

PREPARED BY



ATTACHMENT 3



CITY OF MANTECA

2025 URBAN WATER MANAGEMENT PLAN

PUBLIC DRAFT

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2025 Urban Water Management Plan

Prepared for

City of Manteca

Project No. 265-60-25-15

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Table of Contents

EXECUTIVE SUMMARY ES-1

- Introduction..... ES-1
- California Water Code Requirements ES-1
- City Water System ES-2
- Water Use By City Customers..... ES-2
- City Water Supplies ES-2
- Conservation Target Compliance ES-3
- City Water Service Reliability ES-3
- Water Shortage Contingency Plan ES-3
- UWMP Preparation, Review, and Adoption..... ES-3

CHAPTER 1 Introduction 1-1

- 1.1 Introduction..... 1-1
- 1.2 Importance and Extent of City’s Water Management Planning Efforts..... 1-1
- 1.3 Changes from 2020 UWMP 1-1
- 1.4 Plan Organization 1-2

CHAPTER 2 Plan Preparation 2-1

- 2.1 Basis for Preparing a Plan 2-1
- 2.2 Individual or Regional Planning and Compliance 2-1
- 2.3 Fiscal or Calendar Year and Units of Measure 2-2
- 2.4 Coordination and Outreach..... 2-2
 - 2.4.1 Wholesale and Retail Coordination 2-2
 - 2.4.2 Coordination with Other Agencies and the Community 2-3
 - 2.4.3 Notice to Cities and Counties..... 2-4

CHAPTER 3 Service Area Description..... 3-1

- 3.1 General Description..... 3-1
- 3.2 Service Area Boundary 3-1
- 3.3 Service Area Climate..... 3-4
- 3.4 Service Area Population and Demographics 3-5
 - 3.4.1 Service Area Population..... 3-5
 - 3.4.2 Other Social, Economic, and Demographic Factors..... 3-5
- 3.5 Land Uses within Service Area..... 3-6
 - 3.5.1 Current Land Uses..... 3-6
 - 3.5.2 Projected Land Uses..... 3-6

Table of Contents

CHAPTER 4 Water Use Characterization4-1

- 4.1 Non-Potable Versus Potable Water Use 4-1
- 4.2 Water Use by Sector 4-1
 - 4.2.1 Historical Potable Water Use 4-2
 - 4.2.2 Current Water Use 4-2
 - 4.2.3 Projected Water Use 4-3
 - 4.2.4 Characteristic Five-Year Water Use 4-6
- 4.3 Estimating Future Water Savings 4-6
- 4.4 Water Use for Lower Income Households 4-7
- 4.5 Distribution System Water Losses 4-7
- 4.6 Climate Change Considerations 4-10

CHAPTER 5 SB X7-7 Baselines, 2020 Targets, and 2025 Reporting5-1

- 5.1 Overview and Background 5-1
- 5.2 2020 Daily Per Capita Water Use Compliance 5-1
- 5.3 Regional Alliance 5-2

CHAPTER 6 Normal-Year Water Supply Characterization6-1

- 6.1 Purchased or Imported Water 6-1
- 6.2 Groundwater 6-2
 - 6.2.1 Groundwater Basin Management 6-2
 - 6.2.2 Groundwater Use – Past Five Years 6-5
 - 6.2.3 Groundwater Use – Projected 6-6
- 6.3 Surface Water 6-6
- 6.4 Stormwater 6-7
- 6.5 Wastewater and Recycled Water 6-7
 - 6.5.1 Recycled Water Coordination 6-7
 - 6.5.2 Wastewater Collection, Treatment, and Disposal 6-7
 - 6.5.2.1 Wastewater Collected Within Service Area 6-7
 - 6.5.2.2 Wastewater Treatment and Discharge Within Service Area 6-8
 - 6.5.3 Recycled Water System Description 6-10
 - 6.5.4 Potential, Current, and Projected Recycled Water Uses 6-10
- 6.6 Desalinated Water 6-13
- 6.7 Water Exchanges and Transfers 6-13
- 6.8 Future Water Projects 6-14
- 6.9 Summary of Existing and Planned Sources of Water 6-16
- 6.10 Climate Change Impacts to Supply 6-18
- 6.11 Energy Intensity 6-18

Table of Contents

CHAPTER 7 Water Service Reliability and Drought Risk Assessment.....7-1

- 7.1 Water Service Reliability Assessment..... 7-1
 - 7.1.1 Constraints on Water Sources 7-1
 - 7.1.1.1 Purchased Water from SSJID 7-1
 - 7.1.1.1.1 Stanislaus River Water Supply Constraints 7-1
 - 7.1.1.1.2 Impacts of Bay-Delta Plan Amendment 7-1
 - 7.1.1.1.3 Water Quality Impacts 7-2
 - 7.1.1.1.4 Climate Change Factors 7-3
 - 7.1.1.2 Groundwater 7-3
 - 7.1.1.3 Recycled Water 7-4
 - 7.1.2 Year Type Characterization 7-4
 - 7.1.3 Potable Water Service Reliability..... 7-8
 - 7.1.3.1 Potable Water Service Reliability – Normal Year 7-8
 - 7.1.3.2 Potable Water Service Reliability – Single Dry Year 7-8
 - 7.1.3.3 Potable Water Service Reliability – Five Consecutive Dry Years 7-9
 - 7.1.4 Non-Potable Water Service Reliability..... 7-9
 - 7.1.4.1 Non-Potable Water Service Reliability – Normal Year 7-10
 - 7.1.4.2 Non-Potable Water Service Reliability – Single Dry Year 7-10
 - 7.1.4.3 Non-Potable Water Service Reliability – Five Consecutive Dry Years 7-11
- 7.2 Description of Management Tools and Options 7-11
- 7.3 Drought Risk Assessment 7-12
 - 7.3.1 Data, Methods, and Basis for Water Shortage Condition..... 7-12
 - 7.3.2 DRA Water Source Reliability..... 7-13
 - 7.3.3 Total Water Supply and Use Comparison 7-13

CHAPTER 8 Water Shortage Contingency Plan.....8-1

- 8.1 Background..... 8-1
- 8.2 City Water Shortage Contingency Plan 8-1
- 8.3 Plan Adoption, Submittal, and Availability..... 8-1
- 8.4 Seismic Risk Assessment and Mitigation Plan 8-2

CHAPTER 9 Demand Management Measures9-1

- 9.1 Demand Management Measures for Retail Suppliers 9-1
 - 9.1.1 Water Waste Prevention Ordinances 9-1
 - 9.1.1.1 Special Water Feature Distinction..... 9-2
 - 9.1.2 Metering 9-3
 - 9.1.3 Conservation Pricing 9-3
 - 9.1.4 Public Education and Outreach..... 9-4
 - 9.1.4.1 Public Information Programs 9-4
 - 9.1.4.2 School Education Programs..... 9-5
 - 9.1.5 Programs to Assess and Manage Distribution System Real Loss..... 9-5
 - 9.1.6 Water Conservation Program Coordination and Staffing Support 9-7
 - 9.1.7 Other Demand Management Measures 9-7

Table of Contents

9.1.7.1 Building Code/New Standards..... 9-7

9.1.7.2 High-Efficiency Clothes Washers..... 9-8

9.1.7.3 Toilet Rebate Program..... 9-8

9.1.7.4 Turf Replacement Program 9-9

9.1.7.5 Free Conservation Devices 9-9

9.1.7.6 Commercial, Industrial, and Institutional DMMs 9-9

9.1.7.7 Large Landscape 9-10

9.1.7.8 Information and Tracking 9-10

9.2 Member of the California Water Efficiency Partnership 9-11

 9.2.1 Meeting Urban Water Use Objectives 9-11

 9.2.2 Annual Water Use Reporting 9-12

CHAPTER 10 Plan Adoptions, Submittal, and Implementation 10-1

10.1 Inclusion of All 2025 Data..... 10-1

10.2 Notice of Public Hearing..... 10-1

 10.2.1 Notices to Cities and Counties 10-1

 10.2.2 Notice to the Public 10-2

10.3 Public Hearing and Adoption..... 10-2

 10.3.1 Public Hearing 10-2

 10.3.2 Adoption 10-2

10.4 Plan Submittal 10-2

10.5 Public Availability..... 10-3

10.6 Plan Implementation..... 10-3

10.7 Amending an Adopted UWMP or WSCP 10-3

LIST OF TABLES

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

Table 2-2. Plan Identification (DWR Table 2-2) 2-1

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

Table 2-4. Water Supplier Information Exchange (DWR Table 2-4R)..... 2-3

Table 3-1. Monthly Average Climate Data Summary 3-4

Table 3-2. Population – Current and Projected (DWR Table 3-1R) 3-5

Table 4-1. Historical Potable Water Demand by Water Use Sector..... 4-2

Table 4-2. Total Uses for Potable and Non-Potable Water – 2025 (DWR Table 4-1R)..... 4-3

Table 4-3. Total Uses for Potable and Non-Potable Water – Projected (DWR Table 4-2R) 4-5

Table 4-4. Projected Five-Year Potable Water Use for Retail Customers 4-6

Table 4-5. Inclusion in Water Use Projections (DWR Table 4-3R) 4-7

Table of Contents

Table 4-6. Last Five Years of Water Loss Audit Reporting (DWR Table 4-5R) 4-8

Table 4-7. Progress Toward 2028 Water Loss Standard (DWR Table 4-6R) 4-9

Table 5-1. SB X7-7 2020 Target Progress (DWR Table 5-1R) 5-2

Table 6-1. Purchased or Imported Water Supplies – Actual and Projected 6-2

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

Table 6-3. Groundwater Supplies – Projected 6-6

Table 6-4. Wastewater Collected Within Area in 2025 (DWR Table 6-2R) 6-7

Table 6-5. Wastewater Treatment and Discharge Within Area in 2025 (DWR Table 6-3R) 6-9

Table 6-6. Current and Projected Recycled Water Direct Beneficial Uses Within
Service Area (DWR Table 6-4R) 6-11

Table 6-7. 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual
(DWR Table 6-5R) 6-12

Table 6-8. Methods to Expand Future Recycled Water Use (DWR Table 6-6R) 6-13

Table 6-9. Expected Future Water Supply Projects or Programs (DWR Table 6-7R) 6-15

Table 6-10. Water Supplies – Actual (DWR Table 6-8R) 6-16

Table 6-11. Water Supplies – Projected (DWR Table 6-9R) 6-17

Table 6-12. Energy Intensity – Total Utility Approach (DWR Table O-1B) 6-19

Table 6-13. Energy Intensity – Wastewater & Recycled Water (DWR Table O-2) 6-20

Table 7-1. Basis of Water Year Data (Reliability Assessment) (DWR Table 7-1R) 7-5

Table 7-2. Basis of Water Year Data 7-6

Table 7-3. Water Supply Volume Available 7-7

Table 7-4. Normal Year Supply and Demand Comparison – Potable (DWR Table 7-2R) 7-8

Table 7-5. Single Dry Year Supply and Demand Comparison – Potable (DWR Table 7-3R) 7-9

Table 7-6. Multiple Dry Years Supply and Demand Comparison – Potable (DWR Table 7-4R) 7-9

Table 7-7. Normal Year Supply and Demand Comparison – Non-Potable (DWR Table 7-2R) 7-10

Table 7-8. Single Dry Year Supply and Demand Comparison – Non-Potable (DWR Table 7-3R) 7-11

Table 7-9. Multiple Dry Years Supply and Demand Comparison – Non-Potable (DWR Table 7-4R) 7-11

Table 7-10. Projected Potable Water Supplies for Drought Risk Assessment 7-13

Table 7-11. Five-Year Drought Risk Assessment (DWR Table 7-5R) 7-14

Table 9-1. City of Manteca Water Loss Improvement Activities 9-6

Table 10-1. Notification to Cities and Counties (DWR Table 10-1R) 10-2

Table of Contents

LIST OF FIGURES

Figure 3-1. City of Manteca Water Service Area 3-2

Figure 3-2. City of Manteca Existing Water System 3-3

Figure 3-3. 2024 General Plan Land Use 3-8

Figure 6-1. San Joaquin Valley Basin 6-3

Figure 9-1. Urban Water Use Objective Components..... 9-12

LIST OF APPENDICES

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. Water Shortage Contingency Plan

Appendix G. City Code 13.04.210 Unlawful Water Use

Appendix H. Water Conservation Outreach

Appendix I. UWMP and WSCP Adoption Resolutions

LIST OF ACRONYMS AND ABBREVIATIONS

1,2,3 TCP	1,2,3-trichloropropane
°F	Fahrenheit
AB	Assembly Bill
Act	Urban Water Management Planning Act
AF	Acre-Feet
AFY	Acre-Feet of Water Annually
AMI	Advanced Metering Infrastructure
AMR	Automatic Meter Reading
AWIA	America’s Water Infrastructure Act
AWWA	American Water Works Association
BMP	Best Management Practices
CALGreen	California Green Building Standards Code
CalWEP	California Water Efficiency Partnership
CAP	Climate Action Plan
CFD	Community Facility District
CII	Commercial, Industrial, and Institutional

Table of Contents

CIMIS	California Irrigation Management Information System
City	City of Manteca
CWC	California Water Code
DDW	Division of Drinking Water
DIM	Dedicated Irrigation Meter
DMM	Demand Management Measures
DOF	Department of Finance
DRA	Drought Risk Assessment
DWR	Department of Water Resources
DWR Guidebook	2025 Urban Water Management Plans Guidebook for Urban Water Suppliers
DWR Methodologies	DWR Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (2016)
EIR	Environmental Impact Report
ESJ	Eastern San Joaquin
ESJGWA	Eastern San Joaquin Groundwater Authority
ET	Evapotranspiration
FTE	Full-time Equivalents
GP	General Plan
GPCD	Gallons Per Capita Per Day
gpd	Gallons Per Day
gpm	Gallons Per Minute
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HECW	High-Efficiency Clothes Washers
ILI	Infrastructure Leakage Index
kWh	Kilowatt Hour
LHMP	Local Hazard Mitigation Plan
MCL	Maximum Contaminant Level
MG	Million Gallon
MMC	City of Manteca Municipal Code
NAICS	North American Industry Classification System
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OID	Oakdale Irrigation District
RRA	Risk and Resilience Assessment
RUWMP	Regional Urban Water Management Plan
RWFMP	Reclaimed Water Facilities Master Plan
SB X7-7	Water Conservation Act of 2009
SCWSP	South County Water Supply Program
SSJID	South San Joaquin Irrigation District
SGMA	Sustainable Groundwater Management Act
SOI	Sphere of Influence

Table of Contents

State Water Board	State Water Resources Control Board
TDS	Total Dissolved Solids
USBR	United States Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
UWUO	Urban Water Use Objectives
WMP	Water Master Plan
WQCF	Wastewater Quality Control Facility
WSA	Water Supply Agreement
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WUE	Water Use Efficiency

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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 as 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 Manteca (City) provides water service directly to more than 3,000 connections in its water service area (27,786 connections in 2025) 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 from 2021 to 2025 assuming consecutive 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.



Executive Summary

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

CITY WATER SYSTEM

The City is located in the Central Valley of California in San Joaquin County, approximately 60 miles south of Sacramento, 76 miles east of San Francisco and 90 miles west of Yosemite National Park. 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 sixteen active potable groundwater wells, a pump station, a storage tank, South San Joaquin Irrigation District (SSJID) turnouts, and over 350 miles of 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 2024 Water Master Plan (WMP) developed potable water demand projections for buildout of the plan consistent with the City's 2024 General Plan (GP) (i.e., fully developed within City limits), which is expected in 2045. Overall, the City's water demand could increase by approximately 90 percent (from 2025 levels) by 2045. Because the 2024 WMP assumes full buildout of the City's 2024 GP by 2045, no growth is assumed between 2045 and 2050.

CITY WATER SUPPLIES

The City's current potable water supplies include purchased treated surface water from SSJID conveyed from the Stanislaus River and groundwater pumped by the City from City-owned and operated wells. The City also uses irrigation wells for non-potable water demands such as landscaping, and recycled water from the City's Wastewater Quality Control Facility for irrigation demands at the Great Wolf Lodge, construction demands, and on-site reuse.

Historically, the City has not utilized its full allocation of surface water due to treatment and distribution system constraints and State and SSJID supply limits in response to the 2012–2016 drought. Additionally, the City's allocation from SSJID is expected to increase by 60 percent around 2040 as a result of a planned expansion of the surface water treatment plant. The City plans to upgrade its water system to allow utilization of the full allotment of this treated surface water.

The City will continue using groundwater to meet peak demands and offset anticipated reductions in surface water deliveries in dry years. In partnership with other groundwater users through the Eastern San Joaquin Groundwater Authority (ESJGWA), the City helps manage the local groundwater subbasin to achieve long-term sustainability. The ESJGWA has developed a Groundwater Sustainability Plan which identifies actions to achieve groundwater sustainability in the local subbasin by 2040. The City's sustainable groundwater yield is expected to increase as the City limits expand in the future, and the 2024 WMP projected that sustainable groundwater available to the City will increase by approximately 50 percent by 2045.

The City also plans to continue recycled water production.



Executive Summary

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 179 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 163 GPCD, well below the confirmed 2020 water use target of 179 GPCD. This achievement was the result of continued water conservation by the City's customers.

CITY WATER SERVICE RELIABILITY

The CWC asks agencies to evaluate their water service reliability by examining the impact of drought on their water supplies and comparing those reduced supplies to water demands. Specifically, agencies should calculate their water supplies during a single dry year and five consecutive dry years using historical records. The City used 2020 conditions to represent a single dry year and 2012–2016 conditions to represent a five-consecutive-year drought. The City's surface water reliability is assumed to be consistent with SSJID's urban water supply reliability during a single dry year and multiple dry years, as confirmed with SSJID. Local groundwater pumping and recycled water are assumed to be 100 percent reliable through these hydrologic conditions.

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 2023 so that it is consistent with the 2018 Water Conservation Legislation requirements. The City updated its WSCP as part of the 2025 UWMP to incorporate changes in staffing since 2023. 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 notified other stakeholders (e.g., San Joaquin County and local cities, water suppliers, community service districts, conservation districts, and groundwater sustainability agencies) 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 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, highquality water and mitigating potential water shortages. Following the public hearing, the City of Manteca City Council adopted this 2025 UWMP and the associated WSCP on **MM DD, 2026**. A copy of the adopted UWMP, including the WSCP, will be submitted to the Department of Water Resources and to the California State Library, and is available on the City's website: <https://www.manteca.gov/departments/engineering/water-system>.

CHAPTER 1

Introduction

This chapter provides an introduction and overview of the City of Manteca (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 Sections 10608 and Sections 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 with a water management action plan for guidance as water conditions change and management conditions arise.

The Water Shortage Contingency Plan (WSCP) is part of this UWMP and provides a plan for response to various water supply shortage conditions.

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 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 has 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.



Chapter 1 Introduction

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 in April 2023, the City has reorganized and updated the responsibilities of its staff. This UWMP includes refinement and updates to the City's WSCP to incorporate changes in staffing.

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 their "2025 Urban Water Management Plans 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



Chapter 1 Introduction

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

- Appendix A: 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: Water Shortage Contingency Plan
- Appendix G: City Code 13.04.210 Unlawful Water Use
- Appendix H: Water Conservation Outreach
- Appendix I: 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 UWMP 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 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 CA3910005. As shown in Table 2-1, the City provided water to 27,786 customer connections and supplied 15,145 acre-feet (AF) of water in 2025 to its customers. The City primarily supplies water to retail customers; therefore, the City is required to prepare a UWMP and periodically update its WSCP.

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

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA3910005	City of Manteca	27,786	15,145
Total		27,786	15,145

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 2.5, the City has notified and coordinated planning and compliance with appropriate regional agencies and constituents.

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)
<input checked="" type="checkbox"/>	Individual UWMP	
<input type="checkbox"/>	Water Supplier is also a member of a SB X7-7 Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	

Chapter 2
Plan Preparation

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)	
<input type="checkbox"/>	Supplier is a wholesale supplier
<input checked="" type="checkbox"/>	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables are in calendar years
<input type="checkbox"/>	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 water from South San Joaquin Irrigation District (SSJID). In accordance with CWC § 10631, the City has informed SSJID of projected water use for that source in five-year increments through 2050, as shown in Table 2-4. SSJID 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.



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

The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631 (h).
Wholesale Water Supplier Name
South San Joaquin Irrigation District

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 groundwater and surface water supplies. These agencies included the following:

- City of Escalon
- City of Lathrop
- City of Mountain House
- City of Ripon
- City of Tracy
- San Joaquin County
- South San Joaquin Irrigation District
- City of Lodi
- City of Stockton
- Central Delta Water Agency
- Central San Joaquin Water Conservation District
- Eastside San Joaquin GSA
- Linden County Water District
- Lockeford Community Service District
- North San Joaquin Water Conservation District
- Oakdale Irrigation District
- South Delta Water Agency



Chapter 2 Plan Preparation

- Stockton East Water District
- Woodbridge Irrigation District

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 §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. In September 2025, 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.

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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

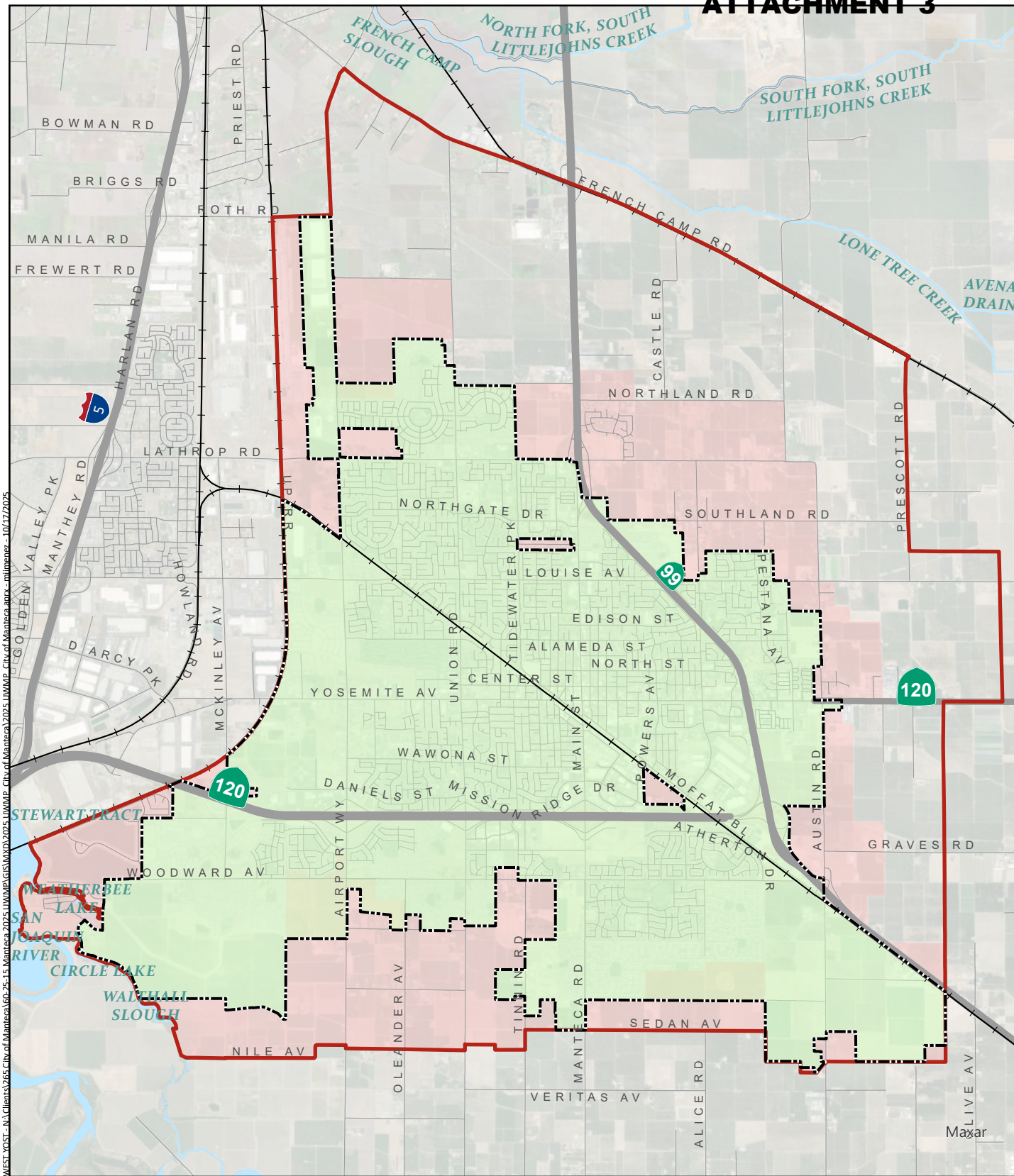
The City is located in the Central Valley of California in San Joaquin County, approximately 60 miles south of Sacramento, 76 miles east of San Francisco and 90 miles west of Yosemite National Park. The City occupies 21.5 square miles and is surrounded by industrial land to the west and agricultural lands to the north, east, and south. State Highway 120 crosses through the middle of City limits and Highway 99 crosses along the eastern part of City limits. Union Pacific Railroad runs diagonally from southeast to northwest through the City. The location of the City is shown on Figure 3-1.

The City's water supply sources consist of local groundwater and surface water purchased from SSJID. The City's potable water system consists of groundwater wells, a pump station, a storage tank, SSJID turnouts, and distribution and transmission pipelines. The City has sixteen active potable groundwater wells. Fourteen of the active wells are also equipped with backup power to maintain operations during potential power outages. The City also owns thirty-one non-potable irrigation wells to use for on-site irrigation at local parks and other irrigated areas. These irrigation wells are not connected to the City's potable water system, and their use is excluded from this plan.

The City's 3.8 million gallon (MG) storage tank stores water primarily from SSJID and the City's Well 24, and has a pump station located at the tank site to pump water into the distribution system. The City maintains over 350 miles of distribution and transmission pipelines ranging from 1 to 30 inches in diameter. Figure 3-2 shows the locations of the major facilities of the City's existing water system.

3.2 SERVICE AREA BOUNDARY

The City's water service area is contiguous 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.



M:\EST_YOST - NA\Clients\2025 City of Manteca\60-25-15 Manteca 2025 UWP\GIS\Map\2025 UWP - City of Manteca\2025 UWP - City of Manteca\2025 UWP - 10/17/2025

- City Limits
- City Planning Area
- City Sphere of Influence
- City Water Service Area

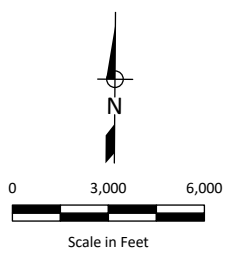
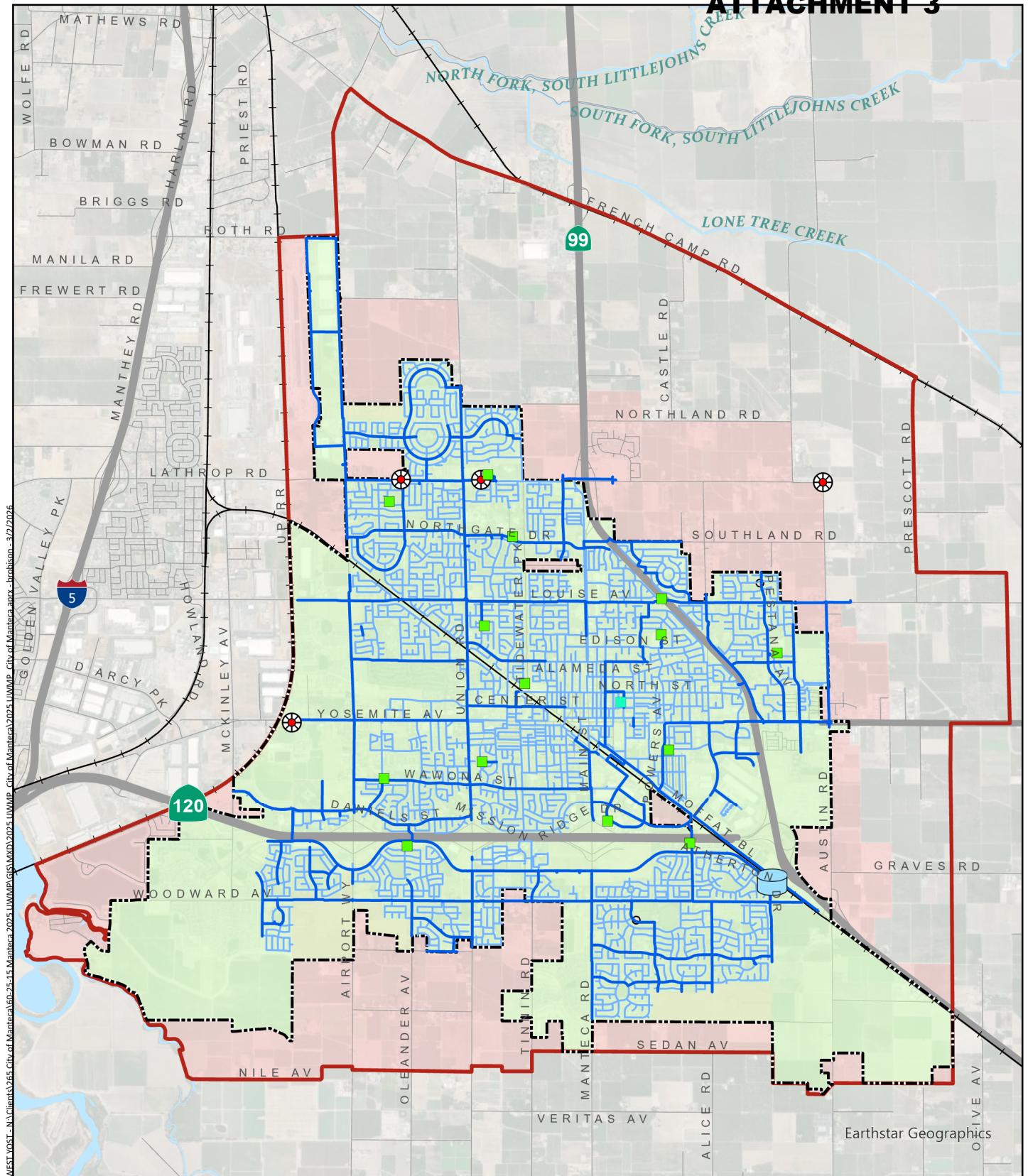


Figure 3-1
City of Manteca
Water Service Area



M:\EST_YOST - NA\Clients\2025 City of Manteca\62-25-15 Manteca 2025 UWP\61816\WKO\2025 UWP - City of Manteca\2025 UWP - City of Manteca\2025 UWP - 3/27/2025

- Active Well
- ⊗ SSJID Turnout
- Storage Tank
- Pipeline Diameter**
- Less than 12-inch
- 12-inch and Greater
- City Limits
- City Planning Area
- City Water Service Area
- City Sphere of Influence

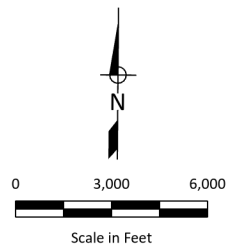


Figure 3-2
City of Manteca
Existing Water System



Chapter 3
Service Area Description

3.3 SERVICE AREA CLIMATE

The City has a Mediterranean climate characterized by hot, dry summers and cool winters, with an annual average precipitation of approximately 13 inches. The climate ranges from summer temperatures occasionally exceeding 100 degrees Fahrenheit (°F) with low humidity, and winter temperatures dropping into the 30 °F range. Based on historical data, the City’s average monthly temperatures are as low as 37 °F and as high as 91 °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 monitoring station within the City (Station #70). The historical climate characteristics affecting water management in the City’s water service areas are shown in Table 3-1.

Table 3-1. Monthly Average Climate Data Summary				
	Standard Monthly Average ET, inches ^(a)	Average Total Rainfall, inches ^(b)	Average Temperature, degrees Fahrenheit ^(b)	
			Minimum	Maximum
Manteca (CIMIS Station No. 70)				
January	1.15	2.76	37.8	54.6
February	2.03	2.18	40.3	61.2
March	3.54	2.03	42.7	66.3
April	5.12	1.13	46.2	73.2
May	6.82	0.39	51.7	81.3
June	7.73	0.08	57.0	89.0
July	8.04	0.02	60.5	94.5
August	7.04	0.03	60.0	93.0
September	5.18	0.22	57.2	88.6
October	3.45	0.71	50.2	78.8
November	1.72	1.63	42.1	64.8
December	1.02	2.44	37.7	54.6
Total	52.84	13.70	-	-

Source: California Irrigation Management Information System.

(a) California Irrigation Management Information System (<https://cimis.water.ca.gov/>) for Station #70 Data accessed October 6, 2025.
 (b) Western Regional Climate Center (<https://wrcc.dri.edu/>) data for STOCKTON AP, the closest active station to the City of Manteca. Period of record is 1948 to 2025. Data accessed October 6, 2025.

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.

3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

3.4.1 Service Area Population

Because the City’s water service area is contiguous 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 based on the 2020 Census.¹ The City’s 2025 service area population is approximately 93,733.

Population projections for the City were calculated based on annual population projections estimated by the California DOF for San Joaquin County. San Joaquin County’s projected population growth rate for each 5-year increment between 2030 to 2050 was applied to the City’s 2025 population to project the City’s population for 2030 to 2045. Because the City’s 2024 Water Master Plan (WMP) assumes full buildout of the City’s 2024 General Plan (GP) by 2045, the City’s 2050 population is assumed to be equivalent to its 2045 population. 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 3-1R)

Population Served ^(a)	2025	2030	2035	2040	2045	2050(opt)
	93,733	97,548	103,430	109,448	115,189	115,189

NOTES: (a) Population is from California Department of Finance (DOF) Estimates, benchmarked to the 2020 Census. Population projections are based on DOF Report P-2A and projections for San Joaquin County, applied to the City of Manteca's 2025 population.

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 regulation. The information was derived from the US Census Bureau’s profile of Manteca for 2020–2024.²

- The average number of people per household in the five-year period analyzed was 3.2.
- The median household income in Manteca was \$97,055, while 9.5 percent of all individuals and 3.3 percent of youth under the age of 18 lived in poverty.
- The average unemployment rate was 5.8 percent.

¹ State of California Department of Finance. May 2025. *E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2024 and 2025*. Accessed at <https://dof.ca.gov/forecasting/demographics/estimates-e1/> on February 27, 2026.

² United States Census Bureau. *American Community Survey, 2025: ACS 5-Year Estimates Data Profiles for Manteca City, California*. Accessed at <https://data.census.gov/table/ACSDP5Y2024.DP05?q=manteca> on March 2, 2026.



Chapter 3

Service Area Description

- The owner-occupied housing unit rate was 72.4 percent.
- The median gross rent was \$2,065 per month.
- The median age was 36.8 years.
- Of persons 25 years or older in Manteca, 85.7 percent had earned at least a high school diploma or equivalent and 21.7 percent had earned a bachelor's degree or higher.
- Of persons under 65 years of age, 8.5 percent had a disability and 4.8 percent did not have health insurance.
- 97.1 percent of households had one or more type of computer, and 93.5 percent had a broadband internet subscription.
- By race/ethnicity, 40.6 percent of people were White, 4.0 percent were Black, 0.9 percent were American Indian or Alaska Native, 15.9 percent were Asian, 0.9 percent were Hawaiian Native or Pacific Islander, 22.2 percent were two or more races, and 15.5 percent were some other races. Of the total City population, 41.2 percent were Hispanic or Latino.
- Approximately 21.8 percent of Manteca residents were foreign born, and 35.6 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 2024 GP,³ 2024 WMP,⁴ the City's 2022 Recirculated Draft Environmental Impact Report (EIR),⁵ and the 2024 Revised Addendum to The EIR for the 2024 GP Update (2024 GP EIR Addendum).⁶ The 2024 GP covers a 20-year planning horizon through 2043.

The City's 2024 GP describes land use updates for the entirety of City limits, areas within the City's Sphere of Influence (SOI), and areas outside of City limits and the SOI, collectively called the "Planning Area." It is important to note that the City will expand water service within the City's SOI and within the Planning Area as land is annexed into the City.

3.5.1 Current Land Uses

The City's current land use ratios within City limits are as follows: 43 percent residential, 25 percent agricultural, 11 percent public, 10 percent commercial, 7 percent industrial, and 4 percent parks and open space, per the City's 2022 Recirculated Draft EIR.

3.5.2 Projected Land Uses

The City's anticipated service area is projected to expand to 19,350 acres by 2045, as provided in the City's WMP. Based on the proposed land use from the 2024 GP EIR Addendum, the City's planned urban land

³ De Novo Planning Group. February 2024. *Manteca General Plan*.

⁴ HydroScience Engineers. February 2024. *City of Manteca Water Master Plan*.

⁵ De Novo Planning Group. November 2022. *Recirculated Draft Environmental Impact Report for the Manteca General Plan Update*.

⁶ De Novo Planning Group. February 2024. *Revised Addendum to the Environmental Impact Report for the Manteca General Plan Update*.



Chapter 3

Service Area Description

use ratios within the Planning Area are as follows: 54 percent residential, 10 percent public, 12 percent commercial, 17 percent industrial, and 7 percent parks and open space.

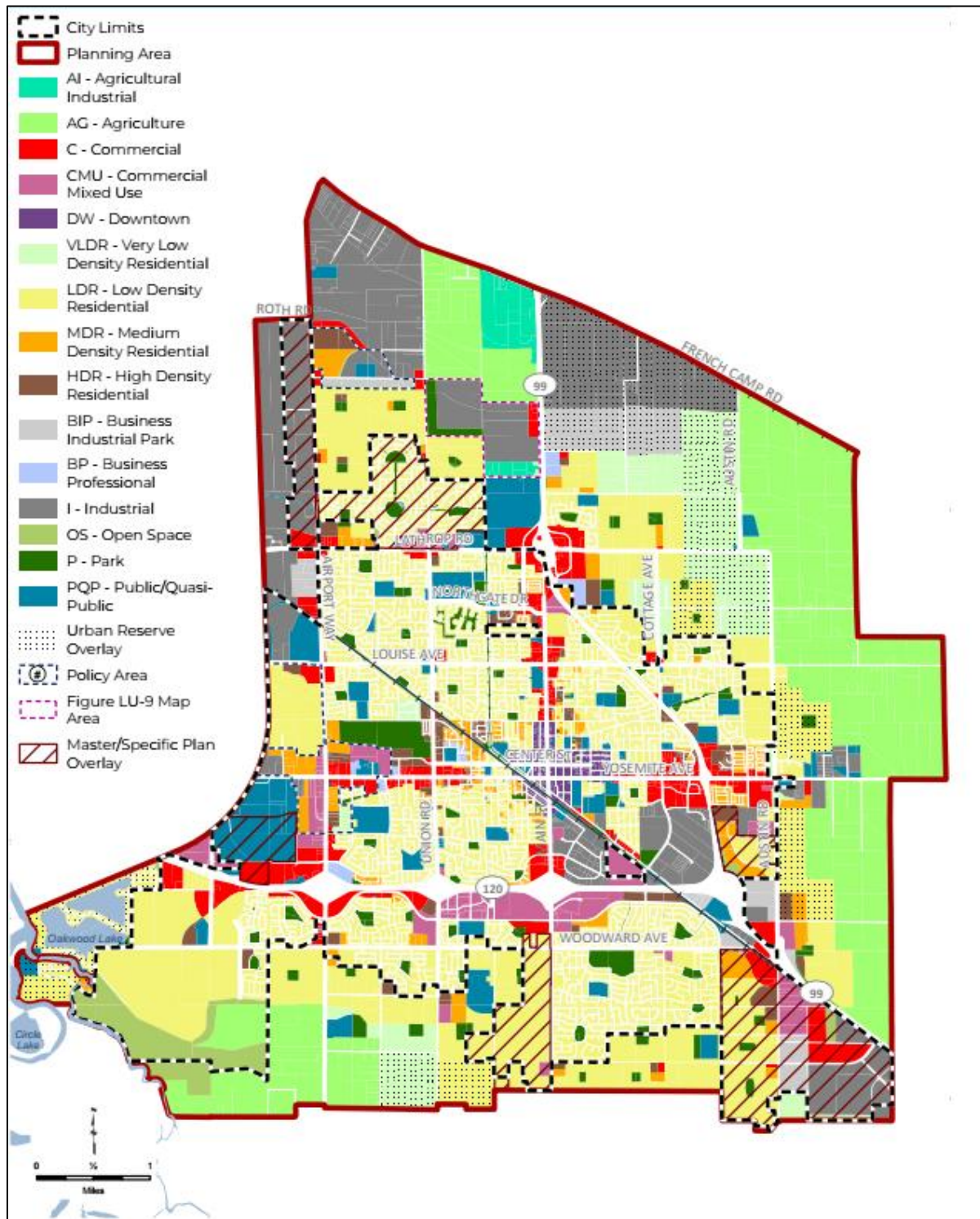
The expanded service area acreage and land use ratios do not include 4,004 acres of agricultural lands within the Planning Area which will not be irrigated by the City's water supplies. The City plans to redevelop most existing agricultural lands within City limits to different land uses. An additional 2,677 acres of land are designated as "Urban Reserve" which are areas of development within the Planning Area but outside of existing City limits. These areas are planned for development beyond the time horizon in the 2024 GP. None of these areas are anticipated to be developed within the time frame evaluated under this plan.

The adopted 2024 GP identifies five land use areas as "Policy Areas," which are strategic growth areas that either 1) have approved land use entitlements or 2) require a comprehensive approach to planning to achieve a broad goal, such as providing a high-quality transit corridor. Each Policy Area is outlined and numbered on Figure 3-3.

- Policy Area 1 is located south of Louise Avenue, west of Airport Way, and east of City limits. Anticipated development in Policy Area 1 is residential with neighborhood commercial and park uses.
- Policy Area 2 is located along West Yosemite Avenue and Airport Way. The goal of Policy Area 2 is to expand the existing Kaiser Permanente facility and to create a high-transit use corridor for improved connectivity. Planned developments in Policy Area 2 are transit-oriented development, medical offices, commercial use, recreational areas, and medium- to high-density residential development.
- Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area located along Highway 99. Policy Area 3 will be a planned residential community with parks, commercial uses, and low to high-density residential development.
- Policy Area 4 is the Lovelace Materials Recovery Facility and Transfer Station area located along Lovelace Road. The goal of Policy Area 4 is to provide a buffer to nearby planned residential uses from the more intensive uses and traffic associated with the facility.
- Policy Area 5 is the Yosemite Square Master Plan area located near the Highway 99 and Highway 120 interchange. Planned development in Policy Area 5 is a mix of low-, medium-, and high-density residential with an open space buffer to provide a transition from the freeway interchange.



Chapter 3
Service Area Description



Source: De Novo Planning Group. February 2024. Manteca General Plan. Figure LU-2: Land Use Map.

Figure 3-3. 2024 General Plan Land Use

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 City-owned and operated groundwater wells and water purchased from SSJID.

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 treats its wastewater to Title 22 disinfected tertiary recycled water standards suitable for unrestricted non-potable use. The City distributes recycled water for use within its water service area for agricultural irrigation, landscape irrigation, and process water at the City's Wastewater Quality Control Facility (WQCF).

Raw water is non-potable, untreated water that is used in its natural state or with minimal treatment. The City uses raw water from on-site wells at several local parks to meet approximately 2,252 AFY of irrigation demands. These wells are not part of the City's potable water system, and their use is excluded from this plan.¹

Potable and non-potable water demands are discussed below.

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. Each water use sector is listed and defined below.

- **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(d)).
- **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(h)).
- **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(i)).

¹ Woodard & Curran. January 2023. *City of Manteca Reclaimed Water Facilities Master Plan*. Table 6-1 Recommended Project Target Users.



Chapter 4
Water Use Characterization

- **Landscape:** Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/governmental sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.
- **Other:** 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.

The City does not have any current plans to use water for groundwater recharge, saline water intrusion barriers, agricultural irrigation, wetlands, or wildlife habitat.

4.2.1 Historical Potable Water Use

Past potable water demand by water use type for 2015 and 2020 is shown in Table 4-1. Water use is actual water use as reported in the City’s 2015 and 2020 UWMPs. The City was fully metered for the years shown in Table 4-1.

Water Use Sector	2015	2020
Single-Family	7,468	10,716
Multi-Family	964	970
Commercial ^(a)	1,109	1,540
Industrial	235	146
Landscape	603	802
Other	800	35
Losses	55	1,073
Total	11,234	15,282

(a) "Commercial" use includes institutional water use consistent with the City's annual water reporting.

4.2.2 Current Water Use

Water demand by sector for the Year 2025 is reported in Table 4-2. As shown, all water deliveries were treated to potable water standards. The City did not supply water to wholesale customers in 2025 and has no plans to do so in the future. The total potable water demand for 2025 was 15,145 AF, including 2,004 AF in system losses. Total non-potable water demand for 2025 was 1,508 AF. Overall, the City’s total water use in 2025 was 16,653 AF.



Chapter 4
Water Use Characterization

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

Use Type Drop down list May select each use multiple times These are the only use types that will be recognized by the WUdata online submittal tool	Additional Description (as needed)	2025 Actual Water Use	
		Potable or Non-Potable (OPTIONAL) Drop down list	Volume (AF)
Single Family		Potable	9,904
Multi-Family		Potable	967
Commercial		Potable	1,599
Industrial		Potable	129
Institutional/Governmental		Potable	158
Landscape		Potable	378
Commercial	Construction Water Use	Potable	6
Distribution System Water Loss		Potable	2,004
Landscape	Landscape irrigation (exc golf courses)	Non-Potable	21
Agricultural	Irrigation of fodder crops	Non-Potable	921
Institutional/Governmental	WQCF On-site Reuse	Non-Potable	556
Commercial	Construction Water Use	Non-Potable	10
		Subtotal Potable	15,145
		Subtotal Non-Potable	1,508
		Total	16,653

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 water use projections from the City’s 2024 WMP, which includes buildout water use projections to 2045. Demand projections for 2050 are assumed to be the same as 2045, reflecting full buildout conditions.

For the purposes of this plan, water demands for 2030 through 2045 were linearly interpolated using actual 2025 demands and the buildout 2045 water demand projection from the 2024 WMP. Because the 2024 WMP assumes full buildout of the City’s 2024 GP, no growth is assumed between 2045 and 2050. Water demands for 2050 were assumed to be equivalent to 2045 demands. The total 2050 projected potable water demand is 28,814 AF.

The distribution of water use between different sectors is assumed to remain similar to 2025 conditions. Projections for individual water use sectors were based on the proportional distribution of actual water use in 2025. Water loss is assumed to be 7 percent of the total potable water use, which is the City’s average water loss from 2020 to 2025.

Non-potable water demand projections are based on the City’s recycled water planning efforts, including the 2020 UWMP and the 2023 Reclaimed Water Facilities Master Plan (2023 RWFMP). As part of the 2023 RWFMP, the City evaluated the expansion of recycled water use for landscape irrigation of City parks, Manteca Park Golf Course, and open spaces, cleaning of sanitary sewer lines, pressure testing new sewer lines, and consolidating backfill in trenches. Although these uses were identified as potential opportunities to expand recycled water utilization and shift demand from potable water sources, they are not currently considered feasible due to funding constraints and are not included in the recycled water



Chapter 4
Water Use Characterization

demand projections in this plan. Therefore, recycled water demands shown in Table 4-3 reflect only committed uses. For UWMP planning purposes, recycled water demand projections were based on 2025 recycled water use with a minor increase in construction water use, reflecting the City’s planned growth. Potential recycled water uses may be reconsidered in future planning efforts if funding becomes available or project conditions change. Refer to Chapter 6 for a discussion of the City’s recycled water system and associated non-potable water demand projections.

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Chapter 4
Water Use Characterization

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

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 opt (AF)
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							
Single Family		Potable	14,101	15,895	17,918	20,197	20,197
Multi-Family		Potable	1,377	1,552	1,750	1,972	1,972
Commercial		Potable	2,277	2,566	2,893	3,261	3,261
Industrial		Potable	183	207	233	263	263
Institutional/Governmental		Potable	225	253	286	322	322
Landscape		Potable	538	607	683	770	770
Commercial	Construction Water Use	Potable	8	9	10	12	12
Distribution System Water Loss		Potable	1,408	1,588	1,789	2,017	2,017
Landscape	Landscape irrigation (excluding golf courses)	Non-Potable	21	21	21	21	21
Agricultural	Irrigation of fodder crops	Non-Potable	921	921	921	921	921
Institutional/Governmental	WQCF On-Site Reuse	Non-Potable	556	556	556	556	556
Commercial	Construction Water Use	Non-Potable	10	11	12	14	16
		Subtotal Potable	20,117	22,677	25,562	28,814	28,814
		Subtotal Non-Potable	1,508	1,509	1,510	1,512	1,514
		Total	21,625	24,186	27,072	30,326	30,328



Chapter 4
Water Use Characterization

4.2.4 Characteristic Five-Year Water Use

CWC §10635(b) requires urban suppliers to include a five-year drought risk assessment (DRA) in their UWMP. A key component of the DRA is estimating water demands for the next five years (2026 to 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 potable water demands for 2026 through 2029 were estimated as a linear interpolation between the actual 2025 consumption by use type, reported in Table 4-2, and the 2030 projected water use, reported in Table 4-3.

Table 4-4. Projected Five-Year Potable Water Use for Retail Customers, AF

Water Use Sector	2026	2027	2028	2029	2030
Single-Family	10,744	11,583	12,422	13,262	14,101
Multi-Family	1,049	1,131	1,213	1,295	1,377
Commercial	1,735	1,870	2,006	2,141	2,277
Industrial	140	151	161	172	183
Institutional/Governmental	171	185	198	212	225
Landscape	410	442	474	506	538
Other	6	7	7	8	8
Losses	1,885	1,766	1,646	1,527	1,408
Total	16,140	17,135	18,127	19,123	20,117

4.3 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 2024 WMP and 2025 Climate Action Plan (CAP) Update, 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 passive savings have not been included in the City’s water demand projections to be conservative.



Chapter 4
Water Use Characterization

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

<p>Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</p>	<p>No</p>
<p>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.</p>	
<p>Are Lower Income Residential Demands Included In Projections? (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</p>	<p>Yes</p>
<p>OPTIONAL If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found. (An example is included in Appendix K.)</p>	

4.4 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 is 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 2024 6th Cycle Housing Element report² indicates approximately 37 percent of the City’s households are Low Income (9.7 percent), Very-Low Income (11.2 percent), or Extremely-Low Income (16.3 percent). The City assumes that lower income households will continue to represent approximately 37 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 water demand from lower income households will be approximately 8,203 AFY of residential water use by 2050.

4.5 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 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.

² De Novo Planning Group. 2024. *City of Manteca 6th Cycle Housing Element*.



Chapter 4
Water Use Characterization

The City uses the American Water Works Association (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.

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

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		
CA3910005	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: Water Loss Audit Reports are available online at https://wuedata.water.ca.gov/awwa_plans		

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. The City’s water loss audit shows that the City’s real water loss is currently above the future water loss standard, and its apparent water loss is below its water loss standard.

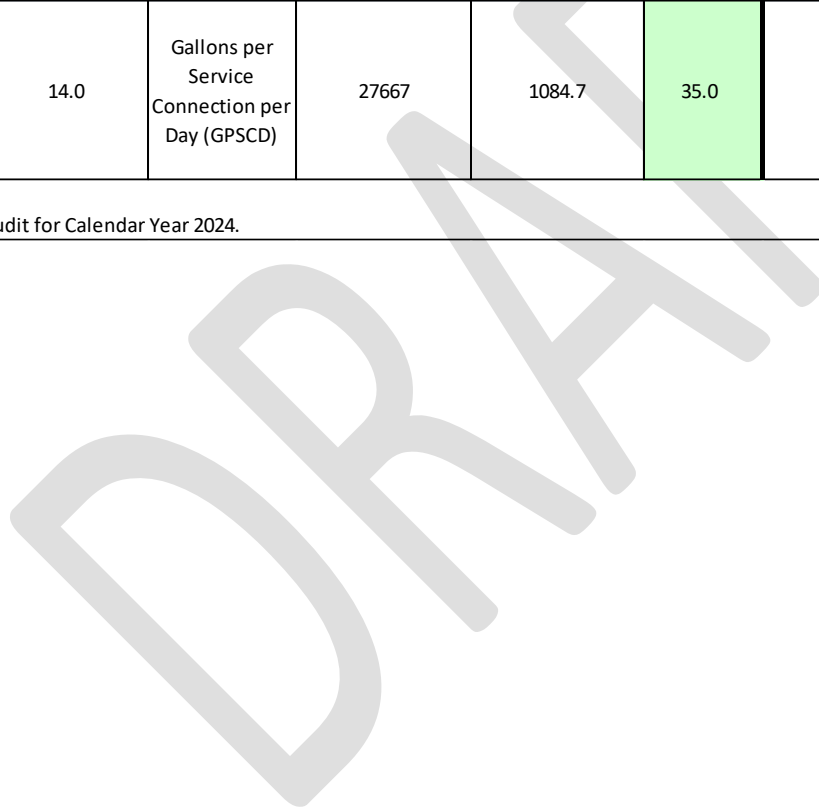
The City’s programs to assess and manage water loss are discussed further in Chapter 9.

Chapter 4
Water Use Characterization

Table 4-7. Progress Toward 2028 Water Loss Standard (DWR Table 4-6R)

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 ^(a)			State Water Board Standard		Most Recent AWWA Water Loss Audit ^(a)		
		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
CA3910005	Yes	14.0	Gallons per Service Connection per Day (GPSCD)	27667	1084.7	35.0	6.8	Gallons per Service Connection per Day (GPSCD)	27667	206.7	6.7

NOTES:
(a) Information is from AWWA Water Loss Audit for Calendar Year 2024.





Chapter 4 Water Use Characterization

4.6 CLIMATE CHANGE CONSIDERATIONS

Climate change has the potential to alter local climatic patterns and meteorology. A CAP Update was prepared for the City in 2025 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. The 2025 CAP Update identifies increasing temperatures and more frequent extreme heat events as key local climate stressors, which are expected to increase outdoor irrigation demands during the dry season.³ 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 plan 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 continued 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.

³ Raney Planning & Management, Inc. July 2025. *City of Manteca Climate Action Plan Update*.

CHAPTER 5

SB X7-7 Baselines, 2020 Targets, 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”). In order 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).

This chapter provides a review of the calculation of the City’s 2020 urban water use target and demonstrates that the City has achieved its 2020 target reduction.

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 2015 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 GPCD 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 1996 through 2005. 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 163 GPCD, which was below the confirmed 2020 water use target of 179 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.



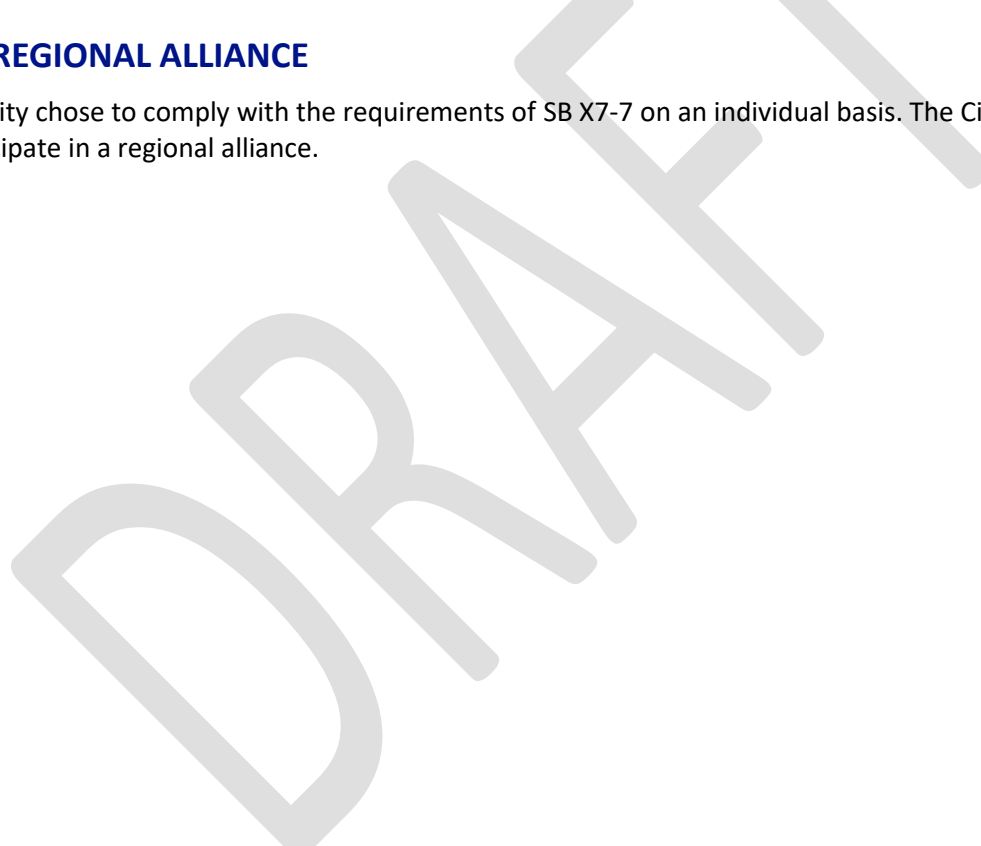
Chapter 5
SB X7-7 Baselines, 2020 Target, and 2025 Reporting

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

<input type="checkbox"/> 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	179	163	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.						

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 plan, and its water supplies consist of the following:

- Treated surface water from the SSJID conveyed from the Stanislaus River through the South County Water Supply Program (SCWSP)
- Groundwater pumped by the City from City-owned and operated wells
- Recycled water from the City's WQCF

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 plan, along with the basis of those estimates.

6.1 PURCHASED OR IMPORTED WATER

The City purchases treated potable water from SSJID as described in this section.

SSJID is a wholesale water supplier that provides treated potable water to the City and the Cities of Ripon, Escalon, Lathrop, and Tracy within San Joaquin County. The five cities signed water supply agreements (WSAs) with SSJID in the 1990s. In 2005, SSJID constructed the Nick C. DeGroot Water Treatment Plant (WTP), commissioned for the SCWSP. SSJID supplies raw water for the WTP from Woodward Reservoir. SSJID currently operates the Nick C. DeGroot WTP with a total Phase 1 capacity of 40,350 AFY. Phase 2 is anticipated to start production in 2040 due to the need for additional capacity when the City of Escalon is expected to connect to the WTP. The WTP capacity is planned to increase with the addition of a pump station and two tanks.

The City is currently allocated 11,500 AFY of water supply under Phase 1 and a total of 18,500 AFY under Phase 2. In December 2020, a new WSA was signed between the City and SSJID, extending the term of the WSA to December 2049. In 2050, operations of the WTP will revert to the cities (Manteca, Escalon, Lathrop, and Tracy) unless the WSA is renewed.

Historically, the City has not utilized its full allocation of surface water due to system capacity limitations of the SSJID water treatment plant and State and SSJID-imposed supply limits in response to drought conditions. Future water distribution system upgrades to improve system capacity are anticipated to allow utilization of the full allotment of treated surface water.

The City's actual and projected normal year water supplies from SSJID 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 are discussed in Chapter 7.



Chapter 6
Normal-Year Water Supply Characterization

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

Water Supplier	Additional Detail on Water Supply	Actual and Projected Water Supply Volume ^(a)					
		2025 (Actual)	2030	2035	2040	2045	2050
SSJID	SCWSP Treated Surface Water	11,500	11,500	11,500	18,500	18,500	18,500

(a) The City is allotted 11,500 AFY under Phase 1 and a total of 18,500 AFY under Phase 2.

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.

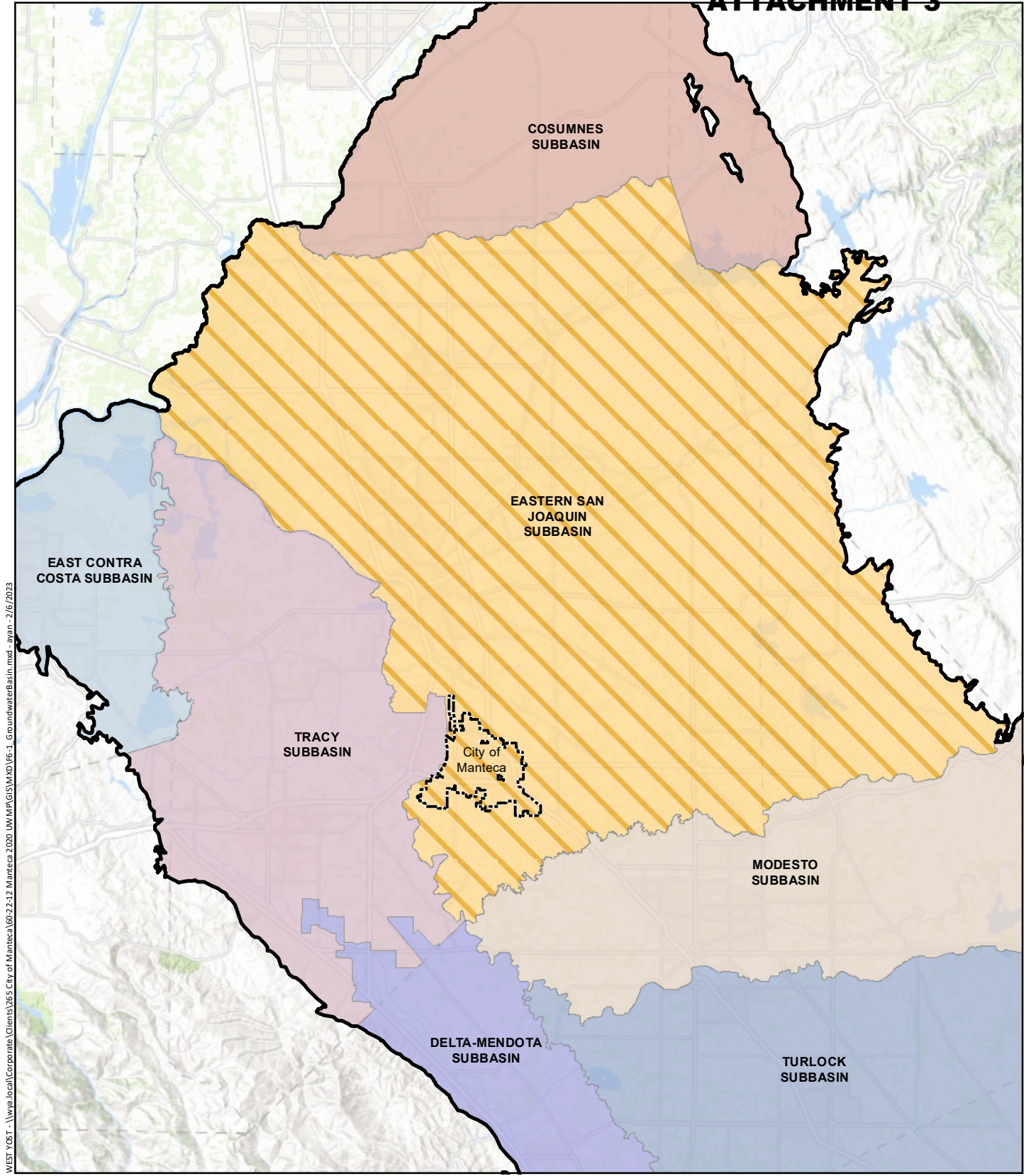
6.2 GROUNDWATER

As described in Chapter 3, the City owns and operates 16 active wells. The active wells have a combined maximum capacity of 25,302 gpm (40,812 AFY) and are used conjunctively with available surface water purchased from SSJID. The City also owns and operates 31 dedicated non-potable irrigation wells at several parks to reduce the demand for potable water. However, since the irrigation wells are not connected to the City’s potable water system, their use is excluded from this plan. The City has partnered with other users through the Eastern San Joaquin Groundwater Authority (ESJGWA) to manage the groundwater basin.








6.2.1 Groundwater Basin Management



The groundwater basin underlying the City is the San Joaquin Valley Basin, Eastern San Joaquin (ESJ) Subbasin (DWR Basin No. 5-22.01), as shown on Figure 6-1. The ESJ Subbasin is not adjudicated. The ESJ Subbasin is defined by the areal extent of unconsolidated to semi-consolidated sedimentary deposits that are bounded by the Mokelumne River on the north and northwest; San Joaquin River on the west; Stanislaus River on the south; and consolidated bedrock on the east.

In 2014, the California legislature enacted SGMA in response to continued overdraft of California’s groundwater resources. The ESJ Subbasin is one of twenty-one basins and subbasins identified by DWR as being in a state of critical overdraft and is classified by DWR to be a high-priority subbasin. SGMA requires preparation of a groundwater sustainability plan to address measures necessary to attain sustainable conditions in the Subbasin. Sustainability is generally defined as long-term reliability of the groundwater supply and the absence of undesirable results, frequently caused by over-pumping.



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- San Joaquin Valley Subbasin**
-  Eastern San Joaquin Subbasin
-  Cosumnes Subbasin
-  Delta-Mendota Subbasin
-  East Contra Costa Subbasin
-  Modesto Subbasin
-  Tracy Subbasin
-  Turlock Subbasin

-  San Joaquin Valley Basin
-  City Limits

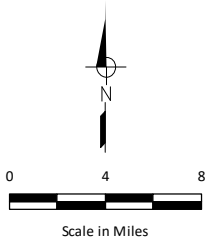


Figure 6-1
San Joaquin Valley
Groundwater Basin



Chapter 6

Normal-Year Water Supply Characterization

In response to SGMA, the City of Manteca partnered with other groundwater users to form the ESJGWA in 2017. The ESJGWA includes the City and fifteen other groundwater sustainability agencies and groundwater users within the Subbasin. The ESJ Groundwater Subbasin GSP was originally completed in 2020, following which it was revised in 2022 in response to a DWR determination of incompleteness. The revised GSP was approved by DWR in July 2023 and was amended by ESJGWA in November 2024 to address DWR-recommended corrective actions. The GSP identifies actions to achieve groundwater sustainability in the Subbasin by 2040.¹

In general, the GSP shows that groundwater elevations have declined since the 1950s. Water quality issues were detected on the west side of the Subbasin, some of which are from wells underlying the City. The GSP determined an estimated pumping offset and/or recharge need of 95,000 AFY Subbasin-wide to achieve sustainability. This amount may be reevaluated after additional data are collected and analyzed.

To address this need and to reduce overdraft conditions, the GSP identifies multiple projects and management actions for potential development that either replace groundwater use or supplement groundwater supplies to meet current and future water demands. These potential projects include direct and in-lieu groundwater recharge, intra-basin water transfers, demand conservation, water recycling, and stormwater reuse to be undertaken by the member agencies. The GSP identifies two City-specific projects to reduce groundwater demand:

- **Advanced Metering Infrastructure (AMI):** Implementation of AMI within the City is anticipated to reduce groundwater demand within the City through conservation. The City's AMI Project is currently underway and anticipated to be completed by 2030, dependent on funding availability.
- **Recycled Water to Manteca Golf Course:** This project would reduce groundwater pumping for golf course irrigation. A 12-inch diameter pipeline has already been installed to supply recycled water to the golf course, and the City is pursuing funding for recycled water infrastructure that could be implemented to serve the golf course in the future, if needed to support GSP objectives.

A previously identified "Recycled Water Transfer to Agriculture" project was removed in 2024 after the City determined that sufficient recycled water demand exists within City limits.

The City also manages its groundwater demands by implementing demand management measures outlined in Chapter 9 of this plan. The demand management measures include water waste prevention ordinance, metering, conservation pricing, public education and outreach, programs to assess and manage distribution system real loss, water conservation program coordination and staffing support, water survey programs for residential customers, residential plumbing retrofits, and landscape conservation programs and incentives.

From 2020 to 2040, ESJGWA members, including the City, are required to monitor groundwater conditions and report their progress on implementing project and studies. Evaluations are conducted every five

¹ Eastern San Joaquin Groundwater Authority. November 2024. *Eastern San Joaquin Groundwater Subbasin 2024 Groundwater Sustainability Plan Amendment*. Accessed at <https://www.esjgroundwater.org/Resource-Information/GSP> on March 18, 2026.



Chapter 6

Normal-Year Water Supply Characterization

years, with the most recent evaluation completed in 2024.² The 2024 periodic evaluation found that the majority of the subbasin is making progress towards achieving its sustainability goals, with groundwater levels at 14 of the Subbasin's 21 monitoring wells meeting interim milestones. However, seven monitoring wells, including one in the City, show declining groundwater trends. One monitoring well in the City exceeded its minimum threshold for groundwater level in 2022, but the groundwater level has since recovered to above the minimum threshold. The Subbasin also experienced a loss of storage from 2019 through 2023. While progress is being made, continued implementation of projects and management actions will be necessary to meet long-term sustainability requirements.

Based on the GSP's estimated sustainable yield for the ESJ Subbasin and the City's existing and projected service area, the City's 2024 WMP developed projections of the City's sustainable groundwater yield. These projections also accounted for additional groundwater that is pumped within the City's service area by other major irrigation wells, including City-owned and SSJID-owned wells. If the City fully develops the area within its designated SOI by buildout (2045) of the 2024 GP Update, the estimated groundwater yield to support the City's municipal use is approximately 16,050 AFY.³

6.2.2 Groundwater Use – Past Five Years

Historically, the local groundwater basin provided all of the City's water supply. However, since 2005 with the construction of the Nick C. DeGroot WTP by SSJID and associated SSJID surface water deliveries, the City's reliance on groundwater has been significantly reduced.

The volume of groundwater pumped by the City over the past five years is summarized in Table 6-2. From 2021 through 2025, the City pumped an average of 6,394 AFY from the groundwater basin. Groundwater production ranged from a low of 5,656 AF in 2023 to a high of 6,822 AF in 2022. During this five-year period, groundwater represented approximately 44 percent of the City's total water supply, ranging from approximately 40 percent to 47 percent annually. This is consistent with the City's conjunctive use strategy of maintaining a balanced reliance on surface water and groundwater supplies. There were no limitations or challenges 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.

² Eastern San Joaquin Groundwater Authority. November 2024. Eastern San Joaquin Groundwater Subbasin 2025 Periodic Evaluation.

³ HydroScience. February 2024. *City of Manteca Water Master Plan*. Section 2.2.2.



Chapter 6
Normal-Year Water Supply Characterization

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

<input type="checkbox"/>	Check the box if the Supplier does not pump groundwater. Proceed to the next table.						
<input type="checkbox"/>	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	San Joaquin Valley Groundwater Basin - ESJ Subbasin	6,735	6,822	5,656	6,022	6,736
Total			6,735	6,822	5,656	6,022	6,736

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. As discussed in Section 6.2.1, the total projected groundwater supplies were developed as part of the City’s 2024 WMP. The City’s ability to access the sustainable yield of the groundwater basin is not constrained by existing well capacity; however, the City plans to construct additional wells as needed through 2045 to provide increased pumping capacity to meet peak hourly demands, described further in Section 6.8. These wells will improve the City’s ability to use its local groundwater supply but will not increase the projected available groundwater supply volume beyond the estimated sustainable yield.

Projected groundwater supplies in Table 6-3 will be used conjunctively with purchased surface water from SSJID from Table 6-1. 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

Groundwater Type	Location or Basin Name	Projected Water Supply Volume, AF ^(a)				
		2030	2035	2040	2045	2050 ^(b)
Alluvial Basin	San Joaquin Valley Groundwater Basin – ESJ Subbasin	11,111	12,757	14,402	16,050	16,050

(a) Refer to the City’s 2024 WMP, Section 2.2.2.
 (b) Projected groundwater supply for 2050 is assumed to be consistent to supply in 2045, consistent with the assumptions in Chapter 4 of this plan that full buildout of the City’s 2024 GP Update is reached by 2045.

6.3 SURFACE WATER

The City does not currently use or plan to use self-supplied surface water. However, the City purchases surface water from SSJID through SCWSP as discussed in Section 6.1.



Chapter 6
Normal-Year Water Supply Characterization

6.4 STORMWATER

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

6.5 WASTEWATER AND RECYCLED WATER

The City is responsible for the collection, treatment, and disposal of wastewater for the City as well as Raymus Village, Oakwood Lake Community Facility District, and a portion of the neighboring City of Lathrop. The City owns and operates the WQCF.

6.5.1 Recycled Water Coordination

As the City is both the water supplier and the wastewater collection and treatment agency, any changes in the use of recycled water as a water supply would be coordinated within the City. The City may also coordinate recycled water use with the City of Lathrop, as a contributor to a portion of the wastewater treated at the WQCF.

6.5.2 Wastewater Collection, Treatment, and Disposal

In this section, the City’s collection system, treatment, and disposal services are described.

6.5.2.1 Wastewater Collected Within Service Area

The City is served by a system of gravity sewers, lift stations, and force mains to collect wastewater. The collection system transports wastewater to the WQCF, located southwest of downtown Manteca.

A summary of the wastewater generated in the City’s wastewater service area is provided in Table 6-4. The volume of wastewater collected from the City of Lathrop, Raymus Village, and Oakwood Lake Community Facility District is included in the volume presented in Table 6-4.

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

<input type="checkbox"/>	Check the box if there is no wastewater collection system. Proceed to the next table.			
100%	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
100%	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (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 Manteca	Metered	9,314	City of Manteca WW Quality Control Facility, Place ID 239343	Yes
Total Wastewater Received from UWMP Service Area in 2025:		9,314		



Chapter 6

Normal-Year Water Supply Characterization

6.5.2.2 Wastewater Treatment and Discharge Within Service Area

The City owns and operates the WQCF, which treats wastewater from the City as well as Raymus Village, Oakwood Lake Community Facility District, and a portion of the City of Lathrop to Title 22 standards. Approximately 85 percent of the influent to the WQCF is from the City, and approximately 15 percent is from the other three minor sources. The WQCF includes an influent pump station and primary, secondary, and tertiary treatment facilities. The WQCF has a permitted treatment capacity of 9.87 MGD (11,000 AFY). The City is currently expanding the WQCF to maintain treatment capacity and meet increasingly stringent State permitting requirements.

In 2025, the WQCF collected and treated approximately 9,314 AF of wastewater with peak flows typically occurring in the late fall and early winter months. During the wet season (late fall to early spring), treated wastewater is primarily discharged to the San Joaquin River. This effluent is treated to the tertiary level in compliance with Title 22 surface water discharge standards. During the dry season (late spring to early fall), the WQCF produces secondary-treated recycled water to irrigate fodder crops on City-owned and leased agricultural lands surrounding the WQCF and for construction dust control. The WQCF also produces tertiary-treated recycled water for distribution within the City for non-potable uses as further discussed in Section 6.5.4.

Table 6-5 provides information on the wastewater treated and discharged within the City's water service area in 2025. The City's wastewater service area is larger than its water service area, as it includes a portion of the City of Lathrop's water service area. The volume shown in Table 6-5 includes wastewater effluent from both water service areas.

Chapter 6
Normal-Year Water Supply
Characterization

Table 6-5. Wastewater Treatment and Discharge Within Area in 2025 (DWR Table 6-3R)

<input type="checkbox"/> 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 <small>Drop down list</small>	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? <small>(OPTIONAL)</small> <small>Drop down list</small>	2025 Volume of Wastewater Received from UWMP Service Area <small>(As Reported in Submittal Table 6-2 R)</small> <small>(AF)^(a)</small>	Total 2025 Volume of Water Treated <small>(AF)^(a)</small>	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area <small>(enter data as applicable)</small>		Water Recycled Outside of UWMP Service Area <small>(enter data as applicable)</small>		Effluent Discharge that is not a Permitted Recycled Water Use <small>(enter data as applicable)</small>		Required Discharge for Instream Flow <small>(enter data as applicable)</small>		Delivered to Another Entity for Additional Treatment <small>(enter data as applicable)</small>		
				<small>Treatment Level</small> <small>Drop down list</small>	<small>Volume (AF)</small>	<small>Treatment Level</small> <small>Drop down list</small>	<small>Volume (AF)</small>	<small>Treatment Level</small> <small>Drop down list</small>	<small>Volume (AF)</small>	<small>Treatment Level</small> <small>Drop down list</small>	<small>Volume (AF)</small>	<small>Treatment Level</small> <small>Drop down list</small>	<small>Volume (AF)</small>	<small>Treatment Level</small> <small>Drop down list</small>
Add additional rows as needed														
City of Manteca WW Quality Control Facility, Place ID 239343	Yes	9314	9,314	Tertiary	587	Secondary, Disinfected - 23	927	Secondary, Disinfected - 23	7,800		0		0	
Total		9,314	9,314		587		927		7,800		0		0	
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. IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down. Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table. NOTES: (a) 2025 volume of wastewater volume includes wastewater treated outside the UWMP service area, as the volumes are not metered separately.														



Chapter 6

Normal-Year Water Supply Characterization

6.5.3 Recycled Water System Description

On January 24, 2023, the City adopted the 2023 RWFMP to establish a phased implementation plan for recycled water use from the WQCF over the next 20 to 25 years. Currently, the City's existing recycled water system consists of a 12-inch diameter recycled water pipeline that runs along Daniels Street from the Big League Dreams facility to Airport Way.⁴ This pipeline conveys recycled water from the WQCF to the Great Wolf Lodge. As detailed in Chapter 6 of the 2023 RWFMP, the City opted to proceed with the Alternative 2 recycled water expansion project which will expand the City's recycled water system to serve local demands within the City's GP Planning Area.⁵

As discussed in Section 6.5.2.2, treated effluent from the WQCF has primarily been discharged to the San Joaquin River, with some being used for fodder crop irrigation and construction dust control. The following section discusses the current and projected recycled water use within the City.

6.5.4 Potential, Current, and Projected Recycled Water Uses

Historically, the City has used recycled water to irrigate fodder crops on City-owned and leased lands during the dry season. Two recycled water fill stations for construction dust control were constructed in 2015. The two fill stations had a total recycled water use of 10 AF in 2025. This quantity varies significantly year-to-year based on the level of local construction activities. As the City experiences growth and development, an annual 2.5 percent increase of recycled water use for construction purposes is expected.

Starting in 2020, the WQCF shifted from raw groundwater and backup potable water to recycled water for process water use throughout the plant as well as for equipment wash-down. Also, in mid-2020, the Great Wolf Lodge began utilizing recycled water for landscape irrigation and has since operated as a consistent recycled water customer within the City's recycled water system.

As part of the 2023 RWFMP, the City evaluated the expansion of recycled water use for landscape irrigation of City parks, Manteca Park Golf Course, and open spaces, cleaning of sanitary sewer lines, pressure testing new sewer lines, and consolidating backfill in trenches. Although these uses were identified as potential opportunities to expand utilization of recycled water and reduce demand on potable water sources (SSJID surface water and potable groundwater wells) and non-potable sources (irrigation groundwater wells), they are not currently considered feasible due to funding constraints. As a result, these expansion uses are not included in the recycled water demand projections in this plan. The City continues to require new developments to install recycled water pipelines sufficient for connecting new parks to future recycled water distribution pipelines, which preserves the ability to implement these expansion opportunities. Recycled water uses may be reconsidered in future planning efforts if funding becomes available or project conditions change. Potential funding opportunities for the expansion of the recycled water system include grant and low-interest loan programs administered by various state and federal agencies, as discussed in the 2023 RWFMP.

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. Future recycled water use is assumed to be consistent with recycled water used in 2025, with the exception of construction use, which is expected to have slight increases as the City grows.

⁴ Woodard & Curran. January 2023. *City of Manteca Reclaimed Water Facilities Master Plan*. Section 3.4 Existing Recycled Water Facilities.

⁵ Woodard & Curran. January 2023. *City of Manteca Reclaimed Water Facilities Master Plan*. Chapter 6 Recommended Facilities Project Plan.

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

<input type="checkbox"/> 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) :			City of Manteca WW Quality Control Facility							
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :			City of Manteca							
Volume of Supplemental Water Added in 2025 (OPTIONAL) :			0							
Source of 2025 Supplemental Water (OPTIONAL) :			0							
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)
Landscape irrigation (exc golf courses)	Non-Potable		21	21	21	21	21	21		
Agricultural irrigation	Non-Potable	Irrigation of fodder crops	921	921	921	921	921	921		
Industrial use	Non-Potable	WQCF On-Site Reuse	556	556	556	556	556	556		
Commercial use	Non-Potable	Construction Water Use	10	10	11	12	14	16		
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			1,508	1,508	1,509	1,510	1,512	1,514	0	
Total			1,508	1,508	1,509	1,510	1,512	1,514	0	0
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: 2025 actual volumes reflect current GeoTracker data. Projected recycled water volumes for 2030–2050 are consistent with the 2020 UWMP and the adopted 2023 RWFMP.										



Chapter 6
Normal-Year Water Supply Characterization

Table 6-7 compares the 2020 UWMP recycled water use projections to 2025 actual recycled water use. Actual recycled water use in 2025 was greater than the quantities projected in the 2020 UWMP. Agricultural irrigation use exceeded projected levels, as recycled water deliveries for fodder crop irrigation continued beyond the levels assumed in the 2020 UWMP. Landscape irrigation use was lower than projected, reflecting the timing of recycled water distribution system expansion and customer conversions. Commercial construction water use was higher than projected, consistent with increased development activity within the City. Industrial use and golf course irrigation use remained generally consistent with projections. Overall, differences between projected and actual 2025 recycled water use are primarily attributable to updated assumptions regarding infrastructure implementation and development timing.

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

<input type="checkbox"/>	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)
Landscape irrigation (exc golf courses)	36	21
Agricultural irrigation	677	921
Industrial use	550	556
Commercial use	5	10
Golf course irrigation	0	0
Total	1,232	1,487

As established in the Manteca Municipal Code (MMC) Section 13.04.150, potable water use for construction is prohibited except on projects of less than twenty acres in total project acreage and physically located further than one mile from the WQCF recycled water fill station. For projects greater than 20 acres or within one mile of the WQCF, the contractor for the project may use the City’s recycled water fill station for their project. Under MMC Section 13.04.150, the City requires water truck operators to obtain a certification card from the public works department for recycled water handling by attending a mandatory workshop on recycled water use in order to receive recycled water. Currently, drivers who attend the workshop receive recycled water free of charge.

The City’s identified actions to expand recycled water use within its service area are summarized in Table 6-8. RWFMP Phase 2 improvements, which included construction of a pump station at the WQCF, rehabilitation of sanitary sewer force mains, installation of recycled water pipelines, and site-specific retrofits, have been completed and are reflected in the City’s existing recycled water system capacity. Accordingly, Phase 2 is not included as a future expansion action in Table 6-8.



Chapter 6
Normal-Year Water Supply Characterization

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

<input type="checkbox"/>	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
RWFMP Phase 1 ^(a)	Install booster chlorination system and complete retrofits at the WQCF	Funding Dependent	336
RWFMP Phase 3 ^(a)	Install recycled water pipelines to serve all additional existing customers, complete retrofits for existing customers, construct storage tank at WQCF	Funding Dependent	Varies
RWFMP Phase 4 ^(a)	Install recycled water pipelines to serve future customers, upsize WQCF pump station, construct additional storage tank at WQCF	Funding Dependent	Varies
Total (AF)			336
Unit Conversion to AF			336
NOTES: (a) RWFMP Phases 1-4 to expand the City's recycled water system are summarized from Table 6-5 of the City's RWFMP.			

6.6 DESALINATED WATER

Desalination is the process of removing dissolved minerals from brackish or saltwater to produce freshwater 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.

Although saline groundwater aquifers have been identified 600 feet below the City, the saline aquifers could cross-contaminate freshwater aquifers at higher elevations if utilized. Brine disposal requires either transportation to the ocean or deep well injection which are expensive options. Additionally, the City is not located in a coastal area, so seawater desalination is not applicable to the City and is not considered a technically or economically feasible opportunity to explore. Therefore, the City did not include or consider desalinated water in planning for its future supply sources.

6.7 WATER EXCHANGES AND TRANSFERS

In the WSAs signed between SSJID and the four participating cities, the cities are allowed to transfer a portion or all of their water allotment to another participating city without the need for approval by SSJID.

The City has not yet needed to utilize any water supply exchanges or transfers. Under normal conditions, the City does not anticipate obtaining additional water supplies through water exchanges and transfers to meet projected demands. However, once the City’s purchased water allocation through SSJID increases, exchanges and transfers may be considered support regional coordination and optimize available water supplies. Other water supply expansion options are discussed in Section 6.8.

6.8 FUTURE WATER PROJECTS

The City has several options for additional potable water supplies should the need arise. The primary near-term (within ten years) sources of additional supply include:

- **Groundwater:** Development of new groundwater wells and associated infrastructure, as identified in the City’s 2024 WMP, is underway, with one well recently completed and one



Chapter 6

Normal-Year Water Supply Characterization

additional well planned for completion by 2030. An additional four wells are planned through 2045 to increase pumping capacity, meet peak demands, and improve the City's ability to access available groundwater supplies. Implementation timing is aligned with projected demand growth. Additional groundwater pumping will remain consistent with the sustainable yield assumptions of the ESJ Subbasin GSP and the City's 2024 WMP projections.

- **Recycled water:** Completion of RWFMP Phase 1 by 2030 is expected to provide an increase of approximately 336 AFY of recycled water supply. Planned implementation of RWFMP Phases 3 (installation/retrofits of recycled water pipelines for existing customers) would result in additional increases in recycled water supply by 2035. Additional details on RWFMP Phases 1 and 3 are provided in Table 6-8.

Once the City is utilizing all of the near-term sources of additional water supply listed above, the following long-term additional water supply options are available:

- **Water distribution system upgrades:** Future water distribution system upgrades are anticipated to improve system capacity and allow utilization of the full allotment (11,500 AFY) of the Phase 1 allocation from SSJID.
- **Phase 2 expansion of the WTP:** Completion of Phase 2 (i.e., expansion of the Nick C. DeGroot WTP), will increase the capacity of the Nick C. DeGroot WTP and increase allotment from the SCWSP by 7,000 AFY (total 18,500 AFY), assumed to be available by 2040. However, the City's ability to fully utilize this additional supply is currently limited by transmission and distribution system constraints.⁶ The City has identified phased water system improvements in the 2024 WMP to address these constraints, which are expected to improve conveyance capacity and allow for increased utilization of available surface water supplies. For the purposes of this plan, identified improvement projects are assumed to be completed by 2040 to allow full use of Phase 2 capacity by 2040.
- **RWFMP Phase 4:** Completion of RWFMP Phase 4 (i.e., additional WQCF upgrades and installation of recycled water pipelines for future customers), and thus the completion of all RWFMP phases, will provide additional recycled water supply up to a systemwide total of approximately 11,000 AFY, assumed available by 2045. Additional detail on RWFMP Phase 4 is found in Table 6-8.
- **Additional untreated surface water:** Most of the lands that will be developed and annexed by the City currently rely on groundwater or raw water through SSJID for irrigation purposes. With each annexation, the City's volume of allowable groundwater pumping within the sustainable yield will increase relative to the area annexed, as described in Section 6.2.1.
- **Additional treated surface water:** Prior to the WSA renewal with SSJID due in 2050, the City has the option to renegotiate the terms and obtain additional water supply from the SCWSP.

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

⁶ HydroScience. February 2024. *City of Manteca Water Master Plan*. Sections 3.1 and 5.1.

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

<input type="checkbox"/>	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.						
<input checked="" type="checkbox"/>	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.						
Page 6-15	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					
Groundwater Well Expansion	No		Assumes completion of two new wells including Well 30 to increase pumping capacity. ^(a)	Potable	2026-2030	All Year Types	0
Groundwater Well Expansion	No		Assumes completion of four new wells to increase pumping capacity. ^(a)	Potable	2030-2045	All Year Types	0
Nick C. DeGroot WTP Phase 2	Yes	SSJID and Cities of Tracy, Lathrop, and Escalon	Assumes 2040 completion of Phase 2 WTP expansion	Potable	2040	All Year Types	7,000
RWFMP Phase 1-4	Yes	City of Lathrop	Assumes completion of RWFMP Phase 1-4 to expand the City's recycled water system and maximize recycled water use within the City's service area. ^(b)	Non-Potable	Funding Dependent	All Year Types	9,492
<p>NOTES: (a) Additional wells will increase the City's ability to pump groundwater to meet peak demands, but will not increase the City's available groundwater supply. The City's existing wells have sufficient capacity to access the City's full sustainable yield.</p> <p>(b) Expected increase in recycled water supply for use within the City's service area is equivalent to the available recycled water supply in 2040 (11,000 AFY) minus the actual 2025 recycled water use volume.</p>							



Chapter 6
Normal-Year Water Supply Characterization

6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

As discussed in Section 6.2.2, the commissioning of the WTP by SSJID and the SCWSP in 2005 reduced the City’s reliance on groundwater and brought the pumping rates within City limits within the sustainable yield, greatly increasing the water supply reliability for the City by diversifying its supply portfolio.

In 2015, the City began to utilize recycled water from the WQCF for construction purposes, shifting use away from potable water. In 2020, the City also began utilizing recycled water for landscape irrigation and internal use at the WQCF. Shifts to recycled water utilization have provided further diversification and increased reliability of the City’s water supply sources and offset potable water demand, helping reduce the amount of surface water purchased from SSJID and/or the amount of groundwater pumped. The City anticipates producing recycled water supply equivalent to recycled water demands.

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 6-8R)

Water Supply	Additional Description (as needed)	2025		
		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		Potable	8,409	11,500
Groundwater (not desalinated)		Potable	6,736	10,737
Recycled Water	Secondary Treated	Non-Potable	921	11,000
Recycled Water	Tertiary Treated	Non-Potable	587	(a)
		Subtotal Potable	15,145	22,237
		Subtotal Non-Potable	1,508	11,000
		Total	16,653	33,237
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: (a) Total entitlement for recycled water is a single value for both secondary treated and tertiary treated water.				

Chapter 6
Normal-Year Water Supply
Characterization

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

Water Supply 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	Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
			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	SSJID ^(a)	Potable	11,500	11,500	11,500	11,500	18,500	18,500	18,500	18,500	18,500	18,500
Groundwater (not desalinated)	ESJ Subbasin ^(b)	Potable	11,111	11,111	12,757	12,757	14,402	14,402	16,050	16,050	16,050	16,050
Recycled Water	Tertiary Treated ^(c)	Non-Potable	1,508	11,000	1,509	11,000	1,510	11,000	1,512	11,000	1,514	11,000
Subtotal Potable			22,611	22,611	24,257	24,257	32,902	32,902	34,550	34,550	34,550	34,550
Subtotal Non-Potable			1,508	11,000	1,509	11,000	1,510	11,000	1,512	11,000	1,514	11,000
Total			24,119	33,611	25,766	35,257	34,412	43,902	36,062	45,550	36,064	45,550

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:

- (a) Purchased water reasonably available volume is based on the City's Water Supply Agreement with SSJID. Phase 1 allocation (11,500 AFY) is assumed available through 2035, with Phase 2 expansion (total 18,500 AFY) assumed available by 2040 consistent with current planning assumptions.
- (b) Projected groundwater supply for 2050 is assumed to be consistent to supply in 2045, consistent with the assumptions in Chapter 4 of this plan.
- (c) Reasonably available volume for recycled water is assumed to be equivalent to projected recycled water demands within the City's water service area (DWR Table 6-4). The total safe yield of recycled water is assumed to be equivalent to the available recycled water supply capacity of the WQCF (11,000 AFY) as identified in the City's 2023 RWFMP.



Chapter 6

Normal-Year Water Supply Characterization

6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

Climate change introduces uncertainty to future water supply availability and reliability in the San Joaquin Valley. Projected regional impacts include rising temperatures, reduced snowpack, more variable precipitation patterns, and increased frequency and severity of drought.⁷ These conditions may reduce the reliability of surface water supplies and shift runoff timing earlier in the year, potentially affecting water availability during peak summer demand periods.

As discussed in Section 4.6, the City adopted a 2025 CAP which identifies increasing temperatures and more frequent extreme heat events as key local climate stressors, which are expected to increase outdoor irrigation demands.⁸ The 2025 CAP also indicates that changes in precipitation could impact the availability of the City's potable water surface, as longer and more intense drought periods could reduce surface water availability and increase reliance on groundwater. Increased groundwater pumping during extended dry periods may contribute to additional strain on groundwater within the ESJ Subbasin. Changes in precipitation with an increased proportion anticipated to fall as rain, rather than snow, may also result in reduced or irregular groundwater recharge. To address these potential impacts to water supply reliability, the City will continue to maintain a diversified water supply portfolio that includes surface water, groundwater, and recycled water resources.

The quantitative evaluation of supply availability under normal, single dry year, and multiple dry year conditions, including consideration of more frequent and severe drought, is presented in Chapter 7. The supply projections presented in this chapter assume normal year conditions.

6.11 ENERGY INTENSITY

In accordance with CWC §10631.2(a), the energy intensity to provide water service to the City's water customers over a one-year period is presented in this section to the extent that the information is available. The amount of energy to pump, treat, and distribute the City's water supply within the system it owns and operates is included. For the purposes of the UWMP required energy intensity reporting, water suppliers are only expected to report the energy use associated with water management processes occurring within their operational control; thus, any energy use embedded in the extraction, treatment, storage, and distribution of treated surface water supplied to the City by SSJID through the SCWSP is not included in this analysis.

Water energy intensity is the total amount of energy in kilowatt hour (kWh), calculated on a whole-system basis, expended on a per million gallon basis, to deliver water from the City's sources to its water customers. 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 because energy consumption is often a large portion of the cost of delivering water
- Calculating energy savings and greenhouse gas emissions reductions associated with water conservation programs

⁷ State of California. January 2022. San Joaquin Valley Report for California's Fourth Climate Change Assessment.

⁸ Raney Planning & Management, Inc. July 2025. *City of Manteca Climate Action Plan Update*.



Chapter 6
Normal-Year Water Supply Characterization

- Potential opportunities for receiving energy efficiency funding for water conservation programs
- Informing climate change mitigation strategies
- Benchmarking energy use at each water acquisition and delivery step and the ability to compare energy use among similar agencies

Annual energy use quantities were obtained from monthly Pacific Gas and Electric billing data for the following assets:

- Groundwater well pumps for all active City wells, including both pumping and treatment at each wellhead
- Atherton Tank booster pumps (four 125-horsepower pumps and one 75-horsepower pump)
- Central Area Treatment Facility, including both pumping and treatment

In Table 6-12, the energy intensity of the City’s water service for each of the above-mentioned assets is calculated as an annual utility total for 2025. The total energy intensity for the City’s water service area is 528 kWh/AF (1,621 kWh/MG). The City does not currently utilize any non-consequential hydropower. Energy use from any temporary, emergency power provided through backup generators at the City’s wells is not included and is expected to be minimal compared to the total annual energy use.

Table 6-12. Energy Intensity – 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		
		Sum of All Water Management Processes	Non-Consequential Hydropower	
Start Date of Reporting Period	1/2/2025	Total Utility See DWR NOTES	Hydropower	Net Utility
End Date of Reporting Period	12/31/2025			
Is upstream embedded energy in the values reported?	No			
Units of Measure for Water	AF			
Volume of Water Entering Process		6,736	-	6,736
Energy Consumed (kWh)		3,558,494	-	3,558,494
Energy Intensity (kWh/vol. converted to MG)		1,621	-	1,621

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 for this table.

Quantity of Self-Generated Renewable Energy
 [] kWh

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

Data Quality Narrative:
 Monthly electrical energy data was provided for groundwater wells and storage tank pump stations.

Narrative:
 The energy data provided summarizes the monthly energy consumption for operating the City's groundwater wells and storage tanks. Energy use for water purchased from SSJID is not under the City's operational control, and therefore is not included in this table. Volume for purchased water from SSJID is also not included. Recycled water energy use is in Table O-2.



Chapter 6
Normal-Year Water Supply Characterization

As discussed in Section 6.5.2, the City provides wastewater collection, treatment, and disposal services to customers within its limits as well as Raymus Village, Oakwood Lake Community Facility District, and a portion of the City of Lathrop. The City owns and operates the wastewater collection, treatment, and disposal system. The energy intensity associated with the City’s wastewater services for 2025 is provided in Table 6-13. The energy intensity associated with the collection and conveyance is 40 kWh/AF (122.9 kWh/MG), and the energy intensity associated with the wastewater treatment process is 1,130 kWh/AF (3,466.6 kWh/MG).

Table 6-13. Energy Intensity – Wastewater & Recycled Water (DWR Table O-2)

Start Date of Reporting Period	1/2/2025	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control			
End Date of Reporting Period	12/31/2025	Water Management Process			
Is upstream embedded energy in the values reported?	No	Collection / Conveyance	Treatment	Discharge / Distribution	Total
Units of Measure for Water	AF				
Volume of Wastewater Entering Process (volume units selected above)		9,314	9,314	7,800	26,428
Wastewater Energy Consumed (kWh)		372,900	10,520,943	0	10,893,843
Wastewater Energy Intensity (kWh/volume converted to MG)		122.9	3,466.6	0.0	1,265.0
Volume of Recycled Water Entering Process (volume units selected above)		0	1,514	1,514	3028
Recycled Water Energy Consumed (kWh)		0	0	0	0
Recycled Water Energy Intensity (kWh/volume converted to MG)		0.0	0.0	0.0	0.0

Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations

0 kWh

Data Quality (drop down)
 Metered Data

Data Quality Narrative:
 Monthly electrical data provided for the WQCF and wastewater lift stations owned by the City.

Narrative:
 The energy data provided summarizes the monthly energy consumption for operating the City's WQCF and wastewater lift stations. The energy use for the treatment and distribution of recycled water is not metered separately; therefore, recycled water energy consumed is shown as zero and is included in the total wastewater energy consumed. The volume of recycled water shown does not include internal reuse at the WQCF.

CHAPTER 7

Water Service Reliability and Drought Risk Assessment

This chapter discusses the City's water supply reliability under varying conditions through 2050 under normal, single dry, and five consecutive dry year conditions. Projected water supplies are compared to projected water demands to assess reliability. 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 WATER SERVICE RELIABILITY ASSESSMENT

The City's water supply reliability reflects its ability to meet the needs of its water customers with its water supply under varying conditions. Details from Chapter 4, which describes the City's water use, and Chapter 6, which describes the City's water supply, are incorporated in this chapter to conduct the assessment. Findings from this assessment influence the City's water management decisions.

7.1.1 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 SSJID
- Groundwater pumped by the City from the ESJ Subbasin
- Recycled water from the City's WQCF

This section presents the constraints on SSJID's water supply, the City's groundwater supply, and the City's recycled water supply.

7.1.1.1 Purchased Water from SSJID

The City purchases treated surface water from SSJID. This section discusses the constraints affecting the reliability of SSJID's water supply and SSJID's strategies for managing associated risks, based on information provided by SSJID during coordination for preparation of the 2025 UWMP.¹

7.1.1.1.1 Stanislaus River Water Supply Constraints

SSJID's water supply for the SCWSP is obtained exclusively from the Stanislaus River. This supply is based on SSJID's senior, pre-1914 appropriative water rights to the Stanislaus River, coupled with an agreement with the United States Bureau of Reclamation (USBR) to store water in the New Melones Reservoir. The reliability of the SCWSP water is influenced by variations in annual weather patterns which affect the volume of the Sierra snowpack and the resulting runoff in the spring and summer months. Furthermore, supply reliability is complicated by regulatory conditions, as described below.

7.1.1.1.2 Impacts of Bay-Delta Plan Amendment

In December 2018, the State Water Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) which, if and when implemented, may have an impact on the Stanislaus River. The State Water Board 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,

¹ EKI Environment & Water Inc. June 2021. *2020 Urban Water Management Plan for South San Joaquin Irrigation District*. Section 7.1.1 Service Reliability – Constraints on Water Sources.



Chapter 7

Water Service Reliability and Drought Risk Assessment

Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of between 30 to 50 percent of the unimpaired flow on the three tributaries from February through June in every year type.

If the Bay-Delta Plan Amendment is implemented as adopted, certain modeling reflects there will be significant impacts in some years to the ability of the Bureau of Reclamation to meet its obligations under the 1988 Stipulation and Agreement to provide formula water to both Oakdale Irrigation District (OID) and SSJID in dry and critically dry years when inflow into New Melones is below 600,000 AF. This could reduce the minimum projected supply amount of 225,000 AFY as planned for by SSJID in its 2025 UWMP. The State Water Board has stated that it intended to implement the Bay-Delta Plan Amendment on the Stanislaus River by the year 2022, assuming all required approvals are obtained by that time; however, implementation of the Bay-Delta Plan Amendment remains uncertain for multiple reasons.

Over a dozen lawsuits were filed in both state and federal courts, including challenges by OID and SSJID, challenging the State Water Board's adoption of the Bay-Delta Plan Amendment. Judgments were issued in favor of the SWRCB in each of those lawsuits, but multiple parties appealed those judgments and the matter remains unresolved in the courts. Secondly, the Bay-Delta Plan Amendment is not self-implementing and the Board must formally allocate responsibility for the flow requirements to water right holders. Such an allocation of responsibility must consider the senior water rights of both OID and SSJID who jointly hold adjudicated pre-1914 rights and other senior appropriative rights.

Many stakeholders throughout California, including the State and Federal Government, have opted to explore alternatives to the Bay-Delta Plan, such as a voluntary agreement that would provide reasonable protection to fish and wildlife beneficial uses while balancing the needs of all water users. Both OID and SSJID have participated in voluntary agreement negotiations. Based on these uncertainties, SSJID has opted to make no near-term planning assumptions related to the implementation of the Bay-Delta Plan Amendment for the purposes of its 2025 UWMP. Should conditions change, SSJID will revise and re-adopt a UWMP to reflect changes to its impacted water supply.

7.1.1.1.3 Water Quality Impacts

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

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

SSJID routinely monitors its raw and treated water. The Stanislaus River water generally has high quality and low total dissolved solids (TDS) concentrations. Reservoir storage on the Stanislaus River also helps to reduce suspended solids. However, during flood events and times of elevated flows, TDS and



Chapter 7

Water Service Reliability and Drought Risk Assessment

suspended solid levels can increase. The Nick C. DeGroot WTP provides several levels of treatment for the raw water supply. The resulting treated water meets all state and federal water quality regulations.

A sanitary survey for the upper portion of the Stanislaus River watershed was completed in 2021.² The purpose of the sanitary survey is to identify potential sources of contamination and identify remedial measures. The potential contaminant sources that present a medium risk to water quality in the Stanislaus River watershed include livestock grazing, irrigated agriculture and pesticide use, mining, recreation, and on-site wastewater treatment systems. Wildfire and wildlife present a high potential risk to water quality. Source control measures for these problems and monitoring programs have been ongoing to help preserve good water quality. These programs have been successful and are expected to maintain the existing quality of the Stanislaus River with continued implementation. If the quality begins to degrade, the watershed management program will be reevaluated and/or SSJID will evaluate whether modifications to water treatment processes are necessary.

7.1.1.1.4 Climate Change Factors

As discussed in Chapter 6, projected regional climate change impacts include reduced snowpack, earlier runoff, greater hydrologic variability, and more frequent and severe drought. The reliability of SSJID's supply can potentially be impacted by these conditions, including reduced runoff and water quality issues due to climate change.³

According to California's Climate Adaptation Strategy, also referred to as "Safeguarding California Plan: 2018 Update," climate change is likely to significantly diminish California's future water supply. As a result, the State must change its water management, as climate change will create greater competition for limited water supplies. These water management concerns will impact SSJID, the SCWSP agencies, and other neighboring water management agencies. As discussed in SSJID's 2020 Agricultural Water Management Plan, climate change is projected to result in a shift in runoff toward the winter period and reduction in total runoff. While the timing of runoff will not affect SSJID's annual allotment, which is based on the total annual inflows to New Melones Reservoir under the 1988 Agreement, reduced total runoff has the potential to impact SSJID's supply. Additionally, climate change can lead to increased erosion and warmer water, which will pose additional challenges in maintaining water quality. SSJID is committed to mitigating climate change impacts through an adaptive management approach in cooperation with the stakeholders.

7.1.1.2 Groundwater

Chapter 6 of this plan details the issues affecting the City's use of the ESJ Subbasin, specifically water quality management and prevention of overdraft. The ESJ Subbasin is identified by DWR as being in a state of critical overdraft and is a high-priority subbasin. Since the 1950s, the ESJ Subbasin has experienced declining groundwater elevations. Some of the City's wells on the west side of the Subbasin have exhibited water quality challenges. The City, along with other members of the ESJGWA, is implementing projects and management actions identified in the ESJ Subbasin GSP.

The City's implementation of the recycled water project as discussed in Chapter 6 and the AMI Project and demand management measures discussed in Chapter 9 will assist the City in managing and reducing

² Water Quality and Treatment Solutions Inc. June 2021. *Stanislaus River 2021 Watershed Sanitary Survey*.

³ SSJID and EKI. June 2021. *2020 Urban Water Management Plan for South San Joaquin Irrigation District*.



Chapter 7

Water Service Reliability and Drought Risk Assessment

groundwater demands. ESJGWA members are required to report on GSP implementation progress at least every five years through 2040.

The GSP estimates the sustainable yield of the ESJ Subbasin at approximately 0.94 AFY per acre. As discussed in Section 6.2.1, the City's projected groundwater supplies under normal year conditions are based on sustainable yield assumptions incorporated into the City's 2024 WMP and increase over time with planned service area growth, reaching approximately 16,050 AFY at buildout conditions. Historically, the City has operated within sustainable yield limits and has not experienced physical limitations in obtaining sufficient groundwater supply. Accordingly, groundwater is considered a reliable component of the City's water supply portfolio under normal, single dry, and multiple dry year conditions, subject to long-term sustainability requirements under SGMA.

The City plans to continue using groundwater in conjunction with purchased surface water from SSJID. Reductions in surface water deliveries during dry years will be supplemented by groundwater pumping within sustainable yield constraints.

7.1.1.3 Recycled Water

As discussed in Section 6.5, the City produces recycled water at the WQCF fully compliant with Title 22 disinfected tertiary recycled water requirements. The City's tertiary treated water meets all water quality requirements listed in the City's National Pollutant Discharge Elimination System (NPDES) permit and although these water quality limits are not legally applicable to recycled water, this implies that the recycled water is safe for irrigation use.⁴

Salt and nutrient content is a water quality concern for using recycled water for irrigation and the suitable level of salt and nutrient content depends on the salt sensitivity of the plants being irrigated. Described in the City's 2023 RWFMP, the City's recycled water meets the required salt and nutrient concentration for irrigating all landscape plants and agricultural crops within the City, except for the most sensitive agricultural crops, without the need for blending. No crop yield reduction is expected for most crop types with proper irrigation practices. Additional information about the City's recycled water salinity and proper irrigation practices the City can implement to reduce salt content can be found in Section 3.3.1 of the City's 2023 RWFMP.

Since the City's recycled water supply is appropriate for irrigation use, the City does not expect recycled water quality issues to impact its ability to reliably deliver recycled water to its customers during and after the expansion of their recycled water program, discussed in Section 6.3.4.

7.1.2 Year Type Characterization

Water supply reliability is assessed based on the characteristics of the City's water supplies during various water year types which are provided in this section. CWC §10635(a) requires that the City's water service reliability be assessed based on the following three water year types:

1. **Normal Year:** A single year or averaged range of years in the historical sequence that most closely represents the average water supply available to the City.
2. **Single Dry Year:** The year that represents the lowest water supply available to the City.

⁴ Woodard & Curran. January 2023. *City of Manteca Reclaimed Water Facilities Master Plan*.



Chapter 7

Water Service Reliability and Drought Risk Assessment

- 3. **Five-Consecutive-Year Drought:** The period that represents the lowest average water supply availability to the City for a consecutive multiple year period (five years or more).

SSJID’s water supply reliability is used to represent the City’s available surface water supply during the above hydrologic conditions. The projected yield of SSJID’s water source under these three scenarios is summarized below along with the projected yield of the City’s groundwater and recycled water.

DWR Table 7-1 is not applicable to the City and is included for completeness. The City’s base year information and water supply availability are summarized in Table 7-2 and Table 7-3, respectively.

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

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	
		<input checked="" type="checkbox"/>	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: See Table 7-3 within Chapter 7.
		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			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			

Years that the City identifies as the normal year, single driest year, and driest multi-year period are shown in Table 7-2. The base years used in the City’s 2020 UWMP are assumed to be the same for this plan, confirmed through coordination with SSJID.^{5,6}

⁵ West Yost. July 2023. *City of Manteca 2020 Urban Water Management Plan*. Table 7-2.

⁶ EKI Environment & Water Inc. June 2021. *2020 Urban Water Management Plan for South San Joaquin Irrigation District*. Section 7.1.2 Service Reliability - Year Type Characterization.



Chapter 7
Water Service Reliability and Drought Risk Assessment

Table 7-2. Basis of Water Year Data	
Water Year Type	Base Year(s)
Normal Water Year ^(a)	2010
Single Dry Water Year ^(b)	2020
Five-Consecutive-Year Drought ^(b)	2012 – 2016
(a) Normal water base year is based on Table 7-2 from the City’s 2020 UWMP. (b) The single dry water base year and five-consecutive-year drought base years reflect supply reliability assumptions confirmed through coordination with SSJID for this plan.	

The City’s surface water reliability is assumed to be consistent with SSJID’s urban water supply reliability during a single dry year and multiple dry years. Groundwater pumped by City-owned wells is assumed to be 100 percent reliable through the three hydrologic conditions within the sustainable yield assumptions and is used to supplement reductions in purchased SSJID water supply. Recycled water produced by the City is also assumed to be 100 percent reliable through the three hydrologic conditions. Table 7-3 summarizes the water supply available for each of the City’s water supplies during the three water year conditions.

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Chapter 7

Water Service Reliability and Drought Risk Assessment

Table 7-3. Water Supply Volume Available (AF)

Year Type		2030	2035	2040	2045	2050
SSJID Surface Water^(a)						
Normal Year		11,500	11,500	11,500	18,500	18,500
Single-Dry Year		10,566	11,483	14,592	15,671	15,671
Five-Year Drought	Year 1	11,500	11,500	11,500	18,500	18,500
	Year 2	11,500	11,500	11,500	18,500	18,500
	Year 3	10,566	11,483	14,592	15,671	15,671
	Year 4	10,566	11,483	14,592	15,671	15,671
	Year 5	11,500	11,500	11,500	18,500	18,500
Groundwater^(b)						
Normal Year		11,111	12,757	14,402	16,050	16,050
Single-Dry Year		11,111	12,757	14,402	16,050	16,050
Five-Year Drought	Year 1	11,111	12,757	14,402	16,050	16,050
	Year 2	11,440	13,086	14,732	16,050	16,050
	Year 3	11,769	13,415	15,061	16,050	16,050
	Year 4	12,099	13,744	15,391	16,050	16,050
	Year 5	12,428	14,073	15,720	16,050	16,050
Recycled Water^(c)						
Normal Year		1,508	1,509	1,510	1,512	1,514
Single-Dry Year		1,508	1,509	1,510	1,512	1,514
Five-Year Drought	Year 1	1,508	1,509	1,510	1,512	1,514
	Year 2	1,508	1,509	1,510	1,512	1,514
	Year 3	1,508	1,509	1,510	1,512	1,514
	Year 4	1,508	1,509	1,510	1,512	1,514
	Year 5	1,508	1,509	1,510	1,512	1,514
<p>(a) The City's available surface water purchased from SSJID reflects the same supply reliability assumptions used in the City's 2020 UWMP. Based on coordination with SSJID during preparation of the 2025 UWMP, no changes to surface water supply reliability assumptions have been identified.</p> <p>(b) The City's groundwater supply is assumed to be 100 percent reliable through the three water type conditions.</p> <p>(c) The City's recycled water supply is assumed to be 100 percent reliable through the three water type conditions. The City is anticipated to produce recycled water equivalent to its recycled water demand.</p>						



Chapter 7

Water Service Reliability and Drought Risk Assessment

7.1.3 Potable Water Service Reliability

The City’s potable water supplies for all water year types include:

- Treated surface water purchased from SSJID
- Groundwater pumped by the City from the ESJ Subbasin

In this section, the City’s normal, single dry, and five consecutive dry years projected potable supplies and demands are integrated and compared. Projected potable water demands are detailed in Chapter 4 and projected potable water supplies are detailed in Chapter 6. Under the various water year types, the total annual potable water supply sources available are compared to the total annual projected potable water use for the City’s water service area from 2030 to 2050 in five-year increments. In this potable water service reliability assessment, potable water demands are conservatively assumed to be unconstrained, meaning no emergency conservation measures are in effect. Potable water supplies do not account for potential implementation of the Bay-Delta Plan Amendment, as described in Section 7.1.1.1.2. Depending on the ultimate implementation of the Bay-Delta Plan Amendment, the reliability of treated surface water supplies from SSJID may change, and the City’s potable water service reliability would need to be reassessed accordingly.

The City’s potable water supplies are expected to meet the City’s projected potable water demands. Any reduction of SSJID water supply will be supplemented by the City’s groundwater supply.

7.1.3.1 Potable Water Service Reliability – Normal Year

Table 7-4 compares the projected normal year potable supply from Chapter 6 and projected potable demands from Chapter 4. The City’s potable water supplies are reliable during normal years. No potable water supply shortage is anticipated during normal years through 2050.

Table 7-4. Normal Year Supply and Demand Comparison – Potable (DWR Table 7-2R)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	22,611	24,257	32,902	34,550	34,550
Use totals (autofill from Submittal Table 4-2 R)	20,117	22,677	25,562	28,814	28,814
Surplus/(shortfall)	2,494	1,580	7,340	5,736	5,736

7.1.3.2 Potable Water Service Reliability – Single Dry Year

Table 7-5 compares projected single dry year potable supply and projected potable demands. No potable water supply shortage is anticipated during single dry years through 2050. The City’s potable water supplies are reliable during single dry years.



Chapter 7
Water Service Reliability and Drought Risk Assessment

Table 7-5. Single Dry Year Supply and Demand Comparison – Potable (DWR Table 7-3R)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	21,677	24,240	28,994	31,721	31,721
Use totals	20,117	22,677	25,562	28,814	28,814
Surplus/(shortfall)	1,560	1,563	3,432	2,907	2,907

7.1.3.3 Potable Water Service Reliability – Five Consecutive Dry Years

Table 7-6 compares projected five consecutive dry years potable supply and projected potable demands. No potable water supply shortage is anticipated during the five consecutive dry years through 2050. The City’s potable water supplies are reliable during five consecutive dry year period.

Table 7-6. Multiple Dry Years Supply and Demand Comparison – Potable^(a) (DWR Table 7-4R)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	22,611	24,257	32,902	34,550	34,550
	Use totals	20,117	22,677	25,562	28,814	28,814
	Surplus/(shortfall)	2,494	1,580	7,340	5,736	5,736
Second year	Supply totals	22,940	24,586	33,232	34,550	34,550
	Use totals	20,629	23,254	26,212	28,814	28,814
	Surplus/(shortfall)	2,311	1,332	7,020	5,736	5,736
Third year	Supply totals	22,335	24,898	29,653	31,721	31,721
	Use totals	21,141	23,831	26,863	28,814	28,814
	Surplus/(shortfall)	1,194	1,067	2,790	2,907	2,907
Fourth year	Supply totals	22,665	25,227	29,983	31,721	31,721
	Use totals	21,653	24,408	27,513	28,814	28,814
	Surplus/(shortfall)	1,012	819	2,470	2,907	2,907
Fifth year	Supply totals	23,928	25,573	34,220	34,550	34,550
	Use totals	22,165	24,985	28,164	28,814	28,814
	Surplus/(shortfall)	1,763	588	6,056	5,736	5,736

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

NOTES:

(a) No WSCP actions are planned for these years, as no supply shortfalls are projected.

7.1.4 Non-Potable Water Service Reliability

As mentioned in Section 6.2, the City’s non-potable irrigation well use and supply are excluded from this plan since the non-potable wells are not connected to the City’s potable water system. Therefore, the City’s source of non-potable water shown in this plan, for all water year types, is recycled water produced at the WQCF.



Chapter 7
Water Service Reliability and Drought Risk Assessment

In this section, the City’s normal, single dry, and five consecutive dry years projected recycled water supplies and demands are integrated and compared. Projected recycled water demands and supplies are detailed in Chapter 6. Under the various water year types, the total annual recycled water supply available is compared to the total annual projected recycled water use for the City’s water service area from 2030 to 2050 in five-year increments. In this recycled water service reliability assessment, recycled water demands are conservatively assumed to be unconstrained.

As explained in Chapter 6, the City anticipates producing recycled water equivalent to recycled water demand. Recycled water supply is assumed to be unaffected by dry conditions. Therefore, the City’s recycled water supply totals and recycled water demand totals for each water year condition are equivalent.

7.1.4.1 Non-Potable Water Service Reliability – Normal Year

Table 7-7 compares the projected normal year recycled water supply and projected recycled water demand from Chapter 6. Since the City will produce the amount of recycled water equivalent to recycled water demand, the total projected recycled water supply and total projected recycled water demand for each year are equal. The City’s recycled water supply is reliable during normal years. No recycled water supply shortage is anticipated during normal years through 2050.

Table 7-7. Normal Year Supply and Demand Comparison – Non-Potable (DWR Table 7-2R)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	1,508	1,509	1,510	1,512	1,514
Use totals (autofill from Submittal Table 4-2 R)	1,508	1,509	1,510	1,512	1,514
Surplus/(shortfall)	0	0	0	0	0

7.1.4.2 Non-Potable Water Service Reliability – Single Dry Year

Table 7-8 compares projected single dry year recycled water supply and projected recycled water demands. Since the City will produce the amount of recycled water equivalent to recycled water demand, the total projected recycled water supply and total projected recycled water demand for each year are equal. No recycled water supply shortage is anticipated during single dry years through 2050. The City’s recycled water supply is reliable during single dry years.



Chapter 7
Water Service Reliability and Drought Risk Assessment

Table 7-8. Single Dry Year Supply and Demand Comparison – Non-Potable (DWR Table 7-3R)

	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	1,508	1,509	1,510	1,512	1,514
Use totals	1,508	1,509	1,510	1,512	1,514
Surplus/(shortfall)	0	0	0	0	0

7.1.4.3 Non-Potable Water Service Reliability – Five Consecutive Dry Years

Table 7-9 compares projected five consecutive dry years recycled water supply and projected recycled water demands. Since the City will produce the amount of recycled water equivalent to recycled water demand, the total projected recycled water supply and total projected recycled water demand for each year are equal. No recycled water supply shortage is anticipated during the five consecutive dry years through 2050. The City’s recycled water supply is reliable during five consecutive dry year periods.

Table 7-9. Multiple Dry Years Supply and Demand Comparison – Non-Potable^(a) (DWR Table 7-4R)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	1,508	1,509	1,510	1,512	1,514
	Use totals	1,508	1,509	1,510	1,512	1,514
	Surplus/(shortfall)	0	0	0	0	0
Second year	Supply totals	1,508	1,509	1,510	1,512	1,514
	Use totals	1,508	1,509	1,510	1,512	1,514
	Surplus/(shortfall)	0	0	0	0	0
Third year	Supply totals	1,508	1,509	1,510	1,512	1,514
	Use totals	1,508	1,509	1,510	1,512	1,514
	Surplus/(shortfall)	0	0	0	0	0
Fourth year	Supply totals	1,508	1,509	1,510	1,512	1,514
	Use totals	1,508	1,509	1,510	1,512	1,514
	Surplus/(shortfall)	0	0	0	0	0
Fifth year	Supply totals	1,508	1,509	1,510	1,512	1,514
	Use totals	1,508	1,509	1,510	1,512	1,514
	Surplus/(shortfall)	0	0	0	0	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						
(a) No WSCP actions are planned for these years, as no supply shortfalls are projected.						

7.2 DESCRIPTION OF MANAGEMENT TOOLS AND OPTIONS

Based on coordination with SSJID during preparation of this UWMP, there remains a large uncertainty regarding long-term surface water supply availability due to climate change and the implementation of



Chapter 7

Water Service Reliability and Drought Risk Assessment

the Bay-Delta Plan Amendment. SSJID and the SCWSP agencies have developed strategies and actions to address the projected supply shortfalls such as the potential expansion of the Nick C. DeGroot WTP and developing other sources of supplies described in their respective UWMPs. SSJID maintains its own WSCP and implements its own demand management measures to address drought conditions.

As described in Chapter 6 and Section 7.1.1.2, the City's groundwater supply is reliable and sufficient to supplement its purchased surface water supply to meet its projected water demands during the different water years. The City will continue to monitor its existing groundwater wells and implement demand management measures, while also continuing to participate in the ESJGWA to continue groundwater management of the ESJ Subbasin.

As discussed in Section 7.1.1.3, the City will continue to produce recycled water that meets Title 22 tertiary recycled water requirements. The City will also continue to monitor its recycled water salinity concentration to ensure its recycled water is sufficient for irrigation use and implement irrigation practices, if needed, to reduce salt content.

7.3 DROUGHT RISK ASSESSMENT

CWC §10635(b) requires that the City prepare a DRA based on the supply condition associated with the five driest consecutive years on record. This supply condition is to be assumed to occur over the next five years, from 2026 through 2030.

For the purposes of this DRA, recycled water supplies are assumed to be sufficient to meet recycled water demands and therefore are excluded from the DRA and its associated tables (Tables 7-10 and 7-11). The DRA will only be performed for the City's potable water supplies. This section reviews the data and methods used to define the DRA water shortage condition and evaluates each potable water source's reliability under the proposed drought condition. Total potable water supplies during the five-year drought are compared to projected unconstrained potable water demands.

This DRA would allow the City to prepare for a potential potable water shortage and for implementation of its WSCP, if necessary. Findings show that, should the region experience a five-consecutive-dry-year period starting in 2026, adequate potable water supplies are available to meet projected potable demands.

7.3.1 Data, Methods, and Basis for Water Shortage Condition

The DRA was performed for 2026 through 2030 using the same five-consecutive-dry-year period conditions presented in Section 7.1.2. A summary of the data and basis for the water shortage condition is provided in this section.

Projected potable water demands for 2026 to 2029 were linearly interpolated between actual 2025 potable water demand of 15,145 AF and projected 2030 potable water demand of 20,117 AF (Tables 4-1 and 4-2) to estimate annual values between the planning milestones.

The DRA assumes the available purchased surface water from SSJID for 2026 to 2030 to be equal to the available water supply volumes for a five-year consecutive drought presented in Table 7-3. Available groundwater supply for 2026 to 2030 was linearly interpolated between available 2025 groundwater supply of 10,737 AF and projected 2030 groundwater supply volume of 11,111 AF (Tables 6-10 and 6-11).



Chapter 7
Water Service Reliability and Drought Risk Assessment

7.3.2 DRA Water Source Reliability

Table 7-10 summarizes the City’s available potable water supplies for each year of the DRA projected based on the methodology described in Section 7.3.1. Groundwater supply in Table 7-10 represents available supply based on sustainable yield assumptions and is not dependent on the operational status of individual wells.

Supply Source	2026	2027	2028	2029	2030
SSJID Surface Water ^(a)	11,500	11,500	9,649	9,649	11,500
Groundwater ^(b)	10,812	10,887	10,961	11,036	11,111
Total	22,312	22,387	20,610	20,685	22,611

(a) Assumed equal to five-year drought SSJID surface water allocations from Table 7-3.
 (b) 2026 to 2029 groundwater supply volumes were linearly projected between 2025 available groundwater supply of 10,737 AF from Table 6-10 and 2030 reasonably available groundwater volume of 11,111 AF from Table 6-11.

7.3.3 Total Water Supply and Use Comparison

As shown in Table 7-11, during a five-year drought beginning in 2026, the City’s potable water supply is projected to be adequate to meet projected potable water demands through 2030, even without water conservation. However, the City may implement water conservation and demand management measures as mandated by the State during a state-wide drought emergency declaration.



Chapter 7
Water Service Reliability and Drought Risk Assessment

Table 7-11. Five-Year Drought Risk Assessment (DWR Table 7-5R)

2026		Total
	Total Water Use (AF)	16,140
	Total Supplies (AF)	22,312
	Surplus/Shortfall w/o WSCP Action	6,172
2027		Total
	Total Water Use (AF)	17,135
	Total Supplies (AF)	22,387
	Surplus/Shortfall w/o WSCP Action	5,252
2028		Total
	Total Water Use (AF)	18,127
	Total Supplies (AF)	20,610
	Surplus/Shortfall w/o WSCP Action	2,483
2029		Total
	Total Water Use (AF)	19,123
	Total Supplies (AF)	20,685
	Surplus/Shortfall w/o WSCP Action	1,562
2030		Total
	Total Water Use (AF)	20,117
	Total Supplies (AF)	22,611
	Surplus/Shortfall w/o WSCP Action	2,494
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.		
NOTES:		
(a) No WSCP actions are planned for these years, as no supply shortfalls are projected.		

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 F.

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 was prepared in 2023 to be consistent with those requirements. The City is updating its WSCP with the preparation of the 2025 UWMP to present changes in staff roles and responsibilities.

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 stages 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 F 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 8.3.

8.3 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The City's WSCP (Appendix F) 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 and download on the City's website, <https://www.manteca.gov/>. An electronic copy will also be provided to San Joaquin County.

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 San Joaquin County, the City's water customers, and the general public.



Chapter 8

Water Shortage Contingency Plan

8.4 SEISMIC RISK ASSESSMENT AND MITIGATION PLAN

CWC §10632.5(a) requires that UWMPs also include a seismic risk assessment and mitigation plan to assess and mitigate a water system's seismic vulnerabilities. A Local Hazard Mitigation Plan (LHMP) or Risk and Resilience Assessment (RRA) may be incorporated in this UWMP to meet this requirement if it addresses seismic risk.

The City is located within San Joaquin County. As such, the San Joaquin County 2023 Local Hazard Mitigation Plan (2023 LHMP) provides relevant information regarding local seismic risk, and is incorporated herein by reference.¹ The 2023 LHMP was submitted to the Federal Emergency Management Agency, which found it in conformance with Title 44 Code of Federal Regulations Part 201.6 Local Mitigation Plans, and was adopted by the County on April 11, 2023. The 2023 LHMP considered the risk of the region to earthquakes and found that the likelihood and magnitude of a significant incident are minimal.² Thus, the 2023 LHMP is not included in this UWMP. The LHMP is required to be updated every five years. At time of preparation of this 2025 UWMP, San Joaquin County is updating its Multi-Jurisdiction Hazard Mitigation Plan. The City is actively participating in that update.³

The City developed an RRA in 2020 in accordance with the America's Water Infrastructure Act (AWIA) and has updated it in 2025. The RRA systematically evaluated the City's assets, threats, and risks, and evaluated countermeasures that might be implemented to minimize overall risk to the system. Vulnerability to natural hazards, including earthquakes, was assessed based on the City's level of preparation/resilience, active response capability, and ability to recover.

The City's efforts in addressing its few seismic vulnerabilities are in progress. To protect the security of the City's water system, the RRA is retained by the City as a confidential document.

¹ San Joaquin County. January 2023. *San Joaquin County Local Hazard Mitigation Plan*. Accessed at <https://www.sigov.org/docs/default-source/covid-19/2023-lhmp-final-.pdf> on March 18, 2026.

² San Joaquin County. January 2023. *San Joaquin County Local Hazard Mitigation Plan*, p. 38.

³ San Joaquin County. Multi-Jurisdictional Hazard Mitigation Plan. Accessed at <https://www.sigov.org/department/oes/mjhmp> on September 22, 2025.

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 FOR RETAIL SUPPLIERS

Since the 2020 UWMP reporting cycle, the City continued to implement DMMs within its service area as part of its standard practice. 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

Any other DMMs implemented by the City that have had significant impact on water use are also described. Section 9.1.7 also presents the non-utility based DMMs that the City has actively implemented to aid in the reduction of total system water demands. For each DMM, implementation over the past five years is described and planned implementation over the next five years is discussed.

9.1.1 Water Waste Prevention Ordinances

The City discourages wasteful water use and promotes the use of water saving devices with the primary purpose of ensuring that the City's water resources are used reasonably and for beneficial uses to maximize water supply reliability for all customers in both normal and dry years. The City has the authority through the Manteca Municipal Code (MMC) to establish water waste prevention regulations to help reduce water waste.

MMC § 13.04.210¹ (Appendix G) describes water use restrictions in the City. A summary of prohibited water uses is provided below:

- Washing of sidewalks, driveways, patios, parking lots, aprons, or other non-landscaped exterior ground areas except to maintain the area in a clean, safe, and sanitary condition;
- Taking of water from any fire hydrant except by regularly constituted fire protection agencies or construction purposes provided a permit has been issued;
- Watering of landscaping except on designated days and times:
 - Even-numbered addresses only on Tuesday, Thursday, and Saturday;

¹ City of Manteca, Code of Ordinances, Title 13 Public Services, Chapter 13.04 Waterworks System, Title 13 Public Services, <https://ecode360.com/44088267#44088320>, accessed September 10, 2025.



Chapter 9

Demand Management Measures

- Odd-numbered addresses only on Wednesday, Friday, and Sunday;
- No irrigation permitted between 12:00 p.m. and 6:00 p.m. on any day;
- No irrigation permitted on Mondays;
- Exemptions include new landscape installations (within 30 days), City parks, golf course, City Hall, Manteca Unified School District properties, private parks or landscaped areas larger than four acres, and irrigation exclusively using drip or micro spray systems;
- Irrigation is prohibited during and within 48 hours after measurable rainfall;
- Allowing the escape of water through leaks, breaks, or malfunctions in the user's plumbing or distribution system for more than 24 hours after discovery thereof;
- Washing of automobiles or boats except at a commercial car wash or by use of a quick-acting positive shut-off nozzle on the hose or bucket and sponge;
- Serving of water at restaurants except upon request of the customer;
- Irrigation that causes runoff onto adjacent property, non-irrigated areas, walkways, roadways, parking lots, or structures;
- Use of potable water in decorative water features that do not recirculate water; and
- Hotels and motels must offer guests the option to decline daily laundering of linens and towels, with this option prominently displayed in each guest room.

The restrictions are enforceable per MMC Chapter 1.10 and are administered by the City. Enforcement of MMC § 13.04.210 involves tiers of action with the issuance of Notices of Violation, fines, and fees depending on the nature of the violation as well as the employment of water compliance patrols to conduct enforcement activities. The City maintains an online portal where residents can report unlawful water use and water waste. Reports are routed to staff for investigation and enforcement.

Enforcement activities can escalate when the City's WSCP (Appendix F) is triggered due to water shortage conditions or State reductions. Escalated enforcement activities include an increase in water compliance patrols and the establishment of water waste hotlines.

In addition, the City anticipates monitoring water use through full implementation of AMI by 2030 to be able to help identify leaks and/or water waste violations.

The effectiveness of this DMM is evaluated based on the number of violations observed. Since 2022, the City issued 2,794 violation notices. The City has not imposed monetary fines for violations, but instead focused on educating customers on the modified irrigation schedule.

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 the non-essential uses of water so that water is available for human consumption, sanitation, and fire protection.

9.1.1.1 Special Water Feature Distinction

The City distinguishes special water features, such as decorative fountains and ponds, differently from pools and spas. Special water features are regulated separately. Regulations under MMC § 13.04.210 prohibit the use of potable water in decorative water features unless the water is recirculated.



Chapter 9 Demand Management Measures

9.1.2 Metering

All 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. The City prescribes minimum water system design and operations and maintenance (O&M) standards consistent with AWWA standards and best practices for water utilities. These standards include meter calibration, testing, and replacement activities as part of the meter maintenance program to maintain the read accuracy of the City's meter inventory. More than 45 percent of the City's water meters are less than ten years old.

In the past five years, the City has been working to expand its AMI project. It anticipates completing the project by 2030. To date, 8,800 water meters have been added to the AMI system.

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 the customers and the City. Metering also helps customers make informed decisions about their water consumption. The City's future plans include continued customer outreach paired with AMI implementation on the availability of the customer water portal to receive automatic alerts of potential leaks, as well as continued customer education on how to use the water portal to view and keep track of customer water use.

9.1.3 Conservation Pricing

As discussed in Section 9.1.2, the City's potable water customers are billed for water supply and service. Per MMC § 13.04.060, the City sets monthly rates for water service charges by ordinance or resolution. The billed monthly water rate is the sum of a fixed monthly charge based on meter size and a volumetric water charge based on the customer's volume of water use. City Council periodically reviews and approves water rate increases when necessary to cover the costs of providing water service to the community (including provisions for O&M, capital, debt service, and reserve fund requirements). The City adopted new water rates in March 2025,² and its current water rate structure is located online at <https://www.manteca.gov/departments/engineering/water-system>.

Beginning in 2008, the City instituted a volumetric water pricing structure that recovers water system costs based on water consumption while encouraging efficient water use. The City expects to earn at least 50 percent of its total water revenues from consumption-based charges. This rate structure incentivizes customers to manage their water use over time and participate in the City's DMM programs. The City also has the authority to establish drought surcharges, if necessary, to finance the cost of prolonged demand reduction scenarios that significantly impact revenue recovery.

The City's utility billing software allows monitoring of total fixed and volumetric charge data which can be utilized to track water demand patterns and determine if annual revenue requirements for a given month or year will be met from volumetric charges.

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

² Raftelis. December 2024. *City of Manteca, CA Water Rate Study*. Accessed at <https://www.manteca.gov/home/showpublisheddocument/7453/638723807079370000> on February 27, 2026.



Chapter 9

Demand Management Measures

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(1)(B) part (iv), the City implements public information programs and school education programs, each described below. The City funds these programs with the annual water conservation activity budget of \$75,000 approved by City Council. The City organizes and participates in several community events annually. Examples of the City's water conservation outreach material are provided in Appendix H.

9.1.4.1 Public Information Programs

The City has multiple ongoing public information programs to promote participation in its DMMs and programs. As part of these programs, marketing and outreach materials are provided to customers through the issuance of press releases, publishing of newsletters, and placement of door tags and bill inserts. Customers are notified of various conservation programs throughout the year by the Utilities Department and through utility billing, and customers can also learn about rebates, other conservation programs, and links to additional conservation resources on the City's website (<https://www.manteca.gov/departments/public-works/water-division/water-conservation>).

These public information programs also work to promote water conservation. The City offers conservation brochures and posters, activity booklets, public outreach displays, oral presentations, and workshops to inform the public of City conservation efforts and how they can help and participate. The City also raises awareness about water conservation through paid advertising, press releases, news ads, media events, the Speaker's Bureau, bill inserts, and the City's website. The following public information and outreach efforts are conducted at least annually:

- Send seasonal inserts in the customers' water bills to encourage efficient irrigation during the irrigation season and minimize outdoor water use in the spring and fall based on local rainfall patterns.
- Describe the water conservation rebates the City has to offer and present water saving approaches for customers depending on their user class and water use patterns.
- Host a booth at the Watermelon Faire and Pumpkin Faire to discuss the City's Unlawful Water Use Ordinance (MMC § 13.04.210), water conservation guidelines, and conservation tips with approximately 3,000 City residents. Hand out thousands of promotional items to promote the City's water conservation programs.
- Run advertisement on social media regarding outdoor watering schedules and the Unlawful Water Use Ordinance (April through July).
- Advertise the outdoor watering schedules on the City's website.
- Provide information and resources on the City's website to raise public awareness about water supply, water quality, water conservation, and other water-related issues.

The City reviews and updates its water conservation public information and outreach program annually based on current water conditions, available water programs, and approved budgets.

Implementation of public education and outreach is ongoing and expected to help the City achieve its water use objectives by educating water users about the value of water and the importance of improving



Chapter 9

Demand Management Measures

water use efficiency and avoiding water waste. The City has also increased public outreach by making use of social media to reach more customers as well as advertising at movie theaters and on local television during dry years.

9.1.4.2 School Education Programs

Up until 2017, the City conducted annual school education programs for approximately 15,000 Manteca Unified School District students, typically targeted at the elementary age population. However, the annual school education programs were discontinued in 2017 due to limited staff resources.

Since 2020, the City has resumed limited school outreach efforts, consisting of smaller-scale classroom presentations and engagement activities. In 2025, the City conducted two school presentations and intends to continue expanding this program in future years as resources allow. These presentations focused on water conservation, water supply awareness, and practical actions students can take to improve water use efficiency at home.

The purpose of the school education programs was to raise awareness for water-related issues. The school education program materials and presentations met State education framework requirements, and the following is a list of activities that may have been a part of the school education program in any given year:

- Water Awareness Art Contests
- Water Resource Library

Students also learned about conservation practices and could receive a free conservation kit that would include a water survey, 1.5 gallons per minute (gpm) low-flow shower head, 1.5 gpm kitchen sink and 1.0 gpm bathroom sink aerators, leak detection dye tablets, and a watering gauge, along with step-by-step instructions. The students would be given a homework assignment to complete a water audit form for their home and replace inefficient showerheads and aerators with water-saving devices provided in the kit. This program was a very effective way for the City to simultaneously reach a large number of customers and educate students, who in turn educated their parents about water use efficiency practices and low flow plumbing devices. Results from the City school education programs were tracked, and a summary report was generated at the end of each school year to evaluate its success. The report documented the estimated reduction in water usage that was achieved through the retrofits and other activities and provides data on the percentage of students who participated in the program.

The City recognizes the value of educating the younger population about the importance of water conservation. Thus, the City is currently working on restarting the water education program and resuming presentations at local schools as staffing allows. As part of the re-initiation process, the City will review opportunities to enhance its school education programs to supplement existing public education efforts. Measures that will be evaluated include additional direct mail flyers, increased outreach participation at community functions, and an improved conservation website.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The City has an active Water Loss Control Program that tracks both real and apparent losses which are monitored by staff in the Utilities Department. The City also tracks typical water system activities associated with water losses including water main breaks; valve, hydrant, or service leaks; and relative accuracy of supply and demand meters.



Chapter 9
Demand Management Measures

As discussed previously in Section 4.3, beginning in 2016, water suppliers are required to report distribution system water losses based on the AWWA Water Audit Software. This software requires the reporting of metered water sources and metered water demands, the quantification of apparent and real water losses, and the calculation of non-revenue water as a percentage of total system flows. The software then provides a calculated infrastructure leakage index (ILI) based on the input data. According to general guidelines, an ILI of 1.0 to 3.0 is acceptable for systems that fit the following criteria, including the City:

- Water resources are costly to develop or purchase,
- The ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability, and
- Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.

The City first began conducting this annual audit using the AWWA Water Audit Software in 2015 though it was not required for submittal to DWR until 2016. In 2020, the result of the audit was an ILI of 1.52, in line with the general guidelines. The City continues to focus on ensuring that water production and customer metering data contain minimal errors that could skew the results. Table 9-1 presents the steps taken in each of the past five years (2021-2025) to increase data validity and reduce real and apparent losses alongside the ILI reported by the Water Audit Software for that year. This data shows the City’s diligent work towards improving metering accuracy throughout the City and reducing non-revenue water and ILI.

If an audit were to indicate that water losses regularly exceed the City’s goals, a full audit will be triggered to identify the sources and determine the impacts on overall system losses. The City has historically had a comprehensive work order management system in place to document leak locations and repair history, which has provided a solid foundation for ongoing and future water loss control actions. The City may contract with a qualified leak detection company to perform a leak detection survey if deemed necessary.

In 2024, the City purchased a Ford Water Meter Test Bench to regularly test water meters to maintain accurate readings. The City has begun testing newly ordered meters before installation to confirm accuracy, and also test water meters in response to customer requests. The City is also spot testing some water meters annually across all 44 water meter reading routes and recalibrating water meters as needed to reduce apparent water losses.

Table 9-1. City of Manteca Water Loss Improvement Activities		
Year	Steps Taken	Water Audit ILI
2021	<ul style="list-style-type: none"> • Replace 400 water meters. • Continue annual calibration of 25 percent of production mag meters 	2.83
2022	<ul style="list-style-type: none"> • Replace 1,100 water meters. 	1.1
2023	<ul style="list-style-type: none"> • Replace 900 water meters. • Increase annual calibration of production mag meters to 35 percent 	1.5
2024	<ul style="list-style-type: none"> • Replace 3,100 water meters. • Increase annual calibration of production mag meters to 45 percent • Purchased a water meter calibration test bench 	2.90



Chapter 9

Demand Management Measures

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 CCR Title 23 §638.5, the City will continue to evaluate distribution system losses annually via the AWWA Water Audit Software and report to DWR. The City will continue to take actions to reduce water losses by improving metering accuracy and enhancing the overall data quality throughout the system, including a goal of full implementation of AMI by 2030.

9.1.6 Water Conservation Program Coordination and Staffing Support

The City maintains a fully staffed DMM program with two full-time equivalents (FTEs) including one full-time Water Resources Coordinator and part-time staff including: Director of Utilities (with grade 1 Water Use Efficiency Practitioner Certification), distribution system staff, utility billing staff, and parks and open space staff. Consultant support is also utilized for program planning, development, implementation, and funding on an as-needed basis.

The Director of Utilities is responsible for managing the City's Water Conservation Program and implementing the various DMMs discussed in this chapter. The Water Resource Coordinator handles the day-to-day operations of the program. The Director of Utilities files all required State reporting related to water conservation. The City's administrative staff dedicate approximately 10 percent of their time supporting the City's Water Conservation Program.

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 will continue to plan and implement DMM programs for its water system using both City-wide programs as well as collaborative regional programs with partners with similar interests when feasible. 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. The non-utility based DMM programs available to City water use customers are described below.

9.1.7.1 Building Code/New Standards

The California Green Building Standards Code (CALGreen) is the first-in-the-nation state-mandated green building code. It became effective in 2011 and has since been periodically updated, most recently in 2025. CALGreen establishes mandatory green building measures that affect both indoor and outdoor water use such as dedicated meter requirements and regulations addressing landscape irrigation and design. CALGreen also identifies a number of voluntary measures that set a higher standard of efficiency for possible adoption.

CALGreen has required the integration of WaterSense Specification fixtures in new residential developments as well as any additions/alterations to existing residential structures. The City will continue to encourage upgrades to existing (pre-1993) buildings to comply with CALGreen standards and will continue to support incentive programs for conversion of existing buildings to water efficient devices and standards.



Chapter 9

Demand Management Measures

The City enforces compliance with CALGreen and SB 407 (Plumbing Retrofit on Resale) that both work to improve the water use efficiency of new buildings as well as older buildings that retrofit fixtures and appliances with newer, more efficient products. The City tracks the conversion of older buildings and fixtures to CALGreen standards through the permitting process.

Implementation of this DMM is ongoing. These codes assist the City in conserving water and reliably meeting future water use objectives by the increasing water use efficiency of buildings.

9.1.7.2 High-Efficiency Clothes Washers

City customers are eligible to participate in the City's High-Efficiency Clothes Washers (HECW) rebate program, which has been available since 2011. The water efficiency of clothes washers is represented by a "water factor," which is a measure of the amount of water used to wash a standard load of laundry, and the lower the water factor, the greater the water savings. The participation of water utilities everywhere in HECW rebate programs has transformed the market for washers by forcing manufacturers to lower their water factors.

The current program eligibility requirement is set at a water factor of 7.1 or less, which can save almost 20,000 gallons per year per washer over a conventional top loading washer, and customers receive a \$100 rebate when they install a new eligible HECW model. Funding for this program comes from the Water Fund (funded by water rates) and is supplemented by state and/or federal grants whenever possible. Advertisement and full program details of the HECW rebate program are readily available on the City's website (<https://www.manteca.gov/departments/public-works/water-division/current-city-rebates>).

Implementation of this DMM is ongoing. Tracking of customer participation in this program estimates that more than 27 gallons per day (gpd) are saved for each HECW installed, and it is estimated that the City will save more than 65 MG (200 AF) over the next ten years if program targets are met. Program participation is historically highly correlated with the City's level of marketing efforts. Over the past five years, the City has processed 1,076 HECW rebates.

The City plans to improve and update its website and prominently include information about the HECW rebate program on future bill inserts and other direct mail or marketing campaigns.

9.1.7.3 Toilet Rebate Program

City customers are eligible to participate in the City's Toilet Rebate Program, which has also been available since 2011. The rebate applies to purchases of High Efficiency Dual Flush toilets with a requirement of 1.28 gallons per flush or less. Customers receive \$75 for any High Efficiency Dual Flush qualifying model that replaces a pre-1993 fixture. The City's website provides program details and rebate applications (<https://www.manteca.gov/departments/public-works/water-division/current-city-rebates>).

Implementation of this DMM is ongoing. Tracking of customer participation estimates that 21 to 27 gpd are saved for each High Efficiency Dual Flush toilet installed. Over the past five years, the City has processed 284 toilet rebates.

The City intends to continue to offer the Toilet Rebate Program providing its customers with the opportunity to upgrade old toilets with new models that comply with CALGreen standards. To inform customers about current incentive opportunities and increase participation, the City also plans to augment existing public outreach efforts through direct mail and enhanced website features.



Chapter 9

Demand Management Measures

9.1.7.4 Turf Replacement Program

Through the City's Lawn-to-Garden (Turf Replacement) Program, residential and commercial property owners are eligible to receive up to \$1.00 per square foot of turf removed for qualifying projects with actual rebate amounts that are dependent upon current program demand and funding availability. The City's webpage advertises its Turf Replacement Program and additional details on the process (<https://www.manteca.gov/departments/public-works/water-division/current-city-rebates>).

Implementation of this DMM is ongoing. The Turf Replacement Program helps the City achieve its water use objectives by increasing the use of water-efficient landscapes. Over the past five years, the City has processed 33 turf replacement rebates.

The City plans to continue funding the Turf Replacement Program, though the hope is for future programs to provide incentives to customers at no cost to the City.

9.1.7.5 Free Conservation Devices

In addition to rebate programs, the City provides customers with free water-saving devices, including high-efficiency showerheads, hose nozzles, and toilet leak detection tablets. These items can be requested directly through the City's Utilities Department (<https://www.manteca.gov/departments/public-works/water-division/water-conservation>).

Implementation of this DMM is ongoing. By providing devices at no cost to the customer, the City provides the means for customers to identify leaks and conserve water.

9.1.7.6 Commercial, Industrial, and Institutional DMMs

All businesses in the City are eligible to participate in the Commercial, Industrial, and Institutional (CII) DMM program that is available to help businesses save water and reduce long term utility costs. Qualifying businesses can receive rebates for certain water efficiency and conservation measures. The City plans to consider adding the following fixtures to the CII rebate program:

- Weather-based irrigation controllers,
- Central computer irrigation controllers,
- Rotating spray nozzles retrofits,
- High efficiency large rotary nozzle retrofits, and
- Air-cooled ice machines.

Implementation of the CII rebates is ongoing, although participation is limited. The City plans to evaluate the effectiveness of the CII DMM program by tracking participation, metered CII water use, high water users, and water savings from specific CII activities. The City's goal for the next five years is to focus on publicizing the CII DMM program through increased advertising and outreach. The City also plans to evaluate the implementation of additional CII DMM programs, such as water surveys, expanded rebates, and industrial process water use reduction measures (<https://www.manteca.gov/departments/public-works/water-division/water-conservation>).



Chapter 9

Demand Management Measures

9.1.7.7 Large Landscape

The City has an extensive non-potable well irrigation network whereby City parks and open spaces greater than five acres in size are equipped with onsite wells that provide non-potable water to meet irrigation demands. The implementation of these non-potable irrigation wells has taken some of the demand off the City's potable water distribution system. The typical annual water demand for these non-potable irrigation wells ranges from a total of 1,200 to 2,000 AFY. The cost for water at these sites is based on the capital and O&M costs associated with developing and maintaining the non-potable wells for irrigation service. Costs for replacing a non-potable irrigation well located within a community facility district (CFD) are paid for by the members of the CFD.

As part of the large landscape DMM program, City staff identify high-use customers based on usage and acreage. These customers are contacted, provided with information on the services offered by the City, and offered free water use surveys, landscape water use budgets, and landscape training. Large landscape water audits are also available upon request to any City customer. Training on water-efficient practices has also been offered occasionally to landscape professionals and City staff.

The City also plans to consider implementing incentive programs for devices such as weather-based irrigation controllers and precision nozzles to mixed-metered high water use customers with high water savings potential. The large landscape program is available to all large landscape customers free of charge.

Implementation of this program is ongoing. Although customer participation has been limited in recent years, the City plans to continue to promote incentive opportunities and raise awareness of existing audit offerings. Outreach efforts are also planned to be expanded to schools and other large institutional accounts to establish landscape water budgets and reduce overall water use. The City plans to continue enhancing program marketing and outreach to reach more CII customers with large, landscaped areas to manage. The City also plans to evaluate specific measures that could be implemented to encourage broader interest in the current large landscape programs as well as investigate potential funding opportunities to improve program effectiveness.

9.1.7.8 Information and Tracking

Information and tracking represent an ongoing element of the City's existing DMM programs. The immediate priorities of the City's information and tracking activities include:

- **Automatic Meter Reading (AMR)/AMI** – The City has implemented an AMI system. To date, 8,800 water meters have been added to this system. The City is currently working to complete the AMI system by 2030 to allow City staff to obtain real-time water usage data for identification of customer-side leaks on a real-time basis. With AMI, the City could easily monitor the impacts of implemented DMM programs through water savings and make timely program adjustments or additions where necessary to develop the most water-savings-efficient and cost-effective programs. Customers with AMI can access this water usage data through a customer portal to monitor and manage their water use. During water shortage conditions, an AMI system could assist the City in identifying the necessity for any additional demand reduction measures. The City will continue to prioritize the deployment of an AMR/AMI compatible system.
- **Water Use Tracking Tools** – The City plans to design and develop a database with tools for tracking water savings associated with DMM programs to increase flexibility in adding or changing program elements.



Chapter 9

Demand Management Measures

Implementation of information and tracking is ongoing. The focus is on collecting and processing water use data and evaluating the effectiveness of the DMM programs to meet participation and water savings targets. Collected data will continue to support program evaluation, improve existing DMMs, and aid in the design of new programs.

9.2 MEMBER OF THE CALIFORNIA WATER EFFICIENCY PARTNERSHIP

The City is an active member of the California Water Efficiency Partnership (CalWEP), demonstrating its firm commitment to the implementation of DMMs to conserve its water supplies. The City plans to continue implementation of its DMMs into the future, including plans to comply with the Making Conservation a California Way of Life Regulation to meet its Urban Water Use Objectives (UWUOs). In addition, the City plans to meet its 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.

9.2.1 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.

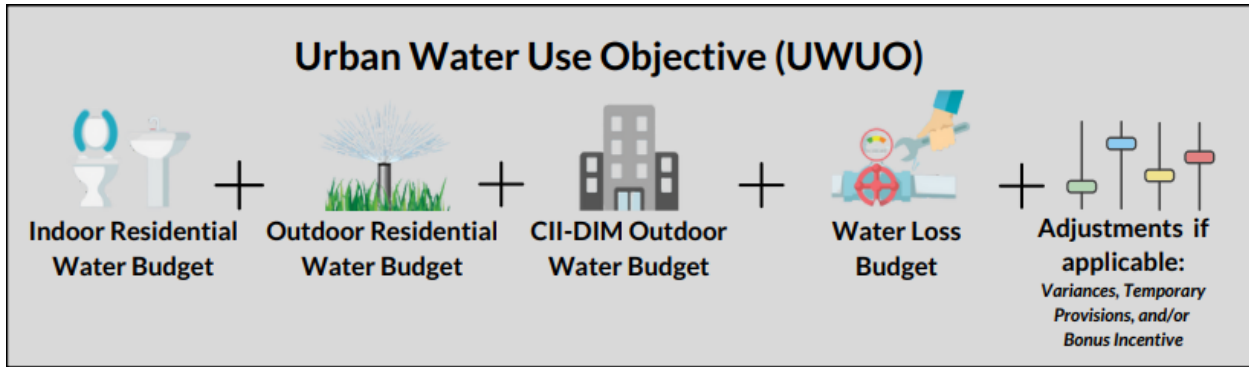
On July 3, 2024, the State Water Board adopted the Making Conservation a California Way of Life Regulation. As part of this regulation, Urban Water Suppliers will be held to annual UWUOs. The City is required to calculate its UWUO annually, which is a sum of water efficiency budgets for the following 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, and 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. Variances and adjustments may be allowed for special cases such as seasonal population fluctuation, special landscape areas (sports fields and recreational areas), direct/indirect potable reuse, and agricultural uses. Figure 9-1 summarizes the components that make up the UWUO.



Chapter 9
Demand Management Measures



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 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.

9.2.2 Annual Water Use Reporting

Starting in 2024, the City is required to calculate its UWUO, compare its actual water use to its UWUO, and provide an Annual Water Use Report to the State by January 1 of each year. Reporting is based on fiscal year data. The City’s UWUO will become increasingly stringent from 2025 to 2040. Each year, the City will need to recalculate its UWUO and meet the applicable UWUO for the year. If the City anticipates that it would not be able to meet this regulation, the City will need to develop a plan and intensify or implement demand management actions to maintain compliance with the regulation.

The City submitted its Fiscal Year 2024/2025 Annual Water Use Report to the State on November 20, 2025, and will continue to prepare this report annually to assess its progress towards achieving its UWUO.

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 Adoptions, 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

As indicated in Section 2.4 of this plan, the City uses a calendar year for water supply and demand accounting, and therefore this plan includes data through December 31, 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, counties, and neighboring water districts; and the public.

10.2.1 Notices to Cities and Counties

As discussed in Section 2.5, the City provided greater than 60 days' notice regarding the preparation of its 2025 UWMP and WSCP to the County as required, as well as neighboring cities and water agencies as listed below:

- City of Escalon
- City of Lathrop
- City of Lodi
- City of Mountain House
- City of Ripon
- City of Stockton
- City of Tracy
- County of San Joaquin
- South San Joaquin Irrigation District
- Central Delta Water Agency
- Central San Joaquin Water Conservation District
- Eastside San Joaquin GSA
- Linden County Water District
- Lockeford Community Service District
- North San Joaquin Water Conservation District
- Oakdale Irrigation District
- South Delta Water Agency
- Stockton East Water District
- Woodbridge Irrigation District

The notices of preparation are included in Appendix D.



Chapter 10
Plan Adoptions, Submittal, and Implementation

Upon substantial completion of this 2025 UWMP and WSCP, the City coordinated internally and provided the County a notice of public hearing (Appendix D) as shown in Table 10-1.

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

City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
City of Manteca	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
San Joaquin 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 Section 6066 and was published twice in the *Manteca Bulletin* newspaper to notify all customers and local governments of the public hearing. 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** at the City’s 6:00 pm regular City Council meeting at the City Hall. 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 at the City’s offices, at local public libraries, and on the City 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**. Copies of the adopted resolutions are included in Appendix I.

10.4 PLAN SUBMITTAL

This 2025 UWMP will be submitted to DWR within 30 days of adoption and by the regulatory deadline of July 1, 2026. The adopted 2025 UWMP will be submitted using the Water Use Efficiency (WUE) data submittal tool. A file of the adopted 2025 UWMP on compact disc will also be submitted to the California State Library.



Chapter 10 Plan Adoptions, Submittal, and Implementation

No later than 30 days after adoption, a copy of the adopted 2025 UWMP, including the WSCP, will be provided to the cities and counties to 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, will be made available at the City's offices for public review during normal business hours. An electronic copy of this 2025 UWMP and the WSCP were also made available for review and download on the City's website: <https://www.manteca.gov/>.

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. Amendments will be submitted to DWR through the WUEdata portal. Copies of amendments or changes to the plans will be submitted to the California State Library and San Joaquin County, and made available to the public, within 30 days of adoption.

Appendix A

Urban Water Management Planning Act
Legislative Requirements

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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)	A-3
Chapter 1. General Declarations and Policy, Sections 10608–10608.8	A-3
Chapter 2. Definitions, Section 10608.12	A-5
Chapter 2.5. Nonfunctional Turf	A-9
Chapter 3. Urban Retail Water Suppliers, Sections 10608.16–10608.44.....	A-11
Chapter 5. Sustainable Water Management, Section 10608.50	A-21
Chapter 6. Standardized Data Collection, Section 10608.52	A-22
Chapter 7. Funding Provisions, Sections 10608.56–10608.60.....	A-23
Chapter 9. Urban Water Use Objectives and Water Use Reporting, Sections 10609–10609.38	A-24
Urban Water Management Planning Act.....	A-39
Chapter 1. General Declaration and Policy, Sections 10610–10610.4.....	A-39
Chapter 2. Definitions, Sections 10611–10618	A-40
Chapter 3. Urban Water Management Plans.....	A-42
Article 1. General Provisions, Sections 10620–10621	A-42
Article 2. Contents of Plans, Sections 10630–10634	A-44

ATTACHMENT 3

Appendix A

California Water Code—Urban Water Management Planning

Article 2.5. Water Service Reliability, Section 10635 A-54
Article 3. Adoption and Implementation of Plans,
 Sections 10640–10645 A-55
Chapter 4. Miscellaneous Provisions, Sections 10650–10657 A-58

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

DRAFT

ATTACHMENT 3

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)
CA3910005	City of Manteca	27,786	15,145
Total		27,786	15,145
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)
<input checked="" type="checkbox"/>	Individual UWMP	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	
	If Supplier selected RUWMP, select name from the drop-down.	
NOTES:		

ATTACHMENT 3

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesale supplier
<input checked="" type="checkbox"/>	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables are in calendar years
<input type="checkbox"/>	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	
Add additional rows as needed	
South San Joaquin Irrigation District	
NOTES:	

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served ^(a)	2025	2030	2035	2040	2045	2050(opt)
	93,733	97,548	103,430	109,448	115,189	115,189
NOTES: (a) Population is from California Department of Finance (DOF) Estimates, benchmarked to the 2020 Census. Population projections are based on DOF Report P-2A and projections for San Joaquin County, applied to the City of Manteca's 2025 population.						

ATTACHMENT 3

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	9,904
Multi-Family		Potable	967
Commercial		Potable	1,599
Industrial		Potable	129
Institutional/Governmental		Potable	158
Landscape		Potable	378
Commercial	Construction Water Use	Potable	6
Distribution System Water Loss		Potable	2,004
Landscape	Landscape irrigation (exc golf courses)	Non-Potable	21
Agricultural	Irrigation of fodder crops	Non-Potable	921
Institutional/Governmental	WQCF On-site Reuse	Non-Potable	556
Commercial	Construction Water Use	Non-Potable	10
		Subtotal Potable	15,145
		Subtotal Non-Potable	1,508
		Total	16,653
NOTES:			

ATTACHMENT 3

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)
Single Family		Potable	14,101	15,895	17,918	20,197	20,197
Multi-Family		Potable	1,377	1,552	1,750	1,972	1,972
Commercial		Potable	2,277	2,566	2,893	3,261	3,261
Industrial		Potable	183	207	233	263	263
Institutional/Governmental		Potable	225	253	286	322	322
Landscape		Potable	538	607	683	770	770
Commercial	Construction Water Use	Potable	8	9	10	12	12
Distribution System Water Loss		Potable	1,408	1,588	1,789	2,017	2,017
Landscape	Landscape irrigation (excluding golf courses)	Non-Potable	21	21	21	21	21
Agricultural	Irrigation of fodder crops	Non-Potable	921	921	921	921	921
Institutional/Governmental	WQCF On-Site Reuse	Non-Potable	556	556	556	556	556
Commercial	Construction Water Use	Non-Potable	10	11	12	14	16
Subtotal Potable			20,117	22,677	25,562	28,814	28,814
Subtotal Non-Potable			1,508	1,509	1,510	1,512	1,514
Total			21,625	24,186	27,072	30,326	30,328
NOTES:							

ATTACHMENT 3

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. <i>Optional</i> 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
<i>Optional</i> If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.	
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		
CA3910005	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: Water Loss Audit Reports are available online at https://wuedata.water.ca.gov/awwa_plans		

ATTACHMENT 3

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 ^(a)		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit ^(a)		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss <small>Drop down list</small>	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)		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)	
CA3910005	Yes	14.0	Gallons per Service Connection per Day (GPSCD)	27667	1084.7	35.0	6.8	Gallons per Service Connection per Day (GPSCD)	27667	206.7	6.7

NOTES:
(a) Information is from AWWA Water Loss Audit for Calendar Year 2024.

ATTACHMENT 3

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress Water Code Section 10608.40						
<input type="checkbox"/>	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	179	163	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)							
<input type="checkbox"/>	Check the box if the Supplier does not pump groundwater. Proceed to the next table.						
<input type="checkbox"/>	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	San Joaquin Valley Groundwater Basin - ESJ Subbasin	6,735	6,822	5,656	6,022	6,736
Total			6,735	6,822	5,656	6,022	6,736
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							

ATTACHMENT 3

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area Water Code Section 10633(a)				
<input type="checkbox"/>	Check the box if there is no wastewater collection system. Proceed to the next table.			
100%	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
100%	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (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 Manteca	Metered	9,314	City of Manteca WW Quality Control Facility, Place ID 239343	Yes
Total Wastewater Received from UWMP Service Area in 2025:		9,314		
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:				

ATTACHMENT 3

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area														
Water Code Section 10633(b)														
<input type="checkbox"/>	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 <small>Drop down list</small>	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? <small>(OPTIONAL) Drop down list</small>	2025 Volume of Wastewater Received from UWMP Service Area <small>(As Reported in Submittal Table 6-2 R) (AF)^(a)</small>	Total 2025 Volume of Water Treated <small>(AF)^(a)</small>	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area <small>(enter data as applicable)</small>		Water Recycled Outside of UWMP Service Area <small>(enter data as applicable)</small>		Effluent Discharge that is not a Permitted Recycled Water Use <small>(enter data as applicable)</small>		Required Discharge for Instream Flow <small>(enter data as applicable)</small>		Delivered to Another Entity for Additional Treatment <small>(enter data as applicable)</small>		
				Treatment Level <small>Drop down list</small>	Volume <small>(AF)</small>	Treatment Level <small>Drop down list</small>	Volume <small>(AF)</small>	Treatment Level <small>Drop down list</small>	Volume <small>(AF)</small>	Treatment Level <small>Drop down list</small>	Volume <small>(AF)</small>	Treatment Level <small>Drop down list</small>	Volume <small>(AF)</small>	Treatment Level <small>Drop down list</small>
Add additional rows as needed														
City of Manteca WW Quality Control Facility, Place ID 239343	Yes	9314	9,314	Tertiary	587	Secondary, Disinfected - 23	927	Secondary, Disinfected - 23	7,800		0		0	
Total		9,314	9,314		587		927		7,800		0		0	
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. IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down. Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.														
NOTES: (a) 2025 volume of wastewater volume includes wastewater treated outside the UWMP service area, as the volumes are not metered separately.														

ATTACHMENT 3

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area										
Water Code Section 10633 (c),(d),(e)										
<input type="checkbox"/>	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) :			City of Manteca WW Quality Control Facility							
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :			City of Manteca							
Volume of Supplemental Water Added in 2025 (OPTIONAL) :			0							
Source of 2025 Supplemental Water (OPTIONAL) :			0							
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)
Landscape irrigation (exc golf courses)	Non-Potable		21	21	21	21	21	21		
Agricultural irrigation	Non-Potable	Irrigation of fodder crops	921	921	921	921	921	921		
Industrial use	Non-Potable	WQCF On-Site Reuse	556	556	556	556	556	556		
Commercial use	Non-Potable	Construction Water Use	10	10	11	12	14	16		
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			1,508	1,508	1,509	1,510	1,512	1,514	0	
Total			1,508	1,508	1,509	1,510	1,512	1,514	0	0
<p>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.</p> <p>Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.</p> <p>Potential recycled water use: a description of the feasibility of these uses must be included in the narrative.</p> <p>Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.</p>										
<p>NOTES: 2025 actual volumes reflect current GeoTracker data. Projected recycled water volumes for 2030–2050 are consistent with the 2020 UWMP and the adopted 2023 RWFMP.</p>										

ATTACHMENT 3

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual Water Code Section 10633(e)		
<input type="checkbox"/>	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 <small>Drop Down list</small>	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Landscape irrigation (exc golf courses)	36	21
Agricultural irrigation	677	921
Industrial use	550	556
Commercial use	5	10
Golf course irrigation	0	0
Total	1,232	1,487
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 Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.		
NOTES:		

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use Water Code Section 10633 (f)			
<input type="checkbox"/>	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
RWFMP Phase 1 ^(a)	Install booster chlorination system and complete retrofits at the WQCF	Funding Dependent	336
RWFMP Phase 3 ^(a)	Install recycled water pipelines to serve all additional existing customers, complete retrofits for existing customers, construct storage tank at WQCF	Funding Dependent	Varies
RWFMP Phase 4 ^(a)	Install recycled water pipelines to serve future customers, upsize WQCF pump station, construct additional storage tank at WQCF	Funding Dependent	Varies
Total (AF)			336
Unit Conversion to AF			336
NOTES:			
(a) RWFMP Phases 1-4 to expand the City's recycled water system are summarized from Table 6-5 of the City's RWFMP.			

ATTACHMENT 3

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs Water Code Section 10631(f)							
<input type="checkbox"/>	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.						
<input checked="" type="checkbox"/>	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.						
Page 6-15	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					
Groundwater Well Expansion	No		Assumes completion of two new wells including Well 30 to increase pumping capacity. ^(a)	Potable	2026-2030	All Year Types	0
Groundwater Well Expansion	No		Assumes completion of four new wells to increase pumping capacity. ^(a)	Potable	2030-2045	All Year Types	0
Nick C. DeGroot WTP Phase 2	Yes	SSJID and Cities of Tracy, Lathrop, and Escalon	Assumes 2040 completion of Phase 2 WTP expansion	Potable	2040	All Year Types	7,000
RWFMP Phase 1-4	Yes	City of Lathrop	Assumes completion of RWFMP Phase 1-4 to expand the City's recycled water system and maximize recycled water use within the City's service area. ^(b)	Non-Potable	Funding Dependent	All Year Types	9,492
NOTES:							
(a) Additional wells will increase the City's ability to pump groundwater to meet peak demands, but will not increase the City's available groundwater supply. The City's existing wells have sufficient capacity to access the City's full sustainable yield.							
(b) Expected increase in recycled water supply for use within the City's service area is equivalent to the available recycled water supply in 2040 (11,000 AFY) minus the actual 2025 recycled water use volume.							

ATTACHMENT 3

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		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		Potable	8,409	11,500
Groundwater (not desalinated)		Potable	6,736	10,737
Recycled Water	Secondary Treated	Non-Potable	921	11,000
Recycled Water	Tertiary Treated	Non-Potable	587	(a)
Subtotal Potable			15,145	22,237
Subtotal Non-Potable			1,508	11,000
Total			16,653	33,237
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: (a) Total entitlement for recycled water is a single value for both secondary treated and tertiary treated water.				

ATTACHMENT 3

Submittal Table 6-9 Retail: Water Supplies — Projected Water Code Section 10631 (b)												
Water Supply	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
			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	SSJID ^(a)	Potable	11,500	11,500	11,500	11,500	18,500	18,500	18,500	18,500	18,500	18,500
Groundwater (not desalinated)	ESJ Subbasin ^(b)	Potable	11,111	11,111	12,757	12,757	14,402	14,402	16,050	16,050	16,050	16,050
Recycled Water	Tertiary Treated ^(c)	Non-Potable	1,508	11,000	1,509	11,000	1,510	11,000	1,512	11,000	1,514	11,000
Subtotal Potable			22,611	22,611	24,257	24,257	32,902	32,902	34,550	34,550	34,550	34,550
Subtotal Non-Potable			1,508	11,000	1,509	11,000	1,510	11,000	1,512	11,000	1,514	11,000
Total			24,119	33,611	25,766	35,257	34,412	43,902	36,062	45,550	36,064	45,550
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:												
(a) Purchased water reasonably available volume is based on the City's Water Supply Agreement with SSJID. Phase 1 allocation (11,500 AFY) is assumed available through 2035, with Phase 2 expansion (total 18,500 AFY) assumed available by 2040 consistent with current planning assumptions.												
(b) Projected groundwater supply for 2050 is assumed to be consistent to supply in 2045, consistent with the assumptions in Chapter 4 of this plan.												
(c) Reasonably available volume for recycled water is assumed to be equivalent to projected recycled water demands within the City's water service area (DWR Table 6-4). The total safe yield of recycled water is assumed to be equivalent to the available recycled water supply capacity of the WQCF (11,000 AFY) as identified in the City's 2023 RWFMP.												

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	1/2/2025	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	Total Utility See DWR NOTES	Hydropower	Net Utility
Units of Measure for Water	AF			
Volume of Water Entering Process		6,736	-	6,736
Energy Consumed (kWh)		3,558,494	-	3,558,494
Energy Intensity (kWh/vol. converted to MG)		1,621	-	1,621

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
 kWh

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

Data Quality Narrative:
 Monthly electrical energy data was provided for groundwater wells and storage tank pump stations.

Narrative:
 The energy data provided summarizes the monthly energy consumption for operating the City's groundwater wells and storage tanks. Energy use for water purchased from SSJID is not under the City's operational control, and therefore is not included in this table. Volume for purchased water from SSJID is also not included. Recycled water energy use is in Table O-2.

NOTES:

ATTACHMENT 3

Optional Submittal Table O-2: Recommended Energy Reporting - WASTEWATER AND RECYCLED WATER					
Start Date of Reporting Period	1/2/2025	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control			
End Date of Reporting Period	12/31/2025				
Is upstream embedded energy in the values reported?	No	Water Management Process			
Units of Measure for Water	AF	Collection / Conveyance	Treatment	Discharge / Distribution	Total
Volume of Wastewater Entering Process (volume units selected above)		9,314	9,314	7,800	26,428
Wastewater Energy Consumed (kWh)		372,900	10,520,943	0	10,893,843
Wastewater Energy Intensity (kWh/volume converted to MG)		122.9	3,466.6	0.0	1,265.0
Volume of Recycled Water Entering Process (volume units selected above)		0	1,514	1,514	3028
Recycled Water Energy Consumed (kWh)		0	0	0	0
Recycled Water Energy Intensity (kWh/volume converted to MG)		0.0	0.0	0.0	0.0

ATTACHMENT 3

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	
		<input checked="" type="checkbox"/>	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: See Table 7-3 within Chapter 7.
		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			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			
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:			

ATTACHMENT 3

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)	24,119	25,766	34,412	36,062	36,064
Use totals (autofill from Submittal Table 4-2 R)	21,625	24,186	27,072	30,326	30,328
Surplus/(shortfall)	2,494	1,580	7,340	5,736	5,736
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:					

ATTACHMENT 3

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	23,185	25,749	30,504	33,233	33,235
Use totals	21,625	24,186	27,072	30,326	30,328
Surplus/(shortfall)	1,560	1,563	3,432	2,907	2,907
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					

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	24,119	25,766	34,412	36,062	36,064
	Use totals	21,625	24,186	27,072	30,326	30,328
	Surplus/(shortfall)	2,494	1,580	7,340	5,736	5,736
OPTIONAL Planned WSCP Actions						
Second year	Use totals	22,137	24,763	27,722	30,326	30,328
	Surplus/(shortfall)	2,311	1,332	7,020	5,736	5,736
OPTIONAL WSCP Actions						
Third year	Use totals	22,649	25,340	28,373	30,326	30,328
	Surplus/(shortfall)	1,194	1,067	2,790	2,907	2,907
OPTIONAL Planned WSCP Actions						
Fourth year	Use totals	23,161	25,917	29,023	30,326	30,328
	Surplus/(shortfall)	1,012	819	2,470	2,907	2,907
OPTIONAL Planned WSCP Actions						
Fifth year	Use totals	23,673	26,494	29,674	30,326	30,328
	Surplus/(shortfall)	1,763	588	6,056	5,736	5,736
OPTIONAL Planned WSCP Actions						
NOTES:						

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	Total
Total Water Use (AF)	16,140
Total Supplies (AF)	22,312
Surplus/Shortfall w/o WSCP Action	6,172
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
Total Water Use (AF)	17,135
Total Supplies (AF)	22,387
Surplus/Shortfall w/o WSCP Action	5,252
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
Total Water Use (AF)	18,127
Total Supplies (AF)	20,610
Surplus/Shortfall w/o WSCP Action	2,483
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
Total Water Use (AF)	19,123
Total Supplies (AF)	20,685
Surplus/Shortfall w/o WSCP Action	1,562
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
Total Water Use (AF)	20,117
Total Supplies (AF)	22,611
Surplus/Shortfall w/o WSCP Action	2,494
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
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)
City of Manteca	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
San Joaquin County	Yes	Yes
NOTES:		

DWR 2025 Urban Water Management Plan Checklist

DRAFT

Appendix C
UWMP 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 and Appendix D
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	Plan Preparation	n/a	Section 2.4.2

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			management agencies, and relevant public agencies, to the extent practicable.			
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
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	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 and 4-2	Section 4.2
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	Section 4.5
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	Section 4.5
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	Section 4.4

Appendix C
UWMP Checklist

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	Section 4.3
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	Section 4.3
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	Section 4.3
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 4.6
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: <ul style="list-style-type: none"> • Was considered an urban retail water supplier in 2020, • Met its 2020 target in 2020, or • Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and Targets	5-1	Section 5.2
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	Sections 6.1, 6.2, and 6.9

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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 as more frequent and severe periods of drought, including changes in supply due to climate change.	System Supplies	n/a	Sections 6.9 and 6.10; Chapter 7
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	6-1	Section 6.2
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
x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	n/a	Section 6.2
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	Section 6.2.1
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	Section 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	Water Supplies and Recycled Water	n/a	Section 6.2.1

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			groundwater agencies to achieve sustainable groundwater conditions.			
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	6-1	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	Sections 6.2.3 and 6.9
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 and 6-9	Section 6.9
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 6.7
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	Section 6.5.2
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	Section 6.5.2
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	Sections 6.5.3 and 6.5.4
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	Section 6.5.4

**Appendix C
UWMP Checklist**

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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)	6-4 and 6-5	Section 6.5.4
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	Section 6.5.4
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 6.5
x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	6-7	Section 6.6
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 address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System Supplies	6-7	Section 6.8
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 and O-2	Section 6.11
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 7.1.1

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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, 7-3, and 7-4	Section 7.1.3
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
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 7.3
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 7.3.1
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 7.3.2
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	Section 7.3.3
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 7.1.1
x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	n/a	Appendix F

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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	Appendix F: 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 F: Section 3.1
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 F: Section 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	n/a	Appendix F: Section 4
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	Appendix F: Section 4
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 F: Section 5.3
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 F: Section 5.1
x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	8-2	Appendix F: 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	Water Shortage Contingency Planning	8-3	Appendix F: Section 5.2

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			State-mandated prohibitions are appropriate to local conditions.			
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 F: 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 F: Section 6
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 F: Section 6
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 F: Section 7
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 F: Section 8
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 F: Section 8
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 F: Section 8
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 F: Section 9

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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 F: Section 9
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 F: Section 9
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 F: Section 10
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 F: Section 11
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 F: 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 8.3
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	Plan Adoption, Submittal, and Implementation	n/a	Section 10.2

Appendix C
UWMP Checklist

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
			impact of water use targets (recommended to discuss compliance).			
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
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	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 10.2.1
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 10.3.2; Appendix I
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
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

**Appendix C
UWMP Checklist**

Retail x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
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
x	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	n/a	n/a

Appendix D

Agency and Public Notices

DRAFT



CITY OF MANTECA

ENGINEERING DEPARTMENT

August 26, 2025

Subject: Notice of Preparation – City of Manteca 2025 Urban Water Management Plan

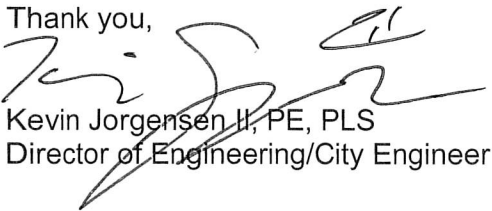
Dear Water Agency,

The City of Manteca (“City”) is currently in the process of updating its 2025 Urban Water Management Plan (“UWMP”) and Water Shortage Contingency Plan (“WSCP”). The Urban Water Management Planning Act, Water Code Section 10610 et seq., requires every urban water supplier having more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP and periodically update that plan at least every five years. The City’s 2025 UWMP is required to be submitted to the California Department of Water Resources by July 1, 2026.

The UWMP is a planning document which reports water deliveries and uses, describes water supply sources, and details water conservation efforts. The WSCP outlines a plan for response to water supply shortage conditions. Preparation of updates to these documents will require coordination with water management agencies, relevant public agencies, and other water suppliers in our region.

The City will prepare a draft of the 2025 UWMP for public review and comment prior to adoption. Your agency is invited to be a part of this process. Please send the name and contact information for your agency’s representative to Wing Chang, Assistant Engineer, at gchang@manteca.gov.

Thank you,




Kevin Jorgensen II, PE, PLS
Director of Engineering/City Engineer

Appendix E

Distribution System Water Loss Audits

DRAFT



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association.
Copyright © 2014, All Rights Reserved.

Click to access definition

Click to add a comment

Water Audit Report for: City of Manteca (CA3910005)

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' -----

WATER SUPPLIED

Volume from own sources:	+	?	6	1,967.506	MG/Yr
Water imported:	+	?	3	3,012.327	MG/Yr
Water exported:	+	?	n/a		MG/Yr

WATER SUPPLIED: 4,979.833 MG/Yr

Master Meter and Supply Error Adjustments

Pcnt:	+	?	8	12.450	MG/Yr
	+	?	3		MG/Yr
	+	?	n/a		MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Billed metered:	+	?	8	4,618.755	MG/Yr
Billed unmetered:	+	?	n/a		MG/Yr
Unbilled metered:	+	?	4	116.400	MG/Yr
Unbilled unmetered:	+	?	5	12.450	MG/Yr

AUTHORIZED CONSUMPTION: 4,747.605 MG/Yr

Click here: for help using option

Pcnt: Value: MG/Yr

Use buttons to select percentage of water supplied OR value

Pcnt: Value: MG/Yr

1.00% Value: MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 232.228 MG/Yr

Apparent Losses

Unauthorized consumption:	+	?	5	12.450	MG/Yr
---------------------------	---	---	---	--------	-------

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	1	47.830	MG/Yr
Systematic data handling errors:	+	?	5	11.547	MG/Yr

Apparent Losses: 71.826 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 160.402 MG/Yr

WATER LOSSES: 232.228 MG/Yr

Click here: for help using option

Pcnt: Value: MG/Yr

1.00% Value: MG/Yr

0.25% Value: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 361.078 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	10	322.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	8	23,436	
Service connection density:	?			73	conn./mile main

Are customer meters typically located at the curbside or property line? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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: psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$16,423,687	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	5	\$1.35	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	9	\$1,293.00	\$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

*** YOUR SCORE IS: 55 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: Water imported

2: Customer metering inaccuracies

3: Volume from own sources

AWWA Free Water Audit Software v5.0

Reporting Worksheet 1



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association.
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? Click to access definition

+ Click to add a comment

Water Audit Report for: City of Manteca (CA3910005)

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' -----

WATER SUPPLIED

Volume from own sources:	+	?	7	2,194.540	MG/Yr
Water imported:	+	?	6	2,513.764	MG/Yr
Water exported:	+	?	n/a	0.000	MG/Yr

WATER SUPPLIED: 4,708.304 MG/Yr

Master Meter and Supply Error Adjustments

Pcnt:	Value:								
+	?	4	0.00%	●	○	○	○	○	MG/Yr
+	?	4	0.00%	○	○	○	○	○	MG/Yr
+	?			○	○	○	○	○	MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Billed metered:	+	?	8	4,262.276	MG/Yr
Billed unmetered:	+	?	n/a		MG/Yr
Unbilled metered:	+	?	10	39.227	MG/Yr
Unbilled unmetered:	+	?	5	11.771	MG/Yr

AUTHORIZED CONSUMPTION: 4,313.274 MG/Yr

Click here: ?
for help using option

Pcnt:	Value:								
+	?	11.771	○	○	○	○	○	○	MG/Yr

Use buttons to select percentage of water supplied
OR
value

Pcnt:	Value:								
0.25%	○	○	○	○	○	○	○	○	MG/Yr
1.00%	○	○	○	○	○	○	○	○	MG/Yr
0.25%	○	○	○	○	○	○	○	○	10.656 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 395.030 MG/Yr

Apparent Losses

Unauthorized consumption:	+	?	11.771	11.771	MG/Yr
---------------------------	---	---	--------	--------	-------

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	3	43.450	MG/Yr
Systematic data handling errors:	+	?	5	10.656	MG/Yr

Apparent Losses: 65.876 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 329.154 MG/Yr

WATER LOSSES: 395.030 MG/Yr

Click here: ?
for help using option

Pcnt:	Value:								
0.25%	○	○	○	○	○	○	○	○	MG/Yr

1.00%	○	○	○	○	○	○	○	○	MG/Yr
0.25%	○	○	○	○	○	○	○	○	10.656 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 446.028 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

Click here: ?
for help using option

SYSTEM DATA

Length of mains:	+	?	10	338.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	8	26,428	
Service connection density:	?		78	78	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line: ?
Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	+	?	7	55.0	psi
-----------------------------	---	---	---	------	-----

COST DATA

Total annual cost of operating water system:	+	?	10	\$20,446,376	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	5	\$1.35	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	9	\$1,616.22	\$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

*** YOUR SCORE IS: 69 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: Water imported

2: Customer metering inaccuracies

3: Volume from own sources

AWWA Free Water Audit Software v5.0

Reporting Worksheet 1



AWWA Free Water Audit Software: Worksheet

FWAS v6.0
 American Water Works Association.
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Water Audit Report for: City of Manteca

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

choose entry option:

volume	MG/Yr
volume	MG/Yr

WATER SUPPLIED

VOS	Volume from Own Sources:	<input type="text" value="n g 6"/>	<input type="text" value="2,223.107"/>	MG/Yr	<input type="text" value="n g 8"/>	
WI	Water Imported:	<input type="text" value="n g 3"/>	<input type="text" value="2,598.523"/>	MG/Yr	<input type="text" value="n g 3"/>	
WE	Water Exported:	<input type="text" value="n g n/a"/>	<input type="text" value="0.000"/>	MG/Yr		

WATER SUPPLIED: 4,821.630 MG/Yr

VOSEA

WIEA

WEEA

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	<input type="text" value="n g 7"/>	<input type="text" value="4,617.752"/>	MG/Yr		
BUAC	Billed Unmetered:	<input type="text" value="n g n/a"/>	<input type="text" value="0.000"/>	MG/Yr		
UMAC	Unbilled Metered:	<input type="text" value="n g n/a"/>	<input type="text" value="0.000"/>	MG/Yr		
UUAC	Unbilled Unmetered:	<input type="text" value="n g 3"/>	<input type="text" value="11.544"/>	MG/Yr		

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 4,629.296 MG/Yr

choose entry option:

<input type="text" value="0.25%"/>	<input type="text" value="default"/>
------------------------------------	--------------------------------------

WATER LOSSES

192.334 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE	Systematic Data Handling Errors:	<input type="text" value="n g 3"/>	<input type="text" value="11.544"/>	MG/Yr		
CMI	Customer Metering Inaccuracies:	<input type="text" value="n g 2"/>	<input type="text" value="46.644"/>	MG/Yr		
UC	Unauthorized Consumption:	<input type="text" value="n g 3"/>	<input type="text" value="11.544"/>	MG/Yr		

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

Apparent Losses: 69.733 MG/Yr

Real Losses

Real Losses: 122.601 MG/Yr

WATER LOSSES: 192.334 MG/Yr

choose entry option:

<input type="text" value="0.25%"/>	<input type="text" value="default"/>
<input type="text" value="1.00%"/>	<input type="text" value="percent"/>
<input type="text" value="0.25%"/>	<input type="text" value="default"/>

under-registration

NON-REVENUE WATER

NON-REVENUE WATER: 203.878 MG/Yr

SYSTEM DATA

Lm	Length of mains:	<input type="text" value="n g 7"/>	<input type="text" value="346.0"/>	miles		(including fire hydrant lead lengths)
Nc	Number of service connections:	<input type="text" value="n g 5"/>	<input type="text" value="24,800"/>			(active and inactive)
	Service connection density:		<input type="text" value="72"/>	conn./mile main		

Are customer meters typically located at the curbstop/property line?

Average length of customer service line has been set to zero and a data grading of 10 has been applied

Average Operating Pressure: psi

COST DATA

CRUC	Customer Retail Unit Charge:	<input type="text" value="n g 1"/>	<input type="text" value="\$1.35"/>	\$/100 cubic feet (ccf)		
VPC	Variable Production Cost:	<input type="text" value="n g 3"/>	<input type="text" value="\$234.43"/>	\$/Million gallons		

Total Annual Operating Cost \$17,185,500 \$/yr (optional input)

*** The Water Audit Data Validity Score is in Tier II (26-50). See Dashboard tab for additional outputs. ***

[go to dashboard](#)

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: 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:	<input type="text" value=""/>	gal/conn/day
Unit Apparent Losses:	<input type="text" value="6.8"/>	gal/conn/day
Unit Real Losses ^A :	<input type="text" value="14.0"/>	gal/conn/day
Unit Real Losses ^B :	<input type="text" value=""/>	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software v6.0
Worksheet 1



AWWA Free Water Audit Software: Worksheet

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 American Water Works Association.
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Water Audit Report for: City of Manteca

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

choose entry option:

n	g	6			
n	g	8	percent		
n	g	4	percent		

VOS
WI
WE

WATER SUPPLIED

Volume from Own Sources:	n	g	6	1,842.954	MG/Yr
Water Imported:	n	g	6	2,680.296	MG/Yr
Water Exported:	n	g	n/a	0.000	MG/Yr

WATER SUPPLIED: 4,523.250 MG/Yr

VOSEA
WIEA
WEEA

BMAC
BUAC
UMAC
UUAC

AUTHORIZED CONSUMPTION

Billed Metered:	n	g	8	4,268.030	MG/Yr
Billed Unmetered:	n	g	n/a	0.000	MG/Yr
Unbilled Metered:	n	g	2	4.053	MG/Yr
Unbilled Unmetered:	n	g	3	10.670	MG/Yr

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 4,282.753 MG/Yr

choose entry option:

0.25%	default
1.00%	percent
0.25%	default

SDHE
CMI
UC

WATER LOSSES

240.497 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

Systematic Data Handling Errors:	n	g	3	10.670	MG/Yr
Customer Metering Inaccuracies:	n	g	3	43.152	MG/Yr
Unauthorized Consumption:	n	g	3	10.670	MG/Yr

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

Apparent Losses: 64.493 MG/Yr

choose entry option:

0.25%	default
1.00%	percent
0.25%	default

under-registration

Lm
Nc

Real Losses

Real Losses: 176.004 MG/Yr

WATER LOSSES: 240.497 MG/Yr

CRUC
VPC

NON-REVENUE WATER

NON-REVENUE WATER: 255.220 MG/Yr

Lm
Nc

SYSTEM DATA

Length of mains:	n	g	6	354.0	miles
Number of service connections:	n	g	6	26,684	(including fire hydrant lead lengths)
Service connection density:				75	conn./mile main

(active and inactive)

Are customer meters typically located at the curbstop/property line? Yes

Average length of customer service line has been set to zero and a data grading of 10 has been applied

Lp
AOP

Average Operating Pressure:	n	g	7	55.0	psi
-----------------------------	---	---	---	------	-----

CRUC
VPC

COST DATA

Customer Retail Unit Charge:	n	g	7	\$1.35	\$/100 cubic feet (ccf)
Variable Production Cost:	n	g	9	\$1,796.57	\$/Million gallons

Total Annual Operating Cost: \$14,096,488 \$/yr (optional input)

*** 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:	[]	gal/conn/day
Unit Real Losses ¹ :	[]	gal/conn/day
Unit Real Losses ² :	[]	gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software v6.0
Worksheet 1



AWWA Free Water Audit Software: Worksheet

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Water Audit Report for: City of Manteca

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
choose entry option:

n	g	6	1,962.316	MG/Yr	n	g	8	percent
n	g	6	2,930.785	MG/Yr	n	g	4	percent
n	g	n/a	0.000	MG/Yr				

WATER SUPPLIED

Volume from Own Sources: n g 6 1,962.316 MG/Yr

Water Imported: n g 6 2,930.785 MG/Yr

Water Exported: n g n/a 0.000 MG/Yr

WATER SUPPLIED: 4,893.101 MG/Yr

AUTHORIZED CONSUMPTION

Billed Metered: n g 8 4,456.943 MG/Yr

Billed Unmetered: n g n/a 0.000 MG/Yr

Unbilled Metered: n g 2 4.219 MG/Yr

Unbilled Unmetered: n g 3 11.142 MG/Yr

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 4,472.304 MG/Yr

WATER LOSSES

420.797 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

Systematic Data Handling Errors: n g 3 11.142 MG/Yr

Customer Metering Inaccuracies: n g 3 45.062 MG/Yr

Unauthorized Consumption: n g 3 11.142 MG/Yr

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

Apparent Losses: 67.347 MG/Yr

Real Losses

Real Losses: 353.450 MG/Yr

WATER LOSSES: 420.797 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 436.158 MG/Yr

SYSTEM DATA

Length of mains: n g 6 359.0 miles (including fire hydrant lead lengths)

Number of service connections: n g 6 27,667 (active and inactive)

Service connection density: 77 conn./mile main

Are customer meters typically located at the curbstop/property line? Yes

Average length of customer service line has been set to zero and a data grading of 10 has been applied

Average Operating Pressure: n g 7 55.0 psi

COST DATA

Customer Retail Unit Charge: n g 7 \$1.35 \$/100 cubic feet (ccf)

Variable Production Cost: n g 9 \$1,565.22 \$/Million gallons

Total Annual Operating Cost: \$14,096,488 \$/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:		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 v6.0

Worksheet 1

Appendix F

Water Shortage Contingency Plan

DRAFT

Water Shortage Contingency Plan

PREPARED FOR

City of Manteca



PREPARED BY



Water Shortage Contingency Plan

Prepared for

City of Manteca

Project No. 265-60-25-15

Prepared by:
Bonnie Robison, PE, RCE #85779

QA/QC Review:
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Somporn Boonsalat
Deputy Director of Engineering

Approved by:
George Montross
Director of Utilities

Table of Contents

1.0 Introduction 1

2.0 Water Supply Reliability Analysis 1

3.0 Annual Water Supply and Demand Assessment Procedures..... 2

 3.1 Decision-Making Process 2

 3.1.1 AWSDA Finding: Sufficient Water Supply to Meet Expected Demands 4

 3.1.2 AWSDA Finding: Available Water Supply Will Not Meet Demands 4

 3.2 Key Data Inputs..... 4

 3.3 Assessment Methodology 5

4.0 Standard Water Shortage Levels 5

5.0 Shortage Response Actions 6

 5.1 Demand Reduction Actions 7

 5.2 Additional Mandatory Restrictions 9

 5.2.1 Water Features and Swimming Pools 10

 5.3 Supply Augmentation and Other Actions 10

 5.4 Locally Appropriate Operational Changes 11

 5.5 Emergency Response Plan 11

6.0 Communication Protocols 11

 6.1 Communication for Foreseeable Events 12

 6.2 Communication for Unforeseeable Events 12

7.0 Compliance and Enforcement 12

 7.1 Compliance and Enforcement Procedures 12

 7.2 Appeal Process 13

8.0 Legal Authorities 13

9.0 Financial Consequences of WSCP 14

10.0 Monitoring and Reporting 14

11.0 WSCP Refinement Procedures 15

12.0 Plan Adoption, Submittal, and availability 15

LIST OF TABLES

Table 1. Schedule of Assessment and Decision-Making Activities 3

Table 2. City Water Shortage Contingency Plan Levels (DWR Table 8-1)..... 6

Table 3. Demand Reduction Actions (DWR Table 8-3R)..... 8

Table 4. Supply Augmentation and Other Actions (DWR Table 8-2R)..... 11

Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill	1
AMI	Advanced Metering Infrastructure	6
AMR	Automated Meter Reading	15
AWSDA	Annual Water Supply and Demand Assessment	2
City	City of Manteca	1
Director	Director of Utilities	2
DWR	Department of Water Resources	2
ERP	Emergency Response Plan	11
Legislature	California State Legislature	1
MG	Million Gallons	10
O&M	Operation & Management	15
RRA	Risk and Resilience Assessment	11
SB	Senate Bill	1
SSJID	South San Joaquin Irrigation District	2
WSCP	Water Shortage Contingency Plan	1

Water Shortage Contingency Plan

1.0 INTRODUCTION

This plan presents the City of Manteca'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 UWMP process.

2.0 WATER SUPPLY RELIABILITY ANALYSIS

This section relies on the water supply planning analysis and reliability findings from the City's 2025 Urban Water Management Plan (UWMP). The discussion below includes a summary of the City's existing and projected water use (from Chapter 4 of the City's 2025 UWMP), existing and planned water supplies by source (from Chapter 6 of the City's 2025 UWMP), and the water supply reliability assessment for 2025 to 2050 and the Drought Risk Assessment for 2026 to 2030 (from Chapter 7 of the City's 2025 UWMP).

The City's 2025 UWMP indicates that it can reliably meet its projected demands through 2050 in both normal and dry years. For a five-year drought beginning in 2026 (i.e., the Drought Risk Assessment), no water supply shortfalls are anticipated. In response to any supply shortfalls that may occur, the City may declare a water shortage stage (as described in Section 4.0).

Statewide water supply conditions and actions by surrounding agencies may impact the City's available water supply. A water shortage condition occurs when the supply of potable water available cannot meet ordinary water demands for human health and safety. The City may be able to foresee its water shortage condition in some cases, but an unforeseen sudden or emergency event (e.g., power outage or earthquake) may also cause a water shortage. In general, the City's water supply conditions may be affected by the following:

- Local surface water availability (Stanislaus River)
- Vulnerability to seismic events
- Changing environmental and regulatory requirements
- Climate change



Water Shortage Contingency Plan

The City's seismic risk assessment is included in Chapter 8 of the City's latest adopted UWMP.

In future years, the City will conduct an annual water supply and demand assessment in accordance with 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

California Water Code (CWC) §10632.1 requires water suppliers to submit an Annual Water Supply and Demand Assessment (AWSDA) and an Annual Water Shortage Assessment Report starting July 1, 2022. 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 3) and implementation of water shortage response actions (see Section 4).

3.1 Decision-Making Process

The City will use the decision-making process described below to consistently determine its water supply reliability on an annual basis. The City may adjust and improve this process as needed.

The Director of Utilities (Director), or his/her designee, is responsible for preparing the City's AWSDA and Annual Water Shortage Assessment Report and for submitting the report to DWR by July 1st of each year. The Director will designate City staff to gather key data inputs described in Section 3.2 and conduct the assessment in accordance with Section 3.3. In May, the City will finalize the assessment based on South San Joaquin Irrigation District's (SSJID) anticipated water deliveries. City staff will present the AWSDA and Annual Water Shortage Assessment Report to the 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.



Water Shortage Contingency Plan

Table 1. Schedule of Assessment and Decision-Making Activities			
Schedule	Task	Activity (ACT) Decision (DEC)	Responsible Party
Assessment Activities			
February to March	Determine available water supply for current year and one subsequent dry year. Describe source and quantities considering factors affecting supply as described in Section 3.2.	ACT	City Staff
February to March	Plan for water demands for current year and one subsequent dry year. Describe demand types and quantities considering factors presented in Section 3.2.	ACT	City Staff
February to March	Using the methodology described in Section 3.3, calculate the City’s water supply reliability for the current year and one subsequent dry year.	ACT	City Staff
Late March to Early May	Complete AWSDA based on expected water deliveries from SSJID.	ACT	Director of Utilities
Late April or Early May	Review AWSDA and Annual Water Shortage Assessment Report and provide comments, if needed.	ACT	Director of Utilities
Decision Making Activities If Assessment Shows Available Supply May Not Meet Expected Demands			
Late April or Early May	Based on finalized determinations of AWSDA regarding water shortage condition and recommended actions, prepare recommendations on water shortage condition determination and actions.	DEC	Director of Utilities
Late April or Early May	Prepare ordinances or resolutions approving determinations and actions.	DEC	Director of Utilities
Early May	Coordinate interdepartmentally, with the region’s water service providers, and with the County for the possible proclamation of a local emergency.	DEC	Director of Utilities
Early to Late May	Based on determinations of the AWSDA, prepare the Annual Water Shortage Assessment Report with recommendations on water shortage condition. Submit to Director.	ACT	City Staff
May	Present finalized determinations and recommendations to the City Council, along with ordinances or resolutions approving determinations and actions.	DEC	Director of Utilities
May	Receive presentation of finalized determinations and recommendations. Make determination of degree of emergency and authorize water shortage response actions for implementation.	DEC	City Council
Late May	Review AWSDA and Annual Water Shortage Assessment Report and provide comments, if needed.	ACT	Director of Utilities
Late May to Early June	If a water shortage emergency condition is declared, implement the WSCP and the water shortage response actions as approved by the City Council.	DEC	Director of Utilities
Assessment and Report Submittal			
On or before July 1	Finalize AWSDA and Annual Water Shortage Assessment Report and submit to DWR.	ACT	Director of Utilities



Water Shortage Contingency Plan

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 will be required. City staff will submit the Annual Water Shortage Assessment Report to DWR by July 1 each year. The subsequent dry year may be similar to a single dry year as defined in Chapter 7 of the City's 2025 UWMP.

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 San Joaquin County (County) for the possible proclamation of a local emergency. The Director, or his/her designee, will present the finalized assessment to the 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 stage, and water shortage actions.

Based on the findings of the AWSDA, the City Council will determine if a water shortage condition exists and, if needed, adopt a resolution declaring a water shortage emergency and an associated water shortage stage and authorizing water shortage actions. The Director of Utilities will then prepare the City's Annual Water Shortage Assessment Report, incorporating the City Council determinations and approved actions.

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 will be used as input to the AWSDA for the current year and the following one dry year. In planning for water supplies, the following factors are considered:

- Hydrological conditions
- Regulatory conditions
- Contractual constraints
- Surface water quality conditions
- Infrastructure capacity constraints or changes
- Development Planning

Planned water supply sources and quantities will be described and be reasonably consistent with the supply projections in Chapter 6 (Water Supply Characterization) of the City's most recent UWMP. Should the supply sources and projections deviate significantly from the UWMP, the City will explain the difference.



Water Shortage Contingency Plan

Planned unconstrained water demands will be 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 explain 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 Portal¹ 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 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 (also called shortage stages) 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.

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.



Water Shortage Contingency Plan

The City’s 2025 UWMP includes six shortage levels that address up to and greater than a 50 percent gap between supply and demand. Table 2 presents the City’s stages, which align with the State’s standard stages. The City’s water shortage levels apply to both foreseeable and unforeseeable water supply shortage conditions.

Table 2. City Water Shortage Contingency Plan Levels (DWR Table 8-1)

Standard Shortage Level	Percent Shortage Range
1	Up to 10
2	Up to 20
3	Up to 30
4	Up to 40
5	Up to 50
6	Greater than 50

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.

5.0 SHORTAGE RESPONSE ACTIONS

CWC §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 suites of response actions are dependent 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.

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 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 remotely and can be read monthly to track the extent of the effectiveness of the City’s response actions. The City is in the process of equipping the water system service connections with a cloud-based advanced meter infrastructure (AMI) which can be read in real time to track demand reduction goals. The City has connected 8,800 meters to the AMI system and anticipates that all customer meters will be AMI within the next five years.



Water Shortage Contingency Plan

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 below 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 3. 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 3 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.



Water Shortage Contingency Plan

Table 3. Demand Reduction Actions (DWR Table 8-3R)

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	1%	Encourage water users to reduce water waste	No
1	Other	Percentage	5%	City water customers shall reduce water use by 10%	No
1	Other - Prohibit use of potable water for washing hard surfaces	Percentage	1%		Yes
1	Other - Require automatic shut of hoses	Percentage	1%		No
1	CII - Restaurants may only serve water upon request	Percentage	1%	Manteca Municipal Code: 13.04.210	Yes
2	Expand Public Information Campaign	Percentage	1%	Encourage water users to reduce water waste	No
2	Other	Percentage	5%	City water customers shall reduce water use by 20%	No
2	Landscape - Other landscape restriction or prohibition	Percentage	5%		No
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	1%		Yes
2	Other - Require automatic shut of hoses	Percentage	1%		Yes
2	Landscape - Limit landscape irrigation to specific times	Percentage	10%	Outdoor watering restricted to 2 days per week.	Yes
3	Expand Public Information Campaign	Percentage	1%	Encourage water users to reduce water waste	No
3	Other	Percentage	5%	City water customers shall reduce water use by 30%	Yes
3	Other	Percentage	1%	Prohibit vehicle washing unless use of a bucket and hose equipped with a self-closing valve.	Yes
3	Landscape - Prohibit certain types of landscape irrigation	Percentage	5%		Yes
3	Landscape - Other landscape restriction or prohibition	Percentage	5%	New or expanding landscapes is limited to drought tolerant trees, shrubs and ground cover. No new turf grass shall be placed, hydroseeded or laid	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	5%		Yes
3	Pools - Allow filling of swimming pools only when an appropriate cover is in place.	Percentage	1%		Yes
3	CII - Other CII restriction or prohibition	Percentage	1%	Operators of hotels, motels, and other commercial establishments offering lodging shall post in each room and site a notice of water shortage condition, approved by the Director of Utilities	Yes
4	Expand Public Information Campaign	Percentage	3%	Encourage water users to reduce water waste	No
4	Other	Percentage	3%	City water customers shall reduce water use by 40%	Yes
4	Landscape - Prohibit certain types of landscape irrigation	Percentage	5%	Irrigation of any landscaping except trees or drought tolerant plantings is prohibited	Yes
4	Landscape - Other landscape restriction or prohibition	Percentage	5%	All nonresidential users are to reduce irrigation by 40% for existing landscapes	Yes
4	Moratorium or Net Zero Demand Increase on New Connections	Percentage	3%	No new water service connections or commitments for new water service shall be put in place	Yes
4	Other water feature or swimming pool restriction	Percentage	1%	Filling pools and spas is prohibited	Yes
5	Expand Public Information Campaign	Percentage	3%	Encourage water users to avoid water waste	No
5	Other	Percentage	3%	City water customers shall reduce water use by 50%	Yes
5	Moratorium or Net Zero Demand Increase on New Connections	Percentage	3%	No new water service connections or commitments for new water service shall be put in place	Yes
6	Other	Percentage	3%	City water customers shall reduce water use by 60%	Yes



Water Shortage Contingency Plan

5.2 Additional Mandatory Restrictions

In addition to demand reduction actions, the City has the following mandatory water restrictions set forth in City of Manteca Municipal Code (MMC) §13.04.210. Under Stages 1 to 6, the use of water in any of the following manners are restricted:

A. For washing of sidewalks, driveways, patios, parking lots, aprons or other non-landscaped exterior ground areas, except for the purpose of maintaining the area in a clean, safe and sanitary condition;

B. Watering of landscaping:

- 1. Except at locations bearing a street address ending in an even number except on Tuesday, Thursday and Saturday,*
- 2. Except at locations bearing a street address ending in an odd number except on Wednesday, Friday and Sunday,*
- 3. At any location between the hours of twelve p.m. to six p.m. on any day,*
- 4. At all locations and all times, watering of landscapes is prohibited on Monday,*
- 5. The following shall not be subject to the watering day and time restrictions:*
 - a. All locations within thirty days of new landscape installation,*
 - b. Manteca public golf course, city parks, the City Hall complex, and Manteca Unified School District landscapes,*
 - c. Private parks or other landscaped areas larger than four acres,*
 - d. Landscape irrigation exclusively using drip irrigation and/or micro spray irrigation systems,*
- 6. Irrigating outdoors during and within forty-eight hours following measurable (at a minimum any amount of rainfall that generates runoff or puddles) rainfall;*

C. Taking of water from any fire hydrant except by regularly constituted fire protection agencies or provided a permit for construction water has been obtained through the public works department;

D. Allowing the escape of water through leaks, breaks or malfunction in the user's plumbing or distribution system for more than twenty-four hours after discovery thereof by, or notice thereof to, the user;

E. Washing of automobiles or boats except:

- 1. By use of a quick-acting positive shut-off nozzle on the hose or a bucket and sponge,*
- 2. At a commercial car wash;*



Water Shortage Contingency Plan

- F. Serving water by restaurants except upon request of a customer;*
- G. Irrigation that causes water runoff onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;*
- H. Using potable water in decorative water features that do not recirculate the water;*
- I. Hotels and motels must offer their guests the option to not have their linens and towels laundered daily, and prominently display this option in each guest room.*

These restrictions are in addition to State mandated prohibitions. The City will enforce both State mandated prohibitions and its own restrictions.

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. Regulations under MMC §13.04.210 prohibit the use of potable water in decorative water features unless the water is recirculated.

5.3 Supply Augmentation and Other Actions

The City has approximately 3.8 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 conducts annual construction projects to repair and replace water distribution system infrastructure to reduce water system losses.

In a water shortage emergency, the City may pursue purchased water supplies from water suppliers adjacent to the City boundaries to mitigate the shortage gap. Supply augmentation and other actions that the City may implement during water supply emergencies are summarized in Table 4 below.



Water Shortage Contingency Plan

Table 4. Supply Augmentation and Other Actions (DWR Table 8-2R)

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
	Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool	Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
1-4	Expand Public Information Campaign	Percentage	5 to 10%	Intensify public information and educational outreach programs
5	Implement or Modify Drought Rate Structure or Surcharge	Percentage	10 to 20%	The City of Manteca will consider implementation of drought rates.
6	Transfers	Percentage	Up to the shortage gap	The City of Manteca will coordinate with adjacent water suppliers.

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 conducting compliance and enforcement efforts. The City may also elect to lower water system pressure and limit water main flushing and treatment vessel backwashing. 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. The ERP includes actions to be taken in preparation for, during, and recovery from such events. 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.



Water Shortage Contingency Plan

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, social media posts, press releases, and blog 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



Water Shortage Contingency Plan

requirements. The City may also become aware of non-compliance through water waste reporting by the general public, the City's online reporting tool, City staff inspections, and/or manual review of customer use data.

MMC Chapter 1.10 applies for violation of regulations and restrictions associated with the water shortage emergency declaration. When the City becomes aware of violations, a written notice of the violation will be delivered to the customer at the premises or by first class mail and posted in a conspicuous location at the premises. A copy of the notice will also be mailed to the regularly billed customer for water use at the premises. The notice will describe the violation and request that it be corrected, cured, or abated within a reasonable period of time as determined by the City under the circumstances. The notice will include a list of potential consequences for failure to comply with the notice, including fines. Should the violation persist, the City may assess civil penalties per MMC Chapter 1.10 Article V. Civil penalties may be assessed at a daily rate as determined by the City. In addition to fines, the City may collect administrative costs incurred in the investigation, inspection, and reinspection of the property.

7.2 Appeal Process

MMC Chapter 1.10 outlines the appeal process for City customers. If a customer wishes to appeal the City's decision, they must submit a written appeal to the Director of Utilities, or designee, within ten calendar days of service of the notice. The Director of Utilities will request the City Attorney to appoint a hearing officer and to schedule a day, time, and place for an appeal hearing. Written notice regarding the hearing will be served at least ten calendar days prior to the hearing to the appealing customer.

8.0 LEGAL AUTHORITIES

The MMC §13.04.210 and §13.04.220 support the City's ongoing water use restrictions, including provisions for enforcement. The MMC 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 empower enactment 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).



Water Shortage Contingency Plan

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 stages. 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.

The City anticipates that reduced water sales will lead to a reduction in revenue, based on decline in water sales and corresponding quantity rate charge. The City also anticipates increased costs from implementing the WSCP as follows:

- Increased staff costs: salaries, benefits, materials and supplies for various staff and new hires required to administer and implement water shortage contingency program measures and actions
- Increased O&M cost: Operations and maintenance costs associated with alternative sources of water supply, reduced system flows, or water quality challenges
- Increased cost of supply and treatment: purchase and treatment costs of new water supply or additional treatment due to existing source shortfalls

In 2024, the City completed a rate study that was adopted by the City Council in March 2025.² The City water rates include a volumetric portion that is usually greater than 50 percent of the average monthly water bill. The rate study also recommended that the City increase its reserve funding to adequately cover unforeseen expenses.

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 is upgrading the entire system to AMI, with

² Raftelis. December 2024. *City of Manteca, CA Water Rate Study*.



Water Shortage Contingency Plan

approximately 25 percent of customer meters connected to a new AMI system. AMI allows the City to monitor customer water usage in real time as necessary for assessing compliance with demand reduction actions and helping customers achieve the reduction goal.

If reduction goals are not met through implementation of the WSCP (during any water shortage stage), the Director will notify the City Council, and more aggressive 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 13.0 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

This WSCP is adopted concurrently with the City's 2025 UWMP, by separate resolution on **MM DD, 2026**. Prior to adoption, a duly noticed public hearing was conducted. A hard copy and electronic copy of this WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after submittal to DWR, copies of this 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 G

City Code 13.04.210 Unlawful Water Use

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City of Manteca, CA
Tuesday, September 16, 2025

Title 13. Public Services

Chapter 13.04. WATERWORKS SYSTEM

§ 13.04.210. Unlawful water use.

It is unlawful for any person to use, permit or allow the use of water in any of the following manners:

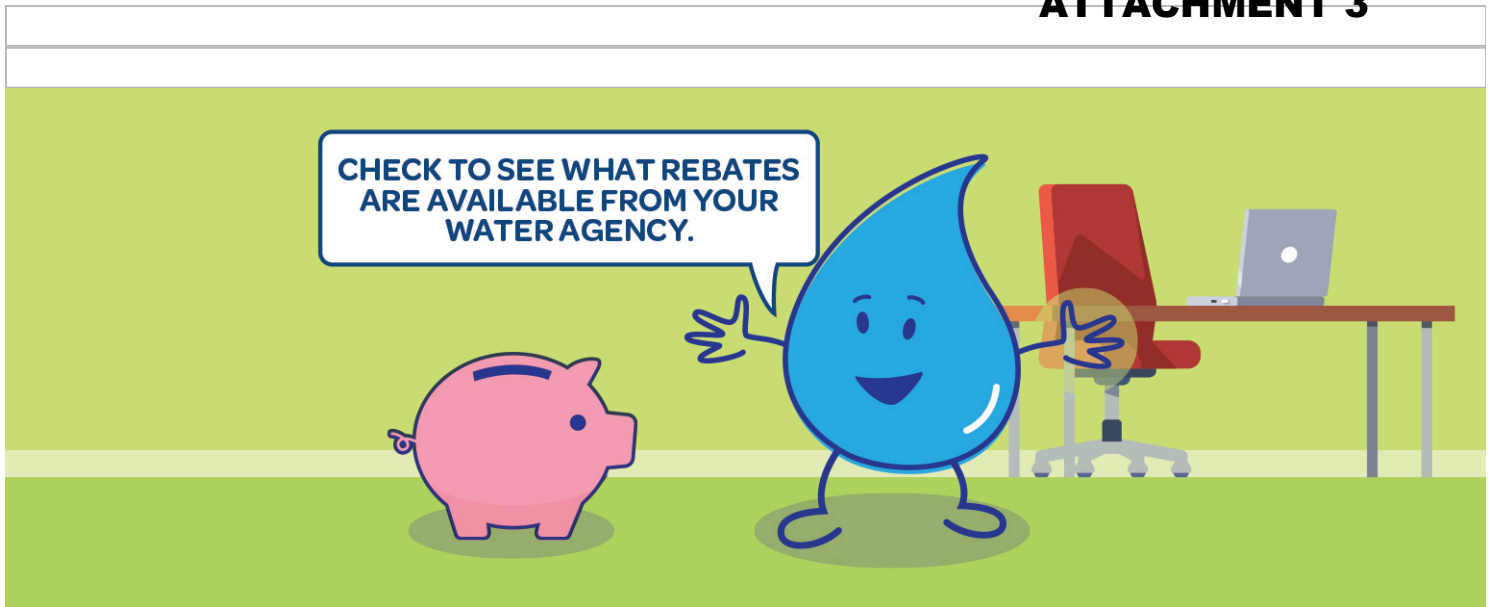
- A. For washing of sidewalks, driveways, patios, parking lots, aprons or other non-landscaped exterior ground areas, except for the purpose of maintaining the area in a clean, safe and sanitary condition;
- B. Watering of landscaping:
 - 1. Except at locations bearing a street address ending in an even number except on Tuesday, Thursday and Saturday,
 - 2. Except at locations bearing a street address ending in an odd number except on Wednesday, Friday and Sunday,
 - 3. At any location between the hours of twelve p.m. to six p.m. on any day,
 - 4. At all locations and all times, watering of landscapes is prohibited on Monday,
 - 5. The following shall not be subject to the watering day and time restrictions:
 - a. All locations within thirty days of new landscape installation,
 - b. Manteca public golf course, city parks, the City Hall complex, and Manteca Unified School District landscapes,
 - c. Private parks or other landscaped areas larger than four acres,
 - d. Landscape irrigation exclusively using drip irrigation and/or micro spray irrigation systems,
 - 6. Irrigating outdoors during and within forty-eight hours following measurable (at a minimum any amount of rainfall that generates runoff or puddles) rainfall;
- C. Taking of water from any fire hydrant except by regularly constituted fire protection agencies or provided a permit for construction water has been obtained through the public works department;
- D. Allowing the escape of water through leaks, breaks or malfunction in the user's plumbing or distribution system for more than twenty-four hours after discovery thereof by, or notice thereof to, the user;
- E. Washing of automobiles or boats except:
 - 1. By use of a quick-acting positive shut-off nozzle on the hose or a bucket and sponge,
 - 2. At a commercial car wash;
- F. Serving water by restaurants except upon request of a customer;

- G. Irrigation that causes water runoff onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;
- H. Using potable water in decorative water features that do not recirculate the water;
- I. Hotels and motels must offer their guests the option to not have their linens and towels laundered daily, and prominently display this option in each guest room.
(Ord. 870 § 1, 1990; Ord. 911 § 2, 1991; Ord. 915 § 1, 1991; Ord. 986 § 1, 1994; Ord. 1110 § 2, 1999; Ord. 1111 § 2, 1999; Ord. 1126 § 1, 2000; Ord. 1239 § 1, 2003; Ord. 1548 §§ 2, 3, 2014; Ord. 1569 § 1, 2015; Ord. 1583 §§ 1, 2, 2016; Ord. O2022-19 § 1; Ord. O2023-17 § 1)

Appendix H

Water Conservation Outreach

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Current City Rebates

City of Manteca Rebates

- [City of Manteca High Efficiency Clothes Washer Application](#)
- [City of Manteca Toilet Rebate Program](#)
- City of Manteca Lawn-to-Garden Program (see below)

Lawn-to-Garden (Turf Replacement Program)

The Manteca Public Works Department pays an incentive of \$1.00 per square foot when a grass lawn is replaced with a beautiful water-efficient landscape suited to our region's semi-arid climate.

Restrictions apply, so be sure to read the [Terms and Conditions](#), and the [Design Requirements](#) (see links below) for more information.



There are a few highlights of the program:

- L2G program only applies to front yards and parkways
- The maximum incentive payment is \$650 for residential or 5,000 square feet for commercial
- **If you remove your grass lawn before your design is approved, you will not qualify for the incentive**

Municipal Code 7.48.050 Design Requirements for Specific Types of Landscaping

In addition to the general requirements of Section 17.48.040 (Landscape Improvement Requirements), the following provisions apply to the special types of landscaping as established below.

A. Residential Landscape. For single-family and two-family residential Zoning Districts:

1. For lots of land on which a building permit was issued on or before 07/15/2015, at least 35 percent of the actual front yard shall be landscaped.
2. For lots of lands on which a building permit was issued on or after 07/16/2015, at least 35 percent of the actual front yard shall be landscaped and no more than 25 percent of the actual front yard or street-side yard shall be turf.

Steps To Participate

Call the Water Division at 209 456-8468 or email waterconservation@manteca.city to discuss lawn to garden requirements **before beginning project**.

1. Submit Application, drawing and plant list to the Water Division at 209 456-8468.
2. Water Resources Coordinator will review application, perform a drive by inspection and provide approval to construct.
3. Construct Project.
4. Call Water Resources Coordinator when you have completed the project and are ready for an inspection.
5. With an approved inspection, you will receive your rebate.

Applicants due rebates for this program must also complete [IRS Form W-9](#).

Rebate checks will be issued within 4-6 weeks.

Lawn-to-Garden Required Files

- [Guidelines](#)
- [Terms And Conditions](#)
- [FAQ](#)
- [Kill Lawn](#)
- [Design Requirements](#)
- [Checklist](#)
- [Application](#)



Lawn-to-Garden Approved Plants

- [Bulbs](#)
- [Grasses](#)
- [Groundcover](#)
- [Palms](#)
- [Perennials](#)
- [Shrubs](#)
- [Succulents](#)
- [Trees](#)



Gallery



Service Finder

Starting September 1, 2022
Do your part to conserve drinking water and sign up to get approved!



Water Conservation

Make Water Conservation A Way Of Life

The City of Manteca is dedicated to help residents and businesses conserve water. As a city, we understand we need to do our best to conserve this valuable resource.

To report water wasting, irrigation runoff, or storm drain pollution, use this link:

<https://www.manteca.gov/departments/information-technology-innovation/gorequesor> or call our Water Resources Coordinator at (209) 456-8492.

You can also click [here](#) to email the Water Division.

You can find current city rebates at <https://www.manteca.gov/departments/public-works/water-division/current-city-rebates>

Water Conservation Goodies: If you are in need of a showerhead, toilet tablets (to check for leaks), or a spray nozzle, the City of Manteca can supply you with these water conservation goodies. Click [here](#) to email us at the Water Division or call our Water Resources Coordinator Mrs. Mayorga at (209) 456-8492.

TIPS TO CONSERVE WATER

Bathroom Tips

Kitchen Tips

Laundry Tips

Outdoor Tips

Determining if there is a leak:

Use your water meter to check for leaks. First, start by making sure that all water-using appliances are not being used, including automatic icemakers. If your meter has low flow indicator, it should not be moving. If it is, that means water is passing through the meter and that indicates there is a leak. Otherwise, note the meter reading on the dial and then check again after an hour. If the meter has moved, then you have some leaks and repairs should be made. Fixing leaks saves YOU money.

We hope you find these resources as helpful and interesting!

National Resources

<http://www.awwa.org/>

<http://www.allianceforwaterefficiency.org/>

<http://www.epa.gov/watersense/>

<http://www.usgs.gov/water/>

California Resources

<http://saveourwater.com/>

<http://www.water.ca.gov/>

<http://www.acwa.com/>

<http://resources.ca.gov/>

<https://www.cnps.org/>

Drought / Weather

<http://www.noaa.gov/>

<http://droughtmonitor.unl.edu/>

http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.html

Tools

<https://www.bewaterwise.com/calculator.html>

http://www.epa.gov/watersense/our_water/start_saving.html#tabs-3

<https://www.oberk.com/watercycleglossaryofterms>

For Kids

<http://wateruseitwisely.com/tip-tank-game/>

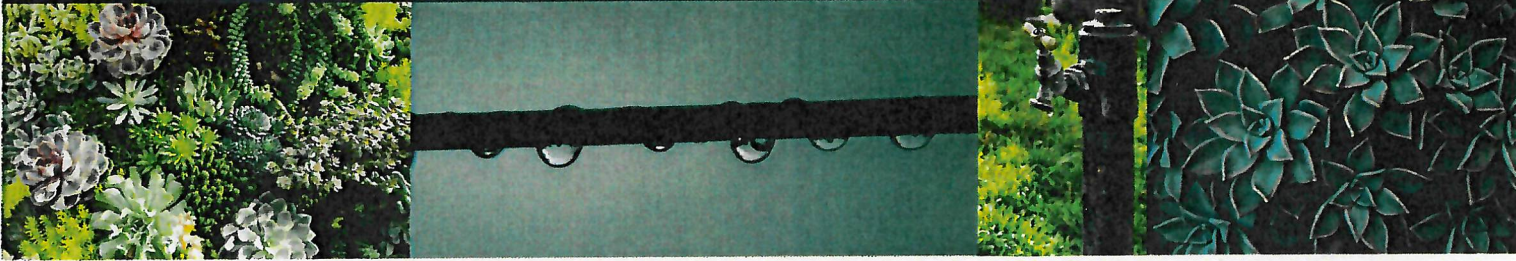
<http://www.epa.gov/students/>

<https://www.discoverwater.org/>

<http://water.usgs.gov/edu/>



WATER CONSERVATION UPDATES FOR CITY OF MANTECA WATER CUSTOMERS



Please be advised there have been changes to the approved watering days:

- Property addresses ending in 0, 2, 4, 6, 8 are allowed to water on Tuesday, Thursday and Saturday.
- Property addresses ending in 1, 3, 5, 7, 9 are allowed to water on Wednesday, Friday and Sunday.
- No watering is allowed on Monday.

To help residents and businesses meet the 20% water reduction requirement, the City is offering the following rebate programs:

- ◆ Installation of a High-Efficiency Clothes Washer
- ◆ Installation of High-Efficiency Toilet
- ◆ Lawn-to-Garden Program

Applications can be found on the City's website at:

<https://www.ci.manteca.ca.us/PublicWorks/Water/Pages/Current-City-Rebates.aspx>

A New Residential Recycled Water Program is Now Available in Manteca!

The City of Manteca is offering free recycled water to residents for landscape irrigation in order to help conserve water per the Drought Stage 2 requirements. Do your part to conserve drinking water by signing up to get approved for recycled water.

For more information, contact Heather Grove at (209) 456-8473 or hgrove@mantecagov.com



For more information or to report unlawful water waste,
please call 209-456-8410 or scan the QR code for the GoGov App.





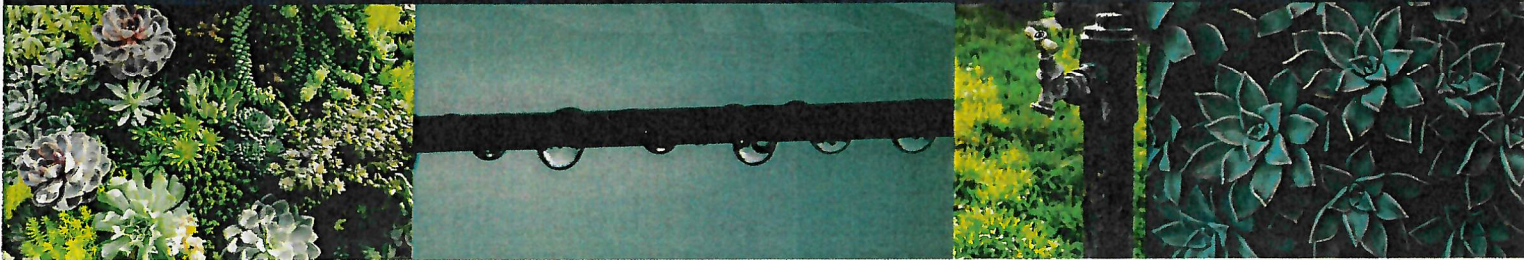
Manteca City Hall
1001 W Center St.
Manteca, CA 95337

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POSTAL CUSTOMER



WATER CONSERVATION UPDATES FOR CITY OF MANTECA WATER CUSTOMERS



On August 16, 2022, the City of Manteca Council adopted Ordinance No. 02022 19, immediately changing the City's Unlawful Water Use Code (13.04.210).

Prohibited Uses of Water

- ◆ No watering on Monday, except for City Parks, City Hall, Manteca Unified School District and Private Parks/Landscaped areas greater than 4 acres.
- ◆ Do not water between the hours of 12 p.m. (noon) and 6 p.m.
- ◆ No irrigation system may cause water runoff onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots or structures.
- ◆ Do not operate evaporated coolers without a recirculating pump.

Permitted Uses of Water

- ◆ Property addresses ending in 0,2,4,6,8 can water on Tuesday, Thursday and Saturday.
- ◆ Property addresses ending in 1,3,5,7,9 can water on Wednesday, Friday and Sunday.
- ◆ Landscape irrigation exclusively using drip irrigation and/or micro-spray irrigation systems can water on any day.
- ◆ Watering of trees, shrubs, sports fields / functional turf areas, including commercial, industrial and institutional properties.
- ◆ Irrigating with non-potable or recycled water.

Water Use Violations

1st violation – Warning | **2nd** violation – \$50
3rd violation – \$100 | **Additional** violations – \$250



Appendix I

UWMP and WSCP Adoption Resolutions

Not included with this submittal.

DRAFT