

2025 URBAN WATER MANAGEMENT PLAN



MID-PENINSULA WATER DISTRICT

JULY 2026

2025 Urban Water Management Plan

Mid-Peninsula Water District

TABLE OF CONTENTS

1.	Urban Water Management Plan Introduction and Overview	1
1.1	Lay Description	1
1.2	Background and Purpose	4
1.3	Urban Water Management Planning and the California Water Code	4
1.4	Relationship to other Planning Efforts	5
1.5	Plan Organization.....	5
1.6	Demonstration of Consistency with the Delta Plan for Participants in Covered Actions.....	6
1.7	Urban Water Management Plans and Grant or Loan Eligibility.....	7
2.	Urban Water Management Plan Preparation	8
2.1	Basis for Preparing a Plan.....	8
2.2	Reporting Period and Units of Measure.....	10
2.3	Coordination and Outreach	10
2.3.1	Role of BAWSCA and the UWMP Common Language.....	11
2.3.2	Wholesale Coordination	12
2.3.3	Agency Coordination	13
3.	Service Area Description	14
3.1	General Description	14
3.2	Water Distribution System.....	15
3.3	Population and Demographics.....	16
3.3.1	Population and Employment Methodology.....	16
3.3.2	Historical and Projected Population	16
3.3.3	Future Employment Growth	19
3.3.4	Other Social, Economic, and Demographic Factors	20
3.4	Climate.....	21

3.4.1	Climate Change Considerations	23
3.5	Service Area Land Uses	24
4.	Water Use Characterization	25
4.1	Past and Current Water Use by Sector	25
4.1.1	Past and Current Potable Water Use	25
4.1.2	Past and Current Non-Potable Water Use	30
4.2	Projected Water Use	30
4.2.1	Projected Potable Water Use	30
4.2.2	Projected Non-Potable Water Use	32
4.2.3	Water Use by Lower Income Households in Water Use Projections	32
4.2.4	Future Water Savings in Projected Water Use	35
4.3	Distribution System Water Loss	37
4.3.1	Previous Five Years of Distribution System Losses	37
4.3.2	Progress Toward Meeting the Water Loss Performance Standard	39
4.4	Climate Change Considerations	41
4.5	Water Use Sectors Not Included in Historical, Current, or Projected Demands	41
4.6	Potential Additional Future Development	42
5.	SB X7-7 Baselines, 2020 Targets, and 2025 Reporting	43
5.1	Demonstration of Compliance with SB X7-7 2020 Target	43
5.2	Urban Water Use Objective	44
6.	Normal Year Water Supply Characterization	47
6.1	Purchased Water	47
6.1.1	Description of SFPUC RWS	47
6.2	Groundwater	55
6.3	Surface Water	56
6.4	Stormwater	56
6.5	Wastewater and Recycled Water	56
6.5.1	Coordination	56
6.5.2	Wastewater Collection, Treatment, and Disposal	57

6.5.3	Current, Potential, and Projected Recycled Water Uses.....	61
6.6	Desalinated Water Opportunities	63
6.7	Water Exchanges and Transfers.....	64
6.8	Future Water Projects.....	64
6.9	Summary of Existing and Planned Sources of Water	65
6.10	Energy Use	68
6.11	Special Conditions	69
6.11.1	Climate Change Effects.....	69
6.11.2	Regulatory Conditions and Project Development	72
6.11.3	Other Locally Applicable Criteria	72
7.	Water Service Reliability and Drought Risk Assessment	73
7.1	Constraints on Water Sources.....	73
7.1.1	Regional Water System Supply Availability	73
7.1.2	Water Quality	79
7.1.3	Climate Change.....	80
7.2	Water Service Reliability Assessment	80
7.2.1	SFPUC Supply Modeled RWS Dry Year Supply Availability	81
7.2.2	MPWD’s Year-Type Characterization	82
7.2.3	MPWD’s Supply and Demand Comparison	84
7.2.4	Description of Management Tools and Options	93
7.3	Drought Risk Assessment.....	94
7.3.1	DRA Data, Methods, and Basis for Shortage Conditions	95
7.3.2	DRA Individual Water Source Reliability	95
7.3.3	DRA Total Water Supply and Use Comparison.....	95
8.	Water Shortage Contingency Plan.....	97
9.	Demand Management Measures	114
9.1	Demand Management Measures for Retail Suppliers.....	114
9.1.1	Required Demand Management Measures	115
9.2	Implementation to Achieve Water-Use Targets.....	121

10.	Urban Water Management Plan Adoption, Submittal, and Implementation	122
10.1	Plan Completion Timeline	122
10.2	Notice of Plan Preparation	122
10.3	Notice of Public Hearing.....	122
10.3.1	Notice to Cities and Counties	122
10.3.2	Notice to the Public.....	124
10.4	Public Hearing and Adoption.....	124
10.5	Plan Submittal	124
10.6	Public Availability	124
10.7	Amending an Adopted UWMP or WSCP	124
11.	References	125

LIST OF TABLES

Table 2-1 (DWR TABLE 2-1): Public Water Systems	9
Table 2-2 (DWR Table 2-2): Plan Identification	9
Table 2-3 (DWR Table 2-3): Supplier Identification.....	10
Table 2-4 (DWR Table 2-4): Water Supplier Information Exchange.....	13
Table 3-1: Water Service Connections	15
Table 3-2 (DWR Table 3-1): Population – Current and Projected	19
Table 3-3: Employment – Current and Projected.....	20
Table 3-4: Demographic and Housing Characteristics	21
Table 3-5: Average Monthly Climate Characteristics	22
Table 4-1: Historical and Current Potable Water Demand and Population.....	26
Table 4-2 (DWR Table 4-1): Demands for Potable and Non-Potable Water – Actual.....	29
Table 4-3 (DWR Table 4-2): Total Uses for Potable, and Non-Potable Water – Projected	31
Table 4-4 (DWR Table 4-5): Inclusion in Water Use Projections	34
Table 4-5: Projected Water Demands for Lower Income Households.....	34
Table 4-6: Potable Water Demand and Projected Passive and Active Water Conservation	36
Table 4-7: Previous Five Years of Distribution System Losses.....	38
Table 4-8 (DWR Table 4-5): Water Loss Audit Reporting	38
Table 4-9 (DWR Table 4-6): Progress Toward 2028 Water Loss Standard	40
Table 4-10: Average Annual Maximum Temperature Increases in 2050 (Relative to 2025) Derived from CalAdapt CMIP5 RCP 4.5 and RCP 8.5	41
Table 5-1 (DWR Table 5-1): SB X7-7 2020 Target Progress	44
Table 5-2: Current and Projected Urban Water Use Objectives and Compliance	45
Table 6-1: Regional Water System Storage Capacity	52
Table 6-2 (DWR Table 6-1): Groundwater Volume Pumped	55
Table 6-3 (DWR Table 6-2): Wastewater Collected Within Service Area	59
Table 6-4 (DWR Table 6-3): Wastewater Treatment and Outcomes Within UWMP Service Area	60
Table 6-5 (DWR Table 6-4): Recycled Water Direct Beneficial Uses Within Service Area	62
Table 6-6 (DWR Table 6-5): 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual.....	63
Table 6-7 (DWR Table 6-6): Methods to Encourage Future Recycled Water Use.....	63
Table 6-8 (DWR Table 6-7): Expected Future Water Supply Projects or Programs	65
Table 6-9 (DWR Table 6-8): Water Supplies — Actual	66
Table 6-10 (DWR Table 6-9): Water Supplies — Projected	67
Table 6-11 (DWR Table O-1B): Recommended Energy Reporting – Single Delivery Product – Total Utility Approach	69
Table 7-1 (DWR Table 7-1): Basis of Water Year Data	81
Table 7-2a: Scenario 1 (with Bay-Delta Plan Amendment) – SFPUC RWS Supply Availability During Normal and Dry Years for Years 2030 through 2050 (Replaces DWR Table 7-1)	83
Table 7-2b: Scenario 2 (without Bay-Delta Plan Amendment) – SFPUC RWS Supply Availability During Normal and Dry Years for Years 2030 through 2050 (Replaces DWR Table 7-1).....	84

Table 7-3 (DWR Table 7-2): Normal Year Supply and Use Comparison	85
Table 7-4a (DWR Table 7-3): Scenario 1 (with Bay-Delta Plan Amendment) – Single Dry Year Supply and Use Comparison	85
Table 7-4b (DWR Table 7-3): Scenario 1 (with Bay-Delta Plan Amendment) – Single Dry Year Supply and Use Comparison.....	86
Table 7-5a (DWR Table 7-4): Scenario 1 (with Bay-Delta Plan Amendment) – Multiple Dry Year Supply and Use Comparison	86
Table 7-5b (DWR Table 7-4): Scenario 1 (with Bay-Delta Plan Amendment) – Multiple Dry Year Supply and Use Comparison.....	88
Table 7-6 (DWR Table 7-5): Five-Year Drought Risk Assessment	96
Table 8-1 (DWR Table 8-1): Cross-reference for Standard vs Supplier Shortage Levels	98
Table 8-2 (DWR Table 8-2): Supply Augmentation and Other Actions	98
Table 8-3 (DWR Table 8-3): Demand Reduction Actions.....	100
Table 9-1: Summary of WELO Projects over the Last Five Years (2021-2025).....	116
Table 9-2: Summary of School Assemblies over the Last Five Years (2021-2025)	119
Table 9-3: Summary of Water Conservation Program Participation over the Last Five Years (2021-2025)	120
Table 10-1 (DWR Table 10-1): Notification to Cities and Counties (DWR Table 10-1).....	123

LIST OF FIGURES

Figure 3-1: MPWD Service Area	17
Figure 3-2: MPWD Distribution System Map	18
Figure 6-1: Regional Water System and Main Facilities	49
Figure 6-2: Silicon Valley Clean Water Member Agencies and Facilities	57

LIST OF APPENDICES

Appendix A	Completed UWMP Checklist
Appendix B	Executive Summary and Section 5 of BAWSCA's Regional Water Demand and Conservation Projections Study
Appendix C	SFPUC and BAWSCA Supply Reliability Letters and Common Language for the 2025 UWMPs
Appendix D	Mid-Peninsula Water District's 2025 Water Shortage Contingency Plan
Appendix E	UWMP Agency Notice of Preparation Letters
Appendix F	UWMP Notices of Public Hearing
Appendix G	Resolution No. 2026-23, Adopting the 2025 Urban Water Management Plan, and Resolution No. 2026-22, Adopting the 2025 Water Shortage Contingency Plan, for the Mid-Peninsula Water District

LIST OF ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AF	Acre-feet
AFY	Acre-feet per year
AMI	Advanced Metering Infrastructure
AWWA	American Water Works Association
BAWSCA	Bay Area Water Supply and Conservation Agency
BG	Billions of Gallons
CA DOF	California Department of Finance
CCR	California Code of Regulations
CII	Commercial, Industrial, and Institutional
CMIP5	Coupled Model Intercomparison Project Phase 5
CWC	California Water Code
DDW	Division of Drinking Water
District	Mid-Peninsula Water District
DMM	Demand Management Measure
DRA	Drought Risk Assessment
DSOD	Division of Safety of Dams
DWR	California Department of Water Resources
eARDWP	electronic Annual Reports to the Drinking Water Program
ETo	Reference evapotranspiration
GIS	Geographic Information Systems
GPCD	Gallons per capita per day
GPSCD	Gallons per service connection per day
HHWP	Hetch Hetchy Water and Power
HIA	Harbor Industrial Area
HTWTP	Harry Tracy Water Treatment Plant
ISG	Individual Supply Guarantee
LEHD	Longitudinal Employer-Household Dynamics
LHMP	Local Hazard Mitigation Plan
LODES	LEHD Origin-Destination Employment Statistics
MG	Million gallons
mgd	Million gallons per day
MGY	Million gallons per year
MPWD	Mid-Peninsula Water District
MWELo	Model Water Efficient Landscape Ordinance
NEA	Northeast Area
Plan	Urban Water Management Plan
PWS	Public Water System
RCP	Representative Concentration Pathway

RHNA	Regional Housing Needs Allocation
RUWMP	Regional Urban Water Management Plan
RWS	Regional Water System
SB	Senate Bill
SFPUC	San Francisco Public Utilities Commission
SVCW	Silicon Valley Clean Water
SVWTP	Sunol Valley Water Treatment Plant
SWRCB	State Water Resources Control Board
TAZ	Traffic Analysis Zone
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
UWUO	Urban Water Use Objective
WSA	Water Supply Agreement
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan
WUE	Water Use Efficiency

1. URBAN WATER MANAGEMENT PLAN INTRODUCTION AND OVERVIEW

1.1 Lay Description

☒ **CWC § 10630.5**

Each plan shall include a simple lay description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan.

This Urban Water Management Plan (UWMP or Plan) is prepared for Mid-Peninsula Water District (MPWD or District), which serves drinking water to a population of approximately 31,059 in San Mateo County, California. This UWMP serves as a foundational planning document and includes descriptions of historical and projected water demands, water supplies, and water reliability over the UWMP planning horizon. This document also describes the actions the District is taking to promote water conservation, both by the District and by its customers (referred to as “demand management measures”), and includes a plan to address potential water supply shortages such as drought or other impacts to supply availability (the “Water Shortage Contingency Plan”). This UWMP is updated every five years in accordance with state requirements under the Urban Water Management Planning Act (UWMP Act) and amendments (Division 6 Part 2.6 of California Water Code [CWC] § 10610 – 10657). Past plans developed for the District are available on the California Department of Water Resources (DWR) Water Use Efficiency Data Portal website: <https://wuedata.water.ca.gov/>. This Plan includes eleven chapters, which are summarized below.

Chapter 1 - Urban Water Management Plan Introduction and Overview

This chapter presents the background and purpose of the UWMP, describes the Plan organization and provides an overview of the Plan. For agencies that rely on water from the Sacramento-San Joaquin Delta (Delta), this chapter also discusses and demonstrates consistency with the Delta Plan by the Delta Stewardship Council. MPWD relies solely on potable water purchased from the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS); therefore, this requirement does not apply to its water sources.

Chapter 2 – Urban Water Management Plan Preparation

This chapter discusses key structural aspects related to the preparation of this UWMP, and describes the coordination and outreach conducted as part of the preparation of the Plan, including coordination with local agencies (i.e., the Bay Area Water Supply and Conservation Agency [BAWSCA], the BAWSCA member agencies, the Cities of Belmont, San Carlos and Redwood City, SFPUC, and the County of San Mateo) and the public.

Chapter 3 – Service Area Description

This chapter provides a description of MPWD's water system and service area, including information related to the climate, population, and demographics. MPWD is located in San Mateo County and serves the City of Belmont and portions of the City of San Carlos, the City of Redwood City, and unincorporated San Mateo County. MPWD serves a population of approximately 31,059 and has a temperate climate. The majority of the 19 inches of average annual

precipitation falls between late October and early May. Much of the MPWD service area is “built out,” allowing for only modest population increases in the future assuming continuation of current zoning and densities.

Chapter 4 – Water Use Characterization

This chapter describes and quantifies MPWD’s current and projected demands through the year 2050. MPWD provides drinking water (also referred to as “potable water”) to customers. Water demands refer not only to the water used by customers but also include the water used as part of the system’s maintenance and operation, as well as unavoidable losses inherent in the operation of a water distribution system. Total water demand within MPWD was 844 million gallons (MG) in 2025. Taking into account historical water use, expected population increase and other growth, climatic variability, and other assumptions, water demand within MPWD is projected to increase to 1,280 MG by 2050.

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

In this chapter, the District compares its per capita water use with its water use target for the year 2020. The Water Conservation Act of 2009 (Senate Bill [SB] X7-7) was enacted in November 2009 and required the state of California to achieve a 20% reduction in urban per capita water use by December 31, 2020. In order to achieve this, each urban retail water supplier was required to establish water use targets for 2015 and 2020 using methodologies established by DWR. MPWD achieved its 2020 water use target and remains under the target in 2025.

In July 2024, the State enacted the Making Conservation a California Way of Life (MCCWL) regulation to promote long-term water conservation and drought resilience beyond SB X7-7. MCCWL established annual Urban Water Use Objectives (UWUOs) for water suppliers. UWUO compliance falls under the authority of the State Water Resources Control Board (SWRCB). As such, although UWUO compliance projections are not required as part of a UWMP, they can provide valuable insight into the potential need and timing for additional conservation measures. For this reason, this chapter also documents MPWD’s progress towards meeting the UWUOs. MPWD is expected to be in compliance with its UWUOs through 2050.

Chapter 6 – Normal Year Water Supply Characterization

This chapter presents an analysis of MPWD’s water supplies, as well as an estimate of water-related energy consumption. The intent of this chapter is to present a comprehensive overview of MPWD’s water supplies, estimate the volume of available supplies over a minimum 20-year planning horizon, and assess the sufficiency of MPWD’s supplies to meet projected demands under “normal” hydrologic conditions.

MPWD relies on the SFPUC RWS for all of its potable water supply. MPWD’s contractual allocation to SFPUC supplies (known as its Individual Supply Guarantee [ISG]) is 3.891 million gallons per day (MGD), or approximately 1,420.22 MG. Supplies are anticipated to be sufficient through the year 2050 under normal hydrologic conditions. Wastewater is processed within MPWD’s service area by Silicon Valley Clean Water (SVCW), and 689 MG of wastewater were collected in 2025.

Reporting calculated water system energy intensity is a requirement for the UWMPs. Energy intensity is defined as the net energy used for water treatment, pumping, conveyance, and distribution for all water entering the

distribution system. The energy intensity for MPWD is calculated to be 1,366 kilowatt hours per million gallons of water (kWh/MG).

Chapter 7 – Water Service Reliability and Drought Risk Assessment

This chapter assesses the reliability of MPWD’s water supplies, with a specific focus on potential constraints such as water supply availability, water quality, and climate change. The intent of this chapter is to identify any potential constraints that could affect the reliability of MPWD’s supply (such as drought conditions) to support MPWD’s planning efforts to ensure that its customers are well served. Water service reliability is assessed during normal, single dry-year, and multiple dry-year hydrologic conditions.

Based on this analysis, MPWD expects the available supplies to be sufficient to meet projected demands in normal years. However, MPWD could experience significant shortfalls of its SFPUC RWS supplies during single dry and multiple dry year conditions as a result of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) implementation. At this time, numerous uncertainties remain in the implementation of the Bay-Delta Plan Amendment and the resultant allocation of the available supply to MPWD and the other SFPUC Wholesale Customers.

No water quality issues are expected to affect the quality of water served to MPWD’s customers. Water quality is routinely monitored and MPWD is able to make all appropriate adjustments to its treatment and distribution system to ensure only high quality drinking water is served.

Chapter 8 – Water Shortage Contingency Plan

The District’s Water Shortage Contingency Plan (WSCP) is included as a separate document in Appendix D to the UWMP. The WSCP serves as a standalone document to be engaged in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios. For example, implementing customer water surcharges, or restricting landscape irrigation to specific days and/or times. Consistent with DWR requirements, the WSCP includes six levels to address shortage conditions ranging from up to 10% to greater than 50% shortages.

Chapter 9 – Demand Management Measures

This chapter includes descriptions of past and planned conservation programs that the District and BAWSCA operate within each demand management measure (DMM) category outlined in the UWMP Act, specifically: (1) water waste prevention ordinances, (2) metering, (3) conservation pricing, (4) public education and outreach, (5) distribution system water loss management, (6) water conservation program coordination and staffing support, and (7) “other” DMMs. MPWD has developed a suite of conservation programs and policies which address each DMM category.

Chapter 10 – Urban Water Management Plan Adoption, Submittal, and Implementation

This chapter provides information on a public hearing, the adoption process for the UWMP and WSCP, the adopted UWMP and WSCP submittal process, Plan implementation, and the process for amending the adopted UWMP and WSCP. Prior to adopting the UWMP and WSCP, MPWD held a formal public hearing to present

information on its UWMP and WSCP on July 23, 2026 at 6:30pm. This UWMP and corresponding WSCP were submitted to DWR within 30 days of adoption.

Chapter 11 – References

This chapter contains key references and sources used throughout the Plan.

1.2 Background and Purpose

MPWD is a public water utility that supplies water service to approximately 31,059 customers through approximately 8,197 connections. Located in San Mateo County, California (CA), MPWD was founded in 1929 as a consolidation of seven water systems. This UWMP is a foundational document and source of information about the District’s historical and projected water demands, water supplies, supply reliability and potential vulnerabilities, water shortage contingency planning, and demand management programs. Among other things, the UWMP is used as:

- A long-range planning document by MPWD for water supply and system planning; and
- A source for data on population, housing, water demands, water supplies, and capital improvement projects.

The District’s last UWMP was completed in 2021 (2020 UWMP). This Plan is an update to the 2020 UWMP and carries forward information from that plan that remains current and relevant, and provides additional information as required by subsequent amendments to the UWMP Act. Although this Plan is an update to the 2020 UWMP, it was developed to be a self-contained, standalone document.

1.3 Urban Water Management Planning and the California Water Code

The UWMP Act requires urban water suppliers to prepare a UWMP every five years and to submit this plan to the DWR, the California State Library, and any city or county within which the supplier provides water. All urban water suppliers, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet annually are required to prepare a UWMP (CWC § 10617).

The UWMP Act was enacted in 1983. Over the years it has been amended in response to water resource challenges and planning imperatives facing California water agencies. A significant amendment was made in 2009 as a result of the governor’s call for a statewide 20% reduction in urban water use by 2020, referred to as “20x2020,” the Water Conservation Act of 2009, and “SB X7-7.” This amendment required urban retail water suppliers to establish water use targets for 2015 and 2020 that would result in statewide water savings of 20% by 2020. Beginning in 2016, urban retail water suppliers were required to comply with the water conservation requirements in SB X7-7 to be eligible for state water grants or loans. Chapter 5 of this Plan contains the data and calculations used to determine compliance with these requirements.

A subsequent substantial revision to the UWMP Act was made in 2018 through a pair of bills (Assembly Bill [AB] 1668 and SB 606), referred to as “Making Water Conservation a California Way of Life” or the “2018 Water Conservation Legislation.” These changes include, among other things, additional requirements for the WSCP, expansion of dry year supply reliability assessments to a five-year drought period, establishment of annual

drought risk assessment procedures and reporting, and discussion of new conservation targets referred to as “annual water use objectives,” which will require retailers to continue to reduce water use beyond the 2020 SB X7-7 targets. The District’s WSCP is written as a standalone document and can be found in Appendix D of this Plan.

The UWMP Act contains numerous other requirements that a UWMP must satisfy. Appendix A of this Plan lists each of these requirements and where in the Plan they are addressed.

Since 2018, there have been no changes to the UWMP Act requirements; only definitions have been added or updated.

1.4 Relationship to other Planning Efforts

This Plan provides information specific to water management and planning by the District. However, water management does not happen in isolation; there are other planning processes that integrate with the UWMP to accomplish urban planning. Some of these relevant planning documents include city and county General Plans, city Specific Plans, Capital Improvement Plans, the MPWD Board Strategic Plan, the BAWSCA 2025 Demand Study, and others. This Plan is informed by and helps to inform these other planning efforts.

MPWD meets with the City of Belmont and City of San Carlos to coordinate planning and other projects. As a member of BAWSCA, MPWD staff meet with the other BAWSCA agencies monthly and regularly participate in technical and water resource management committees.

MPWD has also developed several important ordinances and references to manage its system and minimize risks from hazards and emergencies. The key resource documents are referenced, and relevant parts are integrated with this UWMP. Conversely, local planning agencies rely on the information in the MPWD UWMP regarding future water supply reliability within their jurisdictions. The UWMP analyzes a wide range of water supply availability conditions, using information available at the time of submission to DWR.

MPWD requests that users of the water demand projections, water supply projections, and cutback data presented in its 2025 UWMP and WSCP contact MPWD staff for potential updates before using the projections for their planning projects and referencing the drought allocations.

1.5 Plan Organization

MPWD’s 2025 UWMP closely follows DWR’s 2025 UWMP Guidebook and recommended organization as outlined below (DWR, 2026). A “Lay Description”, as required in the 2025 UWMP, can be found in Section 1.1.

Chapter 1 – Urban Water Management Plan Introduction and Overview

Chapter 2 – Urban Water Management 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 – Normal Year Water Supply Characterization

Chapter 7 – Water Service Reliability and Drought Risk Assessment

Chapter 8 – Water Shortage Contingency Plan

Chapter 9 – Demand Management Measures

Chapter 10 – Urban Water Management Plan Adoption, Submittal, and Implementation

Chapter 11 – References

In addition to these eleven chapters, this Plan includes a number of appendices providing supporting documentation and supplemental information. Pursuant to CWC § 10644(a)(2), this Plan utilizes the standardized forms, tables, and displays developed by DWR for the reporting of data and information required by the UWMP Act. This Plan also includes additional tables, figures, and maps to augment the information required by the UWMP Act, as appropriate. A list of all tables, figures, and appendices, along with a list of acronyms, can be found after the Table of Contents.

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

☒ **CCR 23 § 5003**

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);

(2) That failure has significantly caused the need for the export, transfer, or use; and

(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.

(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action to export water from, transfer water through, or use water in the Delta, but does not cover any such action unless one or more water suppliers would receive water as a result of the proposed action.

(c)(1) Water suppliers that have done all of the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and

(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of

water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

Although not required by the UWMP Act, in the 2025 UWMP Guidebook, DWR recommends that all suppliers that are participating in, or may participate in, receiving water from a proposed project that is considered a “covered action” under The Delta Plan by the Delta Stewardship Council — such as a (1) multiyear water transfer, (2) conveyance facility, or (3) new diversion that involves transferring water through, exporting water from, or using water in the Delta — provide information in their UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code of Regulations [CCR], Title 23, § 5003). MPWD purchases 100% of its potable water from the SFPUC. The SFPUC has made a legal determination that this requirement does not apply to its water sources. Because the SFPUC is the District’s only source of water, by extension the District has determined that this requirement does not apply to its water source.

1.7 Urban Water Management Plans and Grant or Loan Eligibility

☒ **CWC § 10608.56 (a)**

...an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

For California water agencies to be eligible for any water grant or loan administered by DWR, they must have a current UWMP on file that has been determined by DWR to address the requirements of the Water Code. As with the previously submitted 2020 UWMP, MPWD has fully complied with the requirements of the Water Code in its 2025 UWMP. As required, the current UWMP will be maintained throughout the term of any grant or loan administered by DWR, should MPWD pursue such funding. Other state funding, depending on the conditions that are specified in the funding guidelines, may also require a current UWMP.

2. URBAN WATER MANAGEMENT PLAN PREPARATION

This chapter provides information on how the 2025 Urban Water Management Plan (UWMP or Plan) was developed, coordination and outreach efforts conducted by Mid-Peninsula Water District (MPWD or District), individual and regional planning efforts, reporting period, and units of measure used throughout the document.

Text from the Urban Water Management Planning Act (UWMP Act) has been included in grey text boxes with italicized font at beginning of relevant sections of this UWMP. The information presented in the respective UWMP sections and the associated text, figures, and tables are collectively intended to fulfill the requirements of that sub-section of the UWMP Act. To the extent practicable, supporting documentation has also been provided in Appendix A through Appendix G. Other sources for the information contained herein are provided in Chapter 11 of this document.

2.1 Basis for Preparing a Plan

☑ **CWC § 10617**

“Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

☑ **CWC § 10620 (a)**

Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

☑ **CWC § 10620 (b)**

Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

☑ **CWC § 10621 (a)**

Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

☑ **CWC § 10644 (a)**

The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.

In 1983, the California Legislature enacted the UWMP Act (California Water Code [CWC] § 10610 - § 10657). The UWMP Act states that every urban water supplier that provides water to 3,000 or more connections or that provides over 3,000 acre-feet of water per year (AFY) should make every effort to ensure the appropriate level of water service reliability to meet the needs of its customers during normal, dry, and multiple dry years.

As a water system that provides drinking water for human consumption, the District is regulated as a Public Water System (PWS) by the State Water Resources Control Board (SWRCB), Division of Drinking Water. Table 2-1 lists the District's PWS identification number. The SWRCB requires that water agencies report water usage and other relevant PWS information via the electronic Annual Reports to the Drinking Water Program (eARDWP). These data are used by the state to determine, among other things, whether an urban retail water supplier has reached the threshold (3,000 or more connections or 3,000 AF of water supplied) for submitting a UWMP.

As shown in Table 2-1, the District served approximately 8,197 connections in 2025 and is therefore subject to the requirements of the UWMP Act.

Table 2-1 (DWR TABLE 2-1): Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (MG)
CA4110001	Mid-Peninsula Water District	8,197	844
Total		8,197	844
NOTES:			

As indicated in Table 2-2, MPWD's 2025 UWMP was prepared as an individual plan. It has been prepared in general accordance with the format suggested in the California Department of Water Resources' (DWR's) UWMP Guidebook (Guidebook; DWR, 2026). Per CWC § 10644(a)(2), selected information for the 2025 UWMP must be presented in standardized tables for electronic submittal to DWR. To the extent applicable, text and tables in the main body of the UWMP document have been cross-referenced to the companion DWR tables. Additional tables have been added throughout the UWMP to increase clarity.

Table 2-2 (DWR Table 2-2): Plan Identification

Select One	Type of Plan	Name of Regional Alliance or RUWMP (Drop Down List)
☒	Individual UWMP	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
☐	Regional Urban Water Management Plan (RUWMP)	
	If Supplier selected RUWMP, select name from the drop-down.	
NOTES:		

2.2 Reporting Period and Units of Measure

☒ CWC § 10608.20 (a)(1)

Urban retail water suppliers ... may determine the targets on a fiscal year or calendar year basis.

Per CWC § 10644(a)(2), selected information for the 2025 UWMP updates must be presented in standardized tables for electronic submittal to DWR. As such, tables in the UWMP document follow DWR's required format and have been cross-referenced to DWR table numbers. Per the Guidebook, the UWMP preparer is requested to complete a checklist of specific UWMP requirements to assist DWR's review of the submitted UWMP. The completed checklist is included in Appendix A. As shown in Table 2-3, MPWD is a retail supplier. The information presented in this UWMP is reported on a calendar year basis. The unit of measure for reporting water volumes is million gallons (MG) and is maintained consistently throughout the Plan, unless otherwise noted (Table 2-5). Further, consistent with the Guidebook, the terms "water use", "water consumption", and "water demand" are used interchangeably in this UWMP.

Table 2-3 (DWR Table 2-3): Supplier Identification

Type of Supplier (select one or both)	
☐	Supplier is a wholesale supplier
☒	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
☒	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 (Select from the drop down list).	
Unit	MG
NOTES:	

2.3 Coordination and Outreach

☒ CWC § 10608.20 (a)(1)(h)

An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year

increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

As described below and in Chapter 10, this UWMP has been prepared in coordination with the Bay Area Water Supply and Conservation Agency (BAWSCA), the BAWSCA member agencies (i.e., the Wholesale Customers), the San Francisco Public Utilities Commission (SFPUC), the public, and other appropriate entities.

2.3.1 Role of BAWSCA and the UWMP Common Language

MPWD, along with 25 other member agencies, is a member of BAWSCA. BAWSCA was created on May 27, 2003, to represent the interests of 16 cities, 8 water districts, and 2 private water providers. Currently, BAWSCA agencies deliver water to over 1.8 million residents and nearly 40,000 commercial, industrial, and institutional accounts. The 26 BAWSCA agency members are in Alameda, Santa Clara, and San Mateo counties and purchase water on a wholesale basis from the SFPUC Regional Water System (RWS). Collectively the BAWSCA agencies are referred to as the “Wholesale Customers.”

BAWSCA also represents the collective interests of the Wholesale Customers on all significant technical, financial and policy matters related to the operation and improvement of the SFPUC’s RWS. BAWSCA works with SFPUC to provide common information about the SFPUC RWS for its member agencies, and to ensure consistent information for the 2025 UWMP updates. Additional information about BAWSCA is presented in Chapter 6.

MPWD is an active participant in BAWSCA committees and planning activities. MPWD attends monthly BAWSCA Water Management Representative’s meetings that review regional and local water news, BAWSCA’s work with SFPUC on behalf of the Wholesale Customers, long-term planning for water conservation, shortages, and various projects in which MPWD and other agencies participate. MPWD also participates in BAWSCA Water Resources Committee meetings that are held quarterly and SFPUC Wholesaler meetings that are held once or twice per year.

Together with the SFPUC, BAWSCA developed common language for inclusion in each Wholesale Customers’ 2025 UWMP regarding the following common issues:

- Description of BAWSCA;
- Regional Water Demand and Conservation Projections;
- Long Term Reliable Water Supply Strategy;
- Making Conservation a California Way of Life Strategic Plan;
- Tier One Drought Allocations;
- Tier Two Drought Allocations;
- SFPUC Regional Water System Description;
- Individual Supply Guarantees (ISGs);
- 2028 SFPUC Decisions (formerly 2018 SFPUC Decisions);
- Reliability of the Regional Water System;
- Climate Change;
- SFPUC’s Efforts to Develop Alternative Water Supplies;
- SFPUC’s Decision to use Bay-Delta Plan Scenario in UWMP Submittal Tables;
- Bay Delta Plan Implementation Starting Year;
- SFPUC’s Decision to Present Both Modeling Results in its UWMP;

- Rate Impacts of Water Shortages; and
- BAWSCA Conservation Programs.

For clarification purposes, and as shown below, the common language provided by BAWSCA is shown in grey font and has been indented for emphasis; it is otherwise presented unchanged from the original text provided by BAWSCA. As a result, there may be some redundancy in the information presented and the definition of certain abbreviations. A description of BAWSCA's role generally and related to the 2025 UWMP development process is provided below.

BAWSCA provides regional water reliability planning and conservation programming for the benefit of its 26 member agencies (collectively the "Wholesale Customers" or "BAWSCA Member Agencies") that purchase wholesale water supplies from the San Francisco Public Utilities Commission (SFPUC). Collectively, the Wholesale Customers deliver water to over 1.8 million residents and nearly 40,000 commercial, industrial and institutional accounts in Alameda, San Mateo and Santa Clara Counties.

BAWSCA also represents the collective interests of the Wholesale Customers on all significant technical, financial, and policy matters related to the operation and improvement of the SFPUC's Regional Water System (RWS).

BAWSCA's role in the development of the 2025 Urban Water Management Plan (UWMP) updates is to work with its Member Agencies and the SFPUC to seek consistency among UWMP documents.

2.3.2 Wholesale Coordination

☒ **CWC § 10631 (h)**

An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

The SFPUC is a wholesale water supplier to all the BAWSCA member agencies and is the only wholesale water supplier to MPWD. As part of the coordination effort for the 2025 UWMP, and in compliance with CWC § 10631(h), MPWD supplied BAWSCA with its water demand projections through 2050 for transmittal to the SFPUC.

Additionally, as described in more detail in Chapter 7, MPWD has relied upon the water supply reliability projections provided by the SFPUC for the purposes of analyzing the reliability of its SFPUC supplies during normal and dry years through 2050 (Appendix C).

Table 2-4 (DWR Table 2-4): Water Supplier Information Exchange

The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
San Francisco Public Utilities Commission
NOTES: The SFPUC supplies 100% of MPWD’s water supply. The SFPUC RWS, including Hetch-Hetchy and local San Francisco Bay Area watersheds, is currently the MPWD’s only viable supply source. MPWD communicated its projected water demand to the SFPUC in 5-year increments through the year 2050 as part of BAWSCA’s regional demand report in December 2025. BAWSCA has the authority to coordinate water conservation, supply, and recycling activities for its member agencies.

2.3.3 Agency Coordination

☒ **CWC § 10631 (h)**

Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

As a member of BAWSCA and the BAWSCA Water Management Representative Committee, MPWD has coordinated closely with BAWSCA and its 25 other member agencies throughout the update of MPWD’s 2025 UWMP. Representatives for MPWD attend monthly water management meetings with BAWSCA and its member agencies that, among other topics, include discussion of items pertinent to the preparation of the 2025 UWMPs.

Most land use planning and development approvals within MPWD’s service area are the responsibility of the City of Belmont. MPWD regularly meets with the City of Belmont to discuss relevant planning, development, and capital projects. The City of San Carlos, City of Redwood City, and San Mateo County also have planning authority over small portions of the service area. MPWD has coordinated with Silicon Valley Clean Water (SVCW), the agency that treats wastewater in MPWD’s service area, and MPWD meets with those agencies as needed related to planning efforts. This coordination included, among other things, the provision of data regarding the volume of wastewater collected within MPWD’s service area. On June 23rd, MPWD presented on their preparation of the UWMP and WSCP at the City of Belmont’s City Council meeting to solicit feedback from the City Council and any members of the community who wished to give feedback¹.

On January 22, 2026, MPWD sent a letter of notification to all relevant agencies that the District was reviewing and updating its UWMP. The agencies, cities, and counties that were notified by MPWD during the development of this plan are listed and discussed further in Chapter 10.

¹ A copy of MPWD’s presentation to the City of Belmont’s City Council can be found at <https://www.belmont.gov/departments/meetings-agendas-minutes>.

3. SERVICE AREA DESCRIPTION

☒ **CWC § 10631 (a)**

A plan shall be adopted in accordance with this chapter that shall do all of the following:

Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

3.1 General Description

Mid-Peninsula Water District (MPWD or District) is an independent special district formed and incorporated in 1929 under the County Water District Act of California. MPWD is located in east central San Mateo County on the San Francisco Peninsula, about 30 miles south of San Francisco. When formed, MPWD consolidated the operations of seven small water systems serving about 320 customers. In the 1930s, MPWD contracted with the San Francisco Public Utilities Commission (SFPUC) to purchase water from the newly built Hetch-Hetchy water project, eliminating local dependence on small, unreliable wells and gaining a more secure, reliable, and expandable source of supply.

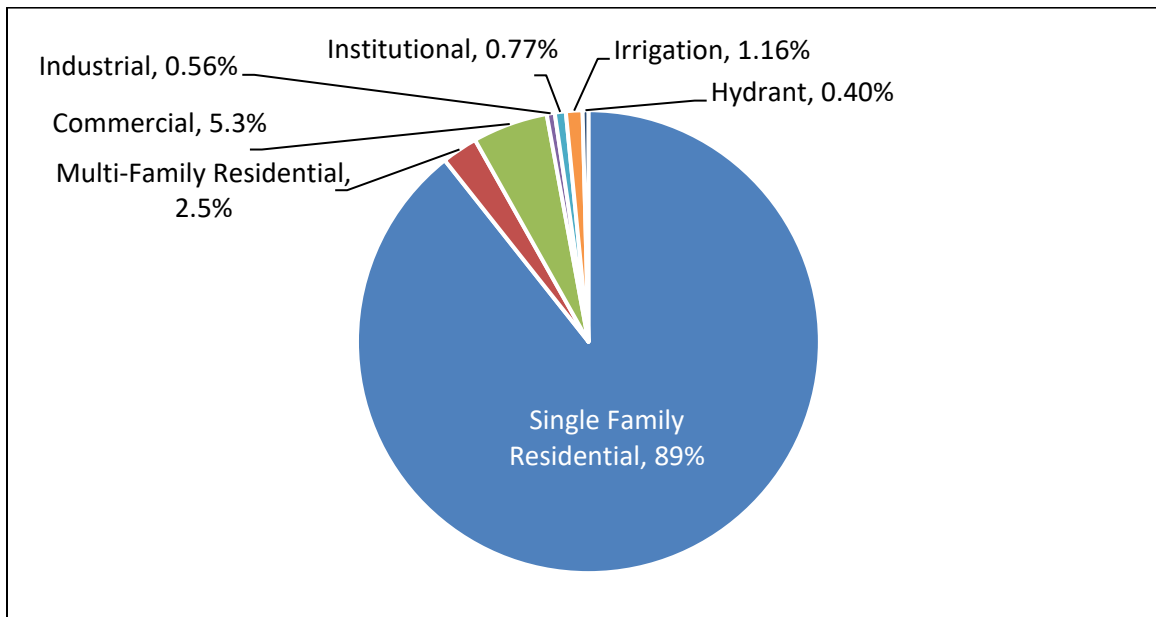
MPWD's service area is five square miles with 8,197 active service connections and a population of 31,059. As shown in Table 3-1 and the associated chart, 89% of MPWD's service connections are in the single family residential category. The other 11% is represented by commercial (5.3%), multi-family residential (2.5%), landscape irrigation (1.2%), institutional (0.77%), industrial (0.56%), and hydrant connections (0.40%).

MPWD serves the City of Belmont and small portions of the City of San Carlos, the City of Redwood City, and unincorporated San Mateo County (Figure 3-1). MPWD's sole source of potable water is from the SFPUC Regional Water System (RWS). The MPWD system connects to the SFPUC RWS Bay Division pipelines 1 and 2 at two locations. MPWD has nine pressure zones due to varied topography and elevations within its service area (Figure 3-2). MPWD is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the interests of 26 water agencies including two private utilities that purchase water wholesale from the SFPUC RWS. Local groundwater of adequate quantity and quality is not available.

Table 3-1: Water Service Connections

Customer Category	Number of Connections	% of Total Connections
Single Family Residential	7,323	89%
Multi-Family Residential	206	2.5%
Commercial	431	5.3%
Industrial	46	0.56%
Institutional	63	0.77%
Irrigation	95	1.2%
Hydrant	33	0.40%
Total Service Connections	8,197	100%

Chart 3-1A: Proportion of Water Service Connections



3.2 Water Distribution System

MPWD operates and maintains a distribution system that includes 20 pumps, 11 water tanks, 13 regulating valves, over 800 hydrants, and approximately 94 miles of water mains (Figure 3-2). MPWD's service area includes 8,197 service connections and nine pressure zones. Water enters the MPWD via two turnouts from the SFPUC RWS system, one high elevation near Interstate-280, and one lower elevation turnout located in Redwood City.

MPWD also has redundancy built into the entire distribution system, enabling either of the two SFPUC RWS transmission mains to supply water to all its customers. MPWD can transfer water between pressure zones in

either a pump-up or flow-down mode in emergency conditions. MPWD has 12.5 million gallons of local storage capacity that equates to over 5 days of water supply.²

3.3 Population and Demographics

3.3.1 *Population and Employment Methodology*

Current and projected estimates of population and employment from 2025-2050 were developed through BAWSCA's Regional Water Demand and Conservation Projections Study (2025 Demand Study), conducted in association with Hazen and Sawyer (BAWSCA, 2025). Current population was estimated using California Department of Finance (CA DOF) annual historical jurisdictional population estimates, which, consistent with the California Department of Water Resources (DWR) requirements, rely on United States Census Bureau data, and were geographically allocated to MPWD's water service area based on existing land use data. Current employment estimates were developed from the Longitudinal Employer-Household (LEHD) Origin-Destination Employment Statistics (LODES) dataset. LODES data at the census tract geographic level was processed to MPWD's water service area using Geographic Information Systems (GIS) data.

Future projections of population, housing units, and jobs were developed based on the Association of Bay Area Government's (ABAG) Plan Bay Area 2050 Traffic Analysis Zone (TAZ) dataset (ABAG, 2021a). This dataset was processed to MPWD's water service areas using GIS data. The Plan Bay Area 2050 dataset reflects a modeled projection of demographic data with three datapoints for years 2015, 2035, and 2050. The 2025 Demand Study uses the rate of change from Plan Bay Area 2050 imposed on 2023 historical demographic data described above.

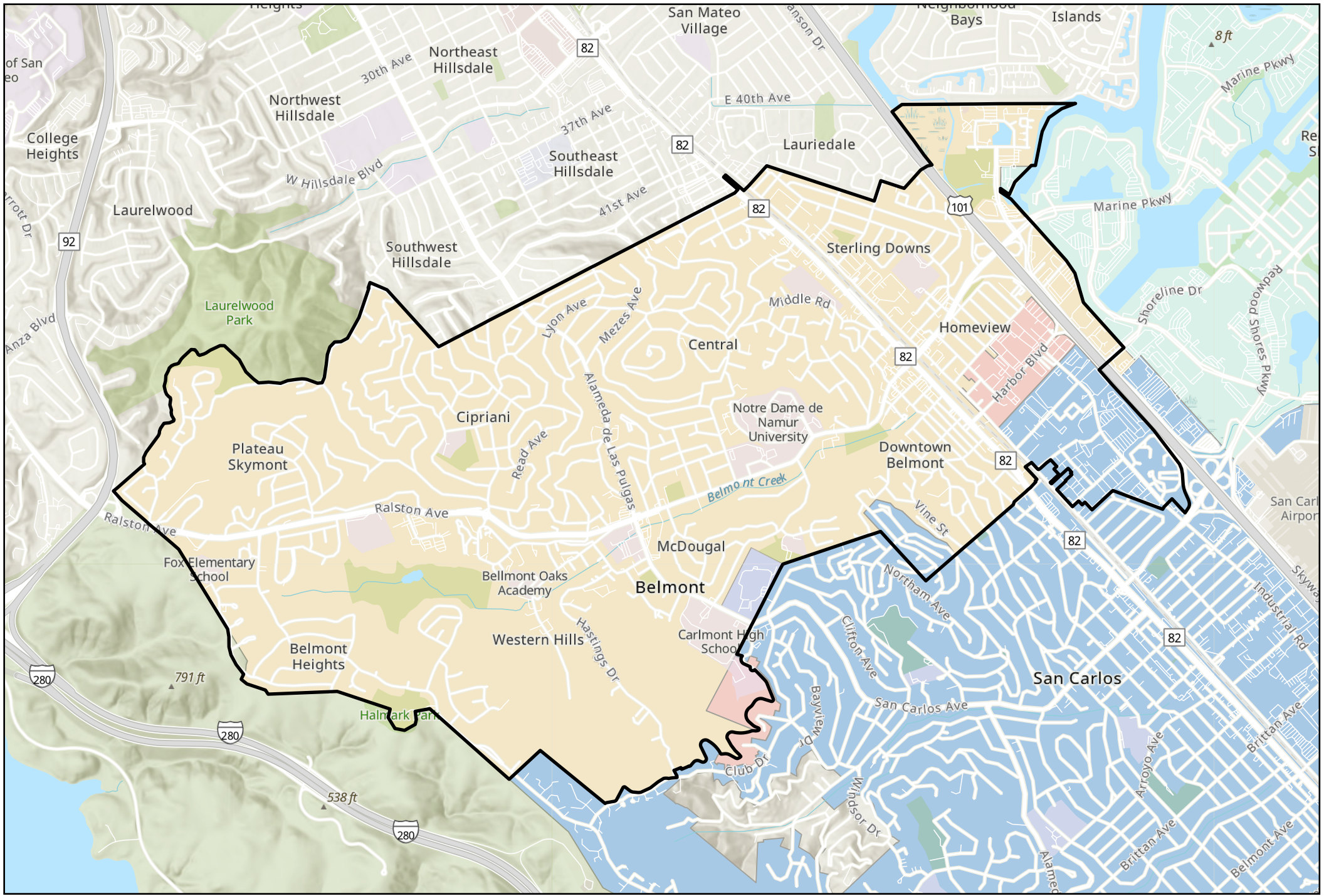
3.3.2 *Historical and Projected Population*

Current and projected population data from 2025 through 2050 within MPWD's service area are shown in Table 3-2 and the associated chart. The methodology used to develop current and projected population is described in Section 3.3.1.

Like most of the San Francisco Bay Area, MPWD experienced rapid growth following World War II. The 1950s and 1960s saw both population and housing growth and increased water demand. The rate of growth in the area served by MPWD tapered off dramatically in the 1970s and remained low for the next 30 years. Between the 1980s and 1990s the population growth was about 1%. Between 1990s and 2000 the population growth increased 3%, while between 2000 and 2010 it reached the highest growth in decades, at 6%.

Between 2010 and 2015, the growth declined back to 1.6%. The national economic recession from 2008 to 2011 also significantly affected the San Francisco Bay Area communities. However, by the spring of 2013, the Bay Area had regained all the jobs lost during the 2007 to 2009 recession. By 2015, the Bay Area and local economy experienced further growth. From 2015 to 2025 the population in MPWD's service area grew by 10% to 31,059. From 2025 to 2050, MPWD's service area population is forecasted to increase by approximately 8.9%, and is projected to reach 33,813 by 2050.

² Based on 2025 water demand of 2.31 million gallons per day (MGD).



- MPWD Service Area
- City of Belmont
- Unincorporated SMC
- City of San Carlos
- City of Redwood City

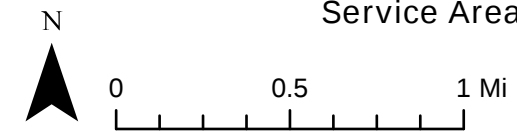
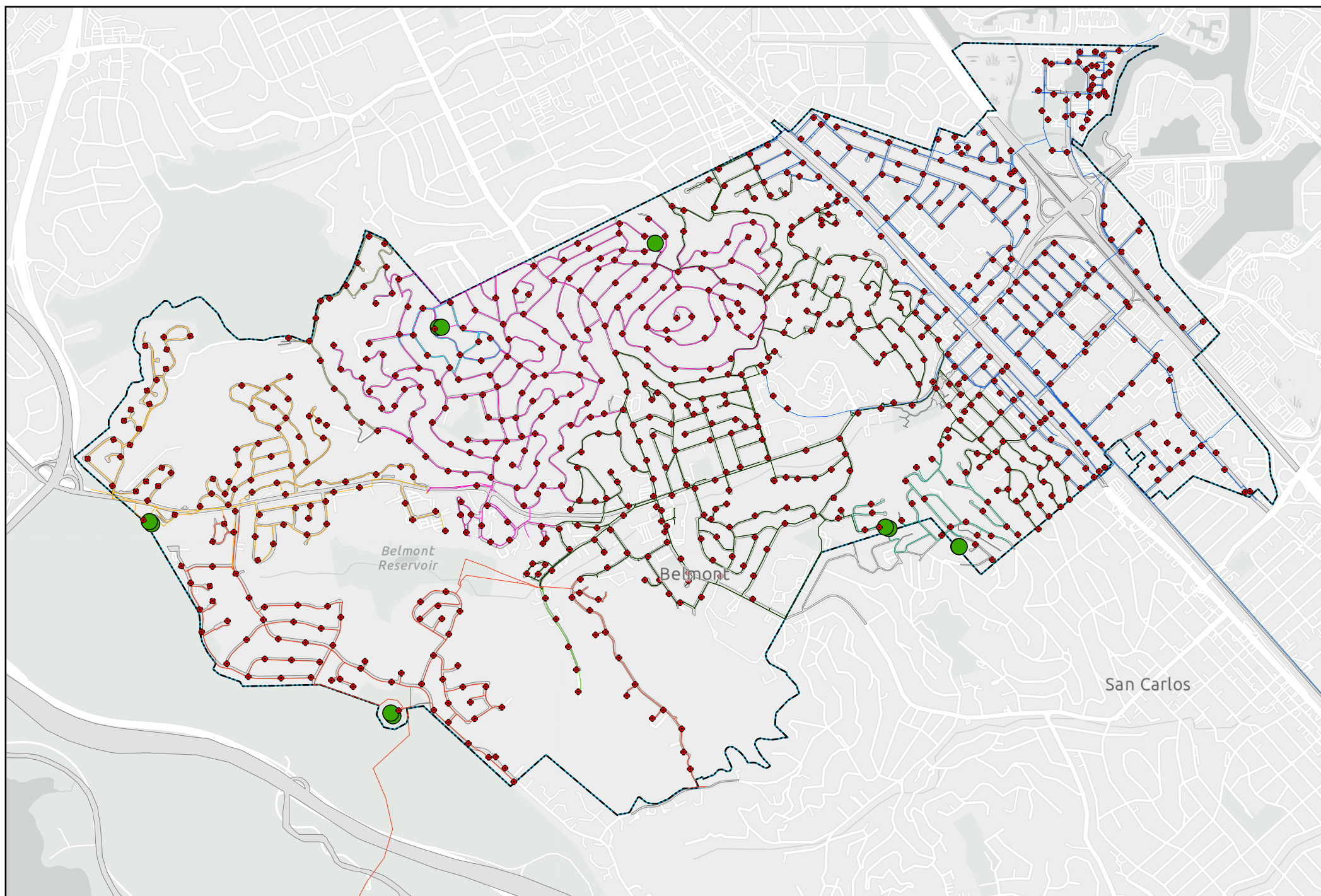


Figure 3-1: MPWD Service Area



Water Mains

Zone 1 Mains

Zone 2 Mains

Zone 2 Carlmont Mains

Zone 3 Mains

Zone 4 Mains

Zone 5 Mains

Zone 6 Mains

Zone 7 Mains

Zone 8 Mains

Zone 9 Mains

Zone 9 San Juan Mains

Hydrants

Storage Tanks

MPWD Service Area

Figure 3-2: MPWD
Distribution System Map



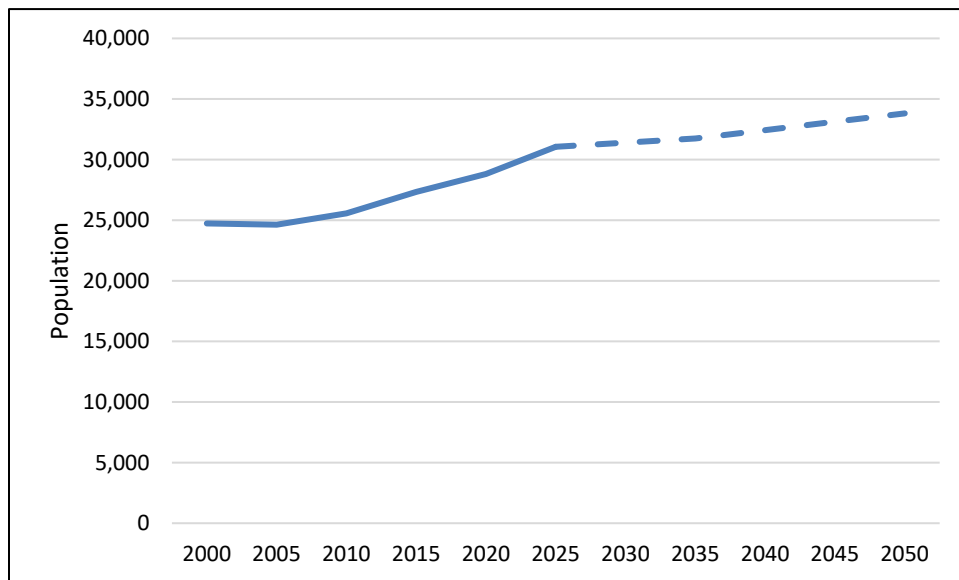
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Table 3-2 (DWR Table 3-1): Population – Current and Projected

Population Served	2025	2030	2035	2040	2045	2050(opt)
	31,059	31,404	31,749	32,437	33,125	33,813

NOTES:
 -Population projections through 2050 were developed as part of Hazen and Sawyer's 2025 Demand Study and used the California Department of Finance annual historical jurisdictional population estimates, geographically allocated to MPWD's water service area based on existing land use data.

Chart 3-2A: Population – Current and Projected



3.3.3 Future Employment Growth

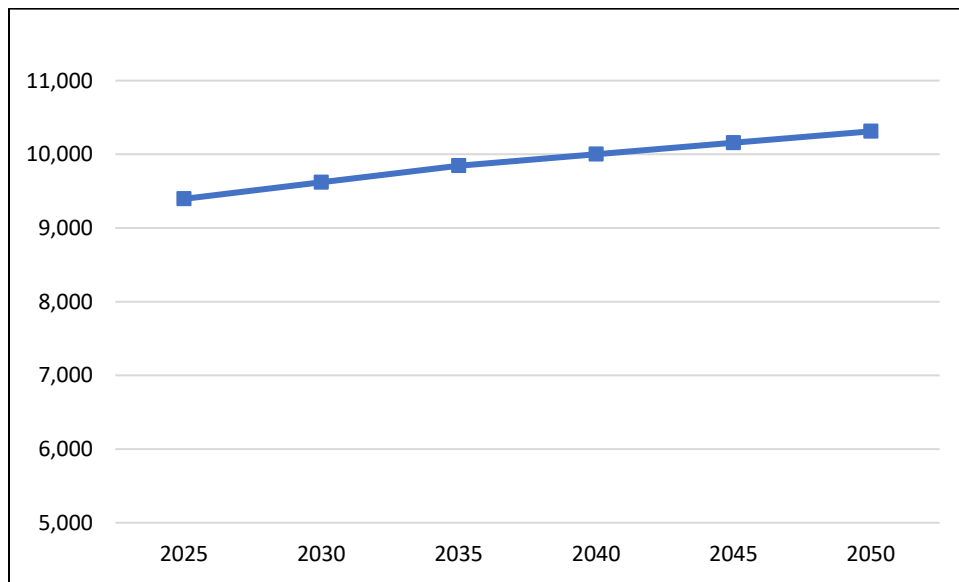
Current and projected employment data from 2025 through 2050 within MPWD's service area are presented in Table 3-3 and the associated chart. The methodology used to develop current and projected employment is described in Section 3.3.1. Future employment projections are consistent with the City of Belmont's General Plan (**City of Belmont, 2017**). MPWD employment is projected to increase 10% from 2025 to 2050, with a total of 10,312 jobs projected in 2050.

Table 3-3: Employment – Current and Projected

Population Served	2025	2030	2035	2040	2045	2050
	9,395	9,620	9,846	10,001	10,156	10,312

NOTES:
 -Employment projections were developed based on the Association of Bay Area Government's (ABAG) Plan Bay Area 2050 Traffic Analysis Zone (TAZ) dataset. This dataset was processed to MPWD's water service areas using GIS data.

Chart 3-3A: Employment – Current and Projected



3.3.4 Other Social, Economic, and Demographic Factors

As discussed in Section 3.1, MPWD primarily serves the City of Belmont (Figure 3-1); approximately 168 accounts are located in the City of San Carlos, 3 accounts in the City of Redwood City, and 80 accounts in unincorporated San Mateo County. Demographics for the City of Belmont are summarized in Table 3-4. The same data are also provided for the state of California as a whole and for San Mateo County and were obtained from the U.S. Census Bureau QuickFacts website (U.S. Census, 2024). Relative to the rest of California, the City of Belmont has a higher proportion of the population identifying as Asian or two or more races, but has a slightly lower proportion of the population identifying as Asian than San Mateo County. The persons per household in the City of Belmont is also slightly lower than both California and San Mateo County, and has a higher proportion of the population who graduated from both high school and higher education. Median and per capita income for the City of Belmont are also substantially higher than both California and San Mateo County.

Table 3-4: Demographic and Housing Characteristics

Demographics	City of Belmont	San Mateo County	California
Age and Sex			
Persons under 5 years	5.3%	5.0%	5.3%
Persons under 18 years	23.7%	18.9%	21.3%
Persons 65 years and older	13.9%	18.8%	16.5%
Female persons	49.9%	50.2%	50.1%
Race and Hispanic Origin			
White alone	48.6%	55.9%	69.8%
Black alone	2.7%	2.7%	6.4%
American Indian and Alaska Native alone	0.5%	1.1%	1.8%
Asian alone	30.7%	33.9%	17.0%
Native Hawaiian and Other Pacific Islander alone	0.5%	1.4%	0.5%
Two or More Races	11.1%	5.0%	4.4%
Hispanic or Latino	13.1%	25.0%	40.8%
White alone, not Hispanic or Latino	45.8%	34.6%	33.6%
Families & Living Arrangements (2020-2024)			
Persons per household	2.53	2.76	2.84
Living in same house 1 year ago, percent of persons age 1 year+	85.7%	88.4%	89.2%
Language other than English spoken at home, age 5 years+	38.3%	45.8%	44.4%
Education (2020-2024)			
High school graduate or higher, persons age 25 years+	95.5%	90.2%	84.7%
Bachelor's degree or higher, persons age 25 years+	69.7%	53.7%	37.1%
Income & Poverty (2020-2024)			
Median Household Income (in 2024 dollars)	\$205,297	\$158,855	\$99,122
Per capita income in past 12 months (in 2024 dollars)	\$101,385	\$84,288	\$49,513
Persons in poverty	6.9%	7.2%	11.8%
NOTES:			
-Demographic data per the U.S. Census Bureau QuickFacts website (U.S. Census, 2024).			

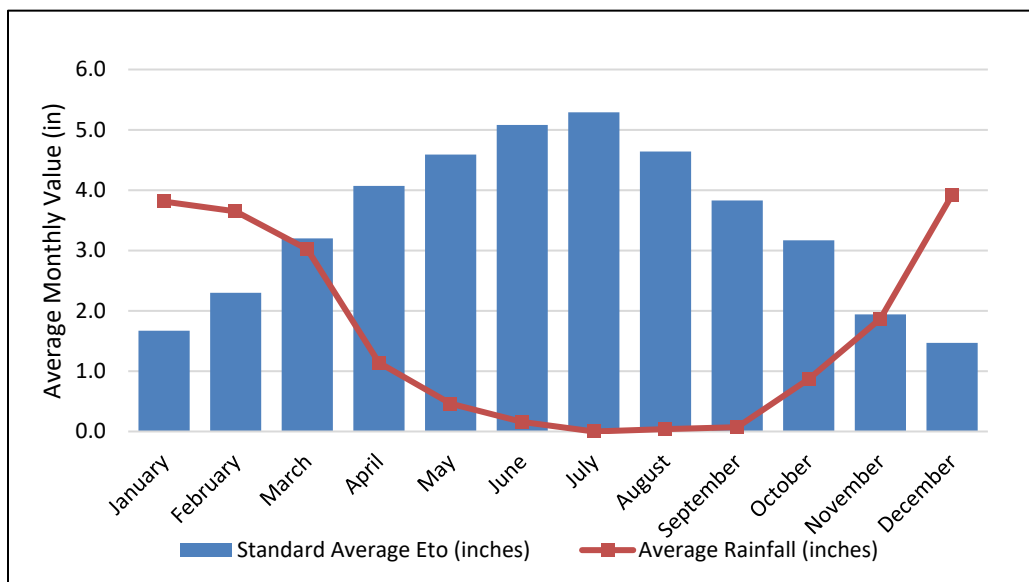
3.4 Climate

MPWD's service area is located within a region characterized by a Mediterranean climate with cool, wet winters and warm, dry summers. As shown in Table 3-5 and the associated chart, rainfall in the area averages 19.02 inches per year and is generally confined to the wet season from late October to April. The average reference evapotranspiration (ET_o) for the region is 41.3 inches per year. The ET_o is a standard measurement related to the water demand by plants in a specific region. Because the average annual ET_o is approximately 22 inches more than the average annual precipitation, and because 86% of the annual precipitation occurs between the months of November and April, growing turf or other plantings in this region requires a significant amount of irrigation during the dry season. The District does experience seasonal peaks in demand that are attributable to irrigation.

Table 3-5: Average Monthly Climate Characteristics

Month	Average Temperature		Standard Average Eto (inches)	Average Rainfall (inches)
	Min (°F)	Max (°F)		
January	40.5	58.9	1.7	3.81
February	42.5	61.9	2.3	3.65
March	44.6	65.3	3.2	3.02
April	46.5	68.5	4.1	1.14
May	50.4	72.9	4.6	0.46
June	53.6	78.8	5.1	0.16
July	56.6	81.0	5.3	0.00
August	56.5	80.8	4.6	0.04
September	54.3	79.3	3.8	0.07
October	49.8	74.6	3.2	0.87
November	43.9	64.7	1.9	1.87
December	40.2	58.6	1.5	3.92
Annual	48.3	70.4	41.3	19.02
NOTES: -Temperature and precipitation data are from the Western Regional Climate Center for Station #047339 REDWOOD CITY from 1990 - 2020. -Reference evapotranspiration data are from the Department of Water Resources, California Irrigation Management Information System Pescadero station #253 for 2017 - 2026. - Totals may not sum due to rounding.				

Chart 3-5A: Average Monthly Climate Characteristics



3.4.1 Climate Change Considerations

Projections of climate change in California indicate a further intensification of wet and dry extremes and shifting temperature. Changing climate can affect both water uses and supplies. For example, extreme and higher temperatures can lead to increases in water use; declining snowpack and earlier runoff patterns could result in changes in stream flows and reservoir operations; projection of frequent, severe, prolonged droughts could lead to not only less surface water available, but also exacerbate ongoing stressors in groundwater basins. Some of these pressures are already apparent in California as of 2026.

Several sections in the California Water Code (CWC) relevant to UWMPs refer to climate change. Pursuant to CWC requirements and the DWR's 2025 UWMP Guidebook, this Plan incorporates climate change considerations into following relevant chapters:

- Chapter 3 – System Description
- Chapter 4 – Water Use Characterization
- Chapter 6 – Water Supply Characterization
- Chapter 7 – Water Service Reliability and Drought Risk Assessment

The Sea Level Rise Vulnerability Assessment completed in 2018 (County of San Mateo, 2018) was the first step of the Sea Change San Mateo County Initiative and provides an overview of the risk within the County from current and future flooding. The assessment identified built and natural assets in the County that are vulnerable, including stormwater, power, and wastewater infrastructure.

In 2019, as a result of the Sea Change convenings, the city and County of San Mateo formed a Flood and Sea Level Rise Resiliency District (OneShoreline) to address sea level rise, flooding, coastal erosion, and large-scale storm water infrastructure improvements through integrated regional planning, investment, and project

implementation. In June 2023, OneShoreline published a Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County, which provides templates that local city and county governments can use to ensure that private and public assets can function for their intended lifespans and contribute to community resilience without the need for costly retrofits later (OneShoreline, 2023). They are currently developing a new guidance document focused on future-conditions planning for key public infrastructure assets, including wastewater and potable water utilities.

The District is participating in the update of the Countywide San Mateo Local Hazard Mitigation Plan (LHMP). The LHMP is expected to be complete in late summer 2026, and was last updated in 2016. The LHMP identifies risks from flooding, sea level rise, earthquakes, and other natural hazards. The District aligns its capital improvement projects, emergency preparedness efforts, and strategic priorities with the LHMP to reduce hazard impacts.

Chapters 4, 6, and 7 of this Plan discuss the potential impacts of climate change on water demand and water sources. Section 4.4 discusses the ways in which climate change were considered in developing MPWD's demand projections, including an analysis of multiple projections of future climate scenarios. As detailed in Chapter 9 of this Plan, MPWD has established robust water conservation programs to increase drought resiliency. MPWD continues to plan for future water needs and to enhance the resiliency of its water system.

3.5 Service Area Land Uses

CWC § 10631(a) requires that the description of the service area includes the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers are required to coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities.

The majority of MPWD's service area territory is under the jurisdiction of the City of Belmont, with portions serving the City of San Carlos, the City of Redwood City, and unincorporated San Mateo County. The largest sector in MPWD's service area is residential and is mostly built out. The service area also includes the commercial, industrial, and institutional (CII) sector, and open space areas. The remaining undeveloped land available for development is limited. Most development over the next 25 years is expected to be redevelopment of sites with existing structures including both multi-family residential and CII. This redevelopment is expected to be guided largely by two specific plans that cover the Harbor Industrial Area (HIA), a 207-acre area located east of El Camino Real and west of Highway 101. The City of Belmont's HIA Specific Plan and the City of San Carlos' Northeast Area Specific Plan (NEA Specific Plan) describe the planned rezoning of the HIA from primarily industrial uses to a combination of life sciences, data center, multi-family residential, and mixed use areas, among others. In total, both specific plans would allow for a maximum of approximately 8.2 million square footage of non-residential land uses and approximately 2,200 multi-family residential dwelling units in these areas. As discussed in Section 4.6, Water Supply Assessments (WSAs) were completed by MPWD in February 2025, and evaluated the impacts of this rezoning on MPWD's water supplies and demands.

The City of Belmont has also been expanding its housing development under Senate Bill (SB) 35 and SB 423, which allows local governments to expedite affordable housing projects. Several developments are planned or currently underway to build multi-family affordable housing units to help the City of Belmont meet their Regional Housing Needs Allocation (RHNA) development goals.

4. WATER USE CHARACTERIZATION

☑ **CWC § 10631 (d) (1)** *A plan shall be adopted in accordance with this chapter that shall do all of the following:*

For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

For the purposes of this Urban Water Management Plan (UWMP or Plan), potable water demand is defined as the volume of potable water that the Mid-Peninsula Water District (MPWD or District) purchases from the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS). Among other things, water demand is dependent on climate, population, industry, and the types of development present in a community. Sections 4.1 and 4.2 describe the historical, current, and projected water demands for the residential, commercial, industrial, and institutional (CII) sectors within MPWD's service area (as described per California Water Code [CWC] § 10631(d)(1)(A) through (E) and (J)). As described in Section 4.5, this discussion does not include demands for sales to other agencies, saline water intrusion barriers, and agricultural sectors (CWC § 10631(d)(1)) water use sectors (F) through (I)) as they are not applicable or present within the MPWD service area.

4.1 Past and Current Water Use by Sector

4.1.1 Past and Current Potable Water Use

All demands within MPWD's service area are met with potable water. The current and historical total water demands include the water consumed by metered accounts in the service area (metered water consumption) and the water that is lost within the distribution system or otherwise unaccounted for (i.e., losses).

Table 4-1 and the associated charts show MPWD's potable water demand and per capita water use between 2010 and 2025. Before the 2013-2016 drought, MPWD's per capital potable water use was about 110 gallons per capita

per day (GPCD). The drought then caused local and state agencies (i.e., the State Water Resources Control Board [SWRCB]) to issue mandatory water use restrictions, which led to a significant decline in water use. MPWD saw a 27% reduction in water use between 2013 and 2016. Water use began to rebound slightly through 2020 to 92 GPCD, but further decreased to 73 GPCD during the 2021-2023 drought. GPCD has remained at decreased levels since that most recent drought and was 74 GPCD in 2025, all while MPWD's population has steadily increased.

Overall, MPWD's per capita water use is lower than the average per capita water use across all Bay Area Water Supply and Conservation Agency (BAWSCA) agencies (i.e., 98 GPCD; BAWSCA, 2026) and throughout the state (i.e., 129 GPCD; SWRCB, 2026).

Table 4-1: Historical and Current Potable Water Demand and Population

Year	Water Demand	Service Area Population	Gallons Per Capita Per Day
2010	1,032	25,560	111
2011	1,050	25,964	111
2012	1,057	26,388	110
2013	1,110	26,770	114
2014	957	27,035	97
2015	840	27,339	84
2016	829	27,532	83
2017	902	27,656	89
2018	918	27,814	90
2019	929	27,884	91
2020	966	28,810	92
2021	896	29,260	84
2022	852	29,709	79
2023	807	30,159	73
2024	842	30,609	75
2025	844	31,059	74
NOTES: -Water demand volumes are in units of MG. -Demands are based on purchases from SFPUC on a calendar year basis. -Service area population from 2010 through 2025 were estimated from the California Department of Finance (CA DOF) annual historical jurisdictional population estimates, adjusted for MPWD's service area.			

Chart 4-1A: Historical and Current Potable Water Demand and Population

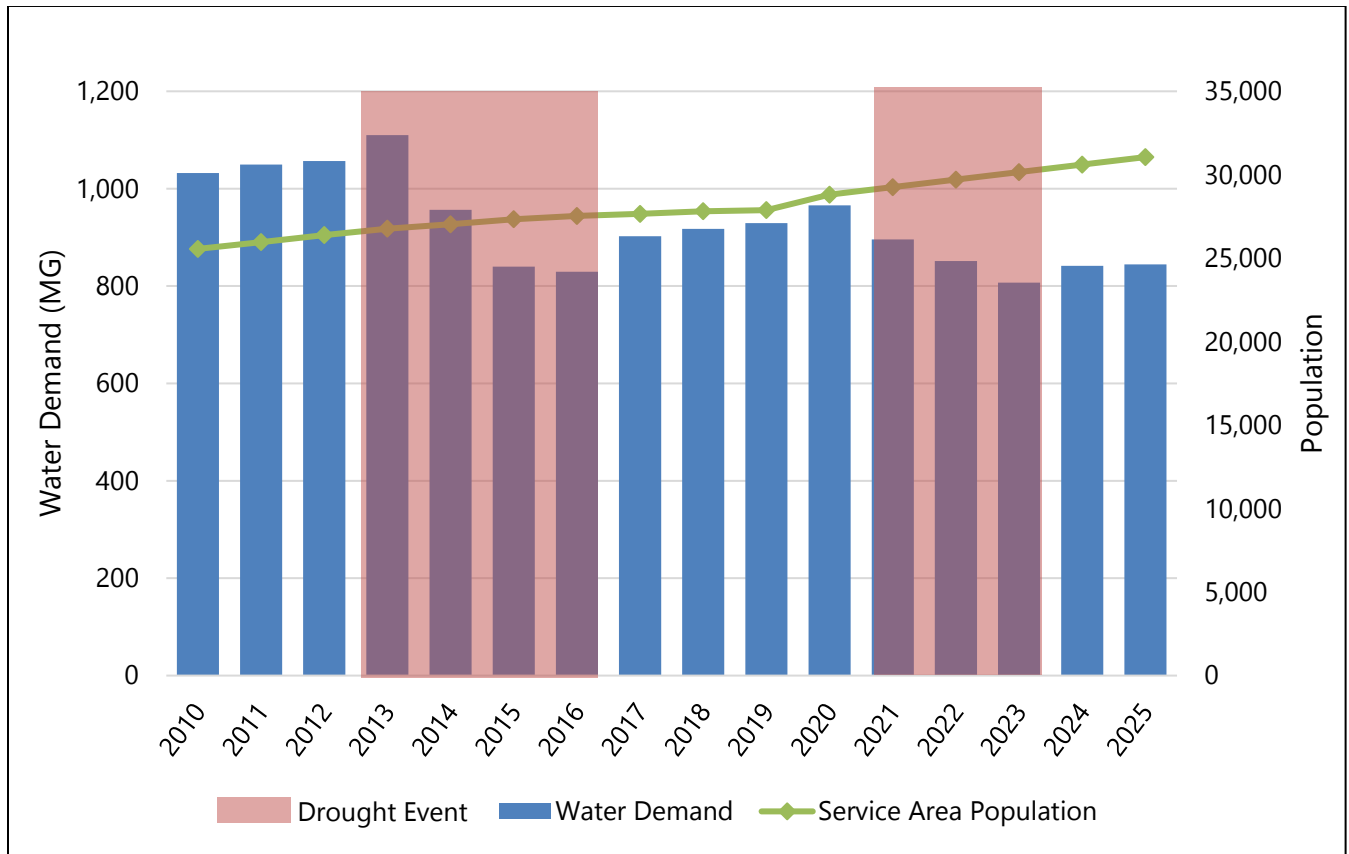
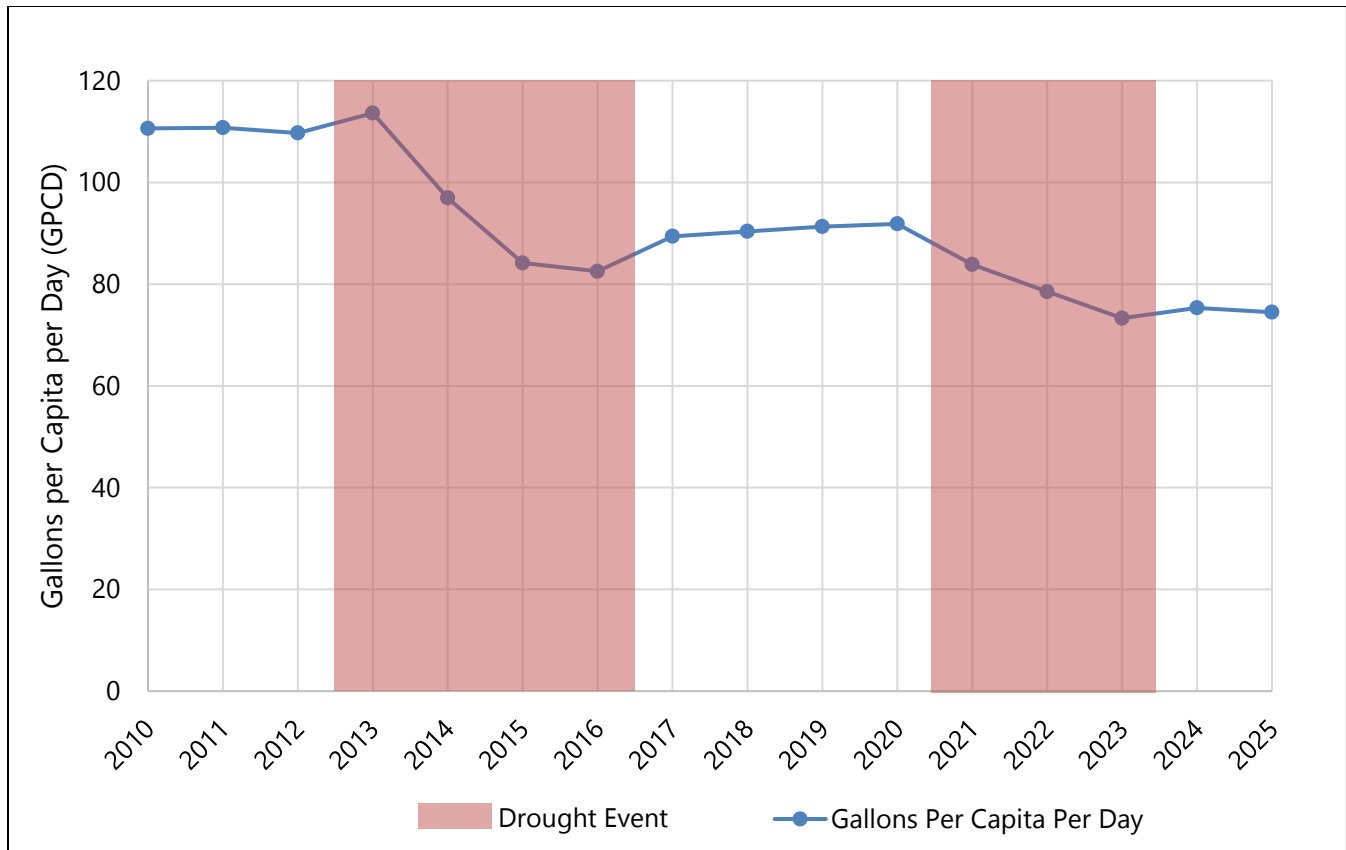


Chart 4-1B: Per Capita Water Use



Potable water demand within MPWD’s service area is measured using water meters that are installed at each customer account. Water demand within MPWD’s service area is tracked and reported on a monthly basis for the following sectors:

- Single Family Residential: Includes single family residential homes;
- Multi-Family Residential: Includes condos, duplexes, and apartments;
- Commercial: Includes offices, restaurants, and other commercial businesses;
- Industrial: Includes manufacturers, warehouse storage, and other industrial properties;
- Institutional: Includes government properties, schools, churches, and other institutional properties;
- Irrigation: Includes outdoor irrigation accounts on CII and some multi-family properties;
- Other: Includes fire services and temporary meters for construction; and
- Losses: Includes non-revenue water and other unaccounted for water losses (discussed further in Section 4.3).

As shown in Table 4-2 and associated charts, the residential sectors accounted for, on average, 73% of the potable water demand between 2020-2025. The District’s CII accounts accounted for approximately 17% of potable water demand for the 2020-2025 period. The commercial sector accounted for most of the District’s CII demand (12%), with the industrial sector comprising 2.5% and institutional/governmental comprising 2.8% of total water demand. Irrigation accounts comprised 7.1% of total water demand, and losses were 2.8%.

Table 4-2 (DWR Table 4-1): Demands for Potable and Non-Potable Water – Actual

Use Type	Additional Description (as needed)	Potable or Non-Potable (OPTIONAL) Drop down list	Volume (MG)					
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool			2020	2021	2022	2023	2024	2025
Single Family		Potable	548	507	462	444	458	451
Multi-Family		Potable	165	147	148	151	159	159
Commercial		Potable	96	96	96	97	112	118
Industrial		Potable	32	26	17	18	21	17
Institutional/Governmental		Potable	24	22	28	22	23	24
Landscape		Potable	71	66	59	53	57	63
Distribution System Water Loss		Potable	29	30	39	21	11	13
Other (optional)		Potable	1.2	0.87	1.2	0.72	0.69	0.010
Subtotal Potable			966	896	852	807	842	844
Subtotal Non-Potable			0	0	0	0	0	0
Total			966	896	852	807	842	844
NOTES: -Water consumption data was obtained from MPWD's billing database. -Distribution system water losses were calculated as the difference between total production and total consumption. -"Other" represents demand from temporary hydrant construction meters. -Distribution system water loss includes all non-revenue water.								

Chart 4-2A: Annual Water Demand by Sector: 2020-2025

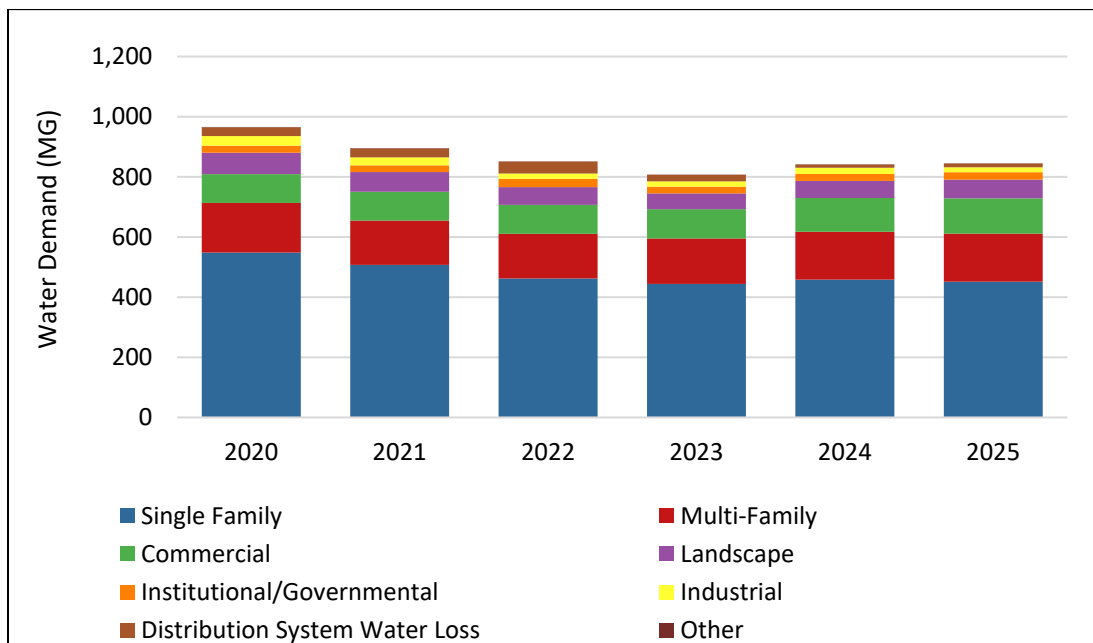
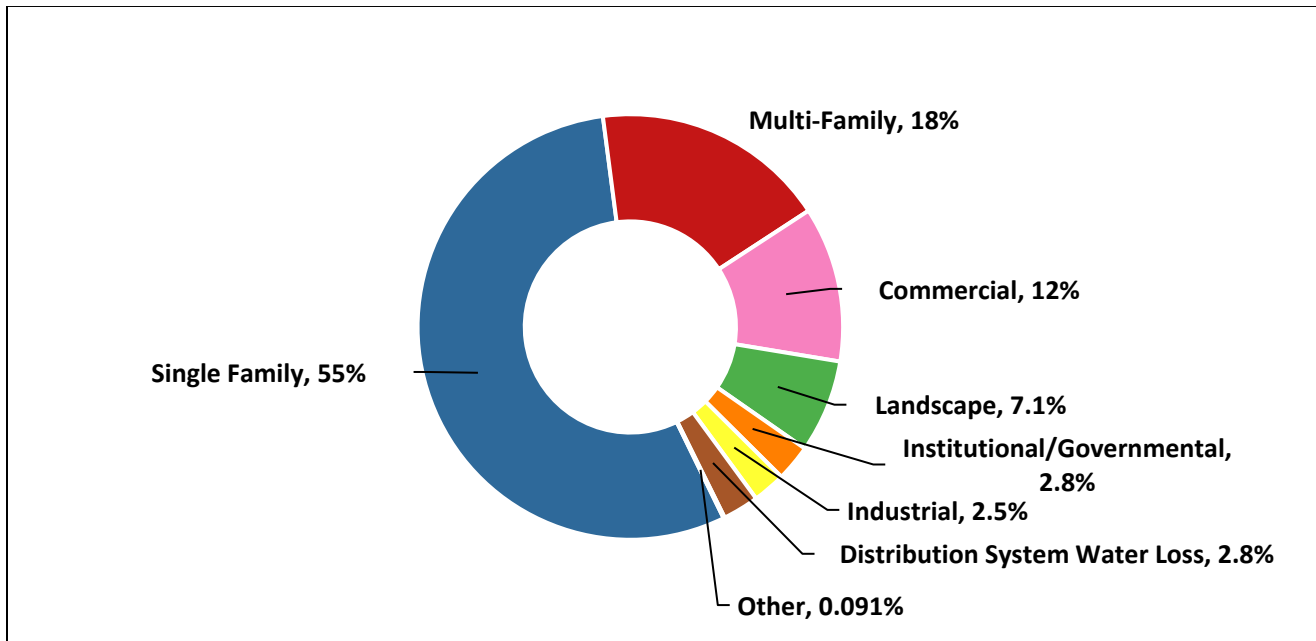


Chart 4-2B Percentage of Total Water Demand by Sector – 2020-2025



4.1.2 Past and Current Non-Potable Water Use

MPWD has not historically, and does not currently, meet any of its water demands with non-potable water.

4.2 Projected Water Use

Per CWC §§ 10631(d)(1), potable and non-potable water demand projections are discussed in the following sections.

4.2.1 Projected Potable Water Use

Future potable water demands within MPWD's service area are estimated as the projected water demands associated with population and employment growth within MPWD's service area. The demand estimation methodology and associated demand estimates are described below and presented in Table 4-4 in five-year increments from 2025 through 2050.

In 2025, BAWSCA worked with Hazen and Sawyer to develop updated demand projections as part of the Regional Water Demand and Conservation Projections Study (Demand Study; BAWSCA, 2025). The primary objective of the Demand Study was to deliver updated agency-specific water demand forecasts and conservation assessments to support the 2025 UWMP cycle and align with integrated socioeconomic and demographic data collection, econometric modeling, and conservation program evaluation to forecast water demand across major water use sectors and customer classifications. A brief description of the Demand Study is provided below. An excerpt of the Demand Study describing the demand projection methodology is also included in Appendix B.

In December 2025, BAWSCA completed the Regional Water Demand and Conservation Projections Report (Demand Study). The goal of the Demand Study was to develop transparent, defensible, and uniform demand and conservation savings projections for each Wholesale Customer using a common methodology to support both regional and individual agency planning efforts and compliance with the new statewide water efficiency targets required by Assembly Bill (AB) 1668 and Senate Bill (SB) 606.

Through the Demand Study process, BAWSCA and the Wholesale Customers (1) quantified the total average-year water demand for each Wholesale Customer through 2050, (2) quantified passive and active conservation water savings potential for each individual Wholesale Customer through 2050, and (3) identified conservation programs with high water savings potential and/or BAWSCA Member Agency interest. Implementation of these conservation measures, along with passive conservation, is anticipated to yield an additional 16.14 million gallons per day (mgd) of water savings by 2050. Based on the revised water demand projections, the identified water conservation savings, increased development and use of other local supplies by the Wholesale Customers, and other actions, the collective purchases of the BAWSCA Member Agencies from the SFPUC are projected to stay below 184 mgd through 2050.

As part of the Demand Study, each Wholesale Customer was provided with a demand model that can be used to support ongoing demand and conservation planning efforts, including UWMP preparation.

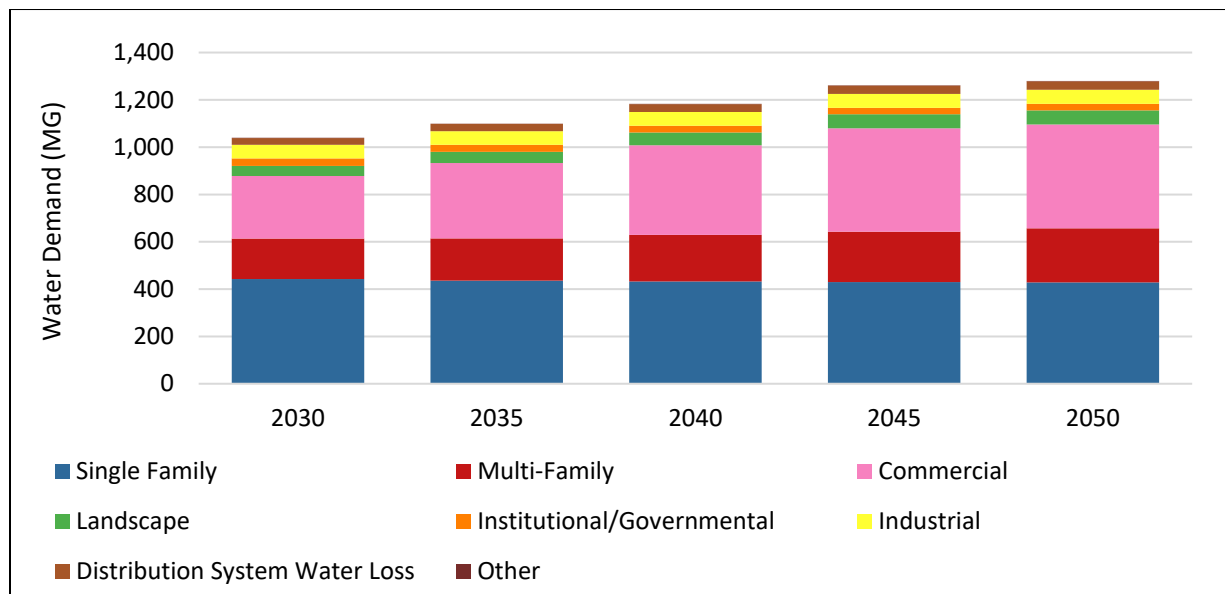
As described further in Section 4.2.4, passive water conservation savings associated with existing water uses in MPWD's service area, excluding the multi-family residential sector, have been subtracted from the water demand projections. The total projected potable water demand in MPWD's service area, accounting for this projected passive conservation savings, is estimated to be 1,280 MG in 2050, as shown in Table 4-3 and the associated chart.

Table 4-3 (DWR Table 4-2): Total Uses for Potable, and Non-Potable Water – Projected

Use Type		Projected Water Use (Report To the Extent that Records are Available)					
		Potable or Non- Potable (OPTIONAL) Drop down list	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 opt (MG)
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)						
Single Family		Potable	443	436	432	429	428
Multi-Family		Potable	171	178	196	213	229
Commercial		Potable	264	319	379	437	439
Industrial		Potable	43	48	54	59	60
Institutional/Governmental		Potable	32	29	29	27	27
Landscape		Potable	58	58	58	59	60
Distribution System Water Loss		Potable	29	31	33	35	36

Other (optional)	Hydrants	Potable	1.0	1.0	1.0	1.0	1.0
Subtotal Potable			1,040	1,099	1,183	1,262	1,280
Subtotal Non-Potable			0	0	0	0	0
Total			1,040	1,099	1,183	1,262	1,280
NOTES: Demand projections were developed through BAWSCA's 2025 Demand Study.							

Chart 4-3A: Projected Water Demand



4.2.2 Projected Non-Potable Water Use

MPWD does not currently supply non-potable water to customers, nor does it currently have plans to use non-potable water within its service area.

4.2.3 Water Use by Lower Income Households in Water Use Projections

☒ CWC § 10631.1

(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirements under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

California Senate Bill (SB) No. 1087, Chapter 727, was passed in 2005 and amended by California Government Code (CGC) § 65589.7 and CWC § 10631.1. SB 1087 requires water providers to grant priority for service

allocations to proposed developments that include housing units for lower income families and workers. Subsequent revisions to the UWMP Act require water providers to develop water demand projections for lower income single and multi-family households.

MPWD does not have any land use authority and is required to serve any development that occurs within its service area, regardless of the income level of the future residents and does not discriminate in terms of supplying water. The City of Belmont, City of San Carlos, City of Redwood City, and the County of San Mateo have land use authority in MPWD's service area and are therefore responsible for approving development within the service area.

As indicated in Table 4-4, the water use projections presented in Section 4.2.1 and Table 4-3 include projected water use by lower income households. A "lower income household" is defined under California Health and Safety Code § 50079.5(a) to be a household with less than 80% of median income, adjusted for family size. ABAG's 2023-2031 Final Regional Housing Needs Allocation (RHNA) Plan for the San Francisco Bay Area was used to estimate the proportion of new lower income households anticipated within the District (ABAG, 2021b). New lower income households for all cities within the District's service area, as well as the unincorporated area within San Mateo County that MPWD serves, were estimated to comprise approximately 43% of all new households needed in the District's service area. Table 4-5 shows the projected water demands for lower income households based on 43% of the total single-family and multi-family residential projected water uses included in Table 4-3.

Table 4-4 (DWR Table 4-3): Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? Drop down list (y/n)	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. Optional Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	Section 4.2.4
Are Lower Income Residential Demands Included In Projections? Drop down list (y/n)	Yes
Optional If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.	Section 4.2.3
NOTES:	

Table 4-5: Projected Water Demands for Lower Income Households

Residential Type	Projected Water Demand				
	2030	2035	2040	2045	2050
Lower Income Households	264	264	271	277	283
NOTES: -Projected demands for lower income households were estimated as 43% of projected residential demands.					

4.2.4 Future Water Savings in Projected Water Use

☑ **CWC § 10631 (d) (4)**

(A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) 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.

As affirmed in Table 4-4, both future water savings (discussed below) and lower income residential demands (discussed in Section 4.2.3) are included in the projections of future water use.

“Passive conservation” refers to water savings resulting from actions and activities that do not depend on direct financial assistance or educational programs implemented by water suppliers. These savings result primarily from: (1) the natural replacement of existing plumbing fixtures with water-efficient models required under current plumbing code standards;³ (2) the installation of water-efficient fixtures and equipment in new buildings and retrofits as required under CALGreen Building Code Standards; and (3) inclusion of low-water use landscaping and high-efficiency irrigation systems to minimize outdoor water use in new connections and projects in accordance with the State’s Model Water Efficient Landscape Ordinance (MWELO).

“Active conservation” refers to water savings resulting from MPWD’s implementation of water conservation programs, education programs, and the offering of financial incentives (e.g., rebates). MPWD’s current and planned active conservation programs are discussed in Chapter 9.

As discussed in Section 4.2.1, the potable water demand projections for MPWD take into account passive conservation savings in all sectors but the multi-family residential (MFR) sector. Passive savings for the multi-family residential sector was excluded due to several reasons. Firstly, a large majority of future MFR development in MPWD’s service area is expected to be large apartment complexes that would already include highly efficient fixtures, toilets, and other equipment, and thus would not see any substantial reduction in water use due to replacement of this equipment. Secondly, demand projections for the MFR sector on a per-dwelling unit basis are projected to get increasingly more efficient, even without inclusion of passive savings. For these reasons, MPWD did not include passive savings in the total demand projections.

Additional water savings are expected due to MPWD’s active conservation efforts; however, for conservative planning purposes, these conservation savings are not included in the total potable water demand projections. As can be seen in Table 4-6 and the associated chart, by 2050, it is estimated that passive conservation savings will

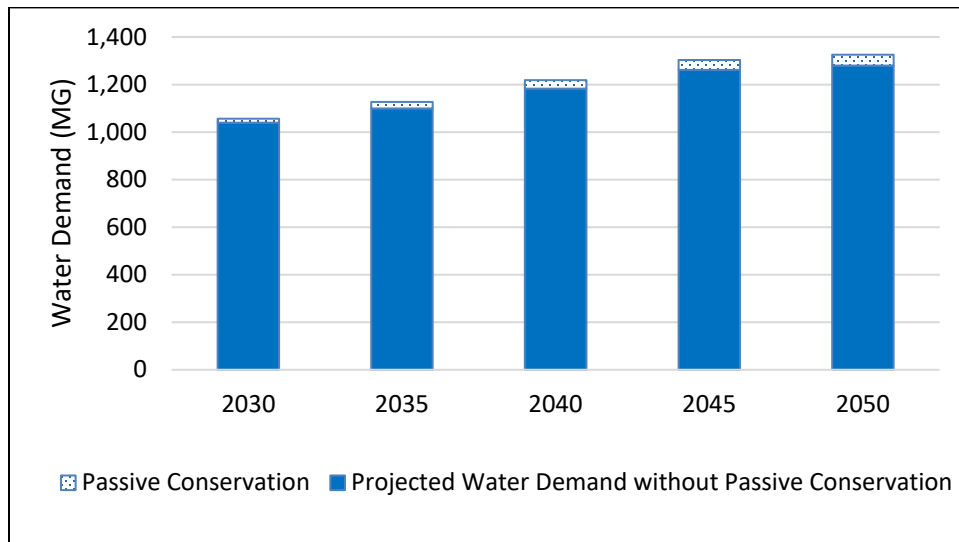
³ Including the California Energy Commission Title 20 appliance standards for toilets, urinals, faucets, and showerheads. The appliance standards determine what can be sold in California and therefore will impact both new construction and replacement fixtures in existing homes.

reduce MPWD's total projected water demand by 71 MG (i.e., the total 2050 demand will be reduced from 1,351 MG to 1,280 MG).⁴

Table 4-6: Potable Water Demand and Projected Passive and Active Water Conservation

Residential Type	Projected Water Demand				
	2030	2035	2040	2045	2050
Projected Water Demand without Passive Conservation Savings	1,056	1,127	1,219	1,303	1,326
Projected Passive Conservation Savings	16	28	36	42	46
Projected Water Demand after Passive Conservation Savings	1,040	1,099	1,183	1,262	1,280
NOTES: -While MPWD engages in a number of active conservation efforts, as described in Chapters 8 and 9, active conservation estimates were conservatively not included in demand projections for the District. -As described in Section 4.2.4, passive conservation estimates were not included in the overall demand projections for the District.					

Chart 4-6A: Potable Water Demand and Projected Passive and Active Water Conservation



⁴ The Demand Study estimated that an additional 4.1 MG of water savings may be achieved through active conservation. However, realization of savings due to active conservation is contingent upon a number of factors including conservation program availability and customer adoption rates. Also, it is acknowledged that MPWD customers are already highly efficient compared to other agencies in the Bay Area and California. As such, for planning purposes active conservation estimates are conservatively not included in the demand projections used herein.

4.3 Distribution System Water Loss

☒ CWC § 10631 (3)

(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

The section below describes MPWD's distribution system water loss, including the previous five years of system losses and progress towards meeting the State Water Resources Control Board's (SWRCB's) Water Loss Performance Standard.

4.3.1 Previous Five Years of Distribution System Losses

Distribution system water losses are the physical water losses from the water distribution system and the supplier storage facilities, up to the point of customer consumption. The total differential between water supply and metered water use is categorized as unaccounted-for-water in Table 4-2 and discussed in Section 4.1.1. However, this category includes unbilled water uses such as system flushing, leak repair flushing, hydrant leaks, and street sweeping. To isolate the water loss attributed to the distribution system, MPWD has estimated water losses using the American Water Works Association (AWWA) Free Water Audit Report.

As shown in Table 4-7, distribution system water loss for the five years preceding the 2025 UWMP is shown. Of the total demand of 842 MG in 2024, 825 MG was attributable to metered consumption and 17 MG was estimated to be the non-revenue water demand, which includes unmetered consumption and distribution system water loss. Of the 17 MG of non-revenue water in 2024, 15 MG was estimated to be attributed to water losses. Metering of MPWD's distribution system is further discussed in Section 9.2.2.

Per CWC § 10631(d)(3)(A), and as shown in Table 4-8, MPWD submitted their AWWA Water Loss Audit Reports to DWR for the previous five years leading up to the 2025 UWMP. A copy of all AWWA Water Loss Audit Reports submitted to DWR can be found on DWR's Water Use Efficiency (WUE) data portal website.⁵

⁵ https://wuedata.water.ca.gov/awwa_plans.

Table 4-7: Previous Five Years of Distribution System Losses

Water Loss Type	Estimated Water Loss				
	2020	2021	2022	2023	2024
Apparent Losses	7.1	6.6	8.2	13	6.2
Real Losses	22	14	25	7.5	9.3
Non-Revenue Water	33	23	36	22	17
NOTES: -Data obtained from MPWD's AWWA Water Loss Audit Reports. -Apparent losses include losses due to systematic data handling errors, customer metering inaccuracies, and unauthorized consumption. -Real losses include physical losses from the pressurized system due to leaks, breaks, tank cleaning, and others. -Non-revenue water includes all water losses that do not provide revenue potential to the water utility, and includes both real and apparent losses as well as unbilled metered and unmetered consumption.					

Table 4-8 (DWR Table 4-5): Water Loss Audit Reporting

Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
CA4110001	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
NOTES: 2020 Audit Report: https://wuedata.water.ca.gov/public/awwa_uploads/8582044303/CY2020%20Mid%2DPeninsula%20Water%20District%20%2D%20Validated%20Audit%2Exls 2021 Audit Report: https://wuedata.water.ca.gov/public/awwa_uploads/4538251578/AWWA%2DWAS%2DV5%2DCY2021%2Exls 2022 Audit Report: https://wuedata.water.ca.gov/public/awwa_uploads/7171537101/AWWA%2D6%2E0%2DCY2022%20Mid%2DPeninsula%5FValidated%2Exlsx 2023 Audit Report: https://wuedata.water.ca.gov/public/awwa_uploads/6031705558/AWWA%2D6%2E0%2DCY2023%20Mid%2DPeninsula%5FValidated%2Exlsx 2024 Audit Report: https://wuedata.water.ca.gov/public/awwa_uploads/7299390494/Validated%5FAWWA%2D6%2E1%2DCY2024%2DMPWD%2Exlsx		

4.3.2 Progress Toward Meeting the Water Loss Performance Standard

Pursuant to CWC § 10631 (3)(C), MPWD is required to provide data demonstrating whether they met its SWRCB Water Loss Performance Standard as set forth in 23 CCR § 980 et seq. While the Water Loss Performance Standard does not need to be met until 2028, CWC § 10631 (3)(C) still requires that urban water suppliers demonstrate whether the standard was met.

Urban water suppliers may have met their Real Water Loss Performance Standard if their 2025 annual water loss audit shows actual real water loss at or below their standard (23 CCR § 981[b]). Urban water suppliers may still meet their Real Water Loss Performance Standard if, by January 1, 2028, their 2026 or 2027 annual water loss audit shows actual real water loss at or below their standard (23 CCR § 981[a] and [b]). These values are not available at the time of drafting this 2025 UWMP. Apparent Water Loss Performance Standards are evaluated at the time compliance with the Real Water Loss Performance Standard is assessed ((23 CCR § 981[d])).

Table 4-9 below shows MPWD's progress towards meeting their Real and Apparent Water Loss Performance Standards. MPWD's Real Water Loss Performance Standard is 12.4 gallons per service connection per day (GPSCD), and their Apparent Water Loss Performance Standard is 2.3 GPSCD.

Table 4-9 (DWR Table 4-6): Progress Toward 2028 Water Loss Standard

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (MG)		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (MG)	
CA4110001	Yes	12.4	Gallons per Service Connection per Day (GPSCD)	8,197	9.3	3.1	2.3	Gallons per Service Connection per Day (GPSCD)	8,197	6.2	2.1
NOTES: -Real and apparent losses per MPWD's 2024 AWWA Water Loss Audit Report. -It should be noted that MPWD is not required to meet its Water Loss Performance Standard until January 1, 2028.											

4.4 Climate Change Considerations

Hotter and drier weather may lead to an increased demand in landscape irrigation. The Demand Study model incorporates the historical relationship between MPWD's water demand and weather and then incorporates modeled weather under future climate change conditions into the Demand Study projections. Therefore, the demand projections presented in Section 4.2 include considerations of climate change. A description of the weather and climate change data incorporated into MPWD's demand model is provided in Section 5.4 of the BAWSCA Demand Study (BAWSCA, 2025). Downscaled Coupled Model Intercomparison Project Phase 5 (CMIP5) data were obtained from CalAdapt's Local Climate Change Snapshot tool. Climate projection data, including annual precipitation and maximum temperature, was collected for the three counties that overlay BAWSCA's member agencies, including Alameda, San Mateo, and Santa Clara counties. Modeled temperatures from the CalAdapt CMIP5 Representative Concentration Pathway (RCP) 4.5 and RCP 8.5 datasets were processed annually for 2025 – 2050 and included as potential inputs to the demand model. Table 4-10 summarizes the estimated increases in temperature between 2025 and 2050.

Table 4-10: Average Annual Maximum Temperature Increases in 2050 (Relative to 2025) Derived from CalAdapt CMIP5 RCP 4.5 and RCP 8.5

County	Avg Annual Max Temperature Increase from 2025 - 2050	
	Model RCP 4.5	Model RCP 8.5
Alameda	1.20 °F	2.03 °F
Santa Clara	1.25 °F	2.05 °F
San Mateo	1.06 °F	1.77 °F
NOTES: -Average Annual Max Temperature Increases are derived from the CalAdapt CMIP5 RCP 4.5 and RCP 8.5 datasets.		

4.5 Water Use Sectors Not Included in Historical, Current, or Projected Demands

Historical and projected water demands for the water use sectors described in CWC § 10631(d)(1)(F) through (I) and listed below were not included in MPWD's water demand calculations because they are not applicable to MPWD:

- Sales to other agencies;
- Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; or
- Agricultural.

4.6 Potential Additional Future Development

In February 2025, MPWD completed two Water Supply Assessments (WSAs) for two Specific Plan projects: the City of Belmont's Harbor Industrial Area Specific Plan and the City of San Carlos' Northeast Area Specific Plan (MPWD, 2025a and 2025b). Both Specific Plans involve significant land use changes and increased demands related to the potential addition of life sciences, data center, and multi-family residential land uses within MPWD's Harbor Industrial Area (HIA). In total, both Specific Plans would allow for a maximum of approximately 8.2 million additional square footage of non-residential land uses and approximately 2,200 additional multi-family residential dwelling units, with an estimated increase of 370 million gallons per year (MGY) by 2045.

Projected demands for these two Specific Plans were incorporated into the demand forecast of the 2025 Demand Study. More information on both Specific Plans can be found in their respective WSAs (MPWD, 2025a and 2025b).

5. SB X7-7 BASELINES, 2020 TARGETS, AND 2025 REPORTING

☒ CWC § 10608.24(b))

Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

☒ CWC § 10608.24(b))

(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).

(3) Through a regional water management group as defined in Section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

The Water Conservation Act of 2009 (Water Conservation Act), also known as Senate Bill (SB) X7-7, required that urban retail water suppliers reduce their baseline per capita water use by 20% by 2020. Because the California Water Code (CWC) does not set an end date for reporting progress in meeting the 2020 Target and no targets are set beyond 2020, this section of the Urban Water Management Plan (UWMP or Plan) demonstrates Mid-Peninsula Water District's (MPWD's or District's) compliance with SB X7-7 in 2020.

5.1 Demonstration of Compliance with SB X7-7 2020 Target

The CWC § 10608.20 and § 10608.28 allow water suppliers the choice of complying individually or regionally by mutual agreement with other water suppliers or regional agencies. MPWD elected to comply with the Individual Target. Baselines and water use targets were presented in the 2010 UWMP in response to the Water Conservation Act. Per requirements of the California Department of Water Resources (DWR), the 2015 UWMP included an update to the baseline and water use target calculations using 2010 United States Census data and analyzed MPWD's compliance with its 2015 interim water use target. As reported in its 2020 UWMP, MPWD's interim 2015 target was 126 gallons per capita per day (GPCD), and its 2020 target was 121 GPCD. Actual GPCD for 2020 was calculated as 97 GPCD and for 2025 as 75 GPCD, both of which meet the requirements of SB X7-7. Because MPWD's 2020 target was met in the previous 2020 UWMP, the SB X7-7 Verification Form and 2025 Compliance

Form are not required to be reported here per DWR guidance. However, MPWD is still required to report on their progress towards meeting their 2020 target. Table 5-1 shows that MPWD met its 2020 target.

Table 5-1 (DWR Table 5-1): SB X7-7 2020 Target Progress

☐ Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.				
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
No	Individual Target	121	97	Yes
NOTES:				

5.2 Urban Water Use Objective

In 2018, California passed the SB 606 and Assembly Bill (AB) 1668 “Make Conservation a California Way of Life” legislation, which requires urban water suppliers to meet various Urban Water Use Objectives (UWUOs) with the intent to promote more efficient water use and resiliency towards drought. These regulations were formally adopted in July 2024.

The UWUOs are an annual water budget allocated to each urban water supplier designed to improve state water use efficiency. Calculated as the sum of efficient water use budgets for (1) residential indoor use, (2) residential outdoor use, (3) commercial, industrial, and institutional (CII) irrigation, and (4) real water loss, the UWUOs incorporate local service area characteristics — such as climate, population, and landscape area — alongside state-mandated efficiency standards. Starting in January 2027, urban retail water suppliers are required to demonstrate annual compliance with their UWUOs. Compliance is met when the water supplier meets their UWUOs collectively (e.g. a supplier can fail to meet their residential indoor use standard, but is in compliance if they meet their overall UWUOs). Efficiency standards will become increasingly stringent over the next 25 years.

Water suppliers were required to report on their UWUOs beginning in December 2023. MPWD’s submittals can be found on DWR’s Water Use Efficiency Data portal.⁶

Although UWUO compliance projections are not a requirement for this UWMP, their inclusion serves as a planning tool to inform long-term water resource management and conservation decisions. By developing preliminary

⁶ DWR’s Water Use Efficiency Data Portal: https://wuedata.water.ca.gov/uwuo_plans

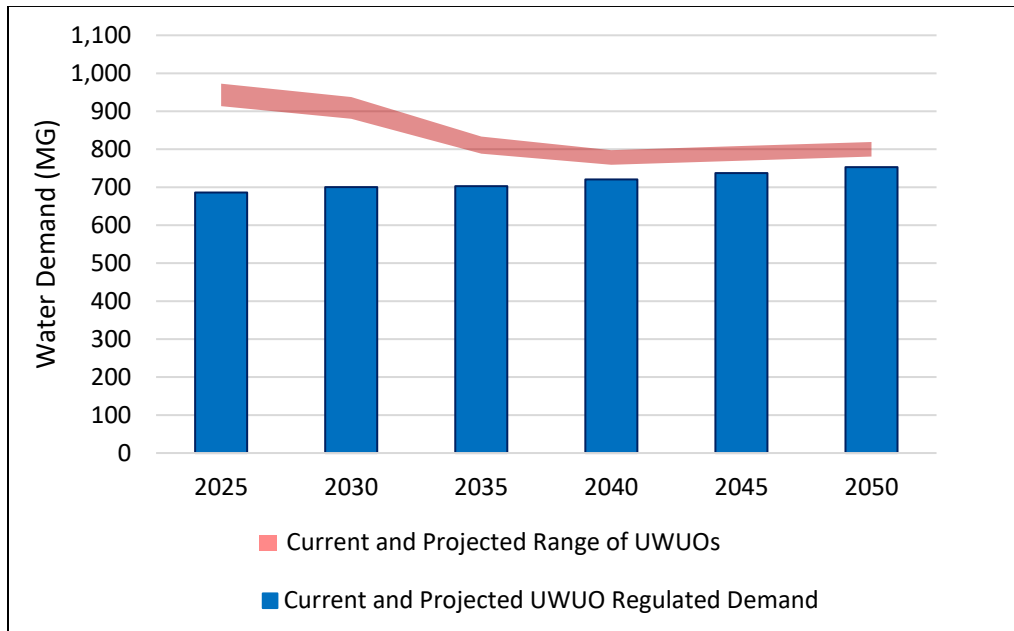
UWUO projections and comparing them against anticipated water demand, the District can further evaluate its future water demand and expected compliance.

Table 5-2 and the associated chart below summarizes the District’s anticipated UWUO targets through the planning horizon and compares them to the District’s projected water use that is subject to UWUO regulation. CII use that is not from dedicated irrigation meters is not subject to UWUO regulation. The methodology for estimating MPWD’s projected UWUOs and water demand subject to UWUO compliance is described in Chapter 6 of the BAWSCA Demand Study (BAWSCA, 2025). Based on the estimates shown below, MPWD is expected to be in compliance with its UWUOs through 2050.

Table 5-2: Current and Projected Urban Water Use Objectives and Compliance

Demand and UWUOs	2025	2030	2035	2040	2045	2050
Current and Projected UWUO Regulated Demand	686	700	703	720	737	753
Current and Projected UWUOs (High ETo)	973	938	833	798	808	819
Current and Projected UWUOs (Low ETo)	913	880	788	759	770	781
NOTES: - Because UWUOs are reported on a fiscal year basis, MPWD's actual UWUOs and regulated demand may differ from what is shown in their UWUO reporting to the state. - Because UWUOs are established every year based in part on measured evapotranspiration (ETo), UWUOs are shown as two ETo scenarios, one with high ETo (resulting in an assumed higher outdoor water use), and one with low ETo (assumed lower outdoor water use). - Regulated demand includes single family residential usage, multi-family residential usage, dedicated irrigation meter usage, and water loss. As discussed in Section 4.2.4, these projections incorporate passive savings for all uses except multi-family residential.						

Chart 5-2A: Current and Projected Urban Water Use Objectives and Compliance



6. NORMAL YEAR WATER SUPPLY CHARACTERIZATION

☑ *CWC § 10631 (b)*

A plan shall be adopted in accordance with this chapter that shall do all of the following:

Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

The Mid-Peninsula Water District (MPWD or District) purchases 100% of its potable water from the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS) in accordance with the Water Supply Agreement (WSA) between the City and County of San Francisco and Wholesale Customers in Alameda, San Mateo and Santa Clara Counties that was approved by the SFPUC on 28 April 2009 and amended in 2025. To maintain consistency with the Urban Water Management Plans (UWMPs or Plans) prepared by the SFPUC and the other Bay Area Water Supply and Conservation Agency (BAWSCA) member agencies, much of the language describing the SFPUC wholesale water supply in the following sections is common language provided by BAWSCA, in coordination with the SFPUC.

6.1 Purchased Water

This section describes the sources of wholesale water provided by SFPUC, and the process for allocating water between SFPUC, and BAWSCA's wholesale customers. Text in grey font was provided by SFPUC and BAWSCA and has been indented for emphasis.

6.1.1 *Description of SFPUC RWS*

Over 2.7 million people and thousands of businesses in the San Francisco Bay Area rely on water supplied by the SFPUC, a department of the City and County of San Francisco, to meet their daily water needs. The San Francisco-owned and operated RWS, which serves both retail and wholesale customers, supplies high-quality drinking water from the Tuolumne River watershed and from the local Alameda and Peninsula watersheds. The RWS draws an average of 85% of its supply from the Tuolumne River watershed, collected in Hetch Hetchy Reservoir in Yosemite National Park. This water feeds into an aqueduct system delivering water 167 miles by gravity to Bay Area reservoirs and customers. The remaining 15% of the RWS supply is drawn from local surface waters in the Alameda and Peninsula watersheds. The percentage split between these water sources varies from year to year depending on the water year hydrology and operational circumstances.

6.1.1.1 RWS Distribution

The RWS, shown in Figure 6-1, consists of more than 280 miles of pipelines, 60 miles of tunnels, 11 reservoirs, five pump stations, two water filtration plants, and two treatment facilities for pH adjustment and/or disinfection. It includes the Hetch Hetchy Water and Power (HHWP) Project and the Bay Area water system facilities. The HHWP Project is generally composed of the reservoirs, hydroelectric generation and transmission facilities, and water transmission facilities from the Hetch Hetchy Valley west to the Alameda East Portal of the Coast Range Tunnel in Sunol Valley. Water system components of the HHWP Project are also

referred to as the Hetch Hetchy System. The local Bay Area water system is comprised of two parts—the Alameda System and the Peninsula System—generally consisting of the facilities west of the Alameda East Portal of the Coast Range Tunnel, including the 63,000-acre Alameda and Peninsula watersheds, storage reservoirs, two water filtration plants, and the distribution system that delivers water to both retail and wholesale customers. The Hetch Hetchy, Alameda, and Peninsula Systems are described in more detail below.

- **Hetch Hetchy System:** In the Hetch Hetchy System, water is diverted from the Tuolumne River watershed into the Hetch Hetchy Reservoir and is then transported in a series of tunnels and aqueducts from the Sierra Nevada to the San Joaquin Pipelines that cross the San Joaquin Valley to the Coast Range Tunnel, which connects to the Alameda System at the Alameda East Portal. Hetch Hetchy System water is disinfected at the Tesla Treatment Facility.
- **Alameda System:** The Alameda System includes two reservoirs, San Antonio Reservoir and Calaveras Reservoir, which collect water from the San Antonio Creek, Upper Alameda Creek, and Arroyo Hondo watersheds in Alameda County. San Antonio Reservoir also receives water from the Hetch Hetchy System. Conveyance facilities in the Alameda System connect the Hetch Hetchy System and Alameda System to the Peninsula System. The Bay Division Pipelines cross the South Bay to the Peninsula System delivering water to customers along the pipeline route. The Sunol Valley Water Treatment Plant (SVWTP) filters and disinfects water supplied from San Antonio Reservoir and Calaveras Reservoir. The Sunol Valley Chloramination Facility treats Hetch Hetchy supplies with aqueous ammonia to form chloramines and with sodium hydroxide to adjust pH, then blended in the Alameda Siphons for delivery to Bay Area customers via the Irvington Tunnels.
- **Peninsula System:** The Peninsula System includes conveyance facilities connecting the Bay Division Pipelines to the distribution system in San Francisco and to other customers on the Peninsula. Two reservoirs, Crystal Springs Reservoir and San Andreas Reservoir, collect runoff from the San Mateo Creek watershed. Crystal Springs Reservoir also receives water from the Hetch Hetchy System. A third reservoir, Pilarcitos Reservoir, collects runoff from the Pilarcitos Creek watershed and directly serves one of SFPUC's Wholesale Customers, the Coastside County Water District (which includes the City of Half Moon Bay), along with delivering water to Crystal Springs and San Andreas Reservoirs. The Harry Tracy Water Treatment Plant (HTWTP) filters and disinfects water supplied from Crystal Springs Reservoir and San Andreas Reservoir before it is delivered to customers on the Peninsula and in San Francisco.

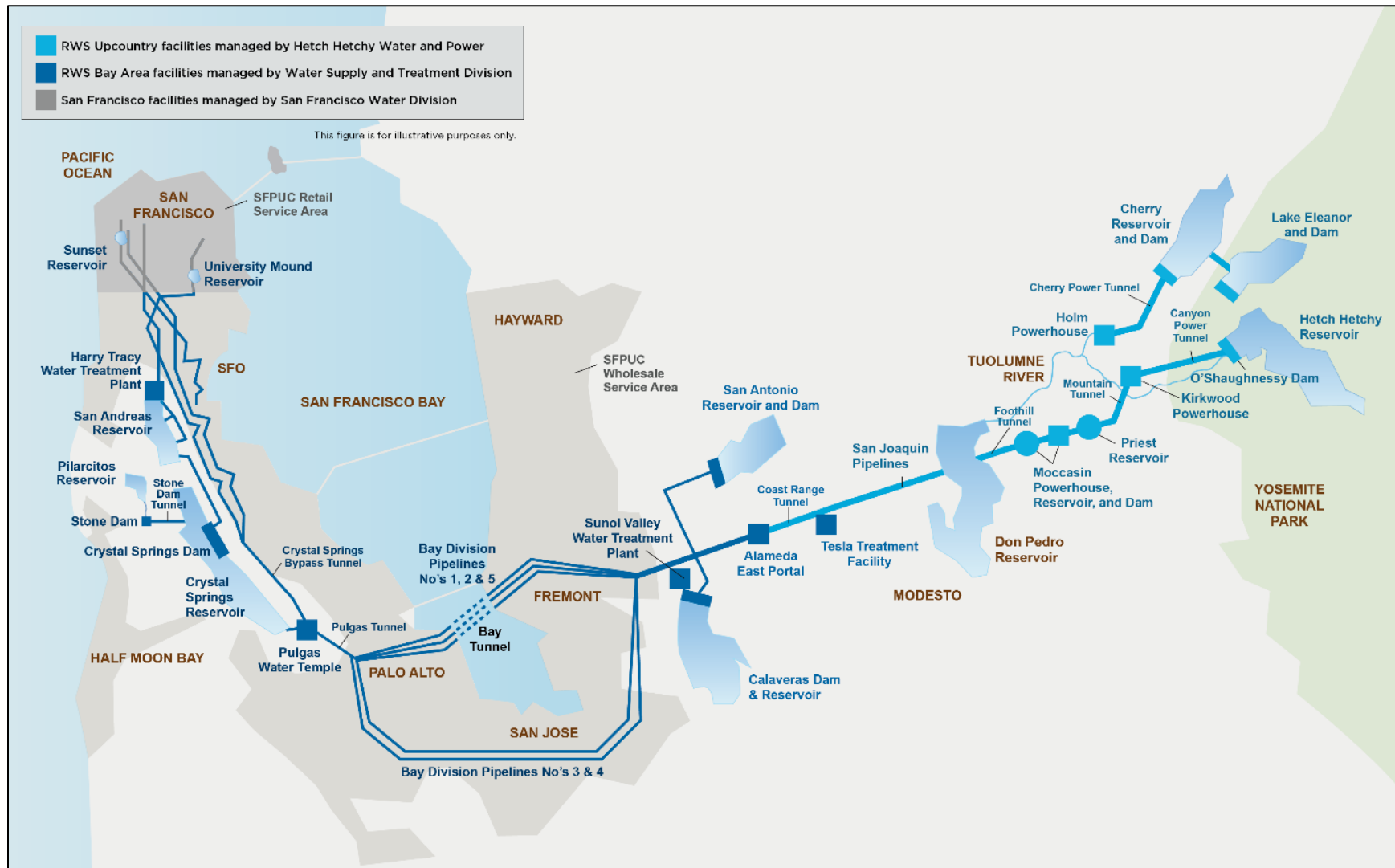


Figure 6-1: Regional Water System and Main Facilities

6.1.1.2 Water Treatment

The Hetch Hetchy Reservoir is the largest unfiltered water supply on the West Coast and one of only a few large unfiltered municipal water supplies in the nation. The water originates from well-protected wilderness areas in Yosemite National Park and flows down the Tuolumne River to Hetch Hetchy Reservoir. This water meets or exceeds all federal and State of California (State) criteria for watershed protection. Water from Hetch Hetchy Reservoir, which is protected in pipes and tunnels as it is conveyed to the Bay Area, requires pH adjustment to control pipeline corrosion and disinfection for bacteria control. Based on the SFPUC's disinfection treatment practice, extensive bacteriological quality monitoring, and high operational standards, the U.S. Environmental Protection Agency (USEPA) and the SWRCB Division of Drinking Water (DDW) determined that the Hetch Hetchy water source meets federal and State drinking water quality requirements without the need for filtration.

The Tesla Treatment Facility was a key component of the SFPUC's Water System Improvement Program and enhances the high-quality water from the RWS. The facility has a capacity of 315 mgd, making it the third largest ultraviolet drinking water disinfection facility in the United States.

The SFPUC treats all water derived from sources other than Hetch Hetchy Reservoir at one of two water filtration facilities: the SVWTP or the HTWTP. The SVWTP primarily treats water from the Alameda System reservoirs and has a design capacity of 160 mgd. Treatment processes include powder activated carbon treatment for taste and odor control, coagulation, flocculation, sedimentation, filtration, disinfection, fluoridation, corrosion control treatment, and chloramination. The nearby Sunol Valley Chloramination Facility can also provide fluoridation, chloramination, and corrosion control treatment for Hetch Hetchy System and blending with water treated from the SVWTP. The HTWTP treats water from the Peninsula System reservoirs and has a design capacity of 140 mgd. Treatment processes at SVWTP include ozonation, coagulation, flocculation, filtration, disinfection, fluoridation, corrosion control treatment, and chloramination. The SFPUC completed major upgrades to the SVWTP in 2013 and to the HTWTP in 2015.

6.1.1.3 Water Storage

Most of the water delivered by the SFPUC is supplied by runoff from the upper Tuolumne River watershed on the western slope of the central Sierra Nevada. Three major reservoirs collect runoff: Hetch Hetchy, Cherry (also known as Lake Lloyd), and Lake Eleanor. The storage capacity of these three reservoirs is included in [Table 6-1]. A "water bank" in Don Pedro Reservoir is also integrated into RWS operations⁷. Don Pedro Reservoir, which is jointly owned and operated by Modesto Irrigation District and Turlock Irrigation District (the Districts), is located on the Tuolumne River downstream of the Hetch Hetchy System.

⁷ The Turlock Irrigation District and Modesto Irrigation District (the Districts) have senior water rights compared to those held by the City and County of San Francisco for the Tuolumne River water diversions and are provided the first increment of flow in the Upper Tuolumne River watershed according to the apportionment set forth in the Raker Act of 1913 (38 Stat. 242). The water bank at Don Pedro Reservoir provides a credit and debit system, which allows the City and County of San Francisco to divert water upstream while meeting its obligations to the Districts.

San Francisco generates hydroelectric power through the HHWP Project as a by-product of water delivery and water supply management. Water released from Hetch Hetchy Reservoir is used for hydroelectric generation and provides instream flows when released downstream. Normally, only Hetch Hetchy Reservoir water supplies are exported to the Bay Area, while releases from Lake Eleanor and Cherry Reservoir are used to provide instream flows, satisfy the Districts' Raker Act allocations, and produce hydroelectric power. The HHWP Project includes four hydroelectric powerhouses along the Tuolumne River—Holm, Kirkwood, Moccasin, and Moccasin Low Head—that have a collective generating capacity of nearly 400 megawatts.

In the Bay Area, the SFPUC utilizes the local Peninsula and Alameda watersheds. Crystal Springs, San Andreas, and Pilarcitos Reservoirs, located in San Mateo County, capture local runoff in the Peninsula watershed, and Calaveras and San Antonio Reservoirs, located in Alameda County, capture local runoff in the Alameda watershed. In addition to capturing local runoff, San Andreas, San Antonio, and Crystal Springs Reservoirs provide storage for water conveyed to the Bay Area from the Hetch Hetchy System. These five local reservoirs are an important water supply source in the event there is an interruption to Hetch Hetchy System deliveries. The storage capacity of each of these Bay Area reservoirs is included in Table 6-1.

Prior to 2019, Calaveras Reservoir had been operating at one-third of its capacity due to restrictions imposed by the California Department of Water Resources Division of Safety of Dams (DSOD). The Calaveras Dam Replacement Project, which took place from 2011 to 2019, involved the construction of a new dam downstream of the then-existing dam. The DSOD restrictions on filling Calaveras Reservoir to full capacity have since been removed, and Calaveras Reservoir reached full capacity during the 2022-2023 winter season when it was refilled completely in January 2023 following the dam replacement project.

Table 6-1: Regional Water System Storage Capacity

RWS Reservoir	Storage Capacity in Acre-Feet (AF)	Storage Capacity in Billions of Gallons (BG)
Upcountry (a)		
Hetch Hetchy	360,360	117.4
Cherry (b)	273,500	89.1
Lake Eleanor	27,100	8.8
Water Bank (c)	570,000	185.7
Subtotal Upcountry	1,230,960	401
Local		
Calaveras (Alameda)	96,800	31.5
San Antonio (Alameda)	50,500	16.5
Crystal Springs (Peninsula) (d)	69,300	22.6
San Andreas (Peninsula) (e)	19,000	6.2
Pilarcitos (Peninsula) (f)	3,100	1
Subtotal Local	238,700	77.8
Total Regional Water System Storage (g)	1,469,660	478.8
NOTES: (a) Three other regulating reservoirs are also part of the RWS: Early Intake, Priest, and Moccasin Reservoirs. (b) Storage capacity shown includes flashboards, which are structures placed in a spillway to increase the capacity of a reservoir. (c) The SFPUC may draw against a credit of up to 740,000 AF in storage in a water bank account in Don Pedro Reservoir; 170,000 AF of this water bank storage is only available under certain circumstances and for a limited time. For this reason, the SFPUC considers 570,000 AF in contributing to total storage for planning purposes. (d) Crystal Springs Reservoir has a maximum storage capacity of 22.6 BG (at 294.6 feet). Based on permit conditions, the reservoir is currently operated at 286.6 feet (8 feet below capacity). (e) San Andreas Reservoir has a maximum storage capacity of 6.2 BG (at 451.8 feet). Since August 2020, in response to safety concerns about the seismic stability of the dam and a directive from the Division of Safety of Dams, the SFPUC has held the maximum water level at approximately 447.8 feet (4 feet below capacity). (f) Pilarcitos Reservoir has a maximum storage capacity of 1.0 BG (at 696.5 feet). Since April 2025, in response to safety concerns about the seismic stability of the dam and a directive from the Division of Safety of Dams, the SFPUC has held the maximum water level at approximately 681.5 feet (15 feet below capacity). (g) For planning purposes, the total RWS storage is 1,469,660 AF. This includes 63,700 AF in dead storage (i.e., the volume in a reservoir below the lowest controllable level).		

6.1.1.4 Wholesale Water Contractual Obligations

Under the terms of a 25-year contract known as the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County (WSA), the SFPUC sells water to 26 wholesale customers (collectively referred to as the Wholesale Customers). The SFPUC has associated individual

water sales contracts with each Wholesale Customer, as well. Collectively, the Wholesale Customers receive over two-thirds of the RWS's annual deliveries, with the remaining approximately one-third provided to the SFPUC's retail customers located inside and outside of San Francisco (collectively referred to as the Retail Customers). Of the 26 Wholesale Customers, 10 rely on the SFPUC for 100% of their total supply. The remaining 16 Wholesale Customers rely on the SFPUC for a significant portion of their water supply needs, but also use other local and imported supplies to meet their retail water customers' demands, including, but not limited to, local groundwater and surface water, recycled water, and, in some cases, purchases from the Santa Clara Valley Water District and the State Water Project.

The WSA became effective on July 1, 2009, as its predecessor agreement, the 1984 Settlement Agreement and Master Water Sales Contract between the SFPUC and the Wholesale Customers (1984 Agreement), expired. The WSA, as amended and restated in 2025, describes the current contractual relationship between the SFPUC and the Wholesale Customers.

The WSA carries forward many components of the 1984 Agreement, including the SFPUC's "Supply Assurance" of 184 mgd to the Wholesale Customers. The SFPUC has agreed to deliver water to the Wholesale Customers up to the amount of the Supply Assurance, and this agreement is perpetual and survives the expiration of the WSA. The Supply Assurance is, however, subject to reduction due to water shortage, drought, scheduled RWS maintenance activities, and emergencies.

The Supply Assurance is shared among 24 of the 26 Wholesale Customers (all Wholesale Customers, which have "permanent" status, except the cities of San Jose and Santa Clara, which are "temporary, interruptible" customers). Twenty-three of these 24 Wholesale Customers have an "Individual Supply Guarantee" (ISG), which represents their dedicated individual share of the 184 mgd Supply Assurance. The ISGs are also perpetual and survive the expiration of the WSA. The City of Hayward is the 24th Wholesale Customer that shares in the Supply Assurance, but it does not have an ISG due to the terms of its 1962 individual water supply contract with the SFPUC that did not contain a fixed allocation of water. The City of Hayward's unspecified water supply allocation is included in the Supply Assurance as the difference between 184 mgd and the sum of the other 23 permanent Wholesale Customers' ISGs (22.1 mgd). If Hayward's water purchases from the RWS exceed 22.1 mgd over a period of three consecutive fiscal years (an event that has not occurred to date and is not projected to occur before 2050), the 23 Wholesale Customers with ISGs would be required to reduce their individual ISGs to accommodate the demands of Hayward.

Each Wholesale Customer also has an individual water sales contract with the SFPUC that describes the service area of the customer, identifies the location and size of service connections between the RWS and the customer's distribution systems, and in some instances contains additional specific provisions unique to the customer. The individual water sales contracts may be amended from time to time by the SFPUC and the applicable Wholesale Customer pursuant to the terms of the WSA.

MPWD's ISG is 3.891 MGD, or 1,420.22 million gallons per year.

6.1.1.5 Future Water Supply Decisions

In the 2009 WSA, the SFPUC committed to make two decisions before the end of 2018 regarding future water supplies, with the prerequisite of the SFPUC having completed any necessary California Environmental Quality Act (CEQA) review relevant to those decisions:

- Whether or not to make the cities of San Jose and Santa Clara permanent customers of the RWS, if the SFPUC determines that RWS long-term water supplies are available to support their permanent status, and
- Whether or not to increase the Supply Assurance above 184 mgd to meet future Wholesale Customer demands.

Prior to 2018, the SFPUC determined that it was prudent to defer these decisions due to uncertainty about water supply availability and future growth patterns in the Bay Area, as well as unprecedented reductions in demands on the RWS, which indicated that total Wholesale Customer demands (including the demands of San Jose and Santa Clara, who do not share in the 184 mgd Supply Assurance) would be 173.9 mgd in 2040. Accordingly, the SFPUC and the Wholesale Customers amended the WSA in 2018, deferring the future water supply decisions to the end of 2028 to allow the SFPUC to conduct further water supply planning, including a reevaluation of RWS demands and supply options, and any necessary CEQA analysis. Based on current projections, Wholesale Customer demands (including the demands of San Jose and Santa Clara) will continue to be less than the 184 mgd Supply Assurance through the year 2050.

The SFPUC's planning efforts to support its decision regarding the status of San Jose and Santa Clara are a part of the SFPUC's Alternative Water Supply Program (see DWR Section 6.2.10).

6.2 Groundwater

☒ CWC § 10631

(b) (4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:

(A) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.

(B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

(C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

As shown in Table 6-2, MPWD does not have any existing groundwater supply, and does not plan to use groundwater as part of its supply in the future. The availability of local groundwater in the San Mateo Plain Groundwater Basin, including in the MPWD area, is very limited (EKI, 2018).

Table 6-2 (DWR Table 6-1): Groundwater Volume Pumped

☒	Check the box if the Supplier does not pump groundwater. Proceed to the next table.						
☐	Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)						
Groundwater Type Drop Down List May use each category multiple times	Potable or Non-Potable (OPTIONAL) Drop down list	Location or Basin Name	2021 (MG)	2022 (MG)	2023 (MG)	2024 (MG)	2025 (MG)
Total			0	0	0	0	0
NOTES							

6.3 Surface Water

Water that is self-supplied to agencies from streams, lakes, and reservoirs is considered a surface water supply. Although MPWD's potable water supply is originally derived from surface water, it is categorized as "purchased" water since the water is obtained from the SFPUC RWS. MPWD does not currently, nor does it plan to in the future, use self-supplied surface water as part of its water supply portfolio.

6.4 Stormwater

MPWD does not currently, nor does it plan to in the future, use diverted stormwater as part of its water supply portfolio.

6.5 Wastewater and Recycled Water

☒ **CWC § 10633**

The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

Municipal recycled water is municipal wastewater that has been treated to a specified quality to enable it to be used again for a beneficial purpose. The term recycled water is defined in the California Water Code (CWC) more broadly than municipal recycled water. For purposes of the UWMPs, recycled water means only municipal recycled water, that is, water that has been treated and discharged from a municipal wastewater facility.

MPWD does not have an available conveyance system for accessing recycled water, and does not currently have plans to use recycled water within its service area. The sections below describe wastewater collection and treatment for the MPWD service area.

6.5.1 Coordination

This 2025 UWMP has been prepared in coordination with Silicon Valley Clean Water (SVCW), which operates the wastewater treatment plant within MPWD's service area.

6.5.2 Wastewater Collection, Treatment, and Disposal

☑ CWC § 10633 (a)

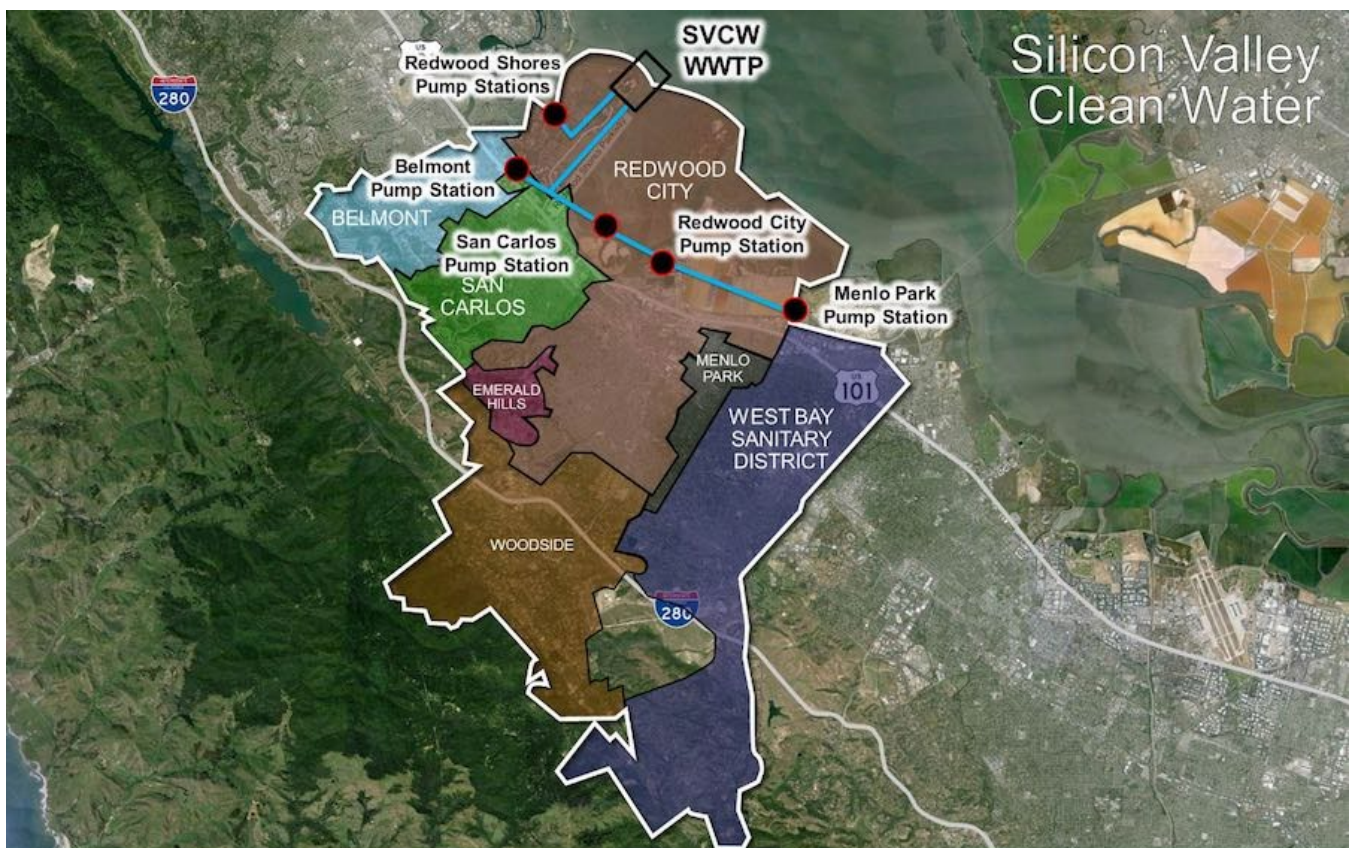
A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

☑ CWC § 10633 (b)

A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

Wastewater within MPWD's service area is collected by the Cities of Belmont and San Carlos. SVCW, a four-member Joint Powers Authority (JPA), undertakes wastewater treatment and disposal. The members include the City of Belmont, City San Carlos, Redwood City, and West Bay Sanitary District, which covers portions of Menlo Park. Figure 6-2 illustrates the SVCW wastewater collection area that includes the MPWD's service area⁸.

Figure 6-2: Silicon Valley Clean Water Member Agencies and Facilities



⁸ Figure 6-2 image obtained from SVCW's website: <https://svcw.org/about/>, obtained June 22, 2026.

SVCW serves more than 220,000 people and businesses in its service area. SVCW treats wastewater at an advanced, two-stage biological treatment facility in Redwood City. Sewage arrives at the treatment facility through a series of pipelines and pump stations. The sewage then passes through physical, chemical, and biological treatment processes, which result in high quality effluent being discharged to the deep-water channel of the San Francisco Bay. The SVCW facility is designed to remove more than 97% of all solids and organic material, and 100% of pathogens from the wastewater. The SVCW facilities include wastewater conveyance, treatment, disposal, and reuse (SVCW, 2026). The total volume of wastewater collected within MPWD's service area is shown in Table 6-3 below.

The SVCW treatment plant has a designed capacity of 29 million gallons per day (MGD) of dry weather flows and provides tertiary-level treatment. Approximately 7.4% of the treated effluent is recycled and used in Redwood City and the remainder is discharged to the San Francisco Bay. The SVCW monitors flows from its various sub-regional pump stations. The wastewater from MPWD's service area consists of approximately 97% flow from Belmont and approximately 3% flow from San Carlos.

In 2025, based on SVCW's wastewater metering data, wastewater from the City of Belmont was approximately 656 million gallons (MG). The wastewater from the City of San Carlos was estimated to be 33 MG by adjusting the total wastewater volume by the proportion of San Carlos that is served by MPWD (5.4%). Total wastewater collected within MPWD's service area was estimate to be 689 MG.

As shown in Table 6-4 and described above, MPWD does not treat or discharge wastewater within its service area.

Table 6-3 (DWR Table 6-2): Wastewater Collected Within Service Area

☐	Check the box if there is no wastewater collection system. Proceed to the next table.			
100%	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
100%	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (MG)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number Drop down list	Is WWTP Located Within UWMP Area?
City of Belmont	Metered	656	Redwood City Recycled Water (Silicon Valley Clean Water), Place ID 255832	No
City of San Carlos	Estimated	33	Redwood City Recycled Water (Silicon Valley Clean Water), Place ID 255832	No
Total Wastewater Received from UWMP Service Area in 2025:		689		
NOTES: -MPWD does not engage in wastewater collection, treatment or disposal. The cities of Belmont and San Carlos are responsible for the collection of sewage in the MPWD's service area. Silicon Valley Clean Water (SVCW) undertakes treatment and disposal. Belmont volume is from metered data from the Redwood City Recycled Water treatment plant; data for San Carlos and unincorporated San Mateo County is estimated by adjusting the total City of San Carlos wastewater volume by the proportion of San Carlos that is served by MPWD (5.4%).				

Table 6-4 (DWR Table 6-3): Wastewater Treatment and Outcomes Within UWMP Service Area

☐	Check the box if no wastewater is treated or disposed of within the UWMP service area. Proceed to the next table.													
Wastewater Treatment Plant Name and Place ID Number Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (MG)	Total 2025 Volume of Water Treated (MG)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Name of other entity
Total		0	-		0		0		0		0		0	
NOTES:														

6.5.3 Current, Potential, and Projected Recycled Water Uses

MPWD does not have an available conveyance system for accessing recycled water. In the past, MPWD had discussed the feasibility of a water recycling pipeline project to deliver recycled water to the City of Belmont's Sports Complex, located at 550 Island Parkway in Belmont. At the time, the City of Belmont's analysis showed that the project was prohibitively expensive, with no available funding, and the cost recovery was shown to take more than 100 years (City of Belmont, 2007). Also, the City of Belmont's Sports Complex location is no longer a viable recycled water user, because the City of Belmont has installed artificial turf at this facility to conserve water.

As shown in Tables 6-5, 6-6, and 6-7, MPWD does not currently use recycled water within its service area, nor does it plan to in the future.

Table 6-5 (DWR Table 6-4): Recycled Water Direct Beneficial Uses Within Service Area

☐	Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.									
Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) :										
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :										
Volume of Supplemental Water Added in 2025 (OPTIONAL) :										
Source of 2025 Supplemental Water (OPTIONAL) :										
Use Type Drop down list	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (MG)	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
									0	
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			0	0	0	0	0	0	0	
Total			0	0	0	0	0	0	0	
NOTES: -MPWD does not utilize recycled water in its service area.										

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

☒	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.	
Use Type Drop Down list	2020 Projection for 2025 (MG)	2025 Actual Use (MG)
Total	0	0
NOTES: -MPWD does not utilize recycled water in its service area.		

Table 6-7 (DWR Table 6-6): Methods to Encourage Future Recycled Water Use

☒	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (MG)
Total (MG)			0
Unit Conversion to AF			0
NOTES: -MPWD does not plan to utilize recycled water in its service area.			

6.6 Desalinated Water Opportunities

☒ **CWC § 10631 (g)** A plan shall be adopted in accordance with this chapter and shall do all of the following:

Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

Typically, desalinated water projects are very expensive projects. Therefore, desalination projects are more feasible in areas where no other sources of cost-effective water supplies exist. San Francisco Bay and brackish groundwater adjacent to the Bay are the closest sources for potential desalinated water.

No existing source of desalinated water is available in the proximity to the MPWD service area. Currently there is no information about the technical and economic feasibility of installing a regional desalinated water plant as a

direct source of water for MPWD's service area. Desalinated water is not being considered as a potential source in the next five years in the MPWD service area.

6.7 Water Exchanges and Transfers

☑ **CWC § 10631 (c)** *A plan shall be adopted in accordance with this chapter and shall do all of the following: Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.*

MPWD has water exchange capability through interties with Estero Municipal Improvement District (Foster City/EMID), Redwood City, California Water Service's (CWS') San Mateo system, and CWS' San Carlos system. These interties can be used for short-term water supply exchanges or transfers in emergencies.

MPWD does not plan to develop long-term exchanges or transfers of water with other suppliers.

6.8 Future Water Projects

☑ **CWC § 10631 (f)** *Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

In 2016, BAWSCA, Cal Water, SFPUC, the City of Redwood City, the City of San Mateo, and SVCW (collectively, the "PREP parties") initiated the development of a Potable Reuse Exploratory Plan (PREP) to study potable reuse as a source of alternative water supply in the Mid-Peninsula region. After three phases of preliminary screening and evaluations, the PREP parties published a Title XVI Feasibility Study and identified a preferred project and path forward for implementing potable reuse in the Mid-Peninsula region (Kennedy Jenks, 2022). The preferred project would blend 6 MGD of purified water from local wastewater facilities with runoff and streamflow diversion at Crystal Springs Reservoir (Phase 1) and deliver an additional 6 MGD (total of 12 MGD) of purified water directly to local conveyance systems in Redwood City, San Carlos, and/or MPWD (Phase 2). In 2022, the District engaged in the planning process, and participated in the development of a Basis of Design Report (BODR), and would be a recipient of a portion of the future supply. The project has been renamed "PureWater Peninsula," and the Basis of Design Report was completed in May 2024. Completion of Phase 1 and Phase 2 is anticipated to occur in 2039 and 2043, respectively. Per the 2024 BODR, the project is estimated to cost \$1.1 billion in capital costs and \$34 million in annual operations and maintenance, and upon completion of both phases would provide 4,380 MG per year of additional supply to the region that can be used during drought years.

Table 6-8 (DWR Table 6-7): Expected Future Water Supply Projects or Programs

	Check the box if there are no expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Proceed to the next table.						
☒	Check the box if some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type Drop Down List	Expected Increase in Water Supply to Supplier (This may be a range) (MG)
	Drop Down List (yes/no)	If Yes, Supplier Name					
NOTES:							

6.9 Summary of Existing and Planned Sources of Water

MPWD's water supplies consist entirely of potable water purchased from the SFPUC RWS. As shown in Table 6-9, In 2025, MPWD purchased approximately 844 MG from the SFPUC RWS. Reasonably available water supplies from the SFPUC RWS through 2050 are projected to be equivalent to MPWD's projected demand, and the total entitlement of supply is equal to MPWD's Individual Supply Guarantee (ISG) of 1,420.22 MG. MPWD's ISG is MPWD's contractual entitlement to SFPUC wholesale water, which survives in perpetuity. MPWD's total water supply projections are shown in Table 6-10 in five-year increments through 2050.

Table 6-9 (DWR Table 6-8): Water Supplies — Actual

Water Supply	Additional Description (as needed)	2025		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (MG)	Total Entitlement
Purchased or Imported Water	Water Purchased from SFPUC RWS	Potable	844	1,420
Subtotal Potable			844	1,420
Subtotal Non-Potable			0	0
Total			844	1,420
NOTES: -Actual supply is equal to total MPWD demand for 2025, as shown in Table 4-2. -Total entitlement is equal to MPWD's ISG, which is MPWD's contractual entitlement to SFPUC wholesale water.				

Table 6-10 (DWR Table 6-9): Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Projected Water Supply (Report to the Extent Practicable)									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool			2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)
Purchased or Imported Water	Water Purchased from SFPUC RWS	Potable	1,040	1,420	1,099	1,420	1,183	1,420	1,262	1,420	1,280	1,420
Subtotal Potable			1,040	1,420	1,099	1,420	1,183	1,420	1,262	1,420	1,280	1,420
Subtotal Non-Potable			0	0	0	0	0	0	0	0	0	0
Total			1,040	1,420	1,099	1,420	1,183	1,420	1,262	1,420	1,280	1,420
NOTES: -Projected reasonably available volume is equal to MPWD's projected demands for 2030-2050, as shown in Table 4-3. -Total entitlement is equal to MPWD’s ISG, which is MPWD’s contractual entitlement to SFPUC wholesale water.												

6.10 Energy Use

☑ **CWC § 10631 (f)**

(a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

(c) The Legislature finds and declares that energy use is only one factor in water supply planning and shall not be considered independently of other factors.

SFPUC diverts and delivers pressurized and treated water to MPWD's turnouts. Once the SFPUC supply enters the MPWD system it either flows directly through the distribution system to customers or is stored in reservoir tanks for future use. The MPWD system connects to the SFPUC RWS at two locations (Bay Division Pipelines 1 and 2, Crystal Springs Bypass Tunnel). MPWD has nine pressure zones due to varied topography and elevations of storage tanks and conveyance pipelines within its service area.

Since MPWD purchases treated water from SFPUC, it does not use energy for treatment. The main uses of energy within the MPWD system are for pumping water from one location to another within the nine pressure zones or to and from its water storage tanks. For its energy intensity calculation, MPWD used data from Pacific Gas & Electric (PG&E) monthly bills for eight pump station meters, seven regulator meters, and two tank meters.

For its energy intensity calculations, MPWD used the "Total Utility Approach," as specified in the 2025 DWR Guidebook Appendix O (DWR, 2026). The calculation uses total energy consumed in kilowatt-hours (kWh) for water management divided by total water production in MG (total water purchased from SFPUC). MPWD's energy intensity for 2025 is 1,366 kWh/MG. Table 6-11 below illustrates the MPWD's energy intensity calculations using the "Total Utility Approach".

Table 6-11 (DWR Table O-1B): Recommended Energy Reporting – Single Delivery Product – Total Utility Approach

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Retail Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control		
Start Date of Reporting Period	1/1/2025	Sum of All Water Management Processes	Non-Consequential Hydropower	
End Date of Reporting Period	12/31/2025			
Is upstream embedded energy in the values reported?	No			
Units of Measure for Water	MG	Total Utility See DWR NOTES	Hydropower	Net Utility
Volume of Water Entering Process		844	-	844
Energy Consumed (kWh)		1,153,632	-	1,153,632
Energy Intensity (kWh/vol. converted to MG)		1,366	-	1,366
Quantity of Self-Generated Renewable Energy				
0		kWh		
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
Metered Data				
Data Quality Narrative:				
Narrative:				
Energy Intensity is calculated as the energy used for water management (i.e., transportation of water throughout distribution system via pump stations) divided by total water production (i.e., water purchased from SFPUC) in 2025.				
NOTES:				

6.11 Special Conditions

6.11.1 Climate Change Effects

Climate change has become an important factor in water resources planning in California and is frequently considered in urban water management planning, although the extent and precise effects of climate change remain uncertain. Increasing concentrations of greenhouse gases have caused and will likely continue to cause a

rise in temperatures around the world, which will result in a wide range of changes in climate patterns. Moreover, observational data show that a warming trend occurred during the latter part of the 20th century, the first quarter of the 21st century, and will likely continue through the end of the 21st century. Numerous studies have been conducted to determine the potential impacts of climate change on water resources. These climate change impacts are likely to affect both the Tuolumne River watershed and local watersheds in the Bay Area and include the following:

- Reductions in the average Sierra Nevada annual snowpack due to a rise in the snowline elevation and a shallower snowpack at lower elevations, and a shift in snowmelt runoff to earlier in the year;
- Changes in the timing, annual average, intensity, and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow;
- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality and quantity;
- Sea level rise and an increase in saltwater intrusion;
- Increase in water temperatures with accompanying potential adverse effects on some fisheries and water quality;
- Increases in evaporation and concomitant increase in irrigation need; and
- Changes in urban and agricultural water demand.

6.11.1.1 SFPUC Climate Change Studies

The SFPUC views assessment of the effects of climate change as an ongoing need that requires regular updating to reflect improvements in climate science, atmospheric/ocean modeling, observations, and human response to the threat of greenhouse gas emissions. Climate change research by the SFPUC began in 2009 and continues to be refined.

The SFPUC partnered with The Water Research Foundation to develop the Long-Term Vulnerability Assessment (LTVA) of the RWS. The study was conducted by the University of Massachusetts Amherst Hydrosystems Research Group with input from the Water Research Foundation, National Center for Atmospheric Research, other climate scientists, and Deltares (Water Research Foundation, 2021). The goal of the LTVA is to help quantitatively and qualitatively assess to what extent climate change will be a threat to the RWS in comparison to, or in combination with, other external drivers of change over the next 50 years (2020-2070). The LTVA assessed the potential effects of climate change on RWS water supply using a wide range of plausible increases in temperature and changes in precipitation to address the wide uncertainty in climate projections over the planning horizon. There are many uncertain factors, such as climate change, changing regulations, water quality, growth and economic cycles, that may create vulnerabilities for the RWS's ability to meet Levels of Service. The uncertainties associated with the degree to which these factors will occur and how much risk they present to the water system are difficult to predict but were considered in this study. To address this planning challenge, the LTVA used a vulnerability-based planning approach to explore a range of future conditions to identify vulnerabilities, and to assess the risks associated with these vulnerabilities, that could lead to developing an adaptation plan that is flexible and robust to a wide range of future outcomes. The LTVA was completed in 2021 and the University of Massachusetts Amherst and The Water Research Foundation amended it in 2024.

The key findings of the LTVA are:

- Climate change exacerbates impacts from other external drivers of change and is not the single most

important driver of vulnerability for the RWS.

- The RWS at a baseline demand of 227 MGD is resilient to changes in climate and other external drivers.
- The RWS water supply performance declines with reductions in mean precipitation but is mostly insensitive to increases in temperature.
- The RWS is more vulnerable to changes in demand and instream flow requirements than changes in mean annual temperature and precipitation.
- The RWS is vulnerable to changes to mean climate when demand or regulatory instream flow requirements increase.

Further results and conclusions from the LTVA and its amendment are provided below:

- According to climate projections and expert elicitations, there is a central tendency of warming of +2°C and +4°C by 2040 and 2070 (Representative Concentration Pathway [RCP] 8.5), respectively, with no clear direction of change in mean annual precipitation over the planning horizon.
- In the upcountry region, by 2040, most projections and elicitations of warming estimate between +1°C and +4°C, and precipitation changes range between -5% and +5%, compared to historical baseline; and by 2070, estimates of warming range between +3°C and +6°C, and precipitation changes range between -15% and +15% (RCP 8.5).
- Changes in hydrology due to climate change affect the RWS's ability to meet water supply targets. At 227 MGD baseline demand, the RWS can sustain up to +4°C and -5% precipitation change before failing to meet targets for delivery reliability, frequency of 20% rationing, storage reliability, and duration of rationing.
- Precipitation change is an important driver for RWS performance. A decrease by 10% or more will cause RWS water supply targets to be missed. The climate projections and expert elicitations show that such a change in precipitation is possible by 2040, although unlikely. The likelihood of this change increases toward 2070.
- The RWS shows minor sensitivity to temperature change for the metrics evaluated in this study. Most metrics stay above target under warming conditions. However, warming conditions often magnify the loss in system performance if precipitation or demand change.
- Demand change appears to be a major driver of future RWS performance. An increase in demand by 15% (265 MGD) will lead to failure to meet rationing frequency targets under current climate conditions. At 265 MGD demand, the rationing frequency targets would be met if there is an increase in precipitation of 10%. If demand increases by 30%, the rationing target cannot be met even when precipitation increases by 40%, which is believed plausible but unlikely over the planning horizon.
- The RWS is particularly vulnerable to the state-amended new instream flow requirements below Don Pedro Dam, which represents a huge reduction in water available. Under all demand and climate scenarios the system reliability, defined as frequency of years without rationing, remains below 5%.
- The RWS is also vulnerable to the draft Tuolumne voluntary agreement new instream flow requirements below Don Pedro Dam, which represents a large reduction in water available, although significantly less than for the state-amended new instream flow releases. The implementation of the draft Tuolumne voluntary agreement under current climate and demand conditions would reduce the system reliability to 75%, which corresponds to the effects of a reduction in average rainfall by 20% under the current Federal Energy Regulatory Commission agreement.

6.11.2 Regulatory Conditions and Project Development

Emerging regulatory conditions (e.g., issues surrounding the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary [Bay-Delta Plan]) may affect planned future projects and the characterization of future water supply availability and analysis. A detailed description of the potential impacts of Bay-Delta Plan implementation on RWS supply reliability is included in Chapter 7. If MPWD moves forward with any plans to develop supply projects, emerging regulatory conditions will be considered, and the associated water supply reliability impacts will be assessed in future UWMP updates.

6.11.3 Other Locally Applicable Criteria

Other locally applicable criteria may affect characterization and availability of an identified water supply (e.g., changes in regional water transfer rules may alter the availability of a water supply that had historically been readily available). Reliability of the RWS supply is further discussed in Chapter 7. If MPWD moves forward with any plans to develop supply projects, locally applicable criteria will be considered, and the associated water supply reliability impacts will be assessed in future UWMP updates.

7. WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

☑ **CWC § 10631**

(b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

☑ **CWC § 10634**

The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

☑ **CWC § 10635**

(b)(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.

(b)(4) 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.

This chapter assesses the reliability of the Mid-Peninsula Water District's (MPWD's or District's) water supplies, with a specific focus on potential constraints, including purchased water supply availability, water quality, and climate change. The intent of this chapter is to identify any potential constraints that could affect the reliability of MPWD's supply during normal, single dry-year, and multiple dry-year hydrologic conditions.

MPWD purchases all of its potable water supply from the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS). The reliability of the SFPUC RWS is anticipated to vary greatly in different year types. MPWD has relied in part on the supply reliability estimates provided by the SFPUC for the RWS and the drought allocation structure provided by SFPUC and the Bay Area Water Supply and Conservation Agency (BAWSCA) to estimate available RWS supplies in dry year types through 2050. MPWD has reviewed these inputs for consistency with its historical supply experience and contractual entitlements and applies them here as planning-level assumptions for this MPWD-specific reliability analysis. In addition to the long-term reliability assessment, this chapter also presents a Drought Risk Assessment to evaluate MPWD's supply risks under a severe drought period lasting for the next five consecutive years (i.e., through 2030).

7.1 Constraints on Water Sources

The following sections provide a summary of potential constraints on future water supply availability, water quality, and climate change.

7.1.1 *Regional Water System Supply Availability*

The SFPUC has identified potential constraints on its water supplies. This section summarizes the availability of water supplies from the SFPUC RWC, including (1) key uncertainties that may affect those supplies, (2) the

system's level of service goals and capital improvements that underpin supply reliability, as well as (3) the allocation methodologies applied during shortage conditions. The source for the information is the common language provided by the SFPUC and BAWSCA (see Appendix C). Common language is indicated as indented grey text.

7.1.1.1 Bay-Delta Plan Amendment

The 2018 adoption of the Bay-Delta Plan Amendment may significantly impact the supply available from the RWS. The SFPUC recognizes that the Bay-Delta Plan Amendment has been adopted and that, given that it is now state law, the SFPUC must plan for a future in which it is fully implemented. The SFPUC also acknowledges that the plan is not self-implementing and therefore does not automatically go into effect. Similarly, there is active litigation at the appellate level regarding the Bay-Delta Plan Amendment. The SFPUC is also pursuing a voluntary agreement, known as the Healthy Rivers and Landscapes Program (HRL). The HRL is currently undergoing evaluation at the SWRCB. In fall of 2025, the SWRCB released a Scientific Basis Report evaluating the biological benefits of the Tuolumne River component of the HRL. The next step is for SWRCB to finalize this report including scientific peer review. At the same time, the SWRCB is undergoing CEQA evaluation of the Tuolumne HRL. No timeline has been provided for when the HRL will be considered for adoption by the SWRCB.

There are additional factors that could affect the availability of water supply regarding the SWRCB curtailments and agreements with Turlock and Modesto Irrigation Districts (Irrigation Districts) pertaining to instream flow obligations on the Tuolumne River. The following describes these and how they were incorporated into the water supply reliability analysis.

- During the last two drought periods, 2013-2016 and 2021-2023, the SWRCB implemented curtailments through emergency regulations and curtailment orders that attempted to limit diversions from Central Valley watersheds including the Tuolumne River at certain times. Due to the uncertain legality of the SWRCB's curtailment actions as well as the uncertainties regarding any potential future curtailment actions against San Francisco, the SFPUC's RWS supply reliability analyses do not assume curtailments are in effect.
- Through a 1966 agreement with the Irrigation Districts, who are more senior downstream appropriative water rights holders on the Tuolumne River, San Francisco may become responsible for up to approximately 51.7% of any flow releases the Federal Energy Regulatory Commission (FERC) may require through issuance of a new license for the Irrigation Districts' Don Pedro Hydropower Project. The exact flow contribution for which San Francisco may become responsible is highly uncertain and may depend on multiple currently unknown factors, including an anticipated Endangered Species Act biological opinion from the National Marine Fisheries Service and a Clean Water Act section 401 water quality certification from the SWRCB. San Francisco's potential responsibility for FERC-ordered flows may further depend on San Francisco's ability to enter into a new or extended agreement with the Irrigation Districts to offset a portion of San Francisco's flow contributions in exchange for payment. Due to the high levels of uncertainty surrounding the Irrigation Districts' FERC-relicensing process, as well as the unknown timing for license issuance, the SFPUC's RWS water supply reliability analyses do not assume additional water supply losses from any potential new FERC-ordered flow releases.
- The simulation of the Bay-Delta Plan Amendment scenario assumes that a 1996 agreement between San Francisco and the Irrigation Districts (the Side Agreement), which allows San

Francisco to pay the Irrigation Districts in lieu of contributing a portion of current FERC-ordered flow releases, remains in effect, and that the San Francisco share of flows in excess of and not covered by the Side Agreement is approximately 51.7%. These assumptions were made for the purpose of completing the modeling for the UWMP update, and they do not represent a commitment by San Francisco or the Districts to any future agreement or of San Francisco accepting responsibility for any future FERC-ordered flow releases.

7.1.1.2 Bay-Delta Plan Amendment Updates

In December 2018, the SWRCB adopted amendments to the Bay-Delta Plan to establish water quality objectives for the San Francisco Bay-Delta watershed. The SWRCB is required by law to regularly review this plan. The adopted Bay-Delta Plan Amendment was developed with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the San Francisco Bay-Delta. The Bay-Delta Plan Amendment requires the release of 30-50% of the “unimpaired flow”⁹ on the three tributaries from February through June in every year type. In SFPUC modeling of the new flow standard, it is assumed that the required release is 40% of unimpaired flow.

If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet the projected water demands presented in this 2025 UWMP in normal years but is expected to experience supply shortages in single dry years or multiple dry years. Implementation of the Bay-Delta Plan Amendment could require rationing in all single dry years and multiple dry years.

Implementation of the Bay-Delta Plan Amendment remains uncertain for multiple reasons.

- Over a dozen lawsuits have been filed in both state and federal courts challenging the SWRCB’s adoption of the Bay-Delta Plan Amendment, including a legal challenge filed by the federal government at the request of the U.S. Department of Interior, Bureau of Reclamation. This litigation is currently at the appellate level; and
- The Bay-Delta Plan Amendment is not self-implementing and does not automatically allocate responsibility for meeting its new flow requirements to San Francisco or any other water rights holders. Rather, the Bay-Delta Plan Amendment merely provides a regulatory framework for implementing water quality objectives, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, may be implemented through the water quality certification process set forth in section 401 of the Clean Water Act as part of the Federal Energy Regulatory Commission’s licensing proceedings for the Don Pedro and La Grange hydroelectric projects. It is currently unclear when the license amendment process is expected to be completed. This process and the other regulatory and/or adjudicatory proceedings may face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility (and therefore a different water supply impact on the RWS).

In recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the SWRCB

⁹ "Unimpaired flow represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds." (Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Dec. 12, 2018), p. 17, fn. 14, available at https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf.)

Resolution No. 2018-0059 adopting the Bay-Delta Plan Amendment directed staff to help complete a “Delta watershed-wide agreement, including potential flow measures for the Tuolumne River,” and to incorporate such agreements as an “alternative” for a future amendment to the Bay-Delta Plan to be presented to the SWRCB “as early as possible after December 1, 2019.” On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support the SFPUC’s participation in the Voluntary Agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and the leadership of the Newsom administration¹⁰. On November 10, 2022, the SFPUC along with the Irrigation Districts signed a Memorandum of Understanding Advancing the Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan and Other Actions. Voluntary Agreements are now referred to as the Agreements to Support Healthy Rivers and Landscapes and negotiations remain ongoing.

7.1.1.3 Water System Improvement Program (WSIP) and Level of Service Goals

Initiated in 2008, SFPUC’s WSIP is a \$4.8 billion, multi-year capital program to upgrade the RWS as well as the SFPUC’s local water system. The program is delivering capital improvements that enhance the SFPUC’s ability to provide reliable, affordable, high quality drinking water in an environmentally sustainable manner to its Retail and Wholesale Customers. The SFPUC structured WSIP to cost-effectively meet water quality requirements, improve seismic and delivery reliability goals through the year 2030, and fulfill water supply objectives through the year 2018. The SFPUC completed the San Francisco portion of WSIP in October 2020. As of June 30, 2025, the regional portion of WSIP was 99.3% complete, having repaired, replaced, and seismically upgraded crucial portions of the RWS; only two regional projects remain in planning and construction, while 49 regional projects have been completed or are in close-out. The SFPUC forecasts that the overall WSIP will be completed in June 2032.

The SFPUC undertook the WSIP to ensure the ability of the RWS to meet LOS Goals and Objectives for water quality, seismic reliability, delivery reliability, and water supply. The Water Supply LOS goal, stated in the WSIP and adopted in 2008, is to meet customer water needs in non-drought and drought periods. The SFPUC amended and updated the LOS Goals and Objectives in November 2023. The SFPUC’s current LOS Goals and Objectives related to water supply include the following:

- Meet an average annual water demand of 265 MGD from the SFPUC watersheds for Retail and Wholesale Customers during non-drought years consistent with the Water Supply Agreement between San Francisco and its Wholesale Customers in Alameda, San Mateo, and Santa Clara Counties;
- Meet dry-year delivery needs while limiting rationing to a maximum 20% system-wide reduction in water service during extended droughts;
- Diversify and improve use of new water sources and drought management, including groundwater, recycled water, conservation, transfers, storage expansion, purified water, desalinated water, and technological innovations that can increase supply and/or water use efficiency;
- Maintain San Francisco retail residential potable water use below 45 GPCD.
- Realize annual Real Water Losses of less than 10% of water supplied to San Francisco; and

¹⁰ California Natural Resources Agency, “Voluntary Agreements to Improve Habitat and Flow in the Delta and its Watersheds,” available at <https://files.resources.ca.gov/voluntary-agreements/>.

- Meet 80% of San Francisco’s Recreation and Parks Department irrigation demands with recycled water by December 31, 2025.

7.1.1.4 Drought Allocation Methodology

7.1.1.4.1 Tier One Drought Allocations

The WSA between the SFPUC and the Wholesale Customers includes as “Attachment H” a WSAP, also known as the Tier 1 Shortage Plan. This plan describes the method for allocating water from the RWS between the SFPUC’s Retail Customers, on the one hand, and the Wholesale Customers collectively, on the other, during system-wide shortages caused by drought. The Tier 1 Shortage Plan applies only when the SFPUC determines that a system-wide water shortage due to drought exists, as set forth in a declaration of water shortage emergency by the SFPUC Commission; in the absence of such a declaration, the SFPUC also may opt to request voluntary cutbacks from its Retail and Wholesale Customers to achieve water use reductions. The SFPUC and the Wholesale Customers most recently amended the Tier 1 Shortage Plan in 2025.

The SFPUC allocates water under the Tier 1 Shortage Plan when it determines that the projected available water supply is less than projected system-wide water purchases for the upcoming Supply Year, defined as the period from July 1 through June 30. The following table shows the Retail Customers’ share and the Wholesale Customers’ share of the annual water supply available during shortages depending on the level of system-wide reduction in water use that is required. If the SFPUC determines that the level of system-wide reduction required during a shortage is greater than 20%, the SFPUC and the Wholesale Customers will meet to discuss the appropriate Retail and Wholesale Customers’ shares of available water. The Retail and Wholesale Customers’ shares of available water are also known as the Retail and Wholesale Customers’ Tier 1 Allocations. The Wholesale Customers’ Tier 1 Allocation will be apportioned among the individual Wholesale Customers based on a separate methodology, known as the Tier 2 Drought Response Implementation Plan (Tier 2 Plan), which is separately adopted by all the Wholesale Customers without the SFPUC’s involvement as discussed further below.

Level of System-Wide Reduction in Water Use Required	Share of Available Water	
	SFPUC Share	Wholesale Customers Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

The Tier 1 Shortage Plan allows for voluntary transfers of shortage allocations between the SFPUC and any Wholesale Customer as well as between Wholesale Customers themselves. In addition, voluntary transfers of water “banked” by the SFPUC or a Wholesale Customer, through reductions in usage greater than required, may occur.

Under the Tier 1 Shortage Plan, as amended in 2018, if the Retail Customers' Tier 1 Allocation results in the Retail Customers receiving a "positive allocation" (i.e., a supply of additional water rather than a required reduction in water use), then the excess percentage for Retail is re-allocated to the Wholesale Customers' Tier 1 Allocation. The Retail Customers are also required to conserve a minimum of 5% for any level of reduction in system-wide water use. The additional water conserved by Retail Customers up to the minimum 5% level is deemed as remaining in RWS storage for inclusion in the calculation of projected available water in future successive dry years.

The Tier 1 Shortage Plan will expire at the end of the term of the WSA in 2034, unless the SFPUC and the Wholesale Customers mutually agree to revise or terminate it prior to that date.

7.1.1.4.2 Tier Two Drought Allocations

The Wholesale Customers have negotiated and adopted the Tier 2 Plan, referenced above, which allocates the Wholesale Customer Tier 1 Allocation from the Tier 1 Shortage Plan among each of the 26 Wholesale Customers. These Tier 2 Allocations are based on a formula that takes into account multiple factors for each Wholesale Customer including:

- Residential population;
- Non-residential "base" (i.e., indoor) use;
- Seasonal uses;
- Total RWS purchases in recent non-drought years; and
- Individual Supply Guarantee;

The Tier 2 Plan employs a structured, sequential, five-step method to allocate water to each Wholesale Customer. The allocations are constrained by minimum and maximum cutbacks, which establish the maximum final allocation and minimum guaranteed final allocation, respectively. No agency's final allocation can fall outside of these bounds. The allocation then proceeds by prioritizing indoor uses.

The subsequent steps systematically allocate the remaining available water based on different customer demands. First focusing on indoor demand, water is allocated based on an agency's residential population and the State residential efficient indoor standard (47 GPCD in 2025), followed by an allocation based on non-residential "base" (i.e., indoor) use. A limited amount of water is allocated based on seasonal use (e.g., cooling towers and irrigation). Finally, the remaining supply is allocated based on a weighted share of two-thirds RWS purchases in the recent non-drought years and one-third ISG.

The result of the Tier 2 Plan is each Wholesale Customers' proportion, expressed as a percentage, of the available Tier 1 Allocation (Allocation Factor).

The Tier 2 Plan requires that the Allocation Factors be calculated by BAWSCA each year in preparation for a potential water shortage emergency. As the Wholesale Customers change their water use characteristics (e.g., increases or decreases in RWS purchases and use of other water sources, changes in monthly water use patterns, or changes in population), the Allocation Factor for each Wholesale Customer will also change. However, for long-term planning purposes, each Wholesale Customer may use as its Allocation Factor, the value identified in the Tier 2 Plan when adopted.

The Tier 2 Plan was renegotiated and adopted by all Wholesale Customers in 2025.

7.1.2 Water Quality

☒ **CWC § 10634**

The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Impaired water quality also has the potential to affect water supply reliability. All drinking water standards are set by the United States Environmental Protection Agency (USEPA) under the authorization of the Federal Safe Drinking Water Act of 1974. In California, the State Water Resources Control Board (SWRCB) Department of Drinking Water (DDW) can either adopt the USEPA standards or set more stringent standards, which are then codified in Title 22 of the California Code of Regulations (CCR). There are two general types of drinking water standards:

- Primary Maximum Contaminant Levels (MCLs) are health protective standards and are established using a very conservative risk-based approach for each constituent that takes into potential health effects, detectability and treatability, and costs of treatment. Public water systems may not serve water that exceeds Primary MCLs for any constituent.
- Secondary MCLs are based on the aesthetic qualities of the water such as taste, odor, color, and certain mineral content, and are considered limits for constituents that may affect consumer acceptance of the water.

As discussed in Section 6.1.1, surface water supplies available to the RWS include the Tuolumne River and local Bay Area reservoirs. Information is provided below regarding the water quality of the RWS per the common language provided by the SFPUC and BAWSCA.

Most of the water supply originates in the upper Tuolumne River watershed high in the Sierra Nevada, where the watershed is protected from development and pollution. Water from Hetch Hetchy Reservoir is conveyed to the Bay Area through a system of pipes and tunnels and requires only primary disinfection, ultraviolet light disinfection at the Tesla Treatment Facility, and pH adjustment for corrosion control.

The USEPA and SWRCB DDW have approved the use of this drinking water source without filtration. In contrast, water from the SFPUC's local watersheds requires filtration to meet drinking water quality standards. The SFPUC blends filtered and treated local water with water from Hetch Hetchy Reservoir, and most customers receive this blended supply. The SFPUC continuously monitors and tests both raw and treated water to ensure that water delivered to customers meets or exceeds federal and state drinking water and public health requirements. The SFPUC expects to continue relying on these high-quality water sources and does not anticipate future degradation of water quality.

Each spring, the SFPUC publishes an annual water quality report (Consumer Confidence Report), available at www.sfpuc.gov/waterqualityreport.

MPWD has and will continue to meet all state and federal water quality regulations. MPWD routinely monitors the water that is served to customers to ensure that water delivered to customers meets these drinking water standards. The results of this testing are reported to the SWRCB DDW following each test and are summarized annually in Water Quality Reports (also known as Consumer Confidence Reports), which are provided to customers by mail and made available on MPWD's website: <https://www.midpeninsulawater.org/documents>.

The results of SFPUC's and MPWD's annual water quality assessments show that SFPUC RWS watersheds have very low levels of contaminants, and that those contaminants that are found at low levels are associated with wildlife and, to a limited extent, human recreation. Additionally, SFPUC participates in the Watershed and Environmental Improvement Program, a 10-year, \$50 million program to proactively manage, protect source water quality, and restore terrestrial and aquatic species and their habitats affected by SFPUC system operations.

Considering the above, and for the purposes of this 2025 Urban Water Management Plan (UWMP), it is anticipated that this high-quality potable water source will continue to be available to MPWD through the planning horizon ending in the year 2050. Water quality is not expected to impact the reliability of MPWD's supplies.

7.1.3 Climate Change

☒ CWC § 10631 (b) (1)

...For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

Section 6.11.1 provides a summary of the climate change assessments and impacts on MPWD supplies. The anticipated effects of climate change have been directly factored into MPWD's assessment of its supply reliability. MPWD is actively working with SFPUC and BAWSCA to further quantify and consider future climate change impacts as part of its ongoing supply and operations planning.

7.2 Water Service Reliability Assessment

☒ CWC § 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

Per the California Department of Water Resources' (DWR's) 2025 UWMP Guidebook, the water service reliability assessment includes three unique year types:

- A normal hydrologic year represents the water supplies available under normal conditions; this could be an average range of years or a single representative year.
- A single dry year represents the lowest available water supply.

- A five-consecutive year drought represents the driest five-year period in the historical record.

Identification of dry year periods consistent with the 2025 UWMP Guidebook methodology is provided in the language and supply projections provided by BAWSCA and the SFPUC in Appendix C and as presented in Table 7-1 and Table 7-2. The data and methods used to develop these dry year supply availabilities are described in the sections, below.

Table 7-1 (DWR Table 7-1): Basis of Water Year Data

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2024-2025, use 2025	Available Supplies if Year Type Repeats	
		☒	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: Table 7-2 and Appendix C
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (MG)	% of Average Supply
Average Year			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			
NOTES: -SFPUC provided this table to its wholesale customers under four scenarios. A description of the scenarios and corresponding tables can be found in Appendix C.			

7.2.1 SFPUC Supply Modeled RWS Dry Year Supply Availability

As described in SFPUC's 2025 UWMP, SFPUC used the Hetch Hetchy and Local Simulation Model (HHLSM) to estimate SFPUC RWS supply availability for the water service reliability assessment and the Drought Risk Assessment. Additional information is provided below per the common language provided by SFPUC and BAWSCA:

The SFPUC used its Hetch Hetchy and Local Simulation Model (HHLSM) to perform the water supply analyses for the supply reliability assessment and the drought risk assessment within the 2025 UWMP. HHLSM combines a historical record of hydrology from 1920 through 2025 with a current representation of RWS infrastructure and operations. The simulated operations

include decisions on water supply rationing during droughts. The use of those results is described below.

A key input for the HHLSTM model is the anticipated level of demand on the RWS. Supply modeling results presented in the 2025 UWMP reflect an input of projected demands on the RWS consisting of

(1) projected Retail Customer demands on the RWS (total Retail Customer demands minus local groundwater and recycled water supplies), and (2) projected Wholesale Customer purchases. The SFPUC has estimated total RWS demands for 2030 through 2050 and used these estimates in HHLSTM simulations of RWS water supply reliability. The SFPUC has a Level of Service objective of meeting an average annual water demand of 265 MGD from the SFPUC watersheds for Retail and Wholesale Customers during non-drought years consistent with the WSA, under which the SFPUC has a contractual obligation to supply up to 184 MGD to the Wholesale Customers. Therefore, the SFPUC has also conducted modeling that assumes Wholesale Customer demand is 184 MGD to facilitate planning that supports meeting this Level of Service objective and contractual obligation.

In a normal year SFPUC can provide up to 265 MGD of supply from the RWS. However, within the context of this document, normal year RWS supply is defined as the supply that will be used to meet the full demands on the RWS in a non-drought year.

Because of the uncertainty surrounding implementation of the Bay-Delta Plan Amendment, the SFPUC conducted a water service reliability assessment that includes: (1) a scenario in which the Bay-Delta Plan Amendment is implemented and (2) a scenario that considers the SFPUC system's current conditions without implementation of the Bay-Delta Plan Amendment (Appendix C). The two scenarios provide a bookend for the possible future scenarios regarding RWS supplies. The Bay-Delta Plan Amendment implementation start date is unknown; for the purposes of the supply reliability analysis, it is included in the 2030 modeling scenarios. Consistent with SFPUC's approach and guidance from SFPUC and BAWSCA, the standardized tables associated with this 2025 UWMP contain an assessment of supply reliability under both scenarios, with and without implementation of the Bay-Delta Plan Amendment.

SFPUC modeling results for the scenario in which the Bay-Delta Plan Amendment is implemented, showing the total RWS supply available to Wholesale Customers during the characteristic year types, can be found in the SFPUC letter dated March 11, 2026 (Appendix C). These results show total Wholesale RWS supply shortfalls ranging from 31% to 48% of projected purchases during dry years.

For comparison purposes, results for the scenario without the Bay-Delta Plan Amendment can be found in the same SFPUC letter. These results indicated that SFPUC would be able to meet 100% of Wholesale projected purchases during all year types.

7.2.2 MPWD's Year-Type Characterization

As discussed in Section 6.1.1.4, in accordance with the SFPUC's perpetual obligation to MPWD's Supply Assurance, MPWD has an Individual Supply Guarantee (ISG) of 3.891 MGD, or 1,420.22 million gallons (MG) per year. SFPUC is obligated to provide MPWD with up to 100% of MPWD's ISG during normal years.

As detailed by BAWSCA in Appendix C, both the Tier One and Tier Two Plans were not designed for RWS shortages greater than 20%. In a memorandum dated March 11, 2026, BAWSCA provided a refined methodology to allocate RWS supplies during projected future single dry and multiple dry years in the event that the supply shortfalls are greater than 20%. In the absence of a negotiated approach for allocating RWS supply among the Wholesale Customers during shortages exceeding 20%, BAWSCA suggests that agencies apply these cutbacks equally across all agencies. The associated allocations based on the updated BAWSCA methodology are included as Appendix C.

For the purposes for the 2025 UWMP supply reliability analysis only, Wholesale Customer drought allocations assume an equal percent reduction across all agencies when the average Wholesale Customers' RWS shortages are greater than 20%. This allocation method is intended to serve as the preliminary basis for the 2025 UWMP supply reliability analysis. The analysis provided herein does not in any way imply an agreement by BAWSCA member agencies as to the exact allocation methodology.

The percent reductions for the scenario that assumes the implementation of the Bay-Delta Plan Amendment in 2030 are included in Attachment B of the BAWSCA memorandum dated March 11, 2026 (Appendix C), which are reproduced for MPWD in Table 7-2a below, for years 2030 through 2050. The percent reductions shown in Table 7-2a are applied to MPWD's projected potable demands listed in Table 4-3 for each respective year to calculate the projected dry-year RWS supplies shown in Table 7-4 and Table 7-5. Table 7-2b shows supply reliability under scenario 2, without implementation of the Bay-Delta Plan Amendment, which shows 100% availability under all year types.

Table 7-2a: Scenario 1 (with Bay-Delta Plan Amendment) – SFPUC RWS Supply Availability During Normal and Dry Years for Years 2030 through 2050 (Replaces DWR Table 7-1)

Supply Year Type	2030	2035	2040	2045	2050
Normal Year	100%	100%	100%	100%	100%
Single Dry Year	69%	67%	65%	63%	62%
Multiple Dry Year 1	69%	67%	65%	63%	62%
Multiple Dry Year 2	58%	57%	55%	53%	52%
Multiple Dry Year 3	58%	57%	55%	53%	52%
Multiple Dry Year 4	58%	57%	55%	53%	52%
Multiple Dry Year 5	58%	57%	55%	53%	52%

NOTES:

- In normal years, SFPUC can sufficiently supply MPWD's projected potable demands. During normal years, SFPUC supplies are available up to MPWD's ISG of 1,420 MG.
- Dry year water supply availability is presented in terms of percentage of projected RWS demands for each year (Table 4-3) consistent the revised BAWSCA Drought Methodology that assumes equal percent cutbacks across all Wholesale Agencies.
- Results reflect scenario with Bay-Delta Plan Amendment implemented in 2030 and the projected RWS purchases.
- Data shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Appendix C.

Table 7-2b: Scenario 2 (without Bay-Delta Plan Amendment) – SFPUC RWS Supply Availability During Normal and Dry Years for Years 2030 through 2050 (Replaces DWR Table 7-1)

Supply Year Type	2030	2035	2040	2045	2050
Normal Year	100%	100%	100%	100%	100%
Single Dry Year	100%	100%	100%	100%	100%
Multiple Dry Year 1	100%	100%	100%	100%	100%
Multiple Dry Year 2	100%	100%	100%	100%	100%
Multiple Dry Year 3	100%	100%	100%	100%	100%
Multiple Dry Year 4	100%	100%	100%	100%	100%
Multiple Dry Year 5	100%	100%	100%	100%	100%
NOTES: -In normal years, SFPUC can sufficiently supply MPWD's projected potable demands. During normal years, SFPUC supplies are available up to MPWD's ISG of 1,420 MG. -Results reflect scenario without Bay-Delta Plan Amendment implemented and the projected RWS purchases. - Data shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Appendix C.					

7.2.3 MPWD's Supply and Demand Comparison

☒ CWC § 10635(a)

Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

Water supply availability changes during normal, single dry, and multiple dry years. The following sections compare MPWD's projected water demands, described in Chapter 4, with projected water supply availability during normal year, single dry year, and multiple dry year periods, under two scenarios: (1) with implementation of the Bay-Delta Plan Amendment and (2) without implementation of the Bay-Delta Plan Amendment.

7.2.3.1 Normal Year Supply and Demand Comparison

Table 7-3 shows the projected supply and demand totals for a normal year. The supply and demand totals are consistent with those in Table 6-10 and Table 4-3, respectively. MPWD is expected to have adequate water supplies during normal years to meet its projected demands through 2050.

Table 7-3 (DWR Table 7-2): Normal Year Supply and Use Comparison

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	1,040	1,099	1,183	1,262	1,280
Use totals	1,040	1,099	1,183	1,262	1,280
Surplus/(shortfall)	0	0	0	0	0
NOTES: -The supply availability shown herein is equal to MPWD's projected SFPUC purchases. During normal years, SFPUC supplies are available up to MPWD's ISG of 1,420 MG. See Table 4-3 and Table 6-10 for more information on MPWD's projected demands and supplies, respectively.					

7.2.3.2 Single Dry Year Supply and Demand Comparison

The reliability of the SFPUC RWS supply is anticipated to vary greatly in different year types. As described above and detailed in Appendix C, MPWD has relied on the supply reliability estimates and the drought allocation structure provided by the SFPUC and BAWSCA to estimate available RWS supplies in dry years from 2030 through 2050. Table 7-4a shows the projected supply and demand totals for a single dry year with implementation of the Bay-Delta Plan Amendment, while Table 7-4b shows the same values without implementation of the Bay-Delta Plan Amendment.

Table 7-4a (DWR Table 7-3): Scenario 1 (with Bay-Delta Plan Amendment) – Single Dry Year Supply and Use Comparison

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	716	736	767	797	788
Use totals	1,040	1,099	1,183	1,262	1,280
Surplus/(shortfall)	(324)	(363)	(416)	(465)	(491)
NOTES: -The supply totals shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Section 7.2.1 and Appendix C. -SFPUC model results, with implementation of the Bay-Delta Plan Amendment, project that cutbacks for MPWD will range from 31% to 38% during single dry years from 2030-2050.					

Table 7-4b (DWR Table 7-3): Scenario 2 (without Bay-Delta Plan Amendment) – Single Dry Year Supply and Use Comparison

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	1,040	1,099	1,183	1,262	1,280
Use totals	1,040	1,099	1,183	1,262	1,280
Surplus/(shortfall)	0	0	0	0	0
NOTES: -The supply totals shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Section 7.2.1 and Appendix C. -SFPUC model results, without implementation of the Bay-Delta Plan Amendment, project that SFPUC will have sufficient supply to meet all projected demands by the District through 2050.					

7.2.3.3 Multiple Dry Year Supply and Demand Comparison

Based on the supply reliability estimates and allocation structure provided by SFPUC and BAWSCA, Table 7-5a shows the projected supply and demand totals for multiple dry years with implementation of the Bay-Delta Plan Amendment, while Table 7-5b shows the same values without implementation of the Bay-Delta Plan Amendment.

Table 7-5a (DWR Table 7-4): Scenario 1 (with Bay-Delta Plan Amendment) – Multiple Dry Year Supply and Use Comparison

Supply and Demand Comparison		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	716	736	767	797	788
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	(324)	(363)	(416)	(465)	(491)
Second year	Supply totals	601	627	650	671	661
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	(439)	(472)	(533)	(590)	(619)
Third year	Supply totals	601	627	650	671	661
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	(439)	(472)	(533)	(590)	(619)
Fourth year	Supply totals	601	627	650	671	661
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	(439)	(472)	(533)	(590)	(619)
Fifth year	Supply totals	601	627	650	671	661
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	(439)	(472)	(533)	(590)	(619)

NOTES:

- The supply totals shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Section 7.2.1 and Appendix C.
- SFPUC model results, with implementation of the Bay-Delta Plan Amendment, project that cutbacks for MPWD will range from 31% to 48% during single dry years from 2030-2050.

Table 7-5b (DWR Table 7-4): Scenario 2 (without Bay-Delta Plan Amendment) – Multiple Dry Year Supply and Use Comparison

Supply and Demand Comparison		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	1,040	1,099	1,183	1,262	1,280
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	0	0	0	0	0
Second year	Supply totals	1,040	1,099	1,183	1,262	1,280
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	0	0	0	0	0
Third year	Supply totals	1,040	1,099	1,183	1,262	1,280
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	0	0	0	0	0
Fourth year	Supply totals	1,040	1,099	1,183	1,262	1,280
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	0	0	0	0	0
Fifth year	Supply totals	1,040	1,099	1,183	1,262	1,280
	Use totals	1,040	1,099	1,183	1,262	1,280
	Surplus/(shortfall)	0	0	0	0	0

NOTES:

-The supply totals shown in this table were provided by SFPUC to its wholesale customers. More details can be found in Section 7.2.1 and Appendix C.

-SFPUC model results, without implementation of the Bay-Delta Plan Amendment, project that SFPUC will have sufficient supply to meet all projected demands by the District through 2050.

7.2.3.4 Uncertainties in Dry Year Water Supply Projections

As shown in the above tables, significant water supply shortfalls are currently projected in future single and multiple dry years, directly because of Bay-Delta Plan Amendment implementation. However, numerous uncertainties remain in the implementation of the Bay-Delta Plan Amendment as discussed in Section 7.1.1 and below. The water supply projections presented in Scenario 1 above likely represent a worst-case scenario in which the Bay-Delta Plan Amendment is implemented without the SFPUC and SWRCB reaching a Voluntary Agreement and do not account for implementation of SFPUC's Alternative Water Supply Plan (AWSP), described in more detail below. Under this supply scenario, SFPUC appears not to be able to meet its contractual obligations (i.e., Level of Service goals) and MPWD's forecasted demands during droughts.

The current sources of uncertainty in the dry year water supply projections are summarized below:

- **Implementation of the Bay-Delta Plan Amendment is under negotiation.** The SFPUC is continuing negotiations with the SWRCB on implementation of the Bay-Delta Plan Amendment for water supply cutbacks, particularly during droughts. The SFPUC, in partnership with other key stakeholders, has proposed a voluntary substitute agreement to the Bay-Delta Plan Amendment, the Healthy Rivers and

Landscapes (HRL) Program, that provides a collaborative approach to protect the environment and plan for a reliable and high-quality future potable water supply. This is a dynamic situation, and the projected drought cutback allocations may need to be revised before the next (i.e., 2030) UWMP depending on the outcome of ongoing negotiations.

- **Benefits of the AWSP are not accounted for in current supply projections.** As discussed in Section 7.2.3.5 below and Appendix C, SFPUC is exploring options to increase its supplies through the AWSP. Implementation of feasible projects developed under the AWSP is not yet reflected in the supply reliability scenarios presented herein and is anticipated to reduce the projected RWS supply shortfalls.
- **Methodology for Tier One and Tier Two Wholesale drought allocations have not been established for wholesale shortages greater than 20%.** As discussed in Section 7.1.1, the current Tier One and Tier Two Plans are not designed for RWS supply shortages of greater than 20%. For UWMP planning purposes per BAWSCA guidance, the Tier One Wholesale share for a 16% to 20% supply reduction (62.5%) has been applied for reductions greater than 20%, and an equal percent reduction has been applied across all Wholesale agencies for Tier Two. BAWSCA member agencies have not formally agreed to adopt this shortage allocation methodology and are in discussions about jointly developing an alternative allocation method that would consider additional equity factors if SFPUC is unable to deliver its contractual supply volume and cutbacks to the RWS supply exceed 20%.
- **RWS demands are subject to change.** The RWS supply availability is dependent upon the system demands. As discussed in Section 7.2.3, the supply scenarios are based on the total projected Wholesale Customer purchases provided by BAWSCA to SFPUC in March 2026. Many BAWSCA agencies have refined their projected demands during the UWMP process after these estimates were provided to SFPUC. Furthermore, the RWS demand projections are subject to change in the future based upon future housing needs, increased conservation, and development of additional local supplies.
- **Frequency and duration of cutbacks are also uncertain.** While the projected shortfalls presented in the UWMP appear severe in the Bay-Delta Plan Amendment scenario, the actual frequency and duration of such shortfalls are uncertain. In addition to the supply volumes, the above listed uncertainties would also impact the projected frequency and duration of shortfalls.

As such, MPWD has placed high priority on working with BAWSCA and SFPUC in the upcoming years to better refine the estimates of RWS supply reliability and may amend this UWMP when new information becomes available.

The above uncertainties notwithstanding, BAWSCA's current drought allocation cutbacks will require MPWD to apply its Water Shortage Contingency Plan (WSCP) Stage 5 for water use restrictions between 40-50% (see Appendix C) and will affect MPWD's short- and long-term water management decisions. As described further below, MPWD is working independently and with the other BAWSCA agencies to identify regional prevention measures to improve reliability for regional and local water supplies and meet its customers' water needs. If conditions for large drought cutbacks to the RWS persist, MPWD will need to implement additional demand management practices to invoke strict restrictions on potable water use and accelerate efforts to develop alternate supplies of water.

MPWD advises users to verify the most current, officially published information on water supply reliability before using the 2025 UWMP drought cutback projections for planning projects. Users may contact MPWD staff for clarification regarding published updates.

7.2.3.5 Strategies and Actions to Address Dry Year Water Supply Shortfalls

Although there remains significant uncertainty in future supply availability, discussed above, MPWD, SFPUC, and BAWSCA have developed strategies and actions to address the projected dry year supply shortfalls, as discussed in the common language provided by SFPUC and BAWSCA. These efforts are discussed in the following sections.

7.2.3.5.1 Long-Term Reliable Water Supply Strategy 2050 (Strategy 2050)

MPWD is supporting BAWSCA in the development of its Long-Term Reliable Water Supply Strategy 2050 (Strategy 2050), a regional assessment of member agencies' water supply needs.

Strategy 2050 will identify the water supply and demand management needs and opportunities for the BAWSCA region and establish a framework to collectively support water reliability and resilience. The main objectives of Strategy 2050 include:

- Providing a comprehensive picture of the region's supply and demand management needs and options;
- Establishing a framework for collectively maintaining and improving regional water supply reliability and resilience;
- Elevating awareness of and supporting the region's interests in new and emerging regulations that impact water supply and demand management;
- Expanding regional dialogue and collaboration to collectively address common needs;
- Closing the gap on funding needed for water supply resilience and reliability; and
- Supporting availability of affordable water supplies and demand management strategies to all customers.

Strategy 2050 is actively evaluating opportunities to enhance water supply reliability in the BAWSCA region, including projects involving physical infrastructure and actions involving non-infrastructure interventions, such as policies, programs, and/or contractual agreements. A total of 70 local and regional projects and actions will be considered, including stormwater capture projects, technical assistance programs for onsite reuse, groundwater banking partnerships, new and replacement well projects, and interties development and optimization, among others. Strategy 2050 will evaluate these the water reliability of under the range of potential future conditions and make recommendations on priorities and next steps for implementation.

Strategy 2050 plan is anticipated to be completed by 2027. From 2027 onward, the Strategy 2050 effort is anticipated to involve implementing the actions identified in the plan, tracking and reporting on the progress, and incorporating the findings from the implementation activities into BAWSCA's following fiscal year Work Plan.

7.2.3.5.2 Water System Improvement Program (WSIP) Dry Year Water Supply Projects

With WSIP, the SFPUC has undertaken several water supply projects to meet dry-year demands. Those

projects include the following:

- **Calaveras Dam Replacement Project.** Calaveras Dam is in the East Bay near a seismically active fault zone, and following the Loma Prieta earthquake in 1989, it was determined to be seismically vulnerable. To address the dam's vulnerability, the SFPUC constructed a new dam of equal height downstream of the existing dam. This project was completed in 2022. Calaveras Reservoir was completely refilled in 2023 and is now operating at full capacity.
- **Alameda Creek Recapture Project.** The Alameda Creek Recapture Project includes new facilities in and around an existing quarry pit in Sunol Valley to recover the loss of water supply associated with instream flow release and bypass requirements related to the Calaveras Dam Replacement Project. The project is anticipated to be completed in 2032.
- **Lower Crystal Springs Dam Improvements.** The Lower Crystal Springs Dam Improvements Project was completed in May 2012. The related joint San Mateo County/SFPUC Bridge Replacement Project to replace the bridge across the Lower Crystal Springs Dam was completed in January 2019.
- **Regional Groundwater Storage and Recovery Project.** The Regional Groundwater Storage and Recovery (RGSR) Project is a strategic partnership between the SFPUC and three Wholesale Customers in San Mateo County: the California Water Service Company (serving South San Francisco and Colma), the City of Daly City, and the City of San Bruno. The project sustainably manages groundwater and surface water resources to provide the RWS with additional supplies during times of drought. During years of normal or heavy rainfall, the SFPUC provides additional surface water from the RWS to the three agencies in northern San Mateo County, allowing them to reduce the amount of groundwater that they pump from the southern Westside Groundwater Basin. Over time, the reduced pumping allows the aquifer to naturally recharge and result in increased groundwater storage of up to 61,000 acre-feet of new water supply available during dry years. As of December 2025, the SFPUC had accumulated approximately 14 billion gallons of groundwater storage credits (about 43,093 acre-feet) through the project.

The RGSR project has two phases. Phase 1, which included building thirteen production wells and treatment facilities, is complete. Phase 2 design began in early 2020 and covers rehabilitating and reinstalling well pumps, installing two new variable frequency drivers, and conducting start-up testing and well disinfection. Pumps at Hickey, Southwood Drive, and Mission well were rehabilitated, packed, and stored due to staff shortages, operational challenges, and elevated ammonia levels at the Southwood Drive well; they may be reinstalled later. Construction on Phase 2B began in 2024 and would transport groundwater from SFPUC South San Francisco Main Well to California Water Service Company Treatment Station in South San Francisco. The project will make improvements at the existing well site which includes mechanical, electrical, structural, and corrosion protection upgrades. The SFPUC also prepared a conceptual engineering report and initiated design work for additional treatment to address the high ammonia levels at the South Spruce Lane Well and Treatment Facility. Minor amounts of groundwater pumping from RGSR wells have occurred during start-up testing and monthly maintenance.

- **Regional Groundwater Treatment Improvements Project.** The SFPUC approved this new project in the 10-Year Water Enterprise Capital Improvement Program for FY 2021-2030. The project includes treatment facilities for several of the RGSR project wells to address

groundwater quality issues that have emerged since the wells were constructed.

- **Water Transfers.** During the planning and implementation of the WSIP, the SFPUC pursued a long-term agreement to transfer 2 MGD from Modesto Irrigation District to the SFPUC in drought years. Negotiations with Modesto Irrigation District ended in 2012 when an agreement could not be reached. The dry-year transfer project is now being included as part of the new SFPUC Alternative Water Supply Program and is described in further detail below.

7.2.3.5.3 Alternative Water Supply Program (AWSP)

In 2019, the SFPUC established the AWSP to identify and plan water supply and storage projects and actions that increase the dry-year reliability of the RWS. Based on the 2045 planning horizon that the SFPUC applied in its February 2024 Alternative Water Supply (AWS) Plan, the SFPUC anticipates a water supply gap will occur in future dry years. The AWSP aims to help fill the gap through local and regional capital projects. The February 2024 AWS Plan identified six regional projects that might partially address the future water supply gap and the priorities for this planning effort. Since the development of that plan, three projects have been deferred (Daly City Recycled Water Expansion, Alameda County Water District-Union Sanitary District Purified Water, and Calaveras Reservoir Expansion) and one project has been canceled (Los Vaqueros Reservoir Expansion). The AWSP is continuing to pursue the following two projects:

- **PureWater Peninsula.** PureWater Peninsula (formerly known as the Crystal Springs Purified Water Project) is a purified water project that could provide 6 MGD of additional potable water supply to the RWS through surface water augmentation at the SFPUC's Crystal Springs Reservoir. The currently proposed project involves treating wastewater effluent from Silicon Valley Clean Water at a new advanced purified water facility located on the Peninsula and transmitting that purified water to Crystal Springs Reservoir, where it would blend with RWS surface water supplies before the SFPUC treats it again at Harry Tracy Water Treatment Plant. A future phase could provide an additional 6 MGD of additional potable water supply to the RWS. Project partners include the SFPUC, Silicon Valley Clean Water, BAWSCA, Mid-Peninsula Water District, California Water Service Company, City of Redwood City, City of Foster City, and City of San Mateo.
- **South Bay Purified Water.** In 2023, the SFPUC, the City of San Jose, and the City of Santa Clara completed an initial feasibility study for the South Bay Purified Water project, envisioned as a 10 MGD purified water project that would serve the local demands of San Jose and Santa Clara during all types of water years and deliver an additional volume of water supply to the RWS in dry years. Currently, Valley Water is working with San Jose and Santa Clara to design a larger project to meet broader regional needs. The SFPUC's participation in this project will be based on the regional benefits to the RWS customers. This project may also assist the SFPUC with its decision regarding San Jose and Santa Clara's status as RWS customers, discussed above.

If both AWS projects that SFPUC staff has identified through the current planning process can be implemented, there would still be a supply shortfall to meet projected needs associated with implementation of the Bay-Delta Plan Amendment. Furthermore, both alternative water supply options are in the planning phase and are subject to changes in institutional structure and design. Given the limited availability of water supply alternatives, unless the supply risks are significantly reduced, the SFPUC will continue to plan, develop, and implement all potential projects that can help bridge the anticipated

water supply gap during droughts.

Outside of the AWSP, the following additional regional projects are included in the Agreements to Support Healthy Rivers and Landscapes. Progress on these water supply options will be guided by scientific monitoring and collaborative decision making.

- **Groundwater Banking.** Groundwater banking projects in the Modesto Irrigation District and Turlock Irrigation District service areas could provide the SFPUC with some additional water supply to meet instream flow releases in dry years, reducing water supply impacts on the RWS. A feasibility study of this option is included in the Agreements to Support Healthy Rivers and Landscapes.
- **Inter-Basin Collaborations.** Inter-Basin Collaborations could include establishing a partnership between interests on the Tuolumne River (such as the SFPUC) and those on the Stanislaus River, which would allow responsibility for streamflow to be assigned variably based on the annual hydrology. The Tuolumne system tends to spill more excess flow in wetter years than the Stanislaus system, and this excess flow could be shaped and credited to meet Stanislaus system requirements, while New Melones Reservoir in the Stanislaus system is refilling. Then the stored water could be partially used to provide required streamflow to meet Stanislaus and Tuolumne requirements in future dry years.
- **Dry-Year Transfers.** The SFPUC initiated discussions with irrigation districts under WSIP to secure a dry-year transfer (see WSIP Dry-Year Water Supply Projects section above). While no transfer was secured, the SFPUC continues to engage in discussions with irrigation districts to explore potential transfer opportunities.

The SFPUC's AWS Plan published in February 2024 included a planning framework for the SFPUC to consider water supply needs and related tradeoffs, guide the decisions to proceed with environmental review, and continue the development of projects that can best meet anticipated water supply needs. In June 2025, the SFPUC prepared a progress report that provided status updates on the AWS projects. In 2027, the SFPUC plans to review and revise its AWS Plan based on updated information.

7.2.4 Description of Management Tools and Options

☒ **CWC § 10620 (f)**

An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

7.2.4.1 MPWD Strategies and Actions

BAWSCA agencies have long-term contracts with SFPUC to purchase water. The 26 BAWSCA agencies rely on SFPUC imported water as a significant source of high-quality potable water that is not pumped from groundwater basins or directly diverted from the Sacramento Bay Delta. Many of the BAWSCA agencies, including MPWD, do not have alternate water supplies and solely rely on their contract with SFPUC to supply water for their service area.

MPWD has taken significant demand management measures to reduce its water demand. MPWD's per capita use of 74 gallons per capita per day (GPCD) is significantly lower than its 2020 Target of 121 GPCD and actual 2020 use of 97 GPCD, and is evidence that MPWD's demand management tools are successful (Section 4.1.1 and Chapter 5). MPWD continues to implement advanced technology and other measures to reduce its demand. Below is a summary of MPWD's water management tools that are being implemented and planned to minimize the need for imported SFPUC water.

At a regional level, MPWD maintains active involvement in the work that SFPUC and BAWSCA are doing with respect to optimizing the use of regional water supplies and pursuing additional supplies. These efforts are detailed above in Section 7.2.3.5.

MPWD has also been implementing, and plans to continue to implement, the demand management measures described in Chapter 9. Further, in response to the anticipated future dry-year shortfalls, MPWD has developed a robust WSCP that systematically identifies ways in which MPWD can reduce water demands. The WSCP is included in Appendix D.

7.3 Drought Risk Assessment

☑ **CWC § 10612**

"Drought Risk Assessment" means a method that examines water shortage risks based on the driest five-year historic sequence for the agency's water supply, as described in subdivision (b) of Section 10635.

☑ **CWC § 10635**

(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following:

(1) 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 water years, starting from the year following when the assessment is conducted.

(2) A determination of the reliability of each source of supply under a variety of water shortage conditions. This may include a determination that a particular source of water supply is fully reliable under most, if not all, conditions.

(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

(4) 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.

In addition to the long-term water service reliability assessment presented above, the Drought Risk Assessment (DRA) evaluates MPWD's supply risks under a severe drought period lasting for the next five consecutive years after the assessment is completed, i.e., from 2026 through 2030. The Drought Risk Assessment is intended to inform the Demand Management Measures (DMMs) and water supply projects and programs to be included in

the UWMP (Chapter 9). Suppliers may conduct an interim update or updates to this Drought Risk Assessment within the five-year cycle of its UWMP update (i.e., before the 2030 UWMP).

7.3.1 DRA Data, Methods, and Basis for Shortage Conditions

This evaluation considers historical drought hydrology and plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.

As a first step to the Drought Risk Assessment, MPWD estimated unconstrained water demand for the next five years (i.e., 2026-2030). Unconstrained water demand is the expected water use in the absence of drought water use restrictions. The characteristic five-year water demand is described in Chapter 4.

The available potable water supplies assumed in the Drought Risk Assessment are based upon the same methodology and assumptions used for the long-term water service reliability assessment (Section 7.3) and rely on information provided by SFPUC and BAWSCA (Appendix C). Details of how MPWD's available supplies are then estimated as part of the Drought Risk Assessment are provided below.

7.3.2 DRA Individual Water Source Reliability

As described in Chapter 6, MPWD purchases imported surface water from the SFPUC RWS. MPWD's available water supplies during the five-consecutive-year drought are based upon information provided by SFPUC and BAWSCA included in Appendix C. The data and methods used to determine the RWS supply for the Drought Risk Assessment dry-year sequence are the same as those described in Section 7.2.1. The SFPUC used the HHLSM with the design drought sequence to perform the water supply analyses and simulate the water supply shortage conditions over the five-year drought period.

Because the start date of the implementation of the Bay-Delta Plan Amendment is unknown, the Drought Risk Assessment considers the supply scenario without the implementation of the Bay-Delta Plan Amendment.

7.3.3 DRA Total Water Supply and Use Comparison

Table 7-6 provides a comparison of the water supply sources available to MPWD with the total projected water use for an assumed drought period of 2026 through 2030 for the scenario without implementation of the Bay-Delta Plan Amendment since the start date of implementation is unknown.

MPWD has developed a WSCP (Appendix C) to address water shortage conditions resulting from any cause (e.g., droughts, impacted distribution system infrastructure, regulatory-imposed shortage restrictions, etc.). The WSCP identifies a variety of actions that MPWD will implement to reduce demands and further ensure supply reliability at various levels of water shortage. MPWD intends to implement its WSCP to reduce water use and address the supply shortfalls. It should be noted again that numerous uncertainties exist in the assumptions that drive the above projected dry year shortage estimates and that the current Tier One and Tier Two Plans are not designed for RWS supply shortages of greater than 20%.

MPWD's supply is expected to be sufficient to meet demands in an extended five-year drought period. However, given the current uncertainty discussed in Section 7.1, MPWD could update its Drought Risk Assessment prior to

the 2030 UWMP update if significant new information becomes available. California Water Code (CWC) § 10635(b) permits urban water suppliers to conduct an interim update or updates to their Drought Risk Assessment within the five-year cycle of its UWMP update. MPWD anticipates that by the 2030 UWMP update, SFPUC will provide more specific information about the AWSP, with estimated water supply contributions from such projects. Additionally, MPWD expects that SFPUC will provide more specific information and a refined estimate of the Bay-Delta Plan Amendment impacts to the SFPUC supply.

MPWD recommends that users of its 2025 UWMP contact District staff for potential updates to the Drought Risk Assessment presented in the 2025 UWMP for their planning projects.

Table 7-6 (DWR Table 7-5): Five-Year Drought Risk Assessment

2026	Total
Total Water Use (MG)	884
Total Supplies (MG)	884
Surplus/Shortfall w/o WSCP Action	0
2027	Total
Total Water Use (MG)	923
Total Supplies (MG)	923
Surplus/Shortfall w/o WSCP Action	0
2028	Total
Total Water Use (MG)	962
Total Supplies (MG)	962
Surplus/Shortfall w/o WSCP Action	0
2029	Total
Total Water Use (MG)	1,001
Total Supplies (MG)	1,001
Surplus/Shortfall w/o WSCP Action	0
2030	Total
Total Water Use (MG)	1,040
Total Supplies (MG)	1,040
Surplus/Shortfall w/o WSCP Action	0
NOTES:	

8. WATER SHORTAGE CONTINGENCY PLAN

☑ **CWC § 10630.5**

Each plan shall include a simple lay description of how much water the agency has on a reliable basis, how much it needs for the foreseeable future, what the agency's strategy is for meeting its water needs, the challenges facing the agency, and any other information necessary to provide a general understanding of the agency's plan.

The 2025 Water Shortage Contingency Plan (WSCP) for the Mid-Peninsula Water District (MPWD or District) is included in this 2025 Urban Water Management Plan (UWMP or Plan) as Appendix D. The WSCP serves as a standalone document to be engaged in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios. The primary objective of the WSCP is to ensure that MPWD has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. MPWD will implement the WSCP actions, as applicable, upon declaration of the corresponding water shortage stage. Each shortage stage is triggered by defined supply and demand conditions, including reductions in available imported supply, projected supply-demand imbalances, or regulatory requirements imposed by the San Francisco Public Utilities Commission (SFPUC) or the State of California.

Consistent with California Water Code (CWC) § 10632, the WSCP includes six levels to address shortage conditions ranging from up to 10% to greater than 50% shortage, identifies a suite of demand reduction measures for MPWD to implement at each level, and identifies procedures for MPWD to annually assess whether or not a water shortage is likely to occur in the coming year, among other things. The anticipated demand reductions associated with each shortage stage are informed by MPWD's observed conservation performance during prior drought periods and the enforceable measures identified in the WSCP. MPWD has the authority to implement and enforce these shortage response measures through its code, resolutions, and emergency powers, as applicable. MPWD expects to meet essential demands during shortage conditions through implementation of these measures.

A summary of the key elements of the WSCP including water shortage levels and demand-reduction actions is shown in the California Department of Water Resources (DWR) standard tables Table 8-1, Table 8-2, and Table 8-3. Additional details and tables with narrative drought response actions are provided in Appendix D.

Table 8-1 (DWR Table 8-1): Cross-reference for Standard vs Supplier Shortage Levels

☒	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
0	0%		
1	Up to 10%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		
NOTES:			

Table 8-2 (DWR Table 8-2): Supply Augmentation and Other Actions

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)		
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool	How much is this going to reduce the shortage gap?	
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (MG)
0-1	Other Actions (describe)	Percentage	0-1%
			Additional Explanation or Reference (OPTIONAL)
			Graywater reuse. Implementation will likely require resources for coordination with San Mateo Co. Health Dept. and the Cities of Belmont, San Carlos, and Redwood City. Large-scale water savings will be difficult to achieve and verify. Monitoring water savings and other impacts will require new funding and resources.

5	Other Actions (describe)	Percentage	0-1%	Use existing recycled water fill station (s). Large-scale water savings will be difficult to achieve and verify. Monitoring water savings and other impacts will require new funding and resources.
5	New Recycled Water	Percentage	1-5%	Install new recycled water fill stations. Multi-year project, costly project, likely implementation in many phases, will require new funding and resources

NOTES:

-The feasibility and cost-effectiveness of the above-listed augmentation measures will need to be evaluated in detail for local and regional implementation. Funding and resources will be necessary to develop feasibility studies, design and install the alternate supplies, develop Best Practices and compliance criteria, and monitor and maintain the infrastructure.

Table 8-3 (DWR Table 8-3): Demand Reduction Actions

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
1	Other	Percentage	0-10%	District will evaluate financial impacts and consider implementing shortage level 1 water shortage rate factors	Yes
1	Expand Public Information Campaign	Percentage	0-10%	Expand community outreach and messaging campaigns	No
1	Offer Water Use Surveys	Percentage	0-10%	Consider implementing customer leak reports via a customer water use portal	No
1	Provide Rebates for Landscape Irrigation Efficiency	Percentage	0-10%	Consider enhancing or expanding water conservation rebate programs	No
1	Reduce System Water Loss	Percentage	0-10%	Enhance real water loss reduction and monitoring, including pressure management and more aggressive leak detection	No
1	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0-10%	Consider providing new conservation rebates for plumbing fixtures and devices, such as toilets or clothes washers	No
1	Other	Percentage	0-10%	Customers are encouraged to wash only full loads when washing dishes or clothes	No

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
1	Other water feature or swimming pool restriction	Percentage	0-10%	Customers are encouraged to use pool covers to minimize evaporation	No
1	CII - Restaurants may only serve water upon request	Percentage	0-10%	Restaurants may only serve water upon request	No
1	CII - Other CII restriction or prohibition	Percentage	0-10%	Logging establishments must offer opt out linen service	No
1	Landscape - Other landscape restriction or prohibition	Percentage	0-10%	New and existing residential automated irrigation systems must be equipped with rain sensors that shut off the system when it rains, or smart controllers or evapotranspiration sensors that use weather-based data to set efficient watering schedules	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
1	Landscape - Limit landscape irrigation to specific times	Percentage	0-10%	Outdoor irrigation cannot occur during and/or within 24 hours of measurable rainfall	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	Percentage	11-20%	District will evaluate financial impacts and consider implementing shortage level 2 water shortage rate factors.	Yes
2	Improve Customer Billing	Percentage	11-20%	Improve customer billing reports to include more details on water use.	No
2	Other	Percentage	11-20%	Increase coordination with the fire department to evaluate the need and frequency of using potable water for training purposes.	No
2	Decrease Line Flushing	Percentage	11-20%	Decrease water main flushing without impacting water quality.	No
2	Improve Customer Billing	Percentage	11-20%	Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 2.	No

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
2	Expand Public Information Campaign	Percentage	11-20%	Use AMI data to expand customer messaging by engaging in targeted messaging to the highest water using customers within each sector.	No
2	Other	Percentage	11-20%	District may implement other prohibited water uses as determined by MPWD, after notice to customers.	Yes
2	Increase Water Waste Patrols	Percentage	11-20%	Implement water waste patrols.	No
2	Other	Percentage	11-20%	Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements.	No
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	11-20%	Require leaks or faulty sprinklers to be fixed within 5 day(s).	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
2	Landscape - Limit landscape irrigation to specific days	Percentage	11-20%	Irrigation shall be limited to 3 days per week turf watering when using potable water. Plant containers, trees, shrubs and vegetable gardens may be watered additional days using only drip irrigation or hand watering.	Yes
2	Other water feature or swimming pool restriction	Percentage	11-20%	Filling or refilling ornamental lakes and ponds is prohibited. Ornamental lakes and ponds that sustain aquatic life of significant value and were actively managed prior to the storage declaration are exempt.	Yes
2	Pools - Allow filling of swimming pools only when an appropriate cover is in place.	Percentage	11-20%	Require covers for pools and spas.	Yes
2	CII - Other CII restriction or prohibition	Percentage	11-20%	All CII customers should cease their non-essential water use, which includes, but is not limited to, pressure washing and cleaning building exteriors with potable water, washing company vehicles on site, operating non-essential ice machines, or maintaining recreational swimming pools and spas.	No

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
2	Pools - Allow filling of swimming pools only when an appropriate cover is in place.	Percentage	11-20%	Allow filling of swimming pools and spas only when an appropriate cover is in place.	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	Percentage	21-30%	District will evaluate financial impacts and consider implementing shortage level 3 water shortage rate factors.	Yes
3	Other	Percentage	21-30%	Explore the implementation of a water budget-based rate structure.	No
3	Provide Rebates for Turf Replacement	Percentage	21-30%	Expansion/Enhancement of the Turf Rebate Program, including increasing \$/sq ft rebate amount and increasing program budget.	No
3	Improve Customer Billing	Percentage	21-30%	Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 3.	No

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
3	Other	Percentage	21-30%	Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements.	No
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	21-30%	Require leaks or faulty sprinklers to be fixed within 3 day(s).	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	21-30%	Decorative water features that use potable water must be drained and kept dry.	Yes
3	Other	Percentage	21-30%	Car washing is only permitted using a commercial carwash that recirculates water or by high pressure/low volume wash systems.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
3	Landscape - Other landscape restriction or prohibition	Percentage	21-30%	Except for landscapes watered with non-potable water, limit the installation of new landscaping to drought tolerant trees, shrubs and groundcover. Prohibit installation of new turf or hydroseed. Customers may apply for a waiver to irrigate during an establishment period for the installation of new turf or hydroseed.	Yes
3	Landscape - Limit landscape irrigation to specific days	Percentage	21-30%	Irrigation shall be limited to 2 days per week turf watering when using potable water. Plant containers, trees, shrubs, and vegetable gardens may be watered additional days using only drip irrigation or hand watering.	Yes
3	Landscape - Other landscape restriction or prohibition	Percentage	21-30%	Plant containers, trees, shrubs, and vegetable gardens shall be watered only by drip irrigation or hand watering.	Yes
3	Other	Percentage	21-30%	MPWD may implement other prohibited water uses as determined by MPWD, after notice to customers.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
4	Implement or Modify Drought Rate Structure or Surcharge	Percentage	31-40%	District will evaluate financial impacts and consider implementing shortage level 4 water shortage rate factors.	Yes
4	Other water feature or swimming pool restriction	Percentage	31-40%	Coordinate with the City of Belmont to cease issuance of new swimming pool and spa permits.	Yes
4	Landscape - Other landscape restriction or prohibition	Percentage	31-40%	No new landscape installations or renovations will be permitted.	Yes
4	Other	Percentage	31-40%	Previous waivers for watering during an establishment period will be revoked.	Yes
4	Improve Customer Billing	Percentage	31-40%	Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 4.	No
4	Other	Percentage	31-40%	Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	31-40%	Require leaks or faulty sprinklers to be fixed within 2 day(s).	Yes
4	Other water feature or swimming pool restriction	Percentage	31-40%	Existing pools shall not be emptied and refilled using potable water unless required for public health and safety purposes.	Yes
4	Landscape - Limit landscape irrigation to specific days	Percentage	31-40%	Irrigation shall be limited to 1 day per week turf watering when using potable water. Plant containers, trees, shrubs and vegetable gardens may be watered additional days using only drip irrigation or hand watering.	Yes
4	Other	Percentage	31-40%	MPWD may implement other prohibited water uses as determined by MPWD, after notice to customers.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
5	Implement or Modify Drought Rate Structure or Surcharge	Percentage	41-50%	District will evaluate financial impacts and consider implementing shortage level 5 water shortage rate factors.	Yes
5	Improve Customer Billing	Percentage	41-50%	Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 5.	No
5	Other	Percentage	41-50%	Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements.	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	41-50%	Require leaks or faulty sprinklers to be fixed within 1 day.	Yes
5	Other	Percentage	41-50%	Potable water for agricultural or commercial nursery purposes, is prohibited.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
5	Landscape - Prohibit all landscape irrigation	Percentage	41-50%	All irrigation is prohibited.	Yes
5	Landscape - Other landscape restriction or prohibition	Percentage	41-50%	Watering of parks, school grounds, and recreation fields is prohibited, except for rare plant or animal species.	Yes
5	Other	Percentage	41-50%	Limit water use for public health and safety purposes only.	Yes
5	Moratorium or Net Zero Demand Increase on New Connections	Percentage	41-50%	Evaluate implementation of a net zero demand increase on new connections.	Yes
6	Implement or Modify Drought Rate Structure or Surcharge	Percentage	>50%	District will evaluate financial impacts and consider implementing shortage level 6 water shortage rate factors.	Yes
6	Other	Percentage	>50%	MPWD may shut off all non-essential water services.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
6	Other	Percentage	>50%	MPWD may discontinue service to consumers who willfully violate any water conservation provisions.	Yes
6	Improve Customer Billing	Percentage	>50%	Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 6.	Yes
6	Expand Public Information Campaign	Percentage	>50%	Expand MPWD's public information campaign which may include increased frequency and intensity of messages about water shortage conditions. For example, frequency may increase to several days a week and messaging may include direct messages from community leaders.	Yes
6	Other	Percentage	>50%	Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements.	Yes
6	Other	Percentage	>50%	Water for new cooling towers is prohibited, except for health and safety.	Yes
6	Landscape - Other landscape restriction or prohibition	Percentage	>50%	Require all decorative turf to be removed permanently and replaced with drought-tolerant planting upon sale of property.	Yes

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (MG)		
6	Landscape - Other landscape restriction or prohibition	Percentage	>50%	Prohibit decorative turf on all new construction.	Yes
6	Landscape - Prohibit all landscape irrigation	Percentage	>50%	All irrigation is prohibited.	Yes
6	Other	Percentage	>50%	Water use for public health and safety purposes only. Customer rationing may be implemented.	Yes
6	Moratorium or Net Zero Demand Increase on New Connections	Percentage	>50%	Consider moratorium on new connections.	Yes
NOTES:					

9. DEMAND MANAGEMENT MEASURES

☒ **CWC § 10631(e)**

Provide a description of the supplier's water demand management measures. This description shall include all of the following:

- (1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*
- (B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*
 - (i) Water waste prevention ordinances.*
 - (ii) Metering.*
 - (iii) Conservation pricing.*
 - (iv) Public education and outreach.*
 - (v) Programs to assess and manage distribution system real loss.*
 - (vi) Water conservation program coordination and staffing support.*
 - (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

This chapter provides an overview of Mid-Peninsula Water District's (MPWD's or District's) current and planned Demand Management Measures (DMMs), which include specific types and groupings of water conservation measures typically implemented by water suppliers. MPWD administers the majority of its DMMs through participation with the Bay Area Water Supply & Conservation Agency's (BAWSCA's) Regional Water Conservation Program. The following sections describe BAWSCA's Regional Water Conservation Program and the nature and extent of the specific DMMs implemented by MPWD.

9.1 Demand Management Measures for Retail Suppliers

As mentioned above, MPWD administers the majority of its DMMs through participation with the BAWSCA's Regional Water Conservation Program. A description of the Regional Water Conservation Program is provided below.

BAWSCA manages a Regional Water Conservation Program comprised of several programs and initiatives that support and augment Member Agencies' and customers' efforts to use water more efficiently. These efforts extend limited water supplies that are available to meet both current and future water needs; increase drought reliability of the existing water system; and save money for both the Member Agencies and their customers.

The implementation of the Regional Water Conservation Program builds upon the Demand Study (completed in December of 2025). These efforts include both Core Programs (implemented regionally throughout the BAWSCA service area) and Subscription Programs (funded by individual Member Agencies that elect to participate and implement them within their respective service areas).

BAWSCA's Core Conservation Programs include organizing classes focused on sustainable and water-efficient landscape design, assistance related to automated metering infrastructure, and other associated

programs that work to promote smart water use and practices. BAWSCA's Subscription Programs include numerous rebate programs, educational programs that can be offered to area schools, technical assistance to Member Agencies in evaluating water loss, and programs that use data analytics to provide customized water-saving recommendations to customers. In total, BAWSCA offers 24 programs to its Member Agencies and that number continues to grow over time.

Each fiscal year, BAWSCA prepares an Annual Water Conservation Report that documents several conservation program metrics exemplifying the benefits of the Regional Water Conservation Program to all 26 of BAWSCA Member Agencies. Additionally, the report highlights how all 26 Member Agencies participate in one or more of the Subscription Programs offered by BAWSCA, such as rebates, water loss management and large landscape audits. The Demand Study indicates that through a combination of active and passive conservation, 16.14 mgd will be conserved by BAWSCA's Member Agencies by 2050.

The Core Programs provided as a part of the Regional Water Conservation Program include conservation measures that benefit from regional implementation and provide overall regional benefit and are funded through the annual BAWSCA budget. The Subscription Programs are conservation measures that individual agencies must elect to participate in and whose benefits are primarily realized within individual water agency service areas. As such, the Subscription Programs are funded by individual member agencies, based on their participation level.

MPWD is participating in the following Subscription Programs:

- Rain Barrel Rebate Program
- Smart Irrigation Controller Program
- Lawn Be Gone! Rebate Program
- EarthCapades Assemblies School Education Program
- Large Landscape Program

9.1.1 Required Demand Management Measures

9.1.1.1 Water Waste Prevention Ordinances

In Section 4.1 of MPWD's Ordinance 103 water waste prevention is discussed. Customers who knowingly engage in wasteful or negligent uses of water on their premises could be subject to discontinuation of water service. Ordinance 103 is always in place and is not dependent of a water shortage for implementation.¹¹

MPWD's Water Efficient Landscape Ordinance (WELO) 115 addresses California's Model Water Efficient Landscape Ordinance (MWELO) requirement. Ordinance 115 implements and establishes specific outdoor water efficiency requirements for new accounts and existing accounts undergoing site renovations. The purpose of Ordinance 115 is to provide the legal authority to support and enforce installation of water-efficient landscaping.¹² A summary of all WELO projects processed by MPWD is shown in Table 9-1 below.

MPWD's Non-Functional Turf Ordinance 134 addresses California's Assembly Bill (AB) 1572 ban on irrigating non-functional turf with potable water on commercial, industrial, and institutional (CII) properties. Ordinance 134 bans

¹¹ MPWD Ordinance 103: <https://www.midpeninsulawater.org/legislation>

¹² MPWD Ordinance 115: <https://www.midpeninsulawater.org/articles/mpwd-water-efficient-landscape-ordinance-welo.php>

the irrigation of “non-functional turf,” which is defined as any grass turf area that does not serve a function to the public, such as turf not located in a recreational use area or community space, located on street rights-of-way and parking lots, or that is enclosed by fencing or other barriers.

MPWD restricts the following uses of water under all supply reliability conditions:

- Application of potable water to irrigate outdoor landscapes in a manner that causes runoff;
- Use of hoses for any purpose without a positive shut off valve;
- Use of potable water to wash sidewalks, driveways, plazas, and other outdoor hardscapes for reasons other than health and safety;
- Use of single pass cooling systems, fountains, decorative water features, and commercial car washes;
- Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall;
- To promote conservation, hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily and display notice of this option in guestrooms; and
- Members of the public are encouraged to report incidents of water waste online or by phone to MPWD and staff investigate and respond to all reports. MPWD also has step-by-step instructions on its website for customers to follow explaining how to detect leaks.

Table 9-1: Summary of WELO Projects over the Last Five Years (2021-2025)

Year	WELO Projects			Exempt from Review	Total WELO Projects
	Residential	CII	Landscape Retrofits		
2021	7	3	4	9	23
2022	9	12	15	5	41
2023	10	0	0	8	18
2024	7	1	2	8	18
2025	14	1	6	6	27
Total over Last Five Years	47	17	27	36	127

9.1.1.2 Metering

All 8,197 of MPWD’s service connections are fully metered and billed by volume and meter size. MPWD has been fully metered for decades. MPWD maintains its metering system through testing, calibration, and replacement.

MPWD started implementing an Advanced Metering Infrastructure (AMI) system in 2012 to upgrade customer water meters with automated, advanced metering technology. MPWD completed the installation of its AMI system in January 2020. Since January 2020, all meters are part of MPWD’s AMI system.

The AMI meters collect data hourly as opposed to manual monthly meter reading. The AMI hourly data enable fast leak detection to reduce water waste and customer costs. Additionally, MPWD’s AMI system has a customer interface portal that may help to increase awareness of water use and encourage water conservation practices.

MPWD's AMI system enables additional tools for managing water, such as monitoring of use trends in aggregate, by sector, or for individual customers. The AMI system collects hourly water consumption data through the automated reading system. The data are analyzed for excessive and continuous usage that may be indicative of leaks. Using AMI hourly data, MPWD can identify potential unusual and continuous consumption. MPWD's customer web portal is available to all customers to view their water use. The customer "Water Watch" portal was launched in 2019. Using the Home Water Report portal, customers can view their hourly, daily, weekly, monthly, and annual water use. MPWD's AMI system is discussed in more detail in Chapter 4 and in MPWD's Water Shortage Contingency Plan (WSCP).

In 2016, California passed Senate Bill (SB) 7 that requires new multi-family residential buildings in California constructed after January 1, 2018, to include a submeter for each dwelling unit and to bill tenants in apartment buildings accordingly for their water use.

As of January 23, 2015, MPWD requires submetering for new developments. This requirement is included in Ordinance 112 and requires the metering of individually owned units in new multifamily, condos, townhouses. Landscape irrigation for multi-family residences is also metered separately.¹³

MPWD's Ordinance 115 requires dedicated irrigation meters for new CII construction that is more than 500 square feet (sq ft).

For large, institutional, landscaped areas, MPWD has installed 93 dedicated landscape meters. These dedicated AMI landscape meters can be used for compliance with future water use standards for large, landscaped areas as well as for calculating MPWD's future water use objectives.

9.1.1.3 Conservation Pricing

MPWD discusses its rates in its WSCP, Section 3.7 – Legal Authorities. MPWD's tiered pricing structure is always in place and is not dependent on a water shortage for implementation. Under MPWD's tiered rate structure, low water use is billed at a lower price and higher water use is billed at progressively higher prices. The tiers and associated costs were developed based on the cost of service to provide water, but by their inclining nature may be expected to have positive conservation effects.

Additionally, MPWD has a rate structure that includes water shortage rate factors, which can be enacted by the Board of Directors during times of water shortage. MPWD's rates use to the cost of service (per California Constitution, Article 13C added Nov. 5, 1996), as required by Proposition 218. MPWD's drought rate structures and surcharges are also discussed in its WSCP.

During shortages, the San Francisco Public Utilities Commission (SFPUC), MPWD's supplier, may also change its rate structure, which could affect MPWD's rates.

9.1.1.4 Public Education and Outreach

Throughout the year, MPWD promotes conservation through education using various means, including social media, digital and print newsletters, bill inserts, direct mailings, local media, public events, and its website.

¹³Ordinance 112: <https://storage.googleapis.com/midpeninsulawater-org/uploads/ORDINANCE%20112%20SIGNED3%20with%20Attachments.pdf>

MPWD's public education and outreach program includes in-person and online outreach to residential customers, schools and all CII customers.

For several decades, MPWD has been involved in outreach to local community schools to promote awareness of water resources. All MPWD School programs are free to participants. Annually, MPWD, in collaboration with local elementary schools, hosts the "Water Awareness" poster contest for 3rd to 5th Grade students. The goal of the program is to engage students in thinking about water use, the water system, and water conservation and to participate in friendly competition in a creative way.

The Earthcapades Assembly Program is a water science, conservation, and appreciation show specifically designed for grades K-8. Earthcapades performers demonstrate the water cycle, water's role and vitality in our lives, and the need for our actions to respect, protect, and conserve it. Educational content and theatrical displays are designed to engage, challenge, and inspire students. A summary of the school assemblies hosted through the Earthcapades program is shown in Table 9-2 below.

MPWD's outreach program includes:

- Free water conservation items on an ongoing basis (e.g., retrofit kits, efficient aerators for faucets, toilet flapper valves, showerheads);
- Host BAWSCA Water Efficient Landscape Classes (spring and fall);
- Annual theme campaigns during shortages (e.g., in 2015 a call to action: 20 Ways to Save 20%, In 2020-21, a call to action to voluntarily reduce outdoor water use by 10%);
- Monthly conservation tips in customer monthly billing statements during droughts or other water shortages;
- Twice yearly "Waterline" newsletter to customers, which includes information about conservation programs MPWD offers;
- Conservation page on MPWD's website with a video about saving water, residential seasonal watering schedule, and water waste prevention;
- Conservation information using links to water websites (e.g., BAWSCA, SFPUC);
- Water conservation inquiry form for customers to submit questions;
- Water awareness annual poster contest for grades 3-5;
- Regional School Education Programs (part of BAWSCA's Subscription program: e.g., WaterWise, Earthcapades, Tuolumne River Trust classroom presentations);
- Community events participation (e.g., booth for City Events: Earth Day, Public Works Week, National Night Out); and
- Various educational materials about water as a resource (e.g., pamphlets, activity sheets).

Other outreach tools include resources specific to water use efficiency hosted on MPWD's website, including tips for leak detection, outdoor landscaping, and other general conservation tips.

Table 9-2: Summary of School Assemblies over the Last Five Years (2021-2025)

Year	Number of School Assemblies Performed
2021	10
2022	3
2023	10
2024	20
2025	11
Total over Last Five Years	54

9.1.1.5 Programs to Assess and Manage Water Loss

Water losses were discussed in detail in Chapter 4, Section 4.3. In compliance with SB 555 requirements, MPWD maintains a thorough annual accounting of its water losses – apparent and real – using the American Water Works Association (AWWA) water system audit software. The water loss reports are submitted to the California Department of Water Resources (DWR) annually and can be downloaded from DWR’s Water Use Efficiency (WUE) data portal.¹⁴

Real losses are physical water losses resulting from a leak, burst or overflow. Real losses can be an indicator of inefficiency on a distribution network, or in aging infrastructure. The data MPWD reviews to analyze its real water includes water production (purchased water from SFPUC), consumption (sales to MPWD customers), and quantity of water produced but not sold (non-revenue water). Non-revenue water may be water used for system maintenance, fire-fighting, or other legitimate uses, as well as water losses due to leaks in MPWD’s distribution system. As a result of MPWD’s infrastructure management and monitoring, and maintenance, calibration, and replacement of its meters, MPWD has consistently had low water losses, as shown in Table 4-7.

In January 2026, MPWD hired E Source to conduct a detailed billing analysis to help MPWD understand some potential causes of low losses being experienced in recent years (E Source, 2026). The analysis found that MPWD’s data integrity was high, but was able to flag multiple accounts with unusually high consumption, and gave recommendations on how to manage our billing system to help identify potential apparent losses.

In addition to MPWD’s proactive routine maintenance, consumption tracking and leak surveys, MPWD’s five-year Capital Improvement Program (CIP) MPWD includes dozens of retrofits to upgrade aging infrastructure and improve pressure regulation that can also reduce leakage. For example, MPWD is implementing various line replacement projects to upgrade existing aging pipelines.

¹⁴ https://wuedata.water.ca.gov/awwa_plans

9.1.1.6 Water Conservation Program Coordination and Staffing Support

As discussed in Chapter 7, Section 7.2.4.2 and MPWD’s WSCP, MPWD participates in all BAWSCA Core program elements and six out of nine Subscription elements.

To manage its Water Conservation Program effectively, MPWD staff from administration, operations, and engineering work together and analyze the water supply and demand data. The District’s Water Resources Coordinator tracks water consumption monthly by sector using AMI meter reads and monthly billing statements. Staff analyze annual water use trends and communicate with customers about their water use and MPWD’s conservation program.

Additionally, MPWD staff collaborate to prioritize and implement CIP projects. Operations staff, the District Engineer, and management systematically reviewed the MPWD’s infrastructure and developed a water hydraulic model to identify system deficiencies and rehabilitation areas. Other Demand Management Measures

MPWD implements additional demand management measures, such as rebates for innovative conservation technologies and practices. MPWD promotes its rebate programs on its website.¹⁵ These rebate programs offer financial incentives for its residential and CII customers to upgrade their irrigation equipment, use local alternate water sources (rainwater, graywater), and improve landscaped areas to increase efficiency. MPWD offers rebates for climate-appropriate plants, adding compost and mulch to retain soil moisture, and water-efficient irrigation systems.

The total number of rebates issued over the last five years for each conservation rebate program is shown in Table 9-3 below. The full list of rebates offered by MPWD is as follows:

- Irrigation Hardware Rebate Program: Offers discounts on irrigation hardware devices such as spray nozzles, sprinklers, and spray bodies.
- Rain Barrel Rebate Program: Offers up to \$200 rebates for customers who purchase rain barrel to collect rain water and use it to water their garden during summer months.
- Lawn Be Gone! Rebate Program: Offers \$4 per square foot of lawn replaced with a water efficient garden or landscape. Additionally, customers can receive up to \$300 for replacing the lawn with a rain garden that can capture, clean and absorb rainwater from their property.
- WBIC Rebate Program: Offers customers 20% off of a Rachio smart irrigation controller device.

Table 9-3: Summary of Water Conservation Program Participation over the Last Five Years (2021-2025)

Year	Lawn be Gone! Rebate Program	Irrigation Hardware Rebate Program	Rain Barrel Rebate Program	WBIC Rebate Program
2021	5	0	9	17
2022	6	1	17	7
2023	7	3	22	9
2024	6	0	6	7
2025	4	0	9	2

¹⁵ MPWD’s Water Conservation webpage: <https://www.midpeninsulawater.org/waterconservation>

Total over Last Five Years	28	4	63	42
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9.2 Implementation to Achieve Water-Use Targets

MPWD's 2020 Compliance Target was 121 GPCD. In 2020, MPWD's total per capita water use was 97 gallons per capita per day (GPCD), while its indoor use was estimated to be 53 GPCD. MPWD's implementation of its DMMs and water efficiency program support its ability to comply with future requirements. MPWD expects to continue implementing all the DMMs presented in this chapter to continue achieving its water use targets.

As described in Section 5.2, in July 2024, California enacted the Making Conservation a California Way of Life (MCCWL) regulation implementing SB 606 and AB 1668 to support long-term water conservation and drought resilience. Starting in 2023, California Water Code (CWC) § 10609 requires that urban retail water suppliers develop Urban Water Use Objectives (UWUOs) that are based on specific standards for certain water use sectors.

BAWSCA's 2025 Demand Study developed water demand and conservation projections through 2050 for each member agency. As described in Section 4.2.4, the 2025 Demand Study estimates projected water demands and quantifies passive and active conservation water savings potential. As discussed in Section 5.2, the 2025 Demand Study projections estimate that MPWD's water use is expected to be below the UWUO standards through the 2050 planning horizon. MPWD will need to continuously monitor its service area water demand subject to the UWUO standards and make program changes as necessary to maintain compliance.

10. URBAN WATER MANAGEMENT PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

This chapter provides information on the public hearing, adoption and submittal process, public availability, and process for amending the adopted 2025 Urban Water Management Plan (UWMP or Plan) and Water Shortage Contingency Plan (WSCP) for the Mid-Peninsula Water District (MPWD or District).

10.1 Plan Completion Timeline

This UWMP includes water use and planning data for the entire calendar year of 2025, and was completed in July of 2026, and therefore contains all water use and planning data for the year 2025.

10.2 Notice of Plan Preparation

Pursuant to California Water Code (CWC) § 10621(b), on January 22, 2026, MPWD sent a letter to the Bay Area Water Supply and Conservation Agency (BAWSCA), each BAWSCA member agency, San Mateo County, and other local agencies informing them that MPWD was in the process of updating its UWMP and WSCP and soliciting their input in the update process. A list of the entities contacted can be found in Table 10-1 below. The letter was sent more than 60 days before the public hearing as required by code. A list of all notices sent is included in Appendix E.

10.3 Notice of Public Hearing

Prior to adopting the UWMP, MPWD held an in-person and virtual public hearing to present information on its UWMP and WSCP on July 23, 2026 at 6:30pm.

The same relevant entities that were notified of the UWMP and WSCP preparation above were noticed again with the specific date, time, and location of the hearing at least two weeks prior to the public hearing. The notice to the public, as specified in California Government Code (CGC) § 6066, and letters to relevant agencies can be found in Appendix F.

10.3.1 Notice to Cities and Counties

On July 9, 2026, MPWD sent a letter to each of the above mentioned entities informing them of the locations of the Public Draft 2025 UWMP and the updated WSCP and welcoming their input and comments on the document. The Public Draft 2025 UWMP and the WSCP were available for public review at the District's administrative office at 1075 Old County Road, Suite A, Belmont, CA 94002 and on MPWD's website. The letter also informed the agencies that the UWMP and WSCP public hearing would be occurring at the Board of Directors meeting on July 23, 2026, at 6:30pm. Table 10-1 lists the cities and counties that were notified. Copies of these letters are provided in Appendix E.

Table 10-1 (DWR Table 10-1): Notification to Cities and Counties (DWR Table 10-1)

City Name	60 Day Notice	Notice of Public Hearing
Alameda County Water District	Yes	Yes
BAWSCA	Yes	Yes
California Water Service Company	Yes	Yes
City of Belmont	Yes	Yes
City of Brisbane	Yes	Yes
City of Burlingame	Yes	Yes
City of Daly City	Yes	Yes
City of East Palo Alto	Yes	Yes
City of Hayward	Yes	Yes
City of Menlo Park	Yes	Yes
City of Millbrae	Yes	Yes
City of Milpitas	Yes	Yes
City of Mountain View	Yes	Yes
City of Palo Alto	Yes	Yes
City of Redwood City	Yes	Yes
City of San Bruno	Yes	Yes
City of San Carlos	Yes	Yes
City of Santa Clara	Yes	Yes
City of Sunnyvale	Yes	Yes
Coastside County Water District	Yes	Yes
Estero Municipal Improvement District	Yes	Yes
North Coast County Water District	Yes	Yes
Purissima Hills Water District	Yes	Yes
San Jose Municipal Water	Yes	Yes
San Mateo Local Agency Formation Commission	Yes	Yes
SFPUC	Yes	Yes
Silicon Valley Clean Water	Yes	Yes
Stanford University	Yes	Yes
Town of Hillsborough	Yes	Yes
Westborough Water District	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
San Mateo County	Yes	Yes
NOTES: -See Appendix E for copies of the letters sent to each agency listed above.		

10.3.2 Notice to the Public

As required by CGC § 6066, prior to the public hearings, MPWD published Notices of Public Hearing in a local newspaper, the San Mateo Daily Journal, once a week for two successive weeks (with at least five days intervening between the respective publication dates). The Notices of Public Hearing included the dates, times, and place of the hearing, as well as the web location where the draft documents were available for public review.

The Notices were published on July 9th, 2026 and July 16th, 2026, in advance of the public hearing on July 23. Copies of MPWD's Notices of Public Hearing can be found in Appendix F.

10.4 Public Hearing and Adoption

As described above, MPWD informed the public and the appropriate agencies of (1) its intent to prepare a UWMP and the associated WSCP, (2) where the UWMP and WSCP were available for public review, and (3) when the public hearing regarding the UWMP and WSCP would be held. All notifications were completed in compliance with the stipulations of CGC § 6066.

This UWMP was adopted by Resolution No. 2026-23 by the MPWD Board of Directors during its July 23, 2026 meeting. The WSCP included as Appendix D was adopted by Resolution No. 2026-22 during the same meeting. Copies of the resolutions are included in Appendix G.

10.5 Plan Submittal

This UWMP and WSCP were submitted to DWR within 30 days of adoption. The submittal was done electronically through Water Use Efficiency Data Portal, an online submittal tool. The adopted UWMP and WSCP were also sent to the California State Library and to the cities and counties listed in Table 10-1 no later than 30 days after adoption.

10.6 Public Availability

A copy of the adopted 2025 UWMP and associated WSCP will be available for public review in MPWD's administrative office during normal business hours and on MPWD's website within 30 days of filing the plan with DWR.

10.7 Amending an Adopted UWMP or WSCP

If the UWMP or WSCP are amended, each of the steps for notification, public hearing, adoption and submittal will also be followed for the amended document.

11. REFERENCES

- Association of Bay Area Governments (ABAG), 2021a. *Plan Bay Area 2050*, ABAG, adopted October 21, 2021.
- ABAG, 2021b. *Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031*, ABAG, dated December 2021.
- Bay Area Water Supply and Conservation Agency (BAWSCA), 2025. *Regional Water Demand and Conservation Projections Study*, BAWSCA, dated December 19, 2025.
https://bawasca.org/water/use/2025_Demand_Study.
- BAWSCA, 2026. *Annual Survey Fiscal Year 2024-25*, BAWSCA, dated March 2026.
- California Irrigation Management Information System (CIMIS), 2025. CIMIS Pescadero station #253 for 2017-2026, retrieved on May 2026 from <https://cimis.water.ca.gov/Stations.aspx>.
- City of Belmont, 2007. *Staff Report, Council Agenda #4C*, City of Belmont, dated November 13, 2007.
- City of Belmont, 2017. *2035 General Plan*, City of Belmont, Adopted November 14, 2017.
- County of San Mateo, 2018. *Sea Level Rise Vulnerability Assessment*, County of San Mateo, published March 2018.
- Department of Water Resources, 2026. *Urban Water Management Plan Guidebook*, Department of Water Resources, January 2026.
- E Source, 2026. *Detailed Billing Analysis Report*, E Source, prepared for Mid-Peninsula Water District, dated January 2026.
- EKI Environment and Water, Inc., 2018. *San Mateo Plain Groundwater Basin Assessment*, EKI Environment and Water, Todd Groundwater, and HydroFocus, dated July 2018.
- Kennedy Jenks, 2022. *Potable Reuse Exploratory Plan (PREP) Title XVI Feasibility Study*, Kennedy Jenks, dated July 2022.
- Kennedy Jenks, 2024. *PureWater Peninsula Project Basis of Design Report (BODR)*, Kennedy Jenks, dated May 2024.
- Mid-Peninsula Water District (MPWD), 2021. *2020 Urban Water Management Plan*, Mid-Peninsula Water District, dated September 2021.
- Mid-Peninsula Water District (MPWD), 2025a. *Water Supply Assessment for the City of Belmont's Harbor Industrial Area Specific Plan*, MPWD, dated February 2025.
- Mid-Peninsula Water District (MPWD), 2025b. *Water Supply Assessment for the City of San Carlos' Northeast Area Specific Plan*, MPWD, dated February 2025.
- OneShoreline, 2023. *Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County*, OneShoreline, dated June 2023.

Silicon Valley Clean Water (SVCW), 2026. *Silicon Valley Clean Water Website*, <https://svcw.org/about/>, accessed May 2026.

State Water Resources Control Board (SWRCB), 2026. *Water Conservation and Production Reports*, SWRCB, obtained online on July 2026 from https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html.

United States (U.S.) Census Bureau, 2024. *2020-2024 American Community Survey 5-year Estimates*, U.S. Census Bureau, retrieved via U.S. Census QuickFacts website: <https://www.census.gov/quickfacts/fact/table/US/PST045225>.

Water Research Foundation, 2021. *Long Term Vulnerability Assessment and Adaptation Plan for the San Francisco Public Utilities Commission Water Enterprise*, Water Research Foundation, dated December 2021.