dry year analysis, and for five projected consecutive dry years (2030-2050), respectively. For the multiple dry year demands, SDCWA's first- and second-year demands were increased by nine percent while the third year (11 percent), fourth year (14 percent), and fifth year (16 percent) were all further increased. While this approach is conservative in that it reflects potential irrigation demands under consecutive hot/dry year conditions, historical analysis of OMWD's demand response trends during droughts (2006 to 2009, 2012 to 2014, and 2021 to 2022) shows that water use peaks in the second consecutive dry year followed by a steep reduction in use as water shortage and conservation messaging is deployed. As such, the demand response analysis for OMWD's multiple dry year conditions indicates a steady increase in consecutive dry years, with the WSCP resulting in overall demand reduction.

OMWD's first-year demands were increased by approximately 10.5 to 11.7 percent while the second year (12 percent), third year (14 percent), fourth year (16 percent), and fifth year (18 percent) are all slightly higher than SDCWA's regional forecast. OMWD's dry year demand response is higher than the averages for the SDCWA service area because OMWD is comprised largely of single-family residential homes with a higher percentage of outdoor water use. Weather-influenced variations in demand are almost entirely due to changes in outdoor water use.

SDCWA assumed QSA and seawater desalination supplies based on contractual levels; recycled, brackish groundwater, and potable reuse supplies based on member agency projected growth in these verifiable supplies; and surface and groundwater yields based on 2011 to 2015 water use levels. A historically conservative analysis methodology was used by SDCWA for Metropolitan's future available supplies and storage. The analysis assumes total Metropolitan supplies available for allocation to be 1.3 MAF for the first year, and 1.2 MAF for each of the following years in multiple dry-year conditions. With these assumptions, no shortages are anticipated in the SDCWA service area, including OMWD, under multiple projected dry years.

WSCP reduction savings were estimated by assuming a water demand reduction of 4.8 percent in the second year, as demonstrated in the reduction in demands from 2021 to 2022 with declaration of a statewide drought emergency and implementation of OMWD's WSCP. Subsequently, the WSCP reduction savings assume an additional (cumulative) four percent per year from the third to the fifth year. However, the "revised surplus" would remain at zero, since OMWD would simply purchase less water from SDCWA and would therefore not have a local surplus of available water.

Table 7-4 Demand and Conservation Projection Multipliers

	Year 1	Year 2	Year 3	Year 4	Year 5
Demand Multiplier	110.5%	112%	114%	116%	118%
Conservation Multiplier	0%	4.8%	8.0%	12.0%	16.0%

Table 7-5 Multiple Dry Years Potable Supply and Use Comparison (AFY)

		Year				
		2030	2035	2040	2045	2050
First year	Supply totals	21,280	20,830	20,390	19,910	19,410
	Use totals	21,280	20,830	20,390	19,910	19,410
	Surplus/(shortfall)	0	0	0	0	0
	Planned WSCP Actions					
	WSCP - supply augmentation benefit	0	0	0	0	0
	WSCP - use reduction savings benefit	0	0	0	0	0
	Revised Surplus/(shortfall)	0	0	0	0	0
Second year	Supply totals	21,560	21,146	20,563	20,026	19,466
	Use totals	21,560	21,146	20,563	20,026	19,466
	Surplus/(shortfall)	0	0	0	0	0
	Planned WSCP Actions					
	WSCP - supply augmentation benefit	0	0	0	0	0
	WSCP - use reduction savings benefit	1,021	1,000	979	956	932
	Revised Surplus/(shortfall) [1]	0	0	0	0	0
Third year	Supply totals	21,945	21,523	20,930	20,383	19,813
	Use totals	21,945	21,523	20,930	20,383	19,813
	Surplus/(shortfall)	0	0	0	0	0
	Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	1,702	1,666	1,631	1,593	1,553
	Revised Surplus/(shortfall) [1]	0	0	0	0	0
	Supply totals	22,330	21,901	21,298	20,741	20,161

		Year				
		2030	2035	2040	2045	2050
Fourth year	Use totals	22,330	21,901	21,298	20,741	20,161
	Surplus/(shortfall)	0	0	0	0	0
	Planned WSCP Actions					
	WSCP - supply augmentation benefit	0	0	0	0	0
	WSCP - use reduction savings benefit	2,554	2,500	2,447	2,389	2,329
	Revised Surplus/(shortfall) [1]	0	0	0	0	0
Fifth year	Supply totals	22,715	22,278	21,665	21,098	20,508
	Use totals	22,715	22,278	21,665	21,098	20,508
	Surplus/(shortfall)	0	0	0	0	0
	Planned WSCP Actions					
	WSCP - supply augmentation benefit	0	0	0	0	0
	WSCP - use reduction savings benefit	3,405	3,333	3,262	3,186	3,106
	Revised Surplus/(shortfall) [1]	0	0	0	0	0

AFY = acre-feet per year; WSCP = Water Shortage Contingency Plan

[1] Despite WSCP water use reductions, the "revised surplus" would remain at zero because OMWD would purchase less water from SDCWA and would therefore not have a local surplus of available water.

The escalation in demand response under hot/dry conditions across the five years is offset by the implementation of WSCP measures, such that water use is anticipated to be lower than normal year conditions by the end of the multiple year drought.

7.2.3 Non-Potable Water Supply Reliability

OMWD's non-potable water use consists of two separate recycled water systems known as the Northwest and Southeast Quadrants. The systems are described in Section 6.2.5.3 and supply recycled water for the irrigation of landscaping, common areas, recreational facilities, and golf courses. Each system has multiple independent supplies that are locally controlled and highly reliable, in both normal and drought conditions. This section describes the reliability of the supplies to those systems.

7.2.3.1 Northwest Quadrant

The Northwest Quadrant is supplied by two sources, VWD and SEJPA.

Vallecitos Water District

OMWD's agreement with VWD provides for a recycled water supply of up to 1.5 MGD (1,507 AFY) and in 2025, OMWD used approximately 398 AF. VWD has total wastewater treatment capacity of 5 MGD (5,600 AFY) to meet the requirements of the OMWD agreement and another agreement with the City of Carlsbad. Currently, when OMWD does not use all the recycled water supply allowed by the agreement, the remaining supply is purchased by the City of Carlsbad. Should OMWD increase its supply from VWD above current levels, the City of Carlsbad could produce additional supply at its water reclamation facilities and reduce deliveries from VWD. VWD owns and operates the 166 AF (54 MG) Mahr Reservoir which provides seasonal storage of recycled water for the Northwest Quadrant.

San Elijo Joint Powers Authority

OMWD's agreement with SEJPA specifies annual minimum deliveries of recycled water of 225 AFY in 2025. In 2025, OMWD used approximately 298 AF. SEJPA has wastewater supply and treatment capacity of 3 MGD (3,360 AFY) to meet the requirements of the OMWD agreement and other agreements with San Dieguito Water District and Santa Fe Irrigation District. If additional supply is needed, SEJPA can divert wastewater from the City of Escondido, through the SEJPA Ocean Outfall, and treat it at its San Elijo Water Campus. SEJPA maintains several storage tanks and ponds within its system for operational storage including the 3 million gallon Wanket Reservoir. SEJPA also could store wastewater at its Water Campus.

Northwest Quadrant Reliability Assessment

Currently, VWD supplies the higher elevations in the Northwest Quadrant, while SEJPA supplies the lower elevations. However, the entire service area can be supplied by VWD, by gravity. OMWD is studying distribution system improvements that would allow SEJPA to supply a larger portion of the service area providing distribution redundancy. Table 7-6 on the following page presents the additional recycled water supply that is potentially available to OMWD in the Northwest Quadrant. OMWD concludes that it has adequate recycled water supply capacity to meet demands under normal and dry-year scenarios.

7.2.3.2 Southeast Quadrant

Recycled water demands in the Southeast Quadrant are supplied from three sources: OMWD's 4S WRF, Rancho Santa Fe CSD's Santa Fe Valley WRF, and the City of San Diego.

4S Ranch WRF and Santa Fe Valley WRFs

OMWD delivered 1,530 AF of recycled water from 4S WRF in 2025. All the discharge from the 4S WRF, which has a treatment capacity of 2 MGD (2,240 AFY), is delivered to the Southeast Quadrant system. OMWD owns and operates a 410 AF reservoir that provides seasonal storage for recycled water in the Southeast Quadrant. In addition, all the discharge from the Santa Fe Valley WRF (approximately 263 AF in 2025) is delivered to the Southeast Quadrant system.

City of San Diego Recycled Water Connections

OMWD purchases additional recycled water, as needed, from the City of San Diego through two connections. OMWD's agreement with the City of San Diego for Connection No. 1 provides for purchasing between 250 AFY and 350 AFY. The schedule for the estimated recycled water demand is to be provided by OMWD and submitted to the City of San Diego by December 1 of each year to ensure adequate supplies for the upcoming calendar year.

Connection No. 2 is a typical 4-inch retail meter with supply limited by the size of the meter to approximately 1,000 gpm or 270 AFY, assuming 4 hours of use each day of the year (typically, recycled water irrigation is allowed from 10 p.m. to 6 a.m., or 8 hours a day). The meter is located on an 8-inch supply line.

Southeast Quadrant Reliability Assessment

Table 7-5 presents the additional recycled water supply that is potentially available to OMWD in the Southeast Quadrant, not including expanded capacity at the San Diego Connection 1 and 2. For the Southeast Quadrant, OMWD concludes that it has adequate recycled water supply capacity to meet demands under normal and dry-year scenarios.

Table 7-6 Recycled Water Supply Availability

Supply Source	Agreement Maximum	FY 2025 Supply	Additional Supply Availability
Northwest Quadrant			
Vallecitos Water District	1,507	398	1,109
San Elijo Joint Powers Authority	300	298	2
Total	**1,807**	**696**	**1,111**
Availability			61%
Southeast Quadrant			
4S WRF	2,240	1,530	710
Rancho Santa Fe CSD WRF	263	263	0
City of San Diego	350	355	0
Total	**2,853**	**2,148**	**710**
Availability			25%

7.2.3.3 Potential Reduction of Wastewater Flows

The Southeast Quadrant includes recently developed, master-planned communities of Rancho Cielo, 4S Ranch, and Santa Fe Valley, with water-efficient appliances. Installation of additional water saving devices are not likely to significantly reduce indoor water use. In recent droughts, OMWD has experienced very little reduction in wastewater flows to the 4S WRF.

7.2.3.4 OMWD Demand Management Measures

Some of OMWD's demand management measures, including free water use evaluations, near real time water usage monitoring, and incentives for installing more efficient irrigation systems, are available to recycled water customers. In recent droughts, OMWD has noticed that conservation messaging, intended for potable water users, has resulted in reduced recycled water use.

7.3 Drought Risk Assessment

The 2025 UWMP is required to include a Drought Risk Assessment (DRA) with a description of the data, methodology, and basis for shortage conditions that are necessary to conduct a DRA for a period that lasts five consecutive years. The DRA must include a determination of the reliability of each supply source and a comparison of available water supplies and projected demands. Water suppliers may consider impacts from climate change, regulations, and other locally available criteria.

7.3.1 Data, Methods, and Basis for Water Shortage Condition

As OMWD currently relies on SDCWA for 100 percent of its potable water supply, the OMWD DRA is similar to the SDCWA DRA, which assesses a projected drought over the next five-year period from 2026 through 2030. The historical period used in the SDCWA analysis to represent the driest consecutive period in the SDCWA service area is 2014 to 2018. Those years represent the five-year period with the lowest local water supply production from surface and groundwater, the two local water supplies that are most susceptible to variation due to weather. Over that period, the combined annual production from those two sources ranged from a low of 21,245 AF to a high of 67,374 AF.

The data used to calculate the SDCWA's supply capabilities under the scenario of five consecutive dry years is shown in Chapter 9 of the SDCWA 2025 UWMP. For each year, a comparison was made between available water supplies and water demands. For the SDCWA supplies, which consist of QSA water and

seawater desalination, no reduction in the availability over the five-year period is assumed due to the drought resilience of these supplies. More information on these supplies is provided in the SDCWA 2025 UWMP, Chapter 4 Water Authority Supplies. For the SDCWA member agency supplies, only surface water and groundwater are considered to be susceptible to variations in weather. The volume of those supplies varies over the five-year period based on actual production from 2011 to 2015. Additional information on SDCWA member agency supplies can be found in the SDCWA 2025 UWMP Chapter 5 Member Agency Supplies. For Metropolitan supplies, the volume of water for each year is based on SDCWA's Preferential Right to Metropolitan purchases. Information on Metropolitan's water supplies can be found in SDCWA 2025 UWMP Chapter 6 Metropolitan Supplies.

The available water supplies were calculated for each year of the DRA and compared to the projected demands for each year. OMWD used the demand response analysis completed for the multiple dry year scenarios in Table 7-5, presented in Section 7.1.3.3, to establish DRA water demands. OMWD's first-year demands increased by approximately 10.5 percent while the second year (12 percent), third year (14 percent), fourth year (16 percent), and fifth year (18 percent) are all slightly higher than SDCWA's regional forecast due to the prevalence of single-family residential outdoor water use. Implementation of the WSCP is estimated to garner a savings of approximately 4.8 percent in the second year with an additional (cumulative) four percent savings in each subsequent year. The SDCWA analysis showed that there were adequate water supplies for its member agencies in all five modeled years and that additional actions under the WSCP are not required. As such, SDCWA could meet all drought demands from OMWD customers with no extraordinary conservation.

7.3.2 DRA Water Source Reliability

Table 7-7 on the following page presents the results of OMWD's five-year DRA. Based on these results, OMWD has adequate water supplies in all five years and therefore, actions under the WSCP are not required. That said, should WSCP measures be enacted under a statewide drought proclamation, Table 7-7 shows potential water savings that are anticipated to result in a near-term drought scenario. Note that the "revised surplus" would remain at zero, since OMWD would simply purchase less water from SDCWA and would therefore not have a local surplus of available water.

Table 7-7 Five-Year Drought Risk Assessment

2026	Total
Total Water Use	23,156
Total Supplies	23,156
Surplus/Shortfall w/o 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) [1]	0
2027	
Total Water Use	23,461
Total Supplies	23,461
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	1,111
Revised Surplus/(shortfall) [1]	0

2028	
Total Water Use	23,880
Total Supplies	23,880
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	1,852
Revised Surplus/(shortfall) [1]	0
2029	
Total Water Use	24,299
Total Supplies	24,299
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	2,779
Revised Surplus/(shortfall) [1]	0
2030	
Total Water Use	24,717
Total Supplies	24,717
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	3,705
Revised Surplus/(shortfall) [1]	0

[1] Despite WSCP water use reductions, the "revised surplus" would remain at zero, since OMWD would simply purchase less water from SDCWA and would therefore not have a local surplus of available water.

The escalation in demand response under hot/dry conditions across the five years is offset by the implementation of WSCP measures, such that water use is anticipated to be lower than normal year conditions by the end of the multiple year drought.

7.4 SDCWA Scenario Planning - Managing an Uncertain Future

7.4.1 Scenario Planning

The SDCWA 2025 UWMP Section 10 describes their planning for four scenarios as a way to address managing an uncertain future:

1. Drought with Local Supplies Implemented as Planned
2. Drought with Local Supply Projects Delayed
3. Drought Post IID Transfer Agreement Expiration
4. Climate Change

For scenarios one through three, SDCWA concluded that they had surplus supplies to meet demands as long as the supplies are developed as planned. Relative to Scenario 4, since there are many uncertainties regarding the impact of climate change on water supply and demand, SDCWA conducted a qualitative risk assessment. SDCWA concluded that climate change could result in a long-term decrease in the availability of imported and local supplies, causing a potential gap between supply and demand. In addition, supply and demand impacts from climate change have already occurred and will continue to be experienced within the 2025 UWMP 25-year planning horizon.

The SDCWA 2025 UWMP concludes that its scenario evaluation demonstrates that the San Diego region is well-positioned to maintain a safe, reliable water supply across the planning horizon—even under extreme conditions. This conclusion reflects decades of work to assemble a diversified, drought-resilient portfolio that includes member-agency verifiable projects and long-term efficiency, QSA supplies, seawater desalination, and Metropolitan supplies.

7.5 References

SDCWA (San Diego County Water Authority). 2026. 2025 Urban Water Management Plan. Available: https://www.sdcwa.org/wp-content/uploads/2026/03/SDCWA-Public-Review-Draft-2025-UWMP-with-Appendices.pdf. Accessed March 2026.

8 Water Shortage Contingency Plan

8.1 Water Supply Reliability Analysis

This chapter examines the findings related to water supply reliability and the key issues that may create a shortage condition, based on the supply analyses presented in Chapter 6, *Water Supply Characterization* and Chapter 7, *Water Service Reliability and Drought Risk Assessment,* to develop a Water Shortage Contingency Plan (WSCP) that is a stand-alone document.

OMWD has prepared for periods of water supply shortage by replacing its 2015 Water Supply Shortage Ordinance (Ordinance 427) with its 2020 WSCP (Ordinance 489) for consistency with state drought planning requirements for retail water suppliers, as discussed in Section 8.10. The WSCP provides progressively severe water use restrictions as necessary to accomplish service area-wide water use reductions of up to and over 50 percent, depending on the water shortage level. The WSCP describes effects that a drought or water supply shortage may have on OMWD's water supply, as well as water conservation stages and associated requirements for water use restrictions, prohibitions, and associated penalties.

OMWD participated in a cooperative effort between San Diego County water agencies and SDCWA to develop the Water Shortage and Drought Response Plan (SDCWA 2012) and incorporate its requirements in developing its own drought response actions. The Water Shortage and Drought Response Plan is developed through the San Diego Integrated Regional Water Management Program and provides a coordinated regional framework for drought preparedness and response, identifies regional vulnerabilities, and recommends multiagency drought resilience projects and strategies to strengthen long-term water reliability across the San Diego region.

8.2 Annual Water Supply and Demand Assessment Procedures

OMWD currently receives 100 percent of its potable supply from SDCWA which, in turn, obtains imported surface water from the SWP and Colorado River and desalinated seawater from the Pacific Ocean. Each year, SDCWA submits an Annual Assessment Report and an Annual Shortage Report to DWR, including a supply forecast and analysis of potential shortage levels for the upcoming year. OMWD will use the forecasts provided by SDCWA to prepare its Annual Assessment Report for submittal to DWR by July 1st each year. The first Annual Assessment Report to be submitted following adoption of this 2025 UWMP is to DWR by July 1, 2027. The Annual Assessment Report will be prepared following reporting procedures in the 2025 UWMP Guidebook and the procedures outlined in OMWD's WSCP, discussed herein and presented in full in Appendix E to this 2025 UWMP. OMWD's Annual Assessment Reports will include the following sections, each of which is described in respective sections below:

- Annual Water Supply and Demand Assessment
- Decision-Making Process
- Data and Methodologies

8.2.1 Annual Water Supply and Demand Assessment

OMWD currently obtains 100 percent of its potable water supply from SDCWA. Therefore, OMWD relies on SDCWA's water supply and demand assessments to inform its consideration of water supply availability. SDCWA's core water supplies include locally desalinated water produced at the Carlsbad Desalination Plant, imported Colorado River water allocated to SDCWA by the 2003 Quantification

Settlement Agreement (QSA), and imported SWP and Colorado River water obtained through Metropolitan. SDCWA considers the capabilities and constraints of existing infrastructure to deliver its core supplies in conducting its annual water supply and demand assessments. SDCWA also considers the M&I water demand projections of its member agencies and the extent of member agency reliance on SDCWA supply sources. SDCWA uses a short-term forecast model that considers multiple variables including historic water demand patterns, weather, a local economic index, and anticipated conservation levels. Water demands on SDCWA are also influenced by member agencies' local supply sources and available storage, which are also influenced by the effects of weather and climate change.

If a water supply shortfall is identified based on the assessment of core water supplies and projected water demands, SDCWA evaluates the use of stored water reserves from carryover storage or the pursuit of additional supply augmentation measures, such as dry-year transfers, to reduce or eliminate identified shortfalls. If a shortage doesn't exist, consistent with Carryover Storage Policy Guidelines, SDCWA will analyze how to most effectively manage storage supplies to avoid potential shortages in the future.

8.2.2 Decision-Making Process

OMWD will begin its decision-making process to identify water shortage conditions in July each year and will implement WSCP actions as soon as it is determined that a water shortage condition exists, based upon the Water Shortage Levels defined in Section 8.3. This may occur in advance of the Annual Assessment Report submitted to DWR on or before July 1, 2027, and will repeat each fiscal year. To support consistency in its decision-making processes, OMWD uses an Assessment Team consisting of representatives from OMWD's General Manager's Office, Customer Services Department, and Engineering Department. Table 8-1 on the following page provides an overview of OMWD's decision-making processes in assessing water shortage conditions and determining when to implement necessary response actions. Start and end dates are approximate and intended to provide guidance; implementation dates will be determined based on actual supply conditions.

Table 8-1 Annual Assessment Decision-Making Process

Start Date (month)	End Date (month)	Activities	OMWD Lead
October	June	Monthly - Monitor Metropolitan and SDCWA Annual Assessment of supplies, and local supplies and weather. Update OMWD unconstrained demands as needed.	Customer Services Department
October	June	Review SDCWA Annual Assessment as soon as available. Coordinate monthly with SDCWA on planned WSCP actions.	Customer Services Department
October	June	Draft OMWD Annual Assessment Report.	Customer Services Department
October	June	Monthly – Update draft OMWD Annual Assessment and consider a shortage determination	Assessment Team
October	June	If shortage is determined, use WSCP to determine shortage level, drought response actions, communication, compliance, and enforcement.	Customer Services Department
November	June	After shortage determination, prepare shortage documents and present to Board of Directors for approval.	Assessment Team
December	June	Implement the WSCP actions approved by the Board of Directors.	Customer Services Department
June	July	Update OMWD Annual Assessment Report and send final to DWR by July 1.	Customer Services Department

8.2.3 Data and Methodologies

8.2.3.1 Evaluation Criteria

The evaluation criteria OMWD will use to conduct annual assessments and prepare its Annual Assessment Reports include the following:

- Supply available from SDCWA
- Dry-weather storage from SDCWA
- Annual Assessment Reports developed by SDCWA
- Capabilities and constraints of SDCWA and Metropolitan infrastructure to deliver supplies
- OMWD-specific local conditions and uncertainties
- Projection of short-term unconstrained customer demands
- OMWD infrastructure for treating, storing, and distributing water

8.2.3.2 Water Supply

OMWD currently receives 100 percent of its potable water supply from SDCWA. Each spring, SDCWA will provide an Annual Assessment Report that includes a water supply forecast for the coming year. The water supply forecast is based on SDCWA's assessment of its supplies including IID conserved water, All-American Canal and Coachella Canal lining supplies, Carlsbad Desalination Plant supplies, and purchases from Metropolitan. OMWD will use SDCWA's Annual Assessment Reports as the basis for its supply in the coming fiscal year.

SDCWA's Annual Assessment Report will evaluate dry year storage volumes available to its member agencies, and will consider current and dry-year regulatory conditions in determining dry-year availability. SDCWA will also evaluate infrastructure needs and capital improvement projects and operating plans that could affect water deliveries. OMWD will identify uncertainties in its water supply sources, including anticipated water supply constraints, based on the Annual Assessment Reports developed by SDCWA.

8.2.3.3 Unconstrained Customer Demand

OMWD will use the demand forecast model described in Chapter 4, Water Use Characterization to estimate unconstrained customer demand. The forecast model methodology involves assessment of the following factors:

- Existing baseline demands
- New development (growth) demands
- Net reductions due to additional conservation efficiencies
- Changes due to anticipated weather or climate change
- Next FY water demands

In addition to analysis of unconstrained customer demand, OMWD will also assess net reductions to baseline demands with consideration to the following key factors:

- Landscape ordinances, irrigation controllers, and turf retirement
- Devices such as washers, toilets, and multi-family residential sub-metering
- Increasing real cost of water and behavioral changes
- Updated information on climate change
- State-mandated water use guidelines

8.2.3.4 Current Year Available Supply

OMWD will rely on the SDCWA Annual Assessment Report for the current year available supply.

8.2.3.5 Infrastructure Considerations

OMWD will assess how infrastructure may impact its ability to deliver water to its customers, including capacity of the David C. McCollom Water Treatment Plant (DCMWTP) and capital improvement projects scheduled for the next year. If infrastructure constraints are identified, OMWD will develop a plan to work around the constraint(s) and deliver full supplies. This could involve operational adjustments, use of temporary facilities, and assistance from SDCWA and neighboring agencies. Over the 67 years since OMWD's incorporation in 1959, OMWD has never had an infrastructure constraint that significantly reduced customer deliveries.

8.2.3.6 Other Factors

On an annual basis, OMWD will assess and describe any locally applicable factors or considerations that could influence or disrupt supplies including SDCWA capital improvement projects and operating plans.

8.2.3.7 Methodology

The assessment of supplies and demands will be conducted on an annual time step basis, consistent with the forecasting and reporting methodology implemented by SDCWA in its annual assessments. A spreadsheet will be developed to compare available SDCWA supplies with OMWD demands. Assessment of potential water shortage conditions will consider the evaluation criteria listed above. OMWD's demand forecasting model will be used to estimate water demands for annual forecasts. The assessment will be reviewed for consistency with OMWD's 2025 UWMP, including projected water supplies discussed in Chapter 6, Water Supply Characterization. Any significant differences between projected supplies and forecasted demands will be explained. The methodology will be updated as appropriate following submittal of each Annual Assessment Report to the DWR.

8.2.3.8 2026 Annual Assessment (Optional)

Based on SDCWA's current supply forecast, OMWD does not anticipate a water shortage condition in FY 2025-2026, and implementation of WSCP response actions will not be necessary.

8.3 Six Standard Water Shortage Levels

OMWD's WSCP, as authorized through adoption of Ordinance 489, defines the six standard water shortage levels and stages of action used by the state. Table 8-2 on the following page provides an overview of OMWD's responses to each water shortage level, where Water Shortage Level 1 introduces voluntary measures by which customers are asked to reduce water consumption, and Water Shortage Levels 2 through 6 are mandatory and violations carry potential penalties. Response actions for each level of water shortage become more restrictive compared to the preceding shortage level. The response actions associated with each water shortage level remain applicable under the following water shortage levels, increasing in severity as the water shortage level increases. SDCWA also accounts for variations in monthly demands from its member agencies in planning its storage and conveyance facilities. During shortages, SDCWA allocates water to its member agencies on an annual basis; it is then the member agencies' responsibility to manage its supplies to meet all demands including during shortage conditions.

Table 8-2 OMWD Water Shortage Levels and Responses

Water Shortage Level	Percent Shortage	OMWD Response Overview
1	Up to 10%	Voluntary conservation measures are encouraged and OMWD increases public education and outreach to elevate awareness of the need for water conservation.
2	Up to 20%	Voluntary conservation measures become mandatory and additional measures are implemented, including irrigation restrictions, leak repair within 72 hours, and prohibiting potable water use in ornamental water features.
3	Up to 30%	Additional restrictions are applied to landscape irrigation, leaks are required to be repaired within 48 hours, and vehicle washing is prohibited except at commercial carwashes that recirculate water, or by high pressure/low volume wash systems.
4	Up to 40%	Additional restrictions include prohibiting filling or refilling ornamental lakes or ponds with some exceptions for aquatic life.
5	Up to 50%	Most landscape irrigation is prohibited and leaks are required to be repaired within 24 hours. No new potable water service is allowed.
6	>50%	Additional landscape irrigation prohibitions are enacted, with only essential uses permitted.

Table 8-3, below, presents DWR's required cross-reference between standard shortage levels and supplier shortage levels. As discussed above, OMWD uses the six standard water shortage levels defined by the state; therefore, no differences are reflected in the cross-reference table.

Table 8-3 Cross-reference for Standard vs Supplier Shortage Levels

Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
1	Up to 10%	same	same
2	Up to 20%	same	same
3	Up to 30%	same	same
4	Up to 40%	same	same
5	Up to 50%	same	same
6	>50%	same	same

8.4 Shortage Response Actions

8.4.1 Demand Reduction

Table 8-4, below, presents OMWD's demand reduction methods, including indication of the water shortage level at which each action is applicable.

Table 8-4 Demand Reduction Actions

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage Drop down	Shortage Gap Reduction Value		
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water.	Percentage	n/a	Stop washing down paved surfaces including sidewalks, driveways, parking lots, tennis courts, or patios, except when necessary to alleviate safety or sanitation hazards	No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	n/a	Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.	No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	n/a	Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket/watering can, or when a drip/micro-irrigation system/equipment is used.	No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	n/a	Use a bucket, watering can, hand-held hose with positive shut-off nozzle, or lowvolume non-spray irrigation to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.	No
1	Landscape - Limit landscape irrigation to specific times	Percentage	n/a	Irrigate nursery and commercial grower's products before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket/watering can, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.	No
1	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	n/a	Use recirculated water to operate ornamental fountains.	No

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage Drop down	Shortage Gap Reduction Value		
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	n/a	Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that recirculates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.	No
1	CII - Restaurants may only serve water upon request	Percentage	n/a	Serve and refill water in restaurants, bars, and other food service establishments only upon request.	No
1	CII - Lodging establishment must offer opt out of linen service	Percentage	n/a	Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.	No
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	n/a	Repair all water leaks within five (5) days of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.	No
1	Other - Prohibit use of potable water for construction and dust control	Percentage	n/a	Use recycled or non-potable water for construction purposes when available and feasible.	No
2	Landscape - Limit landscape irrigation to specific days	Percentage	n/a	Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager and posted by OMWD. This section shall not apply to commercial growers or nurseries.	No
2	Landscape - Limit landscape irrigation to specific times	Percentage	n/a	Limit lawn watering and landscape irrigation using sprinklers to no more than ten (10) minutes per watering station per assigned day. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather-based controllers, drip/micro-irrigation systems, and stream rotor sprinklers.	No

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage Drop down	Shortage Gap Reduction Value		
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	n/a	Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section 8{b)(2), on the same schedule set forth in Section 8{b)(l) by using a bucket, watering can, hand-held hose with positive shut-off nozzle, or low- volume non-spray irrigation.	No
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	n/a	Repair all leaks within seventy-two (72) hours of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.	No
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	n/a	Stop operating ornamental fountains or similar decorative water features that require potable water.	No
3	Landscape - Limit landscape irrigation to specific days	Percentage	n/a	Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the Olivenhain Municipal Water District. This section shall not apply to commercial growers or nurseries.	No
3	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	n/a	Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 8(b)(2), on the same schedule set forth in section 9(b)(1) by using a bucket, hand-held hose with a positive shut-off nozzle, watering can, or low- volume nonspray irrigation.	No
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	n/a	Stop washing vehicles except at commercial carwashes that recirculate water, or by high pressure/low volume wash systems.	No
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	n/a	Repair all leaks within forty-eight (48) hours of notification by OMWD unless other arrangements are made with the General Manager.	No
3	Implement or Modify Drought Rate Structure or Surcharge	Percentage	n/a	Upon the declaration of a Water Shortage Level 3 condition, OMWD will suspend consideration of annexations to its service area.	No

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage Drop down	Shortage Gap Reduction Value		
3	Implement or Modify Drought Rate Structure or Surcharge	Percentage	n/a	OMWD may establish a water allocation for property served by OMWD. Any person that uses water in excess of an applicable allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115 percent of the allocation and four times the Metropolitan Tier 2 rate if over 115 percent in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.[1]	Yes
4	Other water feature or swimming pool restriction	Percentage	n/a	Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a Water Shortage Level under this ordinance.	No
5	Landscape - Prohibit certain types of landscape irrigation	Percentage	n/a	Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to certain maintenance-related categories of use unless recycled water is available and may be lawfully applied to the use.[2]	No
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	n/a	Repair all water leaks within twenty-four (24) hours of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.	No
5	Moratorium or Net Zero Demand Increase on New Connections	Percentage	n/a	No new potable water service shall be provided, no new temporary meters or new permanent meters shall be provided, and no statements of immediate ability to serve or provide potable water service (such as will serve letters, certificates, or letters of availability) shall be issued, except under certain circumstances.[3] This provision shall not be construed to preclude the resetting or activation of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.	No

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage Drop down	Shortage Gap Reduction Value		
6	Landscape - Prohibit certain types of landscape irrigation	Percentage	n/a	Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to certain categories of use unless OMWD has determined that recycled water is available and may be lawfully applied to the use.[4]	No

1. OMWD is not required to comply with Proposition 218 to impose fines on persons using water in violation of its restrictions on water use or in passing through penalties levied upon it by Metropolitan as a result of excessive use by some OMWD customers.
2. This restriction shall not apply to the following categories of use unless OMWD has determined that recycled water is available and may be lawfully applied to the use: A) Maintenance of trees and shrubs that are watered on the same schedule set forth in section 9(b)(l) by using a bucket, watering can, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation; B) Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated; C) Maintenance of existing landscaping for erosion control; D) Maintenance of plant materials identified to be rare or essential to the wellbeing of animals; E) Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 9(b)(1); F) Watering of livestock; and G) Public works projects and actively irrigated environmental mitigation project.
3. Circumstances under which new potable water service (temporary or permanent meters) may be provided include: A) A valid, unexpired building permit has been issued for the project; B) The project is necessary to protect the public's health, safety, and welfare; or C) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of OMWD.
4. This restriction shall not apply to the following categories of use unless OMWD has determined that recycled water is available and may be lawfully applied to the use: A) Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated; B) Maintenance of existing landscaping for erosion control; C) Maintenance of plant materials identified to be rare or essential to the wellbeing of animals; D) Watering of livestock; and E) Public works projects and actively irrigated environmental mitigation projects.

8.4.2 Supply Augmentation

Other than its wholesaler (SDCWA), OMWD does not currently own or have contracts for potable water supplies with neighboring agencies except on a short-term emergency basis. OMWD relies on SDCWA for 100 percent of its potable water supplies during normal water year conditions, as well as during drought and shortage conditions. Therefore, OMWD also relies on SDCWA's supply augmentation actions, which SDCWA identifies in its 2025 UWMP and WSCP. These supply augmentation options include the following:

- Carryover Storage Reserves, San Vicente Reservoir – 100,000 AF.
- Carryover Storage Reserves, Central Valley Groundwater Agreements – 70,000 AF. Put capacity is 9,000 AFY while recovery capacity is 14,000 AFY.
- Potential Dry-Year Transfers – variable. For example, in 2009, SDCWA acquired 20,000 AF from Placer County Water Agency through a one-year transfer agreement.

OMWD's service area borders six other retail water agencies: the City of San Diego, San Dieguito Water District (San Dieguito WD), Santa Fe Irrigation District (Santa Fe ID), Carlsbad MWD, VWD, and Rincon del Diablo MWD. OMWD's neighboring agencies are also SDCWA member agencies that obtain their potable water supplies from SDCWA and rely on SDCWA's supply augmentation actions.

The UWMP Guidebook requests information on supply augmentation for the WSCP shortage levels. However, OMWD relies on SDCWA as its wholesale water provider for supply augmentation actions. As such, OMWD does not have additional supply augmentation or other actions separate from those implemented by SDCWA.

8.4.3 Operational Changes

As of 2024, OMWD has completed the transition away from Automated Meter Reading (AMR) technology, and now exclusively uses Advanced Metering Infrastructure (AMI) technology to read customer meters. As described in Section 4.3.3, the AMI technology improves system efficiency by providing continuous, near real-time data to OMWD through a fixed communication network, as well as providing customer access to the AMI usage data through an online customer portal. The continuously updated data allows leaks to be detected much quicker and can prompt immediate mitigation compared to leak response based on the customer's monthly bill. The AMI technology also supports timelier and more effective monitoring of drought response actions, as OMWD staff are able to review water usage across the service area in near real time without manually visiting each meter. OMWD's transition to AMI technology was supported in part by federal WaterSMART funding and Metropolitan.

8.4.4 Additional Mandatory Restrictions

OMWD does not have permanent mandatory water use restrictions. Efficient water use is always promoted, and voluntary water use restrictions are implemented during Water Shortage Level 1. During Water Shortage Levels 2 through 6, water use restrictions are mandatory and penalties may include administrative fines, as authorized by Ordinance 489 and outlined below:

1) A warning will be issued for the first violation.
2) Customer will be fined $100 for a second violation of any provision of the ordinance within one year of the initial violation.
3) Customer will be fined $200 for a third violation of any provision of the ordinance within one year of the initial violation.
4) Customer will be fined $500 for each additional violation of any provision of the ordinance within one year of the initial violation.

Statewide prohibitions on wasteful water use have remained in effect since 2020, but no additional state-mandated conservation levels are required. OMWD continues to emphasize customer outreach, education, and voluntary compliance to support efficient water use during statewide drought response periods.

8.4.5 Emergency Response Plan

OMWD maintains an Emergency Response Plan (ERP) to comply with the Water Infrastructure Act, Section 2018, which requires coordination with the State Emergency Response Commission (SERC) and Local Emergency Planning Committees (LEPCs) to ensure alignment with local hazardous materials reporting, emergency notification procedures, and community-level emergency planning. An emergency situation may arise due to technological failure, system failure, water quality issues, civil unrest, or a natural disaster that may cause significant damage or failure of source water conveyance aqueducts, OMWD's treatment plants, or distribution system. The ERP defines the situations and incidents that may trigger an emergency event, and identifies appropriate response actions with directions and strategies for implementation. It is maintained on OMWD's Employee Portal and reviewed annually, with updates incorporated as needed.

The ERP covers the needs and concerns to be handled within OMWD's service area, as well as procedures and agreements related to adjacent water districts. Some of the procedures addressed in the ERP include the following:

- Guidelines for assessing the status of water service needs within OMWD's service area and in relation to adjacent water districts.
- Established liaisons with other agencies and contact information.
- Designated positions and typical duties for Emergency Operations Center staff.
- Templates for emergency communication with OMWD customers.
- The process for coordination with other agencies in initiating mutual aid.
- The transfer and tracking of resources, personnel, equipment, or supplies to or from adjacent public works, emergency agencies, or districts.

OMWD is also a signator to the Countywide Water Agency Mutual Aid Agreement of 2021, signed by SDCWA and its member agencies, which allows water agencies in San Diego County to assist each other during emergencies by sharing resources, personnel, and expertise to restore service faster, ensuring public health and safety and minimizing disruptions.

In addition, OMWD's 2025 Strategic Plan reinforces OMWD's commitment to system reliability, operational resilience, and emergency readiness (OMWD 2025a). While not a standalone emergency plan, the 2025 Strategic Plan includes goals related to regulatory compliance, water reliability, and operational resilience, which are core elements of disaster preparedness and continuity planning. It outlines priority actions to strengthen infrastructure, enhance redundancy, and maintain regulatory compliance, while integrating lessons learned from recent regional emergencies. It also emphasizes coordinated response planning, staff training, and proactive risk mitigation to ensure that OMWD can continue delivering safe and reliable water service during natural disasters, power outages, wildfires, and other disruptive events.

OMWD completed its Vulnerability Assessment in 2016 in cooperation with DHS, in compliance with the Safe Drinking Water Act (SDWA). The Vulnerability Assessment evaluated physical, cyber, and operational vulnerabilities and informs OMWD's ongoing emergency preparedness and mitigation planning. OMWD has since taken action to mitigate the potential risks identified.

OMWD updated its Risk and Resilience Assessment (RRA) in December 2025, for compliance with the federal America's Water Infrastructure Act and its update deadline of June 30, 2026. OMWD also updated its ERP within the federally required six-month window, including new response procedures, communication protocols, and operational safeguards to ensure OMWD maintains essential water service during emergencies or water shortage events.

In addition, OMWD's safety office maintains several informal agreements for mutual aid and assistance through Water Utility Safety Manager Association and Water Agency Emergency Collaborative networking groups. Though informal in nature, these agreements have been beneficial during past emergencies.

8.4.5.1 Supply Interruption

Interruption of OMWD's water supply from SDCWA can occur as a result of an earthquake, regional power outage, fire, flood, or other emergency. OMWD has assessed the types of interruptions that can occur and the supplies available, as well as the actions to be taken in response to interruptions. Supply interruption may occur due to an outage of the DCMWTP, or due to damage or loss of conveyance infrastructure for imported water supplies from the SWP or Colorado River.

- DCMWTP Outage – OMWD would take treated water from the SDCWA treated water aqueducts through one or more of four existing connections (Gaty, 520 Vault, Peay, and 4S Ranch). OMWD can also take treated water from the SDCWA Tri-Agencies Pipeline and deliver it to Denk Reservoir through the 18-inch Unit M Pipeline.
- Imported Water Conveyance Damage – OMWD would rely on SDCWA's ESP, if needed to withstand emergency scenarios related to imported water conveyance. OMWD can be supplied with water from Olivenhain Reservoir or other SDCWA reservoirs. The ESP provides 75 percent of full supplies to member agencies, and OMWD customers may have to reduce demands depending on the severity of the situation. OMWD has rights to 3,449 AF of operational capacity in SDCWA's system; based upon 2025 water uses totaling 17,946 AF (see Chapter 4, *Water Use Characterization*, Table 4-1, *Actual Total Uses for Potable and Non-Potable Water, 2025 (AFY)*) 3,449 AF would be sufficient for OMWD to serve its customers for about 70 average-use days (down from 73) or for about 94 days (down from 98) if uses are reduced by 25 percent.

In the event of a supply interruption, OMWD would use National Incident Management System procedures, as outlined in the ERP. The duration and severity of outages would be assessed to inform development of appropriate response(s), which would be implemented and communicated to the public and governmental agencies.

OMWD maintains several back-up generators at critical areas of the water system to maintain water delivery capability. OMWD's distribution system storage facilities would provide some level of emergency supply. The duration of supply available from storage would depend upon the elapsed time between the emergency and the full implementation of the rationing, the availability of emergency exchange water from adjacent districts, and the percent reduction in water use by OMWD customers. OMWD's current total tank usable storage capacity is over 209 acre-feet (68 million gallons). This total does not include tanks that are out of service or are planned to be taken out of service. Typically, system operators keep the tanks full in the summer high demand months but may keep them less than full during lower demand periods. In 2025, the average daily demand in OMWD was approximately 48.36 AF per day (15.7 MGD).

OMWD has established cooperative agreements with its adjacent water agencies for the emergency exchange and transportation of water. Of the six water agencies that OMWD shares borders with, OMWD has emergency connections and agreements with four: San Dieguito WD, Santa Fe ID, Carlsbad MWD, and VWD. The agreements describe the number, location, type of connection, and the agreed rate of flow.

During periods of emergency outage of OMWD's water supply from SDCWA, such as in a major earthquake, OMWD can draw on water available via interconnections with its neighboring retail water agencies, and reductions in demand via its WSCP Ordinance 489 to attempt to manage water supply and demand conditions.

8.4.6 Seismic Risk Assessment and Mitigation Plan

This section describes the seismic risk assessment and mitigation plans of OMWD and SDCWA. SDCWA's seismic risk assessment considers water supply and associated infrastructure, while OMWD's assessment considers seismic risks and OMWD's capability to develop mitigation plans associated with water treatment and distribution infrastructure. OMWD has a multi-hazard mitigation plan that was updated in 2017 and OMWD conducted a risk and resiliency assessment of facilities in 2020. The seismic risk assessment and mitigation plans have not been updated since the 2020 UWMPs, as presented herein.

8.4.6.1 SDCWA Emergency Storage Project

In 2014, SDCWA constructed the $1.5 billion Emergency Storage Project (ESP) to mitigate seismic risks identified to its water supplies. The ESP consisted of a new dam and reservoir, pump station, and pipeline improvements. It was designed to provide sufficient water supplies to meet SDCWA's needs for a period of two to six months, which was estimated to be the necessary timeframe to sustain without imported surface water should the major aqueducts that supply imported water to SDCWA become severed due to an extreme earthquake event. SDCWA provides additional description of the ESP in Section 11.2.2 of its 2025 UWMP (SDCWA 2026).

8.4.6.2 Olivenhain Municipal Water District

General Description of Seismic Risk

OMWD's understanding of seismic risk is based on the 2023 San Diego County Office of Emergency Services Multi-Jurisdictional Hazard Mitigation Plan (SD-HMP; San Diego County Office of Emergency Services 2023) evaluation for the Encinitas area. Seismic hazards that could affect OMWD infrastructure include earthquakes and seismic shaking, liquefaction, lurching and bluff erosion, earthquake-induced dam failure, and earthquake-induced landslides and tsunamis. OMWD infrastructure lies on elevated sedimentary bedrock in the west and low-lying mountainous igneous rock in the east. These are cut by active streams (San Dieguito Creek, Escondido Creek, and San Marcos Creek) that contain shallow loose sediments and terminate in modern tidally influenced estuaries underlain by relatively thick sedimentary deposits (San Dieguito, San Elijo, and Batiquitos Lagoons).

Local geology is bounded by two major fault zones. The Rose Canyon fault zone is a vertical fault that bears offshore north of Soledad Mountain and strikes northwest about two miles offshore of Solana Beach, Cardiff-by-the-Sea, and Encinitas and ultimately becomes known as the Newport Inglewood fault zone. The fault is active, has been the source of large earthquakes in the past, and is likely to produce up to a magnitude 6.9 earthquake. The resulting seismic shaking and potential tsunami could have a possible impact on OMWD facilities and the Encinitas area. East of OMWD near Palomar Mountain is the Elsinore fault, which is also known to be an active fault but with one recorded recent major earthquake. It is predicted to be capable of a magnitude 7.5 earthquake which also could impact OMWD infrastructure.

OMWD lies in an area that is predicted to experience no more than one event that will cause shaking accelerations to be more than 20 percent of the acceleration of gravity in 100 years. This is the acceleration at which significant damage to older buildings is expected (Southern California Earthquake Data Center 2026).

OMWD Capability for Implementing Seismic Hazard Mitigation Activities

OMWD completed an administrative, technical, legal, and fiscal capability assessment for implementing hazard mitigation activities. This includes a summary of departments and their responsibilities associated with hazard mitigation planning as well as codes, ordinances, and plans already in place associated with hazard mitigation planning.

Table 8-5, below, summarizes OMWD's capabilities for implementing seismic hazard mitigation activities with respect to administrative and technical capabilities, legal and regulatory capabilities, and fiscal capabilities.

Table 8-5 OMWD's Capabilities for Seismic Hazard Mitigation Activities

Capability Type	Description
Administrative and Technical Capabilities	
Staff / Personnel Resources:	Planner(s) or engineer(s) with knowledge of land development and land management practices (Engineering)
	Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure (Engineering)
	Planners or engineer(s) with an understanding of natural and/or manmade hazards (Engineering)
	Staff with education or expertise to assess the vulnerability to hazards (Engineering)
	Personnel skilled in Geographic Information Systems (Engineering)
	Emergency manager (General Manager and Human Resources)
	Grant writers (Customer Services)
Legal and Regulatory Capabilities	
Regulatory Tools (ordinances, codes, plans):	Facility design and site plan review requirements
	Standard drawings and specifications
	Water and Recycled Water Master Plan
	Pipeline and Tank Condition Assessment Program
	10-20-year Capital Spending Plan
	Emergency Response Plan
	Strategic Plan
Fiscal Capabilities	
Fiscal Resources:	Community development block grants (cdbg)
	Federal, state, Metropolitan, and SDCWA grants
	10-20-year Capital Spending Plan
	Limited improvement Obligation Bonds
	Water, Wastewater, and Recycled Water Rates and Charges
	Developer impact fees for homebuyers or developers for new developments/homes
	Issuance of general obligation bond
	Issuance of revenue bonds

OMWD Water Facilities, Vulnerabilities, and Mitigation Plan

While OMWD's oldest infrastructure was constructed in the 1960s, much of its infrastructure is more recent and was designed to updated building codes. The DCMWTP and the Jacob J. Krauss Operations and Maintenance Building have been constructed since 2000. OMWD's headquarters remodel and expansion was completed in late 2020.

Table 8-6, provides an overview of seismic vulnerability and associated mitigation for OMWD's facilities. OMWD maintains and uses its Supervisory Control and Data Acquisition (SCADA) system to monitor all

its water system components and has staff on duty 24 hours a day, 365 days a year to respond to alarms or unusual reports.

Table 8-6 Facility Specific Seismic Vulnerability and Mitigation Plan

Facility (Date Built)	Seismic Vulnerability	General Mitigation Plan
DCMWTP (2000) 4S WRF (1990s and 2003)	Damage to Facilities Including Hazardous Materials	• Design to current building codes, update facilities as codes change. • Replacement and upgrade of system components. • Hazardous Materials Risk Assessment and Mitigation Plan • A comprehensive assessment of the entire DCMWTP is planned to be completed within the next 10 years.
Pipelines (1960-2025)	Damage, Leak or Break	• Design to American Water Works Association standards. • Condition assessment program that results in repair or replacement projects. Recently, OMWD has been focused on its most critical pipelines, and those constructed in the 1960s. • Maintain OMWD construction crews for emergency repairs. Maintain on-call emergency agreements with local contractors. • Stockpile pipeline components in its warehouse for rapid repair. • Strategically placed shut-off valves.
Pump Stations (1980s-2020)	Damage	• Design to current building codes, update facilities as codes change. • Regular maintenance and replacement. • Maintain emergency generators on-site.
Storage Tanks (1960s-2010)	Damage, Leakage	• Annual contract with a vendor to maintain the steel water storage tanks in “like new” condition, including compliance with the latest AWWA standards for seismic resistance. • Capital Improvement Program includes an inspection, assessment, seismic evaluation, and rehabilitation/replacement plan for its concrete storage tanks over the next nine years.

8.4.7 Shortage Response Action Effectiveness

All OMWD customers are metered. OMWD staff uses meter records to determine actual water savings associated with implementation of water shortage response actions consistent with OMWD’s WSCP.

Table 8-2 lists the demand reduction actions for each Water Shortage Level in OMWD’s WSCP and the estimated amount by which each action should reduce the shortage gap. The estimates are based on OMWD experience during recent droughts including from 2009-2011, 2014-2015, and 2021-2022 (see Section 6.1), and readily available references. The response actions identified for each Water Shortage Level are designed to provide an additional 10 percent reduction in water demands compared to reductions achieved under the preceding Water Shortage Level.

8.5 Communication Protocols

Effective communication is essential to the successful implementation of response actions during water shortage conditions. OMWD uses specific communication protocols for each shortage condition, including Water Shortage Levels 1 through 6. Communication protocols are presented below by water shortage level, consistent with OMWD’s WSCP.

Water Shortage Level 1:

- Send clear, consistent, and understandable messages encouraging increased voluntary conservation.
- Develop and maintain a steady stream of media relations activities and social media communications that explain the need to conserve and how to conserve, promote water-use efficiency programs and incentives, and/or give general support for water conservation. Schedule these efforts to provide timely support for water-use efficiency events, strategies, and other programs.
- Enhance the level of conservation-oriented community outreach through greater frequency of outreach at community events and speaker's bureau presentations.
- Develop specific outreach efforts that target key industries or groups (hospitality, HOAs, building managers, etc.) to raise awareness of, and participation in, drought response actions and water use efficiency programs.
- Keep www.olivenhain.com updated with information on current status of regional WSCP, statewide weather and drought conditions, and recommended water conservation practices
- Regularly communicate with local, state, and other elected officials in the region about the importance of achieving voluntary water conservation and encourage them to publicly promote such efforts to their constituents.
- Targeted outreach to high-water-use customers and industries
- Modify school assembly program content to include messages about need for increased voluntary conservation.
- Provide conservation information and other support as necessary to government officials for their own media events, hearings, community meetings, etc.
- Provide educational/promotional items that encourage conservation (dye tablets to detect toilet leaks, hose shutoff nozzles, etc.)

Water Shortage Level 2:

- Continue to deploy or enhance Level 1 strategies and tactics as needed, and consider supplemental strategies and tactics listed below.
- Develop a more serious campaign message that reflects the need for compliance with mandatory water-use restrictions.
- Send clear, consistent, and understandable messages regarding mandatory water-use restrictions in effect.
- Enhance media relations activities and social media communications related to water-use restrictions, conservation programs, and drought conditions. Schedule these efforts to provide timely support for new campaign initiatives, conservation events, and other programs.
- Leverage stakeholder groups' communication channels to help distribute updated information about restrictions and conservation as soon as possible; groups to include business organizations, civic organizations, service clubs, religious leaders, elected officials, along with key associations governing HOAs, building managers, landscape companies, etc.
- Consider adjustments to water conservation resources and programs in ways that make finding and participating in key programs easier, or to facilitate short-term water savings. Support these efforts with events to provide information and resources to consumers or other stakeholders.
- Add "pop-ups" with outreach campaign messages to www.olivenhain.com.
- Enhance efforts to encourage customers to report incidents of water waste directly to OMWD.

Water Shortage Levels 3-4:

In the event of a more severe supply shortage or demand management period that requires entering Level 3 or 4 of the WSCP (up to 30 or 40 percent mandatory conservation, respectively), OMWD will continue to

deploy or enhance Level 2 strategies and tactics, as needed, and will consider supplemental strategies and tactics listed below.

- Develop a more serious campaign message that reflects the need for higher level of extraordinary conservation.
- Send clear, consistent, and understandable messages regarding mandatory water use restrictions in effect and escalating challenges affecting water supplies.
- Conduct specialized outreach to landscape industry and water users with large ornamental landscapes to achieve significant reductions in discretionary outdoor water use while minimizing long-term property damage.
- Initiate targeted outreach to major CII water users to help them identify, prepare for and, as much as possible, avoid negative impacts from extreme water conservation requirements.
- Evaluate the appropriateness of continuing to promote long-term water-use efficiency programs and tools amid worsening supply conditions/increasing restrictions.
- Provide instructions for triaging landscape resources during extreme shortage conditions (saving trees, etc.).
- Reinforce business groups, service clubs, religious leaders, elected officials to spread awareness of need for significant, collective water-saving actions to preserve our economy and quality of life.
- Provide specialized technical assistance sessions or resources to help homeowners achieve immediate reductions in water use while minimizing landscape damage.
- Consider providing specialized technical assistance to large landscape customers (HOAs, cities, schools, etc.) to help achieve large-scale reductions in discretionary outdoor water use.
- Conduct specialized outreach to industries (hospitality, car washes, restaurants, etc.) or other large-scale water users that will likely experience impacts from emergency conservation to determine solutions for minimizing economic or quality of life impacts.

Water Shortage Levels 5-6:

In the event of a more severe supply shortage or demand management period that requires entering Level 5 or 6 of the WSCP (up to or greater than 50 percent mandatory conservation mandatory conservation, respectively), OMWD will continue to deploy or enhance Level 3-4 strategies and tactics as needed, and will consider supplemental strategies and tactics listed below to reflect increased shortage conditions.

- Develop campaign messages and tactics that raise awareness of the extreme shortage conditions facing the region and the likely need to focus water use on essential public health and safety needs.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial and public water users.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Raise awareness of any urgent actions being taken by OMWD or its wholesalers to improve water supply conditions; provide regular updates on those efforts.
- Suspend promotion of ongoing water-use efficiency programs to focus resources on promoting extreme/emergency conservation measures.
- Coordinate with regional emergency response agencies/services on messaging/additional outreach tactics if needed.
- Provide updates to media and other stakeholders on water supply conditions as often as possible (daily or as needed).
- Evaluate need for “phone bank” or additional staff resources to handle public inquiries.

- Provide updated communications materials to business groups, service clubs, religious leaders, elected officials to raise immediate awareness for increased water-savings actions and available assistance resources.

Catastrophic Shortage Communications:

In the event of a natural disaster, infrastructure failure, or other situation that requires regional water use to be quickly prioritized for or limited to essential public health and safety needs, OMWD will immediately deploy or enhance appropriate communication strategies and tactics from WSCP Levels 1-6 as needed, and will consider strategies and tactics listed below to reflect the need for urgent, emergency-driven water conservation.

- Develop campaign messages and tactics that raise awareness of the emergency conditions and the need to focus water use on essential public health and safety needs.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial, and public water users, and the expected duration of this restricted level of water use.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Raise awareness of any urgent actions being taken by OMWD and/or its wholesalers to improve water supply conditions; provide regular updates on those efforts.
- Suspend promotion of ongoing, long-term water-use efficiency programs and tools to focus resources on communicating need for immediate water conservation actions.
- Coordinate with local emergency response agencies/services on messaging and outreach tactics where possible.
- Provide updated communications materials to business groups, service clubs, religious leaders, elected officials to raise immediate awareness for emergency-level water-savings actions and available assistance resources.
- Conduct specialized outreach to landscape and related industries with significant outdoor water use to urge immediate end to landscape water use (if required).
- Coordinate dissemination of information regarding water-use restrictions to local law enforcement or other public agencies to help maximize widespread compliance with emergency mandates.

8.6 Compliance and Enforcement

During a Water Shortage Level 1 condition, water use restrictions are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by OMWD. During Water Shortage Level 2 through 6 conditions, all water use efficiency measures and restrictions are mandatory and become increasingly restrictive to attain escalating conservation goals. Violations of mandatory measures are subject to criminal, civil, and administrative penalties.

8.7 Legal Authorities

OMWD has the legal authority under California Water Code to implement and enforce water shortage response actions. In accordance with the general provisions of California Water Code Division 1, Chapter 3, Section 350, which authorizes a water supplier to declare a water shortage emergency when necessary, OMWD's WSCP includes an explicit statement affirming OMWD's authority to declare such an emergency. When necessary to consider proclamation of local emergency conditions, OMWD will coordinate with the cities of San Diego, Solana Beach, Encinitas, Carlsbad, and San Marcos, and the County of San Diego.

OMWD's communication protocols for this coordination are described in Section 8.5, and local contacts are identified in Table 8-7, below.

Table 8-7 Contacts for the Possible Proclamation of a Local Emergency

Entity	Contact
City of San Diego	Todd Gloria, Mayor
City of Solana Beach	Alyssa M. Muto, City Manager
City of Encinitas	Jennifer Campbell, City Manager
City of San Marcos	Michelle Bender, City Manager
City of Carlsbad	Geoff Patnoe, City Manager
County of San Diego, Office of Emergency Services	Jeff Toney, Director

OMWD is a member agency of SDCWA and as such is subject to SDCWA's WSCP, provided as part of its 2025 UWMP. SDCWA's 2025 WSCP is used by SDCWA to compute the supply to OMWD during a shortage considering demands, local agency supplies, and the SDCWA available supply.

8.8 Financial Consequences of WSCP

This section discusses OMWD's preparedness to manage its finances during periods when water sales to customers are reduced by a water supply shortage and increased conservation measures. OMWD's water supply shortage rate structure is designed to be revenue-neutral to dampen financial impact when sales are declining due to conservation.

OMWD's financial goal as a public agency is to be revenue-neutral; that is, to maintain revenues equal to costs and budgeted expenses, and maintain adequate reserves for economic uncertainties of changes in water sales and costs. OMWD's base (normal) and water supply shortage rates are developed based on the historical financial trend and average water demands.

Revenues generated from water sales and charges account for 91 percent of OMWD's revenue requirements. OMWD also receives its allocation from property tax revenues from the County of San Diego, which accounts for the remaining approximately 9 percent of its revenue requirements. Approximately 74 percent of OMWD's revenue requirements from water sales and charges are collected from commodity revenue, which refer to the portion of income that comes directly from the sale of water as a volumetric commodity. Due to this reliance on commodity revenue, fluctuations in water demands can dramatically impact OMWD's financial stability if not properly planned for.

OMWD's annual revenue requirement to be collected from rates and charges was developed based on historical average water sales with staff-projected growth. If water supply shortage conditions occur, OMWD's ability to recover its costs of service, including fixed wholesale costs, from water sales will be impacted depending upon the severity of water reductions. To mitigate this risk, OMWD collects approximately 50 percent of its revenue from fixed charges and indoor water use. OMWD can also utilize its rate stabilization fund to cover costs when water sales are lower than expected due to drought and revenues are not sufficient to pay for expenditures.

8.8.1 Rates and Charges

OMWD rates and charges are established using generally accepted cost recovery methodologies that reflect cost of service rate setting principles and California law. OMWD uses a tiered rate structure (also known as increasing or inclining block rates). Under the tiered rate structure, customers are charged at a higher rate as consumption increases. For its residential rate structure, the lowest tier is a lifeline rate,

typically for basic human consumption and is set at a much lower rate than the next tiers. The highest tier for residential customers is typically for outdoor water use and/or irrigation.

OMWD's residential rate uses a tiered water rate structure based on volume use. Meter sizes are assigned in terms of equivalent dwelling units (EDU), where one EDU represents a single-family residence with a typical ¾-inch meter and a maximum flow capacity of 30 gallons per minute. Water revenues are collected from commodity rates and monthly system access fees. About 74 percent of OMWD's water sales are collected from commodity revenue.

OMWD uses a tiered rate structure for collecting water user fees based on monthly consumption and ensure users pay a proportionate share of costs. OMWD's rate structure as of January 1, 2026, is provided in its current Rates and Rules Brochure which is included as Appendix H. As shown therein, residential users have a rate structure based on volume use in blocks that are priced at a rate ranging from $4.71 to $8.55 per 748 gallons, for non-shortage conditions. For irrigation customers, OMWD implements a tiered rate structure based on meter capacity. Tier break points for irrigation customers are established based on meter size and set in both winter and summer seasons, based on water use during each season, because irrigation customers are on a seasonal schedule.

A system access charge is calculated based on recovering certain OMWD fixed operating and maintenance costs, such as purchased wholesale water fixed charges, billing, collections, meter reading, and debt service. OMWD's goal is to not exceed 30 percent of its revenue requirement in collecting revenues from monthly fixed charges to sustain operations. OMWD has three outstanding bonds paid by water system revenues, including the 2013 State Revolving Fund Loan, the 2015 Water System Refunding Revenue Bonds, and the 2016 Water System Refunding Revenue Bonds. The bonds were issued to finance water infrastructure and improvements. OMWD's net water system revenues are pledged to the annual debt service payments.

8.8.2 Demand Reduction Rate

OMWD can authorize increases in the potable commodity charge, referred to as "demand reduction rate adjustments," that would take effect only during declared water shortage stages or state-mandated reductions in the level of potable water usage under the terms of the OMWD WSCP. Such adjustments would be implemented during locally declared water shortages, state-mandated reductions in the level of potable water usage, or other natural disasters or events that require reduction in water usage. OMWD's Board of Directors may implement demand reduction rate adjustments as necessary, depending on the level of water use cutbacks required, to ensure that OMWD is able to provide safe, reliable drinking water to its customers while exceeding regulatory requirements and recovering sufficient revenue to meet its expenses, including financial obligations.

Under the demand reduction rate adjustments, the rates for the potable commodity charge then in effect would be adjusted as necessary to achieve full cost recovery of the OMWD revenue requirement due to the implementation of any applicable water use reduction level.

8.8.3 Use of Financial Reserves

When water sales are lower than expected due to prolonged dry weather conditions or a wet winter and revenues are not sufficient to pay for the expenditures, the operating fund and rate stabilization fund reserve is used to cover temporary revenue shortfalls. OMWD's Board of Directors' Designated Fund Balances Policy set the minimum and maximum levels for the reserves. OMWD's Financial Policy, including the Reserve Funds Policy, can be found in OMWD's Operating and Capital Budget (OMWD 2025b).

8.8.4 Other Measures

During periods of reduced water sales, OMWD staff and Board of Directors review the schedules for all budgeted expenditures that are funded by water rates and consider postponement of expenditures or capital projects to avoid or mitigate rate increases.

8.9 Monitoring and Reporting

For near real-time feedback on the implementation of its WSCP, OMWD utilizes AMI technology, introduced in Section 8.4.3. OMWD can review usage trends of individual customers to identify excessive use threasholds, and implement enforcement warnings and actions. In summary, OMWD will:

- Estimate target water use by month using typical monthly use patterns and the target percentage of normal water use.
- On a monthly basis, summarize water use and compare to the target.
- Implement usage threashold alerts as a percentage of normal water use.
- Implement warnings and enforcement actions where the deviation is significantly above target.

8.10 WSCP Refinement Procedures

OMWD will use the results of its monitoring and reporting program to evaluate the WSCP performance. Each time the WSCP is implemented, OMWD staff will use the evaluation to determine the need and approach to further revisions. The goal will be for effective shortage response actions producing the desired reductions. Staff will review proposed refinements and any new actions to evaluate their effectiveness prior to incorporating them into the WSCP. Minor revisions will be implemented quickly while major revisions will require Board of Directors review and approval. Staff will provide the Board of Directors with an evaluation of the Plan's effectiveness and proposed changes, each time the WSCP is implemented.

8.11 Special Water Feature Distinction

Water features that are not pools or spas are analyzed and defined separately from pools and spas in the WSCP. To distinguish between the two, with respect to response actions, enforcement actions, and monitoring programs for each, OMWD's WSCP uses the terminology "decorative water features."

8.12 Plan Adoption, Submittal, and Availability

OMWD developed its 2020 WSCP as part of the 2020 UWMP update process, in accordance with DWR's 2020 UWMP Guidebook. The 2020 WSCP defined six standardized water shortage levels, for alignment with California Water Code Section 10632. OMWD adopted Ordinance 489 on June 16, 2021, to formally authorize the WSCP by providing the legal authority for OMWD to implement the WSCP's shortage levels, demand reduction actions, and enforcement measures. Ordinance 489 remains in effect for implementation of OMWD's WSCP, which is provided in Appendix E to this 2025 UWMP. Preparation of the WSCP was subject to noticing and public review through the 2020 UWMP process in 2021. Review and confirmation of WSCP has been conducted via noticing and public review during the 2025 UWMP process, as described in Section 10, UWMP Adoption, Submittal, and Implementation. A copy of Ordinance 489 is provided in Appendix E to this 2025 UWMP.

The WSCP must be adopted separately from the UWMP, as done by OMWD's Board of Directors on June 16, 2021. It must be re-adopted if substantial updates are incorporated. OMWD does not propose any substantial changes to its 2020 WSCP, which was adopted through Ordinance 489 as discussed above. There is no statutory requirement for the WSCP to be adopted as an ordinance. Ordinance 489 remains in effect for implementation of OMWD's WSCP.

8.13 References

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9 Demand Management Measures

9.1 Demand Management Measures for Wholesale Agencies

This section describes the Demand Management Measures (DMMs) implemented by OMWD's water wholesaler SDCWA, as well as Metropolitan who provides imported water to SDCWA for distribution to its member agencies. Details of San Diego-region wholesaler conservation efforts are further detailed in the 2025 UWMPs by SDCWA and Metropolitan.

Metropolitan passes its cost savings on to its member agencies through financial assistance to its members. Metropolitan provides rebate, incentive, and grant programs as well as educational materials, resources, and agency networking. SDCWA works closely with its member agencies to utilize Metropolitan funds as efficiently as possible. The list below identifies Metropolitan's regional programs and associated websites for details on regional programs:

- SoCal Water$mart – residential and commercial rebates: http://socalwatersmart.com/
- Be Water Wise Toolkit – booklets and reference materials: http://www.bewaterwise.com/toolkit.html
- Be Water Wise – water savings incentive program: http://bewaterwise.com/water-savings-incentive-program.html
- Be Water Wise – watering calculator for residential landscapes: http://www.bewaterwise.com/calculator.html
- Innovative Conservation Program – grants for water use efficiency: https://www.mwdh2o.com/planning-for-tomorrow/funding-opportunities/#icp
- MWD Outreach and Education Programs – school and teacher workshops, scout programs, field trips, internships: https://www.mwdh2o.com/education-landing-page/ and https://www.mwdh2o.com/education-landing-page/outreach-programs/

SDCWA assists member agencies by providing for joint participation in the following conservation programs: landscape audits; public information and education; school education; and residential, commercial, industrial, and institutional water saving-devices. The list below provides details and associated websites for SDCWA's regional programs:

- Commercial, residential, and agricultural programs and rebates: https://www.sdcwa.org/your-water/conservation/
- Water$mart landscaping resources: https://www.sdcwa.org/your-water/conservation/resources/
- Water$mart classes and videos: https://www.sdcwa.org/your-water/conservation/classes/
- Water$mart Landscape Contest: https://landscapecontest.com/
- Conservation and STEM education programs: https://www.sdcwa.org/in-the-community/schools-students/

Additionally, OMWD has been a consistent supporter of the efforts of Mission Resource Conservation District (Mission RCD) to provide water management assistance to growers in its service area. Since 1990, Mission RCD has contracted to SDCWA for technical assistance to irrigate crops as efficiently as possible with maximum economic benefit. Mission RCD and SDCWA collaboratively administer the Agricultural Water Management Program, which provides water efficiency improvements for on-farm irrigation systems, and supports local farmers with free best management practices (BMPs) aimed at reducing crop irrigation costs and improve production (Mission RCD, 2026). The water usage effectiveness programs have included direct assistance to retail water users, implementation of

University of California Cooperative Extension BMPs, funding assistance, and water purveyor efficiency practices.

9.2 Urban Water Use Objectives

In 2018, Senate Bill (SB) 606 and Assembly Bill (AB) 1668 were enacted to establish long-term indoor and outdoor water use conservation goals across the state. Collectively referred to as "Making Conservation a California Way of Life," the bills are companion measures that link state water-efficiency targets with local water-supply planning achieve statewide water conservation goals and maintain reliable water supplies. AB 1668 directs DWR and SWRCB to develop long-term water-use efficiency standards and adopt drought planning measures into the California Water Plan. SB 606 strengthens urban water management planning objectives, requires annual reporting on actual water usage and grants the SWRCB the authority to monitor, verify and take corrective action to remedy violations if a supplier is non-compliant. A key principle of the legislation is the Urban Water Use Objective (UWUO) which defines the maximum amount of aggregate water usage for a service area when water is managed efficiently. Further, the UWUO promotes water-use efficiency goals by encouraging permanent conservation practices at the agency level rather than temporary drought restrictions, offers providing quantifiable efficiency targets for urban water suppliers, including OMWD. In compliance with UWUO, OMWD is required to calculate its urban water use objective, implement water conservation programs, drought contingency planning and efficiency measures and provide annual water use calculations, as required by legislative initiatives.

OMWD will adjust its conservation program as necessary to meet a reduced UWUO. DMMs that can help meet reduced UWUOs are described in the following section.

9.3 Demand Management Measures

9.3.1 Water Waste Prevention Ordinances

OMWD's water waste prevention ordinance is adopted as its Water Shortage Contingency Plan (WSCP), discussed in detail in Chapter 8, Water Shortage Contingency Plan, and presented in Appendix E. See Section 8.10.3 for discussion of Ordinance 489.

9.3.2 Metering

OMWD is fully metered and requires separate meters for large irrigation customers. The records from these large meters have been especially useful in planning expansions to OMWD's recycled water distribution system. They also help OMWD identify large water users to work with on water use reduction planning.

As of November 2024, OMWD uses AMI technology exclusively to read all customer meters; see Section 8.4.3 for discussion of the AMI system transition. With the AMI system, leaks can be detected in near real-time and leak alerts can be set, which provide for quicker actions to mitigate losses. The AMI technology also supports timelier and more effective monitoring of drought response actions, as OMWD staff are able to review continuously updated water use data across the service area without manually visiting each meter. In addition, customers have access to AMI data through an online portal, where customers can view water usage, set up leak detection alerts, set alerts for projected billing statement thresholds, and access other resources. OMWD has observed that customers who leverage the portal to its fullest extent reduce their water use by up to 10 percent.

OMWD's field services technicians routinely test water meters to ensure that meters are accurate within 1.5 percent in accordance with American Water Works Association guidelines. Currently, OMWD has a meter-testing program that prioritizes meter testing on high-capacity water users as meters are

mechanical devices for which performance can degrade over time. OMWD has implemented a proactive residential water meter testing and replacement program, to better determine when failures will likely occur to better define the replacement strategy to ensure meter accuracy.

9.3.3 Conservation Pricing and Fixed Charges

OMWD utilizes a four-tiered rate structure for domestic customers that features increasing rates for higher water usage that reflect the proportionate cost of providing service in each tier. OMWD can also implement demand reduction rate adjustments during water shortage conditions as described in Section 8.8.2. The current OMWD Rates and Rules Sheet, effective January 1, 2026, is provided in Appendix F to this 2025 UWMP.

9.3.4 Public Education and Outreach

OMWD actively participates in public education and outreach through regional, local, and individual efforts. Most of OMWD's rebates and conservation incentives are available to customers through wholesaler partnerships with SDCWA and Metropolitan. SDCWA offers rebates through its Landscape Efficiency and Value Enhancement Solutions (LEAVES) program, and Metropolitan offers rebates through its SoCal Water$mart program, which is administered by Electric & Gas Industries Association (EGIA), a non-profit organization. Marketing campaigns on these programs are overseen by their respective administrators and promoted at regional and local public events as well as in flyers, handouts, and other giveaways. OMWD also markets the programs at the retail level through its newsletters, social media, and website. Additional information about the wholesaler rebate programs is available through the websites listed below:

- SDCWA's LEAVES program: www.sdcwa.org/your-water/conservation/
- Metropolitan's SoCal Water$mart program: www.socalwatersmart.com.

OMWD also maintains an active school education program that utilizes regional program resources as well as custom programs with materials and curriculum developed by the Water Education Foundation (WEF)'s Project Water Education Today (WET). OMWD annually budgets for school programs including the Splash Science Lab and field trips at Elfin Forest Recreational Reserve. In addition, OMWD maintains a demonstration garden at its headquarters in Encinitas that provides a tangible example of the recommendations of the San Diego Sustainable Landscapes Program and is free for the public to visit. More information about OMWD's school and education programs is available through the websites listed below:

- OMWD Water Conservation and Efficiency: www.olivenhain.com/drought
- OMWD School Programs: www.olivenhain.com/school
- Splash Science Lab: https://www.sdcoe.net/educators/outdoor-education-outreach
- Elfin Forest Recreational Reserve: https://elfinforest.olivenhain.com/schools/
- Demonstration Garden: www.olivenhain.com/garden

Locally, OMWD is an active member of the North County Water Agencies, which consists of twelve water agencies located in northern San Diego County. Each year, OMWD promotes water conservation through a poster contest targeting fourth-grade students and a video contest for high school students. Since 1993, the resulting artwork is incorporated into a calendar which highlights the students' awareness of water as Earth's most precious resource while exemplifying a sound water conservation ethic.

OMWD includes an active public information program in its annual budget and strategic plan to promote and educate customers about water use efficiency. Strategic plan performance indicators for 2025 included community outreach efforts to allow opportunities for public input and participation, outreach to inform customers of recent changes in state law and annual objectives contained in the UWMP, and education to spread awareness of the "My Water Use" dashboard leak alert feature. OMWD also hosts

facility tours offering educational opportunities regarding OMWD's potable and recycled water treatment processes and water supply conservation efforts.

OMWD maintains contact with the news media a minimum of 24 times per year and has an actively maintained website that is continually updated. OMWD occasionally uses consultants to assist in public outreach efforts such as educating customers about water supply and shortages and redesigning its website. Through its active speaker's bureau, OMWD delivers presentations, facilitates discussions, and provides general information about water issues for groups, civic organizations, and associations.

Every year, OMWD participates in the WaterSmart Landscape Contest with several other retail water agencies in San Diego County. The contest promotes climate-appropriate landscaping and advertises water-use and landscape transformation rebates and offers informational resources, including rainwater harvesting and fire protection guides and water use efficiency rebate programs. OMWD also hosts annual landscape design workshops at the OMWD headquarters in Encinitas, where attendees learn how to transform their yards into sustainable water conserving landscapes.

Throughout the year, OMWD provides additional water supply and conservation information through its "Watching Water" newsletter. The newsletter is not only sent directly to customers, but also made available on the OMWD website and featured on OMWD's Facebook page, X feed, lobby, and at the Elfin Forest Interpretive Center Honoring Susan J. Varty.

OMWD also maintains a customer engagement portal called My Water Use, which provides detailed history of customer water use as well as near real-time usage data using AMI technology, which is now exclusively used for meter reading. The platform allows customers to better understand and manage their water use through identifying trends and setting usage alerts.

9.3.5 Programs to Assess and Manage Distribution System Real Loss

OMWD currently uses acoustic leak detection devices to identify possible leaks. The devices are placed at locations having the potential for pipeline damage or corrosion, including stream crossings.

OMWD implemented a comprehensive cathodic protection system for its steel pipelines in the 1970s and shortly thereafter replaced all steel pipelines that were known to be leaking. Since that time, OMWD has experienced almost no mainline pipeline leaks. The majority of system leaks in OMWD are related to pipe fittings. OMWD completed a statistical analysis of valve failures and valve life. Based on this analysis, OMWD implemented a valve replacement program and has since replaced over 1,000 valves throughout the distribution system. OMWD currently replaces more than 35 valves per year, prioritizing based on age, non-operation, areas of known problems, and other criteria. For the near future, this replacement rate is expected to be sufficient to avoid valve failures. The 2024 10-Year CIP budget includes an average budget of $850,000 per year for valve replacements.

OMWD updated its Potable Water and Recycled Water Master Plan in 2024 (OMWD 2024) to set priorities for pipeline replacements based on age, material and pressure. See Chapter 6 for further discussion of the Potable and Recycled Water Master Plan Update.

OMWD continues the on-going inspection and evaluation of pipelines through the Potable Pipeline Condition Assessment Program, intended to plan for future repairs and rehabilitation projects. The following projects are scheduled for FY 2025 - 2026:

- Rancho Santa Fe Road Unit A Pipeline Replacement
- Dusty Trail Pipeline replacement
- Golem 14'' Pipeline Inspection and Rehabilitation
- Rancho La Cima / Aliso Canyon Pipeline Relocation

Additional information about OMWD's distribution system and water loss is in Section 4.3.4.

9.3.6 Water Conservation Program Coordination and Staffing Support

OMWD's water conservation and public outreach programs staffing is supported by three full-time staff members. The conservation and outreach programs are administered by three full-time Administrative Analysts (OMWD 2025). In addition, OMWD has included time for conservation and outreach in four positions: Customer Service and Public Affairs Supervisor, Customer Services Manager, Assistant General Manager, and General Manager. The Administrative Analysts' activities and responsibilities include coordinating a successful conservation, education, and public outreach program by:

- Staying abreast of new trends and innovations in the fields of public education and conservation.
- Representing and speaking publicly on behalf of OMWD.
- Acting as a liaison to schools about water conservation issues.
- Researching and analytical duties for completing the UWMP and other regulatory requirements such as the Annual Water Loss Audit and Annual Urban Water Use Objective.
- Understanding and interpreting federal, state, and local laws, codes, and regulations.
- Developing various promotional, educational, and conservation press releases and brochures.
- Developing, researching, coordinating, and updating a variety of public information materials.
- Effectively budgeting for conservation and outreach programs.
- Coordinating District tours and events.
- Assisting customer service with conservation and landscape inquiries.
- Assisting on OMWD's social media and web page development and maintenance.

During times of water supply shortage, OMWD has hired contractors, temporary employees, and interns to assist with enforcement of water use restrictions.

9.3.7 Other Demand Management Measures

OMWD offers water use evaluations to its customers at no charge, providing site-specific assessments and recommendations for water-saving practices. Certified irrigation professionals trained in landscape and home water use conduct each evaluation, which involves assessing the water pressure and reviewing how to determine if there is a leak on the property. There is also an indoor component available to determine the steps that can be taken to use water efficiently indoors. Evaluations are available for different property types including residential (single-family and multi-family), commercial, industrial, and public. Participants can sign up through OMWD's Free Water Use Evaluation website: www.olivenhain.com/free-water-use-evaluation.

9.4 Reporting Implementation

9.4.1 Implementation Over the Past Five Years

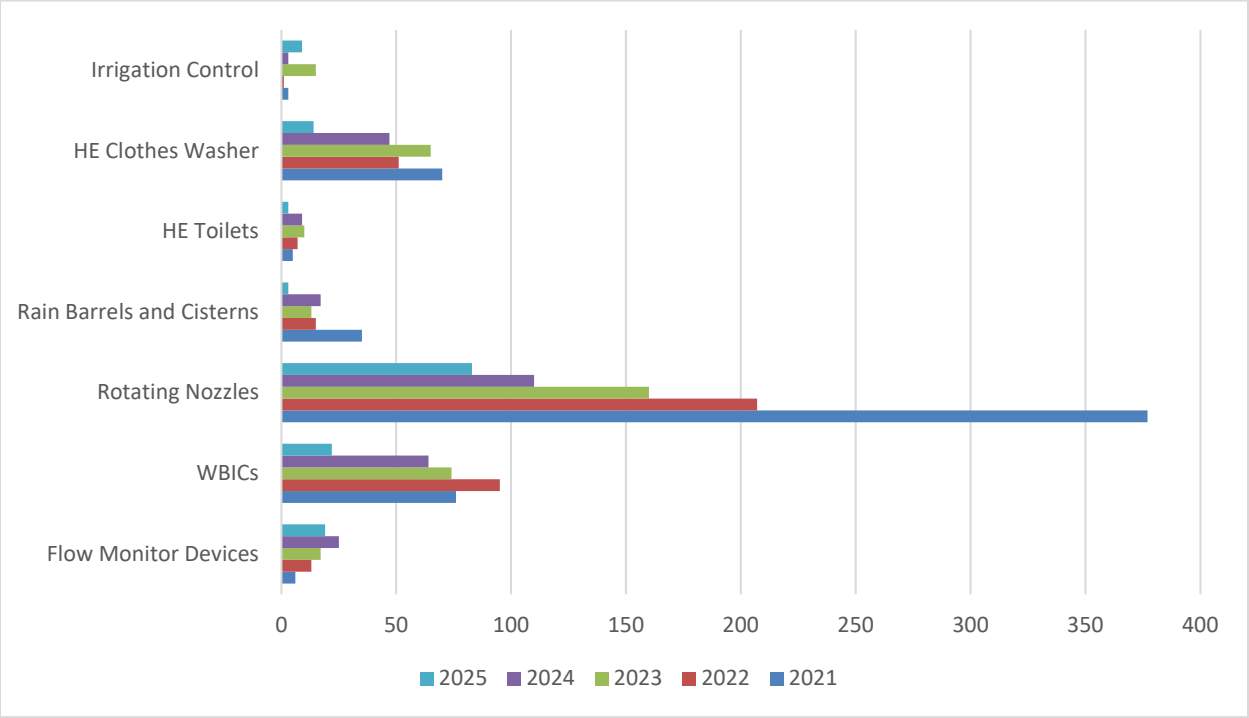
Between July 1, 2020, and June 30, 2025, OMWD provided 703 water use evaluations, and OMWD customers implemented the following water-saving upgrades through participation in Metropolitan's SoCal Water$mart program:

- Installed 80 flow meter devices, including 41 on consumer properties and 39 on utility meters
- Installed 331 weather-based irrigation controllers (WBICs), including 33 large landscape WBICs
- Replaced 937 sprinkler heads with rotating nozzles
- Installed 83 rain barrels and 8 residential cisterns
- Installed 34 high-efficiency toilets

- Installed 237 high-efficiency clothes washers
- Installed 29 hose bib irrigation controller upgrades and 2 new hose bib irrigation controllers

Figure 9-1, below, provides a graphical presentation of the participation information listed above.

Figure 9-1 OMWD Customer Participation in Water-Saving Upgrades, 2021-2025



HE = high efficiency; WBIC = weather-based irrigation controller

In addition to these water-saving upgrades, between July 1, 2020, and June 30, 2025, approximately 453,938 square feet of turf was removed within OMWD's service area. Sections 9.1 and 9.3.4 provide additional discussion of the SoCal Water$mart program.

9.4.2 Nonfunctional Turf Ban

Enacted in 2023, AB 1572 aims to further reduce urban water usage through restricting the irrigation of nonfunctional turf with potable water and promoting sustainable water-use practices in support of the "Making conservation a California Way of Life" objectives. This legislation includes a phased implementation schedule which provides property owners and managers of commercial, industrial and public spaces adequate time to climate-appropriate landscaping that would significantly reduce water demand. Beginning in January 2027, state and local agencies will be required to cease the watering of nonfunctional turf with potable water. By January 2028, the potable water ban will then apply to all commercial, industrial and institutional properties, followed by January 2029 when the ban extends to common areas of Homeowners' associations, common interest developments and similar community organizations.

OMWD will promote the rebate programs available through its wholesale partners, as described above in Section 9.1, as incentive for conversion of nonfunctional turf by the established timelines.

9.4.3 Implementation to Achieve Water Use Targets

OMWD utilized the DMMs described in Section 9.3 to achieve the water use targets described in Chapter 5, SB x7-7 Baselines, 2020 Targets, and 2025 Reporting. OMWD will continue to implement the DMMs to support long-term achievement of the UWUOs described in Section 9.2.

9.4.4 Water and Energy Programs

OMWD's electrical accounts now receive 100 percent renewable energy via direct access with 3 Phases Renewables. Power is generated through wind, solar, and biomass technology and fed into the grid for OMWD rather than through more traditional sources with San Diego Gas and Electric.

9.4.5 Wastewater and Energy Cost Savings

Utilities other than OMWD may also benefit from cost-effective water conservation measures. Local wastewater districts may benefit from reduced hydraulic loading on their facilities, and the local electric and gas utilities may benefit from reduced energy demand for water heating and less pumping of water to the region. Because these potential cost savings do not accrue directly to OMWD, cooperative arrangements are necessary to allow these benefits to be factored into the economic evaluation of conservation programs.

A water conservation-induced reduction in hydraulic loading could benefit local wastewater plants by relieving stress on existing hydraulically overloaded outfalls and treatment plants, or by allowing for the deferment of capacity expansion projects. Wastewater plants should benefit from reduced operating costs and energy savings from smaller volumes of wastewater requiring treatment. The value of these potential benefits is currently unknown, although they do figure into OMWD planning efforts described in Section 6.2.5 of this UWMP.

9.4.6 Cost Savings by Wholesale Water Suppliers

OMWD purchases imported water from SDCWA, which in turn purchases a portion of its water from Metropolitan. Both SDCWA and Metropolitan also benefit from water conservation in OMWD's service area. SDCWA benefits from water conservation by being able to delay or reduce the size of large new water delivery facilities necessary to meet the needs of the county's growing population. Metropolitan likewise benefits by not having to develop as much new water supply, and by being able to delay or reduce the size of large new water delivery facilities.

9.5 Planned Implementation to Achieve Water Use Targets

OMWD plans to continue outreach efforts on an annual basis DMMs:

- Meter testing and replacement program
- Conservation-based pricing for water-savings products, devices and landscape transformations
- School education programs and annual poster contest
- Outreach events and facility tours
- Communicating with customers through its speaker's bureau, social media platforms, OMWD's website, bill messages, newsletters, and more
- My Water Use customer engagement portal
- Water conservation program coordination and staffing support
- Water use evaluation program

In addition, it is prepared to adjust rates, water use restrictions, and outreach efforts accordingly depending on the level of reduction required to meet its water use target.

The actual per capita daily water use for 2025 was 139 gallons per capita per day (GPCD), which is below OMWD's target of 282 GPCD. The demand management efforts described in this chapter highlight OMWD's efforts in maintaining water use conservation efforts and ensure water remain at or below the established water use target.

9.6 References

OMWD (Olivenhain Municipal Water District). 2025. Sewer System Management Plan Update. June 30. Available: https://www.olivenhain.com/wp-content/uploads/2025-06-30-SSMP.pdf. Accessed December 2025.

_____. 2024. Potable and Recycled Water Master Plan Update. November. Available: 2024-Potable-and-Recycled-Water-Master-Plan_2024-10-28_sensitive-info-redacted-for-public-use.pdf. Accessed December 2025.

Mission RCD. 2026. SDCWA Agricultural Water Management Program. Available: https://www.missionrcd.org/sdcwa-agriculture-water-management-program. Accessed January 6, 2026.

10 Plan Adoption, Submittal, and Implementation

This chapter provides an overview of public and agency notifications completed per California Water Code requirements for public availability and UWMP and WSCP adoption.

10.1 Plan Timeline

The water use and supply planning data included in this 2025 UWMP is through FY 2025.

10.2 Notice of Plan Preparation and Public Hearing

10.2.1 Notice to Cities and Counties

OMWD's service area covers portions of the County of San Diego and the Cities of Carlsbad, Encinitas, San Diego, San Marcos, and Solana Beach, and is close to the Cities of Del Mar, Escondido, and Poway. OMWD provided notice to all of these public agencies at the start of the UWMP process with distribution on February 11, 2026, of the 60-day Notice of the draft UWMP hearing on April 15, 2026, at 5:30 p.m. Sixty days' notice is also required prior to the BOD meeting for adoption of the final UWMP on June 17, 2026 at 5:30 p.m.; the Notice distributed on February 11th contained information about both hearings, thereby satisfying all noticing requirements for the 2025 UWMP. UWMP hearings occurred at OMWD Headquarters, located at 1966 Olivenhain Road in the City of Encinitas.

A complete list of agencies that received the 60-day Notice is provided in Chapter 2, *Plan Preparation*, Table 2-5, *Coordination with Stakeholders*. Table 10-1, below, provides an overview of notification provided to cities and counties.

Table 10-1 Notification to Cities and Counties

City / County Name	60 Day Notice	Notice of Public Hearing
City Name		
City of Carlsbad	Yes	Yes
City of Del Mar	Yes	Yes
City of Encinitas	Yes	Yes
City of Escondido	Yes	Yes
City of Poway	Yes	Yes
City of San Diego	Yes	Yes
City of San Marcos	Yes	Yes
City of Solana Beach	Yes	Yes
County Name		
County of San Diego	Yes	Yes

10.2.2 Notice to the Public

The public hearing was noticed in the San Diego Union-Tribune for two successive weeks (14 calendar days), at least two times, with at least five days between publication dates. The notice included the time and place of both hearing as well as the location where the 2025 UWMP is available for public review. A copy of the notice to the public can be found in Appendix I.

10.3 Public Hearing and Adoption

10.3.1 Public Hearing

OMWD held a public hearing on April 15, 2026, at 5:30 p.m. at OMWD Headquarters in Encinitas, as an opportunity for the public to provide input on the 2025 UWMP and WSCP before being adopted.

<< PLACEHOLDER - summary of any public comments received >>

10.3.2 Adoption

OMWD's BOD adopted the 2025 UWMP at their meeting on June 17, 2026, at 5:30 p.m. at OMWD Headquarters. The WSCP has not changed since it was adopted on June 16, 2021, and therefore does not need to be adopted again. A copy of the adoption resolution may be found in Appendix H. Because a majority (77.8 percent) of the population in OMWD's service area vicinity speak English as the primary language and additional residents speak English as a second language, no other language services were provided.

10.4 Plan Submittal

Given its importance as a water use and supply planning document, the 2025 UWMP has been shared broadly following adoption:

- **Department of Water Resources:** The adopted OMWD 2025 UWMP was submitted to DWR within 30 days of adoption by the OMWD Board of Directors and before July 1, 2026. The adopted OMWD 2025 UWMP and tabular data was submitted online with the DWR WUE data online submittal tool (wuedata.water.ca.gov).
- **California State Library:** A CD of the adopted OMWD 2025 UWMP was submitted to the California State Library at the address listed below within 30 days after adoption.

  California State Library Government Publications
  Attention: Coordinator, Urban Water Management Plans
  P.O. Box 942837
  Sacramento, CA 94237-0001

- **Cities and Counties:** An electronic link to the adopted OMWD 2025 UWMP was submitted to the cities of Encinitas, Carlsbad, San Diego, San Marcos, and Solana Beach, to which OMWD supplies a portion of the water, within 30 days after adoption. The WSCP Ordinance No. 489 (Water Shortage Contingency Plan) is provided as Appendix E to the 2025 UWMP.
- **OMWD Website:** The adopted OMWD 2025 UWMP and WSCP were available to the public at OMWD's website no later than July 1, 2026.

Note that OMWD is not regulated by the California Public Utilities Commission and has not submitted its 2025 UWMP or WSCP to them.

10.5 Plan Implementation and Amendments

OMWD is committed to implementing its 2025 UWMP and WSCP as set forth in its plan. Should amendments be necessary to the 2025 UWMP, OMWD will publicly notice the board action and submit all materials to DWR, the California State Library, and any city or county within 30 days after adoption.

Appendix A

DWR Checklist of Compliance with Guidebook

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	Pg. 3-1
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	Pg. 3-1
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	Pg. 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	Pg. 2-1
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	Pg. 2-1
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	Pg. 2-2
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	Pg. 2-2
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	Pg. 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	Pg. 2-4

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	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	Pg. 3-5
X	n/a	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Pg. 3-6
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	Pg. 3-9
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	Pg. 3-10
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	Pg. 3-12
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	Pg. 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	Pg. 4-9
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	Pg. 4-9
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	Pg. 4-8
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	Pg. 4-8
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	Pg. 4-4

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	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	Pg. 4-2
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	Pg. 7-9
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	Pg. 5-1
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	Pg. 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	Pg. 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	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	Pg. 6-3
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	n/a
X	n/a	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	n/a
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	n/a
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	n/a
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	n/a
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	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	6.1	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	Pg. 6-2
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	Pg. 6-14
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	Pg. 6-7
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	Pg. 6-8
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	Pg. 6-9
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	Pg. 6-10
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	Pg. 6-11
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	Pg. 6-12
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	Pg. 6-12

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	Pg. 6-14
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	Pg. 6-15
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	Pg. 6-21
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	Pg. 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	Pg. 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	Pg. 7-11
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	Pg. 7-9
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	Pg. 8-3

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	Pg. 7-1
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	Pg. 7-11
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	Pg. 7-9
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	Pg. 8-1
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	Pg. 8-5
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	Pg. 8-16
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	Pg. 8-3

Retail	Wholesale	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
X	n/a	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	Pg. 8-5
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	Pg. 8-11
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	Pg. 8-5
X	n/a	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Pg. 8-11
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	Pg. 8-11
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	Pg. 8-16

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	Pg. 8-14
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	Pg. 8-16
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	Pg. 8-16
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	Pg. 8-19
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	Pg. 8-19
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	Pg. 8-14
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	Pg. 8-14
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	Pg. 8-20

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	Pg. 8-21
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	Pg. 8-22
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	Pg. 8-22
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	Pg. 8-22
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	Pg. 8-22
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	Pg. 8-22
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	Pg. 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

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	Pg. 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	Pg. 10-2
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	Pg. 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	Pg. 10-2
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	Pg. 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	Pg. #
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	Pg. #
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	Pg. #
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	Pg. #

Appendix B

American Water Works Association Water Loss Worksheet

AWWA Free Water Audit Software: Worksheet

FWAS v6.1

Water Audit Report for: Olivenhain Municipal Water District
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	n/a	0.000	Acre-ft/Yr						VOSEA
WI	Water Imported:	n	g	7	19,704.100	Acre-ft/Yr	n	g	5	0.11%	percent	over-registration WIEA
WE	Water Exported:	n	g	7	2,965.500	Acre-ft/Yr	n	g	5	0.31%	percent	over-registration WEEA
	WATER SUPPLIED:				16,726.114	Acre-ft/Yr						

AUTHORIZED CONSUMPTION

							choose entry option:			
BMAC	Billed Metered:	n	g	9	15,558.370	Acre-ft/Yr				
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr				
UMAC	Unbilled Metered:	n	g	10	90.770	Acre-ft/Yr				
UUAC	Unbilled Unmetered:	n	g	8	18.700	Acre-ft/Yr	custom	18.700	acre-ft/yr	
	AUTHORIZED CONSUMPTION:				15,667.840	Acre-ft/Yr				

WATER LOSSES

1,058.274 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	38.896	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	7	162.864	Acre-ft/Yr	1.03%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	38.896	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 240.655 Acre-ft/Yr

Real Losses

Real Losses: 817.618 Acre-ft/Yr

WATER LOSSES: 1,058.274 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1,167.744 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	466.6	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	23,751		(active *and* inactive)
	Service connection density:				51	conn./mile main	
	Are customer meters typically located at the curbstop/property				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	8	116.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	7	$6.03	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$1,575.02	$/acre-ft	$53,080,410	$/yr (optional input)

Click here to calculate carbon emissions ---> carbon

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: Water Imported (WI)
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:		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)

Appendix C

Use of Reclaimed and Non-Potable Water (Ordinance No. 492)

ARTICLE 25. USE OF RECLAIMED AND NON-POTABLE WATER

Sec. 25.1. Declaration of Policy. Water Code Section 13500, et seq., establishes a State policy to encourage the use of recycled water. Water Code Section 13500 provides that the use of potable domestic water for the irrigation of green belt areas, cemeteries, golf courses, park, and highway landscaped areas constitutes an unreasonable use of water where recycled water is available for such uses. Water Code Sections 71610 and 71611 authorize the district to provide and sell recycled and non-potable water within the water service jurisdiction of the District. It is the policy of the Board of Directors of the District to encourage and mandate the development of recycled water and non-potable water within the District to meet the growing demand for water within the District's service jurisdiction.

Sec. 25.2. Legislative Findings. The Board of Directors finds and determines that the implementation of recycled water and non-potable water within the service jurisdiction of the District is necessary to meet the growing demand for water service within the District, to reduce the demand for imported water to serve the District's customers, and to properly utilize local sources of usable water.

Sec. 25.3. Mandatory Use of Recycled and Non-Potable Water. All persons, customers, and property served by the District seeking water service from the District after the effective date of Ordinance No. 173 shall be required to utilize recycled water or non-potable water where reclaimed or non-potable water is determined to be available by the District and suitable for the uses being proposed. Customers of the District subject to this Ordinance shall comply with all terms and conditions of recycled or non-potable water service as prescribed by the District.

Sec. 25.4. Rules and Regulations for the Use of Recycled and Non-Potable Water Service. The use of recycled water is regulated by the California Regional Water Quality Control Board (RWQCB). Permission for the use of recycled water is based in part on meeting the requirements of Title 22, Chapter 3 of the California Administrative Code. The Title 22 regulations were promulgated by the State Department of Health Services for the purpose of ensuring protection of public health and to specify the degree of water treatment required for the particular uses of recycled water. The RWQCB, in association with the State Health Department, establishes discharge requirements. In accordance with discharge requirements for recycled water, the RWQC requires that rules and regulations for the use of recycled water be established. These rules and regulations shall also apply to the use of all non-potable water

ARTICLE 25. USE OF RECLAIMED AND NON-POTABLE WATER

including, but not limited to, raw-unfiltered imported water, storm drain runoff, creek in-flows and ground water sources.

Sec. 25.5. Establishment of Rules and Regulations. The General Manager, or his/her designated representative, is authorized and directed to draft and amend from time to time the Rules and Regulations for the use of Recycled and Non-Potable Water within the Olivenhain Municipal Water District. The Rules and Regulations shall be distributed to the California Regional Water Quality Control Board, the State of California Department of Health Services, and the San Diego County Health Department for their approval, and as amended from time to time to ensure the preservation of these beneficial uses and to protect the public health.

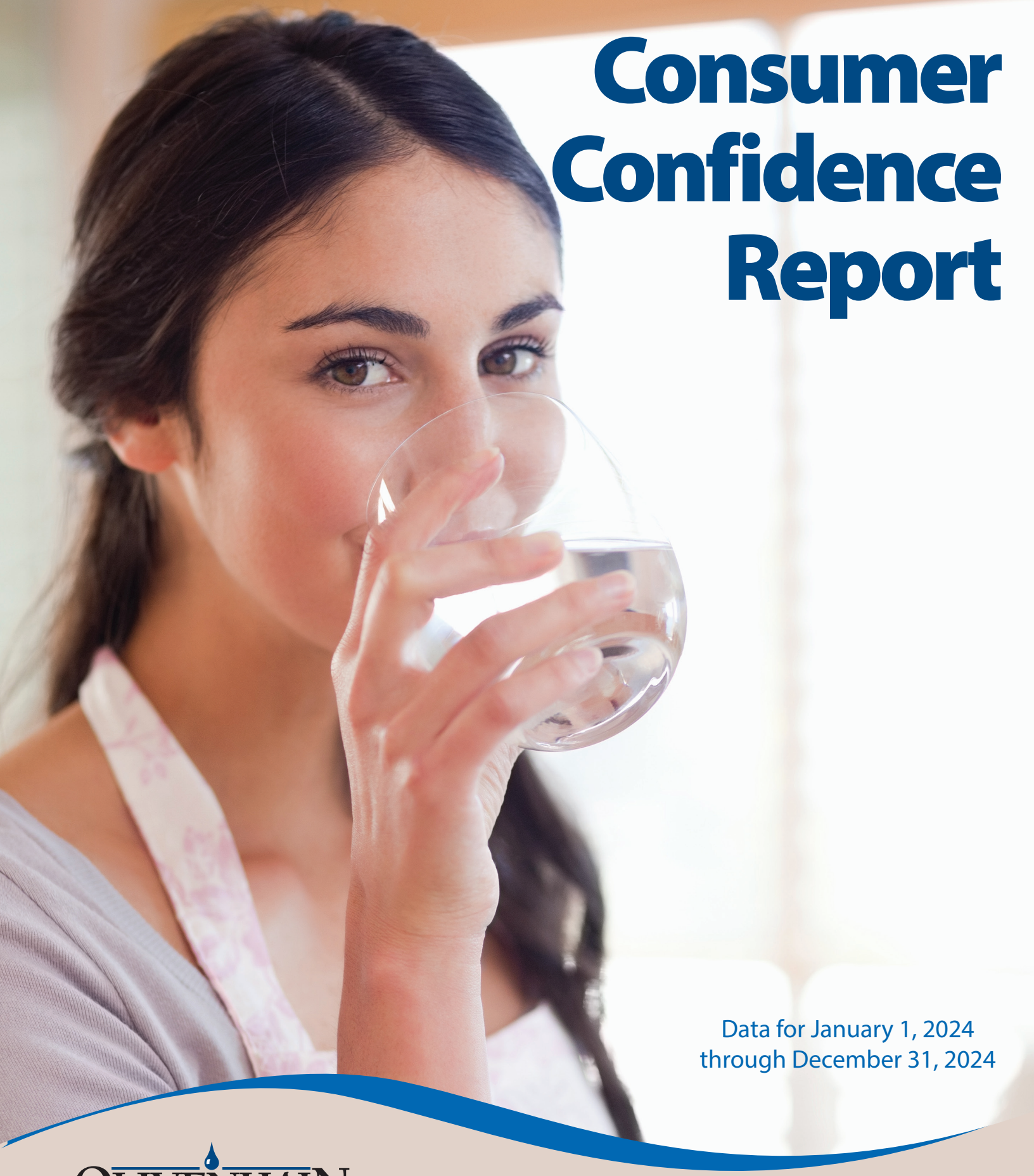
Sec. 25.6. Implementation of the Rules and Regulations. Implementation of the Rules and Regulations for Recycled and Non-Potable Water shall be based upon the Regional Water Quality Control Board, State Department of Health Services and San Diego County Health Department approving the Rules and Regulations and subsequent amendments, as being adequate to protect public health, safety and welfare.

Sec. 25.7. added via Ordinance No. 492 / September 8, 2021

Sec. 25.7. Wet Weather Incentive Program. Per Ordinance 492, The Wet Weather Incentive Program offers a financial incentive to recycled water customers in the Southeast Quadrant during periods of lower demand, such as cooler winter months and stretches of wet weather to assist in alleviating conditions which may lead to the Recycled Water Overflow Storage Basin (Pond) overflowing. Implementation of the Wet Weather Incentive Program is based on the Recycled Water Overflow Storage Basin trigger levels that, when reached during the fall and winter months, allow the General Manager to implement the program. Once implemented, the District offers recycled water customers an incentive to take recycled water as these customers have the ability to store water in ponds, lakes, impoundments, etc. The District will execute individual agreements with customers to utilize recycled water in the Southeast Quadrant in exchange for recycled water credits earned based upon customer usage during the program. Deactivation of the program is declared by the General Manager when the monthly Pond levels drop sufficiently below the trigger levels to allow for inflows into the Pond, or if the program enters the consecutive month and is below the respective Pond trigger levels.

Appendix D

Consumer Confidence Report 2024



Consumer Confidence Report

Data for January 1, 2024
through December 31, 2024

OLIVENHAIN
Municipal Water District
A Public Agency

An Annual Drinking Water Quality Report
Published June 2025

OLIVENHAIN
Municipal Water District

A Public Agency Providing
Water
Wastewater Services
Recycled Water
Hydroelectricity
Elfin Forest Recreational Reserve

Olivenhain Municipal Water District is required by law to distribute a Consumer Confidence Report each year.

This report explains how drinking water provided by OMWD meets or exceeds all health-related state and federal water quality standards for your drinking water. Included within are an explanation of where your water comes from, results of water quality tests, and tips on how to interpret the data. The data presented is for January 1, 2024 through December 31, 2024. We are proud to share our results with you.

Pure Excellence

Your Water Sources

OMWD's raw water supply in 2024 was 100% imported. The imported raw water sources are the California State Water Project (Sacramento-San Joaquin Delta) and the Colorado River. These sources, supplying water to all of Southern California, rely on runoff from the Sierra snowpack and the Colorado River Basin. Both of these supplies are provided to OMWD from Metropolitan Water District of Southern California (MWD) and San Diego County Water Authority (SDCWA).

MWD maintains Lake Skinner, located in southwest Riverside County, as the untreated raw water source for San Diego County. Before water from Lake Skinner is delivered to you, it is treated to remove pollutants and bacteria. OMWD delivers water to your home or business that has been treated at its David C. McCollom Water Treatment Plant (DCMWTP).

David C. McCollom Water Treatment Plant

In 2024, approximately 87.5% of the water delivered to OMWD customers was treated locally at DCMWTP. The raw water received at DCMWTP is a blend of water from the Colorado River and the State Water Project. This raw water is obtained from SDCWA, which purchases it from MWD. The remaining percentage of treated water delivered to OMWD customers was purchased from SDCWA and treated at either the Twin Oaks Valley Water Treatment Plant, the Claude "Bud" Lewis Carlsbad Desalination Plant, and/or MWD's Robert A. Skinner Water Treatment Plant.

DCMWTP is located within the northeastern portion of OMWD's service area and uses membrane technology to produce superior quality finished water. The membrane process uses fewer chemicals than conventional treatment methods, and offers improved barriers against pathogens, such as *Cryptosporidium*, viruses, and bacteria, such as coliform. Public tours of DCMWTP may be available; visit **www.olivenhain.com/events** for details.

What Is In My Water?

The tables on the following pages show how water quality for OMWD met health-related standards in 2024. The tables also show data specific to the treated water that flows through OMWD's distribution system, and where noted, raw water quality from the Lake Skinner water source. For information on the Lake Skinner source water and a source water assessment, please contact Paul Rochelle with MWD at **909-392-5155** or **prochelle@mwdh2o.com**. For information on SDCWA's water treatment plants, including the Twin Oaks Valley Water Treatment Plant or the Claude "Bud" Lewis Carlsbad Desalination Plant, please contact Chris Castaing with SDCWA at **760-233-3279** or **ccastaing@sdcwa.org**, or visit SDCWA's website at **www.sdcwa.org/water-quality**. For more information on OMWD's DCMWTP or distribution system, please contact OMWD's Operations Manager at **760-753-6466** or **waterquality@olivenhain.com**.

How Do Contaminants Get in the Water?

The raw sources of drinking water (both tap and bottled water alike) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals and/or from human activity. Contaminants that may be present in raw source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
- **Inorganic contaminants**, such as salts and metals, that can be naturally occurring or resulting from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and California's State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. US Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

SWRCB regulations also establish limits for contaminants in bottled water that provide similar protection for public health.

What About Lead and Copper?

OMWD is required to test every three years for lead and copper. OMWD tested for lead and copper in 2022; 30 locations were sampled, and the results, which were well below regulatory action levels, are provided in the table on page 6. Additional information about lead and copper is available at **www.olivenhain.com/leadandcopper** and from the USEPA Safe Drinking Water Hotline, **800-426-4791**.

In compliance with the SWRCB Drinking Water Permit Amendment 2017PA-SCHOOLS and Assembly Bill 746 (2017), OMWD tested seven school locations for lead in 2017, six schools in 2018, and one school performed lead testing in 2019. The action level of 15 ppb was not exceeded at any location. Customers can request school lead testing results by contacting the Division of Drinking Water at **DDW-PLU@waterboards.ca.gov** or **916-322-9602**.

In 2024, OMWD completed an initial Lead Service Line Inventory required by the USEPA's Lead and Copper Rule Revision by the October 16, 2024 deadline. OMWD found no lead lines, galvanized requiring replacement lines, or unknown lines in OMWD's distribution system. For more information, visit **www.olivenhain.com/leadandcopper**.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. OMWD is responsible for providing high-quality drinking water, but cannot control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water Hotline, **800-426-4791**, or at **www.epa.gov/safewater/lead**.

Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline, **800-426-4791**.

The trace contaminants found in OMWD's water sources, along with their standards, are listed in the tables found in this report. It is important to note that drinking water standards are based on research to protect the general public and may not be sufficient to protect certain persons, as noted below.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, as well as some elderly and infants can be particularly at risk for infections. These people should seek advice from their health care providers about drinking water. USEPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline, **800-426-4791**.

Water Quality Data

Parameter	Units	State or Federal MCL	PHG	State DLR	OMWD's DCMWTP[a] Range	OMWD's DCMWTP[a] Average
COMPLIANCE MONITORING						
Inorganic Chemicals						
Arsenic	ppb	10	0.004	2	2.2	2.2
Barium	ppm	1	2	0.1	0.11	0.11
Fluoride (naturally occurring)	ppm	2.0	1	0.1	0.2 - 0.4	0.29
Fluoride (treated water)[b]	ppm	2.0	1	0.1	0.27 - 0.78	0.65
RADIOLOGICALS						
Uranium	pCi/L	20	0.43	1	1.7	1.7
CLARITY						
Combined Filter Effluent Turbidity[c]	NTU %	TT=95% of sample ≤ 0.1	NA	NA	100% ≤ 0.1	Highest 0.058
SECONDARY STANDARDS – Aesthetic Standards[c]						
Chloride	ppm	500	NA	NA	92	92
Color	Color Units	15	NA	NA	2	2
Odor Threshold	TON	3	NA	1	1	1
Specific Conductance	µS/cm	1,600	NA	NA	880	880
Sulfate	ppm	500	NA	0.5	190	190
Total Dissolved Solids (TDS)	ppm	1,000	NA	NA	530	530
Turbidity[c]	NTU	5	NA	.01	0.013 – 0.058	0.022
OTHER PARAMETERS						
Chemicals						
Alkalinity (as $CaCO_3$)	ppm	NA	NA	NA	100 -110	106
Calcium	ppm	NA	NA	NA	44 - 65	58
Hardness (as $CaCO_3$)	ppm	NA	NA	NA	255	255
Magnesium	ppm	NA	NA	NA	22	22
pH	pH Units	NA	NA	NA	8.1 - 8.4	8.3
Potassium	ppm	NA	NA	NA	4.9	4.9
Silica	ppm	NA	NA	NA	8.1	8.1
Sodium	ppm	NA	NA	NA	80	80
Total Organic Carbon (TOC)	ppm	TT	NA	0.30	2.6 - 3.1	2.80
UNREGULATED CONTAMINANT MONITORING RULE 5 - UCMR5						
Chemicals						
Lithium	ppb	NA	NA	NA	36.3 - 54.1	46.7

See page 6 for Footnotes

Major Sources in Drinking Water
Erosion of natural deposits; runoff from orchards; glass & electronics waste
Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Erosion of natural deposits; discharge from fertilizer and aluminum factories
Water additive that promotes strong teeth
Erosion of natural deposits
Soil runoff
Runoff/leaching from natural deposits; seawater influence
Naturally occurring organic materials
Naturally occurring organic materials
Substances that form ions in water; seawater influence
Runoff/leaching from natural deposits; industrial wastes
Runoff/leaching from natural deposits
Soil runoff
Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Runoff/leaching from natural deposits
Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water
Runoff/leaching from natural deposits
Inherent characteristic of water, naturally occurring
Salt present in the water; naturally occurring
Naturally occurring
Salt present in the water; naturally occurring
Various natural and man-made sources
Naturally occurring; used in electrochemical cells, batteries, and organic syntheses and pharmaceuticals

Abbreviations & Definitions

AL – Action Level – *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.*

Average – Result based on arithmetic mean

$CaCO_3$ – Calcium Carbonate

CFU – Colony-Forming Units

DLR – Detection Limits (for purposes of) Reporting

HAA5 – Haloacetic Acids (five regulated acids)

LRAA – Locational Running Annual Average – *The highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all samples collected within a 12-month period.*

MCL – Maximum Contaminant Level – *The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.*

MCLG – Maximum Contaminant Level Goal – *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the US Environmental Protection Agency.*

mL – Milliliter

MPN – Most Probable Number

MRDL – Maximum Residual Disinfectant Level – *The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.*

MRDLG – Maximum Residual Disinfectant Level Goal – *The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.*

NA – Not Applicable

ND – Not Detectable

NL – Notification Level to the SWRCB

NTU – Nephelometric Turbidity Units

pCi/L – Picocuries per Liter

PFAS – Per-and Polyfluoroalkyl Substances

PHG – Public Health Goal – *The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.*

ppb – Parts per billion or micrograms per liter (µg/L)

ppm – Parts per million or milligrams per liter (mg/L)

ppt – Parts per trillion or nanograms per liter (ng/L)

RAA – Running Annual Average – *The highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period.*

Range – Results based on minimum and maximum values

SWRCB – State Water Resources Control Board

TCR – Total Coliform Rule

TON – Threshold Odor Number

TT – Treatment Technique *is a required process intended to reduce the level of a contaminant in drinking water and does not refer to any range of values.*

TTHM – Total Trihalomethanes

UCMR5 – US EPA's fifth Unregulated Contaminant Monitoring Rule

µS/cm – Microsiemens per centimeter; or micromhos per centimeter (µmho/cm)

Water Quality Data

Parameter		State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	OMWD's Distribution System Range	OMWD's Distribution System Average	Major Sources in Drinking Water
Treated Water Data – Distribution System							
PRIMARY STANDARDS – Mandatory Health-Related Standards							
MICROBIOLOGICAL							
E. coli (Acute Total Coliform)[e]	NA	0	(0)	NA	ND	ND	Human and animal fecal waste
Total Coliform Bacteria[f]	NA	TT	NA	NA	ND	ND	Naturally present in the environment
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS							
Haloacetic Acids (five) (HAA5)[g]	ppb	60	NA	1	7.6-20.7	Highest LRAA 14.0	By-product of drinking water chlorination
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	0.17-3.7	Highest RAA 2.26	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM)[g]	ppb	80	NA	1	34.0-62.1	Highest RAA 46.2	By-product of drinking water chlorination
INORGANIC CHEMICALS							
Copper[h] 2022	ppm	AL=1.3	0.3	0.05	30 sites sampled; 0 sites over AL	90th Percentile 0.417	Internal corrosion of household pipes; erosion of natural deposits
Lead[h] 2022	ppb	AL=15	0.2	5		90th Percentile 2	Internal corrosion of household pipes; erosion of natural deposits
SECONDARY STANDARDS – Aesthetic Standards[i]							
Color	Color Units	15	NA	NA	ND-2.0	0.04	Naturally occurring organic materials
Odor Threshold	TON	3	NA	1	ND-.01	.0003	Naturally occurring organic materials
Turbidity[c]	NTU	5	NA	.01	0.05-0.35	0.04	Soil runoff

Footnotes

[a] Treated effluent data is derived from DCMWTP samples collected between January–December 2024, representing water supplied to the public. OMWD also purchases treated water from the San Diego County Water Authority. Purchased treated water quality data can be accessed by visiting **www.sdcwa.org/water-quality**.

[b] Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6-1.2 mg/L with an optimum dose of 0.7 mg/L. Information about fluoridation, oral health, and current issues is available from **www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml**.

[c] Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance. As a Treatment Technique Standard, OMWD turbidity levels from the Combined Filter Effluent of the membranes were less than or equal to 0.1 NTU in 95% of the measurements taken each month and did not exceed 1.0 NTU at any time. Distribution samples (364) at OMWD were collected; the system was in compliance with the Secondary Standard.

[d] State Secondary Standards apply to water supplied to the public by community water systems; annual monitoring is required for approved surface water sources or distribution system entry points of the effluent of source water treatment.

[e] E. coli-positive sample triggers MCL violation. E. coli MCL violation triggers Level 2 TT assessments. No samples were E. coli-positive and no Level 2 assessments were required.

[f] More than 5% total coliform-positive samples in a month triggers Level 1 assessments. No Level 1 assessments or violations occurred.

[g] TTHM and HAA5 results for OMWD's distribution system are provided. OMWD was in compliance with all provisions of the Stage 2 Disinfectants/Disinfection By-Products Rule based on the Highest LRAA.

[h] Lead and copper are regulated as a Treatment Technique under the Lead and Copper Rule, which requires water samples to be collected at the consumers' tap. OMWD is required to test every three years for lead and copper. If action levels are exceeded in more than 10% of the consumer tap samples, water systems must take steps to reduce these contaminants. OMWD collected samples at 30 locations in 2022; no samples exceeded the AL.

See page 5 for Abbreviations and Definitions.

Per- and polyfluoroalkyl substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a group of chemicals that are found in many different consumer, commercial, and industrial products. They are also known as "forever chemicals" because they do not break down easily. **UCMR5 required that public water systems perform monitoring events for 29 PFAS compounds. PFAS compounds were not detected by OMWD in 2024.** For more information on PFAS, visit **www.epa.gov/pfas/pfas-explained**.

About OMWD

OMWD is a municipal water district organized and operating pursuant to Water Code Sections 71000 et seq., and was incorporated on April 9, 1959 to develop an adequate water supply for landowners and residents. On June 14, 1960, residents of OMWD voted to become a member of SDCWA, thus becoming eligible to purchase water transported into San Diego County via the aqueduct systems of SDCWA and MWD. At over 48 square miles, OMWD serves approximately 87,000 customers in Encinitas, Carlsbad, San Diego, Solana Beach, and neighboring communities.

For Additional Information

For more information on this report, contact OMWD's Operations Manager at **760-753-6466** or **waterquality@olivenhain.com**.

*Este informe contiene información muy importante sobre su agua potable. Si tiene preguntas, llame al **760-753-6466**.*

OLIVENHAIN
Municipal Water District

1966 Olivenhain Road
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Published by Olivenhain Municipal Water District in the interest of an informed public.

Board of Directors
Matthew R. Hahn, President
Neal Meyers, Vice President
Scott Maloni, Treasurer
Christy Guerin, Secretary
Ebin Lanfried, Director

General Manager
Kimberly A. Thorner, Esq.

General Counsel
Alfred Smith, Esq.

Board Meeting Dates
Please visit our website at **www.olivenhain.com/meetings** for dates.

Mission Statement
Olivenhain Municipal Water District is a multi-functioning public agency that is dedicated and committed to serving present and future customers in a service-oriented manner by:

Water
Providing safe, reliable, high-quality drinking water while exceeding all regulatory requirements in a cost-effective and environmentally responsive manner.

Recycled Water
Providing recycled water and wastewater treatment in the most cost-effective and environmentally responsive method.

Parks
Safely operating the Elfin Forest Recreational Reserve and providing all users with a unique recreational, educational, and environmental experience.

Emergency Management
Complying with policies and procedures that adhere to local, state, and federal guidelines for national security and disaster preparedness.

Sustainable Operations
Pursuing alternative and/or renewable resources with the most sustainable, efficient, and cost-effective approach.

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A Public Agency Providing:

Water • Wastewater Services • Recycled Water • Hydroelectricity • Elfin Forest Recreational Reserve

OLIVENHAIN
Municipal Water District

Appendix E

Water Shortage Contingency Plan (Ordinance No. 489)

ORDINANCE NO. 489

AN ORDINANCE OF OLIVENHAIN MUNICIPAL WATER DISTRICT'S BOARD OF DIRECTORS REGARDING ADOPTING A WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, article 10, section 2 of the California Constitution declares that waters of the state are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for the public welfare; and

WHEREAS, conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety, and welfare; and

WHEREAS, regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water; and

WHEREAS, California Water Code sections 375 et seq. authorize water suppliers to adopt and enforce a comprehensive water conservation program; and

WHEREAS, adoption and enforcement of a comprehensive water conservation program will allow Olivenhain Municipal Water District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.; and

WHEREAS, in 2018, two long-term conservation bills, Senate Bill 606 and Assembly Bill 1668, were signed into law by Governor Jerry Brown. The two bills amend portions of the California Water Code including section 10632, which is related to water shortage contingency planning. Among other changes, the amendments require agencies to incorporate an annual water supply and demand assessment under its Urban Water Management Plan. It also specifies the adoption of six standard water shortage levels; and

WHEREAS, the San Diego County Water Authority has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of the Water Authority's programs to provide a reliable supply of water to meet the needs of the Water Authority's 24 member public agencies, including Olivenhain Municipal Water District. The Water Authority's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Water Authority's Urban Water Management Plan; and

WHEREAS, as anticipated by its Urban Water Management Plan, the San Diego County Water Authority, in cooperation and consultation with its member public agencies, has adopted a Water Shortage Contingency Plan, which establishes a progressive program for responding to water supply limitations resulting from drought conditions. This ordinance is intended to be consistent with and to implement the Water Authority's Water Shortage Contingency Plan; and

WHEREAS, the Water Authority's Water Shortage Contingency Plan contains six regional water shortage levels containing regional actions to be taken to lessen or avoid supply shortages. This ordinance contains Water Shortage Levels that correspond with the Water Shortage Contingency Plan levels; and

WHEREAS, Olivenhain Municipal Water District, due to the geographic and climatic conditions within its territory and availability of water provided by the San Diego County Water Authority, may experience shortages due to drought conditions, regulatory restrictions enacted upon imported supplies, and other factors. Olivenhain Municipal Water District has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. Olivenhain Municipal Water District's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Urban Water Management Plan adopted by Olivenhain Municipal Water District; and

WHEREAS, the water conservation measures and progressive restrictions on water use and method of use identified by this ordinance provide certainty to water users and enable Olivenhain Municipal Water District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public; and

WHEREAS, this ordinance rescinds and replaces Ordinance 427, and is intended to serve as Olivenhain Municipal Water District's Water Shortage Contingency Plan so that it is consistent with the new drought planning requirements for water suppliers.

NOW, THEREFORE, the Board of Directors of Olivenhain Municipal Water District does ordain as follows:

SECTION 1.0: DECLARATION OF NECESSITY AND INTENT

(a) This ordinance establishes water management requirements that are in addition to any permanent water waste prohibitions and are necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable method of use of water within OMWD in order to assure adequate supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

(b) This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes six water shortage level response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

(c) Water Shortage Level 1 response measures are voluntary and will be reinforced through local

and regional public education and awareness measures that may be funded in part by Olivenhain Municipal Water District. During Water Shortage Levels 2 through 6, all conservation measures and water use restrictions become mandatory and become increasingly restrictive in order to attain escalating conservation goals.

(d) During a Water Shortage Level 2 condition or higher, the water conservation measures and water use restrictions established by this ordinance are mandatory and violations are subject to criminal, civil, and administrative penalties and remedies specified in this ordinance and as provided in Olivenhain Municipal Water District's Administrative and Ethics Code.

SECTION 2.0: DEFINITIONS

(a) The following words and phrases whenever used in this chapter shall have the meaning defined in this section:

1. "Grower" refers to those engaged in the growing or raising, in conformity with recognized practices of husbandry, for the purpose of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural or floricultural products, and produced: (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market. "Grower" does not refer to customers who purchase water subject to the Water Authority's Permanent Special Agricultural Water Rate Program.

2. "Water Authority" means the San Diego County Water Authority.

3. "Metropolitan" means the Metropolitan Water District of Southern California.

4. "Person" means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by Olivenhain Municipal Water District.

5. "WSCP" means the Water Authority's Water Shortage Contingency Plan or Olivenhain Municipal Water District's Water Shortage Contingency Plan, as specified, in existence on the effective date of this ordinance and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

SECTION 3.0: APPLICATION

(a) The provisions of this ordinance apply to any person in the use of any water provided by Olivenhain Municipal Water District.

(b) This ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, state, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater ordinances and stormwater management plans.

(c) Nothing in this ordinance is intended to affect or limit the ability of Olivenhain Municipal Water District to declare and respond to an emergency, including an emergency that affects the ability of Olivenhain Municipal Water District to supply water.

(d) The provisions of this ordinance do not apply to use of water from private wells, recycled water, or graywater systems.

(e) Nothing in this ordinance shall apply to use of water that is subject to a special supply program, such as the Water Authority's Permanent Special Agricultural Water Rate Program. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program. A person using water subject to a special supply program and other water provided by Olivenhain Municipal Water District is subject to this ordinance in the use of the other water.

SECTION 4.0: WATER SUPPLY RELIABILITY ANALYSIS

(a) This Water Shortage Contingency Plan examines the findings related to water supply reliability and the key issues that may create a shortage condition when considering OMWD's water asset portfolio. It summarizes the water supply analysis in Chapter 6 of OMWD's 2020 UWMP, and the water reliability findings in Chapter 7 of OMWD's UWMP, to develop a WSCP that is a stand-alone document.

(b) OMWD is currently 100 percent reliant on SDCWA for its potable water supply and, therefore, the water supply reliability analysis is based upon the SDCWA assessment from its 2020 UWMP, available at www://sdcwa.org. SDCWA has executed contracts for a number of sources of water including the Carlsbad Desalination Plant (50,000 AFY), water conserved from Imperial Irrigation District (IID) (200,000 AFY) and the lining of the All-American and Coachella Canals (78,700 AFY), and other sources as described in its UWMP. The IID and canal lining supplies are referred to as QSA supplies. In addition, SDCWA is a member agency of Metropolitan whose major sources include the Sacramento-San Joaquin Delta and the Colorado River. OMWD is investigating a brackish groundwater desalination project that would reduce dependence on SDCWA, as described in section 6.2.1. of OMWD's 2020 UWMP. This project is in the feasibility stage of analysis and is not yet considered in the reliability assessment. OMWD met approximately 13 percent of its 2020 total demand for water through its existing recycled water supplies.

(c) Historically, except for dry years, the supply from SDCWA is consistent in quantity and quality. SDCWA's and Metropolitan's main sources of supply are the State Water Project and the Colorado River and both sources face legal, environmental, and climatic

challenges. To address these challenges to the State Water Project supply, the Department of Water Resources is going through a permitting process known as the Delta Conveyance Project and EcoRestore. It has been documented that the Colorado River supply is oversubscribed and, to address this, SDCWA and Metropolitan have implemented a number of conservation, land fallowing, transfer, and storage projects. Both the State Water Project and the Colorado River are described in the SDCWA and Metropolitan 2020 UWMPs, the latter of which is available at http://mwdh2o.com/aboutyourwater/Planning-Documents.

(d) Historically, the SDCWA supply has been very reliable with only occasional reductions during droughts in California or the Colorado River Watershed. Due to their very high priority water rights, SDCWA's Colorado River supplies of conserved water from its Imperial Irrigation District transfer and the All-American and Coachella Canal Lining projects are considered to be "drought-resilient." For dry-year analysis, SDCWA assumes that the Metropolitan supplies will be allocated according to its preferential right formula. With these supplies, SDCWA projects no shortages to its member agencies during the normal and single and multi (five) dry year scenarios through 2045. Any shortages that might occur would be handled through the use of SDCWA's dry-year supplies and carry-over storage program, described in section 11.4 of the SDCWA 2020 UWMP, which includes both in-region surface water storage and out-of-region groundwater storage in California's Central Valley. SDCWA's dry-year supplies are described in Section 4.6 of its 2020 UWMP. The carryover storage capacity is approximately 100,000 AF in the San Vicente Reservoir and 70,000 AF in the Semitropic-Rosamond Water Bank Authority and the Semitropic Water Bank. SDCWA may also consider securing transfer supplies during dry years and in 2009 acquired 20,000 AF from Placer County Water Agency in Northern California.

(e) In 2020, approximately 99 percent of all potable water delivered to OMWD customers was treated at the David C. McCollom Water Treatment Plant. The remainder of the water was produced by the Carlsbad Desalination Plant, SDCWA's Twin Oaks Valley Water Treatment Plant in San Marcos, or Metropolitan's Skinner Water Treatment Plant in Riverside County.

(f) The DCMWTP is a robust plant and can handle many types of water quality changes without any impact on the quality of the product water. The primary impact of any such changes is a reduction in overall capacity as well as increased chemical and electrical costs. The plant does not, however, have extensive pre-treatment equipment because source water quality testing during design indicated it was not necessary. With this combination of consistent source water quality, and robust treatment processes, the DCMWTP has never been out of operation because of source water quality.

(g) Should raw water quality prove to be more than can be managed effectively at the DCMWTP, OMWD has four connections to the SDCWA treated water Second Aqueduct system that can provide 100 percent redundancy of treated water supply for customers. In fact, these connections were used for 100 percent of the supply prior to the

construction of the DCMWTP. In addition, OMWD has interconnections with neighboring agencies that can be used to supplement supplies, as described in section 7.4.1. of OMWD's 2020 UWMP.

(h) OMWD publishes an annual water quality report, the Consumer Confidence Report. The report is made available to all its customers, posted on its web page, and displayed in its lobby. Water quality is a major factor in any OMWD endeavor; however, OMWD does not anticipate any shortage or impact to availability of supply due to water quality issues. SDCWA's UWMP Section 7 provides more information on the quality of water provided to OMWD.

(i) As OMWD currently relies on SDCWA for 100 percent of its raw water supply, the OMWD Drought Risk Assessment is based on the SDCWA DRA, which assesses a projected drought over the next five-year period from 2021 through 2025. The SDCWA analysis showed that there were adequate water supplies for its member agencies in all five years and therefore, actions under the WSCP are not required. More detailed information about the DRA can be found in OMWD's UWMP Section 7.3.

SECTION 5.0: ANNUAL WATER SUPPLY AND DEMAND ASSESSEMENT PROCEDURES

(a) Currently, OMWD receives 100 percent of its raw supply from SDCWA. OMWD assumes that each spring, SDCWA and Metropolitan will provide an Annual Assessment including a supply forecast for the coming year. Based on this forecast, OMWD will prepare and submit its annual water supply and demand assessment (Annual Assessment), starting July 1, 2022. The Annual Assessment and reporting procedure will be based on DWR's Urban Water Management Plan Guidebook 2020, Training Module 8, and the procedures in OMWD's WSCP, including the steps and timing that OMWD will follow. The Annual Assessment includes the following sections, as required by the Water Code.

(b) SDCWA Annual Water Supply and Demand Assessment

1. SDCWA first considers its core water supplies as part of the Annual Assessment. These core supplies include the Carlsbad Desalination Plant, QSA supplies, and Metropolitan. Included as part of the consideration are the capabilities and constraints of the infrastructure used to deliver the core supplies.

2. Next, SDCWA considers member agency projected municipal and industrial water demands on SDCWA. To project member agency municipal and industrial water demands, SDCWA uses a short-term forecast model that considers multiple variables, including historic water demand patterns, weather, a local economic index, and anticipated conservation levels. Demand on SDCWA is also influenced by member agency local supply levels which may be influenced by weather and other factors.
3. If a water supply shortfall is identified based on the assessment of core water supplies and projected water demands, the next step is to evaluate the use of

stored water reserves from SDCWA's carryover storage reserves or to pursue additional supply augmentation measures, such as dry-year transfers, to reduce or eliminate the shortfall. If a shortage doesn't exist, consistent with Carryover Storage Policy Guidelines, SDCWA will analyze how to most effectively manage storage supplies to avoid potential shortages in the future.

(c) Decision-Making Process

1. OMWD will begin its decision-making process in FY 2022 (July 1, 2021 to June 30, 2022) and will implement WSCP actions as soon as it is determined that a shortage condition exists. This may occur well before the Annual Assessment report is submitted to DWR on or before July 1, 2022. The process will repeat each fiscal year.

2. The OMWD assessment team (AT) will be made up of one member from the General Manager (GM), Customer Services (CS), and Engineering Departments (E).

3. OMWD's decision-making process is presented in Table 4-1. Start and end dates are approximate and will be adjusted as necessary.

Table 4-1: Annual Assessment Decision-Making Process

Start Date	End Date	Activities	Whom
Oct	Jun	Monthly - Monitor Metropolitan and SDCWA Annual Assessment of supplies, and local supplies and weather. Update OMWD unconstrained demands as needed.	CS
Oct	Jun	Review SDCWA Annual Assessment as soon as available. Coordinate monthly with SDCWA on planned WSCP actions.	CS
Oct	Jun	Draft OMWD Annual Assessment Report	CS
Oct	Jun	Monthly – Update draft OMWD Annual Assessment and consider a shortage determination.	AT
Oct	Jun	If shortage is determined, use WSCP to determine shortage level, drought response actions, communication, compliance, and enforcement.	CS
Nov	Jun	After shortage determination, prepare shortage documents and present to Board of Directors for approval.	AT
Dec	Jun	Implement the WSCP actions approved by the Board of Directors.	CS
Jun	Jul	Update Annual Assessment Report and send final to DWR by July 1	CS

(d) Data and Methodologies

1. The evaluation criteria OMWD will use in its Annual Assessment include:

   A. Supply available from SDCWA and Metropolitan

   B. Dry-weather storage available from SDCWA and Metropolitan

   C. Overall Annual Assessments by SDCWA and Metropolitan

   D. Capabilities and constraints of SDCWA and Metropolitan infrastructure to deliver supplies

   E. OMWD-specific local conditions and uncertainties

   F. Projection of short-term unconstrained customer demands

   G. OMWD infrastructure considerations relative to treating, storing and distributing water

2. Water Supply

   A. Currently, OMWD receives 100 percent of its potable supply as untreated water from SDCWA. Each spring, SDCWA will provide an Annual Assessment supply forecast for the coming year that assesses their supplies including IID conserved water, All-American and Coachella Canal lining supplies, Carlsbad Desalination Plant supplies, and Metropolitan. OMWD will use this assessment as the basis for its supply in the coming fiscal year. The SDCWA and Metropolitan Assessments will evaluate dry-year storage volumes available to their member agencies. They will consider current and dry-year regulatory conditions. They will also evaluate their capital projects and operating plans that could affect deliveries. OMWD will identify uncertainties and anticipated water supply constraints.

3. Unconstrained Customer Demand

   A. OMWD will use its demand forecast model, as described in Chapter 4 of OMWD's 2020 Urban Water Management Plan, to estimate unconstrained customer demand. The summary of the forecast methodology is:

      - Existing Baseline Demands
      - + New Development (Growth) Demands
      - - Net reductions Due to Additional Conservation Efficiencies
      - +- Changes Due to Anticipated Weather or Climate Change
      - = Next FY Demands

B. Net reductions to the baseline will consider:

- Landscape ordinances, irrigation controllers, and turf retirement
- Devices such as washers, toilets, and multi-family residential sub-metering
- Increasing real cost of water and behavioral changes
- Updated information on climate change
- State-mandated water use guidelines

2. Current Year Available Supply

A. OMWD will rely on the SDCWA Annual Assessment for the current year available supply.

3. Infrastructure Considerations

A. OMWD will review the condition of its infrastructure, DCMWTP capacity, and capital improvement projects scheduled for the next FY to assess how infrastructure may impact its ability to deliver supplies to its customers. If constraints are identified, OMWD will develop a plan to work around the constraint and deliver full supplies. Plans could include changes to operations, temporary facilities, and assistance from SDCWA and neighboring agencies. In its 60+-year history, OMWD has never had an infrastructure constraint that significantly reduced deliveries.

4. Other Factors

A. On an annual basis, OMWD will assess and describe any locally applicable factors or considerations that could influence or disrupt supplies including SDCWA and Metropolitan capital projects and operating plans.

5. Methodology

A. The assessment of supplies and demands will be on an annual time step basis, consistent with the forecasting and reporting of SDCWA and Metropolitan. A spreadsheet will be developed to compare SDCWA supplies with OMWD demands. The assessment of a shortage will consider the evaluation criteria described above. OMWD's demand forecasting model will be used to estimate demands. The assessment will be reviewed for consistency with the 2020 UWMP, including projected water supplies in Table 6-9, and any significant differences will be explained. The methodology will be updated after each report is submitted.

SECTION 6.0: CORRELATION BETWEEN WATER SHORTAGE CONTINGENCY PLAN AND WATER SHORTAGE LEVELS

(a) Olivenhain Municipal Water District may implement any level of this ordinance at any time, whether independently or in order to comply with emergency regulations imposed by state or federal agencies, upon the appropriate findings and notice required herein. However, a correlation is anticipated between the Water Authority's WSCP shortage levels and Olivenhain Municipal Water District's Water Shortage Levels identified in this ordinance as described herein. Under WSCP Water Shortage Level 1, Olivenhain Municipal Water District would implement Water Shortage Level 1 actions. Under WSCP Shortage Level 2, Olivenhain Municipal Water District would implement Water Shortage Level 1 and Level 2 actions. Under WSCP Shortage Levels 3, Olivenhain Municipal Water District would implement Water Shortage Level 1, Level 2, and Level 3 actions. Under WSCP Level 4, Olivenhain Municipal Water District would implement Water Shortage Level 1, Level 2, Level 3, and Level 4 actions. Under WSCP Level 5, Olivenhain Municipal Water District would implement Water Shortage Level 1, Level 2, Level 3, Level 4, and Level 5 actions. Under WSCP Level 6, Olivenhain Municipal Water District would implement Water Shortage Level 1, Level 2, Level 3, Level 4, Level 5, and Level 6 actions.

(b) The Water Shortage Levels identified in this ordinance correspond with the Water Authority WSCP as identified in Table 6-1:

Table 6-1: Water Shortage Levels

WSCP Water Shortage Levels	Use Restrictions	Conservation Target
1	Voluntary	Up to 10%
2	Mandatory	Up to 20%
3	Mandatory	Up to 30%
4	Mandatory	Up to 40%
5	Mandatory	Up to 50%
6	Mandatory	Above 50%

SECTION 7.0: WATER SHORTAGE LEVEL 1

(a) A Water Shortage Level 1 condition applies when the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction of up to 10% is required in order to ensure that sufficient supplies will be available to meet anticipated demands. A Water Shortage Level 1 condition may also apply when Olivenhain Municipal Water District's General Manager or board of directors deems such action necessary due to drought and/or limited water supply conditions. The General Manager shall declare the existence of a Water Shortage Level 1 and take action to implement the Level 1 conservation practices identified in this ordinance.

(b) During a Water Shortage Level 1 condition, Olivenhain Municipal Water District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices:

1. Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.

2. Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

3. Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket/watering can, or when a drip/micro-irrigation system/equipment is used.

4. Use a bucket, watering can, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.

5. Irrigate nursery and commercial grower's products before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket/watering can, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.

6. Use recirculated water to operate ornamental fountains.

7. Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that recirculates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

8. Serve and refill water in restaurants, bars, and other food service establishments only upon request.

9. Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.

10. Repair all water leaks within five (5) days of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.

11. Use recycled or non-potable water for construction purposes when available and feasible.

(c) During a Water Shortage Level 2 condition or higher, the conservation practices established in a Water Shortage Level 1 condition shall become mandatory and all persons shall be required to implement these practices.

SECTION 8.0: WATER SHORTAGE LEVEL 2

(a) A Water Shortage Level 2 condition applies when the Water Authority notifies its member agencies that due to cutbacks caused by drought or other reduction in supplies, a consumer demand reduction of up to 20% is required in order to have sufficient supplies available to meet anticipated demands. A Level 2 Water Supply Shortage also applies if required to comply with emergency regulations imposed upon Olivenhain Municipal Water District by state or federal agencies. The Olivenhain Municipal Water District Board of Directors shall declare the existence of a Water Shortage Level 2 condition and implement the mandatory Level 2 conservation measures identified in this ordinance.

(b) All persons using Olivenhain Municipal Water District water shall comply with Level 1 water conservation practices during a Water Shortage Level 2 condition, and shall also comply with the following additional conservation measures:

1. Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager and posted by Olivenhain Municipal Water District. This section shall not apply to commercial growers or nurseries.

2. Limit lawn watering and landscape irrigation using sprinklers to no more than ten (10) minutes per watering station per assigned day. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems, and stream rotor sprinklers.

3. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section 8(b)(2), on the same schedule set forth in Section 8(b)(1) by using a bucket, watering can, hand-held hose with positive shut-off nozzle, or low- volume non-spray irrigation.

4. Repair all leaks within seventy-two (72) hours of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.

5. Stop operating ornamental fountains or similar decorative water features that require potable water.

SECTION 9.0: WATER SHORTAGE LEVEL 3 – DROUGHT CRITICAL CONDITION

(a) A Water Shortage Level 3 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to 30% is required in order to have sufficient supplies available to meet anticipated demands. A Level 3 Water Supply Shortage also applies if required to comply with emergency regulations imposed upon Olivenhain Municipal Water District by state or federal agencies. The Olivenhain Municipal Water District Board of Directors shall declare the existence of a Water Shortage Level 3 condition and implement the Level 3 conservation measures identified in this ordinance. Upon declaration of a Level 3 Water Shortage condition, Olivenhain Municipal Water District may also declare a Water Supply Shortage Emergency in the manner and on the grounds provided in California Water Code section 350 and may do so whether or not San Diego County Water Authority declares a California Water Code section 350 emergency.

(b) All persons using Olivenhain Municipal Water District water shall comply with Level 1 and Level 2 water conservation practices during a Water Shortage Level 3 condition and shall also comply with the following additional mandatory conservation measures:

1. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the Olivenhain Municipal Water District. This section shall not apply to commercial growers or nurseries.

2. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 8(b)(2), on the same schedule set forth in section 9(b)(1) by using a bucket, hand-held hose with a positive shut-off nozzle, watering can, or low- volume non-spray irrigation.

3. Stop washing vehicles except at commercial carwashes that recirculate water, or by high pressure/low volume wash systems.

4. Repair all leaks within forty-eight (48) hours of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.

(c) Upon the declaration of a Water Shortage Level 3 condition, Olivenhain Municipal Water District will suspend consideration of annexations to its service area.

(d) Olivenhain Municipal Water District may establish a water allocation for property served by the Olivenhain Municipal Water District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If Olivenhain Municipal Water District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which Olivenhain Municipal Water District customarily mails

the billing statement for fees or charges for ongoing water service. Olivenhain Municipal Water District is not required to comply with Proposition 218 to impose fines on persons using water in violation of its restrictions on water use or in passing through penalties levied upon it by Metropolitan as a result of excessive use by some Olivenhain Municipal Water District customers. Following the effective date of the water allocation as established by Olivenhain Municipal Water District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115 percent of the allocation and four times the Metropolitan Tier 2 rate if over 115 percent in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 10.0: WATER SHORTAGE LEVEL 4

(a) A Water Shortage Level 4 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to 40% is required in order to have sufficient supplies available to meet anticipated demands. A Level 4 Water Supply Shortage also applies if required to comply with emergency regulations imposed upon Olivenhain Municipal Water District by state or federal agencies. The Olivenhain Municipal Water District Board of Directors shall declare the existence of a Water Shortage Level 4 condition and implement the Level 4 conservation measures identified in this ordinance.

(b) All persons using Olivenhain Municipal Water District water shall comply with Level 1, Level 2, and Level 3 water conservation practices during a Water Shortage Level 4 condition and shall also comply with the following additional mandatory conservation measures:

1. Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a Water Shortage Level under this ordinance.

(c) Olivenhain Municipal Water District may establish a water allocation for property served by the Olivenhain Municipal Water District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If Olivenhain Municipal Water District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which Olivenhain Municipal Water District customarily mails the billing statement for fees or charges for ongoing water service. Olivenhain Municipal Water District is not required to comply with Proposition 218 to impose fines on persons using water in violation of its restrictions on water use or in passing through penalties levied upon it by Metropolitan as a result of excessive use by some Olivenhain Municipal Water District customers. Following the effective date of the water allocation as established by Olivenhain Municipal Water District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115 percent of the allocation and four times the Metropolitan Tier 2 rate if over 115 percent in

excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 11.0: WATER SHORTAGE LEVEL 5

(a) A Water Shortage Level 5 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to 50% is required in order to have sufficient supplies available to meet anticipated demands. A Level 5 Water Supply Shortage also applies if required to comply with emergency regulations imposed upon Olivenhain Municipal Water District by state or federal agencies. The Olivenhain Municipal Water District Board of Directors shall declare the existence of a Water Shortage Level 5 condition and implement the Level 5 conservation measures identified in this ordinance.

(b) All persons using Olivenhain Municipal Water District water shall comply with conservation measures required during Level 1, Level 2, Level 3, and Level 4 conditions and shall also comply with the following additional mandatory conservation measures:

1. Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless Olivenhain Municipal Water District has determined that recycled water is available and may be lawfully applied to the use.

    A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 9(b)(1) by using a bucket, watering can, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

    B. Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

    C. Maintenance of existing landscaping for erosion control;

    D. Maintenance of plant materials identified to be rare or essential to the well-being of animals;

    E. Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 9(b)(1);

    F. Watering of livestock; and

    G. Public works projects and actively irrigated environmental mitigation projects.

2. Repair all water leaks within twenty-four (24) hours of notification by Olivenhain Municipal Water District unless other arrangements are made with the General Manager.

(c) Olivenhain Municipal Water District may establish a water allocation for property served by Olivenhain Municipal Water District. If Olivenhain Municipal Water District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which Olivenhain Municipal Water District customarily mails the billing statement for fees or charges for ongoing water service. Olivenhain Municipal Water District is not required to comply with Proposition 218 to impose fines on persons using water in violation of its restrictions on water use or in passing through penalties levied upon it by Metropolitan as a result of excessive use by some Olivenhain Municipal Water District customers. Following the effective date of the water allocation as established by Olivenhain Municipal Water District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115 percent of the allocation and four times the Metropolitan Tier 2 rate if over 115 percent in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

(d) Upon the declaration of a Water Shortage Level 5 condition, no new potable water service shall be provided, no new temporary meters or new permanent meters shall be provided, and no statements of immediate ability to serve or provide potable water service (such as will serve letters, certificates, or letters of availability) shall be issued, except under the following circumstances:

1. A valid, unexpired building permit has been issued for the project; or

2. The project is necessary to protect the public's health, safety, and welfare; or

3. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of Olivenhain Municipal Water District.

This provision shall not be construed to preclude the resetting or activation of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.

SECTION 12.0: WATER SHORTAGE LEVEL 6

(a) A Water Shortage Level 6 condition applies when the Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code Section 350 and notifies its member agencies that Level 6 requires a demand reduction of more than 50% in order for Olivenhain Municipal Water District to have maximum supplies available to meet anticipated demands. A Level 6 Water Supply Shortage also applies if required to comply with

emergency regulations imposed upon Olivenhain Municipal Water District by state or federal agencies. Olivenhain Municipal Water District shall declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350.

(b) All persons using Olivenhain Municipal Water District water shall comply with conservation measures required during Level 1, Level 2, Level 3, Level 4, and Level 5 conditions and shall also comply with the following additional mandatory conservation measures:

1. Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless Olivenhain Municipal Water District has determined that recycled water is available and may be lawfully applied to the use.

    A. Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

    B. Maintenance of existing landscaping for erosion control;

    C. Maintenance of plant materials identified to be rare or essential to the well-being of animals;

    D. Watering of livestock; and

    E. Public works projects and actively irrigated environmental mitigation projects.

Olivenhain Municipal Water District may establish a water allocation for property served by the Olivenhain Municipal Water District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If Olivenhain Municipal Water District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which Olivenhain Municipal Water District customarily mails the billing statement for fees or charges for ongoing water service. Olivenhain Municipal Water District is not required to comply with Proposition 218 to impose fines on persons using water in violation of its restrictions on water use or in passing through penalties levied upon it by Metropolitan as a result of excessive use by some Olivenhain Municipal Water District customers. Following the effective date of the water allocation as established by Olivenhain Municipal Water District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115 percent of the allocation and four times the Metropolitan Tier 2 rate if over 115 percent in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 13.0: PROCEDURES FOR DETERMINATION AND NOTICATION OF WATER SHORTAGE LEVEL

(a) The existence of a Water Shortage Level 1 condition may be declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the Executive Secretary of Olivenhain Municipal Water District and provided to the Olivenhain Municipal Water District Board of Directors. The General Manager may publish a notice of the determination of existence of Water Shortage Level 1 condition in one or more newspapers, including a newspaper of general circulation within Olivenhain Municipal Water District. Olivenhain Municipal Water District may also post notice of the condition on its website. To end a Water Shortage Level 1 condition, the General Manager may issue a written declaration of facts that conditions have been met by which to discontinue the Water Shortage Level 1.

(b) The existence of Water Shortage Level 2, Level 3, Level 4, or Level 5 conditions, may be declared by resolution of the Olivenhain Municipal Water District Board of Directors adopted at a regular or special public meeting held in accordance with state law. The mandatory conservation measures applicable to Water Shortage Level 2, Level 3, Level 4, or Level 5 conditions, shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, Olivenhain Municipal Water District shall publish a copy of the resolution in a newspaper used for publication of official notices. If Olivenhain Municipal Water District establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement for fees or charges for ongoing water service, or by any other mailing to the address to which Olivenhain Municipal Water District customarily mails the billing statement for fees or charges for ongoing water service. Water allocation shall be effective on the fifth (5) day following the date of mailing or at such later date as specified in the notice. [To end a Level 2, Level 3, Level 4, or Level 5 Water Shortage, the Board of Directors may adopt by resolution a declaration that conditions necessary to discontinue the Level 2, Level 3, Level 4, or Level 5 Water Shortage have been met.]

(c) The existence of a Water Shortage Level 6 condition may be declared in accordance with the procedures specified in California Water Code Sections 351 and 352. The mandatory conservation measures applicable to Water Shortage Level 6 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, Olivenhain Municipal Water District shall publish a copy of the resolution in a newspaper used for publication of official notices. [To end a Level 6 Water Shortage, the Board of Directors may adopt by resolution a declaration that conditions necessary to discontinue the Level 6 Water Supply Shortage have been met.]

(d) The Olivenhain Municipal Water District Board of Directors may declare an end to a Water Shortage Level by the adoption of a resolution at any regular or special meeting held in accordance with state law.

SECTION 14.0: HARDSHIP VARIANCE

(a) If, due to unique circumstances, a specific requirement of this ordinance would result in undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to Olivenhain Municipal Water District water users generally or to similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this section.

(b) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon with agency water is used, that is disproportionate to the impacts to Olivenhain Municipal Water District water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a variance shall be a form prescribed by Olivenhain Municipal Water District and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the Olivenhain Municipal Water District Board of Directors.

2. Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

3. Required Findings for Variance. An application for a variance shall be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of Olivenhain Municipal Water District, all of the following:

   A. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other Olivenhain Municipal Water District customers.

   B. That because of special circumstances applicable to the property or its use, the strict application of this ordinance would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

   C. That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of Olivenhain Municipal Water District to effectuate the purpose of this chapter and will not be detrimental to the public interest.

   D. That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent, or general in nature.

4. Approval Authority. The General Manager shall exercise approval authority and act upon any completed application no later than ten (10) days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory drought response.

5. Appeals to Olivenhain Municipal Water District's Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the Olivenhain Municipal Water District Board of Directors within ten (10) days of the decision upon written request for a hearing. The request shall state the grounds for the appeal. At a public meeting, the Olivenhain Municipal Water District Board of Directors shall act as the approval authority and review the appeal de novo by following the regular variance procedure. The decision of the Olivenhain Municipal Water District Board of Directors is final.

SECTION 15.0: COMMUNICATION PROTOCOLS

This section lists a number of strategies OMWD has used to guide successful drought response campaigns in the past and should be considered during future water shortage conditions.

(a) Level 1:

- Send clear, consistent, and understandable messages encouraging increased voluntary conservation.
- Develop and maintain a steady stream of media relations activities and social media communications that explain the need to conserve and how to conserve, promote water-use efficiency programs and incentives, and/or give general support for water conservation. Schedule these efforts to provide timely support for water-use efficiency events, strategies, and other programs.
- Enhance the level of conservation-oriented community outreach through greater frequency of outreach at community events and speaker's bureau presentations.
- Develop specific outreach efforts that target key industries or groups (hospitality, HOAs, building managers, etc.) to raise awareness of, and participation in, drought response actions and water-use efficiency programs.
- Keep www.olivenhain.com updated with information on current status of regional WSCP, statewide weather and drought conditions, and recommended water conservation practices
- Regularly communicate with local, state, and other elected officials in the region about the importance of achieving voluntary water conservation and encourage them to publicly promote such efforts to their constituents.
- Targeted outreach to high-water-use customers and industries
- Modify school assembly program content to include messages about need for increased voluntary conservation.

- Provide conservation information and other support as necessary to government officials for their own media events, hearings, community meetings, etc.
- Provide educational/promotional items that encourage conservation (dye tablets, hose nozzles, etc.)

(b) Level 2:

- Continue to deploy or enhance Level 1 strategies and tactics as needed, and consider supplemental strategies and tactics listed below.
- Develop a more serious campaign message that reflects the need for compliance with mandatory water use restrictions.
- Send clear, consistent, and understandable messages regarding mandatory water use restrictions in effect.
- Enhance media relations activities and social media communications related to water use restrictions, conservation programs, and drought conditions. Schedule these efforts to provide timely support for new campaign initiatives, conservation events, and other programs.
- Leverage stakeholder groups' communication channels to help distribute updated information about restrictions and conservation as soon as possible; groups to include business organizations, civic organizations, service clubs, religious leaders, elected officials, along with key associations governing HOAs, building managers, landscape companies, etc.
- Consider adjustments to water conservation resources and programs in ways that make finding and participating in key programs easier, or to facilitate short-term water savings. Support these efforts with events to provide information and resources to consumers or other stakeholders.
- Add "pop-ups" with outreach campaign messages to www.olivenhain.com.
- Enhance efforts to encourage customers to report incidents of water waste directly to OMWD.

(c) Levels 3-4: In the event of a more severe supply shortage or demand management period that requires entering Level 3 or 4 of the WSCP (up to 30% or 40% mandatory conservation, respectively), OMWD will continue to deploy or enhance Level 2 strategies and tactics as needed, and will consider supplemental strategies and tactics listed below.

- Develop a more serious campaign message that reflects the need for higher level of extraordinary conservation.
- Send clear, consistent, and understandable messages regarding mandatory water use restrictions in effect and escalating challenges affecting water supplies.
- Conduct specialized outreach to landscape industry and water users with large ornamental landscapes to achieve significant reductions in discretionary outdoor water use while minimizing long-term property damage.
- Initiate targeted outreach to major CII water users to help them identify, prepare for and, as much as possible, avoid negative impacts from extreme water conservation

requirements.

- Evaluate the appropriateness of continuing to promote long-term water-use efficiency programs and tools amid worsening supply conditions/increasing restrictions.
- Provide instructions for triaging landscape resources during extreme shortage conditions (saving trees, etc.).
- Reinforce business groups, service clubs, religious leaders, elected officials to spread awareness of need for significant, collective water-saving actions to preserve our economy and quality of life.
- Provide specialized technical assistance sessions or resources to help homeowners achieve immediate reductions in water use while minimizing landscape damage.
- Consider providing specialized technical assistance to large landscape customers (HOAs, cities, schools, etc.) to help achieve large-scale reductions in discretionary outdoor water use.
- Conduct specialized outreach to industries (hospitality, car washes, restaurants, etc.) or other large-scale water users that will likely experience impacts from emergency conservation to determine solutions for minimizing economic or quality of life impacts.

(d) Levels 5-6: In the event of a more severe supply shortage or demand management period that requires entering Level 5 or 6 of the WSCP (up to or greater than 50 percent mandatory conservation mandatory conservation, respectively), OMWD will continue to deploy or enhance Level 3-4 strategies and tactics as needed, and will consider supplemental strategies and tactics listed below to reflect increased shortage conditions.

- Develop campaign messages and tactics that raise awareness of the extreme shortage conditions facing the region and the likely need to focus water use on essential public health and safety needs.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial and public water users.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Raise awareness of any urgent actions being taken by OMWD or its wholesalers to improve water supply conditions; provide regular updates on those efforts.
- Suspend promotion of ongoing water-use efficiency programs to focus resources on promoting extreme/emergency conservation measures.
- Coordinate with regional emergency response agencies/services on messaging/additional outreach tactics if needed.
- Provide updates to media and other stakeholders on water supply conditions as often as possible (daily or as needed).
- Evaluate need for "phone bank" or additional staff resources to handle public inquiries.
- Provide updated communications materials to business groups, service clubs,

religious leaders, elected officials to raise immediate awareness for increased water-savings actions and available assistance resources.

(e) Catastrophic Shortage Communications: In the event of a natural disaster, infrastructure failure, or other situation that requires regional water use to be quickly prioritized for or limited to essential public health and safety needs, OMWD will immediately deploy or enhance appropriate communication strategies and tactics from WSCP Levels 1-6 as needed, and will consider strategies and tactics listed below to reflect the need for urgent, emergency-driven water conservation.

- Develop campaign messages and tactics that raise awareness of the emergency conditions and the need to focus water use on essential public health and safety needs.
- Send clear, consistent, and understandable messages regarding what uses of water or levels of water use remain acceptable for residential, commercial, and public water users, and the expected duration of this restricted level of water use.
- Emphasize the need for all residents and businesses to work together to help the region successfully weather the situation.
- Raise awareness of any urgent actions being taken by OMWD and/or its wholesalers to improve water supply conditions; provide regular updates on those efforts.
- Suspend promotion of ongoing, long-term water-use efficiency programs and tools to focus resources on communicating need for immediate water conservation actions.
- Coordinate with local emergency response agencies/services on messaging and outreach tactics where possible.
- Provide updated communications materials to business groups, service clubs, religious leaders, elected officials to raise immediate awareness for emergency-level water-savings actions and available assistance resources.
- Conduct specialized outreach to landscape and related industries with significant outdoor water use to urge immediate end to landscape water use (if required).
- Coordinate dissemination of information regarding water use restrictions to local law enforcement or other public agencies to help maximize widespread compliance with emergency mandates.

SECTION 16.0: VIOLATIONS AND PENALTIES

(a) OMWD has the legal authority under the Water Code to implement shortage response actions and enforce them.

(b) Any person, who uses, causes to be used, or permits the use of water in violation of this ordinance is guilty of an offense punishable as provided herein.

(c) Upon the issuance on a warning and/or fine as provided in Section 16.0(d), the customer will be afforded a grace period of 21 days during which no additional warning and/or fines will be issued. Each violation of this ordinance occurring outside of the 21-day grace period is

considered a separate offense.

(d) Administrative fines may be levied for each violation of a provision of this ordinance as follows:

1. A warning will be issued for a first violation.

2. The customer will be fined one hundred dollars for a second violation of any provision of this ordinance within one year of the initial violation.

3. The customer will be fined two hundred dollars for the third violation of this ordinance within one year of the initial violation.

4. The customer will be fined five hundred dollars for each additional violation of this ordinance within one year of the initial violation.

(e) Violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter.

(f) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding $1,000, or by both as provided in Water Code Section 377.

(g) Willful violations of the mandatory conservation measures and water use restrictions may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code Section 356.

(h) All remedies provided for herein shall be cumulative and not exclusive.

SECTION 17.0: FINANCIAL CONSEQUENCES OF WSCP ACTIVATION

OMWD's water supply shortage rate structure is designed to be revenue-neutral to dampen OMWD's financial impact when sales are declining due to conservation. During any stage of implementation of this ordinance, Olivenhain Municipal Water District's Board of Directors may choose, in its sole discretion, to implement the demand reduction rates that are currently adopted and notified to customers under a Proposition 218 process, in order to effectuate an appropriate and desired level of water conservation by Olivenhain Municipal Water District's customers.

SECTION 18.0: DETERMINING WATER SHORTAGE REDUCTIONS

(a) Monitoring and Reporting: For real-time feedback on the implementation of its WSCP, OMWD will utilize advanced metering infrastructure (AMI) which has been implemented for 70 percent of its meters and is estimated to be complete by FY 2025. Currently, the remainder of the meter readings are collected using automated meter reading (AMR) and total water use is available within days of the end of each month. By setting alarm levels,

OMWD will also be able to review individual customer use, identify excessive use, and implement enforcement warnings and actions. In summary, OMWD will:

- Estimate target water use by month using typical monthly use patterns and the target percentage of normal water use.
- On a monthly basis, summarize water use and compare to the target.
- Implement alarm settings on AMI meters as a percentage of normal water use. Implement warnings and enforcement actions where the deviation is significantly above target.

(b) OMWD will use the results of its monitoring and reporting program as discussed in the previous section to evaluate the WSCP's performance. Each time the WSCP is implemented, OMWD staff will use the evaluation to determine the need and approach to revising its WSCP. The goal will be for effective shortage response actions producing the desired reductions. Staff will review proposed refinements and any new actions to evaluate their effectiveness prior to incorporating them into the WSCP. Minor revisions will be implemented quickly while major revisions will require board review and approval. Staff will prepare for the board a report on the WSCP's effectiveness and proposed changes, each time it is implemented.

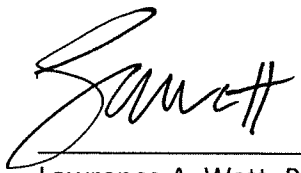
SECTION 19.0: EFFECTIVE DATE

This ordinance is effective immediately upon adoption or as otherwise established by state law for Olivenhain Municipal Water District.

Any part or provision of this Ordinance that is prohibited or that is held to be void or unenforceable shall be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof.

PASSED, APPROVED AND ADOPTED at a regular meeting of the Board of Directors of Olivenhain Municipal Water District held on the 16th day of June, 2021 by the following roll call vote:

AYES:	Directors Bruce-Lane, Guerin, Meyers, Topolovac, Watt
NOES:	None
ABSTAIN:	None
ABSENT:	None



Lawrence A. Watt, President
Board of Directors
Olivenhain Municipal Water District

ATTEST:

Kimberly A. Thorner, Assistant Secretary
General Manager
Olivenhain Municipal Water District

Appendix F

Monthly Water Rates & Charges

OLIVENHAIN
Municipal Water District

1966 Olivenhain Rd., Encinitas, CA 92024 • 760-753-6466 • www.olivenhain.com

MONTHLY WATER RATES & CHARGES Effective January 2026

WATER RATES PER UNIT *(1 unit = 748 gallons)*

The rates include costs from San Diego County Water Authority (SDCWA) from which OMWD must purchase 100% of its potable water supply.

WE ARE HERE

CUSTOMER TYPE	COMMODITY CHARGE BASE RATES	10% DEMAND REDUCTION RATES	20% DEMAND REDUCTION RATES	30% DEMAND REDUCTION RATES
Potable: Domestic				
Tier 1: 0 - 6 Units	$4.71	$5.01	$5.39	$5.83
Tier 2: 7 - 23 Units	$6.76	$7.06	$7.44	$7.88
Tier 3: 24 - 80 Units	$7.57	$7.87	$8.25	$8.69
Tier 4: 80+ Units	$8.55	$8.85	$9.23	$9.67
Agricultural	$7.22	$7.52	$7.90	$8.34
Combined Agricultural / Domestic	First 23 Units per month: Follow Domestic rate structure. Over 23 Units per month: Follow Agricultural rate structure.			
Commercial	$6.43	$6.73	$7.11	$7.55
Irrigation				
Tier 1	$7.23	$7.53	$7.91	$8.35
Tier 2	$8.16	$8.46	$8.84	$9.28
Construction	$8.97	$9.27	$9.65	$10.09
Recycled Water	$4.70	Shortage rates do not apply.		

Irrigation Unit Allotments

Tier 1 Allotment

Based upon water use by meter size.

Meter Size	Winter (Nov 1-Apr 30)	Summer (May 1-Oct 31)
5/8"	10	15
3/4"	20	30
1"	35	50
1 1/2"	50	110
2"	100	200
3"	200	500
4"	600	3,500
6"	3,100	11,800
8"	5,600	21,300

OMWD System Access Charge

OMWD's System Access Charge is designed to cover a portion of the fixed costs of OMWD's operation. These costs include maintenance of meters and water infrastructure, debt service, depreciation, and customer service costs for meter reading and billing.

Meter Size		Meter Size	
5/8"	$40.72	2 1/2"	$397.94
3/4"	$53.19	3"	$435.33
1"	$90.58	4"	$721.93
1 1/2"	$140.41	6"	$1,506.96
2"	$219.33	8"	$2,711.51

SDCWA Infrastructure Access Charge

SDCWA infrastructure access charge is a monthly charge assessed by SDCWA on all water meters except construction, fire, and recycled water meters. *The purpose of the charge is to cover a portion of the debt service costs associated with the construction of county-wide water infrastructure projects. For more information, call SDCWA at 858-522-6600.*

Meter Size		Meter Size	
5/8"	$4.55	2 1/2"	$42.32
3/4"	$4.55	3"	$46.41
1"	$8.65	4"	$77.81
1 1/2"	$14.11	6"	$163.80
2"	$22.75	8"	$295.75

Fire Meter Charges

Meters installed for automatic fire sprinkler services will be billed monthly according to the table below.

Meter Size	5/8"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
	$6.50	$6.50	$7.29	$8.32	$9.96	$13.67	$14.44	$20.40	$36.71	$61.73

For more information about OMWD's rates, visit Article 8 at www.olivenhain.com/code or contact Customer Service at customerservice@olivenhain.com or 760-753-6466.

Appendix G

Copy of Published Notice of Hearing

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that OLIVENHAIN MUNICIPAL WATER DISTRICT (OMWD) will hold a Public Hearing on Wednesday, April 15, 2026, at 5:30 p.m. to consider OMWD's draft 2025 Urban Water Management Plan (UWMP).

2025 UWMP

OMWD prepared its 2025 UWMP to guide its conservation and water resource management programs for the next 25 years, and to comply with state law. It provides details on the reliability of imported water supplies that serve the San Diego region as well as other water resources utilized by OMWD. The UWMP also considers future programs and facilities planned to ensure a safe and reliable water supply to OMWD customers.

PUBLIC REVIEW

OMWD's 2025 UWMP is available online at www.olivenhain.com/uwmp. All comments and inquiries should be directed to OLIVENHAIN MUNICIPAL WATER DISTRICT, 1966 Olivenhain Road, Encinitas, California 92024, Attn: Joe Jansen, Administrative Analyst. Comments may also be provided verbally in person or over the phone (760-753-6466) or electronically via email to watersaver@olivenhain.com.

LOCATION

Anyone interested is invited to attend this hearing or contact OMWD verbally or in writing prior to the hearing date.

To attend in person:	To attend virtually:
1966 Olivenhain Road	www.zoom.us/join or (669) 900-9128
Encinitas, California 92024	ID: 871 1253 9312; Password: 726813

DATED: April 1, 2026, and April 8, 2026

Kimberly A. Thorner, Esq.
General Manager
Olivenhain Municipal Water District

Appendix H

Adoption Resolution

<< Adoption Resolution will be inserted when available >>