PREPARED BY

WEST YOST

CITY OF SANTA CLARA

2025 URBAN WATER MANAGEMENT PLAN

PUBLIC REVIEW DRAFT

MAY
2026

2025 Urban Water Management Plan

Prepared for

City of Santa Clara

Project No. 1078-60-23-01

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Table of Contents

Table of Contents

Table of Contents

Table of Contents

Table of Contents

LIST OF TABLES

Table of Contents

Table of Contents

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
1,2,3-TCP	1,2,3-Trichloropropane
AB	Assembly Bill
Act	Urban Water Management Planning Act
AF	Acre-Feet
AFY	Acre-Feet of Water Per Year
AMI	Advanced Metering Infrastructure
AWIA	America's Water Infrastructure Act
AWS	Alternative Water Supply
BARR	Bay Area Regional Reliability
BAWSCA	Bay Area Water Supply and Conservation Agency
BMP	Best Management Practices
CalWEP	California Water Efficiency Partnership
CAP	Climate Action Plan
CCF	Hundred Cubic Feet
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
CIP	Capital Improvement Plan
City	City of Santa Clara
CPC	California Plumbing Code
CVP	Central Valley Project
CWC	California Water Code
CWRMP	Countywide Water Reuse Master Plan
DDW	Division of Drinking Water
DIM	Dedicated Irrigation Meter
Districts	Modesto and Turlock Irrigation Districts
DMM	Demand Management Measure
DOF	California Department of Finance
DRA	Drought Risk Assessment
DSOD	Division of Safety of Dams
DWR	California Department of Water Resources
DWR Guidebook	2025 Urban Water Management Plan Guidebook for Urban Water Suppliers
DWR Methodologies	DWR Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (2016)

EO	Education Outreach
ERP	Emergency Response Plan
ET	Evapotranspiration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FY	Fiscal Year
GPCD	Gallons Per Capita Per Day
gpf	Gallons Per Flush
gpm	Gallons Per Minute
GSA	Groundwater Sustainability Agency
GSI	Green Stormwater Infrastructure
GSP	Groundwater Sustainability Plan
hcf	Hundred Cubic Feet
HET	High-Efficiency Toilet
HEU	High-Efficiency Urinal
HHWP	Hetch Hetchy Water and Power
HOA	Homeowners' Associations
HRL	Healthy Rivers and Landscapes Program
HTWTP	Harry Tracy Water Treatment Plant
IRP	Infrastructure Reliability Plan
ISG	Individual Supply Guarantee
kWh	Kilowatt Hours
L2L	Laundry to Landscape
LHMP	Local Hazard Mitigation Plan
LOS	Level of Service
LTVA	Long-Term Vulnerability Assessment
MAP	Minimum Annual Purchase
MCL	Maximum Contaminant Levels
MG	Million Gallon
mgd	Million Gallons Per Day
MRP	Municipal Regional Stormwater NPDES Permit
NAICS	North American Industry Classification System
NPDES	National Pollutant Discharge Elimination System
OA	Operational Area
OCF	Our City Forest
PCB	Polychlorinated Biphenyls
PGA	Peak Ground Acceleration
PRSV	Pre-Rinse Spray Valves

QWEL	Qualified Water Efficient Landscaper
Regional GSR	Regional Groundwater Storage and Recovery
RRA	Risk and Resilience Assessment
RUWMP	Regional Urban Water Management Plan
RWF	Regional Wastewater Facility
RWS	Regional Water System
SB	Senate Bill
SB X7-7	Water Conservation Act of 2009
SBWR	South Bay Water Recycling
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SMP	Sewer Master Plan
State Water Board	State Water Resources Control Board
STEAM	Science, Technology, Engineering, the Arts and Mathematics
STORMS	Strategy to Optimize Resource Management of Stormwater
SVAWPC	Silicon Valley Advanced Water Purification Center
SVWTP	Sunol Valley Water Treatment Plant
SWP	State Water Project
TDS	Total Dissolved Solids
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
UWUO	Urban Water Use Objective
Valley Water	Santa Clara Valley Water District
WBIC	Weather-Based Irrigation Controller
WET	Water Education for Teachers
WET Rebate	Water Efficient Technology Rebate
WSA	Water Supply Agreement
WSAP	Water Shortage Allocation Plan
WSCP	Water Shortage Contingency Plan
WSIP	Water System Improvement Program
WSMP	Water Supply Master Plan
WUE	Water Use Efficiency

Executive Summary

INTRODUCTION

An Urban Water Management Plan (UWMP) helps water suppliers assess the availability and reliability of their water supplies and current and projected water use to help ensure reliable water service under different conditions. This water supply planning is especially critical for California currently, as climate change is resulting in changes in rainfall and snowfall, which impact water supply availability and development is occurring throughout the State, resulting in increased needs for reliable water supplies.

The Urban Water Management Planning Act (Act) requires larger water suppliers that provide water to urban users (whether directly or indirectly) to develop UWMPs every five years. UWMPs evaluate conditions for the next 20 years, so these regular updates ensure continued long-term planning. The City of Santa Clara (City) provides water service directly to more than 3,000 connections in its water service area and is therefore required to prepare a UWMP.

This Executive Summary serves as a Lay Description of the City's UWMP, as required by California Water Code (CWC) §10630.5.

CALIFORNIA WATER CODE REQUIREMENTS

The CWC documents specific requirements for California water suppliers. The Act is included in the CWC and specifies the required elements of a UWMP, including discussing an agency's water system and facilities, calculating how much water its customers use (i.e., water demand) and how much it can supply, and detailing how it would respond during a drought or other water supply shortage. Also, a UWMP must describe what specific coordination steps were taken to prepare, review, and adopt the plan.

The Act has been revised over the years. The Water Conservation Act of 2009 (also known as SB X7-7) required retail water agencies to establish water use targets for 2020 that would result in statewide water savings of 20 percent by 2020. In their 2025 UWMPs, retail water agencies (i.e., those distributing water to end users like residences and businesses) are required to report on their compliance with SB X7-7 2020 water use targets.

The 2012-2016 drought led to further revisions to the Act to improve water supply planning for long-term reliability and resilience to drought and climate change. These revisions were formalized in the 2018 Water Conservation Legislation and include:

- **Five Consecutive Dry-Year Water Reliability Assessment:** Analyze water supply reliability for five consecutive dry years over the planning period of this plan (see Chapter 7).
- **Drought Risk Assessment:** Assess water supply reliability for the next five years assuming they are dry years (see Chapter 7).
- **Seismic Risk:** Identify the seismic risk to the agency's water facilities and have a plan to address identified risks (see Chapter 8).

- **Water Shortage Contingency Plan (WSCP):** Update the agency's plan to include an annual process for assessing potential gaps between planned water supply and demands; conform with the State's standard water shortage levels (including a shortage level greater than 50 percent) for consistent messaging and reporting; and provide water shortage responses that are locally appropriate (see Chapter 8).
- **Lay Description:** Provide a lay description of the findings of the UWMP; this Executive Summary serves as the lay description for this plan.

Major components and findings of the City's 2025 UWMP are summarized below.

CITY OF SANTA CLARA WATER SYSTEM

The City is located in the northern part of Santa Clara County, approximately 45 miles southeast of the City of San Francisco. The City serves drinking water within the current City limits and includes residential, commercial, industrial, institutional/governmental, landscape, and fire service connections.

The City's potable water system consists of 21 active potable groundwater wells (20 active wells and one standby well), four tank sites each equipped with a pump station, two San Francisco Public Utilities Commission (SFPUC) supply turnouts, one Valley Water supply turnout, and approximately 306 miles of potable water pipelines. The City also imports recycled water for non-potable use from South Bay Water Recycling (SBWR) and maintains approximately 33 miles of recycled water pipelines.

WATER USE BY CITY CUSTOMERS

As the City continues to develop, the demand for water will increase. Thorough and accurate accounting of current and future water demands is critical for the City's planning efforts. To continue delivering safe and reliable drinking water, the City must know how much water its customers currently use and how much they expect to use in the future. The City's 2025 Sustainable Water Supply Master Plan (WSMP) developed water demand projections for buildout of the City (i.e., fully developed within City limits), which at the time of its development was expected in 2040. For the purposes of this UWMP, the buildout date has been modified to 2050, based on declining water use trends in recent years, indicating growth may be slower than previous predictions indicated. However, the water demand at buildout used in this UWMP remains consistent with the City's 2025 WSMP.

CITY OF SANTA CLARA WATER SUPPLIES

The City's current potable water supplies include purchased treated surface water from SFPUC and Valley Water conveyed via water supply turnouts and groundwater pumped from City-owned and operated wells. The City also uses recycled water for non-potable water demands such as landscaping, dual plumbing and industrial uses.

In years of normal precipitation, the City estimates that its four supply sources provide an average yield of approximately 38,700 acre-feet per year (AFY). This includes up to

5,041 AFY from SFPUC, 4,560 AFY from Valley Water, 23,048 AFY from the City's groundwater wells, and 6,017 AFY from recycled water.

The City's existing and projected future water supplies under normal conditions are expected to be sufficient to meet both current and future demands through 2050. To maintain a reliable and resilient water system, the City plans to optimize its existing infrastructure and expand its recycled water system, supporting long-term strategic planning and ensuring a safe and dependable water supply.

CONSERVATION TARGET COMPLIANCE

In its 2015 UWMP, the City confirmed its baseline per capita water use, and established and adopted its water use target of 186 gallons per capita per day (GPCD) for 2020. In its 2020 UWMP, the City verified that it achieved its 2020 water use target in accordance with SB X7-7. The City's per capita water use in 2020 was 124 GPCD, well below the confirmed 2020 water use target of 186 GPCD. This achievement was the result of continued water conservation by the City's customers.

CITY OF SANTA CLARA WATER SERVICE RELIABILITY

The California Water Code (CWC) requires agencies to evaluate water service reliability by assessing the impacts of drought on water supplies and comparing those reduced supplies to projected demands. Specifically, agencies must estimate available water supplies under both a single dry year and five consecutive dry years using historical hydrologic records.

For the City's water service reliability assessment, imported water reliability from SFPUC is evaluated based on the Bay Area Water Supply and Conservation Agency (BAWSCA) 2025 UWMP wholesale customer dry-year allocations, incorporating Bay-Delta Plan Amendment assumptions. Imported supply reliability from Valley Water is based on Valley Water's Supply Reliability Tables, which indicate up to 5 percent shortfalls during the fourth and fifth dry years in 2030, 2045, and 2050 after the supply augmentation. Accordingly, a 5 percent reduction is applied in those years. Local groundwater pumping and recycled water supplies are assumed to remain 100 percent reliable under these hydrologic conditions.

Due to uncertainty associated with the interruptible SFPUC supply, the City evaluated supply reliability under two primary scenarios:

- Scenario 1: Supply interruption due to potential contract termination in 2028. Assuming a 10-year advance notice, SFPUC supplies are projected to cease beginning in 2040.
- Scenario 2: Continued availability of SFPUC supplies beyond 2040.

The assessment results show that the City is well-positioned to withstand the effects of a single dry year and a five-consecutive dry year drought for any period between 2025 and 2050, even without additional water conservation measures. The City's drought risk was specifically assessed between 2026 and 2030, assuming that the next five years

are dry years. In each case, water supplies comfortably meet water demands. The City is able to reliably provide water service whether the drought occurs in 2026, 2050, or any year between.

WATER SHORTAGE CONTINGENCY PLAN

A WSCP describes an agency's plan for preparing for and responding to water shortages. The City's WSCP was updated in 2020 so that it is consistent with the 2018 Water Conservation Legislation requirements. The City updated its WSCP to include its process for assessing potential gaps between planned water supply and demands for the current year and the following (assumed dry) year. Also, the City updated its water shortage levels to better align with the State's standard stages. The WSCP may be used for foreseeable and unforeseeable events. The WSCP is adopted as a separate document concurrently with this plan, by separate resolution, to allow for updates to be made outside of the UWMP preparation process.

UWMP PREPARATION, REVIEW, AND ADOPTION

The City prepared this 2025 UWMP in coordination with the public. While preparing this plan, the City also notified other stakeholders (e.g., Santa Clara County) of its preparation, its availability for review, and the public hearing prior to adoption. The City encouraged community participation in the development of the 2025 UWMP using mailings and the City's website. These public notices included the time and place of the public hearing, as well as where the plan would be available for public inspection. The public hearing provided an opportunity for the City's water users and the general public to become familiar with the 2025 UWMP, including the WSCP, and ask questions about the City's plans for continuing to provide reliable, safe, high-quality water and mitigating potential water shortages. Following the public hearing, the City of Santa Clara City Council adopted this 2025 UWMP and the associated WSCP on MM DD, 2026. A copy of the adopted UWMP, including the WSCP, was submitted to the Department of Water Resources and to the California State Library, and is available on the City's website: https://www.santaclaraca.gov/.

CHAPTER 1
Introduction

This chapter provides an introduction and overview of the City of Santa Clara (City) 2025 Urban Water Management Plan (UWMP) including the importance and extent of the City's water management planning efforts, changes since the preparation of the City's 2020 UWMP, and the organization of the City's 2025 UWMP. This 2025 UWMP has been prepared jointly by City staff and West Yost.

1.1 INTRODUCTION

The Urban Water Management Planning Act (Act) was originally established by Assembly Bill (AB) 797 on September 21, 1983. Passage of the Act was recognition by State legislators that water is a limited resource and a declaration that efficient water use and conservation would be actively pursued throughout the State. The primary objective of the Act is to direct "urban water suppliers" to develop a UWMP which provides a framework for long-term water supply planning, and documents how urban water suppliers are carrying out their long-term resource planning responsibilities to ensure adequate water supplies are available to meet existing and future water demands. A copy of the current version of the Act, as incorporated in § 10608 and § 10610 through 10656 of the California Water Code (CWC), is provided in Appendix A of this plan.

1.2 IMPORTANCE AND EXTENT OF CITY'S WATER MANAGEMENT PLANNING EFFORTS

The purpose of the UWMP is to provide a planning tool for the City for developing and delivering municipal water supplies to the City's water service area. This UWMP provides the City a water management action plan for guidance as water conditions change and management conditions arise.

The City has had a long history of providing clean and reliable water to its customers. The City's UWMP is a comprehensive guide for planning for a safe and adequate water supply.

1.3 CHANGES FROM 2020 UWMP

The Urban Water Management Planning Act has been modified over the years in response to the State's water shortages, droughts and other factors. A significant amendment was made in 2009, after the 2007 to 2009 drought, and as a result of the Governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as Senate Bill (SB) Seven of the Senate's Seventh Extraordinary Session of 2009 (SB X7-7). This Act required agencies to establish water use targets for 2020 that would result in statewide water savings of 20 percent by 2020. The City is required to report compliance with its 2020 water use target in its 2025 UWMP.

The 2012 to 2016 drought led to further amendments to the CWC to improve on water supply planning for long-term reliability and resilience to drought and climate change. The 2018 Water Conservation Regulation for Making Conservation a California Way of Life (AB 1668 [Friedman] and SB 606 [Hertzberg]) required major additions and changes to the CWC. These changes are associated with managing drought preparedness and water shortage contingency planning for urban water suppliers.

No substantive changes to the requirements have been adopted since the completion of the City's 2020 UWMP. This 2025 UWMP builds on the planning and reporting provided in the City's 2020 UWMP. Key updates include:

1. Water Supply Reliability Assessment – a water supply and demand assessment which compares the total water supply sources available to the City with the long-term total projected water use over the next 25 years (to 2050), in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years (CWC §10635(a))
2. Drought Risk Assessment – an assessment of the City's water supply reliability assuming that the Years 2026 to 2030 will be the five dry consecutive years (CWC §10635(b))
3. Water Use Target Compliance – compliance with the City's previously adopted 2020 per capita water use targets in accordance with SB X7-7 (Water Conservation Act of 2009, SB X7-7; CWC §10608.20)
4. Water Loss Quantification – a summary report quantifying the City's system water loss for Years 2020 to 2024, and progress toward compliance with the City's Water Loss Standard as established by the State Water Resources Control Board (State Water Board) (CWC §10631(d)(3)(c))
5. Groundwater Management Compliance – status update on Sustainable Groundwater Management Act (SGMA) compliance activities (i.e., status of Groundwater Sustainability Agency (GSA) activities and Groundwater Sustainability Plan (GSP) implementation) (CWC §10631(b)(4))

Since the completion of the City's 2020 UWMP, the State experienced another multi-year (2021 – 2022) drought event during which the City implemented its WSCP. This UWMP includes refinement and updates to the City's WSCP to incorporate lessons learned from that event.

1.4 PLAN ORGANIZATION

This 2025 UWMP contains the appropriate sections and tables required per CWC Division 6, Part 2.6 (Urban Water Management Planning Act), included in Appendix A of this 2025 UWMP, and has been prepared based on guidance provided by the California Department of Water Resources (DWR) in its *2025 Urban Water Management Plan Guidebook for Urban Water Suppliers* (DWR Guidebook).

This 2025 UWMP is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: Plan Preparation
- Chapter 3: Service Area Description
- Chapter 4: Water Use Characterization
- Chapter 5: SB X7-7 Baselines, 2020 Targets, and 2025 Reporting

- Chapter 6: 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: Plan Adoption, Submittal and Implementation

This 2025 UWMP also contains the following appendices of supplemental information and data related to the City's 2025 UWMP:

- Appendix A: Urban Water Management Planning Act Legislative Requirements
- Appendix B: DWR 2025 Urban Water Management Plan Tables
- Appendix C: DWR 2025 Urban Water Management Plan Checklist
- Appendix D: Agency and Public Notices
- Appendix E: Distribution System Water Loss Audits
- Appendix F: SFPUC and Valley Water Water Supply Reliability
- Appendix G: Water Shortage Contingency Plan
- Appendix H: UWMP and WSCP Adoption Resolutions

Furthermore, this 2025 UWMP contains all the tables recommended in the DWR Guidebook, both embedded into the UWMP chapters where appropriate and included in Appendix B.

DWR's Urban Water Management Plan Checklist, as provided in the DWR Guidebook, has been completed by West Yost to demonstrate the plan's compliance with applicable requirements. A copy of the completed checklist is included in Appendix C.

CHAPTER 2
Plan Preparation

This chapter describes the preparation of the City's 2025 UWMP and WSCP, including the basis for the preparation of the plan, individual or regional planning, fiscal or calendar year reporting, units of measure, and plan coordination and outreach.

2.1 BASIS FOR PREPARING A PLAN

The Act requires every "urban water supplier" to prepare and adopt a UWMP, to periodically review its UWMP at least once every five years and make any amendments or changes which are indicated by the review. The Act also requires every "urban water supplier" to prepare and periodically update its Water Shortage Contingency Plan (WSCP). While the WSCP is part of the UWMP, it may be adopted and amended separately from the UWMP. An "urban water supplier" is defined as 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 (AFY).

The City manages Water System CA4310012 and supplies water to retail customers only. As shown in Table 2-1, the City provided water to 25,875 customer connections and supplied 20,728 acre-feet (AF) of water in 2025 to its customers. Therefore, the City is required to prepare a UWMP and periodically update its WSCP. The City's last UWMP, the 2020 UWMP included a WSCP within it and was adopted by the City Council on June 22, 2021.

Table 2-1. Public Water Systems (DWR Table 2-1 Retail)

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA4310012	City of Santa Clara	25,875	20,728
	Total	25,875	20,728

2.2 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

This 2025 UWMP has been prepared on an individual reporting basis covering only the City's service area, as shown in Table 2-2. The City did not participate in a regional alliance for the preparation of this 2025 UWMP and, therefore has not prepared a Regional Urban Water Management Plan (RUWMP). As described in Section 2.4, the City has notified and coordinated planning and compliance with appropriate regional agencies and constituents, including the Bay Area Water Supply and Conservation Agency (BAWSCA), San Francisco Public Utilities Commission (SFPUC), Valley Water, and South Bay Water Recycling (SBWR).

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

Select One or Both	Type of Plan		Name of Regional Alliance or RUWMP (Drop Down List)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a SB X7-7 Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		

2.3 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

The City is a water retailer.

The City's 2025 UWMP has been prepared on a calendar year basis, with the calendar year starting on January 1 and ending on December 31 of each year. Water use and planning data for the entire calendar year of 2025 has been included.

The water volumes in this 2025 UWMP are reported in units of AF.

The City's reporting methods for this 2025 UWMP are summarized in Table 2-3.

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

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	AF

2.4 COORDINATION AND OUTREACH

This section includes a discussion of the City's inter-agency coordination and coordination with the general public. The UWMP Act requires the City to coordinate the preparation of its UWMP and WSCP with other appropriate agencies and all departments within the City, including other water suppliers that share a common source, water management agencies, and relevant public agencies. These agencies, as well as the public,

participated in the coordination and preparation of this 2025 UWMP and are summarized in the sections that follow.

2.4.1 Wholesale and Retail Coordination

The City is a water retailer and receives wholesaler potable water from SFPUC and Valley Water. In accordance with CWC Section 10631, the City has informed SFPUC and Valley Water of projected water use for that source in five-year increments through 2050, as shown in Table 2-4. Both suppliers also provided information to the City, identifying and quantifying water supplies available for the same period, under normal water year, single dry year, and five dry years hydrological conditions. The City also receives recycled water from SBWR and so coordinated with them.

Table 2-4. Water Supplier Information Exchange (DWR Table 2-4 Retail)

The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
Valley Water
San Francisco Public Utilities Commission (SFPUC)
South Bay Water Recycling (SBWR)

The City is a member of BAWSCA. BAWSCA provides regional water reliability planning and conservation programming for the benefit of its 26 member agencies that purchase wholesale water supplies from the SFPUC. Collectively, the BAWSCA member agencies 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 these wholesale water 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 UWMP updates is to work with its member agencies and the SFPUC to seek consistency among UWMP documents.

2.4.2 Coordination with Other Agencies and the Community

The City actively encourages community participation in water management activities and specific water-related projects. The City's public participation program includes both active and passive means of obtaining input from the community, such as mailings, public meetings, and web-based communication. The City's website describes on-going projects and posts announcements of planned rate increases to fund these water projects.

As part of the 2025 UWMP and WSCP update, the City facilitated a public review period. Public noticing, pursuant to Section 6066 of the Government Code, was conducted prior to commencement of this public comment period. Public hearing notices are included in Appendix D of this plan. During the public comment period, the Draft UWMP and Draft WSCP were made available on the City's website.

The City also coordinated the preparation of its UWMP and WSCP with several agencies, including relevant public agencies that utilize the same water supplies. These agencies included the following:

- County of Santa Clara
- BAWSCA Agencies (26 members)

The public hearing provided an opportunity for all City water users and the general public to become familiar with the UWMP, including the WSCP, and ask questions about the City's water supply, in addition to the City's continuing plans for providing a reliable, safe, high-quality water supply.

2.4.3 Notice to Cities and Counties

CWC Section 10621 (b) requires agencies to notify the cities and counties to which they serve water at least 60 days in advance of the public hearing that the plan is being updated and reviewed. On February 3, 2026, a notice of preparation was sent to the cities and counties and other stakeholders, to inform them of the UWMP update process and schedule, and to solicit input for the 2025 UWMP and WSCP. The notifications to cities and counties, the public hearing notifications, and the public hearing and adoption are discussed in Chapter 10 of this report.

CHAPTER 3
Service Area Description

This chapter provides a description of the City's water system and service area, including the water system facilities, climate, population, and housing within the City's water service area.

3.1 GENERAL DESCRIPTION

The City is located in the northern part of Santa Clara County along the southern end of the San Francisco Bay Area, approximately 45 miles southeast of the City of San Francisco. The City occupies approximately 19.3 square miles and is connected to major transportation corridors including Highway 101, State Route 237, State Route 82 (El Camino Real), San Tomas Expressway, Lawrence Expressway, and Central Expressway. The City is located just west of San Jose Norman Y. Mineta International Airport. The City is bounded by Sunnyvale to the west, Cupertino to the southwest, and San Jose to the north, south, and east. The location of the City is shown on Figure 3-1.

The City's potable water supply sources consist of surface water purchases from SFPUC, surface water purchased from Valley Water, and groundwater produced from City-owned, operated, and maintained wells. The City's potable water system consists of groundwater wells, surface water supply turnouts, storage tanks, tank pump stations, and distribution and transmission pipelines.

The City has 25 potable groundwater wells: 20 wells are active, and 1 well is on standby. The remaining 4 wells are inactive. The Donald Von Raesfeld Power Plant also owns and operates one well within City limits. There are two supply turnouts that receive surface water purchased from SFPUC, and one supply turnout that receives surface water purchased from Valley Water.

The City also has 28.8 million gallons (MG) of potable water storage at four tank sites: Northside, Corporation Yard, Downtown, and Serra. Each tank site is equipped with a pump station to pump water into the distribution system. The firm pumping capacity of all pump stations is 18.5 million gallons per day (mgd). Firm pumping capacity assumes the largest pump is offline at each pump station, to account for potential disruptions due to maintenance or other issues. The City maintains approximately 306 miles of potable distribution and transmission pipelines ranging in size from less than 4 to up to 27 inches in diameter. Figure 3-2 shows the locations of the major facilities of the City's existing water system.

The City also imports recycled water for non-potable use from SBWR and distributes it to City customers. The recycled water system has been in operation since 1989 and is used within the City for industrial processes, commercial and residential irrigation, and within buildings that are dual-plumbed for toilet and urinal flushing. Approximately 19 percent of the City's overall water supply portfolio is recycled water purchased from SBWR. The City operates and maintains approximately 33 miles of recycled distribution and transmission pipelines that range in size from 4 to up to 30 inches in diameter. The City's recycled water system is shown on Figure 3-3.

3.2 SERVICE AREA BOUNDARY

The City's water service area coincides with current City limits, and includes residential, commercial, industrial, institutional/governmental, landscape, and fire service connections. The City's water service area boundary is shown on Figure 3-1.

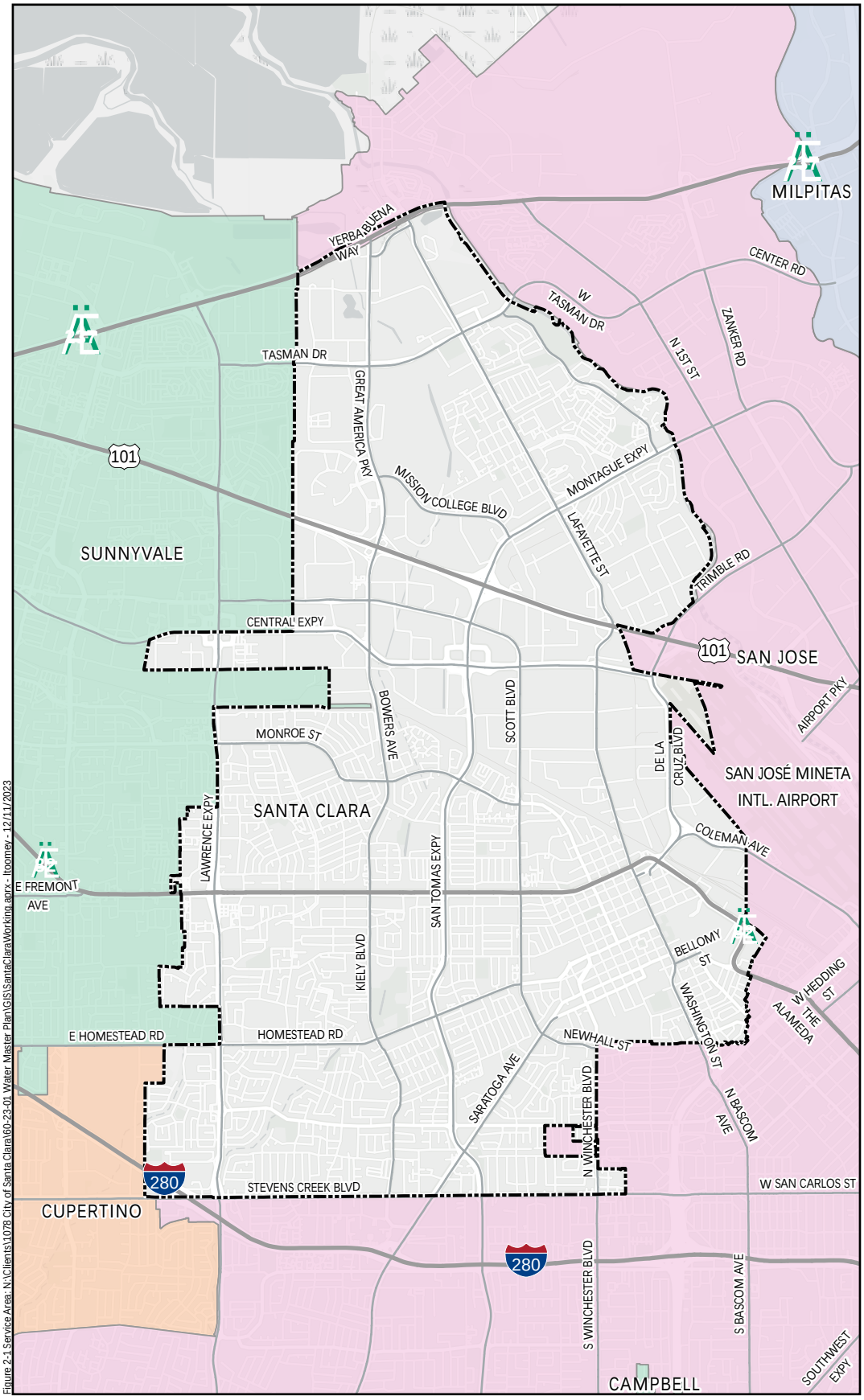
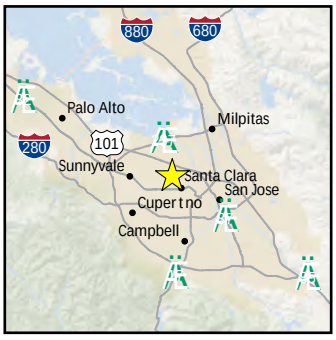


Figure 2-1 Service Area: N:\Clients\1078 City of Santa Clara\60-23-01 Water Master Plan\GIS\SantaClaraWorking.aprx - ltoomey - 12/11/2023

Santa Clara Operational Boundary

Notes:
1. Facilities shown based on GIS data provided by City of Santa Clara in October 2023.



Prepared by:

WEST YOST

N

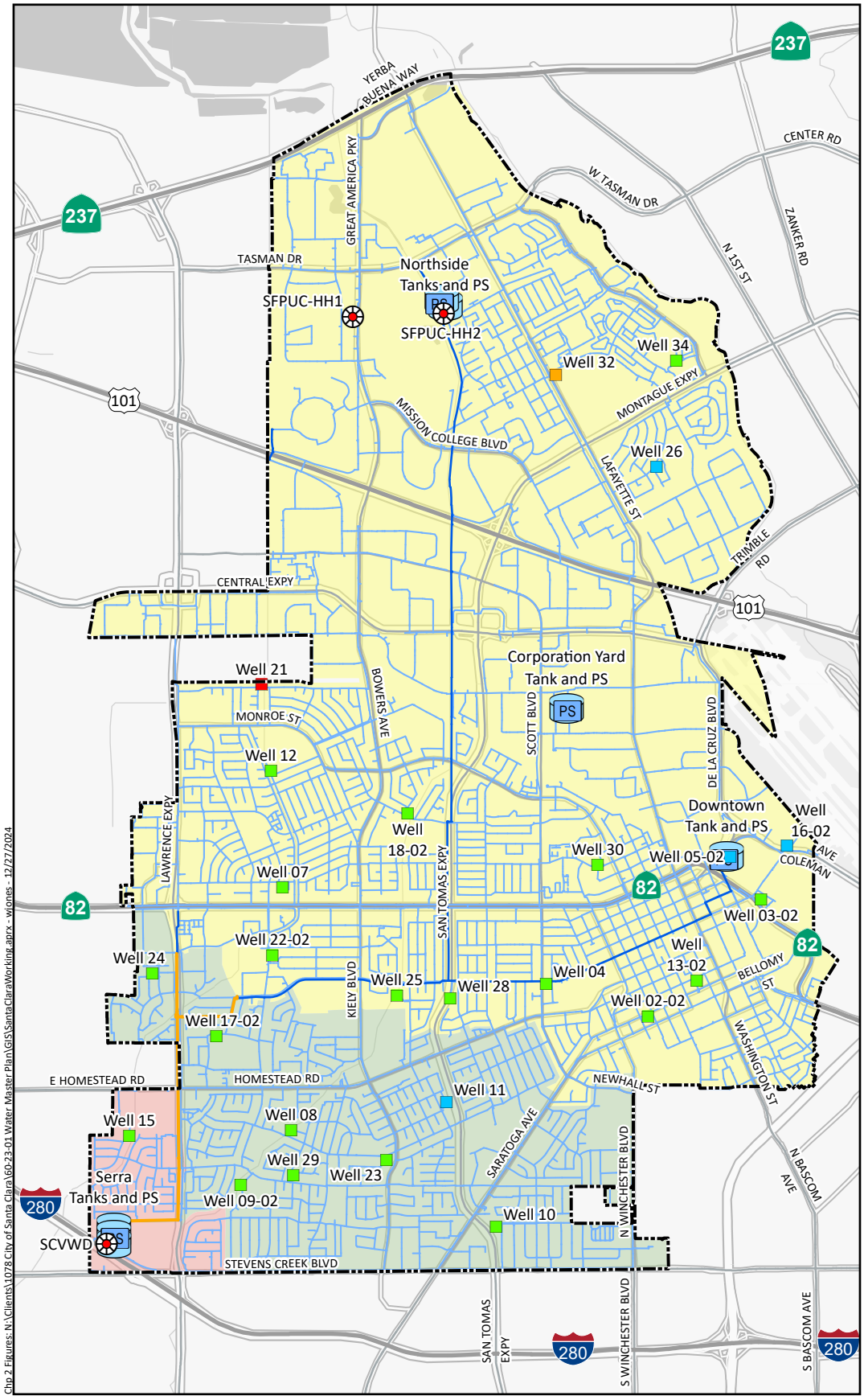
0 1 Miles

Prepared for:
City of Santa Clara

City of Santa Clara Water Service Area

DRAFT

Figure 3-1



Storage Tank

Pump Station

Surface Water Supply Interties

Groundwater Wells

Active (Operational)

Active (Standby)

Inactive

To Be Abandoned

Transmission Pipeline (≥16-inch)

Distribution Pipeline (< 16-inch)

Transmission Pipeline between Serra Tanks and Zone 1

Pressure Zones

Zone 1

Zone 2

Zone 2A

Santa Clara Operational Boundary

Notes:

1. Facilities shown based on GIS data provided by City of Santa Clara in October 2023.

Prepared by:

WEST YOST

N

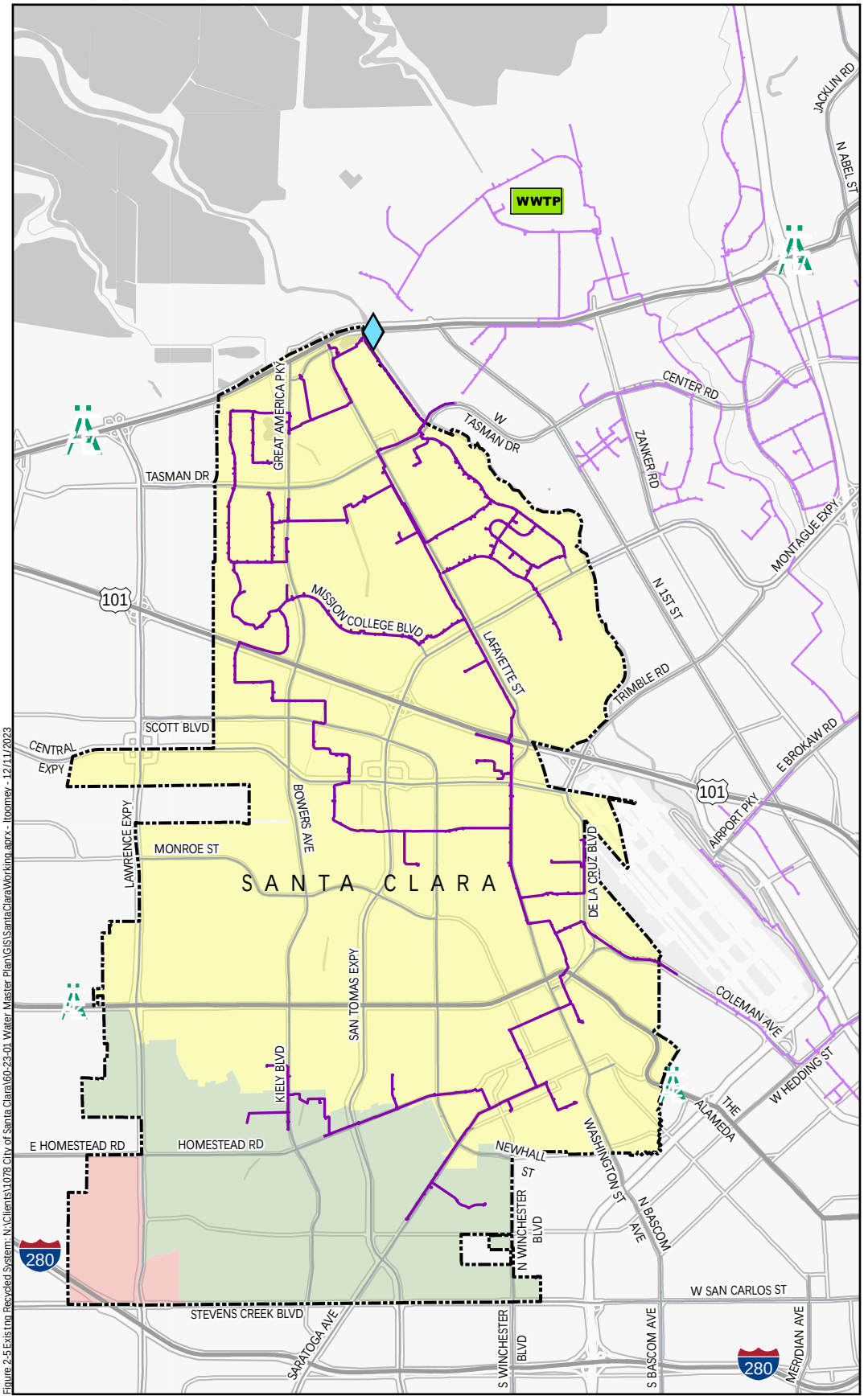
0 4,500 Feet

Prepared for:

City of Santa Clara

City of Santa Clara Potable Water System

DRAFT **Figure 3-2**



Recycled Water Pipeline

- Water Retailer is Santa Clara
- Water is Retailed by Others

Pressure Transducer

WWTP — San Jose-Santa Clara Regional Wastewater Facility

Pressure Zones

- Zone 1
- Zone 2
- Zone 2A

Santa Clara Operational Boundary

Notes:

1. Facilities shown based on GIS data provided by City of Santa Clara in October 2023.

Figure 2-5 Existing Recycled System; N:\Clients\1078 City of Santa Clara\60-23-01 Water Master Plan\GIS\SantaClaraWorking.aprx - ltoomey - 12/11/2023

Prepared by: WEST YOST

0 1 Miles

Prepared for: City of Santa Clara

City of Santa Clara Recycled Water System

DRAFT **Figure 3-3**

3.3 SERVICE AREA CLIMATE

The City has a Mediterranean climate characterized by hot, dry summers and cool wet winters, with an annual average precipitation of approximately 14 inches. The climate ranges from summer high temperatures in the low 80s degrees Fahrenheit (°F), and winter low temperatures dropping to the low 40s °F. Based on historical data, the City's average monthly temperatures are as low as 40.9°F and as high as 81.8°F.

Water use within the City's service area is dependent on various climate factors such as temperature, precipitation, and evapotranspiration (ET). Climate data, including temperature and precipitation estimates, were obtained for the City from the Western Regional Climate Center and the California Irrigation Management Information System (CIMIS).

ET describes the combined water lost through evaporation from the soil and surface water bodies and plant transpiration. In general, the ET is given for turf grass, and then corrected for a specific crop type. Local ET data was obtained from the CIMIS for Reference ET Zone 8 for Inland San Francisco Bay Area. The historical climate characteristics affecting water management in the City's water service areas is shown in Table 3-1.

These climate characteristics highly influence the City's water use. As described in Chapter 4, the City's water use in the summer months is significantly higher than that in the winter, reflecting increased water use for irrigation purposes during the hot, dry summers.

Table 3-1. Monthly Average Climate Data Summary[a]

Month	Standard Monthly Average ET, inches[a]	Average Total Rainfall, inches[b]	Average Temperature, degrees Fahrenheit[b]	
			Minimum	Maximum
January	1.24	2.88	40.9	58.1
February	1.68	2.69	43.5	61.9
March	3.41	2.31	45.2	65.4
April	4.80	1.20	46.9	69.5
May	6.20	0.44	50.5	74.2
June	6.90	0.10	53.8	79.0
July	7.44	0.02	56.1	81.8
August	6.51	0.07	56.2	81.3
September	5.10	0.19	55.2	80.4
October	3.41	0.76	51.3	74.3
November	1.80	1.50	45.3	65.2
December	0.93	2.41	41.5	58.5
Annual Total or Average	**49.42**	**14.57**	**48.9**	**70.8**

(a) California Irrigation Management Information System (https://cimis.water.ca.gov/) for ETo Zone 8. Data accessed December 19, 2025.
(b) Western Regional Climate Center (https://wrcc.dri.edu/) data for San Jose, California [047821]. Period of record is 1893 to 2016. Data accessed December 19, 2025.

Another important consideration is climate change. Climate change is driven by increasing concentrations of carbon dioxide and other greenhouse gases that cause an increase in temperature and stress natural systems, such as oceans and the hydrologic cycle. The City's 2022 Climate Action Plan[1] outlines local strategies to reduce greenhouse gas emissions and improve resilience to climate-related impacts, complementing regional planning efforts. The 2019 Bay Area Integrated Regional Water Management Plan[2] provides an assessment of climate change impacts and findings for vulnerability areas including water demand, water supply, water quality, sea-level rise, flooding, ecosystem and habitat and hydropower. Climate changes that may affect the Bay Area region water resources include the following:

- Higher temperatures and heat waves that increase demand for water, especially for agricultural and residential irrigation uses.
- A projected overall decrease in precipitation levels coupled with more intense individual storm events may lead to increased flooding.
- Higher temperatures that may cause more precipitation to fall as rain rather than snow, hasten snowmelt and increase runoff will affect water storage planning.
- Increased evaporation will create a generally drier climate, with wildfires likely to increase and groundwater basins likely to receive less replenishment.
- Sea level rise, which is estimated to rise an average of 14 inches by 2050, will likely affect low lying infrastructure of all types, including many of the Bay Area region's wastewater treatment plants.

Additional discussion on the potential impacts of climate change on the City's water demands and water supplies is provided in Chapters 4 and 6, respectively.

3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

3.4.1 Service Area Population

Since the City's water service area aligns with current City limits, the City's water service area population for 2025 was estimated using population data published by the California Department of Finance (DOF), which was benchmarked based on the 2020 Census.[3] The City's 2025 service area population was approximately 134,587.

Since the City's water service area is generally contiguous with its City limits, the ABAG population data for the City of Santa Clara were used to estimate projected population values. Projected population data for 2030 through 2050 are based on Plan Bay Area

[1] City of Santa Clara Climate Action Plan, June 2022.

[2] San Francisco Bay Area Integrated Regional Water Management Plan, October 2019.

[3] State of California Department of Finance (DOF). May 1, 2025. Report *E-4 Population Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Benchmark*. Accessed at Estimates | California Department of Finance on December 19, 2025.

2050+ and were provided by the City. The City's current and projected populations for its water service area are shown in Table 3-2.

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

Population Served	2025	2030	2035	2040	2045	2050(opt)
	134,587	150,529	165,733	176,944	188,156	199,368

3.4.2 Other Social, Economic, and Demographic Factors

The State requires the inclusion of service area socioeconomic information as part of the system description in UWMPs. However, differences in household water use across sociodemographic groups in the City have not been studied. Therefore, the following social, economic, and demographic information is being provided to comply with the new regulation. The information was derived from the US Census Bureau's profile of Santa Clara for 2019-2023.[4]

- The average number of people per household in the five-year period analyzed was 2.57.
- The median household income in 2019-2023 was $173,670, while 7.8 percent of all individuals lived in poverty.
- The owner-occupied housing unit rate was 41.2 percent.
- The median gross rent was $2,985 per month.
- Of persons 25 years or older in 2019-2025, 94.0 percent had earned at least a high school diploma or equivalent and 65.3 percent had earned a bachelor's degree or higher.
- Of persons under 65 years of age, 4.8 percent had a disability and 3.3 percent did not have health insurance.
- 98.1 percent of households had one or more type of computer, and 95.8 percent had a broadband internet subscription.
- By race/ethnicity, 31.9 percent of people were White, 2.1 percent were Black, 0.5 percent were American Indian or Alaska Native, 47.6 percent were Asian, 0.7 percent were Hawaiian Native or Pacific Islander, 9.1 percent were two or more races, and the remainder identified as some other races.
- Of the total City population, 16.1 percent were Hispanic or Latino and 83.9 percent were not Hispanic or Latino.

[4] United States Census Bureau. *American Community Survey, 2025: ACS 5-Year Estimates Data Profiles for Santa Clara City, California.* Accessed at U.S. Census Bureau QuickFacts: Santa Clara city, California on January 7, 2026.

- Approximately 45.4 percent of Santa Clara residents were foreign born, and 56.2 percent of people ages five years and older spoke a language other than English at home.

3.5 LAND USES WITHIN SERVICE AREA

This section describes the City's current and projected land uses in its water service area. Information for this section is based on the City's 2010-2035 General Plan and the City's 2025 Sustainable Water Supply Master Plan (WSMP). The City's General Plan was adopted by City Council in 2010 and describes the long-term land use goals for the entirety of City limits. The City's 2025 WSMP includes updates to land use goals that have occurred since the completion of the General Plan.

3.5.1 Current Land Uses

Generally low and medium density residential land use is located south of the Caltrain railroad tracks that run east-west through the center of the City, with several mixed use and commercial developments centered along major streets such as El Camino Real (Highway 82) and Stevens Creek Boulevard. Likewise, most of the City's office and industrial land uses are located north of the Caltrain railroad tracks, with several concentrated pockets of residential and commercial land uses to the north and west.

According to the General Plan, the City's current land use ratios within City limits are as follows: 42 percent residential, 10 percent commercial, 11 percent office, research, and development, 18 percent industrial, 11 percent public, 6 percent parks, open space, and recreation, and 2 percent vacant.

3.5.2 Projected Land Uses

The City is essentially built out, with very few parcels classified as vacant but there is potential for redevelopment and onsite expansion. The most recent projected future land uses for the City were compiled as part of the City's 2025 WSMP. During development of the 2025 WSMP, West Yost worked with the City's consultant for its Sewer Master Plan (SMP) to maintain consistency between the two master plans. The SMP consultant met and worked with the City's Planning Department in January 2023 to update project development assumptions including project status, timeline, square footage, and number of units.

The project development assumptions were provided to West Yost in December 2023 and were subsequently refined through conversations with City staff. Future projected land uses for the City include commercial, office, industrial, residential, and mixed-use development projects. Further details about future projected land uses for the City, including their timing and location, are included in the City's 2025 WSMP.

CHAPTER 4
Water Use Characterization

This chapter describes and quantifies the City's historical, current, and projected water uses. Water demand projections are based on the projected growth within the City's water service area.

4.1 NON-POTABLE VERSUS POTABLE WATER USE

Potable water is water that is safe to drink and has had various levels of treatment and/or disinfection. The City provides treated potable water to customers within its water service area from water purchased from SFPUC and Valley Water and City-owned and operated groundwater wells, that is not treated.

Recycled water is municipal wastewater that has been treated to a specified quality for beneficial reuse. As discussed in Chapter 6 of this plan, the City's recycled water comes from wastewater produced within Santa Clara and other south San Francisco Bay Area cities, which is conveyed to the San Jose-Santa Clara Regional Wastewater Facility (RWF), where it receives advanced tertiary treatment. The RWF is located northeast of Santa Clara and is managed by the City of San Jose. Recycled water produced by the RWF meets all water quality standards and treatment reliability criteria for water recycling under Title 22 of the California Code of Regulations for non-potable reuse. Once treated water leaves the RWF, the recycled water is distributed for non-potable use by SBWR. The City purchases recycled water from SBWR to import and distribute to its customers.

Raw water is non-potable, untreated water that is used in its natural state or with minimal treatment. The City does not deliver raw water to any customers in its service area. Potable water demands are discussed in the following section.

4.2 WATER USE BY SECTOR

This section describes the City's past, current, and projected water use by water use sector, as listed in CWC §10631(d) and defined in the DWR Guidebook. These classifications were used to analyze current consumption patterns among the various types of City water customers. The City uses similar, but not identical definitions for each sector as outlined in the DWR Guidebook. The following definitions from the DWR Guidebook are relevant to the City:

- **Single Family Residential:** A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling.
- **Multi-Family Residential:** Multiple dwelling units contained within one building or several buildings within one complex.
- **Commercial:** A water user that provides or distributes a product or service (CWC § 10608.12(e)).
- **Industrial:** A water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System (NAICS) Code Sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development (CWC § 10608.12(i)).

- **Institutional/Governmental:** A water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions (CWC § 10608.12(j)).
- **Other:** Any other water demand that is not adequately described by the water sectors defined above, including fire flows and construction water. System water losses are not to be reported in the "Other" category.

4.2.1 Historical Potable Water Use

Past water demand by water use type for 2020 through 2024 is shown in Table 4-1. The 2020-2024 water use data is from consumption data provided by the City. Losses are based on the difference between production and consumption data for the period specified. Distribution system water losses are discussed in greater detail in Section 4.3. The City was fully metered for the years shown in Table 4-1. As shown in Table 4-1, water use within the City's service area declined overall between 2020 and 2024.

Table 4-1. Historical Water Demand by Water Use Sector, AF

Water Use Sector	2020[(a)]	2021[(a)]	2022[(a)]	2023[(a)]	2024[(a)]
Single-Family	4,722	4,298	4,132	3,702	3,781
Multi-Family	4,458	4,150	4,149	3,886	4,084
Institutional	562	590	557	529	556
Industrial	1,610	1,466	1,507	1,422	1,348
Commercial	5,307	5,332	5,950	5,327	5,680
Municipal	345	448	282	261	264
Recycled Water	3,499	3,601	3,451	3,968	3,979
Losses	1,299	1,299	337	1,576	1,629
Total	**21,802**	**21,184**	**20,365**	**20,671**	**21,321**

(a) Data is from Monthly Production provided by the City.

4.2.2 Current Water Use

Water demand by sector for the Year 2025 is reported in Table 4-2. As shown, most water deliveries were potable water. However, the City also delivers non-potable recycled water for irrigation and industrial use. The City did not supply water to wholesale customers in 2025 and has no plans to do so in the future. The total water demand for 2025 was 20,728 AF, including potable water, recycled water, and water losses.

Table 4-2. Total Uses for Potable and Non-Potable Water – 2025 (DWR Table 4-1 Retail)

Use Type	Additional Description (as needed)	2025 Actual Water Use	
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		**Potable or Non-Potable** (OPTIONAL) Drop down list	Volume (AF)
Single Family		Potable	3,785
Multi-Family		Potable	4,206
Institutional/Governmental		Potable	557
Industrial		Potable	1,277
Commercial		Potable	5,584
Other (optional)	Municipal/Public	Potable	335
Other (optional)	Recycled Water	Non-Potable	3,871
Distribution System Water Loss		Potable	1,113
		Subtotal Potable	16,857
		Subtotal Non-Potable	3,871
		Total	20,728

4.2.3 Projected Water Use

The City's potable and non-potable water demand projections for 2030 through 2050 (i.e., a 25-year planning horizon) are reported in Table 4-3. Projected future potable water demands are based on land use projections provided by the City's Planning Department in December 2023, which were also used in the City's 2025 Sustainable WSMP. The City's 2025 WSMP assumed a buildout date of 2040, which was based on the buildout date included in the City's 2010-2025 General Plan. For the purposes of this UWMP, the buildout date has been modified to 2050, based on declining water use trends in recent years (refer to Table 4-1), indicating growth may be slower than previous predictions indicated. However, the water demand at buildout used in this UWMP remains consistent with the City's 2025 WSMP. Water demands for 2030 through 2045 were linearly interpolated using 2025 demands and the 2050 water demand projection.

Non-potable/recycled water demand projections are based on future development projects which are adjacent to existing or planned recycled water pipelines or areas where the City expects that developers will use recycled water. Refer to Chapter 6 for a discussion of the City's recycled water system and associated non-potable water demand.

As shown in Table 4-3, the total 2050 projected water demand is 30,533 AF consisting of 24,516 AF potable water and 6,017 AF recycled water.

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

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
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		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 opt (AF)
Add additional rows as needed.							
Single Family		Potable	3,776	3,768	3,759	3,751	3,742
Multi-Family		Potable	4,651	5,097	5,542	5,988	6,433
Industrial		Potable	1,437	1,597	1,758	1,918	2,078
Commercial		Potable	5,827	6,070	6,312	6,555	6,798
Other (optional)	Municipal/Public/Institutional	Potable	858	824	791	757	723
Other (optional)	Mixed use, parks, Misc. including hotels for potable water consumption and unknown land use type for recycled water consumption	Potable	576	1,152	1,727	2,303	2,879
Other (optional)	Recycled Water	Non-Potable	4,300	4,729	5,159	5,588	6,017
Other (optional)	NRW - Projected non-revenue water estimated to be 7.6%	Potable	1,263	1,413	1,563	1,713	1,863
		Subtotal Potable	18,388	19,921	21,452	22,985	24,516
		Subtotal Non-Potable	4,300	4,729	5,159	5,588	6,017
		Total	22,688	24,650	26,611	28,573	30,533

4.2.4 Characteristic Five-Year Water Use

Water Code § 10635(b) requires urban suppliers to include a five-year drought risk assessment (DRA) in their UWMPs. A key component of the DRA is estimating water demands for the next five years (2026-2030) without drought conditions (i.e., unconstrained demand). Chapter 7 details the DRA, but the five-year demand projections are summarized in Table 4-4. Projected water demands for 2026 through 2029 were estimated as a linear interpolation between the actual 2025 consumption, reported in Table 4-2, and the 2030 projected water use, reported in Table 4-3.

Table 4-4. Projected Water Use for the Next Five Years (2026-2030)

Water Use	2026	2027	2028	2029	2030
Total Water Use, AF[(a)]	21,120	21,512	21,905	22,297	22,689

(a) Based on demand projection including active conservation.

The characteristic five-year water use is based on normal year demand conditions and will be incorporated into the Drought Risk Assessment, further discussed in Chapter 7.

4.2.5 Estimating Future Water Savings

The water use projections presented in Table 4-4 are based on land use projections within the City's water service area. In accordance with the City's Potable and Recycled Water System Rules and Regulations, water conservation is encouraged within the City. Urban water suppliers may consider the passive savings from codes, standards, ordinances, or transportation and land use plans. Such water savings decrease the water use projections for new and future customers compared to historical customers.

As indicated in Table 4-5, these potential future savings have not been included in the City's water demand projections.

Table 4-5. Inclusion in Water Use Projections (DWR Table 4-3 Retail)

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? **Drop down list (y/n)**	No
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.	
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 4.2.6
DWR NOTES: Additional guidance is provided in Appendix K.	

4.2.6 Water Use for Lower Income Households

This UWMP considers current adopted codes, plans, and other policies or laws to estimate water savings projections. As indicated in Table 4-5, projected water use for lower income households in the City's water service area are included.

A lower income household is considered to be a household with an income below 80 percent of an area median income, adjusted for family size. Projected water demands for low income, single family, and multi-family residential water uses are included in the total water demands described in Section 4.2.3.

The City's 2023-2031 Housing Element Update includes the number of existing lower income households. The Housing Element indicates approximately 34 percent of the City's lower income households are Low Income (10 percent), Very-Low Income (11.6 percent), or Extremely-Low Income (12.5 percent). The City assumes that lower income households will continue to represent approximately 34 percent of the City's total residential customers through 2050 but is subject to change as demographic changes occur. With this percentage assumption, the projected potable water demand from lower income households will be approximately 3,460 AFY of single-family and multi-family residential water use by 2050.

4.3 DISTRIBUTION SYSTEM WATER LOSSES

System losses are the difference between the actual volume of water treated and delivered into the distribution system and the actual metered consumption. Such real and apparent losses are always present in a water system due to pipe leaks, unauthorized connections or use, faulty meters, unmetered services such as fire protection and training, and system and street flushing.

The City uses the AWWA Water Audits and Loss Control Programs method to annually evaluate its distribution system losses. The water audit is an accounting exercise that tracks all sources and uses of water within a water system over a calendar year.

Table 4-6 summarizes the City's status in submitting its AWWA water audits for the last five years starting in January 2020. Copies of the City's water audit worksheets for the last five years are provided in Appendix E and are uploaded to DWR's WUEdata portal (https://wuedata.water.ca.gov/).

Table 4-6. Last Five Years of Water Loss Audit Reporting (DWR Table 4-5 Retail)

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
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		
CA4310012	**2020**	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes

In November 2022, DWR and the State Water Board adopted water loss standards for urban retail water suppliers. The new regulation provides suppliers with volumetric standards that establish cost-effective levels of achievable water loss based on each supplier's water system characteristics and budgets. Beginning in January 2028, suppliers must meet their individual volumetric real loss standards based on a three-year compliance period of the Years 2025, 2026, and 2027. Individual apparent water loss standards must also be met at the same 2028 compliance date. Table 4-7 summarizes the real and apparent water losses for 2025 compared to the City's 2028 water loss standard.

As shown in Table 4-7, in 2024, the City met its 2028 apparent water loss standard, but did not meet its 2028 real water loss standard. The City's on-going programs to assess and manage water loss are discussed further in Chapter 9.

Table 4-7. Progress Towards 2028 Water Loss Standard (DWR Table 4-6 Retail)

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			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
CA4310012	Yes	16.3	Gallons per Service Connection per Day (GPSCD)	26,026	1,255	43.0	18.3	Gallons per Service Connection per Day (GPSCD)	26,026	318	10.9

4.4 CLIMATE CHANGE CONSIDERATIONS

Climate change has the potential to alter local climatic patterns and meteorology. A Climate Action Plan (CAP) was prepared for the City in 2022 to identify strategies and actions to adapt to the effects of climate change. Some examples of these actions related to water include implementing water conservation measures and maximizing the beneficial uses of recycled water.

The City's future water demand and use patterns may be impacted by climate change. Warmer temperatures are expected to increase landscape irrigation demand. In addition, climate change may increase the frequency and intensity of wildfires, which would increase water demands for firefighting. The water demand projections included in this 2025 UWMP reflect anticipated increases in demands. Current and ongoing water use efficiencies and water conservation by the City's water customers, discussed in Chapter 9, and expanded use of recycled water, discussed in Chapter 6, could mitigate the effects of climate change on water demands.

The City continues to evaluate methodologies to correlate climate change impacts to water demands within its service area and will incorporate climate change impacts on demands in future UWMPs. The potential impacts of climate change on the City's water supplies are described in Chapter 6.

CHAPTER 5
SB X7-7 Baselines, 2020 Target, and 2025 Reporting

In November 2009, SB X7-7, the Water Conservation Act of 2009, was signed into law as part of a comprehensive water legislation package. The Water Conservation Act addressed both urban and agricultural water conservation. The legislation set a goal of achieving a 20 percent statewide reduction in urban per capita water use by December 31, 2020 (i.e., "20 by 2020"). To meet the urban water use target requirement, each retail supplier was required to determine its baseline water use, as well as its target water use for the Year 2020. Water use is measured in gallons per capita per day (GPCD).

In this UWMP, the City is required to report its compliance with the 2020 urban water use target as of 2020. The 2020 urban water use target has since been superseded by the establishment of Urban Water Use Objectives as part of the Making Conservation a California Way of Life regulation adopted on July 3, 2024. Starting in 2024, the City's Urban Water Use Objective is calculated and reported annually through a separate process, and therefore, the City does not compare its 2025 water use with its 2020 target. Additional information on the City's water conservation practices and objectives is included in Chapter 9.

5.1 OVERVIEW AND BACKGROUND

The City's compliance with SB X7-7 was first addressed in the City's 2010 UWMP. The City's baseline per capita water use was determined, and urban water use targets for 2015 and 2020 were established and adopted. Actual water use data and population estimates were used to calculate per capita water use.

SB X7-7 required each urban water retailer to determine its baseline daily per capita water use over a 10-year or 15-year baseline period. In its 2015 UWMP, the 10-year baseline period that the City selected was 1995 through 2004. The City also considered a 5-year baseline period of 2003 to 2007, and ultimately used that baseline daily per capita water use because it was less than the estimated 10-year baseline. The City calculated its baselines and water use targets on an individual reporting basis in accordance with SB X7-7 legislation requirements and *DWR Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (2016) (DWR Methodologies). Details of the specific methodology used to calculate the City's 2020 water use target are documented in its 2020 UWMP.

5.2 2020 DAILY PER CAPITA WATER USE COMPLIANCE

In its 2020 UWMP, the City calculated its actual 2020 water use for the 2020 Calendar Year in accordance with the DWR Methodologies document. As shown in Table 5-1, urban per capita water use in 2020 was 124 GPCD, which is below the confirmed 2020 water use target of 186 GPCD. Therefore, the City met its 2020 final water use target. Water use in 2020 in the City's service area was reduced as compared to baseline years as a result of increased water conservation efforts by the City and its customers.

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

☐	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?	Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	186	124	Yes		NA

5.3 REGIONAL ALLIANCE

The City chose to comply with the requirements of SB X7-7 on an individual basis. The City elected not to participate in a regional alliance.

CHAPTER 6
Normal-Year Water Supply Characterization

This chapter characterizes the City's water supply portfolio. Currently available water supplies, as well as future anticipated water supplies, are described and quantified. The management of each water supply is discussed, along with the measures that the City has taken to develop planned sources of water.

The City's existing water supply facilities are described in Chapter 3 of this UWMP, and its water supplies consist of the following:

- Treated surface water purchased from the SFPUC and Valley Water
- Groundwater pumped by the City from City-owned and operated wells
- Recycled water from SBWR

Anticipated availability of the City's water supplies under a normal water year is provided in this chapter. The availability of the City's water supplies under a single dry year and a drought lasting five years, as well as more frequent and severe periods of drought, are described in detail in Chapter 7 of this UWMP, along with the basis of those estimates.

6.1 PURCHASED OR IMPORTED WATER

The City purchases treated potable water from SFPUC and Valley Water as described in this section.

6.1.1 Treated Surface Water from SFPUC

6.1.1.1 Description of SFPUC Regional Water System

Over 2.7 million people and businesses in San Francisco and throughout the 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 RWS is a municipally owned infrastructure operated by the SFPUC that serves both retail and wholesale customers. The RWS 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 percent 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 percent 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.

6.1.1.1.1 RWS Distribution

The RWS, shown on 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 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. SFPUC Regional Water System and Main Facilities

6.1.1.1.2 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 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 State Water Board 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.

A USEPA regulation took effect in 2012 requiring secondary disinfection for all unfiltered drinking water systems to control the waterborne parasite Cryptosporidium. The SFPUC complied with this regulation by completing construction of a new ultraviolet treatment facility in 2011. The Tesla Treatment Facility is a key component of the SFPUC 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 U.S.

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 water combined 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.

6.1.1.1.3 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 Reservoir, Cherry Reservoir (also known as Lake Lloyd), and Lake Eleanor Reservoir. A "water bank" in Don Pedro Reservoir is also integrated into RWS operations. Don Pedro Reservoir, which is jointly owned and operated by Modesto Irrigation District and Turlock Irrigation District, is located on the Tuolumne River downstream of the Hetch Hetchy System.

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 four local reservoirs are an important water supply source in the event of an interruption to Hetch Hetchy System deliveries.

Prior to 2019, Calaveras Reservoir had been operating in recent years 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 to full capacity have since been removed, and Calaveras Reservoir reached full capacity during the 2022/2023 winter season when it was refilled completely following the dam replacement project in January 2023.

6.1.1.2 Wholesale Water Contractual Obligations

The SFPUC sells water to the Wholesale Customers under the terms of a 25-year contract known as the Water Supply Agreement (WSA) between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County and associated individual water sales contracts with each Wholesale Customer. 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 percent of their total water supply needs. 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.

As noted above, the City is not currently in the Supply Assurance commitment and currently has a temporary and interruptible water supply contract with SFPUC. The City's current contract allocation with SFPUC is 4.5 mgd (5,041 AFY).

6.1.1.3 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.

6.1.2 Treated Surface Water from Valley Water

Valley Water operates a complex and interconnected water supply system to conjunctively manage supplies from surface water (imported and local) and groundwater to meet countywide demand. Valley Water's current sources of potable water supply are primarily imported water supplies, with the remaining water supplied from local groundwater and surface water. As stated in Valley Water's 2050 WSMP which was adopted in November 2025, imported water supplied from SFPUC makes up 10 percent of the total water supply and 40 percent is conveyed via the Delta from the State Water Project (SWP) and Central Valley Project (CVP). Valley Water also utilizes recycled water for non-potable reuse, which has historically made up 5 percent of the total water supply. Water conservation makes up 15 percent of the total water supply, which represents

consistent short- and long- term reductions in water use. The remaining 30 percent of supply is from local water which includes rainwater captured in Valley Water reservoirs and natural groundwater recharge.

According to the Valley Water's 2050 WSMP, more than 70 percent of the Delta-conveyed supply is delivered to Valley Water's three potable water treatment plants. Valley Water's current contractual allocation from Delta-conveyed supplies is 252,500 AFY, although actual water allocated is typically less since it depends on hydrology and regulatory restrictions. In dry and critically dry years, allocations have been substantially reduced, requiring Valley Water to rely more heavily on local groundwater supplies and banked storage. The imported supplies are sent to Valley Water's three drinking water treatment plants, used for managed groundwater recharge, or stored in local, State, and Federal reservoirs for use in subsequent years. Valley Water also stores some of its imported water in the Semitropic Groundwater Bank in the San Joaquin Valley for withdrawal during dry periods or as otherwise needed.

The City does not currently use or plan to use self-supplied surface water. However, the City purchases surface water from SFPUC through Valley Water as discussed in Section 6.1.1.

The City's actual and projected normal year water supplies from SFPUC and Valley Water are shown in Table 6-1 in 5-year increments from 2025 to 2050. The availability of these sources under single dry, five-year droughts, and other water year conditions is discussed in Chapter 7.

Table 6-1. Purchased or Imported Water Supplies – Actual and Projected (AF)

Water Supplier	Actual and Projected Water Supply Volume[(a)]					
	2025	2030	2035	2040	2045	2050
SFPUC	3,229	5,041	5,041	5,041	5,041	5,041
Valley Water	2,590	4,560	4,560	4,560	4,560	4,560

(a) Actual purchased water supply for 2025 is from the City's 2025 Production-Sales Spreadsheet. Projected 2030 - 2050 water supply from SFPUC is based on the current contract with SFPUC with a maximum delivery rate of 4.5 mgd; and 2030 - 2050 water supply from Valley Water is based on the current contract with Valley Water with a maximum delivery rate of 4.1 mgd.

As described in Chapter 7, surface water supply curtailments are possible in dry years and may be offset with additional groundwater use and/or demand reduction through implementation of the City's WSCP, described in Chapter 8.

6.2 GROUNDWATER

The City's groundwater is supplied from the Santa Clara Subbasin (DWR Basin No. 2-9.02), as shown on Figure 6-2, which is one of four subbasins within the larger Santa Clara Valley Basin. The Santa Clara Subbasin is bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, the south San Francisco Bay to the north, and the Coyote Narrows to the south. The Santa Clara Subbasin can be further

subdivided into two groundwater management areas: the Santa Clara Plain and the Coyote Valley. Of those, the City overlies the Santa Clara Plain.

The Santa Clara Subbasin has been designated a high priority subbasin by the DWR based on criteria that include overlying population, projected growth, number of wells, irrigation acreage, groundwater reliance, and groundwater impacts.

6.2.1 Groundwater Basin Management

Valley Water manages the groundwater supply in Santa Clara County and works with various water retailers in the area to prevent subsidence and overdraft of the basin to ensure reliable water supplies. The Santa Clara Valley Basin is not adjudicated nor currently listed as overdrafted. This can be attributed to Valley Water's network of imported surface water supplies, groundwater recharge system, water supply long-term planning, and aggressive conservation efforts through community outreach and rebate programs.

In 2014, Governor Brown signed the SGMA to promote local, sustainable groundwater management. For basins designated as medium and high priority by the State, SGMA required local GSAs to develop and implement GSPs or Alternatives to achieve sustainability. Valley Water is the GSA for the Santa Clara Subbasin.

In 2019, DWR approved Valley Water's 2016 Groundwater Management Plan for the Santa Clara and Llagas Subbasins as an Alternative, determining it satisfies the objectives of SGMA. Periodic evaluations of approved plans are required at least every five years, so Valley Water submitted the Board-adopted 2021 Groundwater Management Plan to DWR in December 2021 (https://assets.valleywater.org/files/2021_GWMP.pdf). In June 2024, DWR approved the 2021 Groundwater Management Plan confirming the Alternative satisfies the objectives of SGMA and complies with related regulations.

Valley Water has managed the groundwater resources in Santa Clara County since 1929, and conditions have been sustainable for many decades due to activities that protect and augment groundwater supplies. Valley Water has essentially halted overdrafting and resulting subsidence of the Santa Clara Valley Basin by maintaining or increasing groundwater storage through managed recharge, as well as through effective conjunctive use management of surface water and groundwater supplies.

Groundwater is currently approximately 60 percent of the City's potable water supply, with wells located in each of the City's pressure zones. The City currently has 25 groundwater wells considering one well (Well #21) is planned to be abandoned, 21 of which are active (20 active wells and one standby well), with design capacities ranging from approximately 780 to 2,170 gallons per minute (gpm).

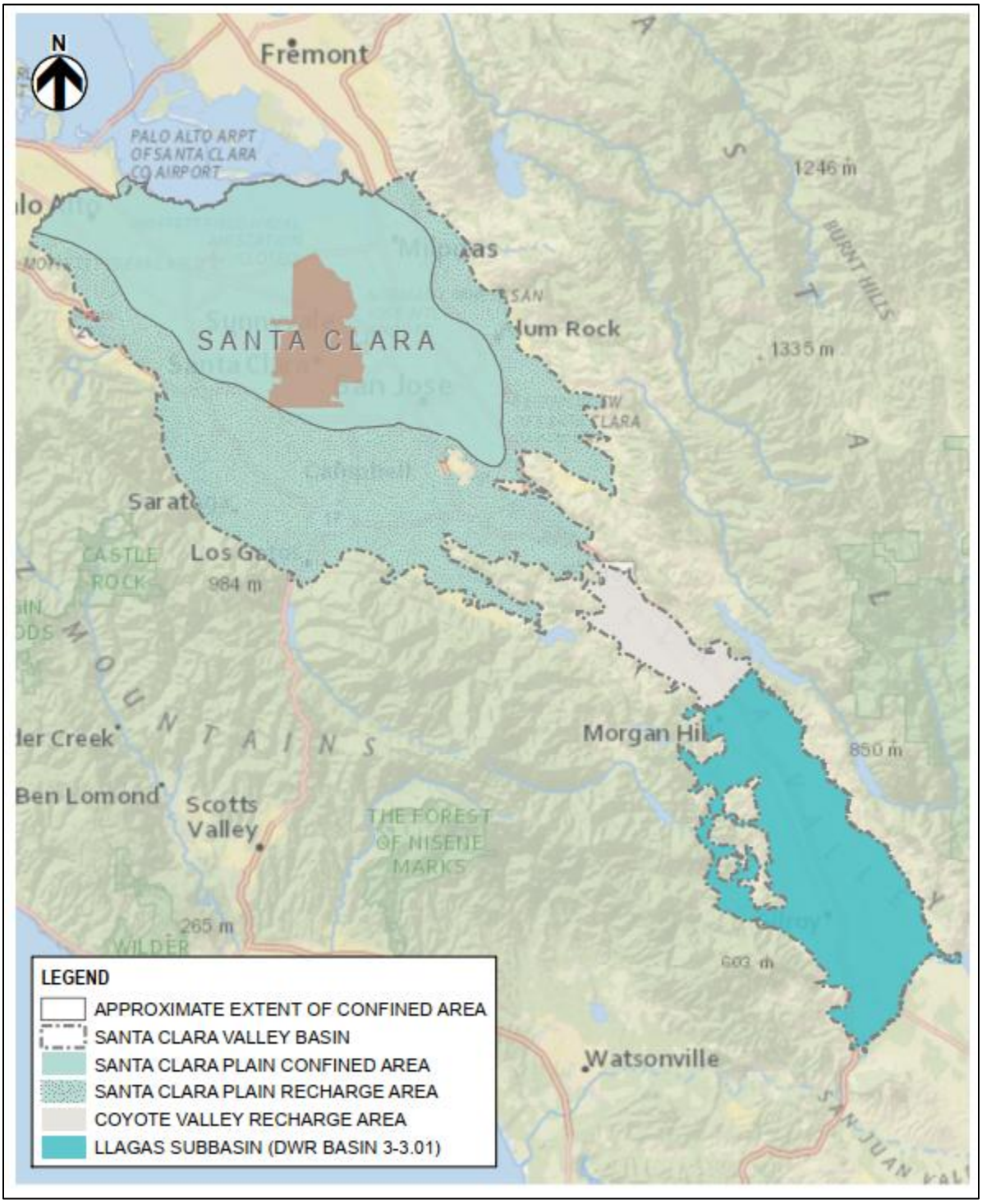


Figure 6-2. Santa Clara Valley Groundwater Basin

6.2.2 Groundwater Use – Past Five Years

The volume of groundwater pumped by the City over the past five years is summarized in Table 6-2. Groundwater supply provided an average of 10,455 AF, 50.3 percent of the City's potable water supply between 2021 and 2025. In 2025, the City pumped 11,038 AF from the groundwater basin, about 53.2 percent of the City's total potable water supply. No limitations or challenges have been set for obtaining groundwater during the past five years as the City has been operating well within the sustainable yield, and the available groundwater quantity was sufficient.

Table 6-2. Groundwater Pumped in Last Five Years (DWR Table 6-1 Retail)

Groundwater Type **Drop Down List** May use each category multiple times	Potable or Non-Potable (OPTIONAL) **Drop down list**	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Alluvial Basin	Potable	Santa Clara Subbasin	9,816	10,329	10,431	10,659	11,038
		Total	9,816	10,329	10,431	10,659	11,038

6.2.3 Groundwater Use – Projected

The City plans to continue groundwater use to help meet peak demand and in dry years to make up for anticipated reductions in surface water deliveries. The City's projected normal year supplies for groundwater through 2050 are provided in Table 6-3. Projected groundwater supplies will be used conjunctively with purchased surface water from SFPUC and Valley Water. The total projected water supply available for the City to meet projected water demands is further discussed in Section 6.9. The availability of groundwater under single dry, five-year droughts, and any other water year conditions is discussed in Chapter 7.

Table 6-3. Groundwater Supplies – Projected (AF)

Groundwater Type	Location or Basin Name	Projected Water Supply Volume[(a)]				
		2030	2035	2040	2045	2050
Alluvial Basin	Santa Clara Subbasin	23,048	23,048	23,048	23,048	23,048

(a) Projected groundwater supplies in 2030 - 2050 are based on the City's historical maximum annual groundwater production in Fiscal Year (FY) 1986/87.

6.3 STORMWATER

The City has been a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) since the early 1990s. The program and member agencies, which consist of thirteen cities in Santa Clara Valley, the County of Santa Clara, and Valley Water, share a common National Pollutant Discharge Elimination (NPDES) permit to discharge to the South San Francisco Bay. The purpose of the program is to reduce pollution in stormwater runoff and protect water quality and the beneficial uses of San Francisco Bay and Santa Clara Valley creeks and rivers.

As a result of the 2014 California Water Action Plan, the State Water Board created the "Strategy to Optimize Resource Management of Stormwater" (STORMS). The purpose of this program was to promote stormwater as a valuable resource, support policies for collaborative watershed-level stormwater management and pollution prevention, provide funding opportunities, develop resources, and integrate regulatory and non-regulatory interests.[1] This program influenced Bay Area municipal stormwater NPDES permits to establish new stormwater management requirements.

The City does not currently utilize stormwater capture within its system for reuse in commercial, industrial or irrigation. The City's stormwater drainage system discharges via gravity outfalls and pump stations into three ephemeral creeks (Calabazas, Saratoga and San Tomas Aquino Creek). Since 2016, the City along with 75 other municipalities and local agencies, is subject to the requirements of Phase I of Order R2-2015-0049 Municipal Regional Stormwater NPDES Permit (MRP). The current MRP implements new requirements and targets related to reducing trash loads from stormwater, developing and implementing a trash monitoring program for creeks and shorelines, meeting mercury and Polychlorinated Biphenyls (PCBs) stormwater reduction goals and developing and implementing Green Stormwater Infrastructure (GSI) Plans.[2]

The City's approved GSI Plan was developed as part of the new requirements of the 2016 MRP. The purpose of the GSI Plan is to demonstrate the City's commitment to promote green stormwater infrastructure over traditional storm drainage infrastructure while reducing or eliminating the effects of urban runoff. Implementing GSI facilities and measures have multiple benefits, including reducing urban heat island effect and serving as a means of stormwater capture for later use as a non-potable water supply. Since stormwater capture is not currently utilized by the City, it will not be considered as a source of non-potable water supply for the purpose of the UWMP.

The City does not currently use or plan to use stormwater for beneficial reuse.

6.4 WASTEWATER AND RECYCLED WATER

6.4.1 Recycled Water Coordination

South Bay Water Recycling (SBWR) is the regional permit holder for recycled water in San José, Santa Clara and Milpitas, ensuring compliance with State regulations for recycled water quality and use. SBWR is a recycled water wholesaler to four retailers: San Jose Water, San José Municipal Water, City of Santa Clara, and City of Milpitas. Customers, including the City, buy recycled water from the retailer in their location.

[1] City of Santa Clara 2019 Green Stormwater Infrastructure Plan

[2] Santa Clara Valley Urban Runoff Pollution Prevention Program Website - https://scvurppp.org/about-scvurppp/

6.4.2 Wastewater Collection, Treatment and Disposal

The wastewater collection system within the City is owned and operated by the City. Over 270 miles of sewer mains and seven pump stations are used to convey wastewater to the RWF.

The Cities of San Jose and Santa Clara own the RWF. The City of San Jose is the administrative agency who operates the RWF under a 1959 Agreement (subsequently amended). The RWF also treats wastewater from the Cities of Milpitas, Campbell, Cupertino, Los Gatos, Monte Sereno, and Saratoga, as well as several unincorporated areas of Santa Clara County. The RWF service area covers 300 square miles and a population of over 1.4 million people.

The RWF is an advanced tertiary treatment plant that treats an average of 110 mgd (123,216 AFY) of wastewater. Currently, approximately 13 percent of the effluent from the RWF is re-chlorinated and meets the requirements of California Code of Regulations (CCR) Title 22 for unrestricted non-potable reuse. Since March 2014, the RWF also supplies the Silicon Valley Advanced Water Purification Center with secondary wastewater for advanced purification treatment. The remainder of the wastewater is discharged to the Artesian Slough, which leads to the southern portion of the San Francisco Bay.

In 2025, a total of 11,048 AF (3,600 MG) of wastewater was collected in the City of Santa Clara wastewater service area, as shown in Table 6-4.

Table 6-4. Wastewater Collected Within Service Area in 2025 (DWR Table 6-2 Retail)

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 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
City of Santa Clara	Metered	11,048	San Jose/Santa Clara WPCP, Place ID 255333	No
Total Wastewater Received from UWMP Service Area in 2025:		11,048		

6.4.3 Recycled Water System Description

The City's recycled water comes from wastewater produced within Santa Clara and other south San Francisco Bay Area cities, which is conveyed to the RWF, one of the largest such treatment facilities in California, where it receives advanced tertiary treatment. The RWF is located northeast of Santa Clara and is managed by the City of San Jose. Recycled water produced by the RWF meets all water quality standards and treatment reliability criteria for water recycling under Title 22 of the California Code of Regulations.

Once treated water leaves the RWF, the recycled water is distributed for non-potable use by SBWR. SBWR's recycled water system consists of over 150 miles of pipeline, five pump stations, and 10 MG of storage in reservoirs. SBWR delivers more than four billion gallons of recycled water per year to more than 900 commercial customers, an average of 11 mgd. Additional information about SBWR can be found on the City of San Jose SBWR website.

Approximately 19 percent of the City's overall water supply portfolio is recycled water purchased from SBWR. Figure 6-3 shows the City's Existing Recycled Water System. Table 6-5 provides information on the wastewater treated and discharged within the City's water service area in 2025.

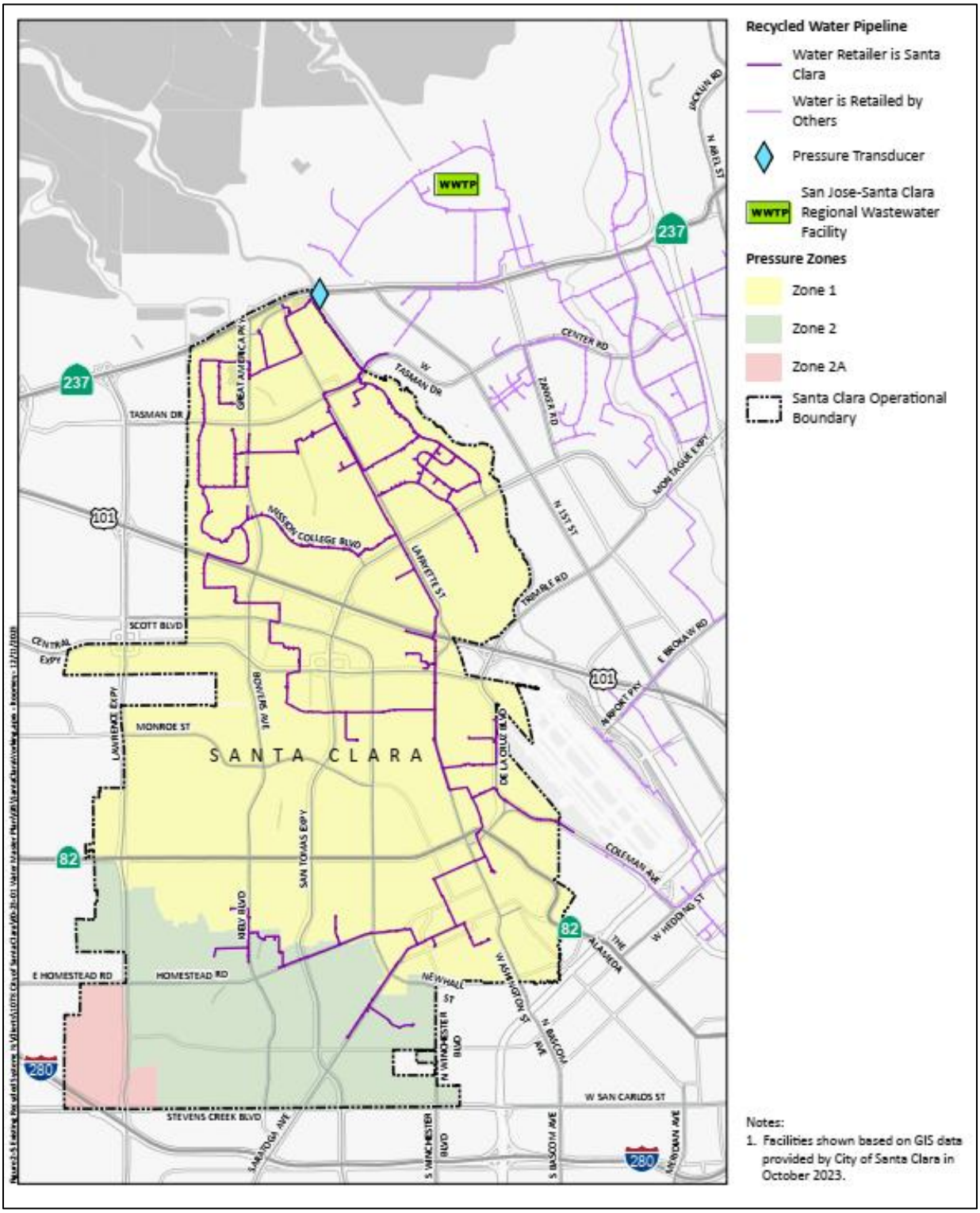


Figure 6-3 Existing Recycled Water System

Table 6-5. Wastewater Treatment and End Uses Within Service Area in 2025 (DWR Table 6-3 Retail)

☐	**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) (AF)	Total 2025 Volume of Water Treated (AF)	**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 (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Name of other entity
San Jose/Santa Clara WPCP, Place ID 255333	Yes	11,048	116,831	Tertiary	3,871	Tertiary	8,572		-		-	Tertiary	4,387	Valley Water's SVAWPC
Total		11,048	116,831		3,871		8,572		0		0		4,387	

NOTES: The reported wastewater volume of 11,048 AF includes contributions from the Cupertino Sanitary District. Advanced treated flows from Valley Water's Advanced Purification Center are blended back with tertiary-treated recycled water for SBWR. Therefore, these treated flows are included in the total recycled water produced by the San Jose/Santa Clara WPCP.

6.4.4 Potential, Current, and Projected Recycled Water Uses

The City's recycled water system has been in operation since 1989. The City has pursued the use of recycled water including use in industrial processes, residential irrigation and dual plumbed buildings for toilet and urinal flushing. The City has also pursued more traditional uses for recycled water as a drought proof water source for large turf area irrigation in commercial settings.

Currently, the City has over 350 active recycled water accounts, which include industrial process use, dual-plumbing, cooling tower and irrigation uses.

The existing recycled water distribution system was laid out to maximize service to large potential recycled water customers. Since the last UWMP, approximately 5,000 feet of system expansions have been completed as part of land development projects. Additional customer accounts have been added, and pending projects indicate continued growth in recycled water demand.

The City and SBWR are working with potential customers along the pipeline extensions to encourage, and in some instances, require recycled water use for irrigation and/or cooling towers. Current projects that have been completed since the last UWMP, are in construction, or are scheduled to be completed within the UWMP reporting period (2025-2050) are estimated to increase the total recycled water demand.

Some additional customers may be provided with recycled water once additional recycled water distribution mainline extensions are completed. The current five-year Capital Improvement Plan (CIP) includes expanding the recycled water system and extending the recycled water main to offset potable water demands (where applicable) for new proposed developments. Due to the high cost of distribution system extensions and retrofit costs, converting smaller potential users to recycled water use are usually not cost effective.

The potential future uses of recycled water are similar to the current uses: landscape irrigation and industrial processes. Through the expansion of the recycled water distribution system within the City, existing large landscape systems like City parks may be retrofitted to use recycled water and existing industrial processes that had previously been out of reach of the recycled water system may potentially be converted. New non-residential projects located near recycled water mains are able to utilize recycled water for toilet flushing and cooling tower water by installing dual plumbing within the development. Since the 2020 UWMP, the City has made some expansions to the current recycled water infrastructure as part of land development projects. The City plans to continue the extension/expansion to City parks and upgrade of the recycled water system main as part of the City's CIP.

All new developments that occur within a reasonable distance of the existing or proposed recycled water distribution system will be required to accommodate recycled water for landscape irrigation and/or cooling towers (i.e., dual-plumbing). The City is also requiring developers to be ready to use recycled water if it is available in the future. Several infill projects may be developed along the recycled water distribution system that is currently

in place. The City is projecting increased use by the current recycled water customers and added customers due to new development and redevelopment along the existing recycled water pipelines. While the largest potential recycled water users have already been converted to recycled water use, the City is becoming home to a large data center industry and the data centers can use large volumes of water in cooling towers. SBWR and the City are encouraging or requiring new projects to use recycled water for landscape irrigation, dual plumbing and cooling towers. New projects are required to use recycled water where available; where recycled water is not yet available, new projects must be designed as "recycled water ready" (i.e., in accordance with recycled water standards) to facilitate future conversion. Based on sites already utilizing recycled water, and expected demands of projects currently in the permitting process to use recycled water, future recycled water use is expected to increase.

Table 6-6 summarizes the City's current and planned recycled water direct beneficial uses within the City's service area for 2025 to 2050.

Table 6-7 compares the 2020 UWMP recycled water use projections to 2025 actual recycled water use. Actual recycled water use in 2025 is lower than the quantity projected in the 2020 UWMP. Actual development has differed from what was previously planned. In addition, California Paperboard, which was one of the largest recycled water users, is no longer operating in the City, resulting in reduced recycled water demand.

Table 6-6. Current and Projected Recycled Water Direct Beneficial Uses Within Service Area (DWR Table 6-4 Retail)

Use Type **Drop down list**	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
Other (Description Required)	Non-Potable	Landscape Irrigation (Parks, schools, cemeteries, churches, residential, other public facilities); Commercial Use (Landscaping, toilets, HVAC, car washes, laundries, nurseries, etc); Industrial Use (Cooling towers)	3,871	4,300	4,729	5,159	5,588	6,017	6,017	
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			3,871	4,300	4,729	5,159	5,588	6,017	6,017	
Total			3,871	4,300	4,729	5,159	5,588	6,017	6,017	

Table 6-7. 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual (DWR Table 6-5 Retail)

Use Type Drop Down list	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Other (Description Required)	4,570	3,871
Total	4,570	3,871
NOTES: The recycled water uses include landscape irrigation (parks, schools, cemeteries, churches, residential, other public facilities), commercial use (landscaping, toilets, HVAC, car washes, laundries, nurseries, etc), and industrial use (cooling towers).		

The City's identified actions to expand recycled water use within its service area are described below as summarized in Table 6-8. The total expected increase in recycled water use is 2,146 AF with the implementation of the actions listed in Table 6-8 and other applicable actions.

Table 6-8. Methods to Expand Future Recycled Water Use (DWR Table 6-6 Retail)

☐	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.		
Page 6-18 and 6-19	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Education and Outreach	Educate residents and businesses on recycled water benefits through outreach campaigns, environmental fairs, and partnerships with local organizations.	2026	2,146
Technical Assistance	Provide technical support for system design, retrofits, landscaping, and regulatory permitting to facilitate recycled water adoption.	2026	0
Regulatory Requirements	Require the use of recycled water for irrigation and other non-potable uses where available, feasible, and compliant with standards.	2026	0
Water Quality & Reliability Improvements	Supply high-quality, consistent recycled water to reduce costs and improve performance for industrial and landscape applications.	2026	0
Regional Planning & Partnerships	Participate in regional water reuse planning to expand recycled water use, enhance system reliability, and promote potable reuse initiatives.	2026	0
		Total (AF)	2,146
		Unit Conversion to AF	2,146
NOTES: The expected increase in recycled water for the first action represents the total projected increase from current to future recycled water use. This increase is attributable to all the actions listed above and other applicable actions and is difficult to allocate among them individually.			

City staff are educating City residents and businesses of the benefits of using recycled water and encouraging attendance at environmental fairs hosted by the City as well as local businesses promoting recycled water use. In addition, City staff also reach out to businesses along the recycled water pipeline to educate and encourage conversion to recycled water.

City code requires new development to utilize recycled water for approved uses where recycled water is available. Recycled water is also required for construction water use when a project site is within 3 miles of a recycled water fill station. In addition, the City offers technical assistance for the design of retrofits, horticultural and landscaping problems, and for the permit process through the State Water Board – Division of Drinking Water for each recycled water use location.

The City Code, Section 13.15.160(a), states that the City Council intends to prohibit the use of potable water for landscape irrigation where recycled water is made available and meets all applicable standards. Section 13.15.160(b) states that the City Council also intends to require the use of recycled water for all other non-potable uses where recycled water is made available and meets all applicable standards for those uses and is determined to be suitable and economically feasible therefore. The goals of City Council are sustainability and to offset potable water use by using recycled water.

Valley Water and the RWF completed construction of an Advanced Water Treatment Facility adjacent to the RWF in 2014. The Silicon Valley Advanced Water Purification Center (SVAWPC) was constructed to enhance the quality of the recycled water currently produced by the RWF for potable reuse in the augmentation of groundwater or surface water supplies. The SVAWPC produces up to 8.0 MG of highly purified recycled water per day. The facility has been designed so that it can be expanded in the future to four times its initial size.

Water that has undergone two levels of treatment at the adjacent RWF can undergo three additional advanced treatment stages: microfiltration, reverse osmosis, and ultra-violet disinfection. The SVAWPC produces water that is as pure as, or purer than, many potable water sources. The water that is produced is blended with recycled water from the SBWR program. The enhanced blend of water will help industrial users reduce operating costs, and it can be used on a wider variety of landscapes, due to a much lower level of salinity. In areas of the City served by groundwater, industrial customers will find the quality of treated recycled water to be more consistent than groundwater for cooling towers. Those cooling towers that receive groundwater could also receive a blend of multiple water sources based on system demand (e.g., groundwater blended with imported surface water) with slight variations in water quality, whereas those that receive recycled water would receive one consistent water source.

Valley Water completed the Countywide Water Reuse Master Plan (CWRMP) in 2021 to integrate and expand the use of recycled water for non-potable and potable reuse. The goals of the CWRMP are, but not limited to, identification of feasible opportunities to expand water reuse; development of partnerships with other recycled water producers/supplier to promote potable reuse through the development of purified water systems; and evaluating potential regional integration to improve system reliability and flexibility and optimize use of supply and infrastructure.

6.5 DESALINATED WATER

Desalination is the process of removing dissolved minerals from brackish or saltwater to produce potable water that can be used for municipal needs such as drinking water and

industrial uses. It is one of several elements that may be included in a community's water supply portfolio.

The opportunities for the City to use desalination as a potential source of water are limited. These limitations are due to geographic location and logistics. The City is located inland from the San Francisco Bay and other sources of seawater or brackish water. In addition, the City lacks a practical means of brine disposal from a desalination process. The distance from a suitable location for an outfall is significant and the cost would be prohibitive. However, Valley Water is a partner in the Bay Area Regional Desalination Project. Under the project concept, Valley Water would receive 5,600 AF in critical dry years through exchanges with other agencies.

In 2017, Valley Water and participating agencies finalized the Bay Area Regional Reliability (BARR) Drought Contingency Plan to identify all the available opportunities to optimize water supply reliability through the sharing of water resources across the region. This includes the use of existing supplies as well as new supply through desalination. By taking a more holistic and regional approach to water supply planning, the agencies hope to make the best use of existing resources to serve the future needs of the Bay Area.

The SFPUC is increasing and accelerating its efforts to acquire additional water supplies and explore other projects that would increase overall water supply resilience through the Alternative Water Supply Planning Program. The drivers for the program include: (1) the adoption of the Bay-Delta Plan Amendment and the resulting potential limitations to RWS supply during dry years, (2) the net supply shortfall following the implementation of the Water System Improvement Program (WSIP), (3) San Francisco's perpetual obligation to supply 184 mgd (206,107 AFY) to the Wholesale Customers, (4) adopted Level of Service Goals to limit rationing to no more than 20 percent system-wide during droughts, and (5) the potential need to identify water supplies that would be required to offer permanent status to interruptible customers. Developing additional supplies through this program would reduce water supply shortfalls and reduce rationing associated with such shortfalls. Capital projects under consideration to develop additional water supplies include surface water storage expansion, recycled water expansion, water transfers, desalination, and potable reuse. A more detailed list and descriptions of these efforts are provided in Chapter 7.

6.6 WATER EXCHANGES AND TRANSFERS

The July 2009 Water Supply Agreement, between the City and County of San Francisco and wholesale customers in Alameda County, San Mateo County and Santa Clara County outlines the ability for permanent transfers of ISGs. Currently, the City does not have an ISG since it is not a permanent customer of SFPUC. SFPUC provides them with an interruptible supply. However, the City is still eligible to receive transfers per the agreement which specifies that a wholesale customer that has an ISG may transfer a portion of it to one or more other wholesale customers. Such a transfer must be a permanent transfer and no less than 1/10th of 1.0 mgd (1,120 AFY).

Amendments to the Water Supply Agreement which was approved in 2025 established mechanisms that allow wholesale customers with Minimum Annual Purchase (MAP)

requirements and those with ISGs to permanently transfer a portion of their contractual supply allocations to other eligible wholesale customers, subject to specific conditions and approvals. These amendments create a contractual framework that allows the transfer of MAP allocations among wholesale customers and provide additional flexibility for regional water supply management. While the City currently does not hold an ISG or MAP allocation, these provisions may facilitate potential future transfers from other SFPUC wholesale customers, which could improve the City's supply reliability during extended drought conditions.

The City currently has eleven interties that exist for emergency transfers of water with neighboring agencies including City of Sunnyvale, San Jose Municipal Water, San Jose Water, and California Water Service. The interties are only intended for use during emergency scenarios, rather than long-term water transfers and allow the City to either receive or provide supply. Seven of the interties have normally open isolation valves, which allow bi-directional flow based on pressure settings, so that they only activate in an emergency scenario that substantially reduces pressure. The remaining four interties have normally closed isolation valves that are required to be manually opened before operating.

6.7 FUTURE WATER PROJECTS

According to the findings in City's 2025 WSMP, the City is expected to have sufficient potable and non-potable water supplies to meet projected demands through 2050, even during normal, single dry, and multiple dry years. However, the City must remain strategic in its water supply and system planning and operations to ensure a safe and reliable water supply for the future. The two future planned local water supply projects include:

- **Water System Optimization:** Maximize the use and efficiency of existing water system facilities by leveraging current infrastructure to meet future water demands, such as rehabilitating existing wells to restore lost capacity north of Highway 101.
- **Recycled Water System Expansion:** Expand the recycled water distribution system to provide a drought-proof supply and serve more customers and promote its use across the City for diverse non-potable applications, such as landscape irrigation, dual-plumbed buildings, and industrial processes, to reduce reliance on potable water sources.

Table 6-9 summarizes the future water supply projects to increase water supply as described above.

Table 6-9. Expected Future Water Supply Projects or Programs (DWR Table 6-7 Retail)

☐	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.
Section 6.7 in Page 6-18 and 6-19	Provide page location of narrative in the UWMP

6.8 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

In years of normal precipitation, the City estimates that all four of its supply sources will have a total average yield of about 38,700 AFY. This assumes the following yields for each supply source:

- Up to 5,041 AFY from the SFPUC. The supply from SFPUC is assumed to be terminated starting in 2040 due to contract termination in 2028, and this assumption was applied to the Scenario 1 evaluated in Chapter 7.[3]
- Up to 4,560 AFY from Valley Water
- Up to 23,048 AFY from the City's groundwater wells
- Up to 6,017 AFY from recycled water

The City's existing water supplies and future projected normal year water supplies are summarized in Table 6-10 and Table 6-11, respectively.

Table 6-10. Water Supplies – Actual (DWR Table 6-8 Retail)

Water Supply		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	Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Purchased or Imported Water	SFPUC	Potable	3,229	
Purchased or Imported Water	Valley Water	Potable	2,590	
Groundwater (not desalinated)		Potable	11,038	
Recycled Water		Non-Potable	3,871	
		Subtotal Potable	16,857	
		Subtotal Non-Potable	3,871	
		Total	20,728	

[3] As described further in Chapter 7, a second scenario (Scenario 2) is included in the Chapter 7 supply and demand assessment which assumes that the City's contract with SFPUC is extended, providing SFPUC supplies to the City beyond 2040.

Table 6-11. Water Supplies – Projected (DWR Table 6-9 Retail)

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
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	Additional Detail on Water Supply	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Purchased or Imported Water	SFPUC	Potable	5,041		5,041		0		0		0	
Purchased or Imported Water	Valley Water	Potable	4,560		4,560		4,560		4,560		4,560	
Groundwater (not desalinated)	Wells	Potable	23,048		23,048		23,048		23,048		23,048	
Recycled Water	SBWR	Non-Potable	4,300		4,729		5,159		5,588		6,017	
		Subtotal Potable	32,649		32,649		27,608		27,608		27,608	
		Subtotal Non-Potable	4,300		4,729		5,159		5,588		6,017	
		Total	36,949		37,378		32,767		33,196		33,625	

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES: The supply from SFPUC is assumed to be terminated beginning in 2040 due to contract termination in 2028.

6.9 CLIMATE CHANGE IMPACTS TO SUPPLY

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 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.

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 conducted a Long-Term Vulnerability Assessment (LTVA) which assessed the potential effects of climate change on 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 2020 to 2070. 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. SFPUC completed the LTVA in 2021 and 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 regulatory instream flow requirements than changes in mean annual temperature and precipitation; and
- The RWS is vulnerable to changes to mean climate when demand or regulatory instream flow requirements increase.

6.10 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 the City 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 OTHER LOCALLY APPLICABLE CRITERIA

Other locally applicable criteria may affect the 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 the City 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.

6.12 ENERGY INTENSITY

In accordance with CWC §10631.2(a), the energy intensity to provide water service to the City's customers over a one-year period is presented in this section to the extent that the information is available. The amount of energy to receive, treat, pump, and deliver the City's water supply within the system it owns and operates is included.

Water energy intensity is the total amount of energy, calculated on a whole-system basis, used to deliver water to the City's customers for use. Energy intensity is the total amount of energy in kilowatt hours (kWh) expended on a per million gallon basis to take water

from the City's source to its point of delivery. Understanding the whole-system energy intensity would allow the City to make informed strategies in managing its water supplies and operating its system as follows:

- Identifying energy saving opportunities as energy consumption is often a large portion of the cost of delivering water
- Calculating energy savings and GHG emissions reductions associated with water conservation programs
- Potential opportunities for receiving energy efficiency funding for water conservation programs
- Informing climate change mitigation strategies
- Benchmarking of energy use at each water acquisition and delivery step and the ability to compare energy use among similar agencies

In Table 6-12 below, the energy intensity of the City's water service is calculated for FY 2024/25. The total energy intensity for the City's water service is 685 kWh/MG.

Table 6-12. Recommended Energy Reporting – Single Delivery Product - Total Utility Approach (DWR Table O-1B)

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	AF	**Total Utility** See DWR NOTES	**Hydropower**	**Net Utility**
Volume of Water Entering Process		16,857		16,857
Energy Consumed (kWh)		3,762,798		3,762,798
Energy Intensity (kWh/vol. converted to MG)		685	-	685

DWR NOTES:
Total Utility: The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)

Metered Data

Data Quality Narrative:

Metered Data

Narrative:

Power at the well and tank pump stations

CHAPTER 7
Water Service Reliability and Drought Risk Assessment

This chapter discusses the City's water supply reliability under varying conditions through 2050. Factors impacting long-term reliability of water supplies are discussed. In assessing the City's water supply reliability, a comparison of projected water supplies and projected water demand in normal, single dry, and five consecutive dry years is provided for the City's water service area. This chapter also includes the City's DRA for the next five years. Findings show that the City's water supplies are sufficient to meet the existing and projected water demands during normal and dry conditions.

7.1 CONSTRAINTS ON WATER SOURCES

The City's existing water supplies are described in Chapter 6 of this UWMP and consist of the following:

- Treated surface water purchased from the SFPUC and Valley Water
- Groundwater pumped by the City from the Santa Clara Subbasin
- Recycled water from SBWR

The City relies on three sources of potable water and one source of recycled water. Each supply has some risk of interruption and varying levels of reliability. A major seismic event could disrupt deliveries from the SFPUC RWS for several months. The completion of WSIP has improved system reliability, although some risk remains.

Similarly, Valley Water supplies could be interrupted for an extended period due to earthquakes or infrastructure failures. Valley Water continues to implement capital improvements to enhance system reliability. Imported supplies from the California SWP and CVP are also subject to risks in the Sacramento–San Joaquin Delta, which could result in temporary supply interruptions.

Power outages are another potential risk; however, the City has backup power to operate key groundwater wells and storage facilities. Local groundwater provides a reliable backup supply and can meet the City's demand for a limited period during emergencies.

The recycled water system serves irrigation and industrial uses. Short-term interruptions are not considered critical, as some users have backup potable connections and landscaping can typically tolerate temporary outages.

The City completed a Risk and Resilience Assessment in 2020 in compliance with the America's Water Infrastructure Act of 2018, and an update was completed in 2025. The assessment found that the City's system benefits from flexibility, redundancy, local groundwater resources, and interconnections with neighboring agencies, all of which enhance overall reliability.

Climate change could constrain the City's long-term sustainability of water supplies by increasing variability in floods and droughts. Over the past several decades, the California water community has focused their attention on determining the effects of climate change, but there is no clear scientific consensus on exactly how climate change will quantitatively affect the State's water supplies. Therefore, being prepared for a wet water year, a critical

water year, or somewhere in between, will give the City a better sense of the degree to which they may need to conserve or expand existing water supplies.

7.1.1 Constraints of RWS Supplies

The amount of imported water available to SFPUC's retail and wholesale customers, including the City, is constrained by legal, environmental, water quality, climatic, and other factors potentially resulting in inconsistent supply.

There may be shortfalls of RWS supplies in dry years as a result of several factors, including required instream flow releases (further discussed in Section 7.2.1.2 Bay-Delta Plan Amendment Updates) as well as climate change (see Chapter 6 Section 6.9 Climate Change Impacts to Supply).

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.

Because of the uncertainty surrounding implementation of the Bay-Delta Plan Amendment, the following water supply reliability assessment includes a set of tables for two future supply scenarios: (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. 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. The standardized tables associated with this UWMP contain the future scenario that assumes implementation of the Bay-Delta Plan Amendment.

Additional factors could affect the availability of water supply regarding the SWRCB curtailments and agreements with Turlock and Modesto 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 Modesto and Turlock Irrigation Districts (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 percent of any flow releases the Federal Energy Regulatory Commission (FERC) may require through issuance of a new license for the 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 Districts to offset a portion of San Francisco's flow contributions in exchange for payment. Due to the high levels of uncertainty surrounding the 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 Districts (the Side Agreement), which allows San Francisco to pay the 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 percent. 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.

7.1.2 Water Quality of RWS Supplies

Surface water supplies available to the RWS include the Tuolumne River and local Bay Area reservoirs. 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 Division of Drinking Water 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: https://www.sfpuc.gov/accounts-services/water-quality/annual-triennial-water-quality-reports.

7.2 WATER SERVICE RELIABILITY ASSESSMENT

This section presents the constraints on the City's existing and planned water sources and describes the historical basis for projecting available supplies in various hydrologic conditions (i.e., normal year, single dry year, and five consecutive dry years). The City's water service reliability is then presented in five-year increments through 2050 based on earlier analysis of water use (discussed in Chapter 4) and supply (Chapter 6). Finally, this section discusses the City's water management tools and options to promote regional supply reliability and minimize the need to import water from other regions.

7.2.1 Purchased Water from SFPUC

Approximately 14 to 18 percent of the City's water supply was purchased from the SFPUC from 2021 through 2025. The reliability of SFPUC's water supplies and the management strategies for addressing these reliabilities are discussed below based on information provided by SFPUC and BAWSCA (provided in Appendix F of this plan).

7.2.1.1 SFPUC Regional Water System

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 the 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 percent 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 Level of Service (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. 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 percent 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 percent of water supplied to San Francisco.
- Meet 80 percent of San Francisco's Recreation and Parks Department irrigation demands with recycled water by December 31, 2025.

7.2.1.2 Bay-Delta Plan Amendment Updates

In December 2018, the SWRCB adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) 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 to 50 percent of the "unimpaired flow"[1] on the three tributaries from February through June in every year type. In SFPUC modeling of the new flow standard, the required release is assumed to be 40 percent 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

[1] "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.)

- 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 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 administration.[2] On November 10, 2022, the SFPUC along with the Modesto and Turlock 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.

Because of the uncertainty surrounding implementation of the Bay-Delta Plan Amendment, the water service reliability assessment in the 2025 UWMP looks at two future supply scenarios:

1. Implementation of the Bay-Delta Plan Amendment.
2. SFPUC system's current conditions without implementation of the Bay-Delta Plan Amendment.

[2] 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/.

7.2.1.3 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 (Regional GSR) Project is a strategic partnership between the SFPUC and three Wholesale Customers in San Mateo County: the California Water Service (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 AF) through the project.

  The Regional GSR 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 the Hickey, Southwood Drive, and Mission wells 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 the SFPUC South San Francisco Main

Well to the California Water Service 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 Regional GSR 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.

7.2.1.4 Alternative Water Supply Program

In 2019, the SFPUC established the Alternative Water Supply (AWS) Program 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 AWS Plan, the SFPUC anticipates a water supply gap will occur in future dry years. The AWS Program 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 AWS Program 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 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, City of Redwood City, City of Foster City, and City of San Mateo.

- **Pure Water Silicon Valley**. 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. 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 AWS Program, the following additional regional projects are included in the Agreements to Support Healthy Rivers and Landscapes discussed in the Bay-Delta Plan Amendment section above. 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.

SFPUC's AWS Plan published in February 2024 included a planning framework for 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, SFPUC prepared a progress report that provided status updates on the AWS projects. In 2027, SFPUC plans to review and revise its Alternative Water Supply Plan based on updated information.

7.2.1.5 SFPUC Supply Allocations

Two drought allocation frameworks govern how supplies from the RWS are distributed during SFPUC-declared water shortages, and both are described in the sections below. The Water Shortage Allocation Plan (Tier 1) establishes how available supplies are allocated between SFPUC's Retail Customers and the Wholesale Customers collectively. The Wholesale Customers' Tier 2 Drought Response Implementation Plan (Tier 2) then allocates the Wholesale share among the individual agencies using a defined, data-based methodology. Together, these frameworks guide regional drought allocation procedures and support coordinated implementation during shortage conditions.

7.2.1.5.1 Tier One Drought Allocations

The WSA between the SFPUC and the Wholesale Customers, discussed above, includes as "Attachment H" a Water Shortage Allocation Plan (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. Table 7-1 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 percent, 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.

Table 7-1. Share of Available SFPUC Supplies Under Various Shortages

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

Source: SFPUC Common Language for BAWSCA Member Agencies' 2025 UWMPs, February 13, 2026.

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 percent for any level of reduction in system-wide water use. The additional water conserved by Retail Customers up to the minimum 5 percent 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.

7.2.1.5.2 Tier Two Drought Allocations

The Wholesale Customers have negotiated and adopted a Tier 2 Plan that 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.

7.2.1.5.3 Allocations for Supply Shortages Greater than 20 Percent

Per the WSA, the Tier One and Tier Two Plans will be used to allocate water from the Regional Water System between Retail and Wholesale Customers during system-wide shortages of 20 percent or less.

For purposes of the 2025 UWMPs, for RWS shortages in excess of 20 percent, the allocations among the Wholesale Customers are assumed to be equivalent among them and to equal the drought cutback to Wholesale Customer by the SFPUC.

7.2.1.6 Projected Supplies from SFPUC Regional Water System

The SFPUC has a Level of Service objective of meeting average annual water demand of 265 MGD from the SFPUC watersheds for retail and wholesale customers during non-drought years, as well as a contractual obligation to supply 184 MGD to the wholesale customers. These projected supplies are summarized in Table 7-2.

Table 7-2. SFPUC Regional Water System Supply Capacity[a]

	2030	2035	2040	2045	2050
SFPUC Retail Supply, mgd	81	81	81	81	81
SFPUC Wholesale Supply, mgd	184	184	184	184	184
Total Regional Water System Supply, mgd	**265**	**265**	**265**	**265**	**265**

(a) From SFPUC Level of Service goals.

For SFPUC's water supply reliability evaluation for its 2025 UWMP, demand is assumed to be equivalent to the sum of the projected retail demands on the Regional Water System and wholesale customer purchase request projections provided to SFPUC by BAWSCA in March 2026. These projected water demands are summarized in Table 7-3.

Table 7-3. Projected Retail and Wholesale Demand Assumptions for the SFPUC Regional Water System[a]

	2030	2035	2040	2045	2050
SFPUC Retail Customers, mgd	62.7	61.2	61.9	64.0	66.7
SFPUC Wholesale Customers, mgd[b]	133.9	136.3	140.6	144.1	148.4
Total, mgd	**196.6**	**197.5**	**202.5**	**208.1**	**215.2**

(a) From SFPUC 2025 UWMP Supply Reliability Memo, Table 1: Retail and Wholesale RWS Demand Assumptions used for Supply Reliability Modeling, provided by SFPUC on March 11, 2026.
(b) 2030 through 2050 Wholesale Customer purchase projections were provided to the SFPUC by BAWSCA on March 4, 2026, and include demands for the cities of San Jose and Santa Clara.

The City's water supply from the SFPUC Regional Water System under normal, single dry and multiple dry year conditions is described further in the sections below. Because the water demands vary over the period evaluated, in addition to supply conditions with and without the Bay-Delta Plan Amendment, the estimated availability of SFPUC Regional Water System supplies varies by year and by assumed dry year condition. This variation in Regional Water System supply availability is shown in Table 7-4 with the Bay-Delta Plan Amendment and Table 7-5 without the Bay-Delta Plan Amendment. As shown in Table 7-4, with the Bay-Delta Plan Amendment, supply availability is reduced to as low as 57 percent of projected purchases in some multiple dry years. As shown in Table 7-5, without the Bay-Delta Plan Amendment, supply availability is projected to be 100 percent of projected purchases in all years.

Table 7-4. Projected Regional Water System Supply Availability in Years 2030 to 2050 with Bay-Delta Plan Amendment[a,b]

	2030[c]	2035[c]	2040[c]	2045[c]	2050[c]
Average Year	100	100	100	100	100
Single Dry Year	75	74	72	70	68
Consecutive 1st Dry Year	75	74	72	70	68
Consecutive 2nd Dry Year	63	63	61	59	57
Consecutive 3rd Dry Year	63	63	61	59	57
Consecutive 4th Dry Year	63	63	61	59	57
Consecutive 5th Dry Year	63	63	61	59	57

(a) From SFPUC 2025 UWMP Supply Reliability Memo, Table 4g: Projected RWS Supply Availability, Years 2030-2050, with Bay-Delta Plan Amendment, provided by SFPUC on March 11, 2026.
(b) RWS includes both SFPUC Retail and SFPUC Wholesale customers.
(c) Values shown in percentage.

Table 7-5. Projected Regional Water System Supply Availability in Years 2030 to 2050 without Bay-Delta Plan Amendment[a]

	2030[c]	2035[c]	2040[c]	2045[c]	2050[c]
Average Year	100	100	100	100	100
Single Dry Year	100	100	100	100	100
Consecutive 1st Dry Year	100	100	100	100	100
Consecutive 2nd Dry Year	100	100	100	100	100
Consecutive 3rd Dry Year	100	100	100	100	100
Consecutive 4th Dry Year	100	100	100	100	100
Consecutive 5th Dry Year	100	100	100	100	100

(a) From SFPUC 2025 UWMP Supply Reliability Memo, Table 5g: Projected RWS Supply Availability, Years 2030-2050, without Bay-Delta Plan Amendment, provided by SFPUC on March 11, 2026.
(b) RWS includes both SFPUC Retail and SFPUC Wholesale customers.
(c) Values shown in percentage.

The projected Regional Water System supply availability during dry years differs slightly from those applicable to wholesale customers. Therefore, the City's dry-year supply percentages from SFPUC (described in Section 7.3.1) are slightly different from those shown in Table 7-4.

7.2.2 Purchased Water from Valley Water

Valley Water manages a highly integrated and diversified water supply system consisting of local surface water, groundwater, imported water (SWP and CVP), recycled water, and conservation programs. This diversified portfolio enhances overall system reliability and resilience to drought and supply interruptions.

Valley Water continues to prioritize groundwater storage and conjunctive use. During normal and wet years, excess supplies are stored through managed aquifer recharge, groundwater banking (e.g., Semitropic Groundwater Bank), and carryover storage in San Luis Reservoir. These stored supplies provide a critical buffer during dry periods and help delay or reduce the need for demand reductions. In extended droughts, Valley Water supplements its supplies through water transfers, exchanges, and regional agreements, though availability remains dependent on hydrologic conditions, regulatory constraints, and regional demand.

Infrastructure reliability remains guided by Valley Water's Infrastructure Reliability Plan (IRP), which evaluates major outage scenarios such as earthquakes, delta disruptions, extreme storms, and power outages. The system is designed to restore treated water deliveries to minimum winter demand levels within approximately 30 days following a major event. While severe events (e.g., a major earthquake) could result in significant short-term outages, Valley Water maintains operational strategies, such as groundwater reliance and system reconfiguration, to sustain essential service levels during emergencies.

As a retailer in Santa Clara County that uses groundwater and treated surface water, the City relies on Valley Water activities to maintain sustainable supplies, including managed groundwater recharge and in-lieu groundwater recharge (e.g., treated surface water deliveries, demand management programs, and SFPUC supply).

Imported water from the Sacramento–San Joaquin Delta continues to be a major component of Valley Water's supply portfolio, though it remains vulnerable to risks including climate change, sea level rise, regulatory restrictions, and potential levee failures. Planning efforts at the state and regional level continue to address these risks, but Delta supply uncertainty remains a key long-term vulnerability.

Valley Water's conjunctive management of groundwater and surface water makes it very difficult to demonstrate reduced Delta reliance at a retailer level:

- Valley Water uses water from the SWP, CVP, and local watershed runoff to meet groundwater recharge and water treatment plant needs, which in turn produce water for use by retailers and other users. The interconnected nature of the groundwater basins and blended use of sources in Valley Water infrastructure like reservoirs and pipelines make it infeasible to quantify imported water use at the retailer level.
- Valley Water manages most of the water conservation programs for the County with the support of retailers. Retailers support the conservation programs through water rates and cost share agreements.
- Valley Water and local retailers have recycled and purified water goals for the future. Future potable reuse would be added to surface supplies and may also augment groundwater supplies.
- Valley Water projects an increased use of supplies captured locally, which can contribute to reduced reliance on the Delta. But given Valley Water's conjunctive water management, these reductions cannot be allocated to individual retailers.

To improve long-term reliability and reduce dependence on imported supplies, Valley Water has continued to expand and invest in:

- Water conservation and demand management, with ongoing efficiency improvements and updated state conservation requirements;
- Recycled and purified water, including advancement of potable reuse projects and implementation of the Countywide Water Reuse Program;
- Stormwater capture and groundwater recharge, including green infrastructure and Flood-MAR initiatives;
- Seismic retrofits and dam improvements, with several reservoir upgrades ongoing or nearing completion to restore full operational capacity;
- Regional collaboration efforts (e.g., Bay Area Regional Reliability partnerships) to enhance interconnections, facilitate water transfers, and improve climate resilience.

Recent planning efforts, including updates to Valley Water's 2050 WSMP, continue to indicate that projected demands through the planning horizon (2045 and beyond) can be met under normal and multi-dry year conditions with implementation of planned projects and programs. However, uncertainties related to climate change, regulatory constraints, and delta reliability remain key considerations.

Overall, Valley Water's conjunctive use strategy, combined with continued investment in local supplies, infrastructure improvements, and regional coordination, supports a resilient and adaptable water supply system while progressively reducing reliance on imported Delta water.

7.2.3 Groundwater

7.2.3.1 Groundwater Supply

Groundwater supply is largely constrained by hydrologic variability and the estimated 548,000 AF of total operational storage capacity within the subbasins. Valley Water has about 144,000 AFY of managed recharge capacity, including more than 90 miles of in-stream recharge and 102 off-stream recharge ponds. Maintaining Valley Water's managed recharge program requires ongoing operational planning for the distribution of local and imported water to recharge facilities; maintenance and operation of reservoirs, diversion facilities, distribution systems, and recharge ponds; and the maintenance of water supply contracts, water rights, and relevant environmental clearance. Valley Water's managed recharge program is critical to maintain groundwater supply because natural recharge is insufficient to meet groundwater demands. However, protecting natural recharge capacity is also important. Valley Water's District Act and Board policy help preserve open space that supports agriculture and natural recharge capacity.

Additional details about constraints on groundwater supply and quality and Valley Water's comprehensive groundwater management strategies are described in the 2021 Groundwater Management Plan[3].

7.2.3.2 Groundwater Quality

The City has historically relied on groundwater for most of the City's water supply. Therefore, any contamination of those supplies poses a significant risk to the City's overall water supply reliability. The City's production wells consistently meet all State and Federal applicable water quality criteria. In contrast to other areas adjacent to San Francisco Bay where saltwater intrusion has been an issue, total dissolved solids (TDS) is not a concern for the City. While the City's wells continue to provide excellent quality water, future State or Federal regulations could be imposed that may mandate additional treatment. Public water supply wells throughout the City deliver high quality water to consumers, almost always without the need for treatment.

Valley Water monitors groundwater quality in the Santa Clara Subbasin to support its objective of protecting groundwater from contamination, maintaining long-term reliability, and minimizing risks such as land subsidence and saltwater intrusion. The most recent groundwater quality information is presented in Valley Water's annual groundwater reporting Water Year 2024 Groundwater Report[4], which provides a comprehensive evaluation of groundwater conditions, including water quality, groundwater levels, and basin sustainability.

1,2,3-Trichloropropane (1,2,3-TCP)

In 2017, 1,2,3-Trichloropropane (1,2,3-TCP) became a State regulated contaminant with a maximum contaminant level (MCL) of 0.005 ug/L. Per the Water Year 2024 Groundwater Report, 1,2,3-TCP is currently not detected in the Santa Clara Subbasin. All compliance monitoring conducted at City wells has confirmed no detection of 1,2,3-TCP.

Nitrate

Nitrate in groundwater originates from both natural and anthropogenic sources. Concentrations below 10 mg/L (as nitrogen) are typical, while higher concentrations are generally associated with fertilizers, septic systems, and animal waste. Although groundwater quality in the Santa Clara and Llagas Subbasins remains high overall, elevated nitrate concentrations have been observed in localized areas, including portions of the Coyote Valley and Llagas Subbasin.

Recent monitoring indicates that nitrate concentrations are generally stable or declining in many areas due to ongoing groundwater protection efforts. The drinking water MCL for nitrate is 10 mg/L as nitrogen. The City continues to monitor all wells for nitrate on a regular

[3] 2021 Groundwater Management Plan Valley Water. https://assets.valleywater.org/files/2021_GWMP.pdf

[4] Water Year 2024 Groundwater Report Valley Water. https://assets.valleywater.org/files/WY_2024%20Report%20for%20Santa%20Clara%20and%20Llagas%20Subbasins.pdf

basis. Some wells exhibit nitrate concentrations approaching one-half of the MCL, likely associated with historical agricultural practices and legacy septic system impacts. Nitrate does not currently pose a significant threat to groundwater supply availability; however, the City will continue monitoring and implement additional management actions if necessary.

Manganese

Manganese is a naturally occurring constituent in groundwater and is regulated under a secondary MCL of 50 µg/L due to aesthetic concerns such as staining. While manganese does not generally pose a health risk at typical concentrations, elevated levels can affect water quality acceptability.

Consistent with historical observations and recent monitoring, manganese is present at low concentrations in some City wells. One standby well has historically exhibited concentrations above the secondary MCL and is equipped with treatment but is not currently in regular operation. Active wells generally remain below regulatory thresholds, and recent data indicate no widespread exceedances. Manganese may affect groundwater availability due to the potential need for treatment, which can increase operational costs. The City will continue to evaluate treatment needs as part of its long-term groundwater management strategy.

7.2.4 Recycled Water

Recycled water supplies are generally less vulnerable to seasonal and climatic variability than surface water supplies because they are derived from wastewater flows, which remain relatively stable during drought conditions. The influent to the RWF exceeds current recycled water delivery capacity, and recycled water production continues to be constrained primarily by distribution infrastructure and demand rather than source availability. Although influent flows may decrease slightly during extended dry periods, available supply is expected to remain sufficient to meet projected recycled water demands. Therefore, recycled water is considered a highly reliable and drought-resilient supply, though not entirely drought-proof due to potential operational, regulatory, and demand-related constraints.

7.2.5 Bay Area Water Conservation and Supply Agency Strategy 2050

The City is a member of the BAWSCA. BAWSCA provides regional water reliability planning and conservation programming for the benefit of its 26 member agencies that purchase wholesale water supplies from the SFPUC. Collectively, the BAWSCA member agencies 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 these wholesale water customers on all significant technical, financial and policy matters related to the operation and improvement of SFPUC's RWS.

The City 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.

7.3 BASIS OF WATER SUPPLY DATA

As described above, the quantity of supply available from different water supply sources can vary from one year to the next depending on hydrologic conditions. Historical data, where available, were therefore used to develop a projected yield for each water supply source under three conditions: (1) normal water year, (2) single dry year, and (3) multiple dry years. In accordance with the DWR Guidebook, each condition was defined as follows:

- **Normal Water Year***:* This condition represents the water supplies a Supplier considers available during normal conditions. This could be a single year or averaged range of years that most closely represents the average water supply available to the Supplier. In the DWR Guidebook, DWR uses the terms 'average' and 'normal' interchangeably when addressing the water year type.
- **Single Dry Year**: The single dry year is recommended to be the year that represents the lowest water supply available to the Supplier.

- **Five-Consecutive Year Drought**: The five-consecutive year drought for the DRA would be the driest five-year historical sequence for the Supplier (Water Code § 10612). Suppliers are encouraged to use the same historical five-year sequence for their DRA and Water Service Reliability Assessment. However, they may choose to use a different five-consecutive year dry period such as the lowest average water supply available to the Supplier for five years in a row. Suppliers are encouraged to characterize the five-consecutive year drought in a manner that is best suited for understanding and managing their water service reliability. The basis for the water supply data and selected drought years is presented in Sections 7.3.1 and 7.3.2. In addition, the drought risk assessment for the next five consecutive years (2026–2030) is presented in Section 7.5.

7.3.1 Basis of Water Supply Data for SFPUC Supplies

Based on SFPUC's estimated availability of wholesale RWS supplies, Table 7-6 shows the basis of water supply data for the City's purchased supplies from the SFPUC with the Bay-Delta Plan Amendment. As shown, with the Bay-Delta Plan Amendment, reductions in available SFPUC supplies are significant and are as high as a 48 percent reduction from projected purchases. These values are used for the remainder of the analysis in this 2025 UWMP as the Bay-Delta Plan Amendment has been adopted by the SWRCB as described above. However, this data is not compatible with DWR Table 7-1; as such, DWR Table 7-1 has not been completed for the City's purchased supplies from the SFPUC.

Table 7-6. Basis of Water Supply Data for the City's Purchased Supplies from SFPUC with the Bay-Delta Plan Amendment[(a)]

	2030	2035	2040	2045	2050
Projected Purchases, AFY	5,041	5,041	5,041	5,041	5,041
Single Dry Year, AFY	3,471	3,376	3,267	3,183	3,106
Consecutive 1st Dry Year, AFY	3,471	3,376	3,267	3,183	3,106
Consecutive 2nd Dry Year, AFY	2,913	2,877	2,769	2,683	2,603
Consecutive 3rd Dry Year, AFY	2,913	2,877	2,769	2,683	2,603
Consecutive 4th Dry Year, AFY	2,913	2,877	2,769	2,683	2,603
Consecutive 5th Dry Year, AFY	2,913	2,877	2,769	2,683	2,603

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026.

For comparison purposes, Table 7-7 shows the basis of water supply data for the City's purchased supplies from the SFPUC without the Bay-Delta Plan Amendment. As shown, without the Bay-Delta Plan Amendment, no reduction from projected purchases is projected.

Table 7-7. Basis of Water Supply Data for the City's Purchased Supplies from SFPUC without the Bay-Delta Plan Amendment[a]

	2030	2035	2040	2045	2050
Projected Purchases, AFY	5,041	5,041	5,041	5,041	5,041
Single Dry Year, AFY	5,041	5,041	5,041	5,041	5,041
Consecutive 1st Dry Year, AFY	5,041	5,041	5,041	5,041	5,041
Consecutive 2nd Dry Year, AFY	5,041	5,041	5,041	5,041	5,041
Consecutive 3rd Dry Year, AFY	5,041	5,041	5,041	5,041	5,041
Consecutive 4th Dry Year, AFY	5,041	5,041	5,041	5,041	5,041
Consecutive 5th Dry Year, AFY	5,041	5,041	5,041	5,041	5,041

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, without Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026.

Because the scenario with the Bay-Delta Plan Amendment assumes reductions in SFPUC supplies, which represents a more conservative planning condition, the City applies the Bay-Delta Plan Amendment conditions in the supply and demand assessment presented in Section 7.4.

7.3.2 Basis of Water Supply Data for Valley Water Supplies

As shown in the Valley Water supply reliability tables included in Appendix F, water supply shortfalls are projected during the 4th and 5th dry years in 2030, 2045, and 2050. Based on guidance from Valley Water staff, after accounting for supply augmentation of 15,000 AF in 2030 and 10,000 AF in 2045 and 2050 under drought conditions, residual shortfalls of up to approximately 5 percent remain.

Based on the current contract with Valley Water, which specifies a maximum delivery rate of 4.1 mgd, the available supply under normal conditions is 4,560 AFY. To reflect the projected shortfalls during drought years, a 5 percent reduction is applied during the 4th and 5th dry years in 2030, 2045, and 2050, resulting in an available Valley Water supply of 4,332 AFY.

Table 7-8 presents the City's basis of water supply data for its supplies from Valley Water.

Table 7-8. Basis of Water Supply Data for the City's Purchased Supplies from Valley Water[a]

	2030	2035	2040	2045	2050
Projected Purchases, AFY	4,560	4,560	4,560	4,560	4,560
Single Dry Year, AFY	4,560	4,560	4,560	4,560	4,560
Consecutive 1st Dry Year, AFY	4,560	4,560	4,560	4,560	4,560
Consecutive 2nd Dry Year, AFY	4,560	4,560	4,560	4,560	4,560
Consecutive 3rd Dry Year, AFY	4,560	4,560	4,560	4,560	4,560
Consecutive 4th Dry Year, AFY	4,332	4,560	4,560	4,332	4,332
Consecutive 5th Dry Year, AFY	4,332	4,560	4,560	4,332	4,332

(a) Valley Water supply reliability tables provided by Valley Water on March 19, 2026 indicate up to 5 percent supply shortfalls during the 4th and 5th dry years in 2030, 2045, and 2050 after assuming the supply augmentation of 15,000 AF in 2030 and 10,000 AF in 2045 and 2050. Accordingly, a 5 percent supply reduction to 4,332 AFY is applied for these shortfall years; no reduction is assumed for all other years, with available supply of 4,560 AFY.

7.3.3 Basis of Water Supply Data for City's Local Supplies

The City's local supplies, including groundwater and recycled water, are assumed to remain constant within each year under normal year, single dry year, and consecutive five-year drought conditions. Groundwater supplies are assumed to remain constant from 2030 through 2050 at 23,048 AFY. Recycled water supplies vary by year based on projected recycled water demands.

The estimated availability of the City's groundwater and recycled water supplies is summarized in Tables 7-9 and Table 7-10, respectively. Recycled water supply data are not compatible with the format of DWR Table 7-1; therefore, DWR Table 7-1 has not been completed for recycled water.

Table 7-9. Basis of Water Year Data for City's Groundwater Supplies (DWR Table 7-1 Retail)

Optional Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
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:** [insert location from UWMP]	
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	% of Average Supply
Average Year		23,048	100%
Single-Dry Year		23,048	100%
Consecutive Dry Years 1st Year		23,048	100%
Consecutive Dry Years 2nd Year		23,048	100%
Consecutive Dry Years 3rd Year		23,048	100%
Consecutive Dry Years 4th Year		23,048	100%
Consecutive Dry Years 5th Year		23,048	100%
DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table. **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.			
NOTES: Projected groundwater supplies are based on the City's historical maximum annual groundwater production in Fiscal Year (FY) 1986/87. The values shown in the table only reflect the City's groundwater supplies and the City's other supplies are discussed in Section 7.3 of the UWMP.			

Table 7-10. Basis of Water Supply Data for the City's Recycled Water Supplies[a]

	2030	2035	2040	2045	2050
Projected Supplies, AFY	4,300	4,729	5,159	5,588	6,017
Single Dry Year, AFY	4,300	4,729	5,159	5,588	6,017
Consecutive 1st Dry Year, AFY	4,300	4,729	5,159	5,588	6,017
Consecutive 2nd Dry Year, AFY	4,300	4,729	5,159	5,588	6,017
Consecutive 3rd Dry Year, AFY	4,300	4,729	5,159	5,588	6,017
Consecutive 4th Dry Year, AFY	4,300	4,729	5,159	5,588	6,017
Consecutive 5th Dry Year, AFY	4,300	4,729	5,159	5,588	6,017

(a) Projected recycled water supplies for 2030–2050 are assumed to match the projected recycled water demands (see Table 4-3).

7.4 SUPPLY AND DEMAND ASSESSMENT

The supply reliability analysis evaluates the reliability of the City's two wholesale water sources (Valley Water and the SFPUC), as well as local groundwater and recycled water supplies. As summarized in Section 7.3.1, the SFPUC has evaluated the reliability of its RWS under conditions both with and without the Bay-Delta Plan Amendment. With the Bay-Delta Plan Amendment, reductions in available SFPUC supplies are significant, reaching up to 48 percent of projected purchases. To be conservative, the City assumes the SFPUC supply reductions with the Bay-Delta Plan Amendment for the supply and demand assessment scenarios.

Due to the uncertainty associated with the interruptible SFPUC supply, the City analyzed supply reliability under two primary scenarios:

- Scenario 1: Supply interruption due to contract termination in 2028. Assuming a 10-year advance notice of termination, SFPUC supplies are assumed to cease beginning in 2040.
- Scenario 2: Assumes the City's contract with SFPUC is renewed, providing continued SFPUC supplies beyond 2040.

The City's projected supply and demand under Normal Years, Single Dry Years, and Multiple Dry Years (five-year droughts) are quantified and discussed below.

7.4.1 Normal Year

The City's normal year supplies are anticipated to be as follows:

- Up to 5,041 AFY from the SFPUC
- Up to 4,560 AFY from Valley Water
- Up to 23,048 AFY from the City's groundwater wells
- Up to 6,017 AFY from recycled water

Table 7-11A represents normal year supplies under Scenario 1, which assumes termination of SFPUC supplies beginning in 2040 and under the Bay-Delta Plan Amendment conditions.

Table 7-11B represents normal year supplies under Scenario 2, which assumes continued supplies from the SFPUC beyond 2040 and under the Bay-Delta Plan Amendment conditions. Implementation of the Bay-Delta Plan Amendment is not projected to affect SFPUC's normal year supplies; therefore, existing contract allocation amounts from SFPUC are assumed to remain unchanged from 2030 to 2050.

Table 7-11A. Projected Normal Year Supplies from All Supply Sources (Scenario 1)

	2030	2035	2040	2045	2050
Purchased Supplies from SFPUC, AFY[a]	5,041	5,041	0	0	0
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,300	4,729	5,159	5,588	6,017
Total Normal Year Supplies, AFY	**36,949**	**37,378**	**32,767**	**33,196**	**33,625**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed termination of SFPUC supplies beginning in 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

Table 7-11B. Projected Normal Year Supplies from All Supply Sources (Scenario 2)

	2030	2035	2040	2045	2050
Purchased Supplies from SFPUC, AFY[a]	5,041	5,041	5,041	5,041	5,041
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,300	4,729	5,159	5,588	6,017
Total Normal Year Supplies, AFY	**36,949**	**37,378**	**37,808**	**38,237**	**38,666**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed continued SFPUC supplies beyond 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

The City's normal year demands are summarized in Table 7-12, based on demand projections presented in Chapter 4.

Table 7-12. Projected Normal Year Demands

	2030	2035	2040	2045	2050
Projected Normal Year Demand, AFY[a]	22,688	24,650	26,611	28,573	30,533

(a) From Table 4-4 (DWR Table 4-2 Retail).

As shown in Table 7-13A and Table 7-13B, the City's normal year supplies are adequate to meet projected normal year demands under both scenarios, regardless of whether the City continues to receive SFPUC supplies following contract negotiations.

Table 7-13A. Normal Year Supply and Demand Comparison (Scenario 1) (DWR Table 7-2 Retail)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	36,949	37,378	32,767	33,196	33,625
Use totals (autofill from Submittal Table 4-2 R)	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	14,261	12,728	6,156	4,623	3,092

Table 7-13B. Normal Year Supply and Demand Comparison (Scenario 2) (DWR Table 7-2 Retail)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	36,949	37,378	37,808	38,237	38,666
Use totals (autofill from Submittal Table 4-2 R)	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	14,261	12,728	11,197	9,664	8,133

7.4.2 Single Dry Year

The City's Single Dry Year supplies are anticipated to be as follows:

- Up to 5,041 AFY of purchased supplies from the SFPUC (varies by year based on projected cutback in wholesale supply available from the RWS with the Bay-Delta Plan Amendment; the City's SFPUC projected cutback ranges from 31 to 38 percent from normal year projected purchases)
- Up to 4,560 AFY of purchased supplies from Valley Water (assumed to remain the same as normal year supplies)
- Up to 23,048 AFY of groundwater from the City's wells (assumed to remain the same as normal year supplies).

- Up to 6,017 AFY of recycled water (assumed to remain the same as normal year supplies within the same year)

Table 7-14A represents single dry year supplies under Scenario 1, which assumes termination of SFPUC supplies beginning in 2040 and under the Bay-Delta Plan Amendment conditions.

Table 7-14B represents single dry year supplies under Scenario 2, which assumes continued supplies from the SFPUC beyond 2040 and under the Bay-Delta Plan Amendment conditions.

Table 7-14A. Projected Single Dry Year Supplies from All Supply Sources (Scenario 1)

	2030	2035	2040	2045	2050
Purchased Supplies from SFPUC, AFY[(a)]	3,471	3,376	0	0	0
Purchased Supplies from Valley Water, AFY[(b)]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[(b)]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[(b)]	4,300	4,729	5,159	5,588	6,017
Total Single Dry Year Supplies, AFY	**35,379**	**35,713**	**32,767**	**33,196**	**33,625**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed termination of SFPUC supplies beginning in 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

Table 7-14B. Projected Single Dry Year Supplies from All Supply Sources (Scenario 2)

	2030	2035	2040	2045	2050
Purchased Supplies from SFPUC, AFY[(a)]	3,471	3,376	3,267	3,183	3,106
Purchased Supplies from Valley Water, AFY[(b)]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[(b)]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[(b)]	4,300	4,729	5,159	5,588	6,017
Total Single Dry Year Supplies, AFY	**35,379**	**35,713**	**36,034**	**36,379**	**36,731**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed continued SFPUC supplies beyond 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

The City's single dry year demands are assumed to be the same as the City's normal year demands and are summarized in Table 7-15, based on demand projections presented in Chapter 4.

Table 7-15. Projected Single Dry Year Demands

	2030	2035	2040	2045	2050
Projected Single Dry Year Demand, AFY[(a)]	22,688	24,650	26,611	28,573	30,533

(a) From Table 4-4 (DWR Table 4-2 Retail), assumed to be the same as the City's normal year demands.

As shown in Table 7-16A and Table 7-16B, the City's single dry year supplies are adequate to meet projected single dry year demands under both scenarios, regardless of whether the City continues to receive SFPUC supplies following contract negotiations.

Table 7-16A. Single Dry Year Supply and Demand Comparison (Scenario 1) (DWR Table 7-3 Retail)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	35,379	35,713	32,767	33,196	33,625
Use totals	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	12,691	11,063	6,156	4,623	3,092

Table 7-16B. Single Dry Year Supply and Demand Comparison (Scenario 2) (DWR Table 7-3 Retail)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	35,379	35,713	36,034	36,379	36,731
Use totals	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	12,691	11,063	9,423	7,806	6,198

7.4.3 Multiple Dry Years (Five-Year Droughts)

The City's multiple dry dry year supplies are anticipated to be as follows:

- Up to 5,041 AFY of purchased supplies from SFPUC (varies by year based on projected cutback in wholesale supply available from the Regional Water System with the Bay-Delta Plan Amendment; the City's SFPUC projected cutback ranges from 31 to 48 percent from normal year projected purchases).
- Up to 4,560 AFY of purchased supplies from Valley Water. To reflect the projected shortfalls during drought years, a 5 percent reduction was assumed during the 4th and 5th dry years in 2030, 2045, and 2050, resulting in an available Valley Water supply of 4,332 AFY.
- Up to 23,048 AFY of groundwater from the City's wells (assumed to remain the same as normal year supplies).
- Up to 6,017 AFY of recycled water (assumed to remain the same as normal year supplies within the same year)

Table 7-17A represents multiple dry year supplies under Scenario 1, which assumes termination of SFPUC supplies beginning in 2040 and under the Bay-Delta Plan Amendment conditions.

Table 7-17B represents multiple dry year supplies under Scenario 2, which assumes continued supply from the SFPUC beyond 2040 and under the Bay-Delta Plan Amendment conditions.

Table 7-17A. Projected Multiple Dry Year Supplies from All Supply Sources (Scenario 1)

	1st Year	2nd Year	3rd Year	4th Year	5th Year
Multiple Dry Years Starting in 2030					
Purchased Supplies from SFPUC, AFY[a]	3,471	2,913	2,913	2,913	2,913
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,300	4,300	4,300	4,300	4,300
Total Multiple Dry Year Supplies, AFY	**35,379**	**34,821**	**34,821**	**34,593**	**34,593**
Multiple Dry Years Starting in 2035					
Purchased Supplies from SFPUC, AFY[a]	3,376	2,877	2,877	2,877	2,877
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,729	4,729	4,729	4,729	4,729
Total Multiple Dry Year Supplies, AFY	**35,713**	**35,214**	**35,214**	**35,214**	**35,214**
Multiple Dry Years Starting in 2040					
Purchased Supplies from SFPUC, AFY[a]	0	0	0	0	0
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	5,159	5,159	5,159	5,159	5,159
Total Multiple Dry Year Supplies, AFY	**32,767**	**32,767**	**32,767**	**32,767**	**32,767**
Multiple Dry Years Starting in 2045					
Purchased Supplies from SFPUC, AFY[a]	0	0	0	0	0
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	5,588	5,588	5,588	5,588	5,588
Total Multiple Dry Year Supplies, AFY	**33,196**	**33,196**	**33,196**	**32,968**	**32,968**
Multiple Dry Years Starting in 2050					
Purchased Supplies from SFPUC, AFY[a]	0	0	0	0	0
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	6,017	6,017	6,017	6,017	6,017
Total Multiple Dry Year Supplies, AFY	**33,625**	**33,625**	**33,625**	**33,397**	**33,397**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed termination of SFPUC supplies beginning in 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

Table 7-17B. Projected Multiple Dry Year Supplies from All Supply Sources (Scenario 2)

	1st Year	2nd Year	3rd Year	4th Year	5th Year
Multiple Dry Years Starting in 2030					
Purchased Supplies from SFPUC, AFY[a]	3,471	2,913	2,913	2,913	2,913
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,300	4,300	4,300	4,300	4,300
Total Multiple Dry Year Supplies, AFY	**35,379**	**34,821**	**34,821**	**34,593**	**34,593**
Multiple Dry Years Starting in 2035					
Purchased Supplies from SFPUC, AFY[a]	3,376	2,877	2,877	2,877	2,877
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	4,729	4,729	4,729	4,729	4,729
Total Multiple Dry Year Supplies, AFY	**35,713**	**35,214**	**35,214**	**35,214**	**35,214**
Multiple Dry Years Starting in 2040					
Purchased Supplies from SFPUC, AFY[a]	3,267	2,769	2,769	2,769	2,769
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,560	4,560
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	5,159	5,159	5,159	5,159	5,159
Total Multiple Dry Year Supplies, AFY	**36,034**	**35,536**	**35,536**	**35,536**	**35,536**
Multiple Dry Years Starting in 2045					
Purchased Supplies from SFPUC, AFY[a]	3,183	2,683	2,683	2,683	2,683
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	5,588	5,588	5,588	5,588	5,588
Total Multiple Dry Year Supplies, AFY	**36,379**	**35,879**	**35,879**	**35,651**	**35,651**
Multiple Dry Years Starting in 2050					
Purchased Supplies from SFPUC, AFY[a]	3,106	2,603	2,603	2,603	2,603
Purchased Supplies from Valley Water, AFY[b]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[b]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[b]	6,017	6,017	6,017	6,017	6,017
Total Multiple Dry Year Supplies, AFY	**36,731**	**36,228**	**36,228**	**36,000**	**36,000**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, with Bay-Delta Plan Amendment, provided by BAWSCA on March 12, 2026. Assumed continued SFPUC supplies beyond 2040.
(b) See Table 7-8, Table 7-9, and Table 7-10.

The City's multiple dry year demands are assumed to be the same as the City's normal year demands and are summarized in Table 7-18, based on demand projections presented in Chapter 4.

Table 7-18. Projected Multiple Dry Year Demands

	2030	2035	2040	2045	2050
Projected Multiple Dry Year Demand, AFY[(a)]	22,688	24,650	26,611	28,573	30,533

(a) From Table 4-4 (DWR Table 4-2 Retail), assumed to be the same as the City's normal year demands. Demands for each year of the five-year multiple dry year periods are assumed to be the same as the first year of the multiple dry year period.

As shown in Table 7-19A and Table 7-19B, the City's multiple dry year supplies are adequate to meet projected multiple dry year demands under both scenarios, regardless of whether the City continues to receive SFPUC supplies following contract negotiations.

Table 7-19A. Multiple Dry Year Supply and Demand Comparison (Scenario 1) (DWR Table 7-4 Retail)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	35,379	35,713	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,691	11,063	6,156	4,623	3,092
Second year	Supply totals	34,821	35,214	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	6,156	4,623	3,092
Third year	Supply totals	34,821	35,214	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	6,156	4,623	3,092
Fourth year	Supply totals	34,593	35,214	32,767	32,968	33,397
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	6,156	4,395	2,864
Fifth year	Supply totals	34,593	35,214	32,767	32,968	33,397
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	6,156	4,395	2,864

Table 7-19B. Multiple Dry Year Supply and Demand Comparison (Scenario 2) (DWR Table 7-4 Retail)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	35,379	35,713	36,034	36,379	36,731
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,691	11,063	9,423	7,806	6,198
Second year	Supply totals	34,821	35,214	35,536	35,879	36,228
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	8,925	7,306	5,695
Third year	Supply totals	34,821	35,214	35,536	35,879	36,228
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	8,925	7,306	5,695
Fourth year	Supply totals	34,593	35,214	35,536	35,651	36,000
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	8,925	7,078	5,467
Fifth year	Supply totals	34,593	35,214	35,536	35,651	36,000
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	8,925	7,078	5,467

7.5 DROUGHT RISK ASSESSMENT

In accordance with CWC Section 10612, urban water suppliers must conduct a DRA, which evaluates the risk of a severe drought occurring for the next five consecutive years (2026-2030). Supply conditions for the DRA are based on the five driest consecutive years on record, with adjustments to consider plausible changes in climate, regulations, and other locally applicable criteria.

This section reviews the data and methods used to define the DRA water shortage condition and evaluates each water source's reliability under the proposed drought condition. Finally, total water supplies during the five-year drought are compared to projected demands, accounting for any applicable supply augmentation or demand reduction measures available to the City.

7.5.1 Data, Methods, and Basis for Water Shortage Condition

The water shortage condition for the DRA is the same as the five-year drought described in Section 7.5.3. Since the DRA can be updated outside of the UWMP five-year plan cycle, the narrative description of the data and basis for the water shortage condition is repeated in this section.

7.5.2 Drought Risk Assessment of Water Source Reliability

Table 7-20 summarizes the City's available supplies for each year of the DRA.

Table 7-20. Projected Water Supplies for Drought Risk Assessment

Supply Source	2026	2027	2028	2029	2030
Purchased Supplies from SFPUC, AFY[(a)]	3,256	3,256	3,256	3,256	3,256
Purchased Supplies from Valley Water, AFY[(b)]	4,560	4,560	4,560	4,332	4,332
Groundwater, AFY[(b)]	23,048	23,048	23,048	23,048	23,048
Recycled Water, AFY[(b)]	3,957	4,043	4,128	4,214	4,300
Total	**34,821**	**34,906**	**34,992**	**34,850**	**34,936**

(a) From BAWSCA 2025 UWMP Wholesale Customer Dry Year Allocations, provided by BAWSCA on March 12, 2026. The SFPUC supply projections for 2026 to 2030 do not assume implementation of the Bay-Delta Plan Amendment because the start of implementation remains uncertain.

(b) See Table 7-8, Table 7-9 and Table 7-10. A 5 percent reduction from Valley Water supplies is assumed for the fourth and fifth dry years, corresponding to 2029 and 2030. Recycled water supplies for 2026–2029 are interpolated between the 2025 and 2030 recycled water supply values.

Table 7-21 summarizes the City's projected water demand for each year of the DRA, as discussed in Section 4.2.4.

Table 7-21. Projected Water Demand for 2026 to 2030

	2026	2027	2028	2029	2030
Projected Water Demand, AFY[(a)]	21,120	21,512	21,905	22,297	22,689

(a) From Table 4-4.

7.5.3 Total Water Supply and Use Comparison

As shown in Table 7-22, during a five-year drought beginning in 2026, the City's supplies are projected to be adequate to meet projected demands.

Table 7-22. Five-Year Drought Risk Assessment (DWR Table 7-5 Retail)

2026	Total
Total Water Use (AF)	21,120
Total Supplies (AF)	34,821
Surplus/Shortfall w/o WSCP Action	13,701
2027	**Total**
Total Water Use (AF)	21,512
Total Supplies (AF)	34,906
Surplus/Shortfall w/o WSCP Action	13,394
2028	**Total**
Total Water Use (AF)	21,905
Total Supplies (AF)	34,992
Surplus/Shortfall w/o WSCP Action	13,087
2029	**Total**
Total Water Use (AF)	22,297
Total Supplies (AF)	34,850
Surplus/Shortfall w/o WSCP Action	12,553
2030	**Total**
Total Water Use (AF)	22,689
Total Supplies (AF)	34,936
Surplus/Shortfall w/o WSCP Action	12,247

CHAPTER 8
Water Shortage Contingency Plan

This chapter discusses the City's WSCP, seismic risk to City facilities, and WSCP adoption procedures. To allow for WSCP updates to be made outside of the UWMP preparation process, the City's WSCP is included in this plan as Appendix G.

8.1 BACKGROUND

Water shortages occur whenever the available water supply cannot meet the normally expected customer water use. These shortages can be due to several reasons, including climate change, drought, and catastrophic events. Drought, regulatory action constraints, and natural and manmade disasters may occur at any time. A WSCP presents how an urban water supplier plans to respond to a water shortage condition and helps prevent catastrophic service disruptions.

In 2018, the California State Legislature enacted two policy bills, (SB 606 (Hertzberg) and AB 1668 (Friedman)) (2018 Water Conservation Legislation), to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. The 2018 Water Conservation Legislation set new requirements for water shortage contingency planning. The City's WSCP has been prepared to be consistent with these requirements.

8.2 CITY WATER SHORTAGE CONTINGENCY PLAN

The City's WSCP was developed to provide a strategic plan for preparing and responding to water shortages. The WSCP includes water shortage levels and associated shortage response actions, as well as the City's legal authorities, communication protocols, compliance and enforcement, and monitoring and reporting.

The City intends for its WSCP to be an adaptive management plan so that it may assess response action effectiveness and adapt to foreseeable and unforeseeable events. Therefore, the City's WSCP is included in this plan as Appendix G to allow for updates to be made outside of the UWMP update preparation process. When an update to the WSCP is proposed, the revised WSCP will undergo the process described in Section 8.5.

8.3 WATER SUPPLY RELIABILITY ANALYSIS

This section provides a summary of the water supply planning analysis and reliability findings from this UWMP. Additional information about the City's existing and projected water use is presented in Chapter 4 of this UWMP, existing and planned water supplies by source are presented in Chapter 6, and the water supply reliability assessment and the drought risk assessment are presented in Chapter 7.

Findings indicate that during normal years, single dry years, and multiple consecutive dry years, the City's supplies are adequate to meet projected demands through 2050. No water supply shortfalls are anticipated. If a supply shortfall were to occur, the City may declare a water shortage condition as described in the City's WSCP presented in Appendix G.

Statewide water supply conditions, changes in groundwater levels, and actions by other agencies may impact the City's available water supply. A water shortage condition occurs when the available supply of potable water cannot meet ordinary water demands for human consumption, sanitation, fire protection, and other beneficial uses. In some cases, the City may foresee a water shortage, but the water shortage may also be caused by an unforeseen sudden or emergency event. In general, the City's water supply conditions may be affected by the following:

- Climatic variability and drought conditions;
- Water quality;
- Supply restrictions from SFPUC's RWS (including supply reductions associated with the Bay-Delta Plan Amendment);
- Supply restrictions imposed by Valley Water;
- Recycled water supply limitations;
- Groundwater pumping limitations or unforeseen SGMA restrictions to available groundwater supply in the future; and
- Water supply facility failures (loss of turnouts, groundwater wells, pumps or tanks).

The City plans for potential drought events annually. The City conducts an annual water supply and demand assessment in accordance with its WSCP to determine its water supply conditions for the current year and a potential subsequent dry year. The analysis conducted is in the context of the City's water supply sources and reliability.

8.4 SEISMIC RISK ASSESSMENT AND MITIGATION PLAN

CWC § 10632.5(a) requires that UWMPs include a seismic risk assessment and mitigation plan to assess and mitigate a water system's seismic vulnerabilities. A Local Hazard Mitigation Plan (LHMP) can be incorporated in the 2025 UWMPs to meet this requirement if it addresses seismic risk. The County of Santa Clara 2024 Multijurisdictional Local Hazard Mitigation Plan (2024 LHMP) is available at the following link, and incorporated herein by reference: https://oem.santaclaracounty.gov/partners/operational-area-hazard-mitigation-program/multi-jurisdictional-hazard-mitigation-plan. The hazard identification and profiling in the hazard mitigation plan addresses the following hazards of concern within the planning area: dam failure, drought, earthquake, flood, landslide, severe weather, tsunami, wildfire, and climate change. The 2024 LHMP addresses seismic risk and is incorporated into this UWMP by reference. The 2024 LHMP was approved by the Federal Emergency Management Agency (FEMA) in February 2024.

Earthquakes are common, relatively well tracked and studied in California. Santa Clara County is exposed to three major regional faults: Hayward, Calaveras, and San Andreas. The Hayward and Calaveras faults are in the central portion of Santa Clara County and present the greatest earthquake threat to the Santa Clara Operational Area (OA). The San Andreas Fault is on the northwestern boundary of the OA and runs through hills separating Santa Clara County from Santa Cruz County. The

primary seismic hazard for the OA is potential ground shaking from these three large faults. According to the 2024 LHMP, the Hayward Fault has a 14.3 percent chance of generating a magnitude 6.7 or greater earthquake in the next 30 years.

The 50-year probabilistic peak ground acceleration (PGA) was examined for the County. This event is expected to cause severe shaking and heavy damage to structures (VIII on the modified Mercalli intensity scale) in the City's service area for the 50-year PGA. The 2024 LHMP specified that water infrastructure would likely suffer considerable damage in the event of an earthquake.

Section 17 of the 2024 LHMP identifies the following earthquake hazard mitigation alternatives that are potentially applicable to the City's water system:

- Locate or relocate mission critical functions outside hazard area where possible;
- Build redundancy for critical functions and facilities;
- Retrofit critical areas (e.g., install earthquake resistant connections for pipelines);
- Keep cash reserves for reconstruction;
- Develop a continuity of operations plan.

The City has implemented efforts in addressing seismic vulnerabilities in its water system facilities. In accordance with America's Water Infrastructure Act (AWIA), the City completed a Risk and Resilience Assessment (RRA) of its water system in FY 2019/20 and updated the RRA and Emergency Response Plan (ERP) in FY2025/26. The RRA systematically evaluated the City's assets, threats, and risks, as well as countermeasures that might be implemented to minimize overall risk to the system. The ERP documents procedures to respond to various threats and risks including seismic events. To ensure the security of its water system, the RRA and ERP are retained by the City as confidential documents.

8.5 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The City's WSCP (Appendix G) is adopted concurrently with this 2025 UWMP, by separate resolution. Prior to adoption, a duly noticed public hearing was conducted. An electronic copy of the WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after adoption, an electronic copy of the WSCP will be available for public review at the City's offices. An electronic copy of the WSCP will also be available for review and download on the City's website.

The City's WSCP is an adaptive management plan and is subject to refinements as needed to ensure that the City's shortage response actions and mitigation strategies are effective and produce the desired results. When a revised WSCP is proposed, the revised WSCP will undergo the process described above for adoption by City Council and distribution to Santa Clara County, the City's water customers, and the general public.

CHAPTER 9
Demand Management Measures

The City implements demand management measures to sustainably manage its water resources. If water demands are not managed, water service reliability may be reduced due to increases in water demand, and/or changes in water supplies associated with climate change and other factors. The implementation of demand management measures can help improve water service reliability and help meet City and State water conservation goals. This chapter describes the City's historical and existing Water Conservation Program, status of implementation of demand management measures (DMMs), and projected future conservation implementation.

9.1 DEMAND MANAGEMENT MEASURES

Since the 2020 UWMP reporting cycle, the City continued to implement DMMs within its service area as part of its standard practice and in collaboration with BAWSCA and Santa Clara Valley Water District (Valley Water). The following DMMs are discussed in this section:

- Water waste prevention ordinances
- Metering
- Conservation pricing
- Public education and outreach
- Programs to assess and manage distribution system real loss
- Water conservation program coordination and staffing support

Other DMMs being implemented by the City individually and in partnership with Valley Water are also discussed. For each DMM, the current program is described, followed by a description of how the DMM was implemented over the previous five years and the City's plans for continued implementation.

9.1.1 Water Waste Prevention Ordinances

The City discourages water waste and promotes the use of water saving methods and devices to preserve water resources. Reasonable and beneficial water use maximizes water supply reliability for all customers in both normal and dry years. Under the Code of the City of Santa Clara, California (SCCC), Title 12, Chapter 13.15, Article III,[1] the City has included water waste prevention regulations to help reduce water waste. The City also has Potable and Recycled Water System Rules and Regulations[2], which was most recently updated and approved by City Council on November 19, 2024.

[1] https://www.santaclaraca.gov/our-city/government/governance/ordinances, (Governance/City Code/Charter), last accessed April 15, 2026.

[2] Potable and Recycled Water System Rules and Regulations City of Santa Clara, November 2024, https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities, last accessed April 15, 2026.

Section 1.C of the Potable and Recycled Water System Rules and Regulations describes permanent water use restrictions and prohibitions in the City. A summary of the water use restrictions is provided below:

- Wasting water, which includes but is not limited to, the flooding or runoff on City sidewalks, gutters, and streets,
- Cleaning or washing of sidewalks, driveways, patios, parking lots, or other paved or hard-surfaced areas,
- Washing cars, buses, boats, trailers, or any vehicle by use of a hose unless that hose is fitted with an operating automatic shutoff valve,
- Water waste due to broken or defective plumbing, fire system, irrigation system, or any Appurtenance thereto; or to open or to leave open any stopcock or faucet so as to permit water waste,
- Service of water by any restaurant unless requested by a patron,
- Installation of a single-pass cooling system,
- Installation and/or use of a non-recirculating, decorative fountain,
- Construction of a non-recirculating conveyor car wash,
- Overhead spray irrigation using sprinkler heads, spray heads and/or rotors between the hours of 9 a.m. and 6 p.m.,
- Watering lawns during or within 48 hours of measurable precipitation,
- Irrigating non-functional turf (decorative grass) on public street medians,
- Applying potable water to non-functional turf at commercial, industrial or institutional (CII) sites, including common areas of homeowners' associations (HOAs),
- Irrigation of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by California Building Standards Commission and the Department of Housing and Community Development,
- Street cleaning or construction site preparation, if recycled water is available.

In addition, non-functional turf can no longer be installed in new and existing non-residential or multifamily landscape projects. Also, in hotels and motels, guests must have the option to choose not to have towels and linens laundered daily, with notices displayed prominently in each guestroom.

The restrictions are enforceable per Municipal Code §13.15.190 and are administered by the Director or the City Manager, or agents who they designate. Violations could result in administrative penalties in a sum not to exceed $1,000 per day, excluding inspection and cleanup costs.

The effectiveness of this DMM is evaluated based on the number of violations observed. In 2025, the City did not issue violation notices. The City has not imposed monetary fines

for violations, but instead focused on educating customers. The City plans to issue violation notices to repeat offenders in 2027.

Implementation of this DMM is ongoing. Although water savings from this program cannot be directly quantified, it is expected to help the City achieve its water use objectives by minimizing non-essential uses of water so that water is available for human consumption, sanitation, and fire protection.

9.1.2 Metering

Most City potable water customers are metered and billed monthly in compliance with State metering laws for urban water systems (CWC §527) based on a fixed monthly charge and a usage charge. Most Municipal accounts are billed for every two months of water use. Any new commercial, industrial, institutional or multi-family developments are required to have dedicated water meters and separate accounts and meters for landscape irrigation. All recycled water customers are also metered.

The City prescribes minimum water system design and O&M standards consistent with AWWA standards and best practices for water utilities. These standards include meter calibration, testing, and replacement activities to maintain the read accuracy of the City's meter inventory.

The City plans to install an Advanced Metering Infrastructure (AMI) system for all customers. At time of preparation of this UWMP, the City is conducting a pilot study for the project. Research of available grant funding to support that effort continues.

Implementation of this DMM is expected to help reduce overall water usage in the City by providing accurate and timely water use information to both customers and the City, with the added benefit of providing leak detection in real-time. AMI also helps customers make informed decisions about their water consumption.

9.1.3 Conservation Pricing

Aside from most municipal accounts which are billed every two months, all of the City's water customers are billed with a monthly service charge based on the size of their water meter, plus a quantity charge for all metered water consumption. City Council periodically reviews and approves water rate increases when necessary to cover the costs of providing water service to the community. The latest water rate schedule was adopted in June 2025 and is available on the City's website.[3] The quantity charge recovers the annual cost to operate the water utility other than groundwater charges, treated water purchased for resale, and energy. Recycled water is priced much lower than potable water to incentivize its use. Where available, the City requires non-potable use of recycled

[3] Potable Water Rates: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-sewer-and-recycled-water-rates/water-rates.

Recycled Water Rates: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-sewer-and-recycled-water-rates/recycled-water-rates. Both websites were accessed on 12/18/25.

water for uses such as irrigation, dual plumbed facilities, and industrial/commercial cooling applications.

Volumetric rates provide the City's water customers financial incentive for water conservation to encourage participation in the City's DMM programs. As discussed in the WSCP (Chapter 8), the City has the authority to establish drought surcharges, if necessary, to finance the cost of prolonged demand reduction scenarios that significantly impact revenue recovery.

Implementation of this DMM is expected to help the City achieve its water use objectives by ensuring water customers pay the true cost of water to adequately fund water system O&M, including repair and replacement programs, and water conservation programs. The City will evaluate the effectiveness of its rates by tracking changes in unit water use resulting from rate increases.

9.1.4 Public Education and Outreach

To fulfill the public education and outreach requirements of CWC §10631(e)(1)(B) part (iv), the City implements a public information program. City customers also receive outreach and school education programs from Valley Water, as described in the following sections.

9.1.4.1 Santa Clara Public Information Program

The City has an ongoing public education and information program to promote participation in its DMMs. As part of these programs, marketing, outreach, and educational materials are provided to customers through a variety of methods, which are summarized below:

- The City provides bill inserts and information about water conservation on customer bills. Customer utility bills were designed to make the information concise and customer friendly. All utility bills include a water usage comparison to the previous year's usage, as well as a chart showing the water usage over the previous 13 months
- The City uses educational displays which offer free literature and information about water conservation.
- The City includes educational articles in the following City-based publications: Inside Santa Clara, City Hall News, Water & Sewer News, and City Manager's Weekly Update. Articles cover a variety of topics, including water conservation.
- The City uses social media posts to reach customers.
- The City submits information to the local City newspaper, the Santa Clara Weekly.

- The City's websites[4] provide information and resources to raise public awareness about water supply, water quality, water conservation, and other water-related issues. The City posts articles and information on dedicated webpages, which include water-wise gardening strategies, conservation tips and water rebate opportunities.
- The City's Water & Sewer Utilities Department conducts annual public outreach at special events, which include the following: Fix a Leak Week, World Water Day, Arbor Day/Earth Day events, 4Th of July Celebration, Water Quality Month, Street Dance, Art & Wine Festival, State of the City, Parade of Champions, Public Works Week, Comic Con, Water Professionals Appreciation Week, Imagine a Day Without Water, and the Holiday Tree Lighting. At events, staff use educational games, displays and handouts to raise awareness around water conservation.

Through such public information programs, the City promotes water conservation by engaging the community about the City's water conservation efforts and showing how customers can participate. The City reviews and updates water conservation public information and outreach programs annually, considering current water conditions, available water programs, and approved budgets.

Public education and outreach are ongoing and expected to help the City achieve water use objectives by educating water users about the value of water, the importance of improving water use efficiency and avoiding water waste.

9.1.4.2 BAWSCA Public Information Program

The City hosts water-wise landscape classes through their partnership with BAWSCA. Each spring and fall, Water & Sewer Utilities presents class topics that are developed into online webinars presented by local industry professionals well-versed in the subject matter. Classes have included proper plant establishment, watering strategies, composting, lawn conversion, rain gardens and a wide array of topics related to gardening with locally native plants. Staff present introduction slides that include information about City programs and available rebates before introducing the instructor and answering questions throughout. Presentations provide an open forum for exploring rebate possibilities in the context of the class material.

While BAWSCA provides many other informational programs, the City partners more closely with Valley Water for programs, rebates and public engagement.

9.1.4.3 Valley Water Public Information Program

The City purchases water from Valley Water, so City customers are included in Valley's Water's public outreach efforts. Valley Water's outreach activities include multi-media marketing campaigns directed at the diverse county population, website development and

[4] https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-conservation-15374, last accessed April 15, 2026.

maintenance, social media, publications, public meetings, staff participation at community events, interagency partnerships, corporate environmental fairs, professional trade shows, water conservation workshops and seminars, and a speaker's bureau. Outreach efforts focus on supporting customers and key stakeholders to minimize adverse impacts resulting from drought conditions, as well as advancing community knowledge, awareness, and understanding of the conservation and water supply services provided by Valley Water.

Valley Water implements broad-based advertising programs, participates in community events, collaborates with water retailers to develop outreach materials, and provides many outreach materials in four languages to ensure residents are equitably informed about water issues. Valley Water's multi-ethnic outreach expands beyond translating existing outreach materials to targeting media stories, coverage, and paid advertisements specific to their communities.

Valley Water's public engagement also includes social media and regular updates to its water conservation program website.[5] The website includes the latest program information, reports, studies, and workshops. In addition, Valley Water produces and distributes collateral material, including program flyers, free WaterSense labeled showerheads and other conservation devices, posters, yard signs, restaurant table tents for serving water only upon request, and hotel signs encouraging occupants to reuse linens.

Lawn converted from Fiscal Years 2016-2018, during a severe drought, totaled 413,246 square feet (SF) (averaging 137,749 SF per fiscal year). While Valley Water's social media campaign combined with Water & Sewer Utilities' marketing efforts helped to bolster Landscape Conversion Rebates, Fiscal Years 2019 through 2025 totaled 559,419 SF of converted lawns, just 79,917 SF per fiscal year. Assessing Fiscal Years 2023 through 2025, at the heels of another severe drought, the average climbed to 137,187 SF per fiscal year, closer to the pre-campaign average.

The Graywater Laundry to Landscape Rebate had a single participant prior to Valley Water's Spring 2018 campaign. The City saw eleven completed residential laundry to landscape projects in the seven years after the campaign.

Below is a summary of other public education and information programs led by Valley Water, which impact City water customers:

- **Landscape Summit**. Starting in 2016, Valley Water has annually held the Landscape Summit, an event developed through Valley Water's Landscape Committee as a forum for landscape professionals to learn about water issues in the county and California as a whole, and how water relates to the landscaping industry. It is also an opportunity for Valley Water to get valuable feedback from landscape professionals, and for attendees to collaborate and exchange ideas.

[5] https://www.valleywater.org/watersavingsorg, last accessed April 15, 2026.

- **Nursery Program**. To increase the public's awareness of water-efficient gardening techniques, Valley Water developed the Nursery Program in 1995. This program distributes, at least quarterly, a series of educational materials to nurseries, irrigation supply stores, and box store retailers throughout the county. In March 2025, Valley Water developed nursery outreach pedestal signs to be placed in participating nurseries. These pedestals streamline program marketing to customers of relevant stores by displaying QR codes that redirect to conservation program resources and program applications. The Nursery Program literature is currently being distributed to and displayed at more than 30 participating nurseries and vendors.
- **Sustainable Landscape Guidelines.** In August 2021, Valley Water, in partnership with the Green Gardens Group, released *Sustainable Landscape Guidelines, A Watershed Approach to Landscaping*. Available in English, Spanish, and Chinese on Valley Water's website, this comprehensive sustainable landscaping guide targets residential audiences, landscapers, and irrigation professionals new to sustainable landscape practices. It covers how-to and best practices for building healthy soil, capturing rainwater, reusing graywater, upgrading to high efficiency irrigation and selecting local, climate-appropriate, water-wise plants.
- **Demonstration Gardens**. Demonstration gardens inspire community members to incorporate sustainable, ecological, water-wise plants and techniques into their landscaping. Valley Water maintains a list of water-wise and California-native plant demonstration gardens to help guide community members in converting their own gardens to be more water-efficient. In 2017, Valley Water created a regularly maintainable interactive map that allows anyone to find demonstration gardens near their home or work by entering an address. Valley Water is currently in the process of designing a new 26,000 SF demonstration garden. Once complete, visitors will enjoy self-guided tours through a mixture of California native and non-native plants from the Landscape Rebate Program's Qualifying Plant List with informational signage.
- **Workshops**. Valley Water promotes water conservation through workshops and trainings throughout the community, attending about 45 presentations and over a dozen events per year. Examples include Graywater Laundry to Landscape workshops and presentations to local schools, universities, industry association gatherings, nursery staff, community gardens, native plant society members, corporate events, Master Gardeners, and many more. "Office Hours," started in April 2022, give customers drop-in opportunities to ask about program details. Valley Water also launched a webinar series to amplify awareness of its water conservation rebates and services. Webinars were live translated into Spanish, Vietnamese, and Mandarin and are uploaded to www.youtube.com/valleywater.
- **Growing Native Garden Tour.** To showcase exemplary native plant gardens, Valley Water has been a sponsor of the Growing Native Garden Tour every spring since 2003. Each year, thousands of participants visit several dozen

gardens. These native plant gardens demonstrate the beauty and efficiency of properly maintained native gardens to residents of Santa Clara and San Mateo counties. As an expanded community-based outreach opportunity, Valley Water produced eight Landscape Rebate Success Story testimonial videos featuring gardens on the tour to help promote Valley Water's Landscape Rebate Program.

- **Community Events**. Each year, Valley Water staff participate in a variety of public events to engage with the community on water-related issues including water conservation, water recycling and purification, flood preparedness and community-specific projects. Valley Water collaborates with the City by hosting informational booths at many City-sponsored events.

9.1.4.4 Valley Water School Education Programs

Established in 1995, Valley Water's Education Outreach (EO) program develops and implements water education programs with a focus on water conservation, water supply, watershed stewardship, pollution reduction, flood preparedness, and careers in the water field, additionally providing free education materials to educators. EO provides free grade-level appropriate classroom presentations for pre-kindergarten through high school and beyond.

The City recognizes the value of educating the younger population about the importance of water conservation and supports Valley Water's EO program.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The City conducts annual system water audits to determine the quantity of water lost (i.e., non-revenue water) by comparing the City's total water supplies with its metered water consumption. On a system-wide basis non-revenue water consists of real water losses from leaks and apparent losses from billing and meter errors. Non-revenue water for the City is further discussed in Chapter 4. This section discusses actions the City has taken to reduce real water losses from leaks.

The City actively tracks and quickly responds to typical water system activities associated with real water losses including water main breaks; valve, hydrant, or service leaks; water waste enforcement and private leaks. Leaks on the distribution system side are generally repaired within eight hours of being discovered.

To reduce apparent losses, the City plans to implement a policy that addresses unbilled water usage and improve billing and metering inaccuracies. This policy is anticipated to discourage unauthorized use of water. The policy will include compliance and enforcement provisions for violations for the unauthorized use of water, including interference, tampering, and theft of water. The City will continue to take actions to reduce apparent water losses by improving supply and demand metering accuracy, and enhancing the overall data quality throughout the system, including a goal of full implementation of AMI in the future.

Implementation of this DMM is ongoing and expected to help the City achieve its water use objectives by quickly identifying sources of water loss so repairs can be completed in a timely manner and water losses are minimized. In compliance with the DWR requirement, the City will continue to evaluate distribution system losses annually via the AWWA Water Audit Software and report to DWR.

9.1.6 Water Conservation Program Coordination and Staffing Support

Within the Compliance Division and the Water and Sewer Utilities Department, five positions perform water conservation program duties, as described below:

- **Compliance Manager:** The Compliance Manager position is responsible for managing the following programs: demand side management for the water utility; water quality; code enforcement and environmental, health, and safety.
- **Water Resources Specialist:** The Water Resources Specialist is responsible for water resource planning, water conservation, regulatory requirements and financial analysis assignments related to potable water, recycled water and wastewater in compliance with general and environmental regulations.
- **Code Enforcement Officer:** The Code Enforcement Officer conducts investigations related to storm water pollution, fats, oils and grease (FOG) source control and recycled water to determine violations and gain compliance.
- **Code Enforcement Technician:** The Code Enforcement Technician's responsibilities include promoting recycled water through program outreach, marketing, supporting FOG source control program and assisting with permitting sites for recycled water use and code enforcement. This staff member also investigates water waste complaints in the City.
- **Staff Aide:** This position assists with administrative function and program of the Compliance division. The position provides administrative support and customer service.

Outside of the Compliance division, Water & Sewer Utilities introduced a Utility Conservation/Efficiency Coordinator position in 2023. This role develops or modifies and then implements, coordinates and manages programs for water conservation, efficiency and customer service for the department.

Implementation of this DMM is ongoing and expected to help the City achieve its water use objectives by making water conservation and implementation of the City's Water Conservation Program a priority.

9.1.7 Other Demand Management Measures

The City continues to plan and implement DMM programs for its water system using collaborative regional programs with partners with similar interests and City-wide programs. The benefits of regional programs include shared administrative costs and responsibilities, promotion of customer rebate programs, and expansion of outreach programs currently available to City customers into neighboring areas. The City will

continue to support cost-effective regional activities and will focus on improving customer outreach and promoting awareness of available DMM programs.

Other DMM programs available to City water use customers that were not mentioned in previous sections are listed below. Details on these programs are available on Valley Water's website: https://www.valleywater.org/watersavingsorg.

- Water Wise Outdoor Surveys
- Residential and Commercial Landscapes
- Residential Water Leak Check
- Residential Plumbing Retrofits
- Large Landscapes
- Lawn Busters Program
- Landscape Maintenance Consultation Program
- Financial Incentives (Rebate Programs)
- Commercial, Industrial, and Institutional DMMs

Implementation of these programs are ongoing and expected to help the City achieve its water use objectives through increasing the water use efficiency of its customers. Funding for rebate programs are often limited; thus, rebate programs are available until the funding period ends or until funds are depleted.

9.2 MEMBER OF THE CALIFORNIA WATER EFFICIENCY PARTNERSHIP

The City is an active member of the CalWEP, establishing a firm commitment to the implementation of DMMs to conserve its water supplies. The City plans to continue implementation of the DMMs. The City is complying with the Making Conservation a California Way of Life Regulation to meet its Urban Water Use Objectives (UWUOs), and with SB 555 water loss performance standards as part of its Water Loss Control Program.

Other DMMs may be implemented by the City (subject to City Council approval) as deemed necessary based on customer participation, water savings, cost effectiveness, and other relevant factors.

9.3 CONTINUED IMPLEMENTATION OF DMMS

The City plans to continue implementing the DMMs described in this chapter and researching emerging technologies and strategies that may bolster existing DMMs. The City continually monitors and assesses the success of its water conservation programs to determine if additional measures are needed to meet its own water conservation goals and water use objectives.

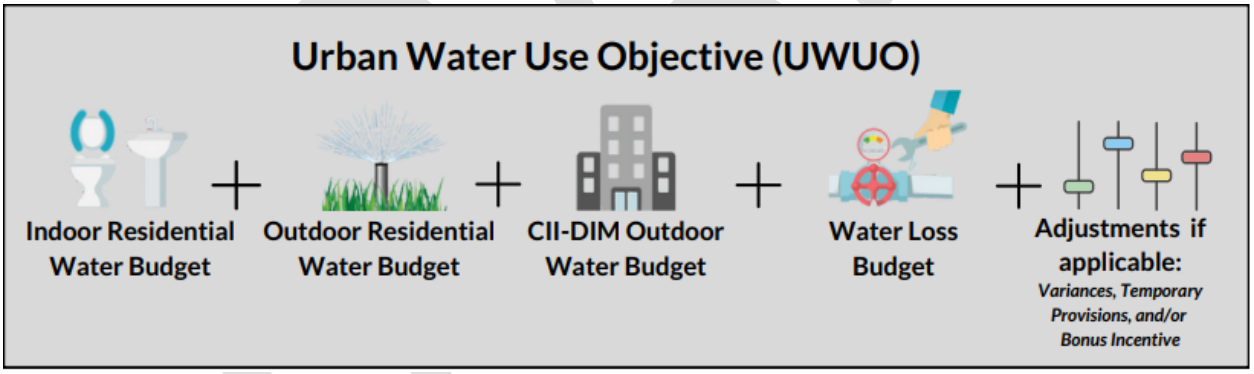
9.3.1 Meeting Urban Water Use Objectives

The Making Conservation a California Way of Life Legislation established a new framework for improvements in long-term urban water use efficiency. This Legislation builds on the statewide 2020 water conservation targets set under SB X7-7 (CWC §10609.2(d)). Under the Legislation, the State Water Board, in coordination with DWR, was required to adopt urban water use efficiency standards, variances, and performance measures by June 30, 2022.

On July 3, 2024, the State Water Board adopted the Making Conservation a California Way of Life Regulation. As part of this regulation, each urban water supplier is held to an annual Urban Water Use Objective (UWUO). The City is required to calculate its UWUO annually, which is a sum of water efficiency budgets for the following uses:

- Residential indoor water use
- Residential outdoor water use
- Real water loss
- CII landscapes with dedicated irrigation meters (DIMs)

The City's UWUO is calculated using statewide efficiency standards; it considers the City's water service area population, climate, and landscape area. Efficiency standards for the different components will progressively decrease from 2025 to 2040. Figure 9-1 summarizes the components that make up the UWUO.



Source: California Water Efficiency Partnership. May 2024. *Making Conservation a California Way of Life Standards Framework Cut Sheet*

Figure 9-1. Urban Water Use Objective Components

In addition to calculating and complying with the UWUO, beginning in 2027, the City will need to classify its Commercial, Industrial and Institutional (CII) properties, and begin deploying best management practices (BMPs) for indoor and outdoor CII water use. These CII performance measures are intended to enable water-usage benchmarking per CII classification category, as well as establish BMPs for indoor and outdoor CII water use.

9.3.2 Annual Water Use Reporting

As of 2024, the City is required to calculate its UWUO, compare its actual water use to its UWUO, and provide an Annual Urban Water Use Objective and Water Use Report to the State by January 1 of each year. Reporting is based on fiscal year data. Each year the City will submit prior fiscal year data to meet its applicable UWUO for the year. If it does not meet its UWUO, the City will develop a plan to intensify or implement additional demand management actions to improve water use efficiency.

The City submitted its Fiscal Year 2024/2025 Annual Urban Water Use Objective and Water Use Report to the State on December 23, 2025. Reporting and compliance with UWUOs fall under the authority of State Water Board and is tracked separately from the UWMP. Thus, UWUO compliance reports are not included in the UWMP.

CHAPTER 10
Plan Adoption, Submittal, and Implementation

This chapter provides information regarding the notification, public hearing, adoption, and submittal of the City's 2025 UWMP and WSCP. It also includes discussion on plan implementation and the process of amending the UWMP and the WSCP.

10.1 INCLUSION OF ALL 2025 DATA

The 2025 UWMPs must contain data through the end of 2025. If a water supplier bases its accounting on a fiscal year (July through June) the data must be through the end of the 2025 fiscal year (June 2025). If the water supplier bases its accounting on a calendar year, the data must be through the end of the 2025 calendar year (December 2025).

As indicated in Section 2.3 of this plan, the City uses a calendar year for water supply and demand accounting, and therefore this plan includes data through December 2025.

10.2 NOTICE OF PUBLIC HEARING

In accordance with the UWMP Act, the City must provide an opportunity for the public to provide input on this 2025 UWMP, including the WSCP. The City must consider all public input prior to its adoption. There are two audiences to be notified for the public hearing: cities and counties, and the public.

10.2.1 Notices to Cities and Counties

As discussed in Section 2.4, the City provided greater than a 60-day notice regarding the preparation of its 2025 UWMP and WSCP to the County as well as neighboring cities and water agencies as listed below:

- City of Brisbane
- City of Burlingame
- City of Daly City
- City of Gilroy
- City of Hayward
- City of Menlo Park
- City of Milpitas
- City of Morgan Hill
- City of Mountain View
- City of Millbrae
- City of Palo Alto
- City of Redwood City
- City of San Bruno
- City of Sunnyvale
- City of East Palo Alto
- San Jose Municipal Water System

- San Jose Water
- Town of Hillsborough
- Santa Clara County
- Alameda County Water District
- California Water Service
- BAWSCA
- Coastside County Water District
- Mid-Peninsula Water District
- Estero Municipal Improvement District
- North Coast County Water District
- Purissima Hills Water District
- Valley Water
- San Francisco Public Utilities Commission
- Stanford University
- Westborough Water District

The City coordinated the preparation of its UWMP internally, and with the above-listed agencies. Upon substantial completion of this 2025 UWMP and WSCP, the City coordinated internally and provided the County a notice of public hearing as shown in Table 10-1. Copies of the notices are included in Appendix D.

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

City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Santa Clara	Yes	Yes
County Name **Drop Down List**	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Santa Clara County	Yes	Yes

10.2.2 Notice to the Public

To allow ample time for the public to prepare comments, the City issued a notice of availability and public hearing to the public and provided a public review period following the notice and prior to adoption of the 2025 UWMP and WSCP. A notice of availability and public hearing was issued in accordance with Government Code § 6066 and was published twice in the *Santa Clara Weekly* newspaper to notify all customers and local governments of the public hearing. The newspaper is in general circulation and distributed free of charge to all Santa Clara residents. In addition, the notice was posted on the City's website. A copy of the published Notice of Public Hearing is included in Appendix D.

10.3 PUBLIC HEARING AND ADOPTION

The City encouraged community participation in the development of this 2025 UWMP, including the WSCP, using public notices and web-based communication. The notice included the time and place of the public hearing, as well as the location where the plan is available for public inspection.

10.3.1 Public Hearing

A public hearing was held on MM DD, 2026. The public hearing provided an opportunity for City water users and the general public to become familiar with the 2025 UWMP and the associated WSCP and ask questions about the City's water supply, its continuing plans for providing a reliable, safe, high-quality water supply, and plans to mitigate various potential water shortage conditions. Copies of the draft UWMP and WSCP were made available for public inspection on the City's website.

10.3.2 Adoption

Subsequent to the public hearing, this 2025 UWMP and WSCP were adopted by the City Council on MM DD, 2026. The City adopted the updated WSCP separately so that it may be updated as necessary. Copies of the adoption resolutions are included in Appendix H.

10.4 PLAN SUBMITTAL

This 2025 UWMP will be submitted to DWR within 30 days of adoption and by July 1, 2026. The adopted 2025 UWMP will be submitted electronically to DWR using the Water Use Efficiency (WUE) data submittal tool. A CD or hard copy of the adopted 2025 UWMP will also be submitted to the California State Library.

No later than 30 days after adoption, a copy of the adopted 2025 UWMP, including the WSCP, was provided to the cities and counties in which the City provides water.

10.5 PUBLIC AVAILABILITY

No later than 30 days after submittal to DWR, copies of this plan, including the WSCP, were made available at the City's offices for public review during normal business hours. An electronic copy of this 2025 UWMP and WSCP was also made available for review and download on the City's website.

10.6 PLAN IMPLEMENTATION

This 2025 UWMP will be the source document for any SB 610 Water Supply Assessments or SB 221 Water Supply Verifications required for any proposed projects between 2026 and 2030 that are subject to the California Environmental Quality Act and would demand an amount of water equivalent or greater than the amount of water required by a 500-dwelling-unit project. Also, this 2025 UWMP will provide guidance and direction on development of new local supplies and implementation of water conservation programs.

10.7 AMENDING AN ADOPTED UWMP OR WSCP

The City may amend its 2025 UWMP and WSCP jointly or separately. If the City amends one or both documents, the City will follow the notification, public hearing, adoption, and submittal process described in Sections 10.2 through 10.4 above. In addition to submitting amendments to DWR through the WUE data portal, copies of amendments or changes to the plans will be submitted to the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

Appendix A

Urban Water Management Planning Act Legislative Requirements

Appendix A
California Water Code—Urban Water Management Planning

This material is for informational purposes only and is not to be used in place of official California Water Code.

This appendix presents updated sections of California Water Code (Water Code) as of the publication of this Guidebook and as compiled by California Department of Water Resources (DWR) staff. The selection here focuses on the portions of Water Code directly relevant to preparation of an Urban Water Management Plan (UWMP), and sections of Water Code that are contextually relevant to urban water suppliers and DWR.

Water Code published here also concerns the Urban Water Management Planning Act, the Water Conservation Act of 2009 (SB X7-7), which covers sustainable water use and demand reduction, and more. Further legislative information is available on the California Legislative Information website.

Contents

Water Conservation Act of 2009 (SB X7-7)

This section contains information extracted from Water Code Division 6, *Conservation, Development, and Utilization of State Water Resources*, Part 2.55, *Sustainable Water Use And Demand Reduction*. Click on any section header below to read Water Code directly at the California Legislative Information website.

Chapter 1. General Declarations and Policy, Sections 10608–10608.8

Section 10608.

The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less

useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

Section 10608.4.

It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20- percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(k) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(l) Advance regional water resources management.

Section 10608.8.

(a)

(1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

Chapter 2. Definitions, Section 10608.12

Section 10608.12.

Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Affordable housing" has the same meaning as defined in Section 34191.30 of the Health and Safety Code.

(b) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor

for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(c) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the

(3) calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(4) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(d) Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(e) "CII water use" means water used by commercial water users, industrial water users, institutional water users, and large landscape water users.

(f) "Commercial water user" means a water user that provides or distributes a product or service.

(g) "Common area" means that portion of a common interest development or of a property owned or managed by a homeowners' association or a community service organization or similar entity that is not assigned or allocated to the exclusive use of the occupants of an individual dwelling unit within the property.

(h) "Common interest development" has the same meaning as in Section 4100 of the Civil Code.

(i) "Community service organization or similar entity" has the same meaning as in Section 4110 of the Civil Code.

(j) "Community space" means an area designated by a property owner or a governmental agency to accommodate human foot traffic for civic, ceremonial, or other community events or social gatherings

(k) Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(l) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(m) "Functional turf" means a ground cover surface of turf located in a recreational use area or community space. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not functional turf.

(n) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(o) "Homeowners' association" means an "association" as defined in Section 4080 of the Civil Code.

(p) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(q) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(r) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(s) "Large landscape" means a nonresidential landscape as described in the performance measures for CII water use adopted pursuant to Section 10609.10.

(t) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater

than or equal to the present value of the local cost of implementing that measure.

(u) "Nonfunctional turf" means any turf that is not functional turf, and includes turf located within street rights-of-way and parking lots.

(v) "Performance measures" means actions to be taken by urban retail water suppliers that will result in increased water use efficiency by CII water users. Performance measures may include, but are not limited to, educating CII water users on best management practices, conducting water use audits, and preparing water management plans. Performance measures do not include process water.

(w) "Potable reuse" means direct potable reuse, indirect potable reuse for groundwater recharge, and reservoir water augmentation as those terms are defined in Section 13561.

(x) "Potable water" means water that is suitable for human consumption.

(y) "Process water" means water used by industrial water users for producing a product or product content or water used for research and development. Process water includes, but is not limited to, continuous manufacturing processes, and water used for testing, cleaning, and maintaining equipment. Water used to cool machinery or buildings used in the manufacturing process or necessary to maintain product quality or chemical characteristics for product manufacturing or control rooms, data centers, laboratories, clean rooms, and other industrial facility units that are integral to the manufacturing or research and development process is process water. Water used in the manufacturing process that is necessary for complying with local, state, and federal health and safety laws, and is not incidental water, is process water. Process water does not mean incidental water uses.

(z) "Public water system" has the same meaning as defined in Section 116275 of the Health and Safety Code.

(aa) "Recreational use area" means an area designated by a property owner or a governmental agency to accommodate human foot traffic for recreation, including, but not limited to, sports fields, golf courses, playgrounds, picnic grounds, or pet exercise areas. This recreation may be either formal or informal.

(ab) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050.

(ac) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(ad) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(ae) "Turf" has the same meaning as defined in Section 491 of Title 23 of the California Code of Regulations

(af) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(ag) "Urban water supplier" has the same meaning as defined in Section 10617.

(ah) "Urban water use objective" means an estimate of aggregate efficient water use for the previous year based on adopted water use efficiency standards and local service area characteristics for that year, as described in Section 10609.20.

(ai) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

(aj) "Urban wholesale water supplier" means a water supplier, either publicly or privately owned, that provides more than 3,000 acre- feet of water annually at wholesale for potable municipal purposes.

Chapter 2.5. Nonfunctional Turf

Section 10608.14.

(a) The use of potable water for the irrigation of nonfunctional turf located on commercial, industrial, and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited as of the following dates:

(1) All properties owned by the Department of General Services, beginning January 1, 2027.

(2) All properties owned by local governments, local or regional public agencies, and public water systems, except those specified in paragraph (5), beginning January 1, 2027.

(3) All other institutional properties and all commercial and industrial properties, beginning January 1, 2028.

(4) All common areas of properties of homeowners' associations, common interest developments, and community service organizations or similar entities, beginning January 1, 2029.

(5) All properties owned by local governments, local public agencies, and public water systems in a disadvantaged community, beginning January 1, 2031, or the date upon which a state funding source is made available to fund conversion of nonfunctional turf on these properties to climate-appropriate landscapes, whichever is later.

(b) Notwithstanding subdivision (a), the use of potable water is not prohibited by this section to the extent necessary to ensure the health of trees and other perennial nonturf plantings, or to the extent necessary to address an immediate health and safety need.

(c) The board may, upon a showing of good cause for reasons including economic hardship, critical business need, and potential impacts to human health or safety, postpone a compliance deadline in subdivision (a) by up to three years for certain persons, institutions, and businesses, and may create a form to be used for compliance certification to the board by property owners.

(d) Public water systems shall, by no later than January 1, 2027, revise their regulations, ordinances, or policies governing water service to include the requirements of subdivisions (a) and (b), as revised by the board pursuant to subdivision (c), and shall communicate the requirements to their customers on or before that date.

(e)

(1) An owner of commercial, industrial, or institutional property with more than 5,000 square feet of irrigated area other than a cemetery shall certify to the board, commencing June 30, 2030, and every three years thereafter through 2039, that their property is in compliance with the requirements of this chapter.

(2) An owner of a property with more than 5,000 square feet of irrigated common area that is a homeowners' association, common interest development, or community service organization or similar entity shall certify to the board, commencing June 30, 2031, and every three years thereafter through 2040, that their property is in compliance with the requirements of this chapter.

(f) Noncompliance by a person or entity with this chapter or regulations adopted thereunder shall be subject to civil liability and penalties set forth in Section 1846, or to civil liability and penalties imposed by an urban retail water supplier pursuant to a locally adopted ordinance or policy.

(g)

(1) A public water system, city, county, or city and county may enforce the provisions of this chapter.

(2) To avoid duplication of enforcement, any entity identified in paragraph (1) that is not a retail public water system shall notify the retail public water system 30 days prior to enforcement of the provisions of this chapter against a property served by such system.

(3) Nothing in paragraph (2) shall preclude enforcement by any entity identified in paragraph (1) once adequate notice is given.

(h) The department shall, when using funds appropriated for water conservation for turf replacement, prioritize financial assistance for nonfunctional turf replacement to public water systems serving disadvantaged communities and to owners of affordable housing.

(i) The department shall utilize the saveourwater.com internet website and outreach campaign to provide information and resources on converting nonfunctional turf to native vegetation.

(j) The Governor's Office of Business and Economic Development shall support small and minority-owned businesses that provide services that advance compliance with this chapter.

Chapter 3. Urban Retail Water Suppliers, Sections 10608.16–10608.44

Section 10608.16.

(a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(1) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

Section 10608.20.

(a)

(1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2017 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10- percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h)

(1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area

population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its internet website, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(h)

(1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j)

(1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

Section 10608.22.

Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (c) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

Section 10608.24.

(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

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

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d)

(1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f)

(1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining

gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

Section 10608.26.

(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

(b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.

(c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the conservation of that military installation under federal Executive Order 13514.

(d)

(1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

(2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of

Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

Section 10608.28.

(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.

Section 10608.32.

All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

Section 10608.34.

(a)

(1) On or before January 1, 2017, the department shall adopt rules for all of the following:

(A) The conduct of standardized water loss audits by urban retail water suppliers in accordance with the method adopted by the American Water Works Association in the third edition of Water Audits and Loss

Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0.

(B) The process for validating a water loss audit report prior to submitting the report to the department. For the purposes of this section, "validating" is a process whereby an urban retail water supplier uses a technical expert to confirm the basis of all data entries in the urban retail water supplier's water loss audit report and to appropriately characterize the quality of the reported data. The validation process shall follow the principles and terminology laid out by the American Water Works Association in the third edition of Water Audits and Loss Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0. A validated water loss audit report shall include the name and technical qualifications of the person engaged for validation.

(C) The technical qualifications required of a person to engage in validation, as described in subparagraph (B).

(D) The certification requirements for a person selected by an urban retail water supplier to provide validation of its own water loss audit report.

(E) The method of submitting a water loss audit report to the department.

(2) The department shall update rules adopted pursuant to paragraph (1) no later than six months after the release of subsequent editions of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36. Except as provided by the department, until the department adopts updated rules pursuant to this paragraph, an urban retail water supplier may rely upon a subsequent edition of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36 or the Free Water Audit Software.

(b)

(1) On or before October 1 of each year until October 1, 2023, each urban retail water supplier reporting on a calendar year basis shall submit a completed and validated water loss audit report for the previous calendar year or the previous fiscal year as prescribed by the department pursuant to subdivision (a).

(2) On or before January 1 of each year until January 1, 2024, each urban retail water supplier reporting on a fiscal year basis shall submit a completed and validated water loss audit report for the previous fiscal year as prescribed by the department pursuant to subdivision (a).

(3) On or before January 1, 2024, and on or before January 1 of each year thereafter, each urban retail water supplier shall submit a completed and

validated water loss audit report for the previous calendar year or previous fiscal year as part of the report submitted to the department pursuant to subdivision (a) of Section 10609.24 and as prescribed by the department pursuant to subdivision (a).

(4) Water loss audit reports submitted on or before October 1, 2017, may be completed and validated with assistance as described in subdivision (c).

(c) Using funds available for the 2016–17 fiscal year, the board shall contribute up to four hundred thousand dollars ($400,000) towards procuring water loss audit report validation assistance for urban retail water suppliers.

(d) Each water loss audit report submitted to the department shall be accompanied by information, in a form specified by the department, identifying steps taken in the preceding year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses.

(e) At least one of the following employees of an urban retail water supplier shall attest to each water loss audit report submitted to the department:

(1) The chief financial officer.

(2) The chief engineer.

(3) The general manager.

(f) The department shall deem incomplete and return to the urban retail water supplier any final water loss audit report found by the department to be incomplete, not validated, unattested, or incongruent with known characteristics of water system operations. A water supplier shall resubmit a completed water loss audit report within 90 days of an audit being returned by the department.

(g) The department shall post all validated water loss audit reports on its internet website in a manner that allows for comparisons across water suppliers. The department shall make the validated water loss audit reports available for public viewing in a timely manner after their receipt.

(h) Using available funds, the department shall provide technical assistance to guide urban retail water suppliers' water loss detection programs, including, but not limited to, metering techniques, pressure management techniques, condition-based assessment techniques for transmission and distribution pipelines, and utilization of portable and permanent water loss detection devices.

(i) No earlier than January 1, 2019, and no later than July 1, 2020, the board shall adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. In adopting these rules, the board shall employ full life-cycle cost accounting to evaluate the costs of meeting the performance standards. The board may consider establishing a minimum

allowable water loss threshold that, if reached and maintained by an urban water supplier, would exempt the urban water supplier from further water loss reduction requirements.

Section 10608.35.

(a) The department, in coordination with the board, shall conduct necessary studies and investigations and make a recommendation to the Legislature, by January 1, 2020, on the feasibility of developing and enacting water loss reporting requirements for urban wholesale water suppliers.

(b) The studies and investigations shall include an evaluation of the suitability of applying the processes and requirements of Section 10608.34 to urban wholesale water suppliers.

(c) In conducting necessary studies and investigations and developing its recommendation, the department shall solicit broad public participation from stakeholders and other interested persons.

Section 10608.36.

Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

Section 10608.40.

Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

Section 10608.42.

(a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets to achieve the 20- percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

Section 10608.43.

The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

(a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.

(b) Evaluation of water demands for manufacturing processes, goods, and cooling.

(c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.

(d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.

(e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

Section 10608.44.

Each state agency shall reduce water use at facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Chapter 5. Sustainable Water Management, Section 10608.50

Section 10608.50.

(a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

(1) Revisions to the requirements for urban and agricultural water management plans.

(2) Revisions to the requirements for integrated regional water management plans.

(3) Revisions to the eligibility for state water management grants and loans.

(4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.

(5) Increased funding for research, feasibility studies, and project construction.

(6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

Chapter 6. Standardized Data Collection, Section 10608.52

Section 10608.52.

(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

Chapter 7. Funding Provisions, Sections 10608.56–10608.60

Section 10608.56.

(a) On and after July 1, 2016, 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.

(b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan

is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

Section 10608.60.

(a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

Chapter 9. Urban Water Use Objectives and Water Use Reporting, Sections 10609–10609.38

Section 10609.

(a) The Legislature finds and declares that this chapter establishes a method to estimate the aggregate amount of water that would have been delivered the previous year by an urban retail water supplier if all that water had been used efficiently. This estimated aggregate water use is the urban retail water supplier's urban water use objective. The method is based on water use efficiency standards and local service area characteristics for that year. By comparing the amount of water actually used in the previous year with the urban water use objective, local urban water suppliers will be in a better position to help eliminate unnecessary use of water; that is, water used in excess of that needed to accomplish the intended beneficial use.

(b) The Legislature further finds and declares all of the following:

(1) This chapter establishes standards and practices for the following water uses:

(A) Indoor residential use.

(B) Outdoor residential use.

(C) CII water use.

(D) Water losses.

(E) Other unique local uses and situations that can have a material effect on an urban water supplier's total water use.

(2) This chapter further does all of the following:

(A) Establishes a method to calculate each urban water use objective.

(B) Considers recycled water quality in establishing efficient irrigation standards.

(C) Requires the department to provide or otherwise identify data regarding the unique local conditions to support the calculation of an urban water use objective.

(D) Provides for the use of alternative sources of data if alternative sources are shown to be as accurate as, or more accurate than, the data provided by the department.

(E) Requires annual reporting of the previous year's water use with the urban water use objective.

(F) Provides a bonus incentive for the amount of potable recycled water used the previous year when comparing the previous year's water use with the urban water use objective, of up to 10 percent of the urban water use objective.

(3) This chapter requires the department and the board to solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter.

(4) This chapter preserves the Legislature's authority over long- term water use efficiency target setting and ensures appropriate legislative oversight of the implementation of this chapter by doing all of the following:

(A) Requiring the Legislative Analyst to conduct a review of the implementation of this chapter, including compliance with the adopted standards and regulations, accuracy of the data, use of alternate data, and other issues the Legislative Analyst deems appropriate.

(B) Stating legislative intent that the director of the department and the chairperson of the board appear before the appropriate Senate and Assembly policy committees to report on progress in implementing this chapter.

(C) Providing one-time-only authority to the department and board to adopt water use efficiency standards, except as explicitly provided in this chapter. Authorization to update the standards shall require separate legislation.

(c) It is the intent of the Legislature that the following principles apply to the development and implementation of long-term standards and urban water use objectives:

(1) Local urban retail water suppliers should have primary responsibility for meeting standards-based water use targets, and they shall retain the flexibility to develop their water supply portfolios, design and implement water conservation strategies, educate their customers, and enforce their rules.

(2) Long-term standards and urban water use objectives should advance the state's goals to mitigate and adapt to climate change.

(3) Long-term standards and urban water use objectives should acknowledge the shade, air quality, and heat-island reduction benefits provided to communities by trees through the support of water-efficient irrigation practices that keep trees healthy.

(4) The state should identify opportunities for streamlined reporting, eliminate redundant data submissions, and incentivize open access to data collected by urban and agricultural water suppliers.

Section 10609.2.

(a) The board, in coordination with the department, shall adopt long-term standards for the efficient use of water pursuant to this chapter on or before June 30, 2022.

(b) Standards shall be adopted for all of the following:

(1) Outdoor residential water use.

(2) Outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) A volume for water loss.

(c) When adopting the standards under this section, the board shall consider the policies of this chapter and the proposed efficiency standards' effects on local wastewater management, developed and natural parklands, and urban tree health. The standards and potential effects shall be identified by May 30, 2022. The board shall allow for public comment on potential effects identified by the board under this subdivision.

(d) The long-term standards shall be set at a level designed so that the water use objectives, together with other demands excluded from the long-term standards such as CII indoor water use and CII outdoor water use not connected to a dedicated landscape meter, would exceed the statewide conservation targets required pursuant to Chapter 3 (commencing with Section 10608.16).

(e) The board, in coordination with the department, shall adopt by regulation variances recommended by the department pursuant to Section 10609.14 and guidelines and methodologies pertaining to the calculation of an urban retail water supplier's urban water use objective recommended by the department pursuant to Section 10609.16.

Section 10609.4.

(a)

(1) Until January 1, 2025, the standard for indoor residential water use shall be 55 gallons per capita daily.

(2) Beginning January 1, 2025, and until January 1, 2030, the standard for indoor residential water use shall be 47 gallons per capita daily.

(3) Beginning January 1, 2030, the standard for indoor residential water use shall be 42 gallons per capita daily.

(b)

(1) The department, in coordination with the board, shall conduct necessary studies and investigations to assess and quantify the economic benefits and impacts of the 2030 indoor residential use standard on water, wastewater, and recycled water systems and shall include saturation end-use studies. The studies and investigations shall build on the standards and potential effects identified pursuant to subdivision (c) of Section 10609.2 and shall also consider, and as appropriate incorporate, other regional and statewide studies that quantify the impacts on water, wastewater, and recycled water systems, and evaluate the long-term effects of telework. To facilitate these studies and investigations, the board may request necessary and relevant information from wastewater agencies, including monthly influent flow, actions taken to reassess treatment processes, and the impact of the implementation of this chapter on wastewater operations, maintenance, and capital investment. The department, in coordination with the board, shall summarize the findings of these studies and investigations in a report to the Legislature on or before October 1, 2028. The report shall be submitted in compliance with Section 9795 of the Government Code.

(2) If the department, in coordination with the board, determines that the 2030 indoor residential use standard is likely to unduly impact affordability of water and wastewater services, the department and the board may jointly recommend to the Legislature an alternate date on which the 2030 indoor residential use standard shall take effect. This determination shall be made using at least two years of data reflecting application of the 2025 indoor residential use standard.

(3) Based upon the studies and investigations conducted pursuant to paragraph (1), the department shall consider whether to recommend, for adoption by the board, additional variances to accommodate unique challenges related to residential indoor water use pursuant to Section 10609.2. Variance options may include, but are not limited to, stranded assets, impacts on disadvantaged communities, impacts to environmental flows, or adverse impacts to wastewater or recycled water operations.

(4) The studies, investigations, and report described in paragraph (1) shall include timely and inclusive collaboration with, and input from, a broad group of stakeholders, including, but not limited to, environmental groups, experts in indoor plumbing, water, wastewater, and recycled water agencies.

(c) An urban retail water supplier shall not be subject to enforcement pursuant to this chapter solely for failing to meet the indoor residential use standard.

Section 10609.6.

(a)

(1) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor residential use for adoption by the board in accordance with this chapter.

(2)

(A) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(B) The standards shall apply to irrigable lands.

(C) The standards shall include provisions for swimming pools, spas, and other water features. Ornamental water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, shall be analyzed separately from swimming pools and spas.

(b) The department shall, by January 1, 2021, provide each urban retail water supplier with data regarding the area of residential irrigable lands in a manner that can reasonably be applied to the standards adopted pursuant to this section.

(c) The department shall not recommend standards pursuant to this section until it has conducted pilot projects or studies, or some combination of the two, to ensure that the data provided to local agencies are reasonably accurate for the

data's intended uses, taking into consideration California's diverse landscapes and community characteristics.

Section 10609.8.

(a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, standards for outdoor irrigation of landscape areas with dedicated irrigation meters or other means of calculating outdoor irrigation use in connection with CII water use for adoption by the board in accordance with this chapter.

(b) The standards shall incorporate the principles of the model water efficient landscape ordinance adopted by the department pursuant to the Water Conservation in Landscaping Act (Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code).

(c) The standards shall include an exclusion for water for commercial agricultural use meeting the definition of subdivision (b) of Section 51201 of the Government Code.

Section 10609.9.

For purposes of Sections 10609.6 and 10609.8, "principles of the model water efficient landscape ordinance" means those provisions of the model water efficient landscape ordinance applicable to the establishment or determination of the amount of water necessary to efficiently irrigate both new and existing landscapes. These provisions include, but are not limited to, all of the following:

(a) Evapotranspiration adjustment factors, as applicable.

(b) Landscape area.

(c) Maximum applied water allowance.

(d) Reference evapotranspiration.

(e) Special landscape areas, including provisions governing evapotranspiration adjustment factors for different types of water used for irrigating the landscape.

Section 10609.10.

(a) The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, performance measures for CII water use for adoption by the board in accordance with this chapter.

(b) Prior to recommending performance measures for CII water use, the department shall solicit broad public participation from stakeholders and other interested persons relating to all of the following:

(1) Recommendations for a CII water use classification system for California that address significant uses of water.

(2) Recommendations for setting minimum size thresholds for converting mixed CII meters to dedicated irrigation meters, and evaluation of, and recommendations for, technologies that could be used in lieu of requiring dedicated irrigation meters.

(3) Recommendations for CII water use best management practices, which may include, but are not limited to, water audits and water management plans for those CII customers that exceed a recommended size, volume of water use, or other threshold.

(c) Recommendations of appropriate performance measures for CII water use shall be consistent with the October 21, 2013, report to the Legislature by the Commercial, Industrial, and Institutional Task Force entitled "Water Use Best Management Practices," including the technical and financial feasibility recommendations provided in that report, and shall support the economic productivity of California's commercial, industrial, and institutional sectors.

(b)

(1) The board, in coordination with the department, shall adopt performance measures for CII water use on or before June 30, 2022.

(2) Each urban retail water supplier shall implement the performance measures adopted by the board pursuant to paragraph (1).

Section 10609.12.

The standards for water loss for urban retail water suppliers shall be the standards adopted by the board pursuant to subdivision (i) of Section 10608.34.

Section 10609.14.

(a) The department, in coordination with the board, shall conduct necessary studies and investigations and, no later than October 1, 2021, recommend for adoption by the board in accordance with this chapter appropriate variances for unique uses that can have a material effect on an urban retail water supplier's urban water use objective.

(b) Appropriate variances may include, but are not limited to, allowances for the following:

(1) Significant use of evaporative coolers.

(2) Significant populations of horses and other livestock.

(3) Significant fluctuations in seasonal populations.

(4) Significant landscaped areas irrigated with recycled water having high levels of total dissolved solids.

(5) Significant use of water for soil compaction and dust control.

(6) Significant use of water to supplement ponds and lakes to sustain wildlife.

(7) Significant use of water to irrigate vegetation for fire protection.

(8) Significant use of water for commercial or noncommercial agricultural use.

(d) The department, in recommending variances for adoption by the board, shall also recommend a threshold of significance for each recommended variance.

(e) Before including any specific variance in calculating an urban retail water supplier's water use objective, the urban retail water supplier shall request and receive approval by the board for the inclusion of that variance.

(f) The board shall post on its Internet Web site all of the following:

(1) A list of all urban retail water suppliers with approved variances.

(2) The specific variance or variances approved for each urban retail water supplier.

(3) The data supporting approval of each variance.

Section 10609.15.

To help streamline water data reporting, the department and the board shall do all of the following:

(a) Identify urban water reporting requirements shared by both agencies, and post on each agency's Internet Web site how the data is used for planning, regulatory, or other purposes.

(b) Analyze opportunities for more efficient publication of urban water reporting requirements within each agency, and analyze how each agency can integrate various data sets in a publicly accessible location, identify priority actions, and implement priority actions identified in the analysis.

(c) Make appropriate data pertaining to the urban water reporting requirements that are collected by either agency available to the public according to the principles and requirements of the Open and Transparent Water Data Act (Part 4.9 (commencing with Section 12400)).

Section 10609.16.

The department, in coordination with the board, shall conduct necessary studies and investigations and recommend, no later than October 1, 2021, guidelines and methodologies for the board to adopt that identify how an urban retail water supplier calculates its urban water use objective. The guidelines and methodologies shall address, as necessary, all of the following:

(a) Determining the irrigable lands within the urban retail water supplier's service area.

(b) Updating and revising methodologies described pursuant to subparagraph (A) of paragraph (1) of subdivision (h) of Section 10608.20, as appropriate, including methodologies for calculating the population in an urban retail water supplier's service area.

(c) Using landscape area data provided by the department or alternative data.

(d) Incorporating precipitation data and climate data into estimates of a urban retail water supplier's outdoor irrigation budget for its urban water use objective.

(e) Estimating changes in outdoor landscape area and population, and calculating the urban water use objective, for years when updated landscape imagery is not available from the department.

(f) Determining acceptable levels of accuracy for the supporting data, the urban water use objective, and compliance with the urban water use objective.

Section 10609.18.

The department and the board shall solicit broad public participation from stakeholders and other interested persons in the development of the standards and the adoption of regulations pursuant to this chapter. The board shall hold at least one public meeting before taking any action on any standard or variance recommended by the department.

Section 10609.20.

(a) Each urban retail water supplier shall calculate its urban water use objective no later than January 1, 2024, and by January 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use conditions for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use objective shall be composed of the sum of the following:

(1) Aggregate estimated efficient indoor residential water use.

(2) Aggregate estimated efficient outdoor residential water use.

(3) Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use.

(4) Aggregate estimated efficient water losses.

(5) Aggregate estimated water use in accordance with variances, as appropriate.

(d)

(1) An urban retail water supplier that delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water may adjust its urban water use objective by a bonus incentive calculated pursuant to this subdivision.

(2) The water use objective bonus incentive shall be the volume of its potable reuse delivered to residential water users and to landscape areas with dedicated irrigation meters in connection with CII water use, on an acre-foot basis.

(3) The bonus incentive pursuant to paragraph (1) shall be limited in accordance with one of the following:

(A) The bonus incentive shall not exceed 15 percent of the urban water supplier's water use objective for any potable reuse water produced at an existing facility.

(B) The bonus incentive shall not exceed 10 percent of the urban water supplier's water use objective for any potable reuse water produced at any facility that is not an existing facility.

(4) For purposes of this subdivision, "existing facility" means a facility that meets all of the following:

(A) The facility has a certified environmental impact report, mitigated negative declaration, or negative declaration on or before January 1, 2019.

(B) The facility begins producing and delivering potable reuse water on or before January 1, 2022.

(C) The facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water.

(e)

(1) The calculation of the urban water use objective shall be made using landscape area and other data provided by the department and pursuant to the standards, guidelines, and methodologies adopted by the board. The department shall provide data to the urban water supplier at a level of detail sufficient to allow the urban water supplier to verify its accuracy at the parcel level.

(2) Notwithstanding paragraph (1), an urban retail water supplier may use alternative data in calculating the urban water use objective if the supplier demonstrates to the department that the alternative data are equivalent, or superior, in quality and accuracy to the data provided by the department. The department may provide technical assistance to an

urban retail water supplier in evaluating whether the alternative data are appropriate for use in calculating the supplier's urban water use objective.

Section 10609.21.

(a) For purposes of Section 10609.20, and notwithstanding paragraph (4) of subdivision (d) of Section 10609.20, "existing facility" also includes the North City Project, phase one of the Pure Water San Diego Program, for which an environmental impact report was certified on April 10, 2018.

(b) This section shall become operative on January 1, 2019.

Section 10609.22.

(a) An urban retail water supplier shall calculate its actual urban water use no later than January 1, 2024, and by January 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use shall be composed of the sum of the following:

(1) Aggregate residential water use.

(2) Aggregate outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) Aggregate water losses.

Section 10609.24.

(a) An urban retail water supplier shall submit a report to the department no later than January 1, 2024, and by January 1 every year thereafter. The report shall include all of the following:

(1) The urban water use objective calculated pursuant to Section 10609.20 along with relevant supporting data.

(2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.

(3) Documentation of the implementation of the performance measures for CII water use.

(4) A description of the progress made towards meeting the urban water use objective.

(5) The validated water loss audit report conducted pursuant to Section 10608.34.

(b) The department shall post the reports and information on its internet website.

(c) The board may issue an information order or conservation order to, or impose civil liability on, an entity or individual for failure to submit a report required by this section.

Section 10609.25.

As part of the first report submitted to the department by an urban retail water supplier no later than January 1, 2024, pursuant to subdivision (a) of Section 10609.24, each urban retail water supplier shall provide a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.

Section 10609.26.

(a)

(1) On and after January 1, 2024, the board may issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective required by this chapter. Informational orders are intended to obtain information on supplier activities, water production, and conservation efforts in order to identify technical assistance needs and assist urban water suppliers in meeting their urban water use objectives.

(2) In determining whether to issue an informational order, the board shall consider the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet the urban water use objective.

(3) The board shall share information received pursuant to this subdivision with the department.

(4) An urban water supplier may request technical assistance from the department. The technical assistance may, to the extent available, include guidance documents, tools, and data.

(b) On and after January 1, 2025, the board may issue a written notice to an urban retail water supplier that does not meet its urban water use objective required by this chapter. The written notice may warn the urban retail water supplier that it is not meeting its urban water use objective described in Section 10609.20 and is not making adequate progress in meeting the urban water use objective, and may request that the urban retail water supplier address areas of concern in its next annual report required by Section 10609.24. In deciding whether to issue a written notice, the board may consider whether the urban retail water supplier has received an informational order, the degree to which the urban retail water supplier is not

meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet its urban water use objective.

(1) On and after January 1, 2026, the board may issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. A conservation order may consist of, but is not limited to, referral to the department for technical assistance, requirements for education and outreach, requirements for local enforcement, and other efforts to assist urban retail water suppliers in meeting their urban water use objective.

(2) In issuing a conservation order, the board shall identify specific deficiencies in an urban retail water supplier's progress towards meeting its urban water use objective, and identify specific actions to address the deficiencies.

(3) The board may request that the department provide an urban retail water supplier with technical assistance to support the urban retail water supplier's actions to remedy the deficiencies.

(c) A conservation order issued in accordance with this chapter may include requiring actions intended to increase water-use efficiency, but shall not curtail or otherwise limit the exercise of a water right, nor shall it require the imposition of civil liability pursuant to Section 377.

Section 10609.27.

Notwithstanding Section 10609.26, the board shall not issue an information order, written notice, or conservation order pursuant to Section 10609.26 if both of the following conditions are met:

(a) The board determines that the urban retail water supplier is not meeting its urban water use objective solely because the volume of water loss exceeds the urban retail water supplier's standard for water loss.

(b) Pursuant to Section 10608.34, the board is taking enforcement action against the urban retail water supplier for not meeting the performance standards for the volume of water losses.

Section 10609.28.

The board may issue a regulation or informational order requiring a wholesale water supplier, an urban retail water supplier, or a distributor of a public water supply, as that term is used in Section 350, to provide a monthly report relating to water production, water use, or water conservation.

Section 10609.30.

On or before January 10, 2024, the Legislative Analyst shall provide to the appropriate policy committees of both houses of the Legislature and the public a report evaluating the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. The board and the department shall provide the Legislative Analyst with the available data to complete this report.

(a) The report shall describe all of the following:

(1) The rate at which urban retail water users are complying with the standards, and factors that might facilitate or impede their compliance.

(2) The accuracy of the data and estimates being used to calculate urban water use objectives.

(3) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(4) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(5) The early indications of how implementing this chapter might impact the efficiency of statewide urban water use.

6) Recommendations, if any, for improving statewide urban water use efficiency and the standards and practices described in this chapter.

(7) Any other issues the Legislative Analyst deems appropriate.

Section 10609.32.

It is the intent of the Legislature that the chairperson of the board and the director of the department appear before the appropriate policy committees of both houses of the Legislature on or around January 1, 2026, and report on the implementation of the water use efficiency standards and water use reporting pursuant to this chapter. It is the intent of the Legislature that the topics to be covered include all of the following:

(a) The rate at which urban retail water suppliers are complying with the standards, and factors that might facilitate or impede their compliance.

(b) What enforcement actions have been taken, if any.

(c) The accuracy of the data and estimates being used to calculate urban water use objectives.

(d) Indications of the economic impacts, if any, of the implementation of this chapter on urban water suppliers and urban water users, including CII water users.

(e) The frequency of use of the bonus incentive, the volume of water associated with the bonus incentive, value to urban water suppliers of the bonus incentive, and any implications of the use of the bonus incentive on water use efficiency.

(f) An assessment of how implementing this chapter is affecting the efficiency of statewide urban water use.

Section 10609.34.

Notwithstanding Section 15300.2 of Title 14 of the California Code of Regulations, an action of the board taken under this chapter shall be deemed to be a Class 8 action, within the meaning of Section 15308 of Title 14 of the California Code of Regulations, provided that the action does not involve relaxation of existing water conservation or water use standards.

Section 10609.36.

(a) Nothing in this chapter shall be construed to determine or alter water rights. Sections 1010 and 1011 apply to water conserved through implementation of this chapter.

(b) Nothing in this chapter shall be construed to authorize the board to update or revise water use efficiency standards authorized by this chapter except as explicitly provided in this chapter. Authorization to update the standards beyond that explicitly provided in this chapter shall require separate legislation.

(c) Nothing in this chapter shall be construed to limit or otherwise affect the use of recycled water as seawater barriers for groundwater salinity management.

Section 10609.38.

The board may waive the requirements of this chapter for a period of up to five years for any urban retail water supplier whose water deliveries are significantly affected by changes in water use as a result of damage from a disaster such as an earthquake or fire. In establishing the period of a waiver, the board shall take into consideration the breadth of the damage and the time necessary for the damaged areas to recover from the disaster.

Urban Water Management Planning Act

This section contains information extracted from Water Code Division 6, *Conservation, Development, and Utilization of State Water Resources*, Part 2.6, *Urban Water Management Planning*. Click on any section header below to read Water Code directly at the California Legislative Information website.

Chapter 1. General Declaration and Policy, Sections 10610–10610.4

Section 10610.

This part shall be known and may be cited as the "Urban Water Management Planning Act."

Section 10610.2.

(a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate, and increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years now and into the foreseeable future, and every urban water supplier should collaborate closely with local land-use authorities to ensure water demand forecasts are consistent with current land-use planning.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require

specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

Section 10610.4.

The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to achieve the efficient use of available supplies and strengthen local drought planning.

Chapter 2. Definitions, Sections 10611–10618

Section 10611.

Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

Section 10611.3.

"Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

Section 10611.5.

"Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

Section 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.

Section 10613.

"Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

Section 10614.

"Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

Section 10615.

"Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

Section 10616.

"Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

Section 10616.5.

"Recycled water" means the reclamation and reuse of wastewater for beneficial use.

Section 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.

Section 10617.5.

"Water shortage contingency plan" means a document that incorporates the provisions detailed in subdivision (a) of Section 10632 and is subsequently adopted by an urban water supplier pursuant to this article.

Section 10618.

"Water supply and demand assessment" means a method that looks at current year and one or more dry year supplies and demands for determining water shortage risks, as described in Section 10632.1.

Chapter 3. Urban Water Management Plans

Article 1. General Provisions, Sections 10620–10621

Section 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).

(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.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d)

(1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water

management planning where those plans will reduce preparation costs and contribute to the achievement of conservation, efficient water use, and improved local drought resilience.

(2) Notwithstanding paragraph (1), each urban water supplier shall develop its own water shortage contingency plan, but an urban water supplier may incorporate, collaborate, and otherwise share information with other urban water suppliers or other governing entities participating in an areawide, regional, watershed, or basinwide urban water management plan, an agricultural management plan, or groundwater sustainability plan development.

(3) 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.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(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.

Section 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.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.

(d) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

(e) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

(f) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.

Article 2. Contents of Plans, Sections 10630–10634

Section 10630.

It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied, while accounting for impacts from climate change.

Section 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.

Section 10631.

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

(a) 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.

(b) 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), providing supporting and related information, including all of the following:

(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.

(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.

(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.

(C) 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).

(D) 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.

(E) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water

supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(d)

(1) 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).

(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.

(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.

(a) 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.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(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.

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

(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).

Section 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 requirement 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.

Section 10631.2.

(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.

Section 10632.

(a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:

(1) The analysis of water supply reliability conducted pursuant to Section 10635.

(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decision making process that an urban water supplier will use each year to determine its water supply reliability.

(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of water supply.

(3)

(A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross- reference relating its existing categories to the six standard water shortage levels.

(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state- mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

(C) Any other relevant communications.

(6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

(7)

(A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.

(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.

(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

(8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

(10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

(b) For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

(c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

Section 10632.1.

An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.

Section 10632.2.

An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan, as identified in subdivision (a) of Section 10632, or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1. Nothing in this section prohibits an urban water supplier from

taking actions not specified in its water shortage contingency plan, if needed, without having to formally amend its urban water management plan or water shortage contingency plan.

Section 10632.3.

It is the intent of the Legislature that, upon proclamation by the Governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the board defer to implementation of locally adopted water shortage contingency plans to the extent practicable.

Section 10632.5.

(a) In addition to the requirements of paragraph (3) of subdivision of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106- 390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

Section 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, and shall include all of the following:

(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.

(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.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

Section 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.

Article 2.5. Water Service Reliability, Section 10635

Section 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.

(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.

(c) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(d) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(e) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans, Sections 10640–10645

Section 10640.

(a) Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(b) Every urban water supplier required to prepare a water shortage contingency plan shall prepare a water shortage contingency plan pursuant to Section 10632. The supplier shall likewise periodically review the water shortage contingency plan as required by paragraph (10) of subdivision (a) of

Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

Section 10641.

An urban water supplier required to prepare a plan or a water shortage contingency plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

Section 10642.

Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of both the plan and the water shortage contingency plan. Prior to adopting either, the urban water supplier shall make both the plan and the water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon. Prior to any of these hearings, notice of the time and place of the hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of a hearing to any city or county within which the supplier provides water supplies. Notices by a local public agency pursuant to this section shall be provided pursuant to Chapter 17.5 (commencing with Section 7290) of Division 7 of Title 1 of the Government Code. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing or hearings, the plan or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.

Section 10643.

An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

Section 10644.

(a)

(1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall

include any standardized forms, tables, or displays specified by the department.

(b) If an urban water supplier revises its water shortage contingency plan, the supplier shall submit to the department a copy of its water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

(c)

(1)

(A) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before July 1, in the years ending in seven and two, a report summarizing the status of the plans and water shortage contingency plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans and water shortage contingency plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan and water shortage contingency plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans and water shortage contingency plans submitted pursuant to this part.

(B) The department shall prepare and submit to the board, on or before September 30 of each year, a report summarizing the submitted water supply and demand assessment results along with appropriate reported water shortage conditions and the regional and statewide analysis of water supply conditions developed by the department. As part of the report, the department shall provide a summary and, as appropriate, urban water supplier specific information regarding various shortage response actions implemented as a result of annual supplier-specific water supply and demand assessments performed pursuant to Section 10632.1.

(C) The department shall submit the report to the Legislature for the 2015 plans by July 1, 2017, and the report to the Legislature for the 2020 plans and water shortage contingency plans by July 1, 2022.

(2) A report to be submitted pursuant to subparagraph (A) of paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(d) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

Section 10645.

(a) Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

(b) Not later than 30 days after filing a copy of its water shortage contingency plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

Chapter 4. Miscellaneous Provisions, Sections 10650–10657

Section 10650.

Any actions or proceedings, other than actions by the board, to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan or a water shortage contingency plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan or water shortage contingency plan, or action taken pursuant to either, does not comply with this part shall be commenced within 90 days after filing of the plan or water shortage contingency plan or an amendment to either pursuant to Section 10644 or the taking of that action.

Section 10651.

In any action or proceeding to attack, review, set aside, void, or annul a plan or a water shortage contingency plan, or an action taken pursuant to either by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

Section 10652.

The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the

plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

Section 10653.

The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the board and the Public Utilities Commission, for the preparation of water management plans, water shortage contingency plans, or conservation plans; provided, that if the board or the Public Utilities Commission requires additional information concerning water conservation, drought response measures, or financial conditions to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan that complies with analogous federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

Section 10654.

An urban water supplier may recover in its rates the costs incurred in preparing its urban water management plan, its drought risk assessment, its water supply and demand assessment, and its water shortage contingency plan and implementing the reasonable water conservation measures included in either of the plans.

Section 10655.

If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

Section 10656.

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

Section 10657.

The department may adopt regulations regarding the definitions of water, water use, and reporting periods, and may adopt any other regulations deemed necessary or desirable to implement this part. In developing regulations pursuant to this section, the department shall solicit broad public participation from stakeholders and other interested persons.

Appendix B

DWR 2025 Urban Water Management Plan Tables

Submittal Table 2-1 Retail: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA4310012	City of Santa Clara	25,875	20,728
	Total	25,875	20,728
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

Submittal 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:		

Submittal 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	AF
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange Water Code Section 10631(h)
The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
Valley Water
San Francisco Public Utilities Commission (SFPUC)
South Bay Water Recycling (SBWR)
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	134,587	150,529	165,733	176,944	188,156	199,368
NOTES:						

Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	2025 Actual Water Use	
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		**Potable or Non-Potable** (OPTIONAL) Drop down list	Volume (AF)
Single Family		Potable	3,785
Multi-Family		Potable	4,206
Institutional/Governmental		Potable	557
Industrial		Potable	1,277
Commercial		Potable	5,584
Other (optional)	Municipal/Public	Potable	335
Other (optional)	Recycled Water	Non-Potable	3,871
Distribution System Water Loss		Potable	1,113
		Subtotal Potable	16,857
		Subtotal Non-Potable	3,871
		Total	20,728

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES: Volumes are in AF.

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected Water Code Section 10631(d)(1)							
Use Type	Additional Description (as needed)	**Projected Water Use** (Report To the Extent that Records are Available)					
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		**Potable or Non-Potable** (OPTIONAL) Drop down list	**2030 (AF)**	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 opt (AF)**
Add additional rows as needed.							
Single Family		Potable	3,776	3,768	3,759	3,751	3,742
Multi-Family		Potable	4,651	5,097	5,542	5,988	6,433
Industrial		Potable	1,437	1,597	1,758	1,918	2,078
Commercial		Potable	5,827	6,070	6,312	6,555	6,798
Other (optional)	Municipal/Public/Institutional	Potable	858	824	791	757	723
Other (optional)	Mixed use, parks, Misc. including hotels for potable water consumption and unknown land use type for recycled water consumption	Potable	576	1,152	1,727	2,303	2,879
Other (optional)	Recycled Water	Non-Potable	4,300	4,729	5,159	5,588	6,017
Other (optional)	NRW - Projected non-revenue water estimated to be 7.6%	Potable	1,263	1,413	1,563	1,713	1,863
		Subtotal Potable	18,388	19,921	21,452	22,985	24,516
		Subtotal Non-Potable	4,300	4,729	5,159	5,588	6,017
		Total	22,688	24,650	26,611	28,573	30,533
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							
NOTES: Projected Water Use is in AF.							

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? **Drop down list (y/n)**	No
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.	
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 4.2.6
DWR NOTES: Additional guidance is provided in Appendix K.	
NOTES:	

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
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		
CA4310012	**2020**	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES:		

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (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			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
CA4310012	Yes	16.3	Gallons per Service Connection per Day (GPSCD)	26,026	1,255	43.0	18.3	Gallons per Service Connection per Day (GPSCD)	26,026	318	10.9

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

NOTES:
Based on the City's 2024 Water Loss Audit, covering the period from January 1, 2024 through December 31, 2024. Number of Units are number of connections. Volume of Total Real Loss and Volume of Total

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

☐	**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?	**Only for suppliers that did not meet the Target in 2020** **See DWR NOTES below.**	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	186	124	Yes		NA

DWR NOTES:
Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies.
Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.
NA=Not Applicable

NOTES:

Submittal Table 6-1 Retail: Groundwater Volume Pumped
Water Code Section 10631(4) and 10631(4)(c)

☐	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 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Alluvial Basin	Potable	Santa Clara Subbasin	9,816	10,329	10,431	10,659	11,038
		Total	9,816	10,329	10,431	10,659	11,038

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES:

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area
Water Code Section 10633(a)

☐	Check the box if there is no wastewater collection system. Proceed to the next table.
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)
	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 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
City of Santa Clara	Metered	11,048	San Jose/Santa Clara WPCP, Place ID 255333	No
Total Wastewater Received from UWMP Service Area in 2025:		11,048		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:
The reported wastewater volume includes contributions from the Cupertino Sanitary District.

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area
Water Code Section 10633(b)

☐ **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) (AF)	Total 2025 Volume of Water Treated (AF)	**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 (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Name of other entity
San Jose/Santa Clara WPCP, Place ID 255333	Yes	11,048	116,831	Tertiary	3,871	Tertiary	8,572		-		-	Tertiary	4,387	Valley Water's SVAWPC
Total		11,048	116,831		3,871		8,572		0		0		4,387	

NOTES: The reported wastewater volume of 11,048 AF includes contributions from the Cupertino Sanitary District. Advanced treated flows from Valley Water's Advanced Purification Center are blended back with tertiary-treated recycled water for SBWR. Therefore, these treated flows are included in the total recycled water produced by the San Jose/Santa Clara WPCP.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c),(d),(e)

☐	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 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	**Potential Recycled Water Use**	
									Volume	Narrative page number (OPTIONAL)
Other (Description Required)	Non-Potable	Landscape Irrigation (Parks, schools, cemeteries, churches, residential, other public facilities); Commercial Use (Landscaping, toilets, HVAC, car washes, laundries, nurseries, etc); Industrial Use (Cooling towers)	3,871	4,300	4,729	5,159	5,588	6,017	6,017	
		Subtotal Potable	0	0	0	0	0	0	0	
		Subtotal Non-Potable	3,871	4,300	4,729	5,159	5,588	6,017	6,017	
		Total	3,871	4,300	4,729	5,159	5,588	6,017	6,017	

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.
Potential recycled water use: a description of the feasibility of these uses must be included in the narrative.
Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.

NOTES:

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual Water Code Section 10633(e)		
☐	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 (AF)	2025 Actual Use (AF)
Other (Description Required)	4,570	3,871
Total	4,570	3,871

NOTES:
The recycled water uses include landscape irrigation (parks, schools, cemeteries, churches, residential, other public facilities), commercial use (landscaping, toilets, HVAC, car washes, laundries, nurseries, etc), and industrial use (cooling towers).

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use Water Code Section 10633 (f)			
☐	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.		
Page 6-18 and 6-19	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Education and Outreach	Educate residents and businesses on recycled water benefits through outreach campaigns, environmental fairs, and partnerships with local organizations.	2026	2,146
Technical Assistance	Provide technical support for system design, retrofits, landscaping, and regulatory permitting to facilitate recycled water adoption.	2026	0
Regulatory Requirements	Require the use of recycled water for irrigation and other non-potable uses where available, feasible, and compliant with standards.	2026	0
Water Quality & Reliability Improvements	Supply high-quality, consistent recycled water to reduce costs and improve performance for industrial and landscape applications.	2026	0
Regional Planning & Partnerships	Participate in regional water reuse planning to expand recycled water use, enhance system reliability, and promote potable reuse initiatives.	2026	0
		Total (AF)	2,146
		Unit Conversion to AF	2,146

NOTES: The expected increase in recycled water for the first action represents the total projected increase from current to future recycled water use. This increase is attributable to all the actions listed above and other applicable actions and is difficult to allocate among them individually.

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs
Water Code Section 10631(f)

☐	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.
Section 6.7 in Page 6-18 and 6-19	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) (AF)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Add additional rows as needed							

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.

NOTES:

Submittal Table 6-8 Retail: Water Supplies — Actual
Water Code Section 10631 (b)

Water Supply		**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	Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Purchased or Imported Water	SFPUC	Potable	3,229	
Purchased or Imported Water	Valley Water	Potable	2,590	
Groundwater (not desalinated)		Potable	11,038	
Recycled Water		Non-Potable	3,871	
		Subtotal Potable	16,857	
		Subtotal Non-Potable	3,871	
		Total	20,728	

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Submittal Table 6-9 Retail: Water Supplies — Projected
Water Code Section 10631 (b)

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
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	Additional Detail on Water Supply	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Purchased or Imported Water	SFPUC	Potable	5,041		5,041		0		0		0	
Purchased or Imported Water	Valley Water	Potable	4,560		4,560		4,560		4,560		4,560	
Groundwater (not desalinated)	Wells	Potable	23,048		23,048		23,048		23,048		23,048	
Recycled Water	SBWR	Non-Potable	4,300		4,729		5,159		5,588		6,017	
		Subtotal Potable	32,649		32,649		27,608		27,608		27,608	
		Subtotal Non-Potable	4,300		4,729		5,159		5,588		6,017	
		Total	36,949		37,378		32,767		33,196		33,625	

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES: The supply from SFPUC is assumed to be terminated beginning in 2040 due to contract termination in 2028.

Optional Submittal 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	AF	**Total Utility** See DWR NOTES	**Hydropower**	**Net Utility**
Volume of Water Entering Process		16,857		16,857
Energy Consumed (kWh)		3,762,798		3,762,798
Energy Intensity (kWh/vol. converted to MG)		685	-	685

DWR NOTES:

Total Utility: The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)

Metered Data

Data Quality Narrative:

Metered Data

Narrative:

Power at the well and tank pump stations

NOTES:

Optional Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
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:** [insert location from UWMP]	
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	**% of Average Supply**
Average Year		23,048	100%
Single-Dry Year		23,048	100%
Consecutive Dry Years 1st Year		23,048	100%
Consecutive Dry Years 2nd Year		23,048	100%
Consecutive Dry Years 3rd Year		23,048	100%
Consecutive Dry Years 4th Year		23,048	100%
Consecutive Dry Years 5th Year		23,048	100%

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table. **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.

NOTES: Projected groundwater supplies are based on the City's historical maximum annual groundwater production in Fiscal Year (FY) 1986/87. The values shown in the table only reflect the City's groundwater supplies and the City's other supplies are discussed in Section 7.3 of the UWMP.

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	36,949	37,378	32,767	33,196	33,625
Use totals (autofill from Submittal Table 4-2 R)	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	14,261	12,728	6,156	4,623	3,092
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES: The results correspond to Scenario 1, which assumes SFPUC supply reductions under the Bay-Delta Plan Amendment and the termination of SFPUC supplies beginning in 2040.					

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	35,379	35,713	32,767	33,196	33,625
Use totals	22,688	24,650	26,611	28,573	30,533
Surplus/(shortfall)	12,691	11,063	6,156	4,623	3,092
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					

DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:
The results correspond to Scenario 1, which assumes SFPUC supply reductions under the Bay-Delta Plan Amendment and the termination of SFPUC supplies beginning in 2040.

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison Water Code Section 10635(a)						
		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	35,379	35,713	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,691	11,063	6,156	4,623	3,092
Second year	Supply totals	34,821	35,214	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	6,156	4,623	3,092
Third year	Supply totals	34,821	35,214	32,767	33,196	33,625
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	12,133	10,564	6,156	4,623	3,092
Fourth year	Supply totals	34,593	35,214	32,767	32,968	33,397
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	6,156	4,395	2,864
Fifth year	Supply totals	34,593	35,214	32,767	32,968	33,397
	Use totals	22,688	24,650	26,611	28,573	30,533
	Surplus/(shortfall)	11,905	10,564	6,156	4,395	2,864

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:
The results correspond to Scenario 1, which assumes SFPUC supply reductions under the Bay-Delta Plan Amendment

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	**Total**
Total Water Use (AF)	21,120
Total Supplies (AF)	34,821
Surplus/Shortfall w/o WSCP Action	13,701
2027	**Total**
Total Water Use (AF)	21,512
Total Supplies (AF)	34,906
Surplus/Shortfall w/o WSCP Action	13,394
2028	**Total**
Total Water Use (AF)	21,905
Total Supplies (AF)	34,992
Surplus/Shortfall w/o WSCP Action	13,087
2029	**Total**
Total Water Use (AF)	22,297
Total Supplies (AF)	34,850
Surplus/Shortfall w/o WSCP Action	12,553
2030	**Total**
Total Water Use (AF)	22,689
Total Supplies (AF)	34,936
Surplus/Shortfall w/o WSCP Action	12,247
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Santa Clara	Yes	Yes
County Name **Drop Down List**	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Santa Clara County	Yes	Yes
NOTES:		

Appendix C

DWR 2025 Urban Water Management Plan Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	n/a	Executive Summary
x	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan Preparation	n/a	Executive Summary
x	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan Preparation	n/a	n/a
x	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan Preparation	2-1	Section 2.1
x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan Preparation	2-2	Section 2.2
x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan Preparation	2-3	Section 2.3
x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	n/a	Section 2.4
x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	n/a	Section 2.4.2; Appendix D

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan Preparation	2-4 R	Section 2.4.1
n/a	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan Preparation	2-4W	n/a
x	Chapter 3.0	10631(a)	Describe the Supplier service area.	System Description	n/a	Sections 3.1 and 3.2
x	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System Description	n/a	Section 3.3
x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System Description	3-1 R	Section 3.4.1
x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System Description	n/a	Section 3.4.2
x	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System Description and Baselines	n/a	Section 3.5
x	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	4-1 R and 4-2 R	Sections 4.2.1, 4.2.2 and 4.2.3
x	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System Water Use	4-5 R	Section 4.3
x	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System Water Use	4-6 R	Section 4.3
x	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System Water Use	4-3 R	Sections 4.2.5 and 4.2.6

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	4-3 R	Sections 4.2.4 and 4.2.5
x	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	4-3 R	Sections 4.2.4, 4.2.5 and 4.2.6
x	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System Water Use	4-3 R	Section 4.2.5
x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	n/a	Section 4.4
n/a	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and Targets	n/a	n/a
x	Section 5.2	10608.4	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: • Was considered an urban retail water supplier in 2020, • Met its 2020 target in 2020, or • Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and Targets	5-1 R	Section 5.2
x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	n/a	Chapter 6; Sections 6.1, 6.2 and 6.4
x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well	System Supplies	n/a	Section 6.8 (normal years); Section 7.2 (dry years)

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			as more frequent and severe periods of drought, including changes in supply due to climate change.			
x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water Supplies and Recycled Water	6-1R	Sections 6.2 and 6.2.2
x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	n/a	Section 6.2.1
x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	n/a	Sections 6.2 and 6.2.1
x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System Supplies	n/a	n/a
x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water Supplies and Recycled Water	n/a	Sections 6.2 and 6.2.1
x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water Supplies and Recycled Water	n/a	Section 6.2.1
x	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System Supplies	n/a	Section 6.2.2
x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	6-9 R	Section 6.2.3

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System Supplies	6-8 R and 6-9 R	Section 6.8
x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	n/a	Section 6.6
x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	6-2 R	Section 6.4.2
x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	6-3 R	Section 6.4.3
x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System Supplies (Recycled Water)	6-4 R	Section 6.4.4
x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	6-4 R	Sections 6.4.4
x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	6-4R and 6-5 R	Section 6.4.4
x	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	6-6 R	Section 6.4.4
x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System Supplies (Recycled Water)	n/a	Section 6.4.4
x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	6-7 R	Section 6.5
x	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to	System Supplies	6-7 R	Section 6.7

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.			
x	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System Suppliers, Energy Intensity	O-1B	Section 6.12
x	Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water Supply Reliability Assessment	n/a	Section 7.1
x	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	7-2 R, 7-3 R, and 7-4 R	Section 7.4
x	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	n/a	Section 7.2.1.3, 7.2.1.4, 7.2.2, and Section 6.7
x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	n/a	Section 7.5
x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water Supply Reliability Assessment	n/a	Section 7.5.1
x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	n/a	Section 7.5.2
x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	7-5 R	Section 7.5.3

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	n/a	Section 7.5
x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	n/a	Appendix G
x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water Shortage Contingency Planning	n/a	Section 8.3; Appendix G (Section 2)
x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	n/a	Appendix G (Section 3)
x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	n/a	Appendix G (Section 3.2 and 3.3)
x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	8-1	Appendix G (Section 4.0)
x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	8-1	n/a
x	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	8-2	Appendix G (Section 5.3)

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	8-3	Appendix G (Section 5.1)
x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	8-2	Appendix G (Section 5.4)
x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	8-3	Appendix G (Section 5.2)
x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	8-2 and 8-3	Appendix G (Sections 5.1 and 5.3)
x	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	n/a	Section 8.4
x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	n/a	Appendix G (Section 6.0)
x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	n/a	Appendix G (Section 6.0)
x	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	n/a	Appendix G (Section 7.0)
x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G (Section 8.0)

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water Shortage Contingency Planning	n/a	Appendix G (Section 8.0)
x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	n/a	Appendix G (Section 8.0)
x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G (Section 9.0)
x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G (Section 9.0)
x	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water Shortage Contingency Planning	n/a	Appendix G (Section 9.0)
x	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	n/a	Appendix G (Section 10.0)
x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	n/a	Appendix G (Section 11.0)
x	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	n/a	Appendix G (Section 5.2.1)
x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water Shortage Contingency Planning	n/a	Section 8.5; Appendix G (Section 12.0)

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	n/a	Section 9.1
x	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	n/a	Section 10.3.1
x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	10-1	Section 10.2.1
x	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.4
x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan Adoption, Submittal, and Implementation	n/a	Sections 10.2 and 10.3; Appendix D
x	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan Adoption, Submittal, and Implementation	10-1	Section 10.3; Appendix D
x	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.3; Appendix H
x	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.4

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.4
x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.4
x	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.7
x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.5
x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	n/a	Section 10.5

Appendix D

Agency and Public Notices

Elizabeth Drayer

From: Lawrence Tam <ltam@Santaclaraca.gov>
Sent: Tuesday, February 3, 2026 4:47 PM
To: laura.hidas@acwd.com; jflanagan@ci.brisbane.ca.us; kokada@burlingame.org; swagner@calwater.com; mrogren@coastsidewater.org; jcosgrove@dalycity.org; mvining@cityofepa.org; zdanish@fostercity.org; Cheryl.Munoz@hayward-ca.gov; pwillis@hillsborough.net; aamitch@menlopark.gov; kwuelfing@midpeninsulawater.org; Craig Centis; emarshall@milpitas.gov; acarr@nccwd.com; Lisa.Bilir@paloalto.gov; trudock@purissimawater.org; watermanager@redwoodcity.org; SSalazar@sanbruno.ca.gov; Provenzano, Jeffrey; Harvie, Nicole; JuliaNN@stanford.edu; wcheong@sunnyvale.ca.gov; pmairena@westboroughwater.org; Tom Smegal; Tom Francis; Danielle McPherson; Negin Ashoori; Kyle Ramey; Christina Tang; aschutte@hansonbridgett.com; SRitchie@sfwater.org; Kastama, Alison A; abaker@valleywater.org; sbogale@valleywater.org; jacqueline.onciano@pln.sccgov.org
Cc: John Ramirez; Wendy Kwong; Elizabeth Drayer; Whitney Jones; Lu Wang
Subject: City of Santa Clara - Notice of Preparation of 2025 UWMP and Water Shortage Contingency Plan

Dear Stakeholders,

The Urban Water Management Plan Act (California Water Code §10608 & §10610-10656) requires all urban water suppliers providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet annually, to update its Urban Water Management Plan (UWMP) every five years. The City is currently preparing the 2025 UWMP and Water Shortage Contingency Plan (WSCP) which are due by July 1, 2026. We invite your Agency's participation in this revision process.

Draft documents of the 2025 UWMP and WSCP and will be made available for public review and a public hearing will be scheduled in late spring 2026. In the meantime, if you would like more information on our 2025 UWMP or WSCP, the process for updating these reports, or have additional questions please contact me.

Thanks,

Lawrence Tam
Acting Assistant Director | Water & Sewer Utilities
1500 Warburton Avenue | Santa Clara, CA 95050
Direct: 408-615-2036 | LTAM@santaclaraca.gov

Appendix E

Distribution System Water Loss Audits

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Santa Clara - Water & Sewer Utilities (CA4310012)
Reporting Year: 2020 | 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	5	3,530.200	MG/Yr	3			MG/Yr
Water imported:	5	2,433.100	MG/Yr	5	1.10%		MG/Yr
Water exported:	n/a		MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 5,936.827 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	7	5,540.200	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:	5	14.842	MG/Yr		14.842	MG/Yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 5,555.042 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 381.785 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		14.842	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	84.369	MG/Yr	1.50%	MG/Yr
Systematic data handling errors:	5	13.851	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 113.061 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 268.724 MG/Yr

WATER LOSSES: 381.785 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 396.627 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	306.0	miles
Number of active AND inactive service connections:	9	25,828	
Service connection density:		84	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	64.2	psi

COST DATA

Total annual cost of operating water system:	10	$48,062,201	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$6.57	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	6	$4,840.64	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 62 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Water imported
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Santa Clara (CA4310012)
Reporting Year: 2021 | 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	5	3,198.300	MG/Yr	3			MG/Yr
Water imported:	5	2,444.400	MG/Yr	5	1.10%		MG/Yr
Water exported:	n/a		MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 5,616.104 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	5,306.132	MG/Yr			
Billed unmetered:	n/a		MG/Yr			
Unbilled metered:	n/a		MG/Yr			
Unbilled unmetered:	5	70.201	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 5,376.333 MG/Yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) 239.771 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		14.040	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	80.804	MG/Yr	1.50%		MG/Yr
Systematic data handling errors:	5	13.265	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 108.110 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 131.661 MG/Yr

WATER LOSSES: 239.771 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 309.972 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	306.0	miles
Number of active AND inactive service connections:	9	25,041	
Service connection density:		82	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 | 64.1 psi

COST DATA

Total annual cost of operating water system:	10	$64,766,664	$/Year	
Customer retail unit cost (applied to Apparent Losses):	10	$6.69	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	6	$5,034.91	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 62 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Water imported
3: Customer metering inaccuracies

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

Water Audit Report for: City of Santa Clara
Audit Year: 2022 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g					
VOS	Volume from Own Sources:	n	g	7	3,365.582	MG/Yr	n	g	8	0.00%	percent		VOSEA
WI	Water Imported:	n	g	3	2,145.466	MG/Yr	n	g	6	volume	7.640	MG/Yr	under-registration WIEA
WE	Water Exported:	n	g	n/a		MG/Yr							WEEA

WATER SUPPLIED: 5,518.688 MG/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	8	5,288.572	MG/Yr		
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr		
UMAC	Unbilled Metered:	n	g	n/a		MG/Yr		
UUAC	Unbilled Unmetered:	n	g	3	13.221	MG/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 5,301.793 MG/Yr

WATER LOSSES

216.895 MG/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	13.221	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	7	80.537	MG/Yr	1.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	13.221	MG/Yr	0.25%	default	

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

Apparent Losses: 106.979 MG/Yr

Real Losses

Real Losses: 109.916 MG/Yr

WATER LOSSES: 216.895 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 230.116 MG/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	8	306.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	25,829		(active *and* inactive)
	Service connection density:				84	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 7 63.0 psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	7	$7.33	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$5,258.67	$/Million gallons	$31,935,522	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)
2: Volume from Own Sources (VOS)
3: Billed Metered (BMAC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

Water Audit Report for: City of Santa Clara
Audit Year: 2023 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g					
VOS	Volume from Own Sources:	n	g	7	3,398.784	MG/Yr	n	g	8	0.00%	percent		VOSEA
WI	Water Imported:	n	g	3	2,034.573	MG/Yr	n	g	6	volume	3.583	MG/Yr over-registration	WIEA
WE	Water Exported:	n	g	n/a		MG/Yr							WEEA

WATER SUPPLIED: 5,429.774 MG/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	8	4,928.937	MG/Yr		
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr		
UMAC	Unbilled Metered:	n	g	n/a		MG/Yr		
UUAC	Unbilled Unmetered:	n	g	3	12.322	MG/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 4,941.259 MG/Yr

WATER LOSSES

488.514 MG/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	12.322	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	4	75.060	MG/Yr	1.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	12.322	MG/Yr	0.25%	default	

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

Apparent Losses: 99.705 MG/Yr

Real Losses

Real Losses: 388.810 MG/Yr

WATER LOSSES: 488.514 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 500.837 MG/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	335.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	25,759		(active *and* inactive)
	Service connection density:				77	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

		n	g			
AOP	Average Operating Pressure:	n	g	7	63.0	psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	9	$7.97	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$6,191.73	$/Million gallons	$51,214,825	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)
2: Volume from Own Sources (VOS)
3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	18.3	gal/conn/day
Unit Real Losses[A]:	16.3	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0

Water Audit Report for: City of Santa Clara
Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g				n	g					
VOS	Volume from Own Sources:	n	g	7	3,452.449	MG/Yr	n	g	8	volume		MG/Yr	VOSEA
WI	Water Imported:	n	g	6	2,177.636	MG/Yr	n	g	6	volume	14.803	MG/Yr	under-registration WIEA
WE	Water Exported:	n	g	n/a		MG/Yr							WEEA

WATER SUPPLIED: 5,644.888 MG/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	8	5,119.711	MG/Yr		
BUAC	Billed Unmetered:	n	g	n/a		MG/Yr		
UMAC	Unbilled Metered:	n	g	n/a		MG/Yr		
UUAC	Unbilled Unmetered:	n	g	3	12.799	MG/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 5,132.510 MG/Yr

WATER LOSSES

512.377 MG/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	12.799	MG/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	4	77.965	MG/Yr	1.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	12.799	MG/Yr	0.25%	default	

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

Apparent Losses: 103.564 MG/Yr

Real Losses

Real Losses: 408.814 MG/Yr

WATER LOSSES: 512.377 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 525.177 MG/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	335.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	8	26,026		(active *and* inactive)
	Service connection density:				78	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 7 63.0 psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	7	$7.97	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$6,987.77	$/Million gallons	$62,193,191	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Water Imported (WI)
3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	18.3	gal/conn/day
Unit Real Losses[A]:	16.3	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Appendix F

SFPUC and Valley Water Water Supply Reliability

March 11, 2026

TO: BAWSCA Member Agencies

FROM: Danielle McPherson, Senior Water Resources Specialist
Tom Francis, Water Resources Manager

SUBJECT: San Francisco Regional Water System Supply Reliability for 2025 Urban Water Management Plans

On March 11, 2026, the San Francisco Public Utilities Commission (SFPUC) provided a letter with analysis on the Regional Water System (RWS) supply reliability for use in your 2025 Urban Water Management Plans (UWMPs). This memorandum transmits that letter (Attachment A) and provides additional context regarding individual agency cutbacks outlined in Attachment B.

Regulatory and Demand Scenarios
To account for the ongoing uncertainty surrounding the State Water Resources Control Board's Bay-Delta Plan Amendment, the SFPUC modeled water supply reliability under two regulatory scenarios and two demand scenarios:

- **Regulatory Scenarios:**
  1. With implementation of the Bay-Delta Plan Amendment.
  2. Without implementation of the Bay-Delta Plan Amendment.

- **Demand Scenarios:**
  1. Projected SFPUC retail demand and Wholesale Customer purchases for 2030-2050.
  2. Projected SFPUC retail demand for 2050 and the Wholesale Customer Supply Assurance of 184 MGD.

Key Findings and Impacts on Allocation
Attachment B provides specific cutbacks for each agency based on Demand Scenario 1 (projected RWS demand). Please note the following critical impacts on how these shortages are managed:

- **Extreme Shortages Under Bay-Delta Implementation:** Under the "With Bay-Delta Plan" scenario, system-wide cutbacks exceed the SFPUC's Level of Service Goal to limit system-wide cutbacks to 20% or less. In these instances, the Water Supply Agreement (WSA) allows for negotiated allocations between

retail and Wholesale Customers collectively. In the absence of a negotiated agreement, SFPUC has applied the Tier 1 split for a system-wide cutback up to 20%.

- **Application of the Tier 2 Plan:** The Tier 2 Drought Response Implementation Plan only applies during system-wide shortages of 20% or less. Because the "With Bay-Delta Plan" scenario results in wholesale cutbacks ranging from 31% to 48%, the Tier 2 Plan cannot be applied.
- **BAWSCA Recommendation:** 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 for their 2025 UWMPs.
- **"Without Bay-Delta" Scenario:** The SFPUC analyses do not anticipate any cutbacks during the required five-year drought sequence under the "Without Bay-Delta Plan" scenario.

Guidance for 2025 UWMP Reporting

For the 2020 UWMPs, most member agencies utilized the "With Bay-Delta Plan" scenario for their standard tables and included the "Without Bay-Delta Plan" scenario in supplemental tables or appendices. BAWSCA understands that the SFPUC intends to follow this same approach for its own 2025 UWMP.

Note on Future Modeling (HRL Program)

While the SFPUC previously indicated it would model the Tuolumne River Healthy Rivers and Landscapes Program (HRL), they have not provided that modeling at this time due to significant implementation uncertainties.

Enclosed: Attachment A – 2025 UWMP Supply Reliability Letter_2026-03-11
Attachment B – 2025 UWMP Wholesale Customer Dry Year Allocations

cc: Tom Smegal
Allison Schutte

San Francisco
Water Power Sewer
Operator of the Hetch Hetchy Regional Water System

525 Golden Gate Ave
San Francisco, CA 94102
(415) 554-3155
sfpuc.gov

March 11, 2026

Danielle McPherson
Senior Water Resources Specialist
Bay Area Water Supply and Conservation Agency
155 Bovet Road, Suite 650
San Mateo, CA 94402

Dear Ms. McPherson,

This letter contains the supply reliability of the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS) that the SFPUC has prepared for the 2025 Urban Water Management Plan (UWMP), which the Wholesale Customers may also use in their respective 2025 UWMPs. The SFPUC has assessed the RWS's supply reliability under the following planning scenarios:

1. Projected supply reliability for years 2030 through 2050, assuming total demand is equivalent to the sum of the projected retail and wholesale demands on the RWS, which includes Wholesale Customer purchase projections provided to the SFPUC by BAWSCA on March 4, 2026 (refer to Table 1 below).
2. Projected supply reliability for 2050, assuming total demand is equivalent to the sum of the projected retail demands on the RWS and the Wholesale Customers' Supply Assurance of 184 MGD.
3. Under each of the above demand conditions, projected supply reliability for the following scenarios: (a) with implementation of the 2018 amendments to the Bay-Delta Water Quality Control Plan (Bay-Delta Plan Amendment) and (b) without implementation of the Bay-Delta Plan Amendment.

Table 1. Retail and Wholesale RWS Demand Assumptions Used for Supply Reliability Modeling (MGD)

	2025[1]	2030	2035	2040	2045	2050
Retail	61.1	62.7	61.2	61.9	64.0	66.7
Wholesale[2]	130.1	133.9	136.3	140.6	144.1	148.4
Total	**191.2**	**196.6**	**197.5**	**202.5**	**208.1**	**215.1**

[1] 2025 demands are from the FY 2024-25 Table J-1 water use calculations, prepared pursuant to the Water Supply Agreement between the SFPUC and the Wholesale Customers.

[2] 2030 through 2050 Wholesale Customer purchase projections were provided to the SFPUC by BAWSCA on March 4, 2026, and include demands for the cities of San Jose and Santa Clara.

The total amount of water the SFPUC can deliver to the Retail and Wholesale Customers from the RWS depends on several factors, including (1) the amount of water that is available to the SFPUC from natural runoff, (2) the amount of water in reservoir storage, and (3) the amount of water that the SFPUC releases from the RWS for purposes other than customer deliveries (e.g., instream flow releases below RWS reservoirs). For planning purposes, the SFPUC “average year” or “normal year” is based on historical hydrology under conditions that allow the RWS reservoirs to be filled over the course of the snowmelt season, allowing full deliveries to customers. For “dry-year” supply scenarios, the SFPUC plans its water deliveries using a water-supply planning methodology with reference to a simulated 8.5-year design drought.

In each demand scenario for 2030 through 2050, the SFPUC estimated RWS deliveries using the standard SFPUC procedure, which includes adding increased levels of rationing as needed in dry years to balance the demands on the RWS with available water supply. The five consecutive dry-year sequence shown in the tables below represent years 2 through 6 of the design drought. The SFPUC chose this sequence because year 2 is the first year in which system-wide water use reductions could take effect, as the design drought sequence generally begins year 1 with full reservoirs. All simulations that the SFPUC has prepared for its 2025 UWMP have increased levels of rationing in the final years of the design drought sequence. The SFPUC has presented the results in the standardized format prescribed by DWR.

Assumptions about the status of the dry-year water supply projects included in the SFPUC’s Water System Improvement Program (WSIP) are provided below in Table 2 titled “WSIP Project Assumptions for RWS Supply Modeling.” The table reflects instream flow requirements at San Mateo and Alameda Creeks,

as described in the UWMP "common language" that the SFPUC provided to BAWSCA and the Wholesale Customers separately from this letter.

The SFPUC utilized the Water Shortage Allocation Plan (WSAP) that is incorporated in the Water Supply Agreement between the SFPUC and the Wholesale Customers to allocate the RWS supply available during dry years between the Retail Customers and the Wholesale Customers in the 2025 UWMP supply reliability analysis. The WSAP, also known as the Tier 1 Plan, defines the method for allocating between the Retail Customers collectively and Wholesale Customers collectively the available RWS supplies during system-wide shortages. The SFPUC and the Wholesale Customers most recently amended the WSAP in 2025. Also in 2025, the Wholesale Customers adopted an updated Tier 2 Plan, which allocates the collective Wholesale Customers' share of available RWS supplies from the Tier 1 Plan among each of the 26 Wholesale Customers. The WSAP addresses shortages that require a system-wide reduction in water use of 20% or less, consistent with the SFPUC's Level of Service Goal. For any shortage scenario requiring a system-wide reduction in water use above 20% in the supply reliability analysis, the SFPUC applied the Tier 1 Plan's allocation of supplies between the Retail Customers and Wholesale Customers for a shortage requiring a system-wide reduction in water use of 16-20%.

Because of the uncertainty surrounding implementation of the Bay-Delta Plan Amendment, the RWS supply reliability assessment evaluates two future supply scenarios: (1) with implementation of the Bay-Delta Plan Amendment, and (2) without implementation of the Bay-Delta Plan Amendment. It is unknown when implementation may begin on the Bay-Delta Plan Amendment; for the purposes of the 2025 UWMP analysis, the SFPUC included it beginning in the 2030 modeling scenarios (see Tables 4a-4g and 6).

The SFPUC incorporated additional modeling assumptions in the 2025 UWMP analysis regarding the State Water Resources Control Board curtailments and assumptions regarding agreements with Turlock and Modesto Irrigation Districts pertaining to instream flow obligations.

1. During the last two drought periods, 2013-2016 and 2021-2023, the State Water Resources Control Board 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 State Water Resources Control Board'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.

2. Through a 1966 agreement with the Modesto and Turlock Irrigation Districts (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 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 State Water Resources Control Board. 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 Districts to offset a portion of San Francisco's flow contributions in exchange for payment. Due to the high levels of uncertainty surrounding the 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.
3. The simulation of the Bay-Delta Plan Amendment scenario assumes that a 1996 agreement between San Francisco and the Districts (the Side Agreement), which allows San Francisco to pay the 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.

Based on current projected demands, supply modeling for the two future supply scenarios shows significantly different supply reliability projections for the RWS:

- <u>With implementation of the Bay-Delta Plan Amendment</u>: Under this scenario, using the demand assumptions shown in Table 1, RWS supplies are expected to range from full availability in an average year

(100%) to as low as 57% in multiple dry years when compared to water supplies in an average year. In other words, RWS supplies could be reduced by up to 43% in a multi-year drought. See Tables 4a-4g and 6.

- Without implementation of the Bay-Delta Plan Amendment: Under this scenario, using demand assumptions shown in Table 1, there are no anticipated shortages of RWS supplies. See Tables 5a-5g and 7.

Table 8 below provides the Wholesale Customer purchase projections and Wholesale Customer allocation of RWS supply for the five-year drought risk assessment from 2026 to 2030. The supply projections for 2026 to 2030 are based on a linear growth from 2025 to 2030 levels of demand as calculated by BAWSCA. This table does not assume implementation of the Bay-Delta Plan Amendment because the start of implementation remains uncertain.

In the forthcoming 2025 UWMP, the SFPUC acknowledges that it has a Level of Service objective to meet an average annual water demand of 265 MGD from the SFPUC watersheds for Retail and Wholesale Customers during non-drought years, as well as a contractual obligation to supply 184 MGD to the Wholesale Customers, subject to reduction under certain conditions. The SFPUC will, accordingly, include the results of modeling based on a Wholesale Customer demand of 184 MGD to facilitate planning that supports meeting this Level of Service objective and its contractual obligations. The results of this modeling will be in an appendix to the 2025 UWMP prepared by the SFPUC. The RWS supply projections shown in the tables below are more accurately characterized as supplies that will be used to meet projected Retail and Wholesale Customer demands.

It is our understanding that you will pass this information on to the Wholesale Customers. If you have any questions or need additional information, please do not hesitate to contact Jennifer Lee at jenlee@sfwater.org or (415) 551-4563.

Sincerely,

Steven R. Ritchie

Steven R. Ritchie
Assistant General Manager, Water Enterprise

Table 2: WSIP Project Assumptions for RWS Supply Modeling

Projects	Base Year 2025	Base Year 2030 and Beyond	Base Year 2040 and Beyond
Lower Crystal Springs Dam Improvements	Crystal Springs storage not fully restored	Crystal Springs storage not fully restored	Crystal Springs storage not fully restored
Regional Groundwater Storage and Recovery (GSR) Project	GSR account partially filled at spring 2020 level of 43,000 AF; GSR recovery rate of 5.2 MGD[a]	GSR account fully filled; GSR recovery rate of 5.2 MGD[a]	GSR account fully filled; GSR recovery rate of 6.2 MGD[a]
Alameda Creek Recapture Project	Project not built	Project built and operating	Project built and operating
Dry-Year Transfers	Not in effect	Not in effect	Not in effect

a. The GSR Project was intended to provide 7.2 MGD over 7.5 years, however current limitations on the number of wells available will result in deliveries less than 7.2 MGD over 7.5 years.

Table 3: Projected Total Regional Water System Supply Utilized and Portion of Regional Water System Supply Utilized by Wholesale Customers in Normal Years [For Table 6-9]:

RWS Supply	2030	2035	2040	2045	2050
RWS Supply Utilized (MGD)	196.6	197.5	202.5	208.1	215.1
RWS Supply Utilized by Wholesale Customers[a] (MGD)	133.9	136.3	140.6	144.1	148.4

a. RWS supply utilized by Wholesale Customers from 2030 through 2050 is equivalent to Wholesale Customer purchase projections provided to the SFPUC by BAWSCA on March 4, 2026, and includes demands for the cities of San Jose and Santa Clara.

Basis of Water Supply Data: With Implementation of the Bay-Delta Plan Amendment

Table 4a: Basis of Water Supply Data [For Table 7-1], Base Year 2030, With Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2030	196.6	100%	133.9	
Single dry year	2030	147.5	75%	92.2	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2030	147.5	75%	92.2	Same as above.
Consecutive 2nd dry year	2030	123.9	63%	77.4	Same as above.
Consecutive 3rd dry year	2030	123.9	63%	77.4	Same as above.
Consecutive 4th dry year	2030	123.9	63%	77.4	Same as above.
Consecutive 5th dry year	2030	123.9	63%	77.4	Same as above.

Table 4b: Basis of Water Supply Data [For Table 7-1], Base Year 2035, With Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2035	197.5	100%	136.3	
Single dry year	2035	146.2	74%	91.3	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2035	146.2	74%	91.3	Same as above.
Consecutive 2nd dry year	2035	124.4	63%	77.8	Same as above.
Consecutive 3rd dry year	2035	124.4	63%	77.8	Same as above.
Consecutive 4th dry year	2035	124.4	63%	77.8	Same as above.
Consecutive 5th dry year	2035	124.4	63%	77.8	Same as above.

Table 4c: Basis of Water Supply Data [For Table 7-1], Base Year 2040, With Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2040	202.5	100%	140.6	
Single dry year	2040	145.8	72%	91.1	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2040	145.8	72%	91.1	Same as above.
Consecutive 2nd dry year	2040	123.5	61%	77.2	Same as above.
Consecutive 3rd dry year	2040	123.5	61%	77.2	Same as above.
Consecutive 4th dry year	2040	123.5	61%	77.2	Same as above.
Consecutive 5th dry year	2040	123.5	61%	77.2	Same as above.

Table 4d: Basis of Water Supply Data [For Table 7-1], Base Year 2045, With Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2045	208.1	100%	144.1	
Single dry year	2045	145.7	70%	91.0	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2045	145.7	70%	91.0	Same as above.
Consecutive 2nd dry year	2045	122.8	59%	76.7	Same as above.
Consecutive 3rd dry year	2045	122.8	59%	76.7	Same as above.
Consecutive 4th dry year	2045	122.8	59%	76.7	Same as above.
Consecutive 5th dry year	2045	122.8	59%	76.7	Same as above.

Table 4e: Basis of Water Supply Data [For Table 7-1], Base Year 2050, With Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2050	215.1	100%	148.4	
Single dry year	2050	146.2	68%	91.4	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2050	146.2	68%	91.4	Same as above.
Consecutive 2nd dry year	2050	122.6	57%	76.6	Same as above.
Consecutive 3rd dry year	2050	122.6	57%	76.6	Same as above.
Consecutive 4th dry year	2050	122.6	57%	76.6	Same as above.
Consecutive 5th dry year	2050	122.6	57%	76.6	Same as above.

Table 4f: Basis of Water Supply Data [For Table 7-1], Base Year 2050, With Bay-Delta Plan Amendment and Wholesale Demands at 184 MGD Supply Assurance

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2050	250.7	100%	184.0	
Single dry year	2050	145.4	58%	90.9	At shortages 20% or greater, wholesale allocation is assumed to be 62.5% and retail allocation is 37.5%.
Consecutive 1st dry year	2050	145.4	58%	90.9	Same as above.
Consecutive 2nd dry year	2050	120.3	48%	75.2	Same as above.
Consecutive 3rd dry year	2050	120.3	48%	75.2	Same as above.
Consecutive 4th dry year	2050	120.3	48%	75.2	Same as above.
Consecutive 5th dry year	2050	120.3	48%	75.2	Same as above.

Table 4g: Projected RWS Supply Availability [Alternative to Table 7-1], Years 2030-2050, With Bay-Delta Plan Amendment

Year Type	2030	2035	2040	2045	2050	2050 (with 184 MGD Supply Assurance)
Average year	100%	100%	100%	100%	100%	100%
Single dry year	75%	74%	72%	70%	68%	58%
Consecutive 1st dry year	75%	74%	72%	70%	68%	58%
Consecutive 2nd dry year	63%	63%	61%	59%	57%	48%
Consecutive 3rd dry year	63%	63%	61%	59%	57%	48%
Consecutive 4th dry year	63%	63%	61%	59%	57%	48%
Consecutive 5th dry year	63%	63%	61%	59%	57%	48%

Basis of Water Supply Data: Without Implementation of the Bay-Delta Plan Amendment

Table 5a: Basis of Water Supply Data [For Table 7-1], Base Year 2030, Without Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2030	196.6	100%	133.9	
Single dry year	2030	196.6	100%	133.9	
Consecutive 1st dry year	2030	196.6	100%	133.9	
Consecutive 2nd dry year	2030	196.6	100%	133.9	
Consecutive 3rd dry year	2030	196.6	100%	133.9	
Consecutive 4th dry year	2030	196.6	100%	133.9	
Consecutive 5th dry year	2030	196.6	100%	133.9	

Table 5b: Basis of Water Supply Data [For Table 7-1], Base Year 2035, Without Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2035	197.5	100%	136.3	
Single dry year	2035	197.5	100%	136.3	
Consecutive 1st dry year	2035	197.5	100%	136.3	
Consecutive 2nd dry year	2035	197.5	100%	136.3	
Consecutive 3rd dry year	2035	197.5	100%	136.3	
Consecutive 4th dry year	2035	197.5	100%	136.3	
Consecutive 5th dry year	2035	197.5	100%	136.3	

Table 5c: Basis of Water Supply Data [For Table 7-1], Base Year 2040, Without Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2040	202.5	100%	140.6	
Single dry year	2040	202.5	100%	140.6	
Consecutive 1st dry year	2040	202.5	100%	140.6	
Consecutive 2nd dry year	2040	202.5	100%	140.6	
Consecutive 3rd dry year	2040	202.5	100%	140.6	
Consecutive 4th dry year	2040	202.5	100%	140.6	
Consecutive 5th dry year	2040	202.5	100%	140.6	

Table 5d: Basis of Water Supply Data [For Table 7-1], Base Year 2045, Without Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2045	208.1	100%	144.1	
Single dry year	2045	208.1	100%	144.1	
Consecutive 1st dry year	2045	208.1	100%	144.1	
Consecutive 2nd dry year	2045	208.1	100%	144.1	
Consecutive 3rd dry year	2045	208.1	100%	144.1	
Consecutive 4th dry year	2045	208.1	100%	144.1	
Consecutive 5th dry year	2045	208.1	100%	144.1	

Table 5e: Basis of Water Supply Data [For Table 7-1], Base Year 2050, Without Bay-Delta Plan Amendment

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2050	215.1	100%	148.4	
Single dry year	2050	215.1	100%	148.4	
Consecutive 1st dry year	2050	215.1	100%	148.4	
Consecutive 2nd dry year	2050	215.1	100%	148.4	
Consecutive 3rd dry year	2050	215.1	100%	148.4	
Consecutive 4th dry year	2050	215.1	100%	148.4	
Consecutive 5th dry year	2050	215.1	100%	148.4	

Table 5f: Basis of Water Supply Data [For Table 7-1], Base Year 2050, Without Bay-Delta Plan Amendment and Wholesale Demands at 184 MGD Supply Assurance

Year Type	Base Year	RWS Volume Available (MGD)	% of Average Supply	Wholesale Volume Available (MGD)	Notes on Calculation of Wholesale Allocation of RWS
Average year	2050	250.7	100%	184.0	
Single dry year	2050	225.6	90%	158.9	At 10% shortage, wholesale allocation is 64% (144.4 MGD) and retail allocation is 36% (81.2 MGD). Retail allocations above 66.7 MGD are re-allocated to Wholesale Customers, per the Water Supply Agreement. Therefore, 14.5 MGD is added to wholesale allocation, bringing it to 158.9 MGD.
Consecutive 1st dry year	2050	225.6	90%	158.9	Same as above.
Consecutive 2nd dry year	2050	225.6	90%	158.9	Same as above.
Consecutive 3rd dry year	2050	225.6	90%	158.9	Same as above.
Consecutive 4th dry year	2050	225.6	90%	158.9	Same as above.
Consecutive 5th dry year	2050	225.6	90%	158.9	Same as above.

Table 5g: Projected RWS Supply [Alternative to Table 7-1], Years 2030-2050, Without Bay-Delta Plan Amendment

Year Type	2030	2035	2040	2045	2050	2050 (with 184 MGD Supply Assurance)
Average year	100%	100%	100%	100%	100%	100%
Single dry year	100%	100%	100%	100%	100%	90%
Consecutive 1st dry year	100%	100%	100%	100%	100%	90%
Consecutive 2nd dry year	100%	100%	100%	100%	100%	90%
Consecutive 3rd dry year	100%	100%	100%	100%	100%	90%
Consecutive 4th dry year	100%	100%	100%	100%	100%	90%
Consecutive 5th dry year	100%	100%	100%	100%	100%	90%

Supply Projections for Consecutive Five Dry Year Sequences

Table 6: Projected Multiple Dry Years RWS Wholesale Allocation [For Table 7-4], With Bay-Delta Plan Amendment

	2030	2035	2040	2045	2050	2050 (with 184 MGD Supply Assurance)
First year	92.2	91.3	91.1	91.0	91.4	90.9
Second year	77.4	77.8	77.2	76.7	76.6	75.2
Third year	77.4	77.8	77.2	76.7	76.6	75.2
Fourth year	77.4	77.8	77.2	76.7	76.6	75.2
Fifth year	77.4	77.8	77.2	76.7	76.6	75.2

Table 7: Projected Multiple Dry Years RWS Wholesale Allocation [For Table 7-4], Without Bay-Delta Plan Amendment

	2030	2035	2040	2045	2050	2050 (with 184 MGD Supply Assurance)
First year	133.9	136.3	140.6	144.1	148.4	158.9
Second year	133.9	136.3	140.6	144.1	148.4	158.9
Third year	133.9	136.3	140.6	144.1	148.4	158.9
Fourth year	133.9	136.3	140.6	144.1	148.4	158.9
Fifth year	133.9	136.3	140.6	144.1	148.4	158.9

Table 8: Projected RWS Supply for 5-Year Drought Risk Assessment [For Table 7-5]

Year	2026	2027	2028	2029	2030
Wholesale Purchase Projections[a] (MGD)	130.9	131.6	132.4	133.2	133.9
RWS Supply Utilized by Wholesale Customers[b] (MGD)	130.9	131.6	132.4	133.2	133.9

a. Wholesale Purchase Projections for 2026-2030 assume a linear growth between 2025 actual demands and 2030 projections, as calculated by BAWSCA.
b. This table does not assume implementation of the Bay-Delta Plan Amendment because the start of implementation remains uncertain.

Basis for SFPUC's Water Supply Reliability Modeling

Actual (2025) and Projected (2030-2050) RWS Purchases

Agency	ISG	2025[1]	2030	2035	2040	2045	2050
Alameda CWD	13.76	10.08	11.25	11.56	12.00	12.45	13.76
Brisbane / GVMID	0.98	0.68	0.94	0.95	0.97	0.97	0.97
Burlingame	5.23	3.23	3.92	3.99	4.15	4.30	4.44
Coastside CWD	2.18	1.01	1.17	1.16	1.16	1.16	1.16
CWS Total	35.68	29.50	27.04	26.89	26.93	26.80	26.89
Daly City	4.29	3.55	4.29	4.29	4.29	4.29	4.29
East Palo Alto	3.46	1.72	1.19	1.19	1.19	1.18	1.19
Estero MID	5.90	3.78	3.90	3.92	3.93	3.91	3.90
Hayward	22.09	13.66	14.74	15.66	16.82	18.14	19.71
Hillsborough	4.09	2.32	2.09	2.08	2.09	2.11	2.12
Menlo Park	4.46	2.72	2.58	2.64	2.71	2.76	2.83
Mid-Peninsula WD	3.89	2.34	2.82	2.97	3.18	3.39	3.43
Millbrae	3.15	1.81	1.91	1.99	2.09	2.18	2.29
Milpitas	9.23	4.68	5.30	5.35	5.41	5.46	5.52
Mountain View	12.46	7.69	7.87	8.12	8.59	9.04	9.55
North Coast CWD	3.84	2.58	2.23	2.29	2.37	2.36	2.36
Palo Alto	16.58	9.31	8.30	8.20	8.15	8.15	8.18
Purissima Hills WD	1.63	1.51	1.36	1.35	1.36	1.36	1.37
Redwood City	10.93	7.43	6.84	6.54	6.73	6.91	7.09
San Bruno	3.25	1.03	1.85	2.27	2.68	2.68	2.68
San Jose		3.99	4.50	4.50	4.50	4.50	4.50
Santa Clara		2.91	4.50	4.50	4.50	4.50	4.50
Stanford	3.03	1.59	1.77	1.96	2.02	2.07	2.13
Sunnyvale	12.58	10.28	10.72	11.15	11.92	12.58	12.58
Westborough WD	1.32	0.70	0.82	0.80	0.84	0.88	0.91
Total	**184.00**	**130.1**	**133.9**	**136.3**	**140.6**	**144.1**	**148.3**

[1] **Source: FY 2024-25 J-Table**

Basis for SFPUC's Water Supply Reliability Modeling

Actual (2025) and Projected (2026-2030) RWS Purchases

Agency	2025	2026	2027	2028	2029	2030
Alameda CWD	10.08	10.32	10.55	10.78	11.02	11.25
Brisbane / GVMID	0.68	0.73	0.78	0.83	0.89	0.94
Burlingame	3.23	3.36	3.50	3.64	3.78	3.92
Coastside CWD	1.01	1.05	1.08	1.11	1.14	1.17
CWS Total	29.50	29.00	28.51	28.02	27.53	27.04
Daly City	3.55	3.70	3.85	4.00	4.14	4.29
East Palo Alto	1.72	1.62	1.51	1.40	1.30	1.19
Estero MID	3.78	3.80	3.83	3.85	3.88	3.90
Hayward	13.66	13.87	14.09	14.31	14.53	14.74
Hillsborough	2.32	2.27	2.23	2.18	2.14	2.09
Menlo Park	2.72	2.69	2.67	2.64	2.61	2.58
Mid-Peninsula WD	2.34	2.44	2.53	2.63	2.73	2.82
Millbrae	1.81	1.83	1.85	1.87	1.89	1.91
Milpitas	4.68	4.80	4.93	5.05	5.18	5.30
Mountain View	7.69	7.73	7.76	7.80	7.83	7.87
North Coast CWD	2.58	2.51	2.44	2.37	2.30	2.23
Palo Alto	9.31	9.11	8.91	8.71	8.50	8.30
Purissima Hills WD	1.51	1.48	1.45	1.42	1.39	1.36
Redwood City	7.43	7.32	7.20	7.08	6.96	6.84
San Bruno	1.03	1.20	1.36	1.52	1.69	1.85
San Jose	3.99	4.09	4.20	4.30	4.40	4.50
Santa Clara	2.91	3.23	3.54	3.86	4.18	4.50
Stanford	1.59	1.62	1.66	1.70	1.73	1.77
Sunnyvale	10.28	10.37	10.46	10.55	10.63	10.72
Westborough WD	0.70	0.72	0.75	0.77	0.80	0.82
Total	**130.1**	**130.9**	**131.6**	**132.4**	**133.2**	**133.9**

For UWMP Tables 7-1 through Table 7-4

Base Year	2025
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**2026**	**2027**	**2028**	**2029**	**2030**
Wholesale RWS Demand	130.12	130.88	131.64	132.40	133.16
Wholesale RWS Supply	130.12	130.88	131.64	132.40	133.16
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	**2025 RWS Purchases**	**2026**	**2027**	**2028**	**2029**	**2030**
Alameda CWD	10.08	10.08	11.25	11.56	12.00	12.45
Brisbane / GVMID	0.68	0.68	0.68	0.68	0.68	0.68
Burlingame	3.23	3.23	3.23	3.23	3.23	3.23
Coastside CWD	1.01	1.01	1.01	1.01	1.01	1.01
CWS Total	29.50	29.50	29.50	29.50	29.50	29.50
Daly City	3.55	3.55	3.55	3.55	3.55	3.55
East Palo Alto	1.72	1.72	1.72	1.72	1.72	1.72
Estero MID	3.78	3.78	3.78	3.78	3.78	3.78
Hayward	13.66	13.66	13.66	13.66	13.66	13.66
Hillsborough	2.32	2.32	2.32	2.32	2.32	2.32
Menlo Park	2.72	2.72	2.72	2.72	2.72	2.72
Mid-Peninsula WD	2.34	2.34	2.34	2.34	2.34	2.34
Millbrae	1.81	1.81	1.81	1.81	1.81	1.81
Milpitas	4.68	4.68	4.68	4.68	4.68	4.68
Mountain View	7.69	7.69	7.69	7.69	7.69	7.69
North Coast CWD	2.58	2.58	2.58	2.58	2.58	2.58
Palo Alto	9.31	9.31	9.31	9.31	9.31	9.31
Purissima Hills WD	1.51	1.51	1.51	1.51	1.51	1.51
Redwood City	7.43	7.43	7.43	7.43	7.43	7.43
San Bruno	1.03	1.03	1.03	1.03	1.03	1.03
San Jose	3.99	3.99	3.99	3.99	3.99	3.99
Santa Clara	2.91	2.91	2.91	2.91	2.91	2.91
Stanford	1.59	1.59	1.59	1.59	1.59	1.59
Sunnyvale	10.28	10.28	10.28	10.28	10.28	10.28
Westborough WD	0.70	0.70	0.70	0.70	0.70	0.70
Total	**130.12**	**130.12**	**131.28**	**131.59**	**132.03**	**132.48**

For UWMP Tables 7-1 through Table 7-4

Base Year	2030
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	133.9	133.9	133.9	133.9	133.9
Wholesale RWS Supply	92.2	77.4	77.4	77.4	77.4
Percent Cutback	31%	42%	42%	42%	42%

		Projected Supply by Year Type				
Agency	**2030 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	11.25	7.75	6.50	6.50	6.50	6.50
Brisbane / GVMID	0.94	0.65	0.54	0.54	0.54	0.54
Burlingame	3.92	2.70	2.27	2.27	2.27	2.27
Coastside CWD	1.17	0.81	0.68	0.68	0.68	0.68
CWS Total	27.04	18.61	15.63	15.63	15.63	15.63
Daly City	4.29	2.95	2.48	2.48	2.48	2.48
East Palo Alto	1.19	0.82	0.69	0.69	0.69	0.69
Estero MID	3.90	2.69	2.25	2.25	2.25	2.25
Hayward	14.74	10.15	8.52	8.52	8.52	8.52
Hillsborough	2.09	1.44	1.21	1.21	1.21	1.21
Menlo Park	2.58	1.78	1.49	1.49	1.49	1.49
Mid-Peninsula WD	2.82	1.94	1.63	1.63	1.63	1.63
Millbrae	1.91	1.31	1.10	1.10	1.10	1.10
Milpitas	5.30	3.65	3.06	3.06	3.06	3.06
Mountain View	7.87	5.42	4.55	4.55	4.55	4.55
North Coast CWD	2.23	1.54	1.29	1.29	1.29	1.29
Palo Alto	8.30	5.72	4.80	4.80	4.80	4.80
Purissima Hills WD	1.36	0.94	0.79	0.79	0.79	0.79
Redwood City	6.84	4.71	3.95	3.95	3.95	3.95
San Bruno	1.85	1.27	1.07	1.07	1.07	1.07
San Jose	4.50	3.10	2.60	2.60	2.60	2.60
Santa Clara	4.50	3.10	2.60	2.60	2.60	2.60
Stanford	1.77	1.22	1.02	1.02	1.02	1.02
Sunnyvale	10.72	7.38	6.20	6.20	6.20	6.20
Westborough WD	0.82	0.57	0.48	0.48	0.48	0.48
Total	**133.92**	**92.2**	**77.4**	**77.4**	**77.4**	**77.4**

For UWMP Tables 7-1 through Table 7-4

Base Year	2035
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	136.32	136.32	136.32	136.32	136.32
Wholesale RWS Supply	91.3	77.8	77.8	77.8	77.8
Percent Cutback	33%	43%	43%	43%	43%

		Projected Supply by Year Type				
Agency	**2035 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	11.56	7.74	6.60	6.60	6.60	6.60
Brisbane / GVMID	0.95	0.64	0.54	0.54	0.54	0.54
Burlingame	3.99	2.67	2.28	2.28	2.28	2.28
Coastside CWD	1.16	0.78	0.66	0.66	0.66	0.66
CWS Total	26.89	18.01	15.35	15.35	15.35	15.35
Daly City	4.29	2.87	2.45	2.45	2.45	2.45
East Palo Alto	1.19	0.80	0.68	0.68	0.68	0.68
Estero MID	3.92	2.63	2.24	2.24	2.24	2.24
Hayward	15.66	10.49	8.93	8.93	8.93	8.93
Hillsborough	2.08	1.39	1.19	1.19	1.19	1.19
Menlo Park	2.64	1.77	1.51	1.51	1.51	1.51
Mid-Peninsula WD	2.97	1.99	1.69	1.69	1.69	1.69
Millbrae	1.99	1.33	1.14	1.14	1.14	1.14
Milpitas	5.35	3.58	3.05	3.05	3.05	3.05
Mountain View	8.12	5.44	4.63	4.63	4.63	4.63
North Coast CWD	2.29	1.53	1.31	1.31	1.31	1.31
Palo Alto	8.20	5.49	4.68	4.68	4.68	4.68
Purissima Hills WD	1.35	0.90	0.77	0.77	0.77	0.77
Redwood City	6.54	4.38	3.73	3.73	3.73	3.73
San Bruno	2.27	1.52	1.30	1.30	1.30	1.30
San Jose	4.50	3.01	2.57	2.57	2.57	2.57
Santa Clara	4.50	3.01	2.57	2.57	2.57	2.57
Stanford	1.96	1.31	1.12	1.12	1.12	1.12
Sunnyvale	11.15	7.47	6.36	6.36	6.36	6.36
Westborough WD	0.80	0.54	0.46	0.46	0.46	0.46
Total	**136.32**	**91.3**	**77.8**	**77.8**	**77.8**	**77.8**

For UWMP Tables 7-1 through Table 7-4

Base Year	2040
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	140.57	140.57	140.57	140.57	140.57
Wholesale RWS Supply	91.1	77.2	77.2	77.2	77.2
Percent Cutback	35%	45%	45%	45%	45%

		Projected Supply by Year Type				
Agency	**2040 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	12.00	7.78	6.59	6.59	6.59	6.59
Brisbane / GVMID	0.97	0.63	0.53	0.53	0.53	0.53
Burlingame	4.15	2.69	2.28	2.28	2.28	2.28
Coastside CWD	1.16	0.75	0.64	0.64	0.64	0.64
CWS Total	26.93	17.45	14.79	14.79	14.79	14.79
Daly City	4.29	2.78	2.36	2.36	2.36	2.36
East Palo Alto	1.19	0.77	0.65	0.65	0.65	0.65
Estero MID	3.93	2.54	2.16	2.16	2.16	2.16
Hayward	16.82	10.90	9.24	9.24	9.24	9.24
Hillsborough	2.09	1.35	1.15	1.15	1.15	1.15
Menlo Park	2.71	1.75	1.49	1.49	1.49	1.49
Mid-Peninsula WD	3.18	2.06	1.75	1.75	1.75	1.75
Millbrae	2.09	1.35	1.15	1.15	1.15	1.15
Milpitas	5.41	3.51	2.97	2.97	2.97	2.97
Mountain View	8.59	5.57	4.72	4.72	4.72	4.72
North Coast CWD	2.37	1.53	1.30	1.30	1.30	1.30
Palo Alto	8.15	5.28	4.48	4.48	4.48	4.48
Purissima Hills WD	1.36	0.88	0.75	0.75	0.75	0.75
Redwood City	6.73	4.36	3.69	3.69	3.69	3.69
San Bruno	2.68	1.74	1.47	1.47	1.47	1.47
San Jose	4.50	2.92	2.47	2.47	2.47	2.47
Santa Clara	4.50	2.92	2.47	2.47	2.47	2.47
Stanford	2.02	1.31	1.11	1.11	1.11	1.11
Sunnyvale	11.92	7.73	6.55	6.55	6.55	6.55
Westborough WD	0.84	0.55	0.46	0.46	0.46	0.46
Total	**140.57**	**91.1**	**77.2**	**77.2**	**77.2**	**77.2**

For UWMP Tables 7-1 through Table 7-4

Base Year	2045
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	144.11	144.11	144.11	144.11	144.11
Wholesale RWS Supply	91	76.7	76.7	76.7	76.7
Percent Cutback	37%	47%	47%	47%	47%

		Projected Supply by Year Type				
Agency	**2045 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	12.45	7.86	6.63	6.63	6.63	6.63
Brisbane / GVMID	0.97	0.61	0.52	0.52	0.52	0.52
Burlingame	4.30	2.72	2.29	2.29	2.29	2.29
Coastside CWD	1.16	0.73	0.62	0.62	0.62	0.62
CWS Total	26.80	16.92	14.26	14.26	14.26	14.26
Daly City	4.29	2.71	2.28	2.28	2.28	2.28
East Palo Alto	1.18	0.75	0.63	0.63	0.63	0.63
Estero MID	3.91	2.47	2.08	2.08	2.08	2.08
Hayward	18.14	11.45	9.65	9.65	9.65	9.65
Hillsborough	2.11	1.33	1.12	1.12	1.12	1.12
Menlo Park	2.76	1.75	1.47	1.47	1.47	1.47
Mid-Peninsula WD	3.39	2.14	1.80	1.80	1.80	1.80
Millbrae	2.18	1.38	1.16	1.16	1.16	1.16
Milpitas	5.46	3.45	2.91	2.91	2.91	2.91
Mountain View	9.04	5.71	4.81	4.81	4.81	4.81
North Coast CWD	2.36	1.49	1.26	1.26	1.26	1.26
Palo Alto	8.15	5.14	4.34	4.34	4.34	4.34
Purissima Hills WD	1.36	0.86	0.72	0.72	0.72	0.72
Redwood City	6.91	4.36	3.68	3.68	3.68	3.68
San Bruno	2.68	1.69	1.43	1.43	1.43	1.43
San Jose	4.50	2.84	2.40	2.40	2.40	2.40
Santa Clara	4.50	2.84	2.40	2.40	2.40	2.40
Stanford	2.07	1.31	1.10	1.10	1.10	1.10
Sunnyvale	12.58	7.94	6.70	6.70	6.70	6.70
Westborough WD	0.88	0.55	0.47	0.47	0.47	0.47
Total	**144.11**	**91.0**	**76.7**	**76.7**	**76.7**	**76.7**

For UWMP Tables 7-1 through Table 7-4

Base Year	2050
Scenario	With BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	148.35	148.35	148.35	148.35	148.35
Wholesale RWS Supply	91.4	76.6	76.6	76.6	76.6
Percent Cutback	38%	48%	48%	48%	48%

		Projected Supply by Year Type				
Agency	**2050 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	13.76	8.48	7.11	7.11	7.11	7.11
Brisbane / GVMID	0.97	0.60	0.50	0.50	0.50	0.50
Burlingame	4.44	2.74	2.29	2.29	2.29	2.29
Coastside CWD	1.16	0.71	0.60	0.60	0.60	0.60
CWS Total	26.89	16.57	13.89	13.89	13.89	13.89
Daly City	4.29	2.64	2.22	2.22	2.22	2.22
East Palo Alto	1.19	0.73	0.61	0.61	0.61	0.61
Estero MID	3.90	2.40	2.01	2.01	2.01	2.01
Hayward	19.71	12.14	10.17	10.17	10.17	10.17
Hillsborough	2.12	1.31	1.09	1.09	1.09	1.09
Menlo Park	2.83	1.75	1.46	1.46	1.46	1.46
Mid-Peninsula WD	3.43	2.11	1.77	1.77	1.77	1.77
Millbrae	2.29	1.41	1.18	1.18	1.18	1.18
Milpitas	5.52	3.40	2.85	2.85	2.85	2.85
Mountain View	9.55	5.88	4.93	4.93	4.93	4.93
North Coast CWD	2.36	1.46	1.22	1.22	1.22	1.22
Palo Alto	8.18	5.04	4.22	4.22	4.22	4.22
Purissima Hills WD	1.37	0.84	0.71	0.71	0.71	0.71
Redwood City	7.09	4.37	3.66	3.66	3.66	3.66
San Bruno	2.68	1.65	1.38	1.38	1.38	1.38
San Jose	4.50	2.77	2.32	2.32	2.32	2.32
Santa Clara	4.50	2.77	2.32	2.32	2.32	2.32
Stanford	2.13	1.31	1.10	1.10	1.10	1.10
Sunnyvale	12.58	7.75	6.50	6.50	6.50	6.50
Westborough WD	0.91	0.56	0.47	0.47	0.47	0.47
Total	**148.35**	**91.4**	**76.6**	**76.6**	**76.6**	**76.6**

For UWMP Tables 7-1 through Table 7-4

Base Year	2026
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	**2026**	**2027**	**2028**	**2029**	**2030**
Wholesale RWS Demand	130.1	130.9	131.6	132.4	133.2
Wholesale RWS Supply	130.1	130.9	131.6	132.4	133.2
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	**2025 RWS Purchases**	**2026**	**2027**	**2028**	**2029**	**2030**
Alameda CWD	10.08	10.08	11.25	11.56	12.00	12.45
Brisbane / GVMID	0.68	0.68	0.68	0.68	0.68	0.68
Burlingame	3.23	3.23	3.23	3.23	3.23	3.23
Coastside CWD	1.01	1.01	1.01	1.01	1.01	1.01
CWS Total	29.50	29.50	29.50	29.50	29.50	29.50
Daly City	3.55	3.55	3.55	3.55	3.55	3.55
East Palo Alto	1.72	1.72	1.72	1.72	1.72	1.72
Estero MID	3.78	3.78	3.78	3.78	3.78	3.78
Hayward	13.66	13.66	13.66	13.66	13.66	13.66
Hillsborough	2.32	2.32	2.32	2.32	2.32	2.32
Menlo Park	2.72	2.72	2.72	2.72	2.72	2.72
Mid-Peninsula WD	2.34	2.34	2.34	2.34	2.34	2.34
Millbrae	1.81	1.81	1.81	1.81	1.81	1.81
Milpitas	4.68	4.68	4.68	4.68	4.68	4.68
Mountain View	7.69	7.69	7.69	7.69	7.69	7.69
North Coast CWD	2.58	2.58	2.58	2.58	2.58	2.58
Palo Alto	9.31	9.31	9.31	9.31	9.31	9.31
Purissima Hills WD	1.51	1.51	1.51	1.51	1.51	1.51
Redwood City	7.43	7.43	7.43	7.43	7.43	7.43
San Bruno	1.03	1.03	1.03	1.03	1.03	1.03
San Jose	3.99	3.99	3.99	3.99	3.99	3.99
Santa Clara	2.91	2.91	2.91	2.91	2.91	2.91
Stanford	1.59	1.59	1.59	1.59	1.59	1.59
Sunnyvale	10.28	10.28	10.28	10.28	10.28	10.28
Westborough WD	0.70	0.70	0.70	0.70	0.70	0.70
Total	**130.12**	**130.12**	**131.28**	**131.59**	**132.03**	**132.48**

For UWMP Tables 7-1 through Table 7-4

Base Year	2030
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	133.9	133.9	133.9	133.9	133.9
Wholesale RWS Supply	133.9	133.9	133.9	133.9	133.9
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	**2030 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	11.25	11.25	11.25	11.25	11.25	11.25
Brisbane / GVMID	0.94	0.94	0.94	0.94	0.94	0.94
Burlingame	3.92	3.92	3.92	3.92	3.92	3.92
Coastside CWD	1.17	1.17	1.17	1.17	1.17	1.17
CWS Total	27.04	27.04	27.04	27.04	27.04	27.04
Daly City	4.29	4.29	4.29	4.29	4.29	4.29
East Palo Alto	1.19	1.19	1.19	1.19	1.19	1.19
Estero MID	3.90	3.90	3.90	3.90	3.90	3.90
Hayward	14.74	14.74	14.74	14.74	14.74	14.74
Hillsborough	2.09	2.09	2.09	2.09	2.09	2.09
Menlo Park	2.58	2.58	2.58	2.58	2.58	2.58
Mid-Peninsula WD	2.82	2.82	2.82	2.82	2.82	2.82
Millbrae	1.91	1.91	1.91	1.91	1.91	1.91
Milpitas	5.30	5.30	5.30	5.30	5.30	5.30
Mountain View	7.87	7.87	7.87	7.87	7.87	7.87
North Coast CWD	2.23	2.23	2.23	2.23	2.23	2.23
Palo Alto	8.30	8.30	8.30	8.30	8.30	8.30
Purissima Hills WD	1.36	1.36	1.36	1.36	1.36	1.36
Redwood City	6.84	6.84	6.84	6.84	6.84	6.84
San Bruno	1.85	1.85	1.85	1.85	1.85	1.85
San Jose	4.50	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50	4.50
Stanford	1.77	1.77	1.77	1.77	1.77	1.77
Sunnyvale	10.72	10.72	10.72	10.72	10.72	10.72
Westborough WD	0.82	0.82	0.82	0.82	0.82	0.82
Total	**133.92**	**133.92**	**133.92**	**133.92**	**133.92**	**133.92**

For UWMP Tables 7-1 through Table 7-4

Base Year	2035
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	1st/Single	2nd	3rd	4th	5th
Wholesale RWS Demand	136.3	136.3	136.3	136.3	136.3
Wholesale RWS Supply	136.3	136.3	136.3	136.3	136.3
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	2035 Proj. RWS	1st/Single Dry Year	2nd Dry Year	3rd Dry Year	4th Dry Year	5th Dry Year
Alameda CWD	11.56	11.56	11.56	11.56	11.56	11.56
Brisbane / GVMID	0.95	0.95	0.95	0.95	0.95	0.95
Burlingame	3.99	3.99	3.99	3.99	3.99	3.99
Coastside CWD	1.16	1.16	1.16	1.16	1.16	1.16
CWS Total	26.89	26.89	26.89	26.89	26.89	26.89
Daly City	4.29	4.29	4.29	4.29	4.29	4.29
East Palo Alto	1.19	1.19	1.19	1.19	1.19	1.19
Estero MID	3.92	3.92	3.92	3.92	3.92	3.92
Hayward	15.66	15.66	15.66	15.66	15.66	15.66
Hillsborough	2.08	2.08	2.08	2.08	2.08	2.08
Menlo Park	2.64	2.64	2.64	2.64	2.64	2.64
Mid-Peninsula WD	2.97	2.97	2.97	2.97	2.97	2.97
Millbrae	1.99	1.99	1.99	1.99	1.99	1.99
Milpitas	5.35	5.35	5.35	5.35	5.35	5.35
Mountain View	8.12	8.12	8.12	8.12	8.12	8.12
North Coast CWD	2.29	2.29	2.29	2.29	2.29	2.29
Palo Alto	8.20	8.20	8.20	8.20	8.20	8.20
Purissima Hills WD	1.35	1.35	1.35	1.35	1.35	1.35
Redwood City	6.54	6.54	6.54	6.54	6.54	6.54
San Bruno	2.27	2.27	2.27	2.27	2.27	2.27
San Jose	4.50	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50	4.50
Stanford	1.96	1.96	1.96	1.96	1.96	1.96
Sunnyvale	11.15	11.15	11.15	11.15	11.15	11.15
Westborough WD	0.80	0.80	0.80	0.80	0.80	0.80
Total	**136.32**	**136.32**	**136.32**	**136.32**	**136.32**	**136.32**

For UWMP Tables 7-1 through Table 7-4

Base Year	2040
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	1st/Single	2nd	3rd	4th	5th
Wholesale RWS Demand	140.6	140.6	140.6	140.6	140.6
Wholesale RWS Supply	140.6	140.6	140.6	140.6	140.6
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	2040 Proj. RWS	1st/Single Dry Year	2nd Dry Year	3rd Dry Year	4th Dry Year	5th Dry Year
Alameda CWD	12.00	12.00	12.00	12.00	12.00	12.00
Brisbane / GVMID	0.97	0.97	0.97	0.97	0.97	0.97
Burlingame	4.15	4.15	4.15	4.15	4.15	4.15
Coastside CWD	1.16	1.16	1.16	1.16	1.16	1.16
CWS Total	26.93	26.93	26.93	26.93	26.93	26.93
Daly City	4.29	4.29	4.29	4.29	4.29	4.29
East Palo Alto	1.19	1.19	1.19	1.19	1.19	1.19
Estero MID	3.93	3.93	3.93	3.93	3.93	3.93
Hayward	16.82	16.82	16.82	16.82	16.82	16.82
Hillsborough	2.09	2.09	2.09	2.09	2.09	2.09
Menlo Park	2.71	2.71	2.71	2.71	2.71	2.71
Mid-Peninsula WD	3.18	3.18	3.18	3.18	3.18	3.18
Millbrae	2.09	2.09	2.09	2.09	2.09	2.09
Milpitas	5.41	5.41	5.41	5.41	5.41	5.41
Mountain View	8.59	8.59	8.59	8.59	8.59	8.59
North Coast CWD	2.37	2.37	2.37	2.37	2.37	2.37
Palo Alto	8.15	8.15	8.15	8.15	8.15	8.15
Purissima Hills WD	1.36	1.36	1.36	1.36	1.36	1.36
Redwood City	6.73	6.73	6.73	6.73	6.73	6.73
San Bruno	2.68	2.68	2.68	2.68	2.68	2.68
San Jose	4.50	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50	4.50
Stanford	2.02	2.02	2.02	2.02	2.02	2.02
Sunnyvale	11.92	11.92	11.92	11.92	11.92	11.92
Westborough WD	0.84	0.84	0.84	0.84	0.84	0.84
Total	**140.57**	**140.57**	**140.57**	**140.57**	**140.57**	**140.57**

For UWMP Tables 7-1 through Table 7-4

Base Year	2045
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	144.1	144.1	144.1	144.1	144.1
Wholesale RWS Supply	144.1	144.1	144.1	144.1	144.1
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	**2045 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	12.45	12.45	12.45	12.45	12.45	12.45
Brisbane / GVMID	0.97	0.97	0.97	0.97	0.97	0.97
Burlingame	4.30	4.30	4.30	4.30	4.30	4.30
Coastside CWD	1.16	1.16	1.16	1.16	1.16	1.16
CWS Total	26.80	26.80	26.80	26.80	26.80	26.80
Daly City	4.29	4.29	4.29	4.29	4.29	4.29
East Palo Alto	1.18	1.18	1.18	1.18	1.18	1.18
Estero MID	3.91	3.91	3.91	3.91	3.91	3.91
Hayward	18.14	18.14	18.14	18.14	18.14	18.14
Hillsborough	2.11	2.11	2.11	2.11	2.11	2.11
Menlo Park	2.76	2.76	2.76	2.76	2.76	2.76
Mid-Peninsula WD	3.39	3.39	3.39	3.39	3.39	3.39
Millbrae	2.18	2.18	2.18	2.18	2.18	2.18
Milpitas	5.46	5.46	5.46	5.46	5.46	5.46
Mountain View	9.04	9.04	9.04	9.04	9.04	9.04
North Coast CWD	2.36	2.36	2.36	2.36	2.36	2.36
Palo Alto	8.15	8.15	8.15	8.15	8.15	8.15
Purissima Hills WD	1.36	1.36	1.36	1.36	1.36	1.36
Redwood City	6.91	6.91	6.91	6.91	6.91	6.91
San Bruno	2.68	2.68	2.68	2.68	2.68	2.68
San Jose	4.50	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50	4.50
Stanford	2.07	2.07	2.07	2.07	2.07	2.07
Sunnyvale	12.58	12.58	12.58	12.58	12.58	12.58
Westborough WD	0.88	0.88	0.88	0.88	0.88	0.88
Total	**144.11**	**144.11**	**144.11**	**144.11**	**144.11**	**144.11**

For UWMP Tables 7-2 through Table 7-4

Base Year	2050
Scenario	Without BDP

Basis of Water Supply Data

Consecutive Dry Year	**1st/Single**	**2nd**	**3rd**	**4th**	**5th**
Wholesale RWS Demand	148.3	148.3	148.3	148.3	148.3
Wholesale RWS Supply	148.3	148.3	148.3	148.3	148.3
Percent Cutback	0%	0%	0%	0%	0%

		Projected Supply by Year Type				
Agency	**2050 Proj. RWS**	**1st/Single Dry Year**	**2nd Dry Year**	**3rd Dry Year**	**4th Dry Year**	**5th Dry Year**
Alameda CWD	13.76	13.76	13.76	13.76	13.76	13.76
Brisbane / GVMID	0.97	0.97	0.97	0.97	0.97	0.97
Burlingame	4.44	4.44	4.44	4.44	4.44	4.44
Coastside CWD	1.16	1.16	1.16	1.16	1.16	1.16
CWS Total	26.89	26.89	26.89	26.89	26.89	26.89
Daly City	4.29	4.29	4.29	4.29	4.29	4.29
East Palo Alto	1.19	1.19	1.19	1.19	1.19	1.19
Estero MID	3.90	3.90	3.90	3.90	3.90	3.90
Hayward	19.71	19.71	19.71	19.71	19.71	19.71
Hillsborough	2.12	2.12	2.12	2.12	2.12	2.12
Menlo Park	2.83	2.83	2.83	2.83	2.83	2.83
Mid-Peninsula WD	3.43	3.43	3.43	3.43	3.43	3.43
Millbrae	2.29	2.29	2.29	2.29	2.29	2.29
Milpitas	5.52	5.52	5.52	5.52	5.52	5.52
Mountain View	9.55	9.55	9.55	9.55	9.55	9.55
North Coast CWD	2.36	2.36	2.36	2.36	2.36	2.36
Palo Alto	8.18	8.18	8.18	8.18	8.18	8.18
Purissima Hills WD	1.37	1.37	1.37	1.37	1.37	1.37
Redwood City	7.09	7.09	7.09	7.09	7.09	7.09
San Bruno	2.68	2.68	2.68	2.68	2.68	2.68
San Jose	4.50	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50	4.50
Stanford	2.13	2.13	2.13	2.13	2.13	2.13
Sunnyvale	12.58	12.58	12.58	12.58	12.58	12.58
Westborough WD	0.91	0.91	0.91	0.91	0.91	0.91
Total	**148.35**	**148.35**	**148.35**	**148.35**	**148.35**	**148.35**

Valley Water - Water Supply Reliability Tables

Average Year Supplies and Demands (Acre-feet rounded to nearlest 1,000)

Water Supply	2030	2035	2040	2045	2050
Surface water	56,000	76,000	77,000	76,000	76,000
Imported water	177,000	163,000	163,000	164,000	164,000
SFPUC Supply	50,000	51,000	52,000	53,000	54,000
Natural Groundwater Recharge	61,000	61,000	60,000	60,000	60,000
Recycled water (potable)	0	24,000	24,000	24,000	24,000
Recycled water (non-potable)	20,000	22,000	24,000	26,000	28,000
Supply Total	365,000	397,000	400,000	403,000	406,000
Demand Total	330,000	330,000	330,000	330,000	330,000
Difference (Surplus)	35,000	67,000	70,000	73,000	76,000

Single Dry Year Supplies and Demands (Acre-feet rounded to nearest 1,000)

Water Supply	2030	2035	2040	2045	2050
Surface water	11,000	10,000	10,000	10,000	10,000
Imported water	42,000	37,000	37,000	37,000	37,000
SFPUC Supply	30,000	31,000	32,000	33,000	32,000
Natural Groundwater Recharge	47,000	48,000	47,000	47,000	47,000
Recycled water (potable)	0	24,000	24,000	24,000	24,000
Recycled water (non-potable)	20,000	22,000	24,000	26,000	28,000
Supply from Storage	181,000	250,000	246,000	245,000	246,000
Supply Total	331,000	422,000	420,000	422,000	424,000
Demand Total	330,000	330,000	330,000	330,000	330,000
Difference	1,000	92,000	90,000	92,000	94,000

Multiple Dry Years Supplies and Demands (Acre-feet rounded to nearest 1,000)

		2030	2035	2040	2045	2050
First Year	Supply	232,000	242,000	243,000	225,000	223,000
	Supply from Storage	175,000	245,000	239,000	242,000	242,000
	Demand Totals	330,000	330,000	330,000	330,000	330,000
	Surplus/(Shortfall)	77,000	157,000	152,000	137,000	135,000
	WSCP Actions					
	Revised Difference					
Second Year	Supply	322,000	287,000	287,000	267,000	268,000
	Supply from Storage	136,000	212,000	196,000	188,000	186,000
	Demand Totals	330,000	330,000	330,000	330,000	330,000
	Surplus/(Shortfall)	128,000	169,000	153,000	125,000	124,000
	WSCP Actions					
	Revised Difference					
Third Year	Supply	262,000	231,000	232,000	203,000	204,000
	Supply from Storage	121,000	186,000	174,000	160,000	159,000
	Demand Totals	330,000	330,000	330,000	330,000	330,000
	Surplus/(Shortfall)	53,000	87,000	76,000	33,000	33,000
	WSCP Actions					
	Revised Difference					
Fourth Year	Supply	266,000	241,000	240,000	241,000	241,000
	Supply from Storage	35,000	121,000	106,000	63,000	63,000
	Demand Totals	330,000	330,000	330,000	330,000	330,000
	Surplus/(Shortfall)	(29,000)	32,000	16,000	(26,000)	(26,000)
	WSCP Actions	29,000			26,000	26,000
	Revised Difference	0			0	0
Fifth Year	Supply	277,000	304,000	309,000	282,000	282,000
	Supply from Storage	32,000	54,000	30,000	30,000	30,000
	Demand Totals	330,000	330,000	330,000	330,000	330,000
	Surplus/(Shortfall)	(21,000)	28,000	9,000	(18,000)	(18,000)
	WSCP Actions	21,000			18,000	18,000
	Revised Difference	0			0	0

Notes	
General	Values are rounded to the nearest 1,000 AF.
Imported Water	Based on CalSim 3 model runs for Delivery Capability Report 2025.
SFPUC Supplies	SFPUC deliveries are based on modeled supply reliability results and estimates provided by BAWSCA; values reflect scenarios that assume implementation of the Bay-Delta Plan Amendment.
Recycled Water	Non-potable recycled water supplies are based on projections provided by retailers and reflect anticipated future recycled water use. Potable recycled water supplies assumes implementation of the Pure Water Silicon Valley.
Demand	All model demands are based on the WSMP countywide demand of 330 TAF.
Supply Portfolio	Assumes Valley Water's Water Supply Master Plan 2050 low-cost portfolio: Semitropic storage (350 TAF) through 2035; groundwater banking (250 TAF) starting 2040; Sisk Reservoir expansion in 2035; DCP in 2045; Pure Water Silicon Valley in 2035.
Operations	Under normal year conditions, sustainable storage is maintained and no withdrawals from long-term storage are assumed; demands are met by incoming supplies. During droughts, stored water accumulated during normal and wet years is used to bridge gaps between reduced incoming supplies and demand.
Hydrology	Model period is 1922–2021; single dry year is 1977; multi-year drought is 1988–1992; this remains the most severe extended drought in the record.
Infrastructure	Anderson Reservoir is dewatered in 2030 and operational by 2035. Seismic upgrades to Calero, Guadalupe, Almaden, and Anderson are complete in the 2035 model runs and later.
Supply Definition	Reasonably available supply is water in storage above thresholds for emergency needs, subsidence protection, and operational withdrawal limits for each storage facility.
Shortage Response	In the 5-year drought, WSCP actions are required in years 4 and 5 for some future scenarios; these shortages are addressed through demand reduction and supply augmentation.

Appendix G

Water Shortage Contingency Plan

City of Santa Clara
Water Shortage Contingency Plan

PREPARED FOR

City of Santa Clara

PREPARED BY

WEST YOST
Water. Engineered.

City of Santa Clara
Water Shortage Contingency Plan

Prepared for

City of Santa Clara

Project No. 1078-60-23-01

Prepared by: Elizabeth Drayer, PE, RCE #46872 Date

QA/QC Review: Rhodora Biagtan, PE, RCE #59371 Date

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DRAFT REPORT | MAY 2026

Table of Contents

Table of Contents

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AWSDA	Annual Water Supply and Demand Assessment
City	City of Santa Clara
County	Santa Clara County
CWC	California Water Code
Director	Director of Water & Sewer Utilities
DWR	Department of Water Resources
ERP	Emergency Response Plan
HCF	Hundred Cubic Feet
Legislature	California State Legislature
MG	Million Gallons
SB	Senate Bill
SCMC	City of Santa Clara Municipal Code
SFPUC	San Francisco Public Utilities Commission
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

Water Shortage Contingency Plan

1.0 INTRODUCTION

This plan presents the City of Santa Clara's (City) Water Shortage Contingency Plan (WSCP). The WSCP describes the City's strategic plan in preparation for and response to water shortages, with a goal to proactively prevent catastrophic service disruptions. It includes water shortage conditions and associated actions that will be implemented in the event of a water supply shortage. As part of the WSCP, the City's legal authorities, communication protocols, compliance, and enforcement, and monitoring and reporting are included.

A water shortage may occur due to several reasons, such as climate change, drought, and catastrophic events. Drought, regulatory action constraints, and natural and manmade disasters may occur at any time. A water shortage means that the available water supply is insufficient to meet the normally expected customer water use.

In 2018, the California State Legislature (Legislature) enacted two policy bills, (Senate Bill (SB) 606 (Hertzberg) and Assembly Bill (AB) 1668 (Friedman)) (2018 Water Conservation Legislation), to establish a new foundation for drought planning to adapt to climate change and the resulting longer and more intense droughts in California. The 2018 Water Conservation Legislation set new requirements for water shortage contingency planning.

The City's WSCP is consistent with the 2018 Water Conservation Legislation requirements. The City intends for this WSCP to be an adaptive management plan so that it may assess response action effectiveness and adapt to emergencies and catastrophic events. Refinement procedures and adoption requirements are provided in this plan to allow the City to modify this WSCP outside of the Urban Water Management Plan (UWMP) process.

2.0 WATER SUPPLY RELIABILITY ANALYSIS

The City's water supply planning analysis and reliability are discussed in the City's most recent UWMP. A summary of the City's existing and projected water use is provided in Chapter 4 of the UWMP. Its existing and planned water supplies by source are described in Chapter 6. And its water supply reliability assessment and the drought risk assessment are provided in Chapter 7. The City's seismic risk assessment and mitigation plan are discussed in Chapter 8.

The City conducts an annual water supply and demand assessment to plan for potential water shortages, as described below in Section 3.0. The analysis associated with this WSCP was developed in the context of the City's water supply sources and reliability.

3.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Starting July 1, 2022, California Water Code (CWC) Section 10632.1 required water suppliers to conduct an Annual Water Supply and Demand Assessment (AWSDA) and submit an Annual Water Shortage Assessment Report to the Department of Water

Resources (DWR). The assessment is conducted for the current year's upcoming dry season and the next year, assuming that the next year will be a dry year. This WSCP provides the procedures for the City to conduct its AWSDA. The findings from that assessment will provide information for City's Annual Water Shortage Assessment Report.

The procedures provided in this section are intended to assist the City in planning for potential, foreseeable shortage in water supplies. These procedures provide the steps the City needs to take that may lead to declaring a water shortage emergency and associated water shortage level (see Section 4.0) and implementation of water shortage response actions (see Section 5.0).

3.1 Decision-Making Process

The City uses the decision-making process described in this section to consistently determine its water supply reliability on an annual basis. The City may adjust and improve this process as needed.

The City's Water & Sewer Utilities Department is responsible for preparing the City's AWSDA and Annual Water Shortage Assessment Report and for submitting the Annual Water Shortage Assessment Report to DWR by July 1 of each year. The Water & Sewer Utilities Department will gather key data inputs described in Section 3.2 and conduct the assessment in accordance with Section 3.3. Each year, the City performs the assessment based on the San Francisco Public Utilities Commission (SFPUC) and Valley Water's anticipated water deliveries. After completing the AWSDA, City staff presents the Annual Water Shortage Assessment Report to the Water & Sewer Utilities Director for review.

In general, the City will follow the schedule of activities shown in Table 1 for conducting the AWSDA and decision making. These activities are described in further detail in the following subsections. Due to variations in climate and hydrologic conditions, the start and end dates shown in the table are approximate and may be adjusted as needed. The intent of the schedule is to allow shortage response actions to effectively address anticipated water shortage conditions in a timely manner while complying with the State's reporting requirements.

Table 1. Schedule of Annual Water Supply and Demand Assessment (AWSDA) Activities

Schedule	Activities	Responsible Party
February	Obtain monthly water use data by customer type from Finance Department for previous year.	Water & Sewer Utility
February	Determine monthly water production data (surface water, potable groundwater, non-potable irrigation groundwater, recycled water) for previous year.	Water & Sewer Utility
February	Obtain population estimates for previous year from DOF (https://www.dof.ca.gov/Forecasting/Demographics/Estimates/)	Water & Sewer Utility
March	Complete analysis for previous year (supply and demand comparison, hydrologic and regulatory conditions, infrastructure constraints, etc.).	Water & Sewer Utility

Table 1. Schedule of Annual Water Supply and Demand Assessment (AWSDA) Activities		
Schedule	Activities	Responsible Party
March	Calculate projected unconstrained demand for current year and identify/describe projection methods (projected population growth, etc.).	Water & Sewer Utility
April	Identify projected hydrologic conditions for current year and obtain any anticipated surface water supply constraints from wholesalers for current year.	Water & Sewer Utility
April	Determine current conditions of groundwater supply and groundwater table to anticipate any groundwater supply constraints for current year.	Water & Sewer Utility
April	Complete analysis for current year based on a "dry year." Determine the anticipated monthly water supply reliability for the current year using calculation spreadsheet.	Water & Sewer Utility
April	Determine if/when water supply shortages will occur and what WSCP stage the shortage will fall into. Determine what (if any) WSCP actions will need to be implemented to mitigate supply shortage.	Water & Sewer Utility
May	Prepare AWSDA presenting the findings and WSCP actions (if any) to be implemented.	Water & Sewer Utility
May / June	Present AWSDA findings to City Council, as needed.	Water & Sewer Utility
by July	Implement the WSCP actions as approved by City Council (if a water shortage is projected).	Water & Sewer Utility
July	Submit final AWSDA to DWR by July 1.	Water & Sewer Utility
Note: Months are approximate and may be adjusted based on climate and hydrologic conditions. July 1 due date is a firm date.		

3.1.1 AWSDA Finding: Sufficient Water Supply to Meet Expected Demands

If the AWSDA finds that available water supply will be sufficient to meet expected demands for the current year and one subsequent dry year, no further action is required. City staff will submit the Annual Water Shortage Assessment Report to DWR by July 1 of each year.

3.1.2 AWSDA Finding: Available Water Supply Will Not Meet Demands

Should the AWSDA find that available supply will not meet expected demands, the City will coordinate interdepartmentally, with the region's other water service providers, and with Santa Clara County (County) for the possible proclamation of an emergency. The Water & Sewer Utilities Director or their designee will present the finalized assessment to City Council, along with recommendations on water shortage condition determination and actions. Recommended actions may include declaration of a water shortage emergency, declaration of a water shortage condition, and water shortage actions.

Based on the findings of the AWSDA, if a water shortage condition exists, the City Council will adopt a resolution declaring a water shortage emergency and an associated water shortage condition and authorizing water shortage actions. The Water & Sewer Utilities will then prepare the City's Annual Water Shortage Assessment Report, incorporating the City Council determinations and approved actions. The schedule of decision-making activities is provided in Table 2. The start and end dates and the activities shown in this table are approximate and may be adjusted as needed.

Table 2. Schedule of Decision-Making Activities if AWSDA Indicates Supply May Not Meet Demands

Schedule	Activities	Responsible Party
May	Based on finalized determinations of Annual Assessment regarding water shortage condition and recommended actions, prepare recommendations on water shortage condition determination and actions.	Water & Sewer Utility and City Manager
May	Prepare ordinances or resolutions approving determinations and actions.	Water & Sewer Utility and City Attorney
May	Coordinate interdepartmentally, with the region's water service providers, and with the County for the possible proclamation of a local emergency.	Water & Sewer Utility
May	Based on determinations of the AWSDA, prepare the Annual Water Shortage Assessment Report with recommendations on water shortage condition. Submit to Water & Sewer Utilities Director.	Water & Sewer Utility
May	Present finalized determinations and recommendations to City Council, along with ordinances or resolutions approving determinations and actions.	Water & Sewer Utility and City Attorney
May / June	Receive presentation of finalized determinations and recommendations. Make determination of degree of emergency and act on resolutions that declare a water shortage emergency condition. Authorize water shortage response actions for implementation.	City Council
May / June	Revise AWSDA to include City Council determinations and approved actions.	Water & Sewer Utility
June	If a water shortage emergency condition is declared, implement the WSCP and the water shortage response actions as approved by City Council.	Water & Sewer Utility and City Attorney
July 1	Finalize AWSDA and Annual Water Shortage Assessment Report and submit to DWR (see Table 1).	Water & Sewer Utility

3.2 Key Data Inputs

The AWSDA is required to evaluate supply and demands for the current year and one subsequent dry year. The following key data inputs will be used to evaluate the City's water supply reliability.

Planned water supplies are used as input to the AWSDA for the current year and the following one dry year. The subsequent dry year may be similar to a single dry year as defined in Chapter 7 of the City's most recently adopted UWMP. In planning for water supplies, the following factors are considered:

- Hydrological conditions
- Regulatory conditions
- Contractual constraints
- Surface water and groundwater quality conditions
- Groundwater well production limitations
- Infrastructure capacity constraints or changes
- Capital improvement projects implementation
- Development Planning

Planned water supply sources and quantities will be described and be reasonably consistent with the supply projections in Chapter 6 (Normal-Year Water Supply Characterization) of the City's most recent UWMP. Should the supply sources and projections deviate significantly from the UWMP, the City will provide an explanation addressing the difference.

Planned unconstrained water demands are used as input to the AWSDA for the current year and the following one dry year. Unconstrained water demands are customer demands where no water conservation measures are in effect. In planning for water demands, the following factors are considered:

- Weather conditions
- Water year type
- Population changes (e.g., due to development projects)
- Anticipated new demands (e.g., changes to land use)
- Pending policy changes that may impact demands
- Infrastructure operations

Planned water demands types and quantities will be described and be reasonably consistent with the demand projections in Chapter 4 (Water Use Characterization) of the City's most recent UWMP. Should the demand projections deviate significantly from the UWMP, the City will provide an explanation addressing the difference.

3.3 Assessment Methodology

In preparing the AWSDA, the City will use the following assessment methodology and evaluation criteria to evaluate the City's water supply reliability for the current year and following one dry year.

The City will use the AWSDA Reporting Tables workbook provided by DWR as a resource in the WUEdata Portal[1] to plan for current year and future year demands. Planned supply and demand inputs described in Section 3.2 will be entered in the spreadsheet in annual increments, or closer time intervals as necessary during water shortage conditions.

Supply and demand will be compared to determine the reliability of the City's water supply in the current year and the following one dry year. The City's water supply for the current year and the following dry year will be determined reliable if water supplies are equivalent to or exceed projected unconstrained water demands. If water supply cannot meet anticipated water demands in the current year or the following dry year, the extent of the water shortage condition will be determined, and the City will prepare response actions in accordance with this WSCP. If a water shortage is anticipated, the AWSDA findings will be presented to the City Council, along with recommended actions for City Council consideration.

4.0 STANDARD WATER SHORTAGE LEVELS

To provide a consistent regional and statewide approach to conveying the relative severity of water supply shortage conditions, the 2018 Water Conservation Legislation mandates that water suppliers plan for six standard water shortage levels that correspond to progressive ranges of up to 10, 20, 30, 40, 50 percent, and greater than 50 percent shortages from the normal reliability condition. Each shortage condition should correspond to additional actions water suppliers would implement to meet the severity of the impending shortages. A water shortage is the gap between available supply and projected demands.

Table 3 presents the City's water shortage levels, which align with the state's standard levels of water shortage. The City's water shortage levels apply to both foreseeable and unforeseeable water supply shortage conditions.

[1] California Department of Water Resources. "Resources for Urban Water Suppliers." https://wuedata.water.ca.gov/manage_resources.asp?reportType=urban, last accessed September 22, 2025.

Table 3. Water Shortage Contingency Plan Levels (DWR Table 8-1)

☑	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**
1	Up to 10%	1	Up to 10%
2	Up to 20%	2	Up to 20%
3	Up to 30%	3	Up to 30%
4	Up to 40%	4	Up to 40%
5	Up to 50%	5	Up to 50%
6	>50%	6	>50%
NOTES:			

As described in Section 3.0, the City will conduct an AWSDA to determine its water supply condition for the current year and a subsequent dry year. Preparing the AWSDA helps the City ascertain the need to declare a water shortage emergency and water shortage condition for foreseeable events. In certain cases, the City may need to declare a water shortage emergency due to unforeseen water supply interruptions.

When the City anticipates or identifies that water supplies may not be adequate to meet the normal water supply needs of its customers, the City Council may determine that a water shortage exists and consider a resolution to declare a water shortage emergency and associated level. The shortage level provides direction on shortage response actions, as further described below.

5.0 SHORTAGE RESPONSE ACTIONS

CWC Section 10632(a)(4) requires shortage response actions that align with the defined shortage levels. The City's shortage response actions consist of a combination of demand reduction, supply augmentation, and operational changes. The City's suite of response actions depends on the event that precipitates a water shortage level, the

time of the year the event occurs, the water supply sources available, and the condition of its water system infrastructure.

In general, the City plans to use a balanced approach, combining demand reduction, supply augmentation, and operational changes to respond to the event and the resulting water shortage level. The City will adapt its implementation of response actions to close the gap between water supplies and water demand and meet the water use goals associated with the declared water shortage level.

Meters within the City's water system allow the City to compare current water demands with demand reduction goals and adjust its shortage response actions accordingly. The City water system is fully equipped with meters which can be read periodically to track the extent of the effectiveness of the City's response actions.

Water production and water use can be compared to previous periods. This continuous monitoring allows the City to assess water system demands and compare it with its water demand reduction goals. The City may then adjust its shortage response actions as needed to balance demands with available water supplies. For example, the City may intensify its public outreach or more vigorously enforce compliance with water use prohibitions if needed water demand reduction goals are not met for any specific shortage level. Conversely, the City may reduce public outreach frequency or decrease compliance actions if demand reduction goals are exceeded.

The shortage response actions discussed in the following sections may be considered as tools that allow the City to respond to water shortage conditions. Shortage response actions are initiated at the shortage levels shown and continue to be implemented at higher shortage levels. Because the City may continuously monitor and adjust its response actions to reasonably equate demands with available supply, the extent to which the gap between water supplies and water demand will be reduced by implementation of each action is difficult to quantify and is provided as an estimate. Certain response actions, such as public outreach and enforcement, support the effectiveness of other response actions and do not have a quantifiable effect on their own.

5.1 Demand Reduction Actions

During water shortage conditions, the City plans to reduce demand by implementing the actions shown in Table 4. Demand reduction actions are organized by the triggering water shortage level, and each action includes an estimate of how much its implementation will reduce the shortage gap. For each demand reduction action, Table 4 also indicates if the City uses compliance actions such as penalties, charges, or other enforcement. Demand reduction actions are initiated at the shortage levels shown and will continue to be implemented at higher shortage levels.

Table 4. Demand Reduction Actions (DWR Table 8-3 Retail)

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
1	Expand Public Information Campaign	Percentage	Studies have shown that a targeted public information campaign during a drought can reduce water use by 7 - 8%	--	Yes
1	Increase Water Waste Patrols	Percentage	0-1	--	Yes
1	Other	Percentage	Boosts the effectiveness of other methods - not readily quantifiable	Enforcement of permanent water use restriction Ordinance (Muni Code 13.15.080)	Yes
2	Increase Water Waste Patrols	Percentage	0-1	--	Yes
2	Other	Percentage	Boosts the effectiveness of other methods - not readily quantifiable	Enforcement of permanent water use restriction Ordinance (Muni Code 13.15.080)	Yes
2	Reduce System Water Loss	Percentage	0-10	--	Yes
2	Decrease Line Flushing	Percentage	0-1	--	Yes
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0-1	--	Yes
2	Other	Percentage	0-1	Decorative water features must use recirculating water	Yes
2	Other - Prohibit use of potable water for construction and dust control	Percentage	0-1	--	Yes
2	Other water feature or swimming pool restriction	Percentage	0-1	--	Yes
2	Other	Percentage	0-1	New irrigation connections restricted to recycled water	Yes
2	Other	Percentage	0-1	Irrigation of golf courses restricted to recycled water	Yes
2	Landscape - Limit landscape irrigation to specific days	Percentage	5-10	Outdoor watering days may be restricted based on water supply conditions	Yes
3	Other	Percentage	0-1	Potable water use for decorative water features prohibited	Yes
3	Other	Percentage	0-1	Irrigation of golf courses except greens and tees restricted, shall use recycled water if available	Yes
3	Implement or Modify Drought Rate Structure or Surcharge	Percentage	5-30	--	Yes
3	Increase Frequency of Meter Reading	Percentage	0-5	--	Yes
4	Other	Percentage	Boosts the effectiveness of other methods - not readily quantifiable	The City shall apportion the City's available supply of water among customers in the most reasonable manner possible and the rules and regulations for water service may be amended to deal with the water shortage emergency condition (Muni Code 13.15.140)	Yes
5	Other	Percentage	Boosts the effectiveness of other methods - not readily quantifiable	The City shall apportion the City's available supply of water among customers in the most reasonable manner possible and the rules and regulations for water service may be amended to deal with the water shortage emergency condition (Muni Code 13.15.140)	Yes
6	Other	Percentage	0-1	New pool construction and filling prohibited	Yes
6	Other	Percentage	0-1	New irrigation connections prohibited, recycled water allowed without restriction	Yes

5.2 Additional Mandatory Restrictions

In addition to the demand reduction actions listed in Table 4, the City has other water use restrictions and prohibitions that are enforced at all times listed under Section 1.C of the City's Potable and Recycled Water System Rules and Regulations.[2] The State also mandates certain prohibitions, and the City will enforce all such requirements.

5.2.1 Water Features and Swimming Pools

Water shortage response would focus on providing sufficient supply to meet health and safety needs for residential customers. Tempering the uses for water features and swimming pools will be based on the severity of the water shortage condition. The relative total water use from these sources would be a consideration for how water features would be restricted during specific water shortage conditions. Water features are a relatively small discretionary use and may be impacted at any time during a triggered water shortage condition.

The City distinguishes special water features, such as decorative fountains and ponds, differently from pools and spas. Special water features are regulated separately. The City's Potable and Recycled Water System Rules and Regulations Section 1.C requires recirculating water systems to be used for all water features. For decorative water features, recycled water shall be used where available. Covers are required on all new swimming pools and spas.

5.3 Supply Augmentation and Other Actions

The City has approximately 28.8 million gallons (MG) of potable water storage within the City's service area to manage daily operations and mitigate the effects of a short-term (days) water supply interruption. As part of the City's operations, the City repairs and replaces water distribution system infrastructure to reduce water system losses. Sources available to the City include an extensive local underground aquifer and imported water supplies delivered by two wholesale water agencies, SFPUC and Valley Water.

In a water shortage emergency, the City may increase groundwater supply or supplies from SFPUC and Valley Water. Supply augmentation and other actions that the City may implement during water supply emergencies are summarized in Table 5.

[2] Potable and Recycled Water System Rules and Regulations City of Santa Clara, November 2024, https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities, last accessed April 15, 2026.

Table 5. Supply Augmentation and Other Actions (DWR Table 8-2 Retail)

Yes	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?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
1	Other Actions (describe)	Percentage	10	Increase groundwater use if needed, combined with demand reduction actions
2	Other Actions (describe)	Percentage	20	Increase groundwater use, SFPUC, and/or Valley Water to supplement supply that is deficient, combined with demand reduction actions
3	Other Actions (describe)	Percentage	30	Increase groundwater use, SFPUC, and/or Valley Water to supplement supply that is deficient, combined with demand reduction actions
4	Other Actions (describe)	Percentage	40	Increase groundwater use, SFPUC, and/or Valley Water to supplement supply that is deficient, combined with demand reduction actions
5	Other Actions (describe)	Percentage	50	Increase groundwater use, SFPUC, and/or Valley Water to supplement supply that is deficient, combined with demand reduction actions
6	Other Actions (describe)	Percentage	>50	Increase groundwater use, SFPUC, and/or Valley Water to supplement supply that is deficient, combined with demand

5.4 Locally Appropriate Operational Changes

During a water shortage of any level, the City may elect to implement operational measures to support implementation of the WSCP. This may include hiring temporary workers, reassigning staff, and/or increasing overtime to provide staffing for a range of efforts, such as conducting Water Waste Patrols, implementing the communication protocols, responding to customer service requests, scheduling, and conducting site assessments and consultations, processing incentive and rebate applications, and increasing compliance and enforcement efforts. The City may also elect to increase monitoring of potable water usage, lower water system pressure and limit water main flushing. Operational changes will be considered at each level of water shortage to determine whether and when to implement such measures.

5.5 Emergency Response Plan

The City's water shortage levels outlined in Section 4.0 apply to both foreseeable and unforeseeable water supply shortage conditions, including catastrophic water shortage conditions.

The City's Emergency Response Plan (ERP) addresses catastrophic water shortage conditions. The ERP outlines response procedures associated with unforeseeable incidents such as a regional power outage, earthquake, infrastructure failure, and other events. More specifically, it addresses responses for water system losses including current water emergency interconnections, water demands under earthquake emergency conditions and non-earthquake emergencies. The ERP also identifies seven categories of response and the criteria that triggers that specific response to occur.

The communication procedures are also outlined in the ERP. In response to a drought, the ERP outlines the procedures the City is recommended to follow which includes: initial actions, continuous assessment and response procedures and after action monitoring and reporting. Steps for deactivation and demobilization of activated triggers and response actions are also identified to facilitate recovery procedures and return to normal operation. In addition, the effectiveness of the ERP is evaluated by the Department staff on a periodic basis. This is to ensure that procedures and practices developed in the ERP are adequate and implemented properly. To protect the security of the City's water system, the ERP is retained by the City as a confidential document.

6.0 COMMUNICATION PROTOCOLS

In the event of a water shortage, the City must inform its customers, the general public and interested parties, and local, regional, and state entities. Communication protocols for foreseeable and unforeseeable events are provided in this section. In any event, timely and effective communication must occur for appropriate response to the event. City staff are provided with City email accounts and cell phones to communicate internally and externally.

6.1 Communication for Foreseeable Events

Water shortage may be foreseeable when the City conducts its AWSDA as described in Section 3.0. When the City determines the potential of a water shortage event, the City Council may determine and declare a water shortage emergency. The City will hold a duly noticed public meeting to present the current or predicted shortage. At the public meeting, the City Council will determine if a water shortage emergency condition exists and the degree of the emergency. The City Council will consider the shortage response actions triggered or anticipated to be triggered by the shortage level. As necessary, the City Council will act on the water shortage emergency declaration, associated water shortage level, and shortage response actions.

The City will follow the communication protocols and procedures below and may trigger any of them at any water shortage level:

1. If a water shortage emergency is anticipated, the City will coordinate interdepartmentally, with the region's water service providers, and with the County for the possible proclamation of a local emergency.
2. The City will issue a public notice for a City Council meeting during which the AWSDA findings and recommendations for a water shortage emergency and shortage response actions are presented.

3. The City will communicate actions to customers, the general public, and interested parties through a combination of bill stuffers and newsletters, website, press releases, and social media posts.
4. The City will communicate actions to relevant local, regional, and state officials and entities primarily through email correspondence.

6.2 Communication for Unforeseeable Events

A water shortage may also occur during unforeseeable events such as earthquakes, fires, infrastructure failures, civil unrest, and other catastrophic events. The City's ERP provides specific communication protocols and procedures to convey actions during these events. The City may trigger these communication protocols, depending on the event. In general, communications and notifications will proceed along the identified chain of command. All City staff are provided their communication responsibilities. The ERP also provides a list of relevant contacts to notify at the local, regional, and state level.

7.0 COMPLIANCE AND ENFORCEMENT

This section describes how the City will ensure compliance with and enforcement of provisions of this WSCP. The City's procedures include protocols for treatment of violations and actions associated with more egregious levels of violation. The procedures include appeal and exemption processes.

7.1 Compliance and Enforcement Procedures

When a water shortage is anticipated, the City Council will adopt a resolution declaring a water shortage emergency condition and the regulations and restrictions that should be enforced in response to the declared water shortage level.

The City is metered system-wide, at production facilities and at each customer connection. Thus, water use can be quantified and compared to determine users' extent of compliance to water reduction requirements. The City may also become aware of non-compliance through water waste reporting by the general public, the City's dedicated water waste hotline, City staff inspections, and/or manual review of customer use data.

Upon receiving a water waste complaint, City staff will investigate the offending site's water use history and make site visits to determine the cause of the waste. City staff will then reach out to the site to educate them on the City's water waste policies and help them get into compliance. In addition, City staff uses this opportunity to further educate businesses and residents on current water conservation programs and what opportunities there may be to increase their water efficiency. While outreach and education typically brings most water wasters into compliance, the City does retain the ability to levy fines of up to $1,000 and the installation of a flow restrictor to frequent offenders, per the City of Santa Clara Municipal Code (SCMC) 13.15.220.

The Director of Water & Sewer Utilities or their designee is responsible for enforcement and penalties. Water users or property owners can appeal the notice of violation or the

administrative fee by submitting a written request for appeal to the Director of Water & Sewer Utilities, per the City's Potable and Recycled Water System Rules and Regulations.

8.0 LEGAL AUTHORITIES

SCMC Chapter 13.15 supports the City's ongoing water use restrictions, including provisions for enforcement. The SCMC does not contain provisions for additional restrictions on water use during water shortages. Should a water shortage occur, the City would need to adopt an emergency ordinance to restrict water use as needed. The emergency ordinance would support the City's water shortage contingency actions, including regulations and restrictions to be enacted in event of a water shortage.

At the time of a water shortage emergency, the City Council will, by resolution, declare a state of water shortage emergency and authorize implementation of the WSCP. A water shortage emergency declaration will be in effect upon proper findings made by the City Council and remain in effect until the City Council finds and declares by resolution that the water shortage emergency condition has abated, has changed in degree, or no longer exists.

When a water shortage is determined, the City will coordinate interdepartmentally, with the region's water service providers, and with the County for the possible proclamation of a local emergency in accordance with under California Government Code, California Emergency Services Act (Article 2, Section 8558).

In a duly noticed meeting, the City Council will determine whether a water shortage emergency condition exists and, if so, the degree of the emergency and what regulations and restrictions should be enforced in response to the shortage. The City shall declare a water shortage emergency in accordance with CWC Chapter 3 of Division 1.

> *California Water Code Division 1, Section 350:*
> *The governing body of a distributor of a public water supply…shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.*

The water shortage emergency declaration triggers communication protocols described in Section 6.0 and compliance and enforcement actions described in Section 7.0.

9.0 FINANCIAL CONSEQUENCES OF WSCP

Because the City bills its customers in part per unit volume of water consumed, the City may experience a reduction in revenue upon implementation of water shortage levels. The City policy is to maintain adequate water fund reserves in the event water shortage and subsequent demand reduction measures impact the City's revenue.

To mitigate the financial impacts of reduced water sales during a drought, the City Council has the authority to impose a drought surcharge on water rates. This surcharge could be

a flat fee per hundred cubic feet (HCF) that is intended to provide the City's water utility with dependable revenues when water use reduction plans are in effect. The City has traditionally used a "postage stamp" rate for all water sales. With reduction in sales, the fixed costs will remain, imposing a loss on the utility (expenses in excess of revenues). An advantage to the drought surcharge is that it is designed and set to allow sufficient revenue to meet all costs for the utility while also achieving conservation. The water utility also has reserves that it has used in the past as a rate stabilization fund. These reserves are being used to help reduce the rate impact from ever-increasing wholesale costs and the lower water sales due to the recent drought and slow recovery of water use. Additionally, the Utility is currently developing a long range financial and rate stabilization plan. The water utility's reserves are intended to be at the level that is sufficient to cover short-term loss of revenues due to a drought or other short-term catastrophic loss of sales. Reserves are adequately funded as part of the rate setting process.

10.0 MONITORING AND REPORTING

The City water system is fully metered, from its water supply sources to individual customer meters. These meters may be used as monitoring tools for compliance and reporting purposes. The City's water system is fully set up for automated meter reading (AMR); the City plans to upgrade the entire system to AMI as soon as reasonably possible. AMI would allow the City to monitor customer water usage in real time as necessary for assessing compliance with demand reduction actions and helping customers achieve reduction goals.

If reduction goals are not met through implementation of the WSCP (during any water shortage level), the Director of Water & Sewer Utilities (Director) will notify the City Council, and more stringent action will be taken. Additionally, if it is determined that this WSCP requires refinements to achieve reduction targets, the City will revise the WSCP according to the procedures discussed in Section 11.0 and then adopt it and make it available as discussed in Section 12.0.

11.0 WSCP REFINEMENT PROCEDURES

This WSCP is an adaptive management plan. It is subject to refinements as needed to ensure that the City's shortage response actions and mitigation strategies are effective and produce the desired results. Based on monitoring described in Section 10.0 and the need for compliance and enforcement actions described in Section 7.0, the City may adjust its response actions and may modify its WSCP. When a revised WSCP is proposed, the revised WSCP will undergo the process described in Section 12.0 for adoption by the City Council and distribution to the County, its customers, and the general public.

Feedback from City staff and the public is important in refining or incorporating new actions. The City seeks input from staff who interface with customers to gauge the effectiveness of its response actions and for response action ideas. The City seeks input from its customers and the general public through its website and through regularly scheduled City Council meetings.

Customer water meter data may be evaluated for each customer sector or each individual customer. The City tracks water use violations and may evaluate their frequency to determine restrictions that customers may not be able to meet. This evaluation may also show water demand reduction actions that customers may effectively implement.

12.0 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The WSCP may be adopted concurrently with the City's UWMP, by separate resolution, and may be revised and adopted at any time by the City. Prior to adoption, a duly noticed public hearing is conducted. A hard copy and electronic copy of the WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after submittal to DWR, copies of the WSCP will be available at the City's offices. A copy will also be provided to the County. An electronic copy of this WSCP will also be available for public review and download on the City's website.

Appendix H

UWMP and WSCP Adoption Resolutions

Not included with this submittal.