

Joint 2025 Urban Water Management Plan

PREPARED FOR

Stanislaus Regional Water Authority
City of Turlock



PREPARED BY



Joint 2025 Urban Water Management Plan

Prepared for

Stanislaus Regional Water Authority City of Turlock

Project No. 693-20-16-01



Prepared by: Monique Day, PE, RCE #69793

June 19, 2026

Date

A blue cursive signature of Rhodora N. Biagtan.

QA/QC Review: Rhodora Biagtan, PE, RCE #59371

June 19, 2026

Date

Table of Contents

EXECUTIVE SUMMARY	ES-1
Introduction.....	ES-1
California Water Code Requirements	ES-1
City of Turlock and SRWA Water System	ES-2
Water Use By City of Turlock and SRWA Customers.....	ES-2
City of Turlock and SRWA Water Supplies	ES-2
Conservation Target Compliance	ES-3
City of Turlock and SRWA Water Service Reliability.....	ES-3
Water Shortage Contingency Plans.....	ES-3
UWMP Preparation, Review, and Adoption.....	ES-4
CHAPTER 1 Introduction.....	1-1
1.1 Introduction.....	1-1
1.2 Importance and Extent of 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 Regional Planning	2-2
2.3 Individual or Regional Planning and Compliance	2-2
2.4 Fiscal or Calendar Year And Units of measure	2-2
2.5 Coordination and Outreach.....	2-3
2.5.1 Wholesale and Retail Coordination	2-3
2.5.2 Coordination with Other Agencies and the Community	2-4
2.5.3 Notice to Cities and Counties.....	2-5
CHAPTER 3 Service Area Description.....	3-1
3.1 General Description.....	3-1
3.2 Service Area Boundary	3-1
3.2.1 City of Turlock	3-1
3.2.2 City of Ceres	3-2
3.3 Service Area Climate.....	3-5
3.4 Service Area Population and Demographics	3-6
3.4.1 Service Area Population.....	3-6
3.4.2 Other Social, Economic, and Demographic Factors.....	3-7
3.4.2.1 City of Turlock.....	3-8
3.4.2.2 City of Ceres.....	3-8

Table of Contents

3.5 Land Uses Within Service Area	3-9
3.5.1 City of Turlock	3-9
3.5.2 City of Ceres	3-9
3.6 Water System Facilities	3-10
3.6.1 SRWA Raw Water Facilities	3-10
3.6.2 SRWA Water Treatment Plant	3-11
3.6.3 SRWA Finished Water Transmission Pipelines.....	3-11
3.6.4 City of Turlock Water System Facilities.....	3-11
CHAPTER 4 Water Use Characterization	4-1
4.1 Non-Potable Versus Potable Water Use	4-1
4.2 Water Use by Sector	4-1
4.2.1 Historical Water Use	4-2
4.2.1.1 City of Turlock.....	4-2
4.2.1.2 SRWA	4-4
4.2.2 Current Water Use	4-4
4.2.2.1 City of Turlock.....	4-4
4.2.2.2 SRWA	4-5
4.2.3 Projected Water Use.....	4-6
4.2.3.1 City of Turlock.....	4-6
4.2.3.2 SRWA	4-7
4.2.4 Characteristic Five-Year Water Use	4-8
4.2.4.1 City of Turlock.....	4-8
4.2.4.2 SRWA	4-9
4.2.5 Estimating Future Water Savings.....	4-9
4.2.6 Water Use for Lower Income Households	4-10
4.3 Distribution System Water Losses.....	4-11
4.4 Climate Change Considerations.....	4-13
CHAPTER 5 SB X7-7 Baselines, 2020 Targets, and 2025 Reporting	5-1
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 Characterization	6-1
6.1 Overview of Water Supplies	6-1
6.2 Groundwater	6-2
6.2.1 Subbasin Description	6-2
6.2.2 Groundwater Subbasin Management	6-3
6.2.3 Subbasin Sustainable Yield.....	6-5
6.2.4 Management Actions.....	6-6
6.2.5 Groundwater Quality	6-7

Table of Contents

6.2.6 Groundwater Use – Past Five Years	6-7
6.2.7 Groundwater Use – Projected	6-8
6.3 Water Exchanges and Transfers	6-9
6.3.1 Surface Water Allocations.....	6-10
6.3.2 Offset Water	6-11
6.4 Surface Water	6-11
6.5 Purchased or Imported Water.....	6-11
6.6 Stormwater.....	6-11
6.7 Wastewater and Recycled Water	6-12
6.7.1 Recycled Water Coordination	6-12
6.7.2 Wastewater Collection, Treatment, and Disposal	6-13
6.7.2.1 Wastewater Collected Within Service Area	6-13
6.7.2.2 Wastewater Treatment and Discharge Within Service Area	6-14
6.7.3 Recycled Water System Description	6-17
6.7.4 Potential, Current, and Projected Recycled Water Uses	6-17
6.7.5 Actions to Encourage and Optimize Future Recycled Water Use.....	6-20
6.7.5.1 Expansion of Recycled Water to TID for Agricultural Irrigation	6-20
6.7.5.2 Outreach for Recycled Water for Residential and Commercial Filling Stations	6-20
6.8 Desalinated Water.....	6-21
6.9 Future Water Projects	6-21
6.9.1 City of Turlock	6-21
6.9.2 SRWA.....	6-22
6.10 Summary of Existing and Planned Sources of Water	6-24
6.10.1 City of Turlock	6-24
6.10.2 SRWA.....	6-27
6.11 Special Conditions	6-29
6.11.1 Climate Change Impacts	6-29
6.11.2 Regulatory Conditions.....	6-30
6.12 Energy Intensity.....	6-32
6.12.1 Water System Energy Intensity.....	6-32
6.12.2 Wastewater System Energy Intensity	6-36
CHAPTER 7 Water Service Reliability and Drought Risk Assessment	7-1
7.1 Constraints on Water Sources.....	7-1
7.1.1 Groundwater.....	7-1
7.1.1.1 Salinity	7-2
7.1.1.2 Arsenic	7-2
7.1.1.3 Nitrates.....	7-2
7.1.1.4 1,2,3-Trichloropropane	7-3
7.1.1.5 Hexavalent Chromium.....	7-3

Table of Contents

7.1.2 Surface Water	7-3
7.1.2.1 Federal Energy Regulatory Commission Fish Flow Requirement.....	7-4
7.1.2.2 Tuolumne River Emergency Curtailment Orders	7-4
7.1.2.3 Bay-Delta Plan	7-4
7.1.3 Recycled Water	7-5
7.2 Water Service Reliability Assessment.....	7-5
7.2.1 Year Type Characterization	7-5
7.2.1.1 Groundwater	7-6
7.2.1.2 Surface Water.....	7-6
7.2.2 Water Service Reliability – Normal Year	7-10
7.2.2.1 City of Turlock.....	7-10
7.2.2.2 SRWA	7-11
7.2.3 Water Service Reliability – Single Dry Year	7-12
7.2.3.1 City of Turlock.....	7-12
7.2.3.2 SRWA	7-13
7.2.4 Water Service Reliability – Five-Consecutive-Year Drought	7-14
7.2.4.1 City of Turlock.....	7-14
7.2.4.2 SRWA	7-16
7.3 Drought Risk Assessment	7-17
7.3.1 Data, Methods, and Basis for Water Shortage Condition.....	7-17
7.3.1.1 City of Turlock.....	7-18
7.3.1.2 SRWA	7-18
7.3.2 DRA Water Source Reliability.....	7-19
7.3.3 Total Water Supply and Use Comparison	7-19
7.3.3.1 City of Turlock.....	7-19
7.3.3.2 SRWA	7-20
7.4 Water Management Tools and Options	7-21
CHAPTER 8 Water Shortage Contingency Plan.....	8-1
8.1 Background.....	8-1
8.2 Water Shortage Contingency Plan.....	8-1
8.3 Water Supply Reliability Analysis	8-1
8.3.1 Seismic Risk Assessment and Mitigation Plan	8-2
8.4 Plan Adoption, Submittal, and Availability	8-3
CHAPTER 9 Demand Management Measures	9-1
9.1 Demand Management Measures for Wholesale Suppliers	9-1
9.1.1 Metering	9-1
9.1.2 Public Education and Outreach.....	9-1
9.1.3 Water Conservation Program Coordination and Staffing Support	9-1
9.1.4 Other Demand Management Measures	9-2
9.1.5 Asset Management	9-2
9.1.6 Wholesale Supplier Assistance Programs	9-2

Table of Contents

9.2 Demand Management Measures for Retail Suppliers	9-2
9.2.1 Water Waste Prevention Ordinances	9-3
9.2.1.1 Implementation Over Recent Years	9-3
9.2.1.2 Implementation to Achieve Water Use Objectives.....	9-3
9.2.2 Metering	9-3
9.2.2.1 Implementation Over the Past Five Years.....	9-4
9.2.2.2 Implementation to Achieve Water Use Objectives.....	9-4
9.2.3 Conservation Pricing	9-4
9.2.3.1 Implementation Over the Past Five Years.....	9-5
9.2.3.2 Implementation to Achieve Water Use Objectives.....	9-5
9.2.4 Public Education and Outreach.....	9-5
9.2.4.1 Implementation Over the Past Five Years.....	9-5
9.2.4.2 Implementation to Achieve Water Use Objectives.....	9-6
9.2.5 Programs to Assess and Manage Distribution System Real Loss.....	9-6
9.2.5.1 Implementation Over the Past Five Years.....	9-6
9.2.5.2 Implementation to Achieve Water Use Objectives.....	9-7
9.2.6 Water Conservation Program Coordination and Staffing Support.....	9-7
9.2.6.1 Implementation Over the Past Five Years.....	9-7
9.2.6.2 Implementation to Achieve Water Use Objectives.....	9-7
9.2.7 Other Demand Management Measures.....	9-7
9.2.7.1 Residential Water Survey Program	9-8
9.2.7.2 Residential WaterSense Toilet Rebate Program	9-8
9.2.7.3 High-Efficiency Washing Machine Rebate Program.....	9-8
9.2.7.4 Large Landscape Conservation Program	9-9
9.2.7.5 Conservation for Commercial and Industrial Accounts.....	9-9
9.3 Member of the California Water Efficiency Partnership.....	9-9
9.4 Meeting Urban Water Use Objectives.....	9-9
9.4.1 Annual Water Use Reporting	9-10
CHAPTER 10 Plan Adoption, 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.....	10-3
10.3.1 Public Hearing	10-3
10.3.2 Adoption	10-3
10.4 Plan Submittal	10-3
10.5 Public Availability.....	10-3
10.6 Plan Implementation	10-4
10.7 Amending an Adopted UWMP or WSCP	10-4

Table of Contents

LIST OF TABLES

Table 2-1. Public Water Systems (DWR Table 2-1 Retail).....	2-1
Table 2-2. Plan Identification (DWR Table 2-2)	2-2
Table 2-3. Supplier Identification (DWR Table 2-3).....	2-3
Table 2-4. Retail: Water Supplier Information Exchange (DWR Table 2-4 Retail)	2-3
Table 2-5. Wholesale: Water Supplier Information Exchange (DWR Table 2-4 Wholesale).....	2-4
Table 3-1. Monthly Average Climate Data Summary	3-5
Table 3-2. City of Turlock Population – Current and Projected (DWR Table 3-1 Retail)	3-6
Table 3-3. Cities of Turlock and Ceres – Current and Projected Population	3-7
Table 3-4. Total Wholesale Population of Cities of Turlock and Ceres – Current and Projected (DWR Table 3-1 Wholesale).....	3-7
Table 4-1. Historical Potable Water Demand by Water Use Sector (Retail)	4-3
Table 4-2. Total Uses for Potable and Non-Potable Water – 2025 (DWR Table 4-1 Retail).....	4-5
Table 4-3. Total Uses for Potable and Non-Potable Water – 2025 (DWR Table 4-1 Wholesale).....	4-6
Table 4-4. Total Uses for Potable and Non-Potable Water – Projected (DWR Table 4-2 Retail)	4-7
Table 4-5. Total Uses for Potable and Non-Potable Water – Projected (DWR Table 4-2 Wholesale)	4-8
Table 4-6. Turlock’s Projected Five-Year Potable Water Use for Retail Customers.....	4-9
Table 4-7. Projected Five-Year Potable Water Use for SRWA's Wholesale Customers	4-9
Table 4-8. Inclusion in Water Use Projections (DWR Table 4-3 Retail)	4-10
Table 4-9. Last Five Years of Water Loss Audit Reporting (DWR Table 4-5 Retail)	4-11
Table 4-10. Progress Towards 2028 Water Loss Standard (DWR Table 4-6 Retail)	4-12
Table 5-1. SB X7-7 2020 Target Progress (DWR Table 5-1 Retail)	5-2
Table 6-1. Sustainable Yield Average Annual Water Budget – Turlock Subbasin	6-6
Table 6-2. Groundwater Pumped in Last Five Years (DWR Table 6-1 Retail).....	6-8
Table 6-3. Groundwater Pumped in Last Five Years (DWR Table 6-1 Wholesale)	6-8
Table 6-4 Projected Potable Groundwater Use for City of Turlock.....	6-9
Table 6-5. Wastewater Collected Within Service Area in 2025 (DWR Table 6-2 Retail)	6-14
Table 6-6. Wastewater Treatment and Outcomes Within Service Area in 2025 (DWR Table 6-3 Retail)	6-15
Table 6-7. Wastewater Treatment and Outcomes Within Service Area in 2025 (DWR Table 6-3 Wholesale).....	6-16
Table 6-8. Current and Projected Recycled Water Uses Within Service Area (DWR Table 6-4 Retail)	6-18

Table of Contents

Table 6-9. 2020 Recycled Water Use Projection Compared to 2025 Actual (DWR Table 6-5 Retail)	6-19
Table 6-10. Current and Projected Recycled Water Uses (DWR Table 6-4 Wholesale)	6-19
Table 6-11. 2020 Recycled Water Use Projection Compared to 2025 Actual (DWR Table 6-5 Wholesale).....	6-20
Table 6-12. Methods to Expand Future Recycled Water Use (DWR Table 6-6 Retail)	6-21
Table 6-13. Expected Future Water Supply Projects or Programs (DWR Table 6-7 Retail)	6-22
Table 6-14. Expected Future Water Supply Projects or Programs (DWR Table 6-7 Wholesale).....	6-23
Table 6-15. Water Supplies – Actual (DWR Table 6-8 Retail).....	6-25
Table 6-16. Water Supplies – Projected (DWR Table 6-9 Retail).....	6-26
Table 6-17. Water Supplies – Actual (DWR Table 6-8 Wholesale)	6-27
Table 6-18. Water Supplies – Projected (DWR Table 6-9 Wholesale).....	6-28
Table 6-19. Energy Intensity for Turlock’s Retail Potable Deliveries – Water Supply Process Approach (DWR Table O-1B)	6-33
Table 6-20. Energy Intensity for SRWA’s Wholesale Potable Deliveries – Water Supply Process Approach (DWR Table O-1A)	6-35
Table 6-21. Energy Intensity – Wastewater & Recycled Water (DWR Table O-2)	6-36
Table 6-21. Energy Intensity – Wastewater & Recycled Water (DWR Table O-2)	6-36
Table 7-1. Estimate of Available TID Water Allocation in 2013-2015 Under the Bay-Delta Plan	7-5
Table 7-2. Basis of Water Year Data (Reliability Assessment) (DWR Table 7-1 Retail)	7-6
Table 7-3. Historical TID Water Allocations.....	7-7
Table 7-4. Percent of Full Allocation for Hydrologic Conditions – SRWA Wholesale Surface Water..	7-8
Table 7-5. Basis of Water Year Data (Reliability Assessment) (DWR Table 7-1 Wholesale).....	7-9
Table 7-6. Normal Year Supply and Demand Comparison – Potable (DWR Table 7-2 Retail)	7-10
Table 7-7. Normal Year Supply and Demand Comparison – Non-Potable (DWR Table 7-2 Retail) ..	7-11
Table 7-8. Normal Year Supply and Demand Comparison – Potable (DWR Table 7-2 Wholesale)	7-12
Table 7-9. Single Dry Year Supply and Demand Comparison – Potable (DWR Table 7-3 Retail)	7-13
Table 7-10. Single Dry Year Supply and Demand Comparison – Non-Potable (DWR Table 7-3 Retail)	7-13
Table 7-11. Single Dry Year Supply and Demand Comparison (DWR Table 7-3 Wholesale).....	7-14
Table 7-12. Multiple Dry Years Supply and Demand Comparison – Potable (DWR Table 7-4 Retail)	7-15
Table 7-13. Multiple Dry Years Supply and Demand Comparison – Non-Potable (DWR Table 7-4 Retail)	7-16

Table of Contents

Table 7-14. Multiple Dry Years Supply and Demand Comparison (DWR Table 7-4 Wholesale)	7-17
Table 7-15. Turlock’s Projected Potable Water Supplies for Drought Risk Assessment – Retail.....	7-18
Table 7-16. SRWA’s Projected Potable Water Supplies for Drought Risk Assessment – Wholesale	7-19
Table 7-17. Five Year Drought Risk Assessment Tables to Address Water Code Section 10635(b) (DWR Table 7-5 Retail)	7-20
Table 7-18. Five Year Drought Risk Assessment Tables to Address Water Code Section 10635(b) (DWR Table 7-5 Wholesale)	7-21
Table 9-1. Documented Water Waste Violation	9-3
Table 10-1. Retail: Notification to Cities and Counties (DWR Table 10-1 Retail).....	10-2
Table 10-2. Wholesale: Notification to Cities and Counties (DWR Table 10-1 Wholesale)	10-2

LIST OF FIGURES

Figure 3-1. SRWA Water Service Area.....	3-3
Figure 3-2. City of Turlock Water Service Area	3-4
Figure 6-1. Jurisdictional Boundaries in Turlock Subbasin	6-4
Figure 7-1. Year Type Characterization Based on Historical TID Allocations	7-8
Figure 9-1. Urban Water Use Objective Components.....	9-10

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: Water Sales Agreement	
Appendix F: Distribution System Water Loss Audits	
Appendix G: City of Turlock Water Shortage Contingency Plan	
Appendix H: SRWA Water Shortage Contingency Plan	
Appendix I: UWMP and WSCP Adoption Resolutions	

Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
µg/L	Micrograms Per Liter
1,2,3-TCP	1,2,3-Trichloropropane
AB	Assembly Bill
ACS	American Community Survey
Act	Urban Water Management Planning Act
AFY	Acre-Feet of Water Per Year
Agreement	Water Sales Agreement
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AWIA	America's Water Infrastructure Act
AWMP	Agricultural Water Management Plan
AWWA	American Water Works Association
BMP	Best Management Practices
CalWEP	California Water Efficiency Partnership
CCR	California Code of Regulations
CD	Compact Disk
CHAS	Comprehensive Housing Affordability Strategy
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
Cities	Cities of Turlock and Ceres
CMMS	Computerized Maintenance Management System
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
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 Plan Guidebook for Urban Water Suppliers
DWR Methodologies	DWR Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (2016)
eAR	Electronic Annual Report
ET	Evapotranspiration
ETSGSA	East Turlock Subbasin Groundwater Sustainability Agency
GP	General Plan
GPCD	Gallons Per Capita Per Day
gpf	Gallons Per Flush
GPM/SF	Gallons Per Minute Per Square Foot
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
Hughson	City of Hughson
LHMP	Local Hazard Mitigation Plan

Table of Contents

LSJR	Lower San Joaquin River
MCL	Maximum Contaminant Levels
MG	Million Gallon
mg/L	Milligrams Per Liter
MGD	Million Gallons Per Day
MGY	Million Gallons Per Year
MID	Modesto Irrigation District
Modesto	City of Modesto
MOU	Memorandum of Understanding
msl	Mean Sea Level
Regional Board	Regional Water Quality Control Board
RRA	Risk and Resilience Assessment
RSWSP	Regional Surface Water Supply Project
RUWMP	Regional Urban Water Management Plan
RWQCF	Regional Water Quality Control Facility
SB X7-7	Water Conservation Act of 2009
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SOI	Sphere of Influence
SP	Specific Plan
SRWA	Stanislaus Regional Water Authority
State Water Board	State Water Resources Control Board
TDS	Total Dissolved Solids
TID	Turlock Irrigation District
Turlock	City of Turlock
UDB	Urban Development Boundary
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
UWUO	Urban Water Use Objectives
WMP	Water Master Plan
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WTSGSA	West Turlock Subbasin Groundwater Sustainability Agency
WUE	Water Use Efficiency
WY	Water Year

Executive Summary

INTRODUCTION

An Urban Water Management Plan (UWMP) helps water suppliers assess the availability and reliability of their water supplies and current and projected water use to help ensure reliable water service under different conditions. This water supply planning is especially critical for California currently, as climate change is resulting in changes in rainfall and snowfall which impact water supply availability and development is occurring throughout the State resulting in increased needs for reliable water supplies. The Urban Water Management Planning Act (Act) requires larger water suppliers that provide water to urban users (whether directly or indirectly) to develop UWMPs every five years. UWMPs evaluate conditions for the next 20 years, so these regular updates ensure continued long-term planning. The Stanislaus Regional Water Authority (SRWA) and City of Turlock (Turlock) provide water service to more than 3,000 connections in their water service areas and are therefore required to prepare a UWMP.

SRWA delivers treated water to two wholesale customers, the California Cities of Turlock and Ceres. This Joint UWMP has been prepared by SRWA and Turlock. While the City of Ceres 2025 UWMP has been prepared separately, this Joint UWMP has been coordinated with the City of Ceres to ensure consistency and accuracy between the two plans.

This Executive Summary serves as a Lay Description of the SRWA and Turlock Joint 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 they are dry years (see Chapter 7).
- **Seismic Risk:** Identify the seismic risk to the agency's water facilities and have a plan to address identified risks (see Chapter 8).

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

Major components and findings of SRWA and Turlock’s Joint 2025 UWMP are summarized below.

CITY OF TURLOCK AND SRWA WATER SYSTEM

The City of Turlock is located in Stanislaus County in California’s San Joaquin Valley. The City serves drinking water within its city limits and provides water to residential, commercial, industrial, institutional/governmental, and landscape customers.

Turlock’s potable water system consists of groundwater wells, storage tanks, pump stations, and an extensive distribution system. Turlock currently operates 15 active potable groundwater wells with a total capacity of approximately 31.9 million gallons per day (MGD), along with storage and pumping facilities that deliver water throughout the city.

In addition to groundwater supplies, Turlock receives treated surface water from SRWA, which operates regional facilities that divert and treat water from the Tuolumne River and began delivering water in 2023. SRWA also delivers treated surface water to the neighboring City of Ceres.

WATER USE BY CITY OF TURLOCK AND SRWA CUSTOMERS

As the Cities of Turlock and Ceres (Cities) continue to grow, the demand for water is projected to increase. Thorough and accurate accounting of current and future water demands is critical for the Cities’ planning efforts. To continue delivering safe and reliable drinking water, Turlock and SRWA must know how much water its customers currently use and how much they expect to use in the future.

In 2025, Turlock’s total potable water demand was approximately 6,146 million gallons (MG). Water use varies by use type, with single-family residential and industrial uses representing the largest components of total demand. Based on projected population growth and land use development, Turlock’s water demand is expected to increase over time. By 2050, total potable water demand is projected to reach approximately 9,892 MG, representing an increase of about 61 percent compared to 2025.

In 2025, SRWA delivered approximately 2,104 MG of treated surface water to Turlock and 1,413 MG to the Ceres, for a total of 3,517 MG. Based on projected growth in Turlock and Ceres, as well as the Cities’ goal of reducing reliance on groundwater through increased use of surface water, SRWA’s total water sales are anticipated to increase to approximately 6,691 MG by 2050.

CITY OF TURLOCK AND SRWA WATER SUPPLIES

Turlock’s current potable water supplies include groundwater pumped from city-owned wells and treated surface water purchased from SRWA. Turlock also uses recycled water from its Regional Water Quality Control Facility (RWQCF) and untreated groundwater for non-potable uses such as landscape irrigation.

Historically, the Cities of Turlock and Ceres relied exclusively on groundwater. With the implementation of the Regional Surface Water Supply Project and formation of SRWA, the Cities have diversified their water supply portfolio with treated surface water to improve long-term reliability and reduce dependence on groundwater.

Since beginning operations in November 2023, SRWA has diverted and treated Tuolumne River surface water, purchased from the Turlock Irrigation District (TID). SRWA's current water treatment plant (WTP) capacity is 15 MGD but is expected to increase up to 19.9 MGD in 2028 upon completion of an on-going filter capacity study. SRWA also has plans for a Phase 2 WTP Expansion to 30 MGD, which is planned for 2041. The exact timing of SRWA's WTP expansion may vary based on the timing of growth within the Cities' water service areas.

Looking forward, Turlock plans to continue using a conjunctive use strategy that combines groundwater and surface water supplies. Planned improvements include additional groundwater wells, wellhead treatment systems, and the future SRWA WTP expansion to meet increasing demands.

CONSERVATION TARGET COMPLIANCE

In its 2015 UWMP, Turlock confirmed its baseline per capita water use and established and adopted its water use target of 284 gallons per capita per day (GPCD) for 2020. In its 2020 UWMP, Turlock verified that it achieved its 2020 water use target in accordance with SB X7-7. Turlock's per capita water use in 2020 was 250 GPCD, below the confirmed 2020 water use target of 284 GPCD. This achievement was the result of continued water conservation by Turlock's customers.

CITY OF TURLOCK AND SRWA WATER SERVICE RELIABILITY

The CWC requires 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 are required to estimate their water supplies during a normal year, single dry year, and five consecutive dry years using historical records. Turlock and SRWA used 2015 drought conditions to represent a single dry year and 2012-2016 conditions to represent a five-consecutive-year drought.

Under normal year conditions, Turlock's projected water supplies exceed demands through 2050. During dry years, surface water supplies from SRWA may be reduced by TID; however, Turlock's local groundwater supplies are expected to remain available and can be used to meet demand. Therefore, Turlock 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.

Turlock's drought risk was specifically assessed between 2026 and 2030, assuming that the next five years are dry years. The analysis indicates that water supplies are sufficient to meet projected demands during this period, even under extended drought conditions, due to the City's diversified water supply portfolio and conjunctive use strategy.

WATER SHORTAGE CONTINGENCY PLANS

A WSCP describes an agency's plan for preparing for and responding to water shortages. Turlock's WSCP was adopted in 2021 to be consistent with the 2018 Water Conservation Legislation requirements. Turlock has made some updates to its WSCP with the preparation of this Joint 2025 UWMP to reflect the City's new surface water source from SRWA and its updated municipal code. As SRWA recently developed its WSCP in 2024 during preparation of its 2020 UWMP, the SRWA's WSCP did not require revisions.



Turlock's updated WSCP was 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. SRWA's WSCP was adopted concurrently with its 2020 UWMP, by separate resolution.

UWMP PREPARATION, REVIEW, AND ADOPTION

Turlock and SRWA prepared this Joint 2025 UWMP in coordination with the public. While preparing this plan, Turlock and SRWA also notified other stakeholders of its preparation, its availability for review, and the public hearing prior to adoption.

Turlock and SRWA encouraged community participation in the development of the Joint 2025 UWMP and Turlock's WSCP using mailings and the City and SRWA's website. These public notices included the times and places of the public hearings, as well as where the plans would be available for public inspection. The public hearings provided opportunities for Turlock and SRWA's water users and the general public to become familiar with the Joint 2025 UWMP, including the WSCPs, and ask questions about their plans for continuing to provide reliable, safe, high-quality water and mitigating potential water shortages.

Following the public hearings, the Joint 2025 UWMP was adopted by the SRWA Board of Directors on May 21, 2026, and adopted by the Turlock City Council on May 26, 2026. Following the public hearing in Turlock, the Turlock City Council also adopted the WSCP Update. A copy of the adopted Joint 2025 UWMP, including the WSCPs, was submitted to the California Department of Water Resources and to the California State Library. An electronic copy of the adopted Joint 2025 UWMP and Turlock's WSCP Update will also be available on the SRWA and Turlock websites.

CHAPTER 1

Introduction

This chapter provides an introduction and overview of the Stanislaus Regional Water Authority (SRWA) and City of Turlock (Turlock) Joint 2025 Urban Water Management Plan (UWMP), including the importance and extent of SRWA and Turlock’s water management planning efforts, changes since the preparation of SRWA and Turlock’s 2020 UWMPs, and the organization of the Joint 2025 UWMP. This 2025 UWMP has been prepared jointly by SRWA, City of Turlock, 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 WATER MANAGEMENT PLANNING EFFORTS

The purpose of the UWMP is to provide a planning tool for SRWA and Turlock for developing, managing, and delivering municipal water supplies to the Cities of Ceres’ and Turlock’s water service areas. This Joint UWMP provides SRWA and Turlock with a water management action plan for guidance as water demand and/or water supply conditions change.

Water Shortage Contingency Plans (WSCPs) for both SRWA and Turlock are included in this UWMP and provide plans for response to various water supply shortage conditions. SRWA’s WSCP was adopted in October 2024 and the updated WSCP for Turlock was adopted on May 26, 2026, in parallel with this UWMP.

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 mandated water use reduction was included in 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. Turlock is required to report compliance with its 2020 water use target in its 2025 UWMP. This compliance reporting is not applicable to SRWA since it is not a retail water agency.

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

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

1. Water Supply Reliability Assessment – a water supply and demand assessment which compares the total water supply sources available to SRWA and Turlock 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 SRWA’s and Turlock’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 Turlock’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 Turlock’s retail system water loss for Years 2021 to 2025, and indicating compliance with Turlock’s distribution 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))

Because SRWA’s 2020 UWMP and WSCP were completed in October 2024 (as SRWA began delivering water to its customers in November 2023), SRWA’s WSCP will not be updated in parallel with the Joint 2025 UWMP.

Turlock’s WSCP was previously adopted in May 2021 concurrent with its 2020 UWMP. This Joint 2025 UWMP includes updates and refinements to Turlock’s WSCP to incorporate the new SRWA water supply source and provisions in its updated municipal code.

1.4 PLAN ORGANIZATION

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

As described in this plan, SRWA is a wholesale water supplier that delivers treated surface water to the Cities of Turlock and Ceres (Cities). Therefore, where applicable, separate descriptions have been included for the SRWA and City of Turlock water systems. These sections reference each other extensively. Because SRWA does not have any direct urban customers, the Cities oversee demand management measures and other public outreach activities.

This Joint 2025 UWMP is organized into the following chapters:

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

This Joint 2025 UWMP also contains the following appendices of supplemental information and data related to the plan:

- 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: Water Sales Agreement
- Appendix F: Distribution System Water Loss Audits
- Appendix G: City of Turlock Water Shortage Contingency Plan
- Appendix H: SRWA Water Shortage Contingency Plan
- Appendix I: UWMP and WSCP Adoption Resolutions

Furthermore, this Joint 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 SRWA and Turlock’s Joint 2025 UWMP and each agency’s 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).

SRWA delivers treated water to its wholesale customers, the California Cities of Turlock and Ceres. Turlock and Ceres have approximately 19,769 and 11,881 active water service connections, respectively. Therefore, SRWA and the Cities of Turlock and Ceres are required to prepare an UWMP and periodically update its WSCPs. This Joint 2025 UWMP has been prepared by SRWA and the City of Turlock. While the City of Ceres 2025 UWMP has been prepared separately, this Joint 2025 UWMP has been coordinated with the City of Ceres to ensure consistency and accuracy between the two plans.

SRWA’s last UWMP, the 2020 UWMP, was adopted by the SRWA Board in October 2024. SRWA’s WSCP was adopted concurrently with the 2020 UWMP in October 2024 by separate resolution. Turlock’s last UWMP and WSCP, the 2020 UWMP and WSCP, was prepared separately from SRWA and adopted by the Turlock City Council May 25, 2021.

As shown in Table 2-1 (DWR Table 2-1 Retail), the Cities of Turlock and Ceres provided water to a total of approximately 31,650 active customer connections and supplied a total volume of 8,338 million gallons (MG) of potable water in 2025.

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

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (MG)
CA5010019	City of Turlock	19,769	6,146
CA5010028	City of Ceres	11,881	2,192
Total		31,650	8,338
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: Number of municipal connections includes active connections only. Volume of water supplied includes both retail water and wholesale water purchases.			

2.2 REGIONAL PLANNING

As described in Section 2.3, SRWA and Turlock have prepared this Joint 2025 UWMP on an individual reporting basis, not part of a regional planning process. However, SRWA and Turlock coordinate routinely with each other, and with the City of Ceres and neighboring water agencies, to ensure that a safe and reliable water supply is delivered to existing customers and that plans for serving future customers are implemented as efficiently as possible.

2.3 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

This Joint 2025 UWMP has been prepared on an individual reporting basis covering only SRWA and Turlock’s service area, as shown in Table 2-2 (DWR Table 2-2). SRWA and Turlock did not participate in a regional alliance for the preparation of this Joint 2025 UWMP and, therefore, has not prepared a Regional Urban Water Management Plan (RUWMP). As described in Section 2.5, SRWA and Turlock have 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)	

2.4 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

SRWA is a water wholesaler that sells water to other agencies who then sell it to individual water users (e.g., residents and businesses). As described in detail in Chapter 3, SRWA is a recently formed Joint Powers Authority. SRWA’s customers consist of the Cities of Turlock and Ceres, jointly referred to as the Cities. SRWA commenced water deliveries to the Cities in November 2023. Turlock is a water retailer.

This Joint 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 Joint 2025 UWMP are reported in units of MG.

SRWA and Turlock’s reporting methods for this Joint 2025 UWMP are summarized in Table 2-3 (DWR Table 2-3).

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

Type of Supplier (select one or both)	
<input checked="" 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
Units of measure used in UWMP (Select from the drop down list).	
Unit	MG
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	

2.5 COORDINATION AND OUTREACH

This section includes a discussion of SRWA and Turlock’s inter-agency coordination and coordination with the general public. The UWMP Act requires SRWA and Turlock to coordinate the preparation of the Joint 2025 UWMP and each of their WSCPs with other appropriate agencies and all departments within Turlock, 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 Joint 2025 UWMP and are summarized in the sections that follow.

2.5.1 Wholesale and Retail Coordination

SRWA is a water wholesaler that delivers treated water to its two retail customers, the Cities of Turlock and Ceres. Turlock is a water retailer and receives wholesale water from SRWA. In accordance with CWC § 10631, Turlock informed SRWA of its projected water use for that wholesale source in five-year increments through 2050, as shown in Table 2-4 (DWR Table 2-4 Retail). As shown in Table 2-5 (DWR Table 2-4 Wholesale), SRWA provided information to the Cities of Turlock and Ceres, identifying and quantifying wholesale water supplies available for the same period, under normal water year, single dry year, and five dry years hydrological conditions.

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

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
Stanislaus Regional Water Authority (SRWA)

Table 2-5. Wholesale: Water Supplier Information Exchange (DWR Table 2-4 Wholesale)

<input type="checkbox"/>	Supplier has informed more than 10 other water suppliers of water supplies available in accordance with Water Code Section 10631(h). Completion of the table below is optional. If not completed, include a list of the water suppliers that were informed.
	Provide page number for location of the list.
<input checked="" type="checkbox"/>	Supplier has informed 10 or fewer other water suppliers of water supplies available in accordance with Water Code Section 10631(h). Complete the table below.
Water Supplier Name	
City of Turlock	
City of Ceres	

2.5.2 Coordination with Other Agencies and the Community

SRWA and Turlock actively encourage community participation in water management activities and specific water-related projects. SRWA and Turlock’s public participation programs use both active and passive means of obtaining input from the community, including mailings, public meetings, and web-based communication. Turlock’s website provides information on on-going projects and posts announcements about planned rate increases to fund these projects.

As part of the Joint 2025 UWMP, SRWA and Turlock facilitated a public review period. Public notices, pursuant to Section 6066 of the Government Code, were issued to nearby water agencies and the community 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 Joint 2025 UWMP was made available on SRWA and Turlock’s websites. During this same period, Turlock’s updated WSCP was made available on Turlock’s website.

SRWA and Turlock also coordinated the preparation of the Joint 2025 UWMP and Turlock’s updated WSCP with several agencies, including relevant public agencies that utilize the same water supplies. These agencies included the following:

- City of Ceres,
- City of Hughson (Hughson),
- City of Modesto (Modesto),
- Stanislaus County,
- Merced County,
- Denair Community Services District,
- Hilmar County Water District,
- Del Puerto Water District,
- Eastside Water District,

- Keyes Community Services District,
- Turlock Irrigation District,
- Merced Irrigation District,
- Modesto Irrigation District,
- California State University, Stanislaus,
- East Stanislaus Integrated Regional Water Management,
- East Turlock Subbasin GSA,
- West Turlock Subbasin GSA, and
- North Valley Regional Recycled Water Program.

The public hearing provided an opportunity for all water users and the general public to become familiar with the Joint 2025 UWMP, ask questions about SRWA and Turlock’s water supply, and learn about on-going plans to ensure a reliable, safe, high-quality water supply.

2.5.3 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 December 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 Joint 2025 UWMP and Turlock’s WSCP Update. A copy of this notice of preparation is included in Appendix D. The notifications to cities and counties, the public hearing notifications, and the public hearing and adoption are discussed in Chapter 10 of this report.

CHAPTER 3

Service Area Description

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

3.1 GENERAL DESCRIPTION

In 2011, the Cities of Ceres and Turlock established the SRWA, a Joint Powers Authority, to implement and oversee the Regional Surface Water Supply Project (RSWSP). The RSWSP is a collaborative effort to provide treated drinking water from the Tuolumne River to supplement the Cities' existing groundwater supplies and promote recharge to the local groundwater basin. SRWA was formed with the goal of providing an improved and more reliable water supply to meet the potable water demands for the Cities as well as meeting current and future anticipated drinking water standards. The need to supplement and diversify the Cities' existing water supply was the driver for the creation of SRWA.

In 2015, SRWA and Turlock Irrigation District (TID) entered into a 50-year agreement, which provides SRWA the contractual right to purchase up to 30,000 acre-ft per year of Tuolumne River surface water from TID (see Appendix E). Construction of the RSWSP treatment and delivery facilities began in July 2020, and SRWA began delivering treated surface water to its customers, the Cities, in November 2023.

SRWA and Turlock's service area is located within Stanislaus County in the San Joaquin Valley, approximately 85 miles southeast of the City of Sacramento. The San Joaquin Valley is bounded by the Sacramento-San Joaquin River Delta to the north, the Tehachapi Mountains to the south, the Sierra Nevada to the east, the Coast Ranges to the west.

3.2 SERVICE AREA BOUNDARY

As SRWA serves the Cities of Turlock and Ceres (Cities), its service area is contiguous with the water service areas of both Cities. The following section describes the geographical service area boundaries for the Cities.

Figure 3-1 shows the Cities' water service areas, city limits, and spheres of influence (SOI). Figure 3-2 is provided to show additional detail on Turlock's service area, city limits, SOI, and Urban Development Boundary (UDB). The SOI is a boundary that encompasses lands that are expected to ultimately be annexed by the city for urban development based on the Cities' respective General Plans (GPs). The Cities' SOI boundary is determined by the Stanislaus County Local Agency Formation Commission. The UDB, also known as the Study Area in Turlock's GP, represents the greatest extent to which urban development may take place within the 2012 GP planning horizon.

3.2.1 City of Turlock

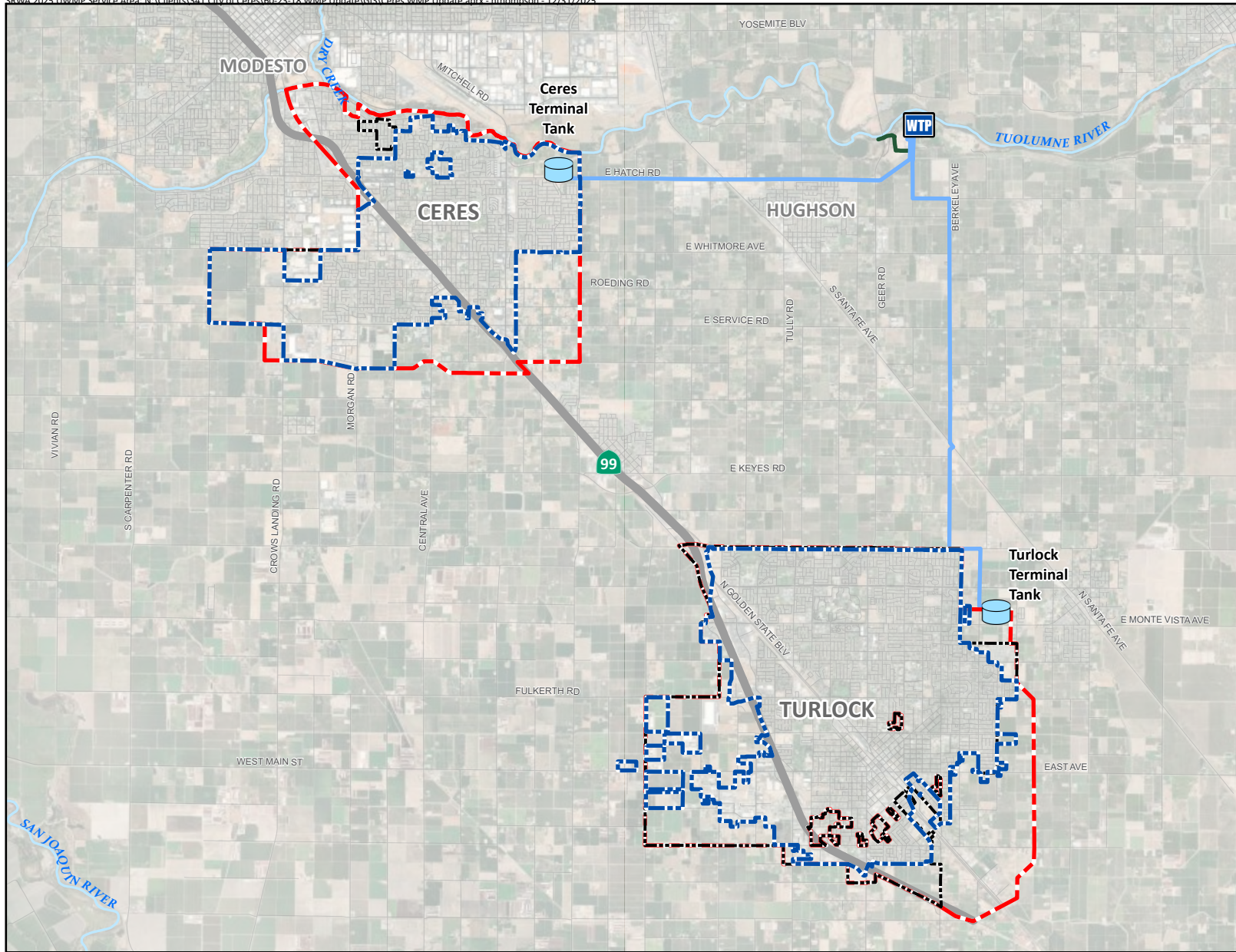
Turlock's city limits encompass approximately 14 square miles (8,730 acres). Except for three small residential areas served with groundwater from Modesto, Turlock serves the entire area encompassed by its city limits, including residential, commercial, industrial, and institutional uses, as shown on Figure 3-1. Turlock's SOI extends farther south-east and encompasses approximately 20 square miles (12,910 acres). Turlock's UDB extends farther west of Highway 99 than the SOI and encompasses a total of 27 square miles (17,460 acres).

Additional information on the City's service area characteristics can be found in the Turlock GP, adopted in September 2012.

3.2.2 City of Ceres

Ceres' city limits and existing water service area encompass an area of approximately 9.4 square miles (6,000 acres). Ceres' water service area is generally contiguous with its city limits, as shown on Figure 3-1. However, there are some small pockets located in the northwest portion of Ceres (North Ceres) and the southwest portion of Ceres (Crows Landing/East Whitmore Area) that are currently served by the City of Modesto. The City of Ceres also provides water service to a small number of customers that are located outside of its city limits. Ceres' SOI extends from the city limits into North Ceres, as well as farther south-east and south-west, and encompasses a total area of approximately 13 square miles (8,440 acres).

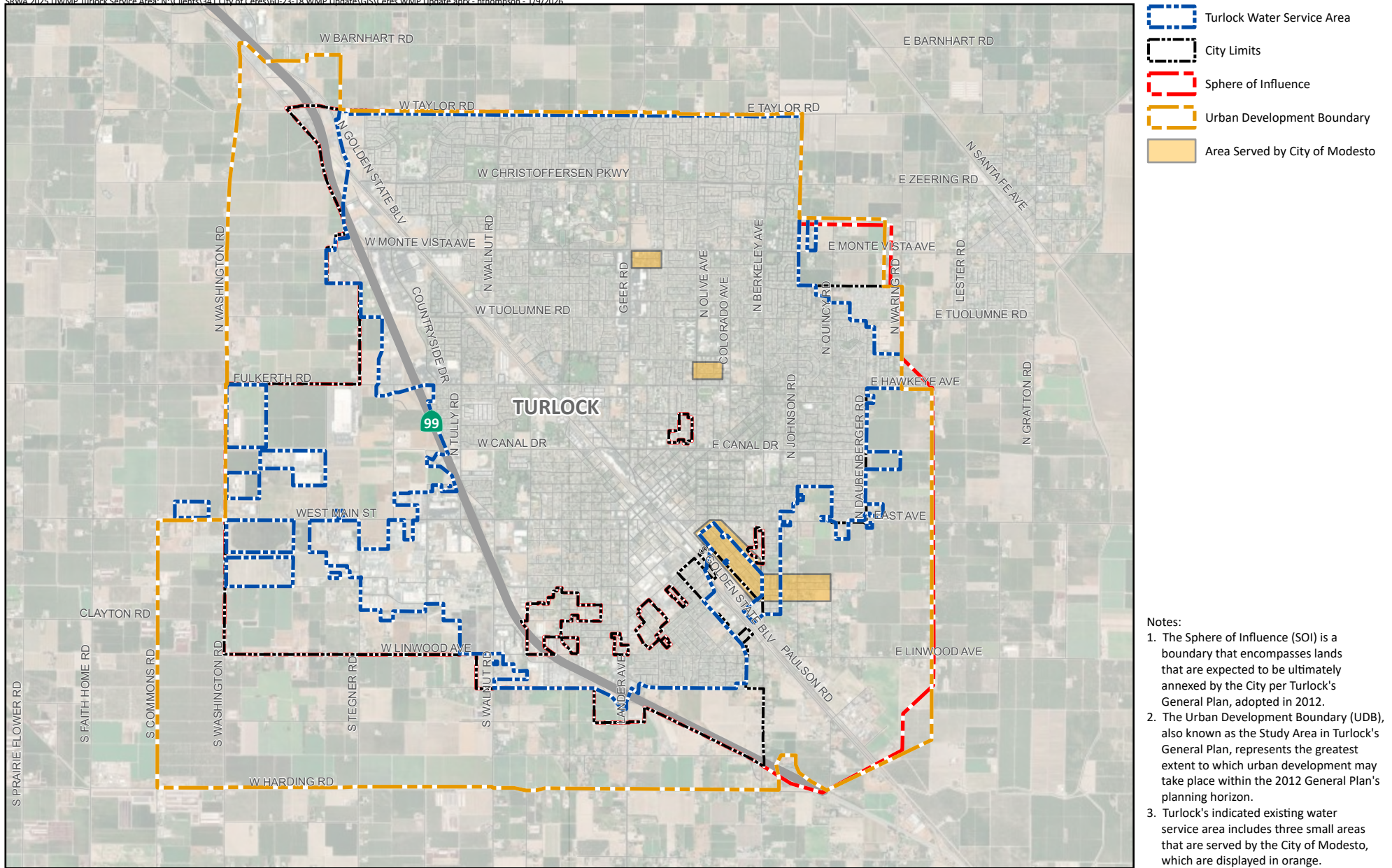
Additional information on the City of Ceres' service area characteristics can be found in the Ceres 2035 GP, adopted in May 2018.



Legend

- RSWSP Water Treatment Plant
- Terminal Storage Tank
- Existing Water Service Area
- City Limits
- Sphere of Influence
- Pipelines**
- Finished Water Transmission Main
- Raw Water Transmission Main

- Notes:**
1. The Sphere of Influence (SOI) is a boundary that encompasses lands that are expected to be ultimately annexed by the City per the City's most recent General Plan.
 2. Turlock's indicated existing water service area includes three small areas that are served by the City of Modesto.
 3. RSWSP: Regional Surface Water Supply Project.



- Notes:
1. The Sphere of Influence (SOI) is a boundary that encompasses lands that are expected to be ultimately annexed by the City per Turlock's General Plan, adopted in 2012.
 2. The Urban Development Boundary (UDB), also known as the Study Area in Turlock's General Plan, represents the greatest extent to which urban development may take place within the 2012 General Plan's planning horizon.
 3. Turlock's indicated existing water service area includes three small areas that are served by the City of Modesto, which are displayed in orange.

3.3 SERVICE AREA CLIMATE

SRWA and Turlock’s service area climate is considered an inland Mediterranean climate, with warm to hot and dry summers, and cool and rainy winters. The climate ranges from summer temperatures occasionally exceeding 90 degrees Fahrenheit (°F), and winter temperatures dropping into the mid-30°F range. Precipitation in the area averages about 12.2 inches per year.

Water use within the 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 service area 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 in West Modesto (Station #71). The historical climate characteristics affecting water management in the service area are shown in Table 3-1.

Month	Standard Monthly Average ET, inches ^(a)	Average Total Rainfall, inches ^(b)	Average Temperature, degrees Fahrenheit ^(a)	
			Minimum	Maximum
January	1.17	2.44	36.4	55.8
February	1.98	2.07	37.9	61.3
March	3.61	1.93	40.2	66.4
April	5.26	1.03	43.3	71.7
May	6.98	0.46	47.9	78.9
June	7.96	0.13	52.3	85.8
July	8.03	0.02	55.9	90.7
August	6.96	0.04	55.2	89.2
September	5.20	0.17	52.3	85.7
October	3.54	0.63	46.1	76.9
November	1.79	1.24	38.9	64.7
December	1.09	2.05	35.4	55.5
Total	53.6	12.2	-	-

(a) California Irrigation Management Information System (<https://cimis.water.ca.gov/>) for Station #71. Period of record is years 1990 through 2025. Data accessed 12/31/2025.

(b) Western Regional Climate Center (<https://wrcc.dri.edu/>) data for Modesto City Station (045738). Period of record is years 1906 through 2016. Data accessed 12/31/2025.

The region is subject to wide variations in annual precipitation. The 2020 rainfall season (defined as the period from July 1, 2019 through June 30, 2020) was relatively dry, with a total rainfall of 6.5 inches. The 2021 and 2022 seasons were similarly dry, with total rainfall of 9.4 inches and 10.0 inches, respectively.

In contrast, the 2023 and 2024 seasons were relatively wet with 18.9 and 15.3 inches of rain respectively. The 2025 season returned to dry conditions, with only 7.7 inches of total rainfall.¹

As described in Chapter 4, the Cities’ retail 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

SRWA provides water to the Cities. Both cities are projected to experience significant population growth by 2050, which is expected to lead to increased water demand within the service areas.

As both Cities’ water service areas generally align with their respective City limits, current (2025) service area population was estimated for both Cities based on data published by the US Census Bureau and/or California Department of Finance (DOF).

Table 3-2 (DWR Table 3-1 Retail) shows the City of Turlock’s current and projected water service area population. The City of Turlock’s current service area population is estimated to be 72,682, consistent with the City’s population estimate in its 2024 Electronic Annual Report (eAR) submission to the State Water Resources Control Board. This population estimate was based on the City of Turlock’s most recent (2020) US Census Bureau estimate. Future population in Turlock is estimated to increase from its current population at an annual growth rate of 1.9 percent, consistent with the annual growth rate projected in the City’s 2012 GP. This growth rate yields a population of 116,354 persons by 2050. Growth and development within Turlock’s service area are subject to City and County growth management policies.

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

Population Served	2025	2030	2035	2040	2045	2050(opt)
	72,682	79,854	87,734	96,392	105,904	116,354

Table 3-3 shows the current and projected population for both the Cities of Turlock and Ceres. Turlock’s population estimates are consistent with Table 3-2 (DWR Table 3-1 Retail). The City of Ceres’ current service area population is estimated to be 54,513 based on Ceres’ Domestic Water Supply Permit Amendment updated in November 2025. Consistent with the Ceres 2025 UWMP, the City of Ceres’ future population growth was extrapolated from the 2025 actual population estimate, assuming Ceres will reach its buildout population of 79,000 persons as defined in the Ceres 2035 GP. Based on discussions with the City of Ceres staff, GP buildout is assumed to occur by 2045, which is later than the GP’s original estimate of 2035. This calculated growth rate for Ceres is equivalent to a 1.87 percent annual growth rate, which is similar to the City of Turlock’s projected growth rate of 1.9 percent.

¹ Modesto Irrigation District. *Historical Rainfall*. Accessed at <https://www.mid.org/weather/historical-rainfall/> on December 31, 2025.

Table 3-3. Cities of Turlock and Ceres – Current and Projected Population

	2025	2030	2035	2040	2045	2050
Turlock ^(a,b)	72,682	79,854	87,734	96,392	105,904	116,354
Ceres ^(c,d)	54,513	59,811	65,624	72,002	79,000	79,000

(a) Turlock’s 2025 service area population estimate aligns with its 2024 Electronic Annual Report submission to the State Water Resources Control Board and is based on the City of Turlock’s 2020 US Census Bureau data.

(b) Turlock’s future population growth was extrapolated from the 2025 actual population using a 1.9 percent annual growth rate, consistent with the annual growth rate projected in Turlock’s 2012 General Plan.

(c) Ceres’ 2025 service area population estimate is based on the City of Ceres’ Domestic Water Supply Permit Amendment updated in November 2025.

(d) Ceres’ future population growth was interpolated from the 2025 actual population, assuming Ceres will reach its buildout population of 79,000 residents as defined in the Ceres 2035 General Plan. Buildout is assumed to occur by 2045, which is later than the General Plan’s original estimate of 2035.

SRWA itself does not directly serve any urban water customers and, therefore, does not have population of its own. The combined populations of SRWA’s retail water suppliers are shown in Table 3-4 (DWR Table 3-1 Wholesale), consistent with Table 3-3 above.

Table 3-4. Total Wholesale Population of Cities of Turlock and Ceres – Current and Projected (DWR Table 3-1 Wholesale)

Population Served	2025	2030	2035	2040	2045	2050(opt)
	127,195	139,665	153,358	168,394	184,904	195,354

NOTES: Population estimates include both Cities of Turlock and Ceres, consistent with Table 3-3.

3.4.2 Other Social, Economic, and Demographic Factors

The State requires the inclusion of service area socioeconomic information as part of the service area description in UWMPs. However, differences in household water use across sociodemographic groups in the Cities of Turlock and Ceres have not been studied. Therefore, the following social, economic, and demographic information is being provided to comply with the CWC but does not include conclusions about socioeconomic factor effects, or potential effects, on water use. The information was derived from the US Census Bureau’s most recent 5-Year profile of the Cities of Turlock and Ceres for 2019 through 2023.²

All of the Cities’ water utility customers are metered.

² United States Census Bureau. *American Community Survey, 2023: ACS 5-Year Estimates Data Profiles for Turlock City, California and Ceres City, California*. Accessed at <https://data.census.gov/table/ACSDP5Y2023.DP03?g=160XX00US0680812&d=ACS+5-Year+Estimates+Data+Profiles> on January 6, 2026.

3.4.2.1 City of Turlock

The 2023 American Community Survey (ACS) 5-Year Estimates specify the following regarding Turlock’s social, economic, and demographic factors for the Years 2019 to 2023:

- The average number of people per household was 2.82.
- The median household income in 2023 was \$79,807, while 10.8 percent of all individuals and 11.7 percent of youth under the age of 18 lived in poverty.
- The average unemployment rate was 7.8 percent.
- The owner-occupied housing unit rate was 56.8 percent.
- The median gross rent was \$1,498 per month.
- The median age was 34.6 years.
- Of persons 25 years or older, 81.7 percent had earned at least a high school diploma or equivalent and 26.6 percent had earned a bachelor’s degree or higher.
- Of persons between 18 and 64 years of age, 10.3 percent had a disability and 5.1 percent did not have health insurance.
- 94.9 percent of households had one or more type of computer, and 91.1 percent had a broadband internet subscription.
- By race/ethnicity, 54.5 percent of people were White, 2.1 percent were Black, 0.4 percent were American Indian or Alaska Native, 5.9 percent were Asian, 0.1 percent were Hawaiian Native or Pacific Islander, 14.9 percent were two or more races, and 22.1 percent were some other race(s).
- Of the total City population, 43.6 percent were Hispanic or Latino and 56.4 were not Hispanic or Latino.
- Approximately 21.4 percent of residents were foreign born, and 42.8 percent of people ages five years and older spoke a language other than English at home.

3.4.2.2 City of Ceres

The 2023 ACS 5-year Estimates specify the following regarding the City of Ceres’ social, economic, and demographic factors for the Years 2019 to 2023:

- The average number of people per household was 3.51.
- The median household income in 2023 was \$76,862, while 14.4 percent of all individuals and 21.7 percent of youth under the age of 18 lived in poverty.
- The average unemployment rate was 10.4 percent.
- The owner-occupied housing unit rate was 63.7 percent.
- The median gross rent was \$1,584 per month.
- The median age was 32.7 years.
- Of persons 25 years or older, 74.3 percent had earned at least a high school diploma or equivalent and 13.0 percent had earned a bachelor’s degree or higher.
- Of persons between 18 and 64 years of age, 10.3 percent had a disability and 7.6 percent did not have health insurance.

- 94.1 percent of households had one or more type of computer, and 91.4 percent had a broadband internet subscription.
- By race/ethnicity, 36.9 percent of people were White, 1.1 percent were Black, 1.0 percent were American Indian or Alaska Native, 9.7 percent were Asian, 0.2 percent were Hawaiian Native or Pacific Islander, 34.0 percent were two or more races, and 17.1 percent were some other race(s).
- Of the total City population, 65.6 percent were Hispanic or Latino and 34.4 were not Hispanic or Latino.
- Approximately 27.7 percent of residents were foreign born, and 60.0 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 current and projected land uses for the Cities. Information for this section is based on the Turlock GP, adopted in September 2012, and the Ceres General Plan 2035, adopted in May 2018.

3.5.1 City of Turlock

The Turlock GP describes land use updates for the entirety of its city limits, areas within the City’s SOI, and areas outside of city limits and the SOI, defined as the “Planning Area.” The City will expand water service within the City’s SOI and within the Planning Area as land is annexed into the City.

Per the Turlock GP, the City’s current land use within city limits is primarily residential neighborhoods at 41 percent of total area. The majority of Turlock’s residential development is low-density single-family homes, ranging from three to seven dwelling units per acre. Approximately 16 percent of city limits is agriculture, 11 percent industrial, 9 percent commercial, 8 percent public facilities, 2 percent parks, and 1 percent office. The remaining 12 percent is vacant land, which offer development opportunities.

According to the Turlock GP, there are four Master Plan Areas: Southeast 1 (SE1), Southeast 2 (SE2), Southeast 3 (SE3), and Montana-West. These Master Plan Areas represent development areas that shall be planned, pre-zoned, and annexed into the City. These four Master Plan Areas are briefly described below:

- SE1 is 170 acres and will be developed as a primarily residential neighborhood with small office and commercial areas.
- SE2, with 320 acres, will also be a majority residential neighborhood with a small office center.
- SE3 is the largest Master Plan Area at 700 acres, which will have a mix of land uses. SE3 includes land for residential neighborhoods, industrial area, public use, park, and a neighborhood center.
- Montana-West is 50 acres and includes seven unincorporated County Islands; this area will be majority low-density residential and vacant lots.

3.5.2 City of Ceres

The Ceres GP 2035 describes land use updates for the entirety of its city limits, areas within the City of Ceres’ SOI, and areas outside of city limits and the SOI, defined as the “General Plan Planning Area.” The

City of Ceres will expand water service within the City’s SOI and within the GP Planning Area as land is annexed into Ceres.

The City of Ceres’ current land use within city limits is primarily single family residential at 39 percent of total area. Approximately 9 percent of the land within the city limits is industrial, 8 percent public and community facilities, 6 percent agriculture, 5 percent commercial, 4 percent parks and open space, and 7 percent vacant. The remaining area includes other land uses such as public streets and transportation rights-of-way.

The Ceres GP 2035 specifies the following regarding projected future land uses:

- A guiding principle for future development is to encourage infill development and investment within existing neighborhoods and commercial corridors to revitalize areas within the City limits.
- The City anticipates development in four Specific Plan (SP) areas including the West Landing SP, Downtown SP, Mitchell Road Corridor SP, and Whitmore Ranch SP.
 - Much of the growth is planned to be residential development.
 - Some growth may occur outside of City limits and into the greater SOI, such as the Whitmore Ranch SP, which would expand the City’s water service area boundary.
- Additional sites with potential for development include vacant/underutilized properties and rural or agricultural plots within the City limits and the SOI.
 - The GP identifies 541 acres of vacant land, 121 acres of underutilized land, 1,076 acres of rural land, and 187 acres of additional sites identified in the Housing Element within the Ceres SOI.

The Ceres GP 2035 also includes future land use designations from the Copper Trails Specific Plan, although the Specific Plan was not finalized and adopted by Ceres at the time of GP adoption.

3.6 WATER SYSTEM FACILITIES

This section summarizes SRWA and the City’s water system facilities. SRWA’s facilities include the RSWSP raw water facilities and the Water Treatment Plant (WTP). The RSWSP pumps surface water from the Tuolumne River, treats the water at a WTP, and distributes treated water to Ceres and Turlock.

3.6.1 SRWA Raw Water Facilities

The RSWSP’s raw water facilities include the infiltration gallery, raw water pump station, and raw water transmission main. The infiltration gallery and raw water pump station are located on the Tuolumne River, just west of Geer Road and less than 0.5 mile west of the WTP. Surface water from the Tuolumne River is drawn through the infiltration gallery, which is comprised of a set of perforated pipelines installed in gravel about 8 feet below the bottom of the riverbed, into the wet well of the raw water pump station. The raw water pump station then conveys water to the flow split structure; at the flow split structure, the raw water is directed to the WTP for treatment, or to the Ceres Main Canal outfall structure for use as irrigation water by TID. The raw water facilities are owned by TID and leased to SRWA.

The raw water pump station’s current capacity is 15 million gallons per day (MGD) provided by one pump and one additional standby pump. Full buildout will include five pumps and one additional standby pump

for a total capacity of 65 MGD. The flow can be split between the WTP and the Ceres Main Canal as required. The WTP is intended to treat up to 45 MGD of raw water at buildout.

3.6.2 SRWA Water Treatment Plant

SRWA's WTP currently has a capacity of 15 MGD and meets disinfection requirements through a combination of conventional treatment, ozone disinfection, and chlorine disinfection when necessary.

Raw water from the raw water pipeline enters the WTP at the rapid mixing facility. After coagulants and other chemicals are added during rapid mixing, water flows into the flocculation and sedimentation basins for removal of suspended solids. The flow then enters the ozone facility for ozone disinfection. Following disinfection, water is filtered via gravity through granular media filters and enters the WTP clearwell. From the clearwell, treated water is pumped via the finished water pump station into the Ceres or Turlock finished water transmission mains.

The WTP has an existing capacity of 15 MGD at a maximum filtration rate of 6 gallons per minute per square foot (GPM/SF) from four rapid sand filters with granular activated carbon and sand dual media. Higher filter loading rates may be feasible, and a filter re-rating study to increase the filter loading rate to 8 GPM/SF is planned. If the filters can be re-rated to 8 GPM/SF, the WTP capacity will increase to 19.9 MGD. The filter re-rating testing is planned to be completed in 2027; the added WTP capacity is expected to be available beginning in 2028.

SRWA's WTP was designed to allow for future expansion of treatment capacity by adding additional parallel treatment trains within the existing site. Information on planned future expansions to meet projected water demands is provided in Chapter 6 and Chapter 7.

3.6.3 SRWA Finished Water Transmission Pipelines

Potable water is pumped to SRWA's wholesale customers via the Ceres and Turlock finished water transmission mains. Each transmission main terminates at the Cities' respective terminal storage tank for distribution to the Cities' water systems.

3.6.4 City of Turlock Water System Facilities

The City of Turlock's major water system facilities include:

- 15 active groundwater wells with a total capacity of approximately 31.9 MGD,
- 3 at-grade storage tanks and 1 terminal storage tank with a total storage capacity of 5.3 MG,
- 4 pump stations (one at each storage tank) with a total firm pumping capacity of 35.4 MGD, and
- approximately 286 miles of water main, ranging in size from 1-inch to 42-inches in diameter.³

Turlock's water system consists of one main pressure zone. Additional information on the City of Turlock's water system facilities can be found in Turlock's Water Master Plan, updated in March 2025.

³ City of Turlock, Carollo. March 2025. *City of Turlock Water Master Plan*.

CHAPTER 4

Water Use Characterization

This chapter describes and quantifies the historical, current, and projected water uses for Turlock and SRWA. It discusses both Turlock’s retail water demands and SRWA’s wholesale water demands. As SRWA supplies treated surface water to the Cities, SRWA’s demand projections are based on the projected growth within each city’s water service area and the projected allocation between surface water and local groundwater use. Accurately tracking and reporting water demands allows Turlock and SRWA to properly analyze the use of their resources and conduct good water resource planning.

Additional information on the City of Ceres’ historical, current, and projected retail water use is provided separately in the Ceres 2025 UWMP.

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. Non-potable water is not safe to drink and includes both raw water and recycled water.

Turlock supplies treated groundwater to customers within its service area from city-owned and operated wells, as well as treated surface water purchased from SRWA. SRWA provides wholesale potable water to the Cities by treating surface water diverted from the Tuolumne River.

Raw water is untreated, non-potable water that is used in its natural state or with minimal treatment. Turlock uses raw water from shallow, on-site wells at several local parks for landscape irrigation. These wells are not part of Turlock’s potable water system. SRWA does not currently deliver raw water to its wholesale customers, nor does it have plans to do so.

Recycled water is municipal wastewater that has been treated to a specified quality to enable it to be used for beneficial purposes. Turlock treats its wastewater to Title 22 disinfected tertiary recycled water standards, suitable for unrestricted non-potable use. Within its service area, Turlock provides recycled water to TID’s Walnut Energy Center Co-Generation Facility for cooling, to the Pedretti Sports Field for landscape irrigation, and to a recycled water fill station for local non-potable uses. However, most of Turlock’s recycled water is exported outside its service area for agricultural irrigation as part of the North Valley Regional Recycled Water Program, discussed further in Chapter 6. SRWA does not currently deliver recycled water to its wholesale customers, nor does it have plans to do so.

Maintaining multiple water sources allows Turlock to best meet its customers’ range of needs, as some industrial and irrigation uses do not require the same level of treatment as is required for drinking water. Potable and non-potable water demands are discussed in the following sections.

4.2 WATER USE BY SECTOR

This section describes Turlock and SRWA’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 Turlock’s water customers. Each of Turlock’s retail water use sectors are 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 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)).
- **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.
- **Sales to Other Agencies:** Water delivered to another water agency.
- **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.

Because SRWA does not directly serve retail customers, the only DWR defined sector relevant to SRWA is “sales to other agencies”, which are water sales made to the Cities. Projected sales are based on projected water demand provided by the receiving agency. There is inherent uncertainty in future demand projections and, therefore, any projected sales reported in the UWMP are for planning purposes only and are not considered a commitment on the part of the wholesaler or retailer.

Turlock and SRWA do 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 Water Use

Past water use in recent years for Turlock and SRWA are discussed in the following sections.

4.2.1.1 City of Turlock

Turlock’s potable water demand by water use sector from 2020 through 2024 is shown in Table 4-1. Water use in 2020 is based on values provided in Turlock’s 2020 UWMP, while 2021 through 2024 water use for each water use sector is from Turlock’s metered consumption data submitted to the State Water Board for annual water use reporting. Turlock completed its metering program in 2011, allowing the City to track actual water use by customer and sector. As shown in Table 4-1, single family residential customers and industrial customers have been the two largest water users over the past five years.

Table 4-1. Historical Potable Water Demand by Water Use Sector (Retail), MG^(a)

Water Use Sector	2020	2021	2022	2023	2024
Single Family	2,964	2,859	2,590	2,293	2,420
Multi-Family	715	676	642	699	622
Commercial ^(b)	512	445	748	503	470
Industrial	1,504	1,452	1,400	1,279	1,386
Landscape	334	304	360	392	391
Other - City meters (non-billed)	216	229	161	99	110
Sales/Transfers/Exchanges - Exported to City of Modesto	6	6	7	5	5
Distribution System Water Loss ^(c)	451	378	291	734	1,051
Other - Unmetered water ^(d)	42	106	0	9	55
Total^(e)	6,743	6,456	6,199	6,012	6,510

- (a) Annual demand by water use sector is from consumption data in Turlock's Electronic Annual Reports submitted to the State Water Board and from Turlock's Per-water-system data downloaded from the State Open Data Portal.
- (b) "Commercial" use includes institutional/governmental water use consistent with Turlock's annual water use reporting.
- (c) Losses are based on Turlock's annual AWWA Water Loss Audits. Losses in 2022 were re-calculated due to inconsistent authorized consumption values identified upon review of 2022 consumption data.
- (d) "Other – Unmetered water" was calculated based on the difference between total annual production (see footnote e), and total metered water consumption plus the water losses defined in Turlock's AWWA Water Loss Audits.
- (e) Totals represent annual potable water production from groundwater and surface water sources and are based on Turlock's annual AWWA Water Loss Audits for all years but 2023. For 2023, the total production is based on data from the State Open Data Portal. The AWWA Water Loss Audit data for 2023 reported a lower total production (5,895 MG) compared to the State Open Data Portal (6,012 MG). Total billed metered consumption also appeared lower in the 2023 audit (5,041.5 MG) compared to the State Open Data Portal (5,165 MG). Using the lower audit-based production would result in negative unmetered water values when combined with the higher consumption values from the State Open Data Portal, which is not physically plausible. Therefore, total production for 2023 is based on the State Open Data Portal and represents the sum of all listed use sectors, unmetered water, and distribution system water losses.

Totals shown are based on Turlock's total annual water production (i.e., the sum of groundwater and surface water deliveries), per the City's annual American Water Works Association (AWWA) Water Loss Audits. Distribution system water losses are also based on Turlock's AWWA Water Loss Audits.

The volume exported to the City of Modesto shown in Table 4-1 represents water sold to the City of Modesto's Central Turlock water system. As described in Chapter 3, Turlock serves the entire area encompassed by its city limits except for three small residential water systems served by the City of Modesto. However, Turlock has been providing potable water to the Central Turlock water system via an interconnection, as the City of Modesto's groundwater well previously supplying this system is no longer active.

Turlock has also historically used raw water and recycled water for non-potable uses within its service area. As shown in Turlock's 2020 UWMP, Turlock used approximately 445 MG of raw water in 2020 to irrigate city parks using non-potable irrigation wells. Additionally, in 2020, Turlock supplied approximately 297 MG of disinfected tertiary recycled water to TID's Walnut Energy Center Co-Generation Facility, and approximately 1 MG for landscape irrigation of Turlock's Pedretti Sports Field. Turlock's current non-potable uses in 2025 are described in Section 4.2.2.1.

4.2.1.2 SRWA

As previously discussed, SRWA commenced delivery of treated surface water to its wholesale customers in November 2023. In 2023, SRWA delivered 33 MG of treated surface water to Turlock and 95 MG to Ceres, for a total volume of 128 MG.¹ The total annual water supplied by SRWA to the Cities in 2024 was 2,274 MG and 1,431 MG, respectively, for a total volume of 3,705 MG.²

SRWA has not delivered potable, raw, or recycled water directly to urban retail customers in the past and does not plan to do so in the future.

4.2.2 Current Water Use

Current water use in 2025 for Turlock and SRWA is discussed in the following sections.

4.2.2.1 City of Turlock

Turlock's water demand by sector in 2025 is reported in Table 4-2 (DWR Table 4-1 Retail). Turlock's total potable water use in 2025 was 6,146 MG, including system losses. Turlock's total non-potable water use in 2025 was 480 MG, which includes raw water for landscape irrigation at city parks and disinfected tertiary recycled water supplied to TID's Walnut Energy Center and Turlock's recycled water fill station.

¹ Source: City of Turlock and City of Ceres 2023 AWWA Water Loss Audits.

² Source: SRWA Annual Operations Report, June 2025.

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

Use Type	Additional Description (as needed)	2025 Actual Water Use	
		Potable or Non-Potable (OPTIONAL) Drop down list	Volume (MG)
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool			
Single Family		Potable	2,338
Multi-Family		Potable	557
Commercial		Potable	453
Industrial		Potable	1,254
Landscape		Potable	265
Other (optional)	City meters (non-billed)	Potable	114
Sales/Transfers/Exchanges to other Suppliers	Exported to City of Modesto	Potable	5
Distribution System Water Loss	Losses and unmetered water (e.g.,	Potable	1,160
Other (optional)	Disinfected tertiary recycled water. See note (a).	Non-Potable	376
Landscape	Non-potable raw water irrigation wells at City parks	Non-Potable	104
		Subtotal Potable	6,146
		Subtotal Non-Potable	480
		Total	6,625
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: (a) Recycled water use shown includes only recycled water delivered within Turlock's service area. This volume includes recycled water delivered to TID's Walnut Energy Center for cooling, and a small amount of fill station use (<1 MG). Refer to Chapter 6 for additional detail on recycled water use.			

Distribution system water losses were estimated based on the difference in total potable water production (6,146 MG) and total metered potable water consumption.

4.2.2.2 SRWA

SRWA's wholesale water demand in 2025 is reported in Table 4-3 (DWR Table 4-1 Wholesale). The total treated surface water delivered to the Cities in 2025 was 3,517 MG. As shown, all water deliveries were treated to potable water standards.

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

Use Type Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	2025 Actual Water Use	
		Level of Treatment When Delivered (OPTIONAL) Drop down list	Volume (MG)
Sales to other agencies	City of Turlock	Potable	2,104
Sales to other agencies	City of Ceres	Potable	1,413
Subtotal Potable			3,517
Subtotal Non-Potable			0
Total			3,517
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.			

4.2.3 Projected Water Use

Projected water use through 2050 for Turlock and SRWA are discussed in the following sections.

4.2.3.1 City of Turlock

Turlock’s projected potable and non-potable water demands for 2030 through 2050 (representing a 25-year planning horizon from 2025) are reported in Table 4-4 (DWR Table 4-2 Retail). Projected potable water demands are based on Turlock’s Water Master Plan (WMP), which was updated in March 2025.

The 2025 WMP projected potable water demands assuming buildout of both city limits and the broader Urban Development Boundary (UDB) by 2050. The WMP also assumed that the County enclaves (also referred to as “County islands”) which are not currently served by the City will be annexed and incorporated into the Turlock water service area at some future point. To develop these projections, the 2025 WMP used the future land use designations defined in the Turlock GP, which was adopted in 2012. Area-based water use factors were applied to these land use categories to estimate future water demands. In addition, the WMP incorporated water demand projections for several large, planned developments, using water use factors provided directly by developers.

Turlock’s total 2050 projected potable water demand is 9,892 MG, which represents an increase of 61 percent compared to its 2025 potable water demand (6,146 MG). For the purposes of this UWMP, water demands for 2030 through 2050 were linearly interpolated using 2025 demands and the 2050 water demand projection.

To remain consistent with Turlock’s annual reporting to the State Water Board, public and institutional uses are included with commercial demand projections.

Projected recycled water and raw water demands within Turlock’s service area are expected to remain generally constant through 2050. Refer to Chapter 6 for further discussion of Turlock’s recycled water demands outside of its service area.

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

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected Water Code Section 10631(d)(1)							
Use Type Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 opt (MG)
Single Family	See note (a).	Potable	2,803	3,107	3,412	3,716	4,021
Multi-Family		Potable	709	786	863	940	1,017
Commercial		Potable	569	631	693	754	816
Industrial		Potable	1,498	1,661	1,824	1,986	2,149
Landscape		Potable	371	412	452	492	533
Other (optional)	City meters (non-billed)	Potable	167	185	203	221	240
Distribution System Water Loss	Losses and unmetered water (e.g., flushing)	Potable	778	863	947	1,032	1,116
Other (optional)	Disinfected tertiary recycled water. See note (b).	Non-Potable	376	376	376	376	376
Landscape	Non-potable raw water irrigation wells at City parks	Non-Potable	104	104	104	104	104
Subtotal Potable			6,895	7,644	8,393	9,142	9,892
Subtotal Non-Potable			480	480	480	480	480
Total			7,375	8,124	8,873	9,622	10,372

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:
 (a) Volume of water exported to City of Modesto is combined with the Single Family water use type in this table, as it is assumed, per Turlock's 2025 WMP, that Turlock will eventually acquire and serve the County enclaves that are currently served by City of Modesto. Actual timing is unknown.
 (b) Recycled water use shown includes only recycled water delivered within Turlock's service area. This volume includes recycled water delivered to TID's Walnut Energy Center for cooling, and a small amount of fill station use (<1 MG). Refer to Chapter 6 for additional detail on recycled water use.

4.2.3.2 SRWA

Projected wholesale water demands from SRWA to the Cities are provided in Table 4-5 (DWR Table 4-2 Wholesale). The projected water use in Table 4-5 (DWR Table 4-2 Wholesale) includes only SRWA's projected surface water sales to the Cities (i.e., the Cities' projected groundwater use is not included). SRWA also uses some potable water for on-site use at the WTP; however, the quantity of water is negligible.

As shown, SRWA's water sales to the Cities of Turlock and Ceres are anticipated to increase through 2050 to approximately 4,752 MG and 1,939 MG, respectively, for a total of 6,691 MG. The projected wholesale water demands for SRWA are based on projections provided by the Cities. Actual water use from SRWA will depend on water year conditions, as SRWA's supplies are anticipated to be reduced during drought years, in which case, the Cities will increase groundwater production to make up the difference.

Turlock has developed surface water use projections for the next ten years, through Water Year 2036–37 (i.e., April 1, 2036 through March 31, 2037), which were incorporated into Table 4-5 (DWR Table 4-2 Wholesale). Surface water demands beyond 2036 were estimated using an assumed annual increase in surface water use of 2.6 percent. Wholesale demand projections will continue to be refined in future UWMP updates based on changes in retail demand and other conditions.

Consistent with the Ceres 2025 UWMP, Ceres' projected surface water use is estimated assuming that two-thirds of Ceres' total projected demand is met by SRWA surface water. Buildout for the City of Ceres is projected to occur by 2045.

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

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					2050 opt (MG)
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool.							
Sales to other agencies	City of Turlock. See note (a).	Potable	2,837	3,316	3,772	4,288	4,752
Sales to other agencies	City of Ceres. See note (b).	Potable	1,485	1,623	1,773	1,939	1,939
		Subtotal Potable	4,322	4,939	5,545	6,227	6,691
		Subtotal Non-Potable	0	0	0	0	0
		Total	4,322	4,939	5,545	6,227	6,691
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: (a) Turlock has projected its surface water use for the next ten years, through Water Year 2036-2037. For the purposes of this UWMP, projections beyond 2037 were estimated using an assumed annual increase in surface water use of 2.6 percent. (b) Ceres' projected surface water use is consistent with the Ceres 2025 UWMP and assumes that two-thirds of Ceres' total projected demand is met by SRWA surface water. Ceres buildout is projected to occur by 2045.							

SRWA does not serve non-potable water; therefore, no non-potable demands are shown.

4.2.4 Characteristic Five-Year Water Use

Water Code §10635(b) requires urban suppliers to include a five-year drought risk assessment (DRA) in their UWMPs. A key component of the DRA is estimating water demands for the next five years (2026-2030) without drought conditions (i.e., unconstrained demand). Chapter 7 details the DRA, but the five-year demand projections for Turlock and SRWA are summarized in the following sections.

4.2.4.1 City of Turlock

Table 4-6 shows Turlock’s five-year demand projections (2026-2030) for its DRA. Turlock’s projected 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 (DWR Table 4-1 Retail), and the 2030 projected water use, reported in Table 4-4 (DWR Table 4-2 Retail).

Table 4-6. Turlock’s Projected Five-Year Potable Water Use for Retail Customers, MG

Water Use Sector	2026	2027	2028	2029	2030
Single Family	2,430	2,521	2,613	2,705	2,797
Multi-Family	587	618	648	678	709
Commercial ^(a)	477	500	523	546	569
Industrial	1,303	1,352	1,401	1,449	1,498
Landscape	286	307	329	350	371
Other - City meters (non-billed)	124	135	146	156	167
Sales/Transfers/Exchanges – Exported to City of Modesto	5	5	6	6	6
Distribution System Water Loss	1,083	1,007	931	854	778
Total	6,295	6,445	6,595	6,745	6,895

(a) Commercial water use includes public and institutional land uses, consistent with Turlock’s annual reporting.

4.2.4.2 SRWA

Table 4-7 shows SRWA’s five-year wholesale demand projections (2026-2030) for its DRA, which are based on projected surface water use provided by the Cities. Actual water sales may vary due to hydrologic conditions and are dependent on the Cities’ finalized surface water orders for each water year. SRWA’s surface water orders are typically reported by water year (April through March); however, for consistency with reporting in this Joint UWMP, the values presented below have been approximated to a calendar year format.

Table 4-7. Projected Five-Year Potable Water Use for SRWA's Wholesale Customers, MG

Customer	Use Type	2026	2027	2028	2029	2030
City of Turlock ^(a)	Sales to Other Agencies	2,207	2,366	2,517	2,672	2,837
City of Ceres ^(b)	Sales to Other Agencies	1,452	1,442	1,433	1,459	1,485
Total		3,659	3,808	3,950	4,131	4,322

(a) Based on Turlock’s most recent surface water use projections, provided March 27, 2026.
 (b) Ceres' projected surface water use through 2030 is consistent with the Ceres 2025 UWMP and assumes that two-thirds of Ceres' total projected demand is met by SRWA surface water.

4.2.5 Estimating Future Water Savings

Turlock’s water use projections presented in Table 4-4 (DWR Table 4-2 Retail) are based on projected future land use and area-based water use factors from its 2025 WMP. In accordance with the 2012 Turlock GP, 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 4-8 (DWR Table 4-3 Retail), to be conservative, these potential passive savings have not been included in Turlock’s water demand projections.

While retail suppliers are required to estimate future water savings for this plan, this requirement does not apply to wholesale suppliers like SRWA, as they do not directly control or influence the water demands of its customers (i.e. the Cities).

Table 4-8. Inclusion in Water Use Projections (DWR Table 4-3 Retail)

<p>Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</p>	No
<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>	Yes
<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>	

4.2.6 Water Use for Lower Income Households

This UWMP considers current adopted codes, plans, and other policies or laws to estimate water savings projections. As indicated in Table 4-8 (DWR Table 4-3 Retail), projected water use for lower income households in Turlock’s water service area are included in Turlock’s citywide water use projections.

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 lower income, single family, and multi-family residential water uses are included in the total water demands described in Section 4.2.3.

Turlock’s Revised Draft 2023-2031 Housing Element Update from November 2025 includes the number of existing lower income households, which includes Low Income (51 to 80 percent of area median income), Very Low Income (31 to 50 percent of area median income), and Extremely Low Income households (0 to 30 percent of area median income). The Housing Element indicates that approximately 16 percent of Turlock’s existing households are Low Income, 13 percent are Very-Low Income, and 13 percent are Extremely-Low Income, for a total of 42 percent of households being lower income.³

Turlock assumes that lower income households will continue to represent approximately 42 percent of the City’s total residential customers through 2050 while recognizing that the percentage of lower income households is subject to change as demographic changes may occur. With this assumption, the

³ City of Turlock. November 2025. *Revised Draft Housing Element Appendix B Housing Needs Assessment. Table B-7: Turlock and Surrounding Areas Households by Household Income Level.* Data is from U.S. Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy ACS tabulation, 2016-2020 release.

projected water demand from lower income households will be approximately 2,122 MGY of residential water use by 2050.

4.3 DISTRIBUTION SYSTEM WATER LOSSES

System losses are the difference between the actual volume of water treated and delivered into the distribution system and the actual metered consumption. Such 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.

Turlock uses the AWWA Water Loss 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 4-9 (DWR Table 4-5 Retail) summarizes Turlock’s status in submitting its AWWA Water Loss Audits for the last five years starting in January 2020. Copies of Turlock’s water audit worksheets for the last five years are provided in Appendix F.

Table 4-9. Last Five Years of Water Loss Audit Reporting (DWR Table 4-5 Retail)

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		
CA5010019	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.		
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 4-10 (DWR Table 4-6 Retail) summarizes the real and apparent water losses for 2025 compared to Turlock’s 2028 water loss standard.

Based on the most recent audit for Calendar Year 2024, Turlock’s real water loss and apparent water loss currently exceed the 2028 standard. However, Turlock will continue to implement water loss control measures to meet the standard by the 2028 compliance deadline. Turlock’s programs to assess and manage water loss are discussed further in Chapter 9.

As SRWA is a water wholesaler and not an urban retail water supplier, SRWA is not required to submit AWWA Water Loss Audits or meet water loss standards.

Table 4-10. Progress Towards 2028 Water Loss Standard (DWR Table 4-6 Retail)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss <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) (MG)		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (MG)	
CA5010019	Yes	14.5	Gallons per Service Connection per Day (GPSCD)	20,053	913	124.8	18.6	Gallons per Service Connection per Day (GPSCD)	20,053	138	18.8
DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss MUST remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.											
NOTES: Number of service connections, total real loss, and total apparent loss are from the City of Turlock's 2024 AWWA Water Loss Audit, which is its most recent Water Loss Audit.											

4.4 CLIMATE CHANGE CONSIDERATIONS

Climate change has the potential to alter local climatic patterns and meteorology. This potential alteration may impact Turlock and SRWA’s future water demand and use patterns. In general, climate change is expected to increase water demand for irrigation and increase the year-to-year variability of demands. This increase in demands is the result of increased temperatures (which increases evapotranspiration) and more variability in precipitation (which impacts supply availability and reliability). Also, natural disasters such as wildfires, droughts, and floods are expected to increase in both frequency and intensity. The water demand projections developed in this Joint 2025 UWMP account for these anticipated increases.

Current and ongoing demand management measures and water conservation by Turlock and SRWA’s water customers, discussed in Chapter 9, could mitigate the effects of climate change on water demands.

Turlock and SRWA will continue to monitor the impacts of climate change on its water demands and on regional groundwater and surface water conditions. Updated climate and hydrologic information will be incorporated into future UWMP updates. The potential impacts of climate change on Turlock and SRWA’s water supplies are described in Chapter 6.

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 Turlock’s 2020 Urban Water Use Target and demonstrates that Turlock has achieved its 2020 target reduction.

Since SRWA is a water wholesaler and does not serve urban water users directly, it is not required to establish and meet any water conservation targets associated with the Water Conservation Act of 2009. However, SRWA fully supports its water retailers in achieving their water conservation targets. A discussion of SRWA’s programs and policies for water conservation is provided in *Chapter 9 Demand Management Measures* (DMMs).

Turlock, as a water retailer, 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 (UWUO) as part of the Making Conservation a California Way of Life regulation adopted on July 3, 2024. Starting in 2024, Turlock’s UWUO is calculated and reported annually through a separate process, and therefore, Turlock does not compare its 2025 water use with its 2020 target. Additional information on Turlock’s water conservation practices and objectives is included in Chapter 9.

5.1 OVERVIEW AND BACKGROUND

The City of Turlock’s compliance with SB X7-7 was first addressed in its 2010 UWMP. Turlock’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 2010 UWMP, the 10-year baseline period that Turlock selected was verified to be 1997 through 2006. Turlock 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 Turlock’s 2020 water use target are documented in its 2020 UWMP.

5.2 2020 DAILY PER CAPITA WATER USE COMPLIANCE

In its 2020 UWMP, Turlock calculated its actual 2020 water use for the 2020 Calendar Year in accordance with the DWR Methodologies document. As shown in Table 5-1 (DWR Table 5-1 Retail), urban per capita water use in 2020 was 250 GPCD, which is below the confirmed 2020 water use target of 284 GPCD. Therefore, Turlock met its 2020 final water use target. Water use in 2020 in Turlock’s service area was reduced as compared to baseline years as a result of increased water conservation efforts by Turlock and its customers.

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

<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	284	250	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

Turlock has chosen to comply with the requirements of SB X7-7 on an individual basis. Turlock has elected not to participate in a regional alliance.

CHAPTER 6

Normal-Year Water Supply Characterization

This chapter characterizes Turlock and SRWA’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 Turlock and SRWA have taken to develop additional water supplies.

Turlock and SRWA’s existing water supply facilities are described in Chapter 3 of this Joint UWMP. Turlock’s water supplies consist of the following:

- Groundwater pumped from Turlock-owned and operated wells
- Treated surface water purchased from SRWA conveyed from the Tuolumne River through SRWA’s WTP
- Recycled water from Turlock’s Regional Water Quality Control Facility (RWQCF)

Anticipated availability of Turlock and SRWA’s water supplies under a normal water year is provided in this chapter. A normal water year is defined in this UWMP as years when no regional or statewide drought declaration are in effect. The availability of Turlock and SRWA’s water supplies under a single dry year and a drought lasting five years are described in detail in Chapter 7 of this UWMP, along with the basis of those estimates.

Information for this chapter is from multiple sources including Turlock’s 2020 UWMP and 2025 WMP, SRWA’s 2020 UWMP (finalized in October 2024), the City of Ceres 2025 UWMP and WMP, and the 2024 Turlock Subbasin GSP.

6.1 OVERVIEW OF WATER SUPPLIES

The Cities formed the SRWA as a Joint Powers Authority in 2011 to provide a diversified and sustainable water supply portfolio. Historically, both Cities relied solely on groundwater from the Turlock Subbasin, which had become less reliable due to both the decline in water quality and the increasing number of regulated contaminants. SRWA evaluated various water supply options and identified the Tuolumne River as a viable surface water source that could be used in conjunction with the Cities’ existing groundwater supplies to provide a long-term, reliable drinking water supply for both Cities.

SRWA, in partnership with TID, developed the RSWSP (or Project) to divert, treat, and deliver drinking water to the Cities. The Project began delivering surface water to both Cities in November 2023. SRWA currently provides water supply to two wholesale customers: Turlock and the City of Ceres. Both Cities use a combination of surface water from SRWA and local groundwater from their respective city-owned groundwater wells to meet potable water demands. SRWA does not supply groundwater or any other water source.

SRWA uses surface water supplies entirely from the Tuolumne River via a long-term transfer agreement with TID using TID’s pre-1914 appropriative rights. This Agreement between SRWA and TID, included in Appendix E, defines the terms and conditions for the transfer and delivery of Tuolumne River water to SRWA. Under dry year conditions, TID may reduce surface water allocations to SRWA and its other customers. In these cases, SRWA will provide the maximum available surface water to the Cities based on TID’s allocation, and the Cities will pump groundwater to supplement the surface water supply to meet their total water demands.

Under severe drought conditions, with reduced surface water allocations, SRWA may consider purchases or short-term transfers with other Tuolumne River water right holders, if necessary, to meet its customers' potable water demands. However, the Cities anticipate maintaining adequate groundwater well capacity to meet water demands that are not met with surface water from SRWA.

SRWA does not anticipate using any other water supply sources such as groundwater, stormwater, recycled water, or desalinated water currently or in the future. Turlock, however, will continue to use groundwater and recycled water to meet potable and non-potable water demands.

6.2 GROUNDWATER

As described in Chapter 3, Turlock has 15 active potable groundwater wells throughout its service area. Turlock also has four non-potable wells used for irrigation which are not connected to Turlock's potable water system. Turlock's total supply capacity for its active potable wells is 31.9 MGD.¹ Prior to 2023, groundwater was Turlock's sole water supply source. Turlock now uses its groundwater supplies conjunctively with purchased surface water from SRWA.

SRWA does not currently utilize, nor has plans to utilize, groundwater as a water supply. While SRWA does not utilize groundwater as a water supply, the Cities may deliver groundwater to TID on behalf of SRWA as offset water during dry years as part of SRWA's Agreement with TID. At the time of development of this Joint UWMP, the Cities have not delivered any groundwater to TID on behalf of SRWA.

The local groundwater source is the Turlock Subbasin, which is a subunit of the San Joaquin Valley Groundwater Basin. Turlock has partnered with other groundwater users throughout the Turlock Subbasin to responsibly manage the Subbasin. The Turlock Subbasin is discussed in detail in the July 2024 Turlock Subbasin GSP. Further information on Turlock's groundwater characteristics relevant to this Joint 2025 UWMP is described in the following sections.

6.2.1 Subbasin Description

The Turlock Subbasin (DWR Subbasin 5-22.03) lies on the north-eastern side of California's San Joaquin Valley and encompasses portions of both Stanislaus and Merced counties. The Subbasin is bounded by the Tuolumne River on the north, the Merced River on the south, and the San Joaquin River on the west, covering about 348,160 acres (about 544 square miles).

The Subbasin extends from the Sierra Nevada foothills to the San Joaquin Valley floor, with ground surface elevations sloping to the southwest and ranging from approximately 450 feet above mean sea level (msl) in the eastern foothills to less than 50 feet msl along the San Joaquin River. The western Subbasin is relatively flat with a uniform slope, and transitions to hummocky, irregular hills and intervening depressions in the eastern Subbasin.

Three principal aquifers have been defined in the Turlock Subbasin. The Corcoran Clay, underlying the western Subbasin, is the primary aquitard in the Subbasin separating the three principal aquifers, which include: the Western Upper Principal Aquifer (unconfined above the Corcoran Clay), the Western Lower Principal Aquifer (confined below the Corcoran Clay), and the Eastern Principal Aquifer (unconfined to

¹ City of Turlock, Carollo. March 2025. *Water Master Plan*. Values have been updated since the Water Master Plan to exclude Well 36, which is now inactive.

semi-confined east of the Corcoran Clay). The extent of the Corcoran Clay in the western Subbasin ranges from depths of 90 to 240 feet below the ground surface and varies in thickness from 10 feet to 110 feet.

All three principal aquifers are used for water supply, with most water systems concentrated in the Western Upper Principal Aquifer and Western Lower Principal Aquifer, including the Cities, Hilmar, Delhi, and Keyes. Hughson, Hickman, parts of Denair, and other small water systems generally rely on the Eastern Principal Aquifer for water supply.

The Western Lower Principal Aquifer (confined below the Corcoran Clay) provides extensive municipal and agricultural supplies to water users in the Turlock Subbasin. Many of the cities and urban communities (e.g., Turlock, Ceres, Delhi, Hilmar, and Keyes) rely primarily on groundwater wells within the confined aquifer. Wells greater than 200 feet deep in the western Subbasin generally draw from the confined aquifer but also may receive flow from the unconfined aquifer.

In general, groundwater flows toward the west and southwest across the Subbasin, but flows are altered locally by pumping from wells. Vertical groundwater flow within the extent of the Corcoran Clay is downward, from the Western Upper Principal Aquifer to the Western Lower Principal Aquifer. Groundwater elevations in the Western Upper Principal Aquifer have been relatively stable during the GSP study period (Water Year 1991 through 2015), with declines during the recent drought of less than 15 feet, followed by water level recovery. Water level declines during the 2015 drought were greater in the Eastern Principal Aquifer, especially in agricultural areas in the central and eastern Subbasin where groundwater is the primary water supply.

6.2.2 Groundwater Subbasin Management

In 2014, the California legislature enacted the SGMA in response to continued overdraft of California's groundwater resources. With a goal to achieve sustainable management of groundwater basins, the legislation required the formation of GSAs and the development and implementation of GSPs for groundwater basins that are designated by DWR as medium or high priority. The Turlock Subbasin is not adjudicated² and is not critically overdrafted. However, the Subbasin is identified as high priority by DWR.

As a high priority and non-adjudicated basin, the Subbasin was required to prepare and implement a GSP. Two GSAs were formed in the Subbasin. The West Turlock Subbasin Groundwater Sustainability Agency (WTSGSA) is located in the western Subbasin and covers about 60 percent of the area. The East Turlock Subbasin Groundwater Sustainability Agency (ETSGSA) covers the remaining 40 percent of the Subbasin in the east. The two GSAs cooperatively developed the Turlock Subbasin GSP to cover the entire Turlock Subbasin.

The GSAs are responsible for achieving long-term sustainable management of the Turlock Subbasin and must achieve sustainable groundwater management by 2042. As required by SGMA, the Turlock Subbasin GSP addresses 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.

² Meaning that there is no court-appointed "watermaster" to resolve groundwater pumping issues, and there are no current specific required limits on the amount of groundwater that individuals and agencies may extract from the basin.

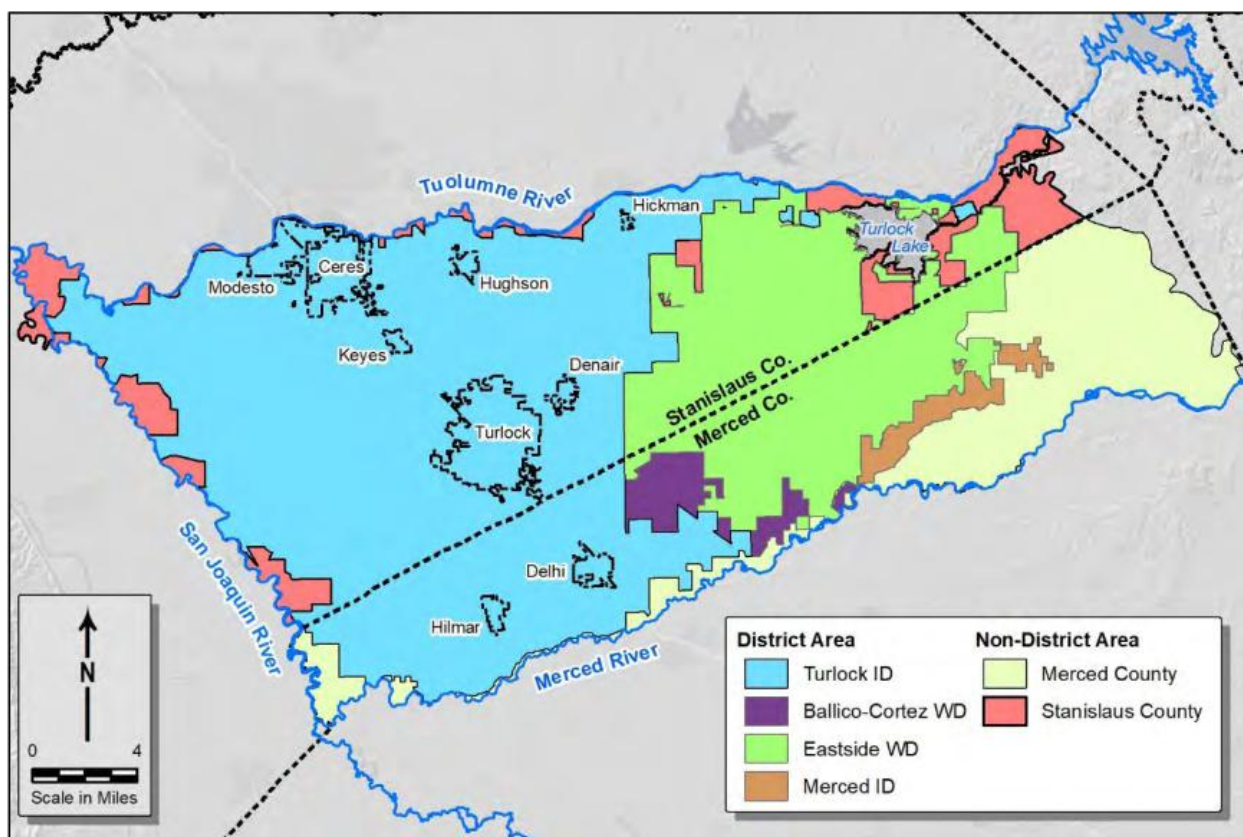
Chapter 6 Normal-Year Water Supply Characterization



The WTSGSA is composed of ten member agencies: Turlock, City of Ceres, Hughson, Modesto, Merced County, Stanislaus County, Denair Community Services District, Delhi County Water District, Hilmar County Water District, and TID. The WTSGSA also has two associate member agencies: Keyes Community Services District, and the City of Waterford, which is located in the Modesto Subbasin to the north but operates the water system for the community of Hickman in the Turlock Subbasin. The ETSGSA includes five member agencies: Eastside Water District, Merced Irrigation District, Ballico-Cortez Water District, Merced County and Stanislaus County.

Figure 6-1 shows approximate service areas within the Turlock Subbasin for the GSA member (and associate member) agencies. The Subbasin is organized into District and Non-District areas. The two counties within the Subbasin, Stanislaus County and Merced County, are shown as the member agencies in Non-District areas.

The Turlock Subbasin GSP was submitted to DWR on January 28, 2022. The Final Revised GSP was submitted to DWR on July 12, 2024. On February 27, 2025, DWR approved the Turlock Subbasin’s GSP. The Turlock Subbasin GSP is available at this website: <https://turlockgroundwater.org/gsp>, and is incorporated herein by reference.



Source: WTSGSA/ETSGSA, Todd Groundwater. July 2024. Turlock Subbasin GSP. Figure ES-2.

Figure 6-1. Jurisdictional Boundaries in Turlock Subbasin

6.2.3 Subbasin Sustainable Yield

The Turlock Subbasin GSP developed an estimate of the Subbasin’s sustainable yield. Sustainable yield is defined for SGMA purposes as “the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.” Sustainable yield for the Subbasin was estimated through development of a C2VSim™ scenario in which the long-term (50-year) SGMA sustainability indicators are met either directly or by groundwater levels as a proxy.

Table 6-1 provides a detailed listing of the water flow components of the Subbasin’s groundwater system across the historical, projected future, and sustainable yield conditions. Table 6-1 also shows the historical annual groundwater pumping, projected future groundwater pumping, and groundwater pumping under projected sustainable yield conditions. Future projections for urban groundwater production are based on 2015 UWMP projections for future buildout of the urban communities within the Subbasin.

As shown in Table 6-1, the Subbasin’s sustainable yield (i.e. groundwater production) was calculated to be 310,700 AFY. With additional data and information from the GSP’s on-going groundwater monitoring programs, the sustainable yield estimate is anticipated to continue to be refined and may be updated in the five-year GSP update in 2027. For comparison, the historical average annual groundwater pumping between Water Year (WY) 1991 through 2015 was estimated to be approximately 404,400 AFY (per Table 6-1). Therefore, historical annual groundwater use has exceeded the Subbasin’s sustainable yield estimate by approximately 94,000 AFY.

Table 6-1. Sustainable Yield Average Annual Water Budget – Turlock Subbasin, AFY

Component Hydrologic Period	Historical Conditions from WY 1991-2015	Projected Conditions Hydrology from WY 1969-2018	Sustainable Conditions Hydrology from WY 1969-2018
Stream Seepage	61,500	109,400	82,700
Seepage from the Merced River	35,400	64,600	48,100
Seepage from the Tuolumne River	20,200	34,500	28,400
Seepage from the San Joaquin River	5,900	7,300	6,200
Canal & Reservoir Recharge	78,500	85,400	85,300
Deep Percolation	280,50	252,700	243,900
Subsurface Inflow	112,900	110,300	82,800
Flow from the Sierra Nevada Foothills	2,200	2,100	2,100
Merced Subbasin Inflows	58,700	59,500	32,700
Modesto Subbasin Inflows	35,600	34,300	29,500
Delta Mendota Subbasin Inflows	16,400	14,400	18,500
Total Inflow	533,400	557,800	494,700
Discharge Stream	118,100	71,000	91,600
Discharge to the Merced River	18,100	4,300	7,000
Discharge to the Tuolumne River	55,600	31,300	44,600
Discharge to the San Joaquin River	44,400	35,400	40,000
Subsurface Outflow	74,800	80,300	79,000
Merced Subbasin Outflows	13,700	20,300	20,400
Modesto Subbasin Outflows	33,200	32,800	36,600
Delta Mendota Subbasin Outflows	27,900	27,200	22,000
Groundwater Production	404,400	414,100	310,700
Agency Ag. Groundwater Production	49,200	51,300	51,300
Private Ag. Groundwater Production	269,700	287,000	191,200
Urban Groundwater Production	55,500	75,800	68,200
Total Outflow	597,300	565,400	481,300
Change in Groundwater Storage	-63,900	-7,600	13,400

Source: WTSGSA/ETSGSA, Todd Groundwater. July 2024. Turlock Subbasin GSP. Table ES-2.

6.2.4 Management Actions

The GSP outlines projects and management actions to achieve the sustainability goals for the Turlock Subbasin by 2042. Projects include direct groundwater recharge, in-lieu groundwater recharge, as well as projects to encourage water conservation and reduce groundwater demand.

As shown in Table 6-1, reduced agricultural groundwater use is needed to attain sustainable yield within the Subbasin. Meanwhile, urban groundwater production is anticipated to increase over time as urban communities within the Subbasin continue to grow. Nevertheless, Turlock continues to develop projects

to reduce groundwater dependency and aid the Subbasin in meeting its sustainability goals. The Cities of Turlock and Ceres' RSWSP with SRWA is a major in-lieu groundwater recharge project in the GSP which benefits the Subbasin by increasing the use of treated surface water and reducing municipal groundwater pumping.

6.2.5 Groundwater Quality

Turlock actively monitors water quality in all its wells to ensure that observed concentrations remain below the maximum contaminant levels (MCLs). Several active wells have treatment systems in place to remove various contaminants. Some prior wells have been sealed and destroyed due to casing or pump failures, high sand production, or water quality issues. Turlock currently has 25 inactive wells, 15 of which have been destroyed or abandoned.³

Observed groundwater contaminants include arsenic, nitrate, and 1,2,3-Trichloropropane (1,2,3-TCP). Wells with observed concentrations above 80 percent of the MCL are out of service but may operate on standby to meet peak demands. Turlock plans to install additional wellhead treatment systems onto some existing wells that have elevated contaminant levels to maintain adequate supply capacity. Turlock's 2025 WMP provides additional details on planned wellhead treatment systems.

In addition to installing wellhead treatment systems to reduce contamination in these wells, Turlock's diversification of supplies away from groundwater (i.e., surface water purchased from SRWA) will help mitigate future groundwater quality degradation. Turlock's groundwater supplies will continue to be an important asset to be used in conjunction with SRWA's treated surface water, especially for dry years in which surface water allocations may be curtailed.

6.2.6 Groundwater Use – Past Five Years

The volume of groundwater pumped by Turlock for potable use over the past five years is summarized in Table 6-2 (DWR Table 6-1 Retail). Historically, the local groundwater basin provided all of Turlock's potable water supply. However, since 2023 with the construction of SRWA's WTP and associated Tuolumne River surface water deliveries, Turlock's reliance on groundwater has been significantly reduced.

In 2025, Turlock pumped 4,042 MG from the groundwater basin for potable use, about 66 percent of Turlock's total potable water production. In comparison, prior to purchasing surface water from SRWA, Turlock's potable groundwater use in 2021 was 6,456 MG. Turlock also pumped some groundwater to irrigate City parks with separate non-potable irrigation wells.

There were no limitations or challenges for obtaining groundwater during the past five years, as the GSP has not imposed any groundwater pumping restrictions on Turlock or other urban groundwater users within the Subbasin.

As shown in Table 6-3 (DWR Table 6-1 Wholesale), SRWA does not pump groundwater.

³ State Water Resources Control Board. *Safe Drinking Water Information System CA Drinking Water Watch Water System Details*. City of Turlock. Accessed at https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=5565&tinwsys_st_code=CA on March 30, 2026.

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

<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 (MG)	2022 (MG)	2023 (MG)	2024 (MG)	2025 (MG)
Alluvial Basin	Potable	Turlock Subbasin within the San Joaquin Valley Groundwater Basin	6,456	6,199	5,979	4,232	4,042
Alluvial Basin	Non-Potable	Turlock Subbasin within the San Joaquin Valley Groundwater Basin	104	104	104	104	104
Total			6,560	6,303	6,083	4,335	4,145
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: Annual groundwater volume pumped is from the City of Turlock's Annual AWWA Water Loss Audits for all years but 2023. For 2023, the total groundwater production is based on data from the State Open Data Portal which was assumed to be more accurate, as described in Table 4-1. Non-potable irrigation well usage in 2021 through 2024 is estimated based on actual metered 2025 usage.							

Table 6-3. Groundwater Pumped in Last Five Years (DWR Table 6-1 Wholesale)

<input checked="" 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 (MG)	2022 (MG)	2023 (MG)	2024 (MG)	2025 (MG)
Total			0	0	0	0	0

6.2.7 Groundwater Use – Projected

Turlock plans to continue using groundwater as part of its conjunctive use strategy to meet peak potable demands and to offset anticipated reductions in surface water deliveries during dry years. Groundwater will remain a critical component of Turlock’s water supply portfolio, particularly during periods of surface water shortage.

Projected potable groundwater use for normal years through 2050 is presented in Table 6-4. These projections represent the volume of groundwater required to meet total potable demand after accounting for projected surface water use, and are well within the Turlock GP policy for sustainable groundwater pumping rate.

Future potable groundwater use was estimated as the difference between Turlock’s projected potable demands (from Table 4-4 [DWR Table 4-2 Retail]) and Turlock’s projected surface water use (from Table 45 [DWR Table 4-2 Wholesale]). As population growth and water demand increase over time, both groundwater and surface water use are anticipated to increase. Turlock will continue to finetune its conjunctive use operations to optimize system efficiency, maintain cost effectiveness, and support sustainable management of the underlying groundwater basin.

Refer to Table 6-16 (DWR Table 6-9 Retail) for Turlock’s projected non-potable groundwater use through 2050.

Total projected water supplies available to meet Turlock’s future water demands are discussed further in Section 6.10. The availability of groundwater under single dry years and five-year droughts is discussed in Chapter 7.

Groundwater Type	Location or Basin Name	Projected Potable Groundwater Use, MG ^(a)				
		2030	2035	2040	2045	2050
Alluvial Basin	Turlock Subbasin within the San Joaquin Valley Groundwater Basin	4,058	4,328	4,621	4,854	5,140

(a) Turlock’s projected potable groundwater use is estimated as the difference between Turlock’s potable demand projections defined in Section 4.2.3.1 and Turlock’s projected surface water use defined in Section 4.2.3.2.

6.3 WATER EXCHANGES AND TRANSFERS

SRWA and TID entered into their Agreement on July 28, 2015. The Agreement provides the terms and conditions under which SRWA may purchase up to 30,000 AFY (equivalent to 9,776 MGY) of Tuolumne River surface water from TID. The Agreement does not transfer water rights from TID to SRWA. Instead, it allows transfers of water from TID to SRWA. TID maintains the water rights to all transfer water. The Agreement was amended in April 2020 to reflect some changed circumstances (e.g., approval of environmental documentation, updates on water right petition).

In 2018, TID filed a petition with the State Water Board for a long-term change to TID’s post-1914 appropriative water right (Water Right License 11058 (A014127)). With the petition, TID sought authorization to transfer post-1914 appropriative water to SRWA to implement the Agreement. Due to potential impacts to Don Pedro Reservoir operations, TID decided instead to solely transfer water from its pre-1914 appropriative rights to SRWA. Under CWC § 1706, TID, as a pre-1914 water right holder, may change the point of diversion, purpose of use, or place of use, if others are not injured by such change. Therefore, SRWA receives only pre-1914 transfer water from TID.

To provide transfer water to SRWA, TID releases surface water previously stored in Don Pedro Reservoir at TID’s downstream La Grange diversion dam into the Tuolumne River. The surface water is then withdrawn approximately 26 miles downstream by an infiltration gallery in the Tuolumne River owned by TID and operated by SRWA. The point of delivery of transfer water to SRWA is at the delivery meter located at SRWA’s WTP.

6.3.1 Surface Water Allocations

While SRWA can receive up to 30,000 AFY (9,776 MGY) of surface water from TID, actual water allocations to SRWA may be reduced by TID during dry years. Per the Agreement, TID treats SRWA and TID’s agricultural customers on a parity basis. If TID determines the need to reduce deliveries at any time before or during a year, it will cut back its deliveries to its agricultural customers and to SRWA in equal proportions based upon the amount of water allocated during that year. If TID decides it can increase deliveries, it will increase its deliveries to its agricultural customers and to SRWA in equal portions based upon the amount of water allocated during that year.

The TID Board of Directors determines in February or March of each year, just prior to the start the irrigation season, whether water allocations to its customers will be reduced during that year based on various factors such as:

- projected runoff, which includes consideration of potential occurrence of consecutive dry years,
- carryover storage projections in Don Pedro Reservoir, and
- instream flow requirements for the Tuolumne River.⁴

TID provides SRWA, on or before March 1 preceding each new water year, with a water delivery schedule for the upcoming water year beginning April 1. This schedule specifies the monthly volumes of water to be delivered to SRWA during that water year. TID’s water year is defined as the period from April 1 through March 31 of the following year.

The Agreement states that TID’s commitments to SRWA and its agricultural customers shall be met before any subsequent transfers for delivery of water outside of TID’s boundaries, with the exception of transfers of water released pursuant to any agreement with the City and County of San Francisco and/or Modesto Irrigation District (MID) relating to minimum instream flow requirements.

For TID’s agricultural customers, the base water allocation, or full allocation, is 48 inches per acre. For SRWA, the base allocation is the amount of water requested by SRWA in the current year of the most recently-approved two-year delivery schedule. In dry years, SRWA’s base allocation will be reduced proportionately to TID’s agricultural customers as determined by the TID Board. Per TID’s 2020 Agricultural Water Management Plan (AWMP), TID customers have received full water allocations in 16 of the last 29 years (through 2020). TID’s average agricultural allocation for the past 22 years (through 2020) is 11 percent below the full allocation (2020 AWMP).

In reviewing TID’s recent 15 years of allocations (2010 through 2024), the average allocation has been 98 percent of full allocation during normal years (i.e., years without emergency drought orders). The reductions to be expected in a single dry year, and multiple dry years is discussed in Chapter 7.

⁴ TID. March 2021. *2020 Agricultural Water Management Plan*.

6.3.2 Offset Water

In any year that TID’s allocation to agricultural users is less than 48 inches, SRWA is required to provide offset water to TID. This requirement is expected to occur during dry years when surface water supplies are limited. The Cities are responsible for providing the offset water to TID on behalf of SRWA during these dry years. The offset water is either non-potable groundwater from the Cities’ wells and/or tertiary treated recycled water from Turlock’s RWQCF.

The Agreement allows for improved operational flexibility for both the Cities and TID by reducing groundwater pumping during normal to wet years and relying on groundwater during dry years when surface water is limited. All offset water will be produced by city-owned facilities and delivered to TID via TID-owned conveyance infrastructure. Therefore, no SRWA facilities are currently used for the production or delivery of offset water.

6.4 SURFACE WATER

SRWA’s sole water supply source is surface water diverted from the Tuolumne River as described in Section 6.3. SRWA receives surface water from the Tuolumne River based on the long-term Agreement with TID using TID’s existing pre-1914 appropriative water right. TID maintains the water rights to all transfer water provided to SRWA; SRWA does not directly hold any surface water rights on the Tuolumne River.

SRWA treats this surface water at its WTP and then distributes the treated surface water to the Cities. As per the Executed Regional Surface Water Supply Phase 3 Project Design and Construction Funding Agreement between SRWA and the Cities, an allocation based on a proportion of the WTP capacity is dedicated to each city, with two thirds dedicated to Turlock and one third dedicated to Ceres. The WTP’s current capacity is 15 MGD, of which 10 MGD is dedicated to Turlock and 5 MGD is dedicated to Ceres. When WTP expansions increase the WTP capacity, the allocations to the Cities will increase proportionally.

6.5 PURCHASED OR IMPORTED WATER

As discussed in Section 6.4, Turlock purchases treated surface water from SRWA in accordance with the Executed Regional Surface Water Supply Phase 3 Project Design and Construction Funding Agreement.

As discussed in Section 6.3, SRWA has an Agreement with TID for a long-term transfer to receive surface water from the Tuolumne River. SRWA does not currently purchase, nor have plans to purchase, any other water supplies. During severe drought conditions that significantly reduce SRWA’s surface water allocations from TID, SRWA may consider a purchase of water from other TID customers or a short-term transfer of surface water from other water right holders with pre-1914 appropriative water rights on the Tuolumne River. As discussed further in SRWA’s WSCP, this purchase would likely only be necessary if the Cities determine that they do not have sufficient well capacity to meet demands with groundwater during dry years with significantly reduced water allocations from TID.

6.6 STORMWATER

Turlock and SRWA do not currently utilize, nor have plans to utilize, stormwater as a water supply. However, Turlock does use stormwater detention basins to recharge the local groundwater basin.

Turlock’s stormwater system includes about 130 miles of storm drain collection/conveyance piping, 49 pump stations, 45 detention basins, and use of the TID open channel irrigation system.

The majority of Turlock's stormwater drains to local detention basins. Although the primary purpose of these detention facilities is for urban runoff and flood control, they passively contribute to groundwater recharge through percolation of stored supplies. These detention facilities are managed in a way to maximize stored volume to maximize groundwater recharge as long as flood control concerns are low. As soon as wet weather events are in the forecast, the detention facilities are drained to create more space for stormwater detention.

A portion of Turlock's stormwater drains to TID laterals. Although this drainage does not directly increase supply for Turlock, stormwater delivered to TID helps to offset TID water demands. Turlock works closely with TID to ensure adequate capacity is available in the laterals for stormwater discharges. Turlock implements best management practices to improve water quality for the stormwater discharges. The remainder of Turlock's stormwater that is not captured in detention basins or flows to TID laterals eventually drains through a combined sewer system to the Turlock RWQCF.

Turlock completed the Dianne Storm Basin Project in 2023, which provides direct groundwater recharge to the Subbasin through the existing Dianne Storm Drain Basin. The project enhances infiltration and impoundment of stormwater in the storm basin during the wet season using dry wells and conveys Tuolumne River water from TID into the storm basin for recharge during the irrigation season in wet years.

The basin is located on the western edge of Turlock and north of the Turlock RWQCF, with a surface area of 26 acres and a capacity for approximately 105 AF. The basin receives stormwater from Fulkerth Road which accounts for roughly one third of the stormwater captured within Turlock.

Turlock plans to recharge stormwater into the basin during all years when water is available from storm events. In above normal and wet hydrologic years during the irrigation season, water from the Tuolumne River will be conveyed using existing infrastructure into the storm basin for direct recharge. Per the Turlock Subbasin GSP, approximately 22.5 AFY could be captured and recharged during the wet season and 400 AFY could be diverted and recharged from the Tuolumne River during the irrigation season in above normal and wet hydrologic years.

6.7 WASTEWATER AND RECYCLED WATER

Since 2006, Turlock has operated a disinfected tertiary wastewater treatment system, the Turlock RWQCF. This section provides information on Turlock's wastewater and its current and potential reuse as a recycled water resource.

SRWA does not collect or treat wastewater, nor does it distribute or use recycled water.

6.7.1 Recycled Water Coordination

The Cities of Turlock and Modesto worked together with the Del Puerto Water District (DPWD) to develop a cooperative project to regionalize recycled water use in Stanislaus County, the North Valley Regional Recycled Water Program (North Valley Program). Starting in December 2017, the North Valley Program began producing and delivering up to 30,600 AFY (9,970 MGY) of disinfected tertiary treated recycled water to western Stanislaus County. By 2045, the North Valley Program could deliver up to 59,900 AFY (19,500 MGY) of recycled water. The source of recycled water includes treated wastewater from the Cities of Turlock and Modesto. As part of the project, Turlock installed 7.3 miles of conveyance pipeline to convey recycled water directly from its RWQCF's tertiary treatment plant to the Modesto pumping facility,

which then pumps the recycled water to the Delta-Mendota Canal (DMC). The DMC is used to convey the blended canal-recycled water to DPWD in the west side of the County.

In addition to the regional North Valley Program, Turlock operates its own recycled water program for customers within Turlock's service area. Turlock coordinates both internally and externally with its recycled water customers. Turlock also coordinates with businesses and residences in the surrounding geographic areas adjacent to and within Turlock.

6.7.2 Wastewater Collection, Treatment, and Disposal

Turlock's RWQCF has a design daily average flow capacity of 20 MGD, although the current effective or permitted capacity is lower in order to ensure compliance with permit requirements. The RWQCF is currently treating an average influent flow of 10.7 MGD. The raw wastewater received at the RWQCF is a combination of domestic and industrial wastewater flows. Influent consists of wastewater from Turlock, Keyes Community Services District (CSD), Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres. The RWQCF produces disinfected tertiary treated water that meets Title 22 standards for unrestricted non-potable use pursuant to Title 22 section 60301.230(a)(1).

The RWQCF treatment system consists of influent screening, grit removal, primary flotation, secondary treatment (which consists of activated bio-filtration for biological oxygen demand (BOD)/total suspended solids (TSS) reduction and nitrification), secondary clarification, tertiary treatment (which consists of high rate clarification with chemical addition followed by cloth disk filters), disinfection via chlorination, and dechlorination by sodium bisulfite. Solids handling at the RWQCF consists of gravity belt thickening, two-stage anaerobic digestion via acid phase and methane phase digesters, and sludge drying beds. Biosolids are beneficially reused for land application to farmland and co-compost.

Wastewater facilities also include a 37.2 MG earthen storage basin, allowing the emergency diversion and storage of flow when necessary. Constructed with a 6-inch bentonite liner on the bottom and sides, the basin can be used to store either excess wet weather influent, or effluent that does not meet permit requirements.

Since the North Valley Program was implemented in late 2017, Turlock only discharges a small amount of effluent to the San Joaquin River. Nearly all the RWQCF effluent is used as recycled water either by the North Valley Program or within Turlock's service area (refer to Table 6-6 [DWR Table 6-3 Retail]). Prior to the implementation of the North Valley Program, effluent from the RWQCF that was not recycled within Turlock's service area was discharged to the San Joaquin River. Turlock's 36-inch diameter outfall facilities remain as a backup discharge location to the San Joaquin River.

6.7.2.1 Wastewater Collected Within Service Area

Table 6-5 (DWR Table 6-2 Retail) summarizes information on wastewater collection within Turlock's wastewater service area. The volume of wastewater collected from Turlock, Keyes CSD, Denair CSD, and the City of Ceres is included in the volume presented in Table 6-5 (DWR Table 6-2 Retail) because flows are not metered separately.

Table 6-5. Wastewater Collected Within Service Area in 2025 (DWR Table 6-2 Retail)

<input type="checkbox"/>	Check the box if there is no wastewater collection system. Proceed to the next table.			
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (MG)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number Drop down list	Is WWTP Located Within UWMP Area? Drop Down List
City of Turlock	Metered	3,902	Turlock City, Turlock Regional Water Quality Control Facility, Place ID 266737	Yes
Total Wastewater Received from UWMP Service Area in 2025:		3,902		
<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>NOTES: Volume shown includes wastewater collected outside Turlock's water service area including the Keyes Community Service District (CSD), Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres, all of which is treated at Turlock's Regional Water Quality Control Facility. Metered wastewater volumes are based on WWTP influent flows, and data covering only Turlock's water service area is not available.</p>				

6.7.2.2 Wastewater Treatment and Discharge Within Service Area

Table 6-6 (DWR Table 6-3 Retail) identifies the volume of treated wastewater recycled within or outside Turlock's water service area. Most of the recycled water use occurs outside of Turlock's water service area for agricultural irrigation as part of the North Valley Program. The volume shown in Table 6-6 (DWR Table 6-3 Retail) includes wastewater collected from both Turlock and from Keyes CSD, Denair CSD, and the City of Ceres.

As shown in Table 6-7 (DWR Table 6-3 Wholesale), SRWA does not treat or distribute wastewater.

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

<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 Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (MG)	Total 2025 Volume of Water Treated (MG)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Name of other entity
Turlock City, Turlock Regional Water Quality Control Facility, Place ID 266737	Yes	3,902	3,902	Tertiary	376	Tertiary	3,492	Tertiary	35		0		0	
Total		3,902	3,902		376		3,492		35		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: Volume shown includes wastewater collected outside Turlock's water service area including the Keyes Community Service District (CSD), Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres, all of which is treated at Turlock's Regional Water Quality Control Facility. Metered wastewater volumes are based on WWTP influent flows, and data covering only Turlock's water service area is not available.														

Chapter 6
Water Supply Characterization



Table 6-7. Wastewater Treatment and Outcomes Within Service Area in 2025 (DWR Table 6-3 Wholesale)

<input checked="" type="checkbox"/>	Check the box if the Wholesale Supplier neither distributes nor provides supplemental treatment to recycled water. Proceed to the next table.													
Wastewater Treatment Plant Name and Place ID Number Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (MG)	Total 2025 Volume of Water Treated (MG)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Name of other entity
Total		0	0		0		0		0		0		0	

6.7.3 Recycled Water System Description

Although Turlock has operated an established recycled water program since 1990, it does not operate a large pipeline distribution system, and has instead opted to evaluate, design, and build facilities on a per connection basis.

Currently, Turlock provides up to 2.0 MGD of recycled water to TID's Walnut Energy Center Co-Generation Facility for cooling, and a small amount of recycled water at a City-owned and operated fill station. The remaining recycled water is utilized by the North Valley Program for agricultural irrigation.

6.7.4 Potential, Current, and Projected Recycled Water Uses

Uses of disinfected tertiary recycled water may include, but are not limited to: agricultural irrigation, water for industrial purposes (including process cooling water), residential landscape irrigation, construction water, and other uses as approved by Turlock identified within Title 22 California Code of Regulations.

Table 6-8 (DWR Table 6-4 Retail) shows Turlock's current and projected recycled water uses through 2050. Most recycled water is used for agricultural irrigation as part of the North Valley Program, with the second largest user currently being TID's Walnut Energy Center Co-Generation Facility. These recycled water demands are expected to remain relatively constant through 2050.

Turlock's landscape irrigation and recycled water fill station use represents a small amount of total recycled water use, generally totaling less than 1 MGY. Although in past years Pedretti Sports Fields received recycled water for irrigation, Turlock did not supply recycled water to the Pedretti Sports Fields in 2025, as Turlock's non-potable wells can also provide irrigation water to these fields. Now that the North Valley Program is online, Turlock reserves the recycled water for that program while only using the recycled water to supplement the non-potable well water for irrigation of the Pedretti Sports Fields when needed.

As part of SRWA's Agreement with TID, SRWA will provide 2,000 AFY (652 MGY) of recycled water from Turlock to TID for agricultural irrigation purposes. Due to on-going discussions on recycled water conveyance between Turlock's RWQCF and TID's conveyance facilities, Turlock has not yet provided recycled water to TID and has instead been providing an in-lieu fee to TID. For the purposes of this plan, recycled water deliveries from Turlock to TID are assumed to begin by approximately 2028.

Table 6-8. Current and Projected Recycled Water Uses Within Service Area (DWR Table 6-4 Retail)

<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) :			Turlock Regional Water Quality Control Facility, Place ID 266737							
Name of Supplier Operating the Recycled Water Distribution System			City of Turlock							
Volume of Supplemental Water Added in 2025 (OPTIONAL) :										
Source of 2025 Supplemental Water (OPTIONAL) :										
Use Type Drop down list	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (MG)	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
Agricultural irrigation	Non-Potable	Transported by North Valley Regional Recycled Water Pipeline for agricultural irrigation. See note (a).	3,492	3,492	3,492	3,492	3,492	3,492		
Agricultural irrigation	Non-Potable	Recycled water delivered to Turlock Irrigation District for agricultural irrigation. See note (b).	0	652	652	652	652	652		
Landscape irrigation (exc golf courses)	Non-Potable	Irrigation at Pedretti Sports Fields	0	1	1	1	1	1		
Geothermal and other energy production	Non-Potable	Turlock Irrigation District's Walnut Energy Center Co-Generation Facility cooling towers	376	376	376	376	376	376		
Landscape irrigation (exc golf courses)	Non-Potable	Recycled Water Filling Station. See note (c).	0	0	0	0	0	0		
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			3,867	4,520	4,520	4,520	4,520	4,520	0	
Total			3,867	4,520	4,520	4,520	4,520	4,520	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: (a) Volume of recycled water available for delivery to the North Valley Regional Recycled Water Program (North Valley Program) may vary, as wastewater and recycled water flow projections through 2050 are not available. Volume delivered to the North Valley Program may increase or decrease based on available recycled water supply in future years.</p> <p>(b) Turlock anticipates beginning to deliver recycled water to TID for agricultural irrigation as part of the SRWA-TID Water Sales Agreement water in approximately 2028.</p> <p>(c) The City began its recycled water filling station in 2018. Turlock has not set a limit on the amount of recycled water that can be trucked off-site other than 300 gallons per vehicle per trip. Total fill station use in 2025 was approximately 8,500 gallons, and fill station use is expected to continue to represent only a minor amount of Turlock's overall recycled water use.</p> <p>(d) Due to rounding, the volumes by individual use shown in the table may not sum exactly to the subtotals or totals.</p>										

Chapter 6 Water Supply Characterization



Table 6-9 (DWR Table 6-5 Retail) shows a comparison between the recycled water use that was projected in Turlock’s 2020 UWMP for 2025 and the actual recycled water use for 2025.

Actual recycled water use at the Walnut Energy Center cooling tower was slightly higher than projected, while uses for agricultural irrigation through the North Valley Program and landscape irrigation at the Pedretti Sports Fields were lower than projected in the 2020 UWMP. Recycled water use for agricultural irrigation is influenced by the available recycled water supply and wastewater flows, and any additional supply would be delivered to the North Valley Program. Recycled water use at the Pedretti Sports Fields was less than previously projected since Turlock’s non-potable wells can also provide irrigation water to these fields.

Overall, total recycled water use in 2025 was approximately five percent less than projected in Turlock’s 2020 UWMP.

Table 6-9. 2020 Recycled Water Use Projection Compared to 2025 Actual (DWR Table 6-5 Retail)

<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 (MG)	2025 Actual Use (MG)	
Agricultural irrigation	3,755	3,492	
Landscape irrigation (exc golf courses)	1	0	
Geothermal and other energy production	301	376	
Other (Description Required)	0	0	
Total	4,057	3,867	
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: (a) The "Other" use type is Turlock's recycled water filling station. Total fill station use in 2025 was approximately 8,500 gallons, and fill station use is expected to continue to represent only a minor amount of Turlock's overall recycled water use.			

As shown in Table 6-10 (DWR Table 6-4 Wholesale) and Table 6-11 (DWR Table 6-5 Wholesale), SRWA does not use or distribute recycled water, nor does SRWA plan to do so.

Table 6-10. Current and Projected Recycled Water Uses (DWR Table 6-4 Wholesale)

<input checked="" 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 of Receiving Supplier or Direct Use by Wholesale Supplier	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (MG)	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			0	0	0	0	0	0	0	
Total			0	0	0	0	0	0	0	0

Table 6-11. 2020 Recycled Water Use Projection Compared to 2025 Actual (DWR Table 6-5 Wholesale)

<input checked="" type="checkbox"/>	Check the box if recycled water was not used or distributed by the supplier in 2025, nor projected for use or distribution in 2020. Proceed to the next table.	
Name of Receiving Supplier or Direct Use by Wholesale Supplier	2020 Projection for 2025 (MG)	2025 Actual Use (MG)
Total	0	0

6.7.5 Actions to Encourage and Optimize Future Recycled Water Use

Turlock has plans for encouraging and expanding future recycled water use in its service area. These plans are discussed in the following sections and summarized in Table 6-12 (DWR Table 6-6 Retail).

6.7.5.1 Expansion of Recycled Water to TID for Agricultural Irrigation

As part of SRWA’s Agreement with TID, SRWA will provide 2,000 AFY (652 MGY) of recycled water from Turlock to TID for agricultural irrigation purposes. Due to on-going discussions on recycled water conveyance between Turlock and TID, Turlock has not yet provided recycled water to TID for agricultural irrigation and has instead been providing an in-lieu fee to TID. For the purposes of this plan, recycled water deliveries from Turlock to TID is assumed to begin in 2028.

6.7.5.2 Outreach for Recycled Water for Residential and Commercial Filling Stations

Since 2018, recycled water has been available to commercial and residential users through an on-site filling station at Turlock’s RWQCF. Users can fill properly identified recycled water tanks in their vehicle for appropriate uses off-site. Residential users may fill up to a maximum volume of 300 gallons per visit.⁵ To prevent cross-contamination, all portable recycled water containers are prohibited from being connected to any potable water supply system. Additionally, commercial users are required to maintain a logbook detailing the date of delivery, name and address of delivery/recipient, type of use, volume delivered/used and intended use of water delivered. The quantity of recycled water provided by this filling station was approximately 8,500 gallons, thus representing a minor amount of the City’s total recycled water use.

Turlock plans to continue conducting outreach regarding the availability of recycled water and encouraging the use of it to reduce the use of potable water for end uses that could be satisfied with non-potable water. Turlock will also continue to offer recycled water to contractors for construction use via the fill station. As these on-going efforts do not have any specific implementation completion date, they are not included in Table 6-12 (DWR Table 6-6 Retail).

⁵ City of Turlock. *Recycled Water*. Accessed at <https://new.turlock.ca.us/watersewergarbage/waterconservation/recycledwater.asp> on March 3, 2026.

Table 6-12. Methods to Expand Future Recycled Water Use (DWR Table 6-6 Retail)

<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 (MG)
Recycled water delivered to Turlock Irrigation District	For agricultural irrigation use	2028. See note (a).	652
Total (MG)			652
Unit Conversion to AF			2,000
DWR NOTES:			
Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.			
NOTES: (a) As part of SRWA's Water Sales Agreement with TID, Turlock planned to begin providing 2,000 acre-feet per year (652 MGY) of recycled water to TID for agricultural irrigation in 2022. However, recycled water deliveries to TID have not yet commenced. For the purposes of this plan, it is assumed that recycled water deliveries from Turlock to TID will begin by approximately 2028.			

6.8 DESALINATED WATER

Desalination is the process of removing dissolved minerals from brackish water 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.

Turlock and SRWA's service area is not located in a coastal area, so seawater desalination is not applicable and is not considered a technically or economically feasible opportunity to explore. Per CV2Sim groundwater modeling performed as part of the Turlock Subbasin GSP, the base of fresh water below the Cities of Turlock and Ceres is approximated to be 750 to 900 feet below msl.⁶ Due to the depth of saline water, along with other issues such as brine disposal, desalination of saline groundwater by Turlock is not feasible.

Therefore, Turlock and SRWA did not include or consider desalinated water in planning for its future supply sources.

6.9 FUTURE WATER PROJECTS

6.9.1 City of Turlock

As shown in Table 6-13 (DWR Table 6-7 Retail), Turlock has multiple groundwater projects planned to serve future growth. As part of Turlock's 2025 WMP, Turlock developed a Capital Improvement Plan (CIP) that defines projects needed to serve existing and future water customers. While no water supply capacity projects were needed to serve existing customers, the CIP includes water supply projects needed to meet projected demands from future customers.

⁶ Source: WTSGSA/ETSGSA, Todd Groundwater. July 2024. Turlock Subbasin GSP. Figure 4-9.

The water supply projects defined in the CIP include constructing two new groundwater wells with treatment by 2028, and four additional groundwater wells with treatment by 2038. Actual implementation timing may vary depending on the timing of development within Turlock. The expected increase in available supply shown in Table 6-13 (DWR Table 6-7 Retail) assumes that each well has a capacity of 1,500 gpm, consistent with the WMP.

Turlock’s CIP also includes the installation of arsenic treatment on two existing wells to maintain operability of these wells and improve supply reliability. As the purpose of this treatment project is to maintain current supply capacity, compared to adding new capacity, this project is not included in Table 6-13 (DWR Table 6-7 Retail). Additional details about Turlock’s future water supply projects are described in the Turlock 2025 WMP.

Table 6-13. Expected Future Water Supply Projects or Programs (DWR Table 6-7 Retail)

<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.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type Drop Down List	Expected Increase in Water Supply to Supplier (This may be a range) (MG)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Construct Two New Wells (5 and 16) with Treatment (PWW-2 and PWW-3)	No			Potable	2028	All Year Types	1,570
Construct Four New Wells with Treatment (PWW-4 to PWW-7)	No			Potable	2038	All Year Types	3,139
DWR NOTES:							
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.							
NOTES: Future water supply projects are defined in Turlock's 2025 Water Master Plan.							

6.9.2 SRWA

SRWA’s future water supply projects through 2050 are shown in Table 6-14 (DWR Table 6-7 Wholesale) and include a filter capacity study that is currently underway and a potential future expansion of the SRWA WTP.

SRWA’s filter capacity study is evaluating whether higher filter loading rates are feasible for the four existing granular media filters at the SRWA WTP. The filter capacity testing is planned to be completed in 2027, with the increase in WTP capacity expected to be available starting in 2028. Based on preliminary estimates, the study could potentially lead to a re-rating of the filter loading rate from 6 GPM/SF to 8 GPM/SF. This loading rate increase could increase the overall WTP capacity by up to 4.9 MGD, or from 15 MGD to 19.9 MGD. The actual increase in WTP capacity is dependent on the findings of the study and whether the filters operated at these higher filtration rates comply with the regulatory performance requirements from the State Water Board’s Division of Drinking Water (DDW).

SRWA is also considering a future expansion of the WTP, referred to as the “Phase 2 expansion”, to meet future water demands from existing SRWA customers (i.e., Cities of Turlock and Ceres) and future customers. The current capacity of the WTP is 15 MGD but may be expanded to increase capacity to 30 MGD with the Phase 2 expansion. Based on the water demand projections for the Cities of Turlock and Ceres from their respective 2025 WMPs, both Cities anticipate the need for the Phase 2 expansion to 30 MGD within the planning horizon of this Joint UWMP to meet future water demands.

Based on the findings of the Cities’ 2025 WMPs, the Phase 2 expansion to 30 MGD is tentatively planned between 2041 to 2045 but is subject to change depending on the timing of development in Ceres and Turlock, as well as the possibility of other future water customers. Future buildout of the WTP would be 45 MGD but is not expected during the planning horizon of this Joint UWMP. This anticipated schedule differs from SRWA’s 2020 UWMP, which had projected buildout of the WTP to 45 MGD by 2035. The timing and phasing of the WTP expansion has been updated in this Joint UWMP to reflect the slower growth patterns identified in the Cities’ WMPs compared to growth projections in past planning efforts.

SRWA has incorporated provisions into the initial WTP site layout for future expansion of the WTP. Areas of the WTP site have been reserved for future treatment trains.

Table 6-14. Expected Future Water Supply Projects or Programs (DWR Table 6-7 Wholesale)

<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 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.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Planned Implementation Year	Planned for Use in Year Type Drop Down list	Expected Increase in Water Supply to Supplier (This may be a range) (MG)
	Drop Down List (yes/no)	If Yes, Supplier Name					
SRWA WTP Filter Capacity Study	Yes	Cities of Turlock and Ceres	Filtration capacity study for existing filters to expand WTP capacity from 15 MGD to 19.9 MGD. See note (a).	Potable	2028	All Year Types	1,789
SRWA WTP Phase 2 Expansion	Yes	Cities of Turlock and Ceres	Expanding WTP capacity from 19.9 MGD to 30 MGD. See note (b).	Potable	2041	All Year Types	2,513
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.							
NOTES: (a) Filter capacity study is anticipated to increase SRWA's WTP capacity by up to 4.9 mgd, to a total capacity of up to 19.9 MGD. (b) SRWA's WTP Phase 2 expansion is anticipated to increase capacity to 30 MGD. The planned implementation timing for the SRWA WTP expansion is approximate and will be determined closer to when additional supply capacity is needed. The expected increase in available supply is constrained by the maximum annual surface water agreement with TID (9,776 MG).							

6.10 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

6.10.1 City of Turlock

Turlock's existing and planned sources of water can be summarized as follows:

- Turlock maintains 15 active, potable groundwater wells, in addition to 4 non-potable groundwater wells for landscape irrigation.
 - To maintain adequate groundwater supply capacity to meet future demands, Turlock plans to develop six new potable groundwater wells and add treatment to two existing wells within the UWMP planning horizon.
- Turlock is currently contracted to purchase up to 10 MGD (up to 3,650 MGY) of treated surface water from SRWA, with plans for future expansion of surface water use as WTP capacity expansions increase the available surface water supply.
 - Turlock anticipates being able to purchase up to 13.3 MGD (up to 4,840 MGY) of treated surface water from SRWA starting in 2028 pending the results of SRWA's on-going filter capacity study.
 - Turlock anticipates being able to purchase up to 20 MGD (up to 7,300 MGY) of treated surface water from SRWA from SRWA's planned Phase 2 expansion, which is projected to occur between 2041 and 2045.
- Turlock maintains a series of stormwater detention basins that contribute to groundwater recharge.
- Turlock currently provides recycled water for industrial use (TID Walnut Energy Center), landscape irrigation, and agricultural irrigation, and plans to continue these uses in the future.
- Turlock does not currently exchange or transfer water nor plans to exchange or transfer water with other water systems.
- Turlock neither currently uses nor plans to use desalinated water.

Turlock's actual potable and non-potable water supplies used in 2025 are summarized in Table 6-15 (DWR Table 6-8 Retail). The volume shown is based on the actual 2025 production from each potable and non-potable source.

As shown in Table 6-15 (DWR Table 6-8 Retail), Turlock's entitlement for purchased surface water is based on its current 10 MGD WTP allocation, equivalent to a maximum volume of 3,650 MGY. Turlock does not have a specified groundwater pumping limit for its potable and non-potable groundwater uses.

Table 6-15. Water Supplies – Actual (DWR Table 6-8 Retail)

Water Supply	Additional Description (as needed)	2025		
		Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)
Groundwater (not desalinated)	Turlock's production wells	Potable	4,042	
Purchased or Imported Water	Treated surface water purchased from SRWA	Potable	2,104	3,650
Recycled Water	Disinfected tertiary recycled water	Non-Potable	3,902	
Groundwater (not desalinated)	Non-potable raw water irrigation wells at City parks	Non-Potable	104	
Subtotal Potable			6,146	3,650
Subtotal Non-Potable			4,006	0
Total			10,151	3,650
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: Total entitlement for the purchased water is based on Turlock's current 10 MGD allocation of the SRWA WTP.				

Turlock's projected future potable and non-potable water supplies are summarized in Table 6-16 (DWR Table 6-9 Retail). Projected annual potable water supplies are anticipated to increase to 17,682 MG in 2050, which exceeds the projected potable water demands for 2050 shown in Chapter 4.

Projected groundwater supplies were estimated based on the maximum annual groundwater pumping in the past five years as shown in Table 6-2 (DWR Table 6-1 Retail), plus the additional groundwater capacity from Turlock's future water supply projects shown in Table 6-13 (DWR Table 6-7 Retail). The projected increase in surface water supplies available to Turlock incorporates SRWA's on-going filter capacity study which is anticipated to result in additional capacity in 2028 and the Phase 2 WTP expansion planned between 2041 to 2045. Refer to Table 6-14 (DWR Table 6-7 Wholesale) for additional details on SRWA's future water projects.

Table 6-16. Water Supplies – Projected (DWR Table 6-9 Retail)

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 (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below
Groundwater (not desalinated)	Turlock's production wells. See note (a).	Potable	8,026		8,026		11,165		11,165		11,165	
Purchased or Imported Water	Treated surface water purchased from SRWA. See note (b).	Potable	4,842	4,842	4,842	4,842	4,842	4,842	6,517	6,517	6,517	6,517
Recycled Water	Disinfected tertiary recycled water. See note (c).	Non-Potable	4,520		4,520		4,520		4,520		4,520	
Groundwater (not desalinated)	Non-potable raw water irrigation wells at City parks	Non-Potable	104		104		104		104		104	
Subtotal Potable			12,868	4,842	12,868	4,842	16,007	4,842	17,682	6,517	17,682	6,517
Subtotal Non-Potable			4,624	0	4,624	0	4,624	0	4,624	0	4,624	0
Total			17,492	4,842	17,492	4,842	20,631	4,842	22,306	6,517	22,306	6,517

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) Turlock's projected volume of groundwater available is estimated to be the maximum annual groundwater volume pumped in the past five years plus additional capacity from Turlock's future groundwater supply projects identified in DWR Table 6-7R. These future projects include constructing six new wells with treatment by 2040.
 (b) Turlock's projected volume of purchased water available from SRWA in 2030, 2035, and 2040 assumes a 13.3 MGD allocation for Turlock, based on the WTP's re-rated capacity of 19.9 MGD. Phase 2 expansion of the SRWA WTP from 19.9 MGD to 30 MGD total capacity is assumed to occur in 2041. The Phase 2 expansion yields an allocation of 20 MGD to Turlock in 2045 and 2050; total volume available is limited by Turlock's two-thirds allocation of the maximum annual water supply available per the Water Sales Agreement (9,776 MG). Buildout expansion of the WTP to 45 MGD is not planned within this UWMP planning horizon.
 (c) Wastewater and recycled water flow projections through 2050 are not available. Volumes presented are based on projected recycled water demands. Actual recycled water supply availability may vary.

6.10.2 SRWA

SRWA’s existing water supply and entitlement is summarized in Table 6-17 (DWR Table 6-8 Wholesale). In 2025, SRWA produced 3,517 MG of treated surface water, which is less than its maximum annual water supply available based on its Agreement with TID (9,776 MG or 30,000 AFY).

Table 6-17. Water Supplies – Actual (DWR Table 6-8 Wholesale)

Water Supply	Additional Description (as needed)	2025		
		Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)
Surface water (not desalinated)	Surface water diverted from Tuolumne River per long-term transfer with TID	Potable	3,517	9,776
Subtotal Potable			3,517	9,776
Subtotal Non-Potable			0	0
Total			3,517	9,776
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: Total Entitlement is based on SRWA and TID's Water Sales Agreement, which allows SRWA to purchase up to 30,000 AFY (equivalent to 9,776 MG) of untreated Tuolumne River surface water. Actual use may be limited by SRWA's current WTP capacity of 15 MGD.				

SRWA’s planned water supplies through 2050 is summarized in Table 6-18 (DWR Table 6-9 Wholesale). The projected surface water availability through 2050 incorporates SRWA’s on-going filter capacity study, which is anticipated to result in additional capacity in 2028, and the Phase 2 WTP expansion planned between 2041 to 2045. Refer to Table 6-14 (DWR Table 6-7 Wholesale) for additional details on SRWA’s future water projects. The total entitlement shown through 2050 is 9,776 MG (30,000 AFY) based on SRWA’s Agreement with TID.

The reasonably available volume shown in Table 6-18 (DWR Table 6-9 Wholesale) is based on SRWA’s WTP capacity. The reasonably available volume for each five-year increment is based on the limiting factor of either:

1. WTP capacity during that five-year increment, or
2. Maximum annual water supply available based on the Agreement, equivalent to 9,776 MG (30,000 AFY).

Additionally, SRWA’s maximum annual water supply available was reduced by two percent (from 9,776 MG to 9,580 MG) to account for the average normal year water allocation by TID based on TID’s most recent 15 years of water allocations to its customers. Chapter 7 provides additional information on TID’s allocation history and classification of normal year water supplies.

Chapter 6
Water Supply Characterization



Table 6-18. Water Supplies – Projected (DWR Table 6-9 Wholesale)

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUdata online submittal tool	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below
			Surface water (not desalinated)	Surface water diverted from Tuolumne River per long-term transfer with TID	Potable	7,264	9,776	7,264	9,776	7,264	9,776	9,580
Subtotal Potable			7,264	9,776	7,264	9,776	7,264	9,776	9,580	9,776	9,580	9,776
Subtotal Non-Potable			0	0	0	0	0	0	0	0	0	0
Total			7,264	9,776	7,264	9,776	7,264	9,776	9,580	9,776	9,580	9,776
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 a Submittal Table 2-3.												
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.												
NOTES: Reasonably available volume is based on the limiting factor of either 1) WTP capacity or 2) normal-year water allocation between SRWA and TID. Projected volume of surface water available in 2030 through 2040 is based on the WTP's capacity of 19.9 MGD, assuming that the filter re-rating study is completed in 2027. The Phase 2 WTP expansion from 19.9 MGD to 30 MGD total capacity is projected to occur between 2041 and 2045. In 2045 and 2050, reasonably available volume is limited by the normal-year water allocation between SRWA and TID, which is expected to be 98 percent of total volume requested. Refer to Chapter 7 for more information.												

6.11 SPECIAL CONDITIONS

This section provides a discussion of climate change impacts and regulatory conditions that may affect the availability and reliability of Turlock and SRWA's water supply sources.

6.11.1 Climate Change Impacts

Anticipated climate change impacts to Turlock and SRWA's water supplies are discussed below. Additional details can be found from the referenced studies, which include:

- *Turlock Irrigation District 2020 Agricultural Water Management Plan (AWMP)*. March 2021.
- *East Stanislaus Region Integrated Regional Water Management Plan Update*. February 2018.
- *San Joaquin Valley Summary Report. California's Fourth Climate Change Assessment*. September 2018.
- *Sensitivity of Upper Tuolumne River Flow to Climate Change Scenarios*. January 2012. Hydrocomp, Inc., San Francisco Public Utilities Commission (SFPUC), and TID.

SRWA's water supply is dependent on Tuolumne River flow conditions and TID's ability to supply sufficient quantities of Tuolumne River water to its customers. Based on a review of the above studies, the anticipated climate change impacts on SRWA's water supply are summarized below:

- Change in timing of runoff in the Tuolumne River, with less runoff occurring during peak water demand periods (spring-summer);
- Reduction in total runoff in the Tuolumne River;
- Reduced precipitation as snowfall and reduced snowpack in the Sierra Nevada Mountains;
- More frequent and more severe droughts in the future leading to the possibility of more frequent curtailments of Tuolumne River water diversions and reduced surface water allocations by TID;
- Increased evaporation on Don Pedro Reservoir reducing TID's available supply;
- Increased average temperatures and evapotranspiration, which may increase SRWA's wholesale and Turlock's retail customer water demands (e.g., landscape irrigation); and
- Increased demand and competition for Tuolumne River surface water by TID's customers due to increased crop evapotranspiration and subsequent increase in irrigation water requirements.

Based on available historical data and projected future streamflow in the Tuolumne River⁷, the amount of annual runoff in the Tuolumne River below La Grange Dam occurring during the spring-summer period (April through July) has decreased over the past century and will likely continue to decrease in the next century (TID 2020 AWMP). Conversely, increasingly more runoff has occurred during the fall-winter period, outside of the irrigation season (TID 2020 AWMP). California's Fourth Climate Change

⁷Historical full natural flows along the Tuolumne River are reported by DWR's California Cooperative Snow Surveys, available through the California Data Exchange Center. Projected changes to Tuolumne River flows are derived from a number of studies prepared by the United States Bureau of Reclamation (USBR), DWR, and TID.

Assessment for San Joaquin Valley and a 2012 SFPUC/TID joint study, *Sensitivity of Upper Tuolumne River Flow to Climate Change Scenarios*, suggest future trends of decreased Tuolumne River runoff flows over the next 100 years.

The shift in timing of Tuolumne River flows and projected reduction in total flows have the potential to impact TID's future surface water allocations to SRWA. With reduction in Tuolumne River flows during the spring-summer period, TID will face challenges in its ability to meet peak customer water demands during dry years while ensuring that adequate instream flow requirements are met per State and Federal requirements.

TID's 2020 AWMP provides more information on climate change impacts and TID's actions to address these impacts.

6.11.2 Regulatory Conditions

Regulatory conditions for Turlock and SRWA's planned projects and emerging regulatory conditions that may impact water supplies are discussed below.

- 1. Filter Capacity Study.** SRWA's on-going filter capacity study is anticipated to increase the SRWA WTP capacity. This study will require coordination with DDW. Title 22 of the California Code of Regulations (CCR) specifies in Section 64660 that WTPs like SRWA's WTP, with conventional filtration using dual media, must be operated at filtration rates not to exceed 6.0 GPM/SF. However, this section of the CCR contains a provision where higher filtration rates (above 6 GPM/SF) may be approved if the water supplier demonstrates to DDW that the filters operated at these higher filtration rates comply with the regulatory performance requirements.
- 2. WTP Phase 2 Expansion.** The planned WTP Phase 2 Expansion to 30 MGD would occur on the existing WTP site, as the initial site layout was designed to accommodate future expansion. The planned WTP expansion is anticipated to require various permits including, but not limited to:
 - State Water Board, DDW - *Permit to Operate and compliance with CCR Title 22 regulations for public drinking water*
 - Central Valley Regional Water Quality Control Board - *National Pollutant Discharge Elimination System General Construction Storm Water Permit*
 - San Joaquin Valley Air Pollution Control District - *Authority to Construct and compliance with air quality regulations*
- 3. Bay-Delta Water Quality Control Plan.** The State Water Board's Bay-Delta Water Quality Control Plan (Bay-Delta Plan) presents emerging regulatory conditions that may impact SRWA's available water supply from the Tuolumne River. State law requires that the State Water Board and the Regional Water Quality Control Boards adopt Water Quality Control Plans that include measures to protect water quality in the state's streams, rivers, and lakes. The Bay-Delta Plan identifies beneficial water uses to be protected in the Bay-Delta, including: municipal and industrial, agricultural and fish and wildlife, water quality and flow objectives to reasonably protect the beneficial uses. The Bay-Delta Plan includes an implementation program to meet its objectives. Under the program, the State Water Board may take actions, including imposing minimum flow requirements, or habitat restoration requirements for diverters.

As the Tuolumne River is a tributary to the San Joaquin River, the Bay-Delta Plan sets instream flow requirements and water quality objectives for the Tuolumne River. On December 12, 2018, the State Water Board adopted amendments to the Bay-Delta Plan which established Lower San Joaquin River (LSJR) flow objectives and revised southern Delta salinity objectives. These amendments to the Bay-Delta Plan applied to three tributaries to the San Joaquin River: the Tuolumne, Merced, and Stanislaus Rivers. The flow objectives for the Tuolumne would require TID and MID to release 40 percent of unimpaired flows into the Tuolumne River from February 1 to June 30 for salmon and salinity control in the Delta. Per TID's 2020 AWMP, TID, MID, and SFPUC currently release approximately 17 percent of the unimpaired flows to the Tuolumne River, while the remainder is diverted for beneficial use. The State Water Board released revised draft updates to the Bay-Delta Plan, including LSJR flow and southern Delta salinity provisions, in December 2025 along with an updated environmental analysis. Public review and hearings are being conducted in early 2026.⁸

The Tuolumne River Partners – MID, TID, and SFPUC – have proposed a comprehensive alternative to the unimpaired flow requirements in the Bay-Delta Plan. The alternative is presented in the proposed Tuolumne River Voluntary Agreement, referred to as the Agreements to Support Healthy Rivers & Landscapes. This agreement provides a foundation for comprehensively managing the Tuolumne River and for continued management of Chinook salmon and rainbow trout within the lower Tuolumne River. While the proposed Voluntary Agreement will still require TID to release more water to the Tuolumne River for ecosystem benefits, the agreement will offer TID more opportunity to mitigate water supply impacts on its customers while still comprehensively managing the Tuolumne River to the State Water Board's standards. The proposed Tuolumne River Voluntary Agreement is currently being evaluated by the State Water Board.

4. **Federal Energy Regulatory Commission (FERC) relicensing for TID and MID's Don Pedro Reservoir.** Concurrent with the development of the Tuolumne River Voluntary Agreement, FERC is relicensing Don Pedro Reservoir for TID and MID. FERC may amend flow requirements that could affect water supply to SRWA. FERC has the authority to license dams with power plants on navigable rivers. The Don Pedro Reservoir falls under the jurisdiction of FERC because of TID and MID's 203-megawatt (MW) powerhouse. The original 50-year FERC license for Don Pedro Reservoir expired in April 2016. TID and MID are in the process of securing a new license with FERC to continue operating the Don Pedro Reservoir. Both TID and MID have been operating on a year-to-year renewal basis since 2016 until a long-term license is granted by FERC.

FERC has the authority to license and relicense non-federal hydropower projects for terms between 30 to 50 years. FERC license requirements for Don Pedro Reservoir include minimum instream flow release requirements that vary with the water year type. FERC is mandated to give equal consideration to beneficial public uses (including energy conservation, irrigation, flood control, water supply, recreational opportunities, and other aspects of environmental quality) and adequate protection, mitigation and enhancement of fish and wildlife.

⁸ State Water Resources Control Board. *Sacramento/Delta Update to Bay-Delta Plan*. Accessed at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.html on March 3, 2026.

6.12 ENERGY INTENSITY

In accordance with California Water Code §10631.2(a), the energy intensity to provide water service to Turlock and SRWA’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 Turlock and SRWA’s water supply within the systems they own and operate is included.

Water energy intensity is the total amount of energy in kilowatt hours (kWh), calculated on a whole-system basis, expended on a per million gallon basis, to deliver water from Turlock and SRWA’s sources to its respective water customers. Understanding the whole-system energy intensity allows Turlock and SRWA 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
- Identifying 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

6.12.1 Water System Energy Intensity

In Table 6-19 (DWR Table O-1B), the energy intensity of Turlock’s water service is calculated as an annual utility total for 2025. Annual energy use quantities were obtained from Turlock’s monthly TID billing data for the following assets:

- All groundwater well sites with energy usage in 2025 (approximately 25 wells total including both active and inactive/offline wells), and including both pumping and treatment for well sites with wellhead treatment systems,
- Three booster pump stations at the Fulkerth, Kilroy, and D Street storage tanks (each with firm pumping capacity of 7.8 MGD),
- One booster pump station at the Terminal Reservoir, which receives SRWA surface water (with a firm pumping capacity of 12 MGD), and
- Other ancillary water system facilities with energy usage (e.g., remote telemetry units).

The total energy use for these facilities in 2025 was approximately 7,718,708 kWh. Based on Turlock’s total groundwater production in 2025 of 4,042 MG (which excludes purchased surface water from SRWA), the total energy intensity for Turlock’s water service area is approximately 1,910 kWh/MG. Turlock does not currently utilize any non-consequential hydropower.

Information on SRWA’s energy use associated with treating and delivering surface water to the Cities is provided in Table 6-20 (DWR Table O-1A).

Table 6-19. Energy Intensity for Turlock’s Retail Potable Deliveries – Water Supply Process 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	1/1/2025	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	MG			
Volume of Water Entering Process		4,042	-	4,042
Energy Consumed (kWh)		7,718,708	-	7,718,708
Energy Intensity (kWh/vol. converted to MG)		1,910		1,910
DWR NOTES:				
<p>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.</p>				
Quantity of Self-Generated Renewable Energy				
	0 kWh			
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)				
	Metered Data			
Data Quality Narrative:				
<p>Energy consumption is based on Turlock's monthly metered electric bills through Turlock Irrigation District (TID) during calendar year 2025. Energy usage includes energy consumed at all of Turlock's active groundwater well sites, which may also include some energy used by the wellhead treatment systems in place at some well sites and other remote telemetry units (RTUs). Energy usage also includes energy consumed at Turlock's four booster pump stations that pump out of Turlock's storage reservoirs, including the Terminal Reservoir. Volume of water entering process is based on Turlock's total potable groundwater volume pumped in 2025, consistent with DWR Table 6-1 Retail. Energy use shown does not include energy consumed at the SRWA WTP or for conveying surface water from the SRWA WTP to Turlock's Terminal Reservoir.</p>				
Narrative:				
<p>Energy consumed includes energy used by City of Turlock for water storage, conveyance, treatment, and distribution of groundwater. Energy consumed and volume of water entering process is based only on groundwater and does not include purchased surface water from SRWA.</p>				

Chapter 6

Water Supply Characterization



In Table 6-20 (DWR Table O-1A), the energy intensity of SRWA’s wholesale water service is calculated as an annual utility total for 2025. Annual energy use quantities were obtained from SRWA’s monthly TID billing data for the following assets:

- Raw water pump station, listed under the “Extract and Divert” column
- SRWA WTP treatment processes, listed under the “Treatment” column
- Finished water pump stations, listed under the “Conveyance” column

The total energy use for these facilities in 2025 was approximately 4,373,063 kWh. Based on SRWA’s total surface water production in 2025 of 3,517 MG, the total energy intensity for SRWA’s water service is approximately 1,243 kWh/MG. SRWA does not currently utilize any non-consequential hydropower.

Table 6-20. Energy Intensity for SRWA’s Wholesale Potable Deliveries – Water Supply Process Approach (DWR Table O-1A)

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Wholesale Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control								
		Water Management Process							Non-Consequential Hydropower (if applicable)	
Start Date of Reporting Period	1/1/2025	Units for Water Volume	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility See DWR NOTES	Hydropower	Net Utility
End Date of Reporting Period	12/31/2025									
Is upstream embedded energy included in the values reported?	No									
Volume of Water Entering Process		MG	3,517		3,517	3,517		3,517		3,517
Energy Consumed (kWh)		N/A	1,613,600		2,037,863	721,600		4,373,063		4,373,063
Energy Intensity (kWh/vol. converted to MG)		N/A	459	0	579	205	0	1,243	0	1,243
<p>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.</p>										
<p>Quantity of Self-Generated Renewable Energy</p> <p>0 kWh</p>										
<p>Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)</p> <p>Metered Data</p>										
<p>Data Quality Narrative:</p> <p>Energy consumption is based on monthly metered electric bills through Turlock Irrigation District (TID) during calendar year 2025. Values are based on energy consumed at SRWA's WTP, including the raw water pump station (shown in the "Extract and Divert" column), treatment system (shown in the "Treatment" column), and finished water pump station (shown in the "Conveyance" column). Volume of water entering process is based on SRWA's total water sales to the Cities of Turlock and Ceres, consistent with DWR Table 4-1 Wholesale.</p>										
<p>Narrative:</p> <p>SRWA's WTP includes a raw water pump station that extracts raw water from the Tuolumne River via an infiltration gallery. Raw water is then treated, and then pumped via finished water pump stations to the Cities of Turlock and Ceres' terminal reservoirs.</p>										

6.12.2 Wastewater System Energy Intensity

As discussed in Section 6.7, Turlock provides wastewater collection, treatment, and disposal services to customers within its city limits as well as Keyes CSD, Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres. Turlock owns and operates the wastewater collection, treatment, and disposal system.

The energy intensity associated with Turlock’s wastewater services for 2025 is provided in Table 6-21 (DWR Table O-2). Wastewater collection and conveyance have an energy intensity of 118 kWh/MG, the treatment process has an energy intensity of 4,158 kWh/MG, and discharge and distribution of treated effluent have an energy intensity of 125 kWh/MG.

Table 6-21. Energy Intensity – Wastewater & Recycled Water (DWR Table O-2)

Start Date of Reporting Period	1/1/2025	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	MG				
Volume of Wastewater Entering Process (volume units selected above)	3,902	3,902	3,902	3,902	11,706
Wastewater Energy Consumed (kWh)	461,525	16,224,257	486,823		17,172,605
Wastewater Energy Intensity (kWh/volume converted to MG)	118	4,158	125		1,467
Volume of Recycled Water Entering Process (volume units selected above)	-	-	-	-	-
Recycled Water Energy Consumed (kWh)	-	-	-	-	-
Recycled Water Energy Intensity (kWh/volume converted to MG)	-	-	-	-	-
Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations					
0 kWh					
Data Quality (drop down)					
Metered Data					
Data Quality Narrative:					
Energy consumption is based on metered Turlock Irrigation District (TID) billing records for wastewater collection (i.e., sanitary sewer lift stations), treatment facilities, and discharge facilities for Calendar Year 2025. Wastewater volumes are based on metered effluent flow records.					
Narrative:					
Turlock's wastewater collection/conveyance involves the use of sanitary sewer lift stations, which convey wastewater to Turlock's Regional Water Quality Control Facility (RWQCF). After treatment at the RWQCF, treated effluent is discharged, with most effluent pumped to the Delta-Mendota Canal as part of the North Valley Program, and a smaller amount of effluent used as recycled water within Turlock's water service area.					

CHAPTER 7

Water Service Reliability and Drought Risk Assessment

This chapter describes Turlock and SRWA’s water service reliability under various hydrologic conditions through 2050. In assessing Turlock and SRWA’s water service reliability, a comparison of projected water supplies and demand under normal year, single dry year, and five-consecutive-year drought conditions is provided. This chapter includes Turlock and SRWA’s DRA which evaluates the risk of a severe drought occurring for the next five consecutive years. Findings show that Turlock’s water supplies are sufficient to meet the existing and projected water demands during normal and drought conditions, and that SRWA’s wholesale customers (Cities of Turlock and Ceres) shall maintain adequate groundwater supply capacity to meet demands during drought conditions when SRWA’s supplies are reduced.

Turlock and SRWA’s current and proposed water management tools to address the reliability of water supplies are also discussed in this chapter. Responses to water shortage conditions are addressed in Chapter 8 and Appendix G and H.

Where applicable, this chapter includes subsections to separately address the constraints and reliability of the groundwater, surface water, and recycled water supplies. The water service reliability assessment and DRA are also presented separately for Turlock’s retail customers and for SRWA’s wholesale customers.

7.1 CONSTRAINTS ON WATER SOURCES

This section presents the constraints on Turlock and SRWA’s water supplies for use in the following water service reliability assessment and DRA. This section includes discussion on Turlock’s groundwater and recycled water supply constraints, and SRWA’s surface water supply constraints. Information on groundwater supply constraints is primarily from Turlock’s 2020 UWMP, the 2024 Turlock Subbasin GSP, and Turlock’s 2024 Water Quality Report. Information on SRWA’s surface water supply constraints is primarily from SRWA’s 2020 UWMP, adopted in 2024.

7.1.1 Groundwater

As described in Chapter 6, Turlock pumps groundwater from the underlying Turlock Subbasin for both potable and non-potable uses. Although Turlock is now less reliant on groundwater due to its new surface water supply, groundwater still represents a significant portion of the City’s water supply portfolio.

The Turlock Subbasin is not adjudicated and does not have pumping restrictions or allocations for Turlock or other urban groundwater users within the Subbasin. While Turlock does not face groundwater quantity limitations, its use of groundwater can be affected by water quality concerns and the high costs associated with treatment. As a result, Turlock closely monitors groundwater quality trends and emerging water quality regulations that could influence future groundwater use.

Turlock’s 2016 Hydrogeologic and Water Quality Assessment Report identified several groundwater constituents of concern within the Subbasin. Contaminants present in the area include salinity, arsenic, hexavalent chromium, nitrates, fuel, solvents, and synthetic organic compounds. Of these, the constituents with the greatest potential for future impacts (i.e., salinity, arsenic, nitrates, 1,2,3-TCP, and hexavalent chromium) are discussed in more detail below.

Turlock continuously monitors water quality in its water distribution system to ensure that it provides the necessary treatment to meet the State’s drinking water standards and delivers high-quality drinking water supply to its customers.

7.1.1.1 Salinity

Salinity has been identified as a constituent of concern in the Turlock Subbasin in several studies including the Turlock Subbasin GSP. Salts can enter groundwater naturally or from human activities. Division of Drinking Water’s (DDW’s) secondary MCL for salinity includes a recommended limit of 500 milligrams per liter (mg/L), upper limit of 1,000 mg/L, and short-term limit of 1,500 mg/L, measured in total dissolved solids (TDS). In Turlock’s 2024 Annual Water Quality Report, the City indicated an average groundwater TDS concentration of 249 mg/L, with a maximum value of 334 mg/L, which is below the recommended MCL of 500 mg/L. Similarly, the Turlock Subbasin GSP finds that TDS concentrations are typically below 500 mg/L in the Western Upper and Western Lower Principal Aquifer, which Turlock’s wells draw upon.¹

Several other water suppliers in the area are members of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) program, with the stated objective to organize, facilitate and fund efforts needed for the efficient management of salinity in the Central Valley. Although Turlock is not currently a member of CV-SALTS, the City does participate through its membership with the Central Valley Clean Water Association. Turlock will continue to monitor salinity levels in its groundwater supplies and act accordingly.

7.1.1.2 Arsenic

Arsenic has been identified as a constituent of concern in the Turlock Subbasin in several studies including the Turlock Subbasin GSP. Arsenic is naturally occurring in the Turlock Subbasin aquifer materials and leaches into the Subbasin’s groundwater. Turlock has taken several wells out of service due to arsenic concentrations approaching or exceeding the MCL of 10 micrograms per liter (µg/L). Wells with slightly elevated arsenic concentrations are taken out of service but can operate under maximum day demand conditions or emergency conditions.² In Turlock’s 2024 Annual Water Quality Report, the City reported an average arsenic concentration of 8.3 µg/L in its groundwater supply.

As shown in Turlock’s 2025 WMP, the City plans to install arsenic treatment for two wells (Wells 34 and 36) within the next few years. Turlock continues to regularly monitor arsenic contamination in its groundwater supplies and will continue to install treatment or make operational adjustments as needed.

7.1.1.3 Nitrates

Nitrates have been identified as a constituent of concern in the Turlock Subbasin in several studies including the Turlock Subbasin GSP. While nitrate in irrigation water is not a major concern for most crops, high concentrations of nitrate is a human health concern for potable water supplies.

The MCL for nitrate (as Nitrogen, N) in drinking water is 10 mg/L. In Turlock’s 2024 Annual Water Quality Report, the City reported an average nitrate concentration of 6.0 mg/L, with a maximum concentration of 9.9 mg/L in the City’s active wells. While these values are below the MCL and indicate that technically nitrate concentrations are within a safe range, some nitrate concentrations in the City’s wells are very close to the MCL. In fact, Turlock has closed several wells over the past decade due to nitrate levels exceeding the MCL. Turlock continues to regularly monitor nitrate contamination in its groundwater supplies to ensure that nitrate levels remain below the MCL. Wells that have concentrations exceeding

¹ West Turlock Subbasin GSA and East Turlock Subbasin GSA. July 2024. *Turlock Subbasin GSP. Section 4.3.5.3.2.*

² City of Turlock. March 2025. *Water Master Plan.*

the MCL will be taken offline or be used only for blending with other groundwater supplies to maintain compliance with the MCL for nitrate.

7.1.1.4 1,2,3-Trichloropropane

1,2,3-TCP has been identified as a constituent of concern in the Turlock Subbasin in several studies including the Turlock Subbasin GSP. The State Water Board established an MCL and monitoring frequencies for 1,2,3-TCP which went into effect in January 2018. The MCL for 1,2,3-TCP is 0.005 µg/L and is based on a running annual average. In Turlock’s 2024 Annual Water Quality Report, the City reported a running annual average 1,2,3-TCP concentration of 0.003 µg/L in the City’s active wells, below the MCL of 0.005 µg/L.

Turlock will continue to monitor its wells for 1,2,3-TCP levels. Concurrent with regular monitoring, Turlock is in the process of addressing the elevated 1,2,3-TCP concentrations identified in certain impacted wells. Turlock completed a comprehensive report evaluating 1,2,3-TCP for the City’s 16 active groundwater wells in November 2024 and has plans to install 1,2,3-TCP treatment for Well 36.³

7.1.1.5 Hexavalent Chromium

Hexavalent chromium, while not described in the Turlock Subbasin GSP as a major constituent of concern, was evaluated in Turlock’s 2016 Hydrogeologic and Water Quality Assessment Report and is monitored by the City. This constituent is addressed here due to California’s recent establishment of a drinking water MCL for hexavalent chromium.

Hexavalent chromium is a heavy metal that has been used in industrial applications and is also found naturally occurring throughout the environment. The State Water Board recently established the hexavalent chromium MCL value of 10 µg/L, which was made effective on October 1, 2024. In Turlock’s 2024 Annual Water Quality Report, the City reported an average hexavalent chromium value of 4.9 µg/L, with a maximum level of 6.8 µg/L, which is below the MCL of 10 µg/L.

7.1.2 Surface Water

As described in Chapter 6, SRWA receives Tuolumne River surface water via an Agreement with TID. The quality of water from the Tuolumne River is generally not of concern as SRWA treats the surface water at its WTP to a level consistently exceeding drinking water standards. Therefore, SRWA’s water service reliability is mostly dependent on water quantity rather than water quality. The following is a general discussion regarding the constraints on SRWA’s water supplies.

The biggest factor in the availability of SRWA’s water supplies is climatic variability and associated constraints imposed on TID’s water availability on the Tuolumne River. Below average snowpack and/or prolonged periods of dry weather contribute to reduced water allocations from TID to SRWA. In addition, the provisions of the Agreement limit SRWA’s request such that the total amount of water requested for any year may not vary by more than 10 percent from the immediately prior year and the next succeeding year, unless approved by TID.

In accordance with the Agreement, SRWA submits a two-year water delivery schedule annually. The TID Board of Directors determines annual allocations to its customers based on various factors such as

³ March 2025. City of Turlock, Carollo. *Water Master Plan. Table 5.1*

projected runoff, including the possibility of the occurrence of consecutive dry years, carryover storage projections in Don Pedro Reservoir, and instream flow requirements for the Tuolumne River. TID's determination of available water is typically announced in February or March for each year. Potential constraints to SRWA's water supply allocation are discussed in the following subsections.

7.1.2.1 Federal Energy Regulatory Commission Fish Flow Requirement

As described in Chapter 6, TID's Don Pedro Reservoir FERC license requires minimum instream flow requirements to maintain healthy conditions for aquatic and riparian species in the Tuolumne River. SRWA's delivery schedule may not reduce flows in the Tuolumne River to less than the required minimum instream flows. TID is currently undergoing relicensing of the Don Pedro Reservoir with FERC – the results of which could alter minimum instream flow requirements.

7.1.2.2 Tuolumne River Emergency Curtailment Orders

In dry years, the State Water Board may curtail Tuolumne River water diversions. In the recent 2022 dry year, the State Water Board issued emergency curtailment orders affecting Tuolumne River diversions, including certain post-1914 appropriative water rights held by TID, a senior water right holder on the river. These curtailment orders temporarily restricted TID from diverting Tuolumne River flows under its post-1914 appropriative rights for direct use or for storage into Don Pedro Reservoir.

During these conditions, TID was still able to use surface water previously stored in Don Pedro Reservoir. In response to the drought, TID's water allocations during that year and the following year were reduced to manage stored carry over water supply in Don Pedro Reservoir for potential future dry years. Based on TID's allocations to its customers during these previous curtailment orders, SRWA assumes that at least some surface water from TID will remain available during future curtailment periods.

7.1.2.3 Bay-Delta Plan

As described in Chapter 6, the State Water Board's Bay-Delta Plan may further impact available water for Tuolumne River water right holders. The Bay-Delta Plan's 2018 amendments proposed unimpeded flow requirements and salinity requirements for the LSJR and its three salmon-bearing tributaries, including the Tuolumne River. The State Water Board released revised draft updates to the Bay-Delta Plan, including LSJR flow and southern Delta salinity provisions, in December 2025 along with an updated environmental analysis. Public review and hearings for the proposed Bay-Delta Plan amendments are being conducted in early 2026.

As documented in TID's 2020 AWMP, the Bay-Delta Plan's proposed unimpeded flow requirements would significantly impact TID's available surface water supplies. Table 7-1 shows TID's estimates of the Bay-Delta Plan's impacts on TID's available water for 2013-2015, at the peak of the 2012-2016 drought, if the Bay-Delta Plan had been in effect at that time (TID 2020 AWMP). Based on TID's analysis, the available water allocation would have been significantly reduced in 2013 and reduced to zero for 2014 and 2015. The proposed Tuolumne River Voluntary Agreement, as discussed in Chapter 6, may reduce diversion restrictions to Tuolumne River water right holders while still meeting the State Water Board's goals for the Bay-Delta. The proposed Tuolumne River Voluntary Agreement is currently being evaluated by the State Water Board.

Table 7-1. Estimate of Available TID Water Allocation in 2013-2015 Under the Bay-Delta Plan

Year	Actual Available Water, inches/acre	Theoretical Available Water Under the Bay-Delta Plan, inches/acre
2013	34	16
2014	20	0
2015	18	0

Source: Turlock Irrigation District. March 2021. Turlock Irrigation District 2020 Agricultural Water Management Plan (AWMP). Table 5.5. Available Water in 2013-2015, Actual versus Theoretical Under the Bay-Delta Plan.

7.1.3 Recycled Water

As described in Chapter 6, Turlock uses a small amount of recycled water within its service area for landscape irrigation and industrial uses and exports the majority of its recycled water outside of its service area for agricultural irrigation. No legal, environmental, or water quality constraints are anticipated to impact recycled water use.

7.2 WATER SERVICE RELIABILITY ASSESSMENT

This section evaluates Turlock and SRWA’s water service reliability for a normal year, single dry year, and five-consecutive-year drought. Turlock and SRWA’s water service reliability are presented in five-year increments through 2050 based on the previous analysis of water use and supply (discussed in Chapter 4 and Chapter 6, respectively). For the purposes of this water service reliability assessment, available water supply during normal year, single dry year, and five-consecutive-year drought are compared with unconstrained normal year customer demands.

During water shortage events identified here, Turlock and SRWA may implement their respective WSCPs. Turlock and SRWA’s WSCPs are discussed in Chapter 8 and provided in Appendix G of this plan.

7.2.1 Year Type Characterization

This section describes the historical basis for projecting available supplies under various hydrologic conditions for use in the water service reliability assessment. Water supplies can vary year to year depending on hydrologic conditions. Historical data was used to develop a projected yield under three conditions: (1) normal year, (2) single dry year, and (3) five-consecutive-year drought. In accordance with the DWR Guidebook, each condition is defined as follows:

- **Normal Year:** The year or averaged range of years in the historical sequence most closely representing average water supply in years when no regional or state-wide drought declaration are in effect.
- **Single Dry Year:** The year with the lowest water supply in the historical sequence.
- **Five-Consecutive-Year Drought:** The driest five-year historical sequence.

The following sections describe how Turlock’s groundwater supplies and SRWA’s surface water supplies vary under different water year types.

7.2.1.1 Groundwater

Historically, Turlock has maintained reliable access to groundwater from the Turlock Subbasin during all water year types. As the Turlock Subbasin is not adjudicated and there are not any pumping restrictions or allocations imposed on Turlock or other urban groundwater users within the Subbasin, Turlock’s groundwater supply is not expected to be reduced during single dry years or five-consecutive-year droughts.

As shown in Table 7-2 (DWR Table 7-1 Retail), quantification of retail supplies is not compatible with this table, as Turlock’s retail water supplies consist of both local groundwater (which does not have restrictions during drought years) and purchased surface water from SRWA. The basis of water year data for SRWA’s surface water is provided in Table 7-5 (DWR Table 7-1 Wholesale).

Table 7-2. Basis of Water Year Data (Reliability Assessment) (DWR Table 7-1 Retail)

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: Section 7.2.1.2, Table 7-5 (DWR Table 7-1 Wholesale)
		Volume Available (MG)	% of Average Supply

7.2.1.2 Surface Water

In assessing normal year, single dry year, and five-consecutive-year drought conditions, SRWA’s available surface water supply may be constrained by:

1. SRWA’s WTP maximum capacity (currently 15 MGD),
2. TID’s available water allocations, and
3. The Agreement’s provision limiting variance of annual water supply request by no more than 10 percent from the prior year.

Historical allocations to TID’s customers from 2010 through 2025 were used to project SRWA’s surface water supply under the three hydrologic conditions. Reviewing TID customer allocations is appropriate since the Agreement specifies that SRWA’s water allocation will be reduced in an equivalent manner as all other TID customers.

Table 7-3 shows TID’s historical allocations to its customers in inches per acre, and the percentage of full allocation. A full allocation for TID’s agricultural customers is defined as 48 inches per acre. The years *italicized* in Table 7-3 represent years in which the State of California declared emergency drought orders, which include 2012 through 2016, and 2021 through 2022.

Table 7-3. Historical TID Water Allocations

Year	Water Available to TID Customers, inches/acre	Percent of Full Allocation
2010	48	100
2011	48	100
2012 ^(a)	30	63
2013 ^(a)	34	71
2014 ^(a)	20	42
2015 ^(a)	18	38
2016 ^(a)	36	75
2017	48	100
2018	48	100
2019	48	100
2020	42	88
2021 ^(a)	34	71
2022 ^(a)	27	56
2023	48	100
2024	48	100
2025	48	100
Normal Year-Average^(b)	47	98%

Sources:
Turlock Irrigation District. March 2021. 2020 Agricultural Water Management Plan. (For 2015-2019)
Turlock Irrigation District. November 2015. 2015 Agricultural Water Management Plan. (For 2010-2014)
Turlock Irrigation District Board Meeting Minutes (2020-2025).

- (a) Drought years, when State of California declared emergency drought orders. Includes years 2012-2016 and 2021-2022.
- (b) The normal year average is based on historical water allocations during recent non-drought years. Normal year average is rounded down to the nearest inches/acre.

Figure 7-1 shows TID’s historical allocations from 2010 through 2025 as a percentage of full allocation, as well as a year type characterization of hydrologic conditions. For the purposes of the water service reliability assessment, the normal year is assumed to be the average of historical water allocations during recent non-drought years (i.e., excluding 2012-2016 and 2021-2022). Therefore, during a normal year, SRWA expects to receive approximately 98 percent of their full allocation. The single dry year was assumed to be represented by the Year 2015, which had the lowest allocation. The five-consecutive-year drought is represented by the Years 2012 through 2016.

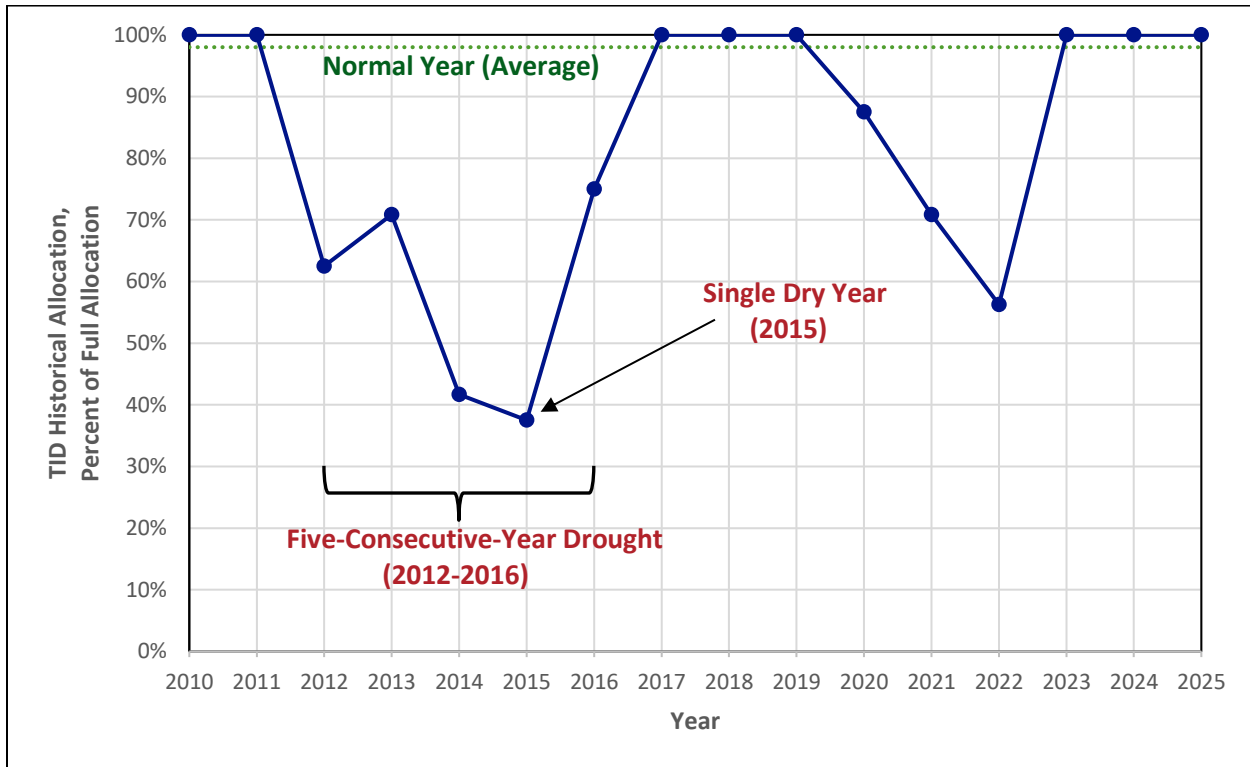


Figure 7-1. Year Type Characterization Based on Historical TID Water Allocations

Table 7-4 presents SRWA’s estimated maximum surface water supply under the three hydrologic conditions, based on the representative years defined above. The table shows the maximum volume of surface water available if the hydrology from that type of year were to be repeated, along with the corresponding percentage of full allocation. Full allocation is defined in this table as 9,776 MG per year (30,000 AFY), which represents the maximum volume that SRWA can request from TID per the Agreement.

Year Type	Base Year	Maximum Volume Available ^(a) , MG	Percent of Full Allocation ^(a)
Normal Year (Average)	Average of Non-Drought Years (2010-2025)	9,580	98
Single Dry Year	2015	3,666	38
Consecutive Dry Years - 1st Year	2012	6,110	63
Consecutive Dry Years - 2nd Year	2013	6,924	71
Consecutive Dry Years - 3rd Year	2014	4,073	42
Consecutive Dry Years - 4th Year	2015	3,666	38
Consecutive Dry Years - 5th Year	2016	7,332	75

(a) Maximum volume available is based on SRWA’s full allocation of 9,776 MG/year, or 30,000 AFY, based on the Agreement between SRWA and TID.
 MG = million gallons

Table 7-5 (DWR Table 7-1 Wholesale) estimates SRWA’s maximum available supply during the three hydrologic conditions and years described above. The table specifies the volume available and percentage of average supply available if the hydrology from that type of year were to repeat. Available volume shown is consistent with Table 7-3.

SRWA may consider purchasing supplemental surface water from other TID customers or from senior Tuolumne River water right holders, if available, during significant droughts. However, to be conservative in this analysis, supplemental surface water purchases are assumed not to be available and are not included in Table 7-4 and Table 7-5 (DWR Table 7-1 Wholesale).

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

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 type="checkbox"/> Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: [insert location from UWMP]	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
			Volume Available (MG)
Average Year	2010-2025	9,580	100%
Single-Dry Year	2015	3,666	38%
Consecutive Dry Years 1st Year	2012	6,110	64%
Consecutive Dry Years 2nd Year	2013	6,924	72%
Consecutive Dry Years 3rd Year	2014	4,073	43%
Consecutive Dry Years 4th Year	2015	3,666	38%
Consecutive Dry Years 5th Year	2016	7,332	77%

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 W 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 W, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 W 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 unit of measure selected in Submittal Table 2-3.

NOTES: Actual surface water volume currently available is lower based on SRWA’s current water treatment plant capacity (i.e. 5,475 MG). By 2028, the treatment plant capacity is expected to increase to 7,264 MG following the filter re-rating study and the capacity is expected to increase to 9,580 MG by 2045 following the Phase 2 expansion as discussed in Chapter 6 and shown in Table 6-18 (DWR Table 6-9 Wholesale).

7.2.2 Water Service Reliability – Normal Year

7.2.2.1 City of Turlock

Table 7-6 (DWR Table 7-2 Retail [Potable]) compares Turlock’s available potable supply and demand during a normal year from 2030 to 2050. Turlock’s total potable supply available during a normal year is projected to be approximately 12,868 MG in 2030 and up to 17,682 MG in 2050. The increase in supply is due to Turlock’s planned groundwater well and treatment projects planned for 2028 and 2038, as well as the planned SRWA WTP filter capacity study in 2028 and WTP Phase 2 Expansion planned before 2045.

As shown in Table 7-6 (DWR Table 7-2 Retail [Potable]), Turlock anticipates having surplus potable supply during normal year conditions through 2050.

Table 7-6. Normal Year Supply and Demand Comparison – Potable (DWR Table 7-2 Retail)

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 R)	12,868	12,868	16,007	17,682	17,682
Use totals (autofill from Submittal Table 4-2 R)	6,895	7,644	8,393	9,142	9,892
Surplus/(shortfall)	5,973	5,224	7,614	8,540	7,791
NOTES: Projected supply includes both treated groundwater and surface water supplies, as defined in DWR Table 6-9 Retail. Increasing supply totals reflect Turlock and SRWA's future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands.					

Table 7-7 (DWR Table 7-2 Retail [Non-Potable]) compares Turlock’s available non-potable supply and demand during a normal year from 2030 to 2050. Turlock’s non-potable supply includes raw water from irrigation wells and recycled water from the Turlock RWQCF. Non-potable supply and demand is assumed to be relatively constant through 2050. The non-potable demand shown includes untreated groundwater used for landscape irrigation at various City parks, as well as recycled water used within Turlock’s service area at TID’s Walnut Energy Center and at the Pedretti Sports Field (refer to Table 6-8 [DWR Table 6-4 Retail]). The projected surplus of non-potable supply represents recycled water that will be exported outside of Turlock’s service area for agricultural irrigation.

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

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 R)	4,624	4,624	4,624	4,624	4,624
Use totals (autofill from Submittal Table 4-2 R)	480	480	480	480	480
Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
NOTES: Non-potable supply includes both Turlock's raw (untreated) groundwater and recycled water. Non-potable use shown includes only uses within Turlock's water service area. Remaining non-potable supply (recycled water) is exported outside of the service area for agricultural irrigation.					

7.2.2.2 SRWA

Table 7-8 (DWR Table 7-2 Wholesale) compares SRWA's available surface water supply and wholesale demand during a normal year from 2030 to 2050. Consistent with Table 6-18 (DWR Table 6-9 Wholesale), SRWA's available supply during a normal year is projected to be approximately 7,264 MG in 2030 and up to 9,580 MG by 2045. Available supply of 7,264 MG assumes completion of the SRWA WTP filter capacity study in 2028, which would increase the WTP capacity from 15 MGD up to 19.9 MGD. Available supply of 9,580 MG assumes completion of the SRWA WTP Phase 2 Expansion to 30 MGD prior to 2045. After completion of the WTP Phase 2 Expansion, available supply is limited by maximum annual supply defined in SRWA and TID's Agreement.

As shown in Table 7-8 (DWR Table 7-2 Wholesale), SRWA anticipates having surplus surface water during normal year conditions to meet wholesale demands through 2050.

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

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 W)	7,264	7,264	7,264	9,580	9,580
Use totals (see OPTIONAL Submittal Table 4-2 W)	4,322	4,939	5,545	6,227	6,691
Surplus/(shortfall)	2,942	2,324	1,719	3,353	2,890
NOTES: Projected wholesale supply available during normal year conditions is based on Table 6-18 (DWR Table 6-9 Wholesale). Projected wholesale use is based on the Cities of Turlock and Ceres' projected surface water use defined in Table 4-5 (DWR Table 4-2 Wholesale). Actual surface water supply availability and purchases may vary based on hydrologic condition, timing of future SRWA projects, and retail demands.					

7.2.3 Water Service Reliability – Single Dry Year

During dry years, Turlock’s groundwater supply is not anticipated to be reduced. However, SRWA’s surface water supply is conservatively projected to be reduced to approximately 38 percent of the full water allocation. This projection is based on TID’s lowest water allocation to its customers in recent years (2015), in which TID determined a water allocation of 18 inches per acre, or 38 percent of a full allocation, for all its customers.

Projected water demands during a single dry year are assumed to be consistent with demands during a normal year.

7.2.3.1 City of Turlock

Table 7-9 (DWR Table 7-3 Retail [Potable]) compares Turlock’s available potable supply and demand during a single dry year from 2030 to 2050. Turlock’s total potable supply during a single dry year is projected to be approximately 9,866 MG in 2030 and up to 13,641 MG in 2050. The increase in supply is due to Turlock’s planned groundwater well and treatment projects planned for 2028 and 2038, as well as the planned SRWA WTP filter capacity study in 2027, increasing total WTP capacity by 2028, and WTP Phase 2 Expansion planned before 2045.

Despite the significant reduction in surface water from SRWA, Turlock anticipates having surplus supply during single dry year conditions through 2050.

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

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	9,866	9,866	13,005	13,641	13,641
Use totals	6,895	7,644	8,393	9,142	9,892
Surplus/(shortfall)	2,971	2,222	4,612	4,499	3,750

NOTES: Supply totals includes both Turlock’s groundwater and surface water allocation expected during a single dry year. Under a single dry year, it is conservatively assumed that Turlock may receive only 38 percent of its requested surface water allocation from TID (refer to Table 7-3). Potable use totals are defined in DWR Table 7-2 Retail (Potable). Groundwater supply is not restricted during dry years. Increasing supply totals through 2050 reflect Turlock and SRWA’s future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands.

Table 7-10 (DWR Table 7-3 Retail [Non-Potable]) compares Turlock’s available non-potable supply and demand during a single dry year from 2030 to 2050. During a single dry year, non-potable groundwater and recycled water supply and demand are not anticipated to change from normal year conditions. Therefore, the available supply and demand shown is consistent with Table 7-7 (DWR Table 7-2 Retail [Non-Potable]).

Table 7-10. Single Dry Year Supply and Demand Comparison – Non-Potable (DWR Table 7-3 Retail)

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	4,624	4,624	4,624	4,624	4,624
Use totals	480	480	480	480	480
Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144

NOTES: Non-potable supply includes both Turlock’s raw (untreated) groundwater and recycled water. Non-potable supplies are not anticipated to be reduced during dry years. Non-potable use shown includes only uses within Turlock’s water service area. Remaining non-potable supply (recycled water) is exported outside of the service area for agricultural irrigation.

7.2.3.2 SRWA

Table 7-11 (DWR Table 7-3 Wholesale) compares SRWA’s available surface water supply and wholesale demand during a single dry year from 2030 to 2050. SRWA’s available supply during a single dry year is projected to be approximately 2,760 MG in 2030 and up to 3,715 MG in 2050.

Table 7-11 (DWR Table 7-3 Wholesale) shows that in dry years with significantly reduced surface water allocations like the 2015 drought year, SRWA’s supply will be insufficient to meet the Cities’ projected normal year surface water demands. In these years, the Cities will meet this shortfall by relying on their groundwater wells to meet the remaining water demand. The Cities may also implement demand

management measures from their WSCPs as needed. Further discussion on the Cities’ groundwater supplies and their adequacy to meet water demands is addressed in Section 7.4.

Table 7-11. Single Dry Year Supply and Demand Comparison (DWR Table 7-3 Wholesale)

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	2,760	2,760	2,760	3,715	3,715
Use totals	4,322	4,939	5,545	6,227	6,691
Surplus/(shortfall)	(1,562)	(2,179)	(2,785)	(2,512)	(2,976)
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES: Under a single dry year, it is conservatively assumed that SRWA may receive only 38 percent of its requested surface water allocation from TID (refer to Table 7-5 [DWR Table 7-1 Wholesale]). The shortfall in surface water supply will be met by the Cities of Turlock and Ceres' groundwater wells.					

7.2.4 Water Service Reliability – Five-Consecutive-Year Drought

During a five-consecutive-year drought, Turlock’s groundwater supply is not anticipated to be reduced. However, based on the historical five-consecutive-year drought between 2012 and 2016, SRWA’s surface water allocations from TID are projected to be reduced to approximately 63 percent of full allocation in the first year, followed by a reduction to 71 percent of full allocation in the second year, 42 percent full allocation in the third year, 38 percent of full allocation in the fourth year, and 75 percent of full allocation in the fifth year.

Projected water demands during a five-consecutive-year drought are assumed to be consistent with those shown during a normal year.

7.2.4.1 City of Turlock

Table 7-12 (DWR Table 7-4 Retail [Potable]) compares Turlock’s available potable supply and demand during a five-consecutive-year drought between the period of 2030 to 2050.

Despite the significant reduction in surface water from SRWA, Turlock anticipates having surplus supply during a five-consecutive-year drought through 2050.

Table 7-12. Multiple Dry Years Supply and Demand Comparison – Potable (DWR Table 7-4 Retail)

		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	11,077	11,077	14,216	15,271	15,271
	Use totals	6,895	7,644	8,393	9,142	9,892
	Surplus/(shortfall)	4,182	3,433	5,822	6,129	5,379
Second year	Supply totals	11,464	11,464	15,792	15,792	15,792
	Use totals	7,045	7,794	8,543	9,292	9,892
	Surplus/(shortfall)	4,419	3,670	7,249	6,500	5,901
Third year	Supply totals	10,060	10,060	13,902	13,902	13,902
	Use totals	7,194	7,944	8,693	9,442	9,892
	Surplus/(shortfall)	2,865	2,116	5,209	4,460	4,011
Fourth year	Supply totals	9,866	13,005	13,641	13,641	13,641
	Use totals	7,344	8,093	8,843	9,592	9,892
	Surplus/(shortfall)	2,522	4,912	4,799	4,050	3,750
Fifth year	Supply totals	11,658	14,797	16,053	16,053	16,053
	Use totals	7,494	8,243	8,992	9,742	9,892
	Surplus/(shortfall)	4,164	6,553	7,060	6,311	6,161
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES: Increasing supply totals reflect Turlock and SRWA's future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands. The SRWA WTP Phase 2 Expansion is anticipated in 2041 for the purposes of this table, which will increase the WTP capacity from 19.9 MGD to 30 MGD.						

Table 7-13 (DWR Table 7-4 Retail [Non-Potable]) compares Turlock’s available non-potable supply and demand during a five-consecutive-year drought between the period of 2030 to 2050. During a five-consecutive-year drought, non-potable groundwater and recycled water supply and demand are not anticipated to change from normal year conditions. Therefore, the available supply and demand shown is consistent with Table 7-7 (DWR Table 7-2 Retail [Non-Potable]).

Table 7-13. Multiple Dry Years Supply and Demand Comparison – Non-Potable (DWR Table 7-4 Retail)

		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Second year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Third year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Fourth year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Fifth year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						

7.2.4.2 SRWA

Table 7-14 (DWR Table 7-4 Wholesale) compares SRWA’s available surface water supply and wholesale demand during a five-consecutive-year drought between the period of 2030 to 2050.

Table 7-14 (DWR Table 7-4 Wholesale) shows that in some dry years with significantly reduced surface water allocations, SRWA’s supply will be insufficient to meet the Cities’ projected normal year surface water demands. In these years, the Cities will meet this shortfall by relying on their groundwater wells to meet the remaining water demand. The Cities may also implement demand management measures from their WSCPs as needed. Further discussion on the Cities’ groundwater supplies and their adequacy to meet demands is addressed in Section 7.4.

Table 7-14. Multiple Dry Years Supply and Demand Comparison (DWR Table 7-4 Wholesale)

		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	4,576	4,576	4,576	6,159	6,159
	Use totals	4,322	4,939	5,545	6,227	6,691
	Surplus/(shortfall)	254	(363)	(969)	(68)	(532)
Second year	Supply totals	5,157	5,157	6,941	6,941	6,941
	Use totals	4,445	5,060	5,681	6,320	6,691
	Surplus/(shortfall)	712	97	1,260	621	250
Third year	Supply totals	3,051	3,051	4,106	4,106	4,106
	Use totals	4,569	5,181	5,818	6,413	6,691
	Surplus/(shortfall)	(1,518)	(2,131)	(1,712)	(2,307)	(2,585)
Fourth year	Supply totals	2,760	2,760	3,715	3,715	3,715
	Use totals	4,692	5,303	5,954	6,505	6,691
	Surplus/(shortfall)	(1,932)	(2,542)	(2,239)	(2,791)	(2,976)
Fifth year	Supply totals	5,448	5,448	7,332	7,332	7,332
	Use totals	4,816	5,424	6,091	6,598	6,691
	Surplus/(shortfall)	632	24	1,241	734	641
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES: Per DWR Table 6-7 Wholesale, the SRWA WTP Phase 2 Expansion to 30 MGD capacity is anticipated between 2041 to 2045. For the purposes of this table, it is assumed to be completed in 2041.						

7.3 DROUGHT RISK ASSESSMENT

CWC §10635(b) requires that Turlock and SRWA 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, Turlock’s raw water and recycled water supplies are assumed to be sufficient to meet non-potable demands and therefore are excluded from the DRA and its associated table (DWR Table 7-5 Retail [Non-Potable]). The DRA will only be performed for Turlock and SRWA’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 assumed drought condition. Total potable water supplies during the five-year drought are compared to projected potable water demands.

This DRA prepares Turlock and SRWA for a potential potable water shortage and for implementation of its WSCP, if necessary.

7.3.1 Data, Methods, and Basis for Water Shortage Condition

Turlock and SRWA’s DRA was performed for 2026 through 2030 using the same five-consecutive-year drought conditions (2012 through 2016) presented in Section 7.2.4. A summary of the data and basis for the water shortage condition is provided in this section.

7.3.1.1 City of Turlock

Turlock’s projected potable water demands for 2026 to 2029 were linearly interpolated between actual 2025 potable water demand of 6,146 MG and projected 2030 potable water demand of 6,895 MG (Table 4-6).

Table 7-15 summarizes Turlock’s anticipated potable supplies for each year of the DRA. As previously discussed, Turlock’s groundwater supply is not anticipated to be reduced during drought years. Available groundwater supply is projected to be 6,456 MG in 2026 and 2027 and increasing to 8,026 MG in 2028 due to Turlock’s planned groundwater well projects defined in Chapter 6.

The SRWA WTP capacity is 15 MGD in 2026 (10 MGD allocated to Turlock) and anticipated to be expanded to 19.9 MGD by 2028 (13.3 MGD allocated to Turlock) due to the filter capacity study. Consistent with the five-consecutive-year drought in Section 7.2.4, Turlock’s surface water supply from SRWA for the DRA is based on TID’s water allocations for the most recent five-consecutive-year drought (2012-2016). Therefore, SRWA’s allocations from TID are projected to be reduced to approximately 63 percent of full allocation in 2026, followed by a reduction to 71 percent of full allocation in 2027, 42 percent full allocation in 2028, 38 percent of full allocation in 2029, and 75 percent of full allocation in 2030.

Supply Source	2026 (Year 1)	2027 (Year 2)	2028 (Year 3)	2029 (Year 4)	2030 (Year 5)
Groundwater ^(a)	6,456	6,456	8,026	8,026	8,026
Purchased surface water from SRWA ^(b)	2,300	3,438	2,034	1,840	3,632
Total	8,756	9,894	10,060	9,866	11,658

(a) Turlock’s groundwater supply is not anticipated to be reduced during drought years.
 (b) Surface water supply allocations assumed to be reduced in equal proportion to TID’s allocations during the 2012 to 2016 drought as shown in Table 7-4.

7.3.1.2 SRWA

SRWA’s projected wholesale surface water demands for 2026 through 2030 are based on projections provided by SRWA’s wholesale customers (i.e., the Cities).

Table 7-16 summarizes SRWA’s anticipated available surface water supplies for each year of the DRA. Consistent with Turlock’s DRA, the SRWA WTP capacity is 15 MGD in 2026 and anticipated to be expanded to 19.9 MGD by 2028 due to the filter capacity study expected to be completed in 2027. Surface water allocations are anticipated to be reduced by TID consistent with the five-consecutive-year drought described in Section 7.2.4.

Table 7-16. SRWA’s Projected Potable Water Supplies for Drought Risk Assessment – Wholesale (MG)

Supply Source	2026 (Year 1)	2027 (Year 2)	2028 (Year 3)	2029 (Year 4)	2030 (Year 5)
Tuolumne River surface water ^(a)	3,449	5,157	3,051	2,760	5,448

(a) Surface water supply allocations assumed to be reduced in equal proportion to TID’s allocations during the 2012 to 2016 drought as shown in Table 7-4. SRWA’s WTP filter capacity study anticipated to be completed in 2027 with additional capacity available beginning in 2028.

7.3.2 DRA Water Source Reliability

The City of Turlock’s potable water supplies include local groundwater, which is not anticipated to be impacted during drought periods, and surface water purchased from SRWA. Surface water from SRWA is anticipated to be reduced during drought periods as discussed in Section 7.3.1. During these periods, Turlock will use additional groundwater supplies to meet the remaining demand.

SRWA’s sole water source for its wholesale customers is TID surface water. SRWA and its customers recognize that in drought years, water deliveries from TID could be reduced significantly. For this reason, they maintain adequate supply capacity from their groundwater wells to supplement water supply from SRWA during drought periods.

7.3.3 Total Water Supply and Use Comparison

7.3.3.1 City of Turlock

As shown in Table 7-17 (DWR Table 7-5 Retail), during a five-year drought beginning in 2026, Turlock’s potable water supply is projected to be adequate to meet projected potable water demands through 2030, even without water conservation. However, Turlock may implement water conservation and demand management measures as mandated by the State during a state-wide drought emergency declaration.

**Table 7-17. Five Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)
(DWR Table 7-5 Retail)**

2026	Total
Total Water Use (MG)	6,295
Total Supplies (MG)	8,756
Surplus/Shortfall w/o WSCP Action	2,461
2027	Total
Total Water Use (MG)	6,445
Total Supplies (MG)	9,894
Surplus/Shortfall w/o WSCP Action	3,450
2028	Total
Total Water Use (MG)	6,595
Total Supplies (MG)	10,060
Surplus/Shortfall w/o WSCP Action	3,465
2029	Total
Total Water Use (MG)	6,745
Total Supplies (MG)	9,866
Surplus/Shortfall w/o WSCP Action	3,121
2030	Total
Total Water Use (MG)	6,895
Total Supplies (MG)	11,658
Surplus/Shortfall w/o WSCP Action	4,763
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	

7.3.3.2 SRWA

As shown in Table 7-18 (DWR Table 7-5 Wholesale), during a five-year drought beginning in 2026, SRWA’s supplies do not meet projected demands for the first, third, and fourth year of the representative five-year drought. For years with significantly reduced surface water allocations, the Cities will meet this shortfall by relying on their existing groundwater supplies to meet the remaining water demand. Some combination of retail demand reduction efforts and SRWA’s possible purchase or transfer of alternative Tuolumne River water supplies may also be used to meet this shortfall.

**Table 7-18. Five Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)
(DWR Table 7-5 Wholesale)**

2026	Total
Total Water Use (MG)	3,659
Total Supplies (MG)	3,449
Surplus/Shortfall w/o WSCP Action	(210)
2027	Total
Total Water Use (MG)	3,808
Total Supplies (MG)	5,157
Surplus/Shortfall w/o WSCP Action	1,349
2028	Total
Total Water Use (MG)	3,950
Total Supplies (MG)	3,051
Surplus/Shortfall w/o WSCP Action	(899)
2029	Total
Total Water Use (MG)	4,131
Total Supplies (MG)	2,760
Surplus/Shortfall w/o WSCP Action	(1,370)
2030	Total
Total Water Use (MG)	4,322
Total Supplies (MG)	5,448
Surplus/Shortfall w/o WSCP Action	1,126
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	

7.4 WATER MANAGEMENT TOOLS AND OPTIONS

SRWA and the Cities of Turlock and Ceres utilize a conjunctive use strategy that aims to maximize surface water use while relying on their groundwater wells to meet peak demands and demands during water shortage events. As of 2025, Turlock’s total groundwater well capacity is approximately 34.8 MGD, and Ceres’ capacity is approximately 11.0 MGD.⁴ The Cities’ existing groundwater supplies and planned improvements are detailed in their respective 2025 WMPs. For water system operational purposes, both Cities maintain minimum production rates for their wells. Groundwater supplies will continue to be an important asset to be used in conjunction with SRWA’s surface water, especially during dry years when surface water allocations are reduced.

The Cities plan to maintain adequate groundwater well capacity to meet demands even with significant reductions in surface water allocations. The Cities’ 2025 WMPs evaluated the need for additional wells to meet future demands during years with significant surface water reductions, and these projects are now incorporated into the Cities’ long-term capital improvement plans.

⁴ Groundwater well capacities are based on the City of Turlock 2025 Water Master Plan, and City of Ceres 2025 Water Master Plan.

Chapter 7

Water Service Reliability and Drought Risk Assessment



To maintain reliable groundwater supplies, the Cities will continue to maintain existing wells and replace or rehabilitate aging wells. Additionally, the Cities plan to construct new groundwater wells as new development increases system demand. As described in Chapter 6, the City of Turlock plans to install arsenic treatment on two existing wells in the next few years, and to construct six new wells with treatment by approximately 2040. These improvements will allow Turlock to meet increasing water demands through 2050, even during years with significantly reduced surface water supply. Similarly, the City of Ceres has been actively rehabilitating existing wells with wellhead treatment to maintain compliance with increasingly stringent water quality regulations. Ceres also has plans to rehabilitate aging wells and construct new wells for their planned Copper Trails Specific Plan and West Landing Specific Plan developments.⁵

SRWA's planned projects, including the WTP filter capacity study and Phase 2 expansion, will provide additional surface water supply capacity to help meet the Cities' future demands. During dry years with significantly reduced surface water allocations from TID, SRWA may explore possibilities for purchases or transfers of temporary supplemental water supplies from TID customers or other senior water right holders.

When shortfalls exist between SRWA surface water supplies and the Cities' demands, the Cities are primarily responsible for addressing shortfalls through some combination of demand management measures and increased reliance on groundwater supplies. During these dry periods, the Cities may also implement additional demand management measures as defined in their respective WSCPs.

⁵ City of Ceres. March 2025. *Water Master Plan Update*.

CHAPTER 8

Water Shortage Contingency Plan

This chapter discusses Turlock and SRWA’s individual WSCPs, seismic risk to Turlock and SRWA’s water system facilities, and WSCP adoption procedures. To allow for WSCP updates to be made outside of the UWMP preparation process, Turlock and SRWA’s WSCPs are included in this plan separately as Appendix G and Appendix H, respectively.

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; Turlock and SRWA’s WSCPs have been prepared to be consistent with these requirements.

8.2 WATER SHORTAGE CONTINGENCY PLAN

Turlock and SRWA’s WSCPs were developed to provide a strategic plan for preparing and responding to water shortages. The WSCPs include water shortage stages and associated shortage response actions, as well as Turlock and SRWA’s respective legal authorities, communication protocols, compliance and enforcement, and monitoring and reporting.

Turlock has made some updates to its 2020 WSCP with the preparation of this Joint 2025 UWMP to reflect Turlock’s new surface water source from SRWA.

As SRWA recently developed its WSCP in 2024 during preparation of its 2020 UWMP, no changes to SRWA’s WSCP have been made. SRWA’s WSCP was adopted on October 17, 2024 as detailed in Section 8.4. The WSCP has been reviewed in light of the SRWA’s current water supply reliability analysis and determined that it sufficiently enables SRWA to prepare for and respond to the State’s standard water shortage levels.

Turlock and SRWA intend for its WSCPs to be adaptive management plans so that they may assess response action effectiveness and adapt to foreseeable and unforeseeable events. Therefore, Turlock and SRWA’s WSCPs are included in this plan separately as Appendix G and Appendix H, respectively, to allow for updates to be made outside of the UWMP update preparation process. When an update to either of the WSCPs is proposed, the revised WSCP will undergo the process described in Section 8.4.

8.3 WATER SUPPLY RELIABILITY ANALYSIS

This section provides the water supply planning analysis and reliability findings from this Joint UWMP. The discussion below includes a summary of Turlock and SRWA’s existing and projected water use (from Chapter 4 of the Joint UWMP), existing and planned water supplies by source (from Chapter 6), and the water supply reliability assessment and the Drought Risk Assessment (from Chapter 7).

This Joint UWMP indicates that Turlock can reliably meet their projected demands through 2050 in both normal and dry years. For a five-year drought (i.e., the Drought Risk Assessment and multiple dry years), no water supply shortfalls are anticipated for Turlock. In response to any supply shortfalls that may occur, Turlock may declare a water shortage condition (as described in Turlock’s WSCP, Appendix G).

For SRWA, the water service reliability assessment and drought risk assessment show that in dry years with significantly reduced surface water allocations like the 2015 drought year, SRWA’s supply will be insufficient to meet the Cities’ projected normal year surface water demands. In these years, the Cities will meet this shortfall by relying on their groundwater wells to meet the remaining water demand.

Climate conditions, regional and statewide water supply conditions, and actions by surrounding agencies may impact Turlock and SRWA’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. Turlock and SRWA 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, Turlock and SRWA’s water supply conditions may be affected by the following:

- Groundwater quality
- Local surface water availability (TID allocations on the Tuolumne River)
- Changing environmental and regulatory requirements (Bay-Delta Plan, FERC licensing, groundwater contaminant limits, etc.)
- Climate change

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

Seismic events present potential water supply interruptions due to infrastructure failure. Because earthquakes are common, well-tracked, and recognized as high-probability occurrences in California, UWMPs are required to include a seismic risk assessment and mitigation plan. Turlock and SRWA’s plans are described in the section below.

8.3.1 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.

Turlock and SRWA’s service area is located within Stanislaus County. As such, the Stanislaus County Multi-Jurisdictional HMP (Stanislaus County HMP, updated in November 2022), provides relevant information regarding local seismic risk and is incorporated herein by reference. The 2022 Stanislaus County HMP is available on the Stanislaus County website, and incorporated in this plan by reference: <https://oes.stancounty.gov/divisions/emergency-management/multi-jurisdictional-hazard-mitigation-plan>). The Stanislaus County HMP was adopted in November 2022 and 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. The HMP is required to be updated every five years.

Seismic activity within Stanislaus County has been historically rare, and there are no records of major seismic activity originating in the County. As described in the Stanislaus County HMP, there are no known active faults within the County. However, ground shaking from earthquakes with epicenters elsewhere have been felt; most recently in 2021 by the 6.0 magnitude on the Richter Scale earthquake centered in the Little Antelope Valley, in Mono County.

Nearby faults that are the principal sources of seismic activity affecting Stanislaus County are the San Andreas to the west; the Hayward and Calaveras faults to the northwest; the White Wolf, Garlock, and Sierra Nevada faults to the south; and the Bear Mountain Fault Zone east of Merced County. Most of the historic earthquakes that have impacted Stanislaus County had epicenters that occurred along the San Andreas and Hayward faults to the west of the County.

Turlock's water storage, treatment, and pumping facilities have been constructed to meet earthquake safety standards and are inspected regularly. Additionally, since SRWA's facilities were designed and constructed within the last decade, the facilities were constructed to meet and exceed the most recent seismic requirements in the building code.

Turlock and SRWA have implemented efforts in addressing their facilities' seismic vulnerabilities. In accordance with America's Water Infrastructure Act (AWIA), Turlock and SRWA prepared a risk and resilience assessment (RRA) of its water systems and self-certified their individual RRAs with the United States Environmental Protection Agency in 2025. The RRA systematically evaluated Turlock and SRWA's assets, threats, and risks, as well as countermeasures that might be implemented to minimize overall risk to the system. Vulnerability to natural hazards, including earthquakes, was assessed based on Turlock and SRWA's level of preparation/resilience, active response capability, and ability to recover. To ensure the security of Turlock and SRWA's water facilities, the RRAs will be retained as confidential documents.

8.4 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

SRWA's WSCP was adopted concurrently with its 2020 UWMP on October 17, 2024 by separate resolution. Turlock's WSCP (Appendix G) is adopted concurrently with this Joint 2025 UWMP, by separate resolution. Prior to adoption, a duly noticed public hearing was conducted. An electronic copy of SRWA's WSCP was submitted to DWR in 2024. An electronic copy of the Turlock WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after adoption, an electronic copy of Turlock's WSCP will be available for public review and download on Turlock's website, <https://blog.cityofturlock.org/watersewergarbage-service/> and will be provided to Stanislaus County. SRWA's WSCP is available on its website, <https://www.stanrwa.com/> and was provided to Stanislaus County.

Turlock and SRWA's WSCPs are adaptive management plans and are subject to refinements as needed to ensure that the 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 Turlock City Council and/or SRWA's Board, and distribution to Stanislaus County, DWR, Turlock and SRWA's water customers, and the general public.

CHAPTER 9

Demand Management Measures

SRWA and Turlock implement DMMs to sustainably manage their 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 DMMs can help improve water service reliability and help meet Turlock’s and State water conservation goals. This chapter describes SRWA’s DMMs as a wholesale supplier, as well as Turlock’s implementation of DMMs in the past five years and continued plans for implementing and monitoring its water conservation program.

9.1 DEMAND MANAGEMENT MEASURES FOR WHOLESALE SUPPLIERS

As discussed in Chapter 6, SRWA provides treated surface water supply to its retailers on a wholesale basis. Since beginning water deliveries in November 2023, SRWA has continued to implement DMMs within its service area. The wholesale agency DMMs discussed in this Joint UWMP include the following:

- Metering
- Public education and outreach
- Water conservation program coordination and staffing support
- Other DMMs

In addition, a narrative of asset management and wholesale supplier assistance programs is provided. For each DMM, the current program is described, followed by a description of how the DMM has and will be implemented.

9.1.1 Metering

SRWA fully meters all water before and after treatment at the WTP, as well as immediately before introduction into its wholesale customers’ distribution systems. SRWA also compares these numbers to those measured by its wholesale customers to ensure parity. In the event that SRWA’s meter readings do not match those of its wholesale customers, SRWA will inspect all meters to ensure that they are within tolerance limits. Since beginning water deliveries in November 2023, SRWA’s water meter readings have matched that of their wholesale customers. To ensure continued meter reading accuracy, SRWA contracts with a third-party to verify meter accuracy annually.

9.1.2 Public Education and Outreach

In addition to its wholesale customers’ public education and outreach programs (refer to Section 9.2.4 for Turlock’s public education and outreach programs), SRWA facilitates outreach through providing information on its website (stanrwa.com) and on social media outlets as well as periodically at public Board meetings. SRWA’s commitment to public education and outreach is furthered by the distribution of an annual water quality report completed in conjunction with its wholesale customers.

9.1.3 Water Conservation Program Coordination and Staffing Support

SRWA’s staff is closely integrated with the staff of its wholesale customers, the Cities of Turlock and Ceres, to facilitate communication and conservation objectives amongst stakeholders. All voting members of SRWA’s Board of Directors consist of two Turlock City Council members and two City of Ceres City Council members. In addition, SRWA staff hold monthly Technical Advisory Committee meetings with staff from

the Cities to ensure regular communication on various projects and programs, including water conservation and public outreach coordination.

More information regarding Turlock’s water conservation programs and staff support of the conservation programs can be found in Section 9.2.6. Additional information regarding the City of Ceres’ water conservation programs can be found in the Ceres 2025 UWMP.

9.1.4 Other Demand Management Measures

SRWA does not have any other DMMs to report.

9.1.5 Asset Management

With the commissioning and start-up of SRWA’s WTP, SRWA has implemented a new Computerized Maintenance Management System (CMMS). The CMMS is in service and is being configured for optimum benefit to SRWA and its operation of the WTP. The configuration will develop asset standards including asset hierarchy; asset classification; and risk factors such as criticality, condition, and risk ratings. The configuration will also develop maintenance standards including work type and work priority. These standards will help SRWA manage assets and prioritize work based on risk and support fiscal planning for long-term rehabilitation and replacement.

Through this effort, SRWA endeavors to maximize production efficiency and minimize system water losses.

9.1.6 Wholesale Supplier Assistance Programs

Although SRWA is not directly involved with urban water demand reduction as a wholesaler, SRWA supports its wholesale customers through on-going and continuous coordination, and promotion of water conservation and public outreach activities as described in Sections 9.1.2 and 9.1.3. SRWA does not have a dedicated DMM assistance program for its wholesale customers.

9.2 DEMAND MANAGEMENT MEASURES FOR RETAIL SUPPLIERS

Since the 2020 UWMP reporting cycle, Turlock continued to implement DMMs within its service area as part of its standard practice. This section summarizes the nature and extent of each of Turlock’s DMMs implemented over the past five years. The following DMMs are discussed in this section:

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

Other DMMs implemented by Turlock that have had significant impacts on water use are also described.

The adoption of the Making Conservation a California Way of Life Regulation, described in Section 9.4, makes continued implementation of these DMMs a priority for Turlock. This regulation requires increasingly stringent water conservation requirements over time.

9.2.1 Water Waste Prevention Ordinances

Title 6, Chapter 7 of the Turlock Municipal Code includes provisions that prohibit the wasteful use of water. Article 3 of the Chapter provides regulations for:

- irrigation of outdoor landscaping;
- use of water for wash down of recreational vehicles, sidewalks, gutters, outside structures, or other exterior surfaces;
- limitations on constant flow of water for "slip-n-slides" and other recreational activities; and,
- use of a quick-acting automatic positive shut-off valve in proper operating condition for vehicle washing.

Further, the Chapter includes provisions that authorize actions associated with emergency water shortage conditions as described in Appendix G of this UWMP.

9.2.1.1 Implementation Over Recent Years

Table 9-1 lists the number of documented water waste violations recorded by Turlock over the past three years. As shown, there was a substantial increase in the number of recorded violations from 2023 to 2025 due to increased enforcement.

	2023	2024	2025
Number of Violations	156	274	633
<small>(a) Written warnings and notices to customers, excludes informal interactions.</small>			

9.2.1.2 Implementation to Achieve Water Use Objectives

Implementation of this water waste prevention ordinance DMM is ongoing and will continue to help Turlock achieve its water use objectives by minimizing the non-essential uses of water to increase availability for human consumption, sanitation, and fire protection.

9.2.2 Metering

Turlock commenced meter-based billing for all its water accounts on January 1, 2011. In conjunction with a thorough public education campaign, the move to meter-based billing has resulted in a significant decrease in water consumption.

The installation of meters appears to have significantly modified customer behavior and is largely responsible for the 20 percent reduction in total City-wide water use from 2007 to 2011. The per capita water use, likewise, declined by 22 percent City-wide, 23 percent for single family residential and 8 percent for multi-family residential, between 2011 and 2015 as customers began receiving and responding to their usage-based monthly water bills.

Turlock plans to upgrade the majority of its existing Automated Meter Reading (AMR) meters with Automated Metering Infrastructure (AMI) meters, as many of the existing water meters are reaching the



end of their useful life. Meter replacement is important, as older meters may measure water use inaccurately and tend to under-register actual flows, leading to inaccurate billing and consumption data. This project will upgrade all residential meters to AMI in a phased approach.

Phase 1 is expected to begin in 2026 with the overall project anticipated to be completed within approximately 36 months. AMI provides two-way communication and near real-time water use data which can effectively influence customer's water use behavior. Once fully deployed, AMI will support water use efficiency by improving leak detection, system monitoring, and the timeliness and accuracy of water use information for both the customers and Turlock staff. Once AMI is implemented, City-wide customer water demand is expected to decrease noticeably from current levels of demand.

9.2.2.1 Implementation Over the Past Five Years

Implementation of metering appears to have led to significant reductions in per capita water use. Before meters were installed in 2011, the 2010 per capita water use was 284 GPCD. From 2021 through 2025, the per capita water use ranged from 227 GPCD to 248 GPCD. This recent water use data represents a reduction in per capita water use between 10 to 18 percent compared to the 2010 value of 284 GPCD before meters were installed. With this per capita water use reduction, Turlock was able to meet its SB X7-7 2020 water use target.

9.2.2.2 Implementation to Achieve Water Use Objectives

Implementation of this metering DMM is ongoing and will continue to help Turlock achieve its water use objectives by providing accurate water use information for the individual customer and Turlock as a whole. The implementation of AMI for residential meters is expected to further improve water use tracking and transparency for customers and Turlock.

9.2.3 Conservation Pricing

In 2017, Turlock, in conjunction with its consultant, Municipal Financial Services, prepared a water rate study to determine the adequacy of rates to meet projected expenditures of its water enterprise fund. Based on the findings of the study, Turlock subsequently adopted a five-year water rate increase schedule that went into effect March 1st of 2018. The final water rate increase of that schedule took effect January 1, 2022. Turlock's current water rates are available on Turlock's website at <https://www.cityofturlock.org/watersewergarbage/service/billspayments/utilityservices/rates/>.

The current pricing structure is comprised of three components. The first is the commodity charge (i.e., usage charge), which is the cost of the water supply. Customers are charged per 1,000 gallons of water based on the account type. This component of the pricing structure provides financial incentives customers to conserve. The second component of the pricing structure is the capacity charge. This charge accounts for the cost of the meter, operation and maintenance, as well as other facility costs. This charge is based on the meter size. The third component of the pricing structure is the customer charge, which accounts for the cost of mailing and processing bills along with other administrative costs. The customer charge is the same amount regardless of meter size or account type.

Turlock is currently developing an updated water rate study to evaluate improved conservation pricing during water shortage reductions and to ensure that water rates are adequate to meet projected expenditures. Turlock currently plans to implement these updated rates in 2027.

9.2.3.1 Implementation Over the Past Five Years

As discussed in Section 9.2.2.1, the installation of water meters and the transition to meter-based billing have significantly reduced per capita water use compared to 2010 levels, prior to metering and meter-based billing.

9.2.3.2 Implementation to Achieve Water Use Objectives

Implementation of this conservation pricing DMM will continue to help Turlock achieve its water use objectives by ensuring water customers pay the true cost of water. Implementation of this DMM will also continue to help adequately fund water system operations and maintenance, including rehabilitation and replacement programs, and water conservation programs.

9.2.4 Public Education and Outreach

Turlock has an active public information and outreach program to promote water conservation. This program consists of distributing information to the public through a variety of methods, such as utility billing publication inserts, press releases via radio and newspaper, school curriculum, educational flyers, commercials on television, social media outreach, and water conservation tips and videos on Turlock's Water Conservation webpage (<https://ci.turlock.ca.us/watersewergarbage/waterconservation/>).

9.2.4.1 Implementation Over the Past Five Years

Since 2007, Turlock has implemented a prominent environmental stewardship program called "Go Green Week." This broad program focuses on conservation education, with program components including water use efficiency and conservation, stormwater pollution prevention, recycling, composting, and waste reduction habits.¹

"Go Green Week" is Turlock's primary public education campaign for school-age children, which engages students in activities that teach the importance of environmentally responsible behavior. Now in its nineteenth year, "Go Green Week" is coordinated annually in March with participating schools in Turlock. Through a partnership of City staff, teachers, administrators, community organizations, and volunteers, students learn about conservation and pollution prevention strategies such as recycling, composting, water conservation and waste reduction. City staff also conduct periodic classroom presentations on water conservation and other environmental issues, as well as provide student tours of Turlock's wastewater treatment facility and SRWA's recently constructed WTP.

Turlock promotes "Go Green Week" and general water conservation public education and outreach via:

- Turlock's website and social media pages (Facebook and Instagram)
- Utility bill inserts
- Press releases
- Print media campaigns/columns in local newspapers
- Booths at fairs/exhibitions
- Presentation to local service organizations and similar groups

¹ City of Turlock. *Go Green Week*. Accessed at <https://www.cityofturlock.org/specialevents/gogreenweek/>.

9.2.4.2 Implementation to Achieve Water Use Objectives

Implementation of this public education and outreach DMM is ongoing and will continue to help Turlock achieve its water use objectives by educating water users about the importance of improving water use efficiency and avoiding water waste.

9.2.5 Programs to Assess and Manage Distribution System Real Loss

Turlock has an active water loss prevention program that tracks both real and apparent losses which are monitored by staff in the Municipal Services Department. Turlock 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.

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. A water audit is a method of accounting water use throughout a water system to quantify unaccounted for water. Unaccounted for water is the difference between metered production and metered usage on a system-wide basis. With the implementation of meter-based billing for all water accounts, Turlock is better able to track water losses and unaccounted for water use.

9.2.5.1 Implementation Over the Past Five Years

Turlock uses AWWA’s software to complete an annual Water Audits and Balance Analysis. Turlock’s water audits from 2020 through 2024 are included in Appendix F.

Implementation of this DMM is ongoing and expected to help Turlock achieve its water use objectives by quickly identifying sources of water loss so repairs can be completed in a timely manner and water losses are minimized. In compliance with the DWR requirement, Turlock will continue to evaluate distribution system losses annually via the AWWA Water Audit Software and report to DWR. Turlock 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 before 2030.

In addition to the AWWA water audits, Turlock’s water loss prevention program involves leak detection and repair, focusing primarily on areas with a high probability for leakage. Due to the flat nature of the San Joaquin Valley and the shallow depth of Turlock’s water mains, water leaks are detected fairly easily. Utility staff monitor for water leaks as part of their daily operations and respond to calls from customers concerned about potential leaks. Although Turlock does not perform formal pipeline inspections at regular intervals, these “spot check” inspections help contribute to approximately 100 leak repairs per year.

9.2.5.2 Implementation to Achieve Water Use Objectives

Implementation of this DMM, to assess and manage distribution system real losses, is ongoing and will continue to help Turlock achieve its water use objectives by identifying sources of water loss quickly so repairs can be made and losses minimized.

9.2.6 Water Conservation Program Coordination and Staffing Support

Turlock has designated staff to actively develop, promote, enforce, and maintain water conservation programs. Certain tasks may include responding to water complaints, monitoring water waste, and checking for excess landscape water use.

Turlock has a Water Conservation Specialist/Field Services Technician and a Staff Services Assistant that each allocates approximately 20 hours per week, for a total of 40 hours per week, to implement and monitor Turlock’s water conservation activities. Turlock also has additional staff that support Turlock’s water conservation program including a Staff Services Analyst, Regulatory Affairs Manager, and Utilities Manager. Together, these five employees are responsible for implementing and monitoring Turlock’s water conservation activities.

9.2.6.1 Implementation Over the Past Five Years

Over the past five years, Turlock’s water conservation staff have continued to implement and monitor the DMMs discussed in this chapter. In recent years, outreach efforts have been strengthened through more consistent and timely use of social media; previously, outreach relied primarily on the City’s website. Messaging delivered through bill inserts has been improved, and field enforcement efforts have been increased. The City continues to provide water conservation education and conservation tools to customers at City Hall and through participation in community events.

The effectiveness of this water conservation program support DMM is evaluated in conjunction with the success of Turlock’s water conservation efforts as a whole. Meeting Turlock’s water use objectives is a priority. As Turlock grows and water resources become more limited and expensive, and State water conservation regulations become increasingly stringent, the water conservation programs have increased in priority. As the water conservation program grows, the duties of City staff will increase, and additional staffing may be necessary.

9.2.6.2 Implementation to Achieve Water Use Objectives

Implementation of this DMM is ongoing and will continue to help Turlock achieve its water use objectives by implementing Turlock’s water conservation program and ensuring its effectiveness.

9.2.7 Other Demand Management Measures

In addition to the six DMMs described above, Turlock also implements the following programs:

- Residential Water Survey Program
- Residential High-Efficiency Toilet Rebate Program
- High-Efficiency Washing Machine Rebate Program
- Large Landscape Conservation Program
- Conservation for Commercial and Industrial Accounts

These programs are described below.

9.2.7.1 Residential Water Survey Program

Turlock began implementation of its residential water survey program in 2010. The program was developed by City staff and consists of offering residential home water survey kits to Turlock’s customers.²

² City of Turlock. *Home Water Survey Kit*. Accessed at

<https://www.cityofturlock.org/watersewergarbage/waterconservation/homewatersurveykit.asp>

The Home Water Survey Kit allows customers to perform a home water audit, gauging how efficient they are with their water use. By performing the audit, the customer can identify areas of potential improvement, as well as identify potential leaks.

The Home Water Survey Kit shows users how to read their water meter and use it to:

- Detect for leaks
- Evaluate if landscape is being irrigated appropriately
- Assess the efficiency of water fixtures and appliances
- Identify water saving opportunities

Free water conservation devices (e.g. low-flow shower heads and faucet aerators) are provided to customers who complete and submit a survey response form to Turlock's Municipal Services Department. Customers can request these survey kits online. Turlock also provides these kits directly to customers who are identified to have high water usage.

9.2.7.2 Residential WaterSense Toilet Rebate Program

Turlock's Municipal Services Department provides incentives for residential customers to replace existing toilets with high efficiency models that meet the EPA's WaterSense specifications. Turlock offers a rebate of \$75 per toilet for the replacement of a 3.6 or greater gallons per flush (gpf) model with one that uses 1.28 gpf or less.³ Replacing a high-water use toilet with a new high efficiency model of 1.28 gpf can save about 38 gallons of water each day.

9.2.7.3 High-Efficiency Washing Machine Rebate Program

Turlock's Municipal Services Department offers a high-efficiency washing machine rebate program which provides financial incentives to qualifying customers who install high-efficiency washing machines in their homes. A high-efficiency washing machine uses approximately 15 gallons of water per load of laundry, while a standard top-loading washing machine uses about 40 gallons of water per load.

Rebates for the purchase of high-efficiency clothes washers are available for up to \$100 per washer.³ In addition to Turlock's rebate, Turlock's main electrical utility (TID) currently offers a \$50 rebate for customers who purchase a high-efficiency clothes washer (Energy Star compliant).⁴ These rebates can be combined for additional savings.

9.2.7.4 Large Landscape Conservation Program

Beginning in 2006, Turlock began monitoring water use of landscape and irrigation customers. This program was further enhanced by the installation of a fixed-based AMR system that allowed Turlock to monitor water consumption on a daily basis. Turlock has worked with large landscape customers such as the Turlock Unified School District and a number of religious institutions to increase efficiency and reduce

³ City of Turlock. *Rebates*. Accessed at

<https://ci.turlock.ca.us/watersewergarbage/waterconservation/rebates.asp>.

⁴ Turlock Irrigation District. *Residential Rebates*. Accessed at

<https://www.tid.org/customer-service/rebates-and-savings/residential-rebates/>.

overall water use. Turlock has also installed meters and AMR devices at all City parks and City-owned landscaped areas to ensure efficient landscape irrigation.

More recently, Turlock has developed a native, drought-tolerant plant initiative for implementation in 2026 at three different locations throughout the City. Turlock continues to provide useful resources for landscaping and reducing landscape irrigation water demand on its website (<https://www.cityofturlock.org/buildinginturlock/landscaping/>).

9.2.7.5 Conservation for Commercial and Industrial Accounts

Turlock’s commercial, institutional, and industrial (CII) customers’ sewer rates include both a monthly fixed service charge and a volumetric charge. In comparison, residential customers’ sewer rates include only a monthly fixed service charge. This structure provides a significant financial incentive for CII customers to conserve water, since reductions in water use lower both their water and sewer service costs.

Following the Regional Water Quality Control Board’s (Regional Board’s) requirement that Turlock upgrade its RWQCF to disinfected tertiary treatment, Turlock’s sewer rates increased and are now greater than its potable water rates. As a result, high volumetric sewer charges further encourage CII customers to adopt water-efficient practices. Every reduction in metered water use directly reduces their sewer costs.

Turlock’s Environmental Compliance Inspector reviews CII water meter readings on a monthly basis, and conducts annual inspections of all significant industrial users. By analyzing meter data and production processes, Turlock’s Environmental Compliance Inspector has been able to reduce water consumption for a variety of CII accounts.

9.3 MEMBER OF THE CALIFORNIA WATER EFFICIENCY PARTNERSHIP

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

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

9.4 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 specific Making Conservation a California Way of Life regulations. As part of this regulation, Urban Water Suppliers will be held to annual UWUOs. Turlock 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)

Turlock’s UWUOs are calculated using statewide efficiency standards, and consider Turlock’s water service area population, climate, and landscape area. Efficiency standards for the different components will become progressively more stringent 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), potable recycled water use, and agricultural uses. Figure 9-1 summarizes the components that make up the UWUO.

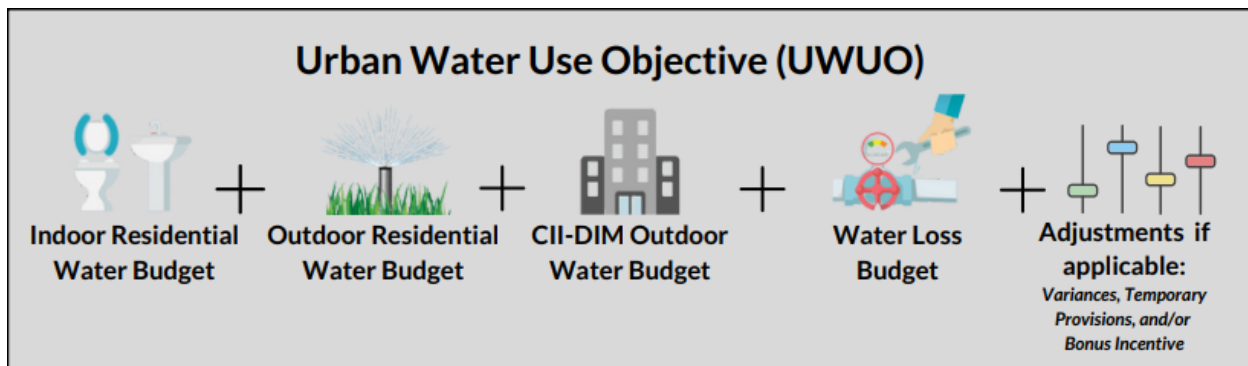


Figure 9-1. Urban Water Use Objective Components⁵

In addition to calculating and complying with the UWUO, beginning in 2027, Turlock will need to classify its CII properties, and begin deploying 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.

9.4.1 Annual Water Use Reporting

Starting in 2024, Turlock was required to calculate its UWUO, compare its actual water use to its UWUO, and provide an Annual Water Use Report to the State Water Board by January 1 of each year. Reporting is based on fiscal year data. Each year Turlock will need to recalculate its UWUO and meet the applicable UWUO for the year. If it does not meet its UWUO, Turlock will need to develop a plan and intensify existing DMMs or implement new DMMs to improve water use efficiency.

⁵ California Water Efficiency Partnership. May 2024. *Making Conservation a California Way of Life Standards Framework Cut Sheet*.

Chapter 9

Demand Management Measures



Turlock submitted its Fiscal Year 2024/2025 Annual Water Use Report to the State Water Board on December 16, 2025, and will continue to prepare this report annually to assess its progress towards achieving its UWUO.

Reporting and compliance with the UWUO regulations falls under the authority of the State Water Board and is tracked separately from the UWMP. Thus, UWUO compliance projections are not included in this UWMP.

CHAPTER 10

Plan Adoption, Submittal, and Implementation

This chapter provides information regarding the notification, public hearing, adoption, and submittal of the SRWA and Turlock’s Joint 2025 UWMP, and Turlock’s 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, SRWA and Turlock use a calendar year for water supply and demand accounting, and therefore this plan includes data through December 2025.

10.2 NOTICE OF PUBLIC HEARING

In accordance with the UWMP Act, SRWA and Turlock must provide an opportunity for the public to provide input on this Joint 2025 UWMP, including Turlock’s WSCP Update. SRWA and Turlock must consider all public input prior to its adoption. Audiences to be notified for the public hearing include cities, counties, neighboring water districts, and the public.

10.2.1 Notices to Cities and Counties

As discussed in Section 2.5, SRWA and Turlock provided greater than a 60-day notice regarding the preparation of its Joint 2025 UWMP and Turlock’s WSCP Update to Stanislaus County as well as neighboring cities, communities, water agencies, and other interested parties as listed below:

- City of Ceres,
- City of Hughson,
- City of Modesto,
- Merced County,
- Denair Community Services District,
- Hilmar County Water District,
- Del Puerto Water District,
- Eastside Water District,
- Keyes Community Services District,
- Turlock Irrigation District,
- Merced Irrigation District,
- Modesto Irrigation District,
- California State University, Stanislaus,
- East Stanislaus Integrated Regional Water Management,
- East Turlock Subbasin GSA,
- West Turlock Subbasin GSA, and
- North Valley Regional Recycled Water Program.

The notices of preparation are included in Appendix D.

Upon substantial completion of this Joint 2025 UWMP and Turlock’s WSCP Update, SRWA and Turlock coordinated internally and provided a notice of public hearing (Appendix D) to the County and Cities of Turlock and Ceres, as noted in Table 10-1 (DWR Table 10-1 Retail) and Table 10-2 (DWR Table 10-1 Wholesale).

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

City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
City of Turlock	Yes	Yes
City of Ceres	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Stanislaus County	Yes	Yes

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

<input type="checkbox"/>	Check the box if the Supplier has notified more than 10 cities or counties in accordance with Water Code Sections 10621 (b) and 10642. Completion of the table below is not required. Provide a separate list of the cities and counties that were notified.	
	Provide the page or location of this list in the UWMP.	
<input checked="" type="checkbox"/>	Check the box if the Supplier has notified 10 or fewer cities or counties. Complete the table below.	
City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
City of Turlock	Yes	Yes
City of Ceres	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Stanislaus County	Yes	Yes

10.2.2 Notice to the Public

As noted in Table 10-1 (DWR Table 10-1 Retail) and Table 10-2 (DWR Table 10-1 Wholesale), SRWA and Turlock issued a notice of public hearing to the public. SRWA and Turlock also provided a public review period following the notice and prior to adoption of the Joint 2025 UWMP and Turlock’s WSCP Update to allow ample time for public comments to be prepared and received.

A notice of availability and public hearing was issued in accordance with Government Code § 6066 and was published three times in two local newspapers, the Turlock Journal and the Ceres Courier, to notify all customers and local governments of the public hearings. In addition, the notice was posted on the SRWA and Turlock websites. A copy of the published Notice of Public Hearing is included in Appendix D.

10.3 PUBLIC HEARING AND ADOPTION

SRWA and Turlock encouraged community participation in the development of this Joint 2025 UWMP and Turlock’s WSCP Update using public notices and web-based communication. The notice included the times and places of the public hearings, as well as the locations where the plan is available for public inspection.

10.3.1 Public Hearing

Public hearings for the Joint 2025 UWMP and Turlock’s WSCP Update were held by the SRWA Board and Turlock City Council on May 21, 2026, and May 26, 2026, respectively. The public hearings provided an opportunity for all SRWA and Turlock water users and the general public to become familiar with the Joint 2025 UWMP and Turlock’s WSCP Update and ask questions about continuing plans for providing a reliable, safe, high-quality water supply, and mitigating potential water shortage conditions.

Copies of the draft Joint UWMP and Turlock’s WSCP Update were made available for public inspection on the SRWA and Turlock websites.

10.3.2 Adoption

Following the public hearings, this Joint 2025 UWMP and Turlock’s WSCP Update were adopted by SRWA Board of Directors on May 21, 2026, and adopted by the Turlock City Council on May 26, 2026. Turlock’s WSCP was adopted by City Council concurrently with the Joint 2025 UWMP by separate resolution. Copies of the adopted resolutions are included in Appendix I.

10.4 PLAN SUBMITTAL

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

No later than 30 days after adoption, a copy of the adopted Joint 2025 UWMP, including Turlock’s WSCP Update, will be provided to the cities and counties to which SRWA and Turlock provides water.

10.5 PUBLIC AVAILABILITY

No later than 30 days after submittal to DWR, copies of this plan, including Turlock’s adopted WSCP Update, will be available to the public during normal business hours at the following locations:

- City of Turlock, Municipal Services, 156 S Broadway Suite 270, Turlock, CA 95380; and
- Stanislaus Regional Water Authority Water Treatment Plant, 1235 Aldrich Road, Hughson CA 95326.

Chapter 10

Plan Adoption, Submittal, and Implementation



An electronic copy of the adopted Joint 2025 UWMP will also be available on the SRWA and the City of Turlock’s website:

- SRWA: <https://www.stanrwa.com/general-documents>
- City of Turlock: <https://www.cityofturlock.org/watersewergarbage/waterconservation/urbanwatermanagementplan.asp>

Turlock’s WSCP Update will also be available on the City of Turlock’s website.

10.6 PLAN IMPLEMENTATION

This Joint 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 Joint 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

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



Appendix A

Urban Water Management Planning Act Legislative Requirements

Appendix A

California Water Code—Urban Water Management Planning

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

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

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

Contents

Water Conservation Act of 2009 (SB X7-7)	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

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

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 (MG)
CA5010019	City of Turlock	19,769	6,146
CA5010028	City of Ceres	11,918	2,192
Total		31,687	8,338
<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>NOTES: Number of municipal connections includes active connections only. Volume of water supplied includes both retail water and wholesale water purchases.</p>			

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:		

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input checked="" 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	MG
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
Stanislaus Regional Water Authority (SRWA)
NOTES:

Submittal Table 2-4 Wholesale: Water Supplier Information Exchange Water Code Section 10631(h)	
<input type="checkbox"/>	Check the box if the Supplier has informed more than 10 other water suppliers of water supplies available. Completion of the table below is optional. If not completed, include a list of the water suppliers that were informed.
	Provide page number for location of the list.
<input checked="" type="checkbox"/>	Check the box if the Supplier has informed 10 or fewer other water suppliers of water supplies available. Complete the table below.
Water Supplier Name	
Add additional rows as needed	
City of Turlock	
City of Ceres	
NOTES:	

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	72,682	79,854	87,734	96,392	105,904	116,354
NOTES:						

Submittal Table 3-1 Wholesale: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	127,195	139,665	153,358	168,394	184,904	195,354
NOTES: Population estimates include both Cities of Turlock and Ceres, consistent with Table 3-3.						

**Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual
Water Code Section 10631(d)(1)**

Use Type Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	2025 Actual Water Use	
		Potable or Non-Potable (OPTIONAL) Drop down list	Volume (MG)
Single Family		Potable	2,338
Multi-Family		Potable	557
Commercial		Potable	453
Industrial		Potable	1,254
Landscape		Potable	265
Other (optional)	City meters (non-billed)	Potable	114
Sales/Transfers/Exchanges to other Suppliers	Exported to City of Modesto	Potable	5
Distribution System Water Loss	Losses and unmetered water (e.g., flushing)	Potable	1,160
Other (optional)	Disinfected tertiary recycled water. See note (a).	Non-Potable	376
Landscape	Non-potable raw water irrigation wells at City parks	Non-Potable	104
		Subtotal Potable	6,146
		Subtotal Non-Potable	480
		Total	6,625
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: (a) Recycled water use shown includes only recycled water delivered within Turlock's service area. This volume includes recycled water delivered to TID's Walnut Energy Center for cooling, and a small amount of fill station use (<1 MG). Refer to Chapter 6 for additional detail on recycled water use.			

**Optional Submittal Table 4-1 Wholesale: Total Uses for Potable and Non-Potable Water — Actual
Water Code Section 10631(d)(1)**

Use Type Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	2025 Actual Water Use	
		Potable or Non-Potable (OPTIONAL) Drop down list	Volume (MG)
Sales to other agencies	City of Turlock	Potable	2,104
Sales to other agencies	City of Ceres	Potable	1,413
		Subtotal Potable	3,517
		Subtotal Non-Potable	0
		Total	3,517
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 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)					
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 opt (MG)
Single Family	See note (a).	Potable	2,803	3,107	3,412	3,716	4,021
Multi-Family		Potable	709	786	863	940	1,017
Commercial		Potable	569	631	693	754	816
Industrial		Potable	1,498	1,661	1,824	1,986	2,149
Landscape		Potable	371	412	452	492	533
Other (optional)	City meters (non-billed)	Potable	167	185	203	221	240
Distribution System Water Loss	Losses and unmetered water (e.g., flushing)	Potable	778	863	947	1,032	1,116
Other (optional)	Disinfected tertiary recycled water. See note (b).	Non-Potable	376	376	376	376	376
Landscape	Non-potable raw water irrigation wells at City parks	Non-Potable	104	104	104	104	104
		Subtotal Potable	6,895	7,644	8,393	9,142	9,892
		Subtotal Non-Potable	480	480	480	480	480
		Total	7,375	8,124	8,873	9,622	10,372

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:

(a) Volume of water exported to City of Modesto is combined with the Single Family water use type in this table, as it is assumed, per Turlock's 2025 WMP, that Turlock will eventually acquire and serve the County enclaves that are currently served by City of Modesto. Actual timing is unknown. (b) Recycled water use shown includes only recycled water delivered within Turlock's service area. This volume includes recycled water delivered to TID's Walnut Energy Center for cooling, and a small amount of fill station use (<1 MG). Refer to Chapter 6 for additional detail on recycled water use.

Optional Submittal Table 4-2 Wholesale: 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)					
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 opt (MG)
Sales to other agencies	City of Turlock. See note (a).	Potable	2,837	3,316	3,772	4,288	4,752
Sales to other agencies	City of Ceres. See note (b).	Potable	1,485	1,623	1,773	1,939	1,939
		Subtotal Potable	4,322	4,939	5,545	6,227	6,691
		Subtotal Non-Potable	0	0	0	0	0
		Total	4,322	4,939	5,545	6,227	6,691

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:

(a) Turlock has projected its surface water use for the next ten years, through Water Year 2036-2037. For the purposes of this UWMP, projections beyond 2037 were estimated using an assumed annual increase in surface water use of 2.6 percent.
 (b) Ceres' projected surface water use is consistent with the Ceres 2025 UWMP and assumes that two-thirds of Ceres' total projected demand is met by SRWA surface water. Ceres buildout is projected to occur by 2045.

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		
CA5010019	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.		
https://wuedata.water.ca.gov/awwa_plans		

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss <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) (MG)	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) (MG)	Apparent Water Loss Per Unit per Day
CA5010019	Yes	14.5	Gallons per Service Connection per Day (GPSCD)	20,053	913	124.8	18.6	Gallons per Service Connection per Day (GPSCD)	20,053	138	18.8

[Water Board's Calculated Water Loss Standards](#)

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss MUST remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

NOTES:

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	284	250	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 (MG)	2022 (MG)	2023 (MG)	2024 (MG)	2025 (MG)
Alluvial Basin	Potable	Turlock Subbasin within the San Joaquin Valley Groundwater Basin	6,456	6,199	5,979	4,232	4,042
Alluvial Basin	Non-Potable	Turlock Subbasin within the San Joaquin Valley Groundwater Basin	104	104	104	104	104
Total			6,560	6,303	6,083	4,335	4,145
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: Annual groundwater volume pumped is from the City of Turlock's Annual AWWA Water Loss Audits for all years but 2023. For 2023, the total groundwater production is based on data from the State Open Data Portal which was assumed to be more accurate, as described in Table 4-1. Non-potable irrigation well usage in 2021 through 2024 is estimated based on actual metered 2025 usage.							

Submittal Table 6-1 Wholesale: Groundwater Volume Pumped Water Code Section 10631(4) and 10631(4)(C)							
<input checked="" 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 (MG)	2022 (MG)	2023 (MG)	2024 (MG)	2025 (MG)
Total			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. This table identifies the unit of measure selected in Submittal Table 2-3.							
NOTES:							

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area Water Code Section 10633(a)				
<input type="checkbox"/>	Check the box if there is no wastewater collection system. Proceed to the next table.			
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? (OPTIONAL) Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (MG)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number Drop down list	Is WWTP Located Within UWMP Area? Drop Down List
City of Turlock	Metered	3,902	Turlock City, Turlock Regional Water Quality Control Facility, Place ID 266737	Yes
Total Wastewater Received from UWMP Service Area in 2025:		3,902		
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: Volume shown includes wastewater collected outside Turlock's water service area including the Keyes Community Service District (CSD), Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres, all of which is treated at Turlock's Regional Water Quality Control Facility. Metered wastewater volumes are based on WWTP influent flows, and data covering only Turlock's water service area is not available.				

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area
Water Code Section 10633(b)

Check the box if no wastewater is treated or disposed of within the UWMP service area.
 Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (MG)	Total 2025 Volume of Water Treated (MG)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Name of other entity
Turlock City, Turlock Regional Water Quality Control Facility, Place ID 266737	Yes	3,902	3,902	Tertiary	376	Tertiary	3,492	Tertiary	35		0		0	
Total		3,902	3,902		376		3,492		35		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: Volume shown includes wastewater collected outside Turlock's water service area including the Keyes Community Service District (CSD), Denair CSD, and up to 2 MGD of primary treated wastewater from the City of Ceres, all of which is treated at Turlock's Regional Water Quality Control Facility. Metered wastewater volumes are based on WWTP influent flows, and data covering only Turlock's water service area is not available.

Submittal Table 6-3 Wholesale: Wastewater Treatment and Discharge Within Service Area
Water Code Section 10633(b)

Check the box if the Wholesale Supplier neither distributes nor provides supplemental treatment to recycled water. Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (MG)	Total 2025 Volume of Water Treated (MG)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Treatment Level Drop down list	Volume (MG)	Name of other entity
Total		0	0		0		0		0		0		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:

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c),(d),(e)

Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.

Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) : Turlock Regional Water Quality Control Facility, Place ID 266737

Name of Supplier Operating the Recycled Water Distribution System : City of Turlock

Volume of Supplemental Water Added in 2025 (OPTIONAL) :

Source of 2025 Supplemental Water (OPTIONAL) :

Use Type Drop down list	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (MG)	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
Agricultural irrigation	Non-Potable	Transported by North Valley Regional Recycled Water Pipeline for agricultural irrigation. See note (a).	3,492	3,492	3,492	3,492	3,492	3,492		
Agricultural irrigation	Non-Potable	Recycled water delivered to Turlock Irrigation District for agricultural irrigation. See note (b).	0	652	652	652	652	652		
Landscape irrigation (exc golf courses)	Non-Potable	Irrigation at Pedretti Sports Fields	0	1	1	1	1	1		
Geothermal and other energy production	Non-Potable	Turlock Irrigation District's Walnut Energy Center Co-Generation Facility cooling towers	376	376	376	376	376	376		
Landscape irrigation (exc golf courses)	Non-Potable	Recycled Water Filling Station. See note (c).	0	0	0	0	0	0		
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			3,867	4,520	4,520	4,520	4,520	4,520	0	
Total			3,867	4,520	4,520	4,520	4,520	4,520	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: (a) Volume of recycled water available for delivery to the North Valley Regional Recycled Water Program (North Valley Program) may vary, as wastewater and recycled water flow projections through 2050 are not available. Volume delivered to the North Valley Program may increase or decrease based on available recycled water supply in future years.

(b) Turlock anticipates beginning to deliver recycled water to TID for agricultural irrigation as part of the SRWA-TID Water Sales Agreement water in approximately 2028.

(c) The City began its recycled water filling station in 2018. Turlock has not set a limit on the amount of recycled water that can be trucked off-site other than 300 gallons per vehicle per trip. Total fill station use in 2025 was approximately 8,500 gallons, and fill station use is expected to continue to represent only a minor amount of Turlock's overall recycled water use.

(d) Due to rounding, the volumes by individual use shown in the table may not sum exactly to the subtotals or totals.

Submittal Table 6-4 Wholesale: Current and Projected Recycled Water Uses										
Water Code Section 10633(c),(d),(e)										
<input checked="" 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 of Receiving Supplier or Direct Use by Wholesale Supplier	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (MG)	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)	Potential Recycled Water Use	
									Volume	Narrative page number (OPTIONAL)
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			0	0	0	0	0	0	0	
Total			0	0	0	0	0	0	0	0
DWR NOTES:										
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports 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.										
NOTES:										

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 Drop Down list	2020 Projection for 2025 (MG)	2025 Actual Use (MG)
Agricultural irrigation	3,755	3,492
Landscape irrigation (exc golf courses)	1	0
Geothermal and other energy production	301	376
Other (Description Required)	0	0
Total	4,057	3,867
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: (a) The "Other" use type is Turlock's recycled water filling station. Total fill station use in 2025 was approximately 8,500 gallons, and fill station use is expected to continue to represent only a minor amount of Turlock's overall recycled water use.		

**Submittal Table 6-5 Wholesale: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual
Water Code Section 10633(e)**

<input checked="" type="checkbox"/>	Check the box if recycled water was not used or distributed by the supplier in 2025, nor projected for use or distribution in 2020. Proceed to the next table.	
Name of Receiving Supplier or Direct Use by Wholesale Supplier	2020 Projection for 2025 (MG)	2025 Actual Use (MG)
Total	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.		
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 (MG)
Add additional rows as needed			
Recycled water delivered to Turlock Irrigation District	For agricultural irrigation use	2028. See note (a).	652
Total (MG)			652
Unit Conversion to AF			2,000
DWR NOTES: Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.			
NOTES: (a) As part of SRWA's Water Sales Agreement with TID, Turlock planned to begin providing 2,000 acre-feet per year (652 MGY) of recycled water to TID for agricultural irrigation in 2022. However, recycled water deliveries to TID have not yet commenced. For the purposes of this plan, it is assumed that recycled water deliveries from Turlock to TID will begin by approximately 2028.			

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.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type Drop Down List	Expected Increase in Water Supply to Supplier (This may be a range) (MG)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Add additional rows as needed							
Construct Two New Wells (5 and 16) with Treatment (PWW-2 and PWW-3)	No			Potable	2028	All Year Types	1,570
Construct Four New Wells with Treatment (PWW-4 to PWW-7)	No			Potable	2038	All Year Types	3,139
DWR NOTES:							
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.							
NOTES: Future water supply projects are defined in Turlock's 2025 Water Master Plan.							

Submittal Table 6-7 Wholesale: 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 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.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Planned Implementation Year	Planned for Use in Year Type Drop Down list	Expected Increase in Water Supply to Supplier (This may be a range) (MG)
	Drop Down List (yes/no)	If Yes, Supplier Name					
SRWA WTP Filter Capacity Study	Yes	Cities of Turlock and Ceres	Filtration capacity study for existing filters to expand WTP capacity from 15 MGD to 19.9 MGD. See note (a).	Potable	2028	All Year Types	1,789
SRWA WTP Phase 2 Expansion	Yes	Cities of Turlock and Ceres	Expanding WTP capacity from 19.9 MGD to 30 MGD. See note (b).	Potable	2041	All Year Types	2,513
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.							
NOTES: (a) Filter capacity study is anticipated to increase SRWA's WTP capacity by up to 4.9 mgd, to a total capacity of up to 19.9 MGD. (b) SRWA's WTP Phase 2 expansion is anticipated to increase capacity to 30 MGD. The planned implementation timing for the SRWA WTP expansion is approximate and will be determined closer to when additional supply capacity is needed. The expected increase in available supply is constrained by the maximum annual surface water agreement with TID (9,776 MG).							

**Submittal Table 6-8 Retail: Water Supplies — Actual
Water Code Section 10631 (b)**

Water Supply		2025		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)
Groundwater (not desalinated)	Turlock's production wells	Potable	4,042	
Purchased or Imported Water	Treated surface water purchased from SRWA	Potable	2,104	3,650
Recycled Water	Disinfected tertiary recycled water	Non-Potable	3,902	
Groundwater (not desalinated)	Non-potable raw water irrigation wells at City parks	Non-Potable	104	
Subtotal Potable			6,146	3,650
Subtotal Non-Potable			4,006	0
Total			10,151	3,650

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: Total entitlement for the purchased water is based on Turlock's current 10 MGD allocation of the SRWA WTP.

**Submittal Table 6-8 Wholesale: Water Supplies — Actual
Water Code Section 10631(b)**

Water Supply	Additional Description (as needed)	2025		
		Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (MG)
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				
Surface water (not desalinated)	Surface water diverted from Tuolumne River per long-term transfer with TID	Potable	3,517	9,776
Subtotal Potable			3,517	9,776
Subtotal Non-Potable			0	0
Total			3,517	9,776

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: Total Entitlement is based on SRWA and TID's Water Sales Agreement, which allows SRWA to purchase up to 30,000 AFY (equivalent to 9,776 MG) of untreated Tuolumne River surface water. Actual use may be limited by SRWA's current WTP capacity of 15 MGD.

**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 (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below
Groundwater (not desalinated)	Turlock's production wells. See note (a).	Potable	8,026		8,026		11,165		11,165		11,165	
Purchased or Imported Water	Treated surface water purchased from SRWA. See note (b).	Potable	4,842	4,842	4,842	4,842	4,842	4,842	6,517	6,517	6,517	6,517
Recycled Water	Disinfected tertiary recycled water. See note (c).	Non-Potable	4,520		4,520		4,520		4,520		4,520	
Groundwater (not desalinated)	Non-potable raw water irrigation wells at City parks	Non-Potable	104		104		104		104		104	
Subtotal Potable			12,868	4,842	12,868	4,842	16,007	4,842	17,682	6,517	17,682	6,517
Subtotal Non-Potable			4,624	0	4,624	0	4,624	0	4,624	0	4,624	0
Total			17,492	4,842	17,492	4,842	20,631	4,842	22,306	6,517	22,306	6,517

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) Turlock's projected volume of groundwater available is estimated to be the maximum annual groundwater volume pumped in the past five years plus additional capacity from Turlock's future groundwater supply projects identified in DWR Table 6-7R. These future projects include constructing six new wells with treatment by 2040.

(b) Turlock's projected volume of purchased water available from SRWA in 2030, 2035, and 2040 assumes a 13.3 MGD allocation for Turlock, based on the WTP's re-rated capacity of 19.9 MGD. Phase 2 expansion of the SRWA WTP from 19.9 MGD to 30 MGD total capacity is assumed to occur in 2041. The Phase 2 expansion yields an allocation of 20 MGD to Turlock in 2045 and 2050; total volume available is limited by Turlock's two-thirds allocation of the maximum annual water supply available per the Water Sales Agreement (9,776 MG). Buildout expansion of the WTP to 45 MGD is not planned within this UWMP planning horizon.

(c) Wastewater and recycled water flow projections through 2050 are not available. Volumes presented are based on projected recycled water demands. Actual recycled water supply availability may vary.

**Submittal Table 6-9 Wholesale: Water Supplies — Projected
Water Code Section 10631 (b)**

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below	Reasonably Available Volume (MG)	Total Entitlement (OPTIONAL) See 'DWR Notes' below
Surface water (not desalinated)	Surface water diverted from Tuolumne River per long-term transfer with TID	Potable	7,264	9,776	7,264	9,776	7,264	9,776	9,580	9,776	9,580	9,776
Subtotal Potable			7,264	9,776	7,264	9,776	7,264	9,776	9,580	9,776	9,580	9,776
Subtotal Non-Potable			0	0	0	0	0	0	0	0	0	0
Total			7,264	9,776	7,264	9,776	7,264	9,776	9,580	9,776	9,580	9,776

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 a Submittal Table 2-3.

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

NOTES: Reasonably available volume is based on the limiting factor of either 1) WTP capacity or 2) normal-year water allocation between SRWA and TID. Projected volume of surface water available in 2030 through 2040 is based on the WTP's capacity of 19.9 MGD, assuming that the filter re-rating study is completed in 2027. The Phase 2 WTP expansion from 19.9 MGD to 30 MGD total capacity is projected to occur between 2041 and 2045. In 2045 and 2050, reasonably available volume is limited by the normal-year water allocation between SRWA and TID, which is expected to be 98 percent of total volume requested. Refer to Chapter 7 for more information.

Optional Submittal Table O-1A: Recommended Energy Reporting - SINGLE DELIVERY PRODUCT - WATER SUPPLY PROCESS APPROACH

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Wholesale Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control							
Start Date of Reporting Period	1/1/2025	Water Management Process						Non-Consequential Hydropower (if applicable)	
End Date of Reporting Period	12/31/2025								
Is upstream embedded energy included in the values reported?	No								
	Units for Water Volume	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility See DWR NOTES	Hydropower	Net Utility
Volume of Water Entering Process	MG	3,517		3,517	3,517		3,517		3,517
Energy Consumed (kWh)	N/A	1,613,600		2,037,863	721,600		4,373,063		4,373,063
Energy Intensity (kWh/vol. converted to MG)	N/A	459	0	579	205	0	1,243	0	1,243
DWR NOTES: Total Utility: The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.									
Quantity of Self-Generated Renewable Energy									
0 kWh									
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)									
Metered Data									
Data Quality Narrative:									
Energy consumption is based on monthly metered electric bills through Turlock Irrigation District (TID) during calendar year 2025. Values are based on energy consumed at SRWA's WTP, including the raw water pump station (shown in the "Extract and Divert" column), treatment system (shown in the "Treatment" column), and finished water pump station (shown in the "Conveyance" column). Volume of water entering process is based on SRWA's total water sales to the Cities of Turlock and Ceres, consistent with DWR Table 4-1 Wholesale.									
Narrative:									
SRWA's WTP includes a raw water pump station that extracts raw water from the Tuolumne River via an infiltration gallery. Raw water is then treated, and then pumped via finished water pump stations to the Cities of Turlock and Ceres' terminal reservoirs.									
NOTES:									

Optional Submittal Table O-1B: Recommended Energy Reporting - SINGLE DELIVERY PRODUCT - TOTAL UTILITY APPROACH

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Retail Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control		
Start Date of Reporting Period	1/1/2025	Sum of All Water Management Processes	Non-Consequential Hydropower	
End Date of Reporting Period	12/31/2025			
Is upstream embedded energy in the values reported?	No			
Units of Measure for Water	MG	Total Utility See DWR NOTES	Hydropower	Net Utility
Volume of Water Entering Process		4,042	-	4,042
Energy Consumed (kWh)		7,718,708	-	7,718,708
Energy Intensity (kWh/vol. converted to MG)		1,910		1,910

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

Quantity of Self-Generated Renewable Energy
 0 kWh

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

Data Quality Narrative:
 Energy consumption is based on Turlock's monthly metered electric bills through Turlock Irrigation District (TID) during calendar year 2025. Energy usage includes energy consumed at all of Turlock's active groundwater well sites, which may also include some energy used by the wellhead treatment systems in place at some well sites and other remote telemetry units (RTUs). Energy usage also includes energy consumed at Turlock's four booster pump stations that pump out of Turlock's storage reservoirs, including the Terminal Reservoir. Volume of water entering process is based on Turlock's total potable groundwater volume pumped in 2025, consistent with DWR Table 6-1 Retail. Energy use shown does not include energy consumed at the SRWA WTP or for conveying surface water from the SRWA WTP to Turlock's Terminal Reservoir.

Narrative:
 Energy consumed includes energy used by City of Turlock for water storage, conveyance, treatment, and distribution of groundwater. Energy consumed and volume of water entering process is based only on groundwater and does not include purchased surface water from SRWA.

NOTES:

Optional Submittal Table O-2: Recommended Energy Reporting - WASTEWATER AND RECYCLED WATER					
Start Date of Reporting Period	1/1/2025	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	MG	Collection / Conveyance	Treatment	Discharge / Distribution	Total
Volume of Wastewater Entering Process (volume units selected above)		3,902	3,902	3,902	11,706
Wastewater Energy Consumed (kWh)		461,525	16,224,257	486,823	17,172,605
Wastewater Energy Intensity (kWh/volume converted to MG)		118	4,158	125	1,467
Volume of Recycled Water Entering Process (volume units selected above)		-	-	-	-
Recycled Water Energy Consumed (kWh)		-	-	-	-
Recycled Water Energy Intensity (kWh/volume converted to MG)		-	-	-	-
Quantity of Self-Generated Renewable Energy related to recycled water and wastewater operations					
<input type="text" value="0"/> kWh					
Data Quality (drop down)					
<input type="text" value="Metered Data"/>					
Data Quality Narrative:					
Energy consumption is based on metered Turlock Irrigation District (TID) billing records for wastewater collection (i.e., sanitary sewer lift stations), treatment facilities, and discharge facilities for Calendar Year 2025. Wastewater volumes are based on metered effluent flow records.					
Narrative:					
Turlock's wastewater collection/conveyance involves the use of sanitary sewer lift stations, which convey wastewater to Turlock's Regional Water Quality Control Facility (RWQCF). After treatment at the RWQCF, treated effluent is discharged, with most effluent pumped to the Delta-Mendota Canal as part of the North Valley Program, and a smaller amount of effluent used as recycled water within Turlock's water service area.					
NOTES:					

Optional Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2024-2025, use 2025	Available Supplies if Year Type Repeats	
		<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: Section 7.2.1.2, Table 7-5 (DWR Table 7-1 Wholesale)
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (MG)	% of Average Supply
Average Year			100%
Single-Dry Year			
Consecutive Dry			
Consecutive Dry			
Consecutive Dry			
Consecutive Dry			
Consecutive Dry			
<p>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.</p> <p>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.</p>			
<p>NOTES:</p>			

OPTIONAL Submittal Table 7-1 Wholesale: 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 type="checkbox"/>	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: [insert location from UWMP]
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (MG)	% of Average Supply
Average Year	2010-2025	9,580	100%
Single-Dry Year	2015	3,666	38%
Consecutive Dry Years 1st Year	2012	6,110	64%
Consecutive Dry Years 2nd Year	2013	6,924	72%
Consecutive Dry Years 3rd Year	2014	4,073	43%
Consecutive Dry Years 4th Year	2015	3,666	38%
Consecutive Dry Years 5th Year	2016	7,332	77%

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 W 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 W, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 W 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 unit of measure selected in Submittal Table 2-3.

NOTES: Actual surface water volume currently available is lower based on SRWA's current water treatment plant capacity (i.e. 5,475 MG). By 2028, the treatment plant capacity is expected to increase to 7,264 MG following the filter re-rating study and the capacity is expected to increase to 9,580 MG by 2045 following the Phase 2 expansion as discussed in Chapter 6 and shown in Table 6-18 (DWR Table 6-9 Wholesale).

OPTIONAL Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison - POTABLE

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 R)	12,868	12,868	16,007	17,682	17,682
Use totals (autofill from Submittal Table 4-2 R)	6,895	7,644	8,393	9,142	9,892
Surplus/(shortfall)	5,973	5,224	7,614	8,540	7,791

NOTES: Projected supply includes both treated groundwater and surface water supplies, as defined in DWR Table 6-9 Retail. Increasing supply totals reflect Turlock and SRWA's future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands.

OPTIONAL Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison - NON-POTABLE

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 R)	4,624	4,624	4,624	4,624	4,624
Use totals (autofill from Submittal Table 4-2 R)	480	480	480	480	480
Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144

NOTES: Non-potable supply includes both Turlock's raw (untreated) groundwater and recycled water. Non-potable use shown includes only uses within Turlock's water service area. Remaining non-potable supply (recycled water) is exported outside of the service area for agricultural irrigation.

**Submittal Table 7-2 Wholesale: Normal Year Supply and Use Comparison
Water Code Section 10635 (a)**

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals (autofill from Submittal Table 6-9 W)	7,264	7,264	7,264	9,580	9,580
Use totals (see OPTIONAL Submittal Table 4-2 W)	4,322	4,939	5,545	6,227	6,691
Surplus/(shortfall)	2,942	2,324	1,719	3,353	2,890

NOTES: Projected wholesale supply available during normal year conditions is based on Table 6-18 (DWR Table 6-9 Wholesale). Projected wholesale use is based on the Cities of Turlock and Ceres' projected surface water use defined in Table 4-5 (DWR Table 4-2 Wholesale). Actual surface water supply availability and purchases may vary based on hydrologic condition, timing of future SRWA projects, and retail demands.

OPTIONAL Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison - POTABLE

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	9,866	9,866	13,005	13,641	13,641
Use totals	6,895	7,644	8,393	9,142	9,892
Surplus/(shortfall)	2,971	2,222	4,612	4,499	3,750

NOTES: Supply totals includes both Turlock's groundwater and surface water allocation expected during a single dry year. Under a single dry year, it is conservatively assumed that Turlock may receive only 38 percent of its requested surface water allocation from TID (refer to Table 7-3). Potable use totals are defined in DWR Table 7-2 Retail (Potable). Groundwater supply is not restricted during dry years. Increasing supply totals through 2050 reflect Turlock and SRWA's future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands.

OPTIONAL Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison - NON-POTABLE

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	4,624	4,624	4,624	4,624	4,624
Use totals	480	480	480	480	480
Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144

NOTES: Non-potable supply includes both Turlock's raw (untreated) groundwater and recycled water. Non-potable supplies are not anticipated to be reduced during dry years. Non-potable use shown includes only uses within Turlock's water service area. Remaining non-potable supply (recycled water) is exported outside of the service area for agricultural irrigation.

**Submittal Table 7-3 Wholesale: Single Dry Year Supply and Use Comparison
Water Code Section 10635(a)**

	2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
Supply totals	2,760	2,760	2,760	3,715	3,715
Use totals	4,322	4,939	5,545	6,227	6,691
Surplus/(shortfall)	(1,562)	(2,179)	(2,785)	(2,512)	(2,976)

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

NOTES: Under a single dry year, it is conservatively assumed that SRWA may receive only 38 percent of its requested surface water allocation from TID (refer to Table 7-5 [DWR Table 7-1 Wholesale]). The shortfall in surface water supply will be met by the Cities of Turlock and Ceres' groundwater wells.

OPTIONAL Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison - POTABLE						
		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	11,077	11,077	14,216	15,271	15,271
	Use totals	6,895	7,644	8,393	9,142	9,892
	Surplus/(shortfall)	4,182	3,433	5,822	6,129	5,379
Second year	Supply totals	11,464	11,464	15,792	15,792	15,792
	Use totals	7,045	7,794	8,543	9,292	9,892
	Surplus/(shortfall)	4,419	3,670	7,249	6,500	5,901
Third year	Supply totals	10,060	10,060	13,902	13,902	13,902
	Use totals	7,194	7,944	8,693	9,442	9,892
	Surplus/(shortfall)	2,865	2,116	5,209	4,460	4,011
Fourth year	Supply totals	9,866	13,005	13,641	13,641	13,641
	Use totals	7,344	8,093	8,843	9,592	9,892
	Surplus/(shortfall)	2,522	4,912	4,799	4,050	3,750
Fifth year	Supply totals	11,658	14,797	16,053	16,053	16,053
	Use totals	7,494	8,243	8,992	9,742	9,892
	Surplus/(shortfall)	4,164	6,553	7,060	6,311	6,161
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES: Increasing supply totals reflect Turlock and SRWA's future water supply projects, as defined in Chapter 6, that are needed to maintain adequate supply capacity to meet peak demands. The SRWA WTP Phase 2 Expansion is anticipated in 2041 for the purposes of this table, which will increase the WTP capacity from 19.9 MGD to 30 MGD.						

OPTIONAL Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison - NON-POTABLE						
		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Second year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Third year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Fourth year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
Fifth year	Supply totals	4,624	4,624	4,624	4,624	4,624
	Use totals	480	480	480	480	480
	Surplus/(shortfall)	4,144	4,144	4,144	4,144	4,144
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						

Submittal Table 7-4 Wholesale: Multiple Dry Years Supply and Use Comparison
Water Code Section 10635(a)

		2030 (MG)	2035 (MG)	2040 (MG)	2045 (MG)	2050 (MG)
First year	Supply totals	4,576	4,576	4,576	6,159	6,159
	Use totals	4,322	4,939	5,545	6,227	6,691
	Surplus/(shortfall)	254	(363)	(969)	(68)	(532)
Second year	Supply totals	5,157	5,157	6,941	6,941	6,941
	Use totals	4,445	5,060	5,681	6,320	6,691
	Surplus/(shortfall)	712	97	1,260	621	250
Third year	Supply totals	3,051	3,051	4,106	4,106	4,106
	Use totals	4,569	5,181	5,818	6,413	6,691
	Surplus/(shortfall)	(1,518)	(2,131)	(1,712)	(2,307)	(2,585)
Fourth year	Supply totals	2,760	2,760	3,715	3,715	3,715
	Use totals	4,692	5,303	5,954	6,505	6,691
	Surplus/(shortfall)	(1,932)	(2,542)	(2,239)	(2,791)	(2,976)
Fifth year	Supply totals	5,448	5,448	7,332	7,332	7,332
	Use totals	4,816	5,424	6,091	6,598	6,691
	Surplus/(shortfall)	632	24	1,241	734	641

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

NOTES: Per DWR Table 6-7 Wholesale, the SRWA WTP Phase 2 Expansion to 30 MGD capacity is anticipated between 2041 to 2045. For the purposes of this table, it is assumed to be completed in 2041.

OPTIONAL Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment - POTABLE

2026	Total
Total Water Use (MG)	6,295
Total Supplies (MG)	8,756
Surplus/Shortfall w/o WSCP Action	2,461
2027	Total
Total Water Use (MG)	6,445
Total Supplies (MG)	9,894
Surplus/Shortfall w/o WSCP Action	3,450
2028	Total
Total Water Use (MG)	6,595
Total Supplies (MG)	10,060
Surplus/Shortfall w/o WSCP Action	3,465
2029	Total
Total Water Use (MG)	6,745
Total Supplies (MG)	9,866
Surplus/Shortfall w/o WSCP Action	3,121
2030	Total
Total Water Use (MG)	6,895
Total Supplies (MG)	11,658
Surplus/Shortfall w/o WSCP Action	4,763

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

NOTES:

**OPTIONAL Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment
- NON-POTABLE**

2026	Total
Total Water Use (MG)	480
Total Supplies (MG)	4,624
Surplus/Shortfall w/o WSCP Action	4,144
2027	Total
Total Water Use (MG)	480
Total Supplies (MG)	4,624
Surplus/Shortfall w/o WSCP Action	4,144
2028	Total
Total Water Use (MG)	480
Total Supplies (MG)	4,624
Surplus/Shortfall w/o WSCP Action	4,144
2029	Total
Total Water Use (MG)	480
Total Supplies (MG)	4,624
Surplus/Shortfall w/o WSCP Action	4,144
2030	Total
Total Water Use (MG)	480
Total Supplies (MG)	4,624
Surplus/Shortfall w/o WSCP Action	4,144

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

NOTES:

OPTIONAL Submittal Table 7-5 Wholesale: Five-Year Drought Risk Assessment - POTABLE	
2026	Total
Total Water Use (MG)	3,659
Total Supplies (MG)	3,449
Surplus/Shortfall w/o WSCP Action	(210)
2027	Total
Total Water Use (MG)	3,808
Total Supplies (MG)	5,157
Surplus/Shortfall w/o WSCP Action	1,349
2028	Total
Total Water Use (MG)	3,950
Total Supplies (MG)	3,051
Surplus/Shortfall w/o WSCP Action	(899)
2029	Total
Total Water Use (MG)	4,131
Total Supplies (MG)	2,760
Surplus/Shortfall w/o WSCP Action	(1,370)
2030	Total
Total Water Use (MG)	4,322
Total Supplies (MG)	5,448
Surplus/Shortfall w/o WSCP Action	1,126
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

**Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels
Water Code Section 10632(a)(3)(B)**

<input checked="" type="checkbox"/>	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
1	Up to 10%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		
NOTES:			

**Submittal Table 8-2 Retail: Supply Augmentation and Other Actions
Water Code Section 10632(a)(4)(A),(C) and (E)**

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (MG)	
3	Other Actions (describe)	Volume	390-1,560	Rehabilitate existing wells, increase pumping of existing production wells, or install new production wells.

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

NOTES: Volume of supplemental groundwater assumes construction or rehabilitation of one to four potable groundwater wells, each with a capacity of 1,000 gallons per minute, and assuming a run time of 75 percent throughout the year.

Submittal Table 8-3 Retail: Demand Reduction Actions					
Water Code Section 10632(a)(4)(B),(D), and (E)					
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) (MG)		
1	Expand Public Information Campaign	Percentage	5-20%	Up to 5-20% water demand reduction anticipated depending on shortage level and extent of public information campaign.	No
1	Reduce System Water Loss	Percentage	5-10%	The City is actively working to reduce water loss (real and apparent losses) as described in Chapter 9 of the City's Joint UWMP.	No
1	Increase Water Waste Patrols	Percentage	0-10%	Up to 10% water demand reduction anticipated depending on shortage level and amount of enforcement.	Yes
1	Landscape - Limit landscape irrigation to specific days	Percentage	0-5%	Turlock Municipal Code: 6-7-405(a)(1); Outdoor landscape watering shall be limited to three (3) times per week on an odd-even basis. If the address ends in an even number, the watering days shall be Tuesdays, Thursdays, and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays, Fridays, and Sundays. No outdoor landscape watering on Mondays. Drip irrigation systems shall be exempt.	Yes
1	Landscape - Limit landscape irrigation to specific times	Percentage	0-5%	Turlock Municipal Code: 6-7-405(a)(2); Outdoor landscape watering is prohibited between the hours of 9:00 a.m. and 9:00 p.m.	Yes
1	CII - Other CII restriction or prohibition	Percentage	0-10%	Turlock Municipal Code: 6-7-405(a)(3); Large commercial landscapes and City parks may have individual watering schedules approved by the Municipal Services Department.	Yes
1	Other - Require automatic shut of hoses	Percentage	0-5%	Turlock Municipal Code: 6-7-302(d); Residential vehicle washing requires a quick-acting automatic positive shut-off valve and is limited to one washing per week during designated watering times.	Yes
2	Landscape - Limit landscape irrigation to specific days	Percentage	5-10%	Turlock Municipal Code: 6-7-405(b)(1); Outdoor landscape watering shall be limited to two (2) times per week on an odd-even basis. If the address ends in an even number, the watering days shall be Tuesdays and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays and Sundays. No outdoor landscape watering on Monday, Thursday, and Friday. Drip irrigation systems shall be exempt.	Yes
2	CII - Other CII restriction or prohibition	Percentage	0-10%	Turlock Municipal Code: 6-7-405(b)(2); Large commercial landscapes and City parks limited to irrigation two days per week.	Yes
3	Landscape - Limit landscape irrigation to specific days	Percentage	5-15%	Turlock Municipal Code: 6-7-405(c)(1); Outdoor landscape watering shall be limited to one (1) day per week on an odd-even basis. If the address ends in an even number, the watering day shall be Saturdays. If the address ends in an odd number, the watering day shall be Sundays. No outdoor landscape watering Monday through Friday. Drip irrigation systems shall be exempt.	Yes
3	CII - Other CII restriction or prohibition	Percentage	5-10%	Turlock Municipal Code: 6-7-405(c)(2); Large commercial landscapes and City parks limited to irrigation one day per week.	Yes
3	Other - Prohibit use of potable water for construction and dust control	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(3); Construction water from City fire hydrants shall be banned but recycled water from the City's Regional Water Quality Control Facility may be made available for construction water purposes.	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(5); Further use of decorative fountains or reflection ponds shall be discontinued until further notice.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(4); Washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial car washes and commercial service stations and not in immediate interest of the public health, safety, and welfare shall be prohibited.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	Percentage	5-15%	Turlock Municipal Code: 6-7-405(d)(1); Outdoor landscape watering shall be limited to one (1) day per week, for trees only, only if a quick-acting automatic positive shut-off valve is used and in proper operating condition.	Yes
5	CII - Other CII restriction or prohibition	Percentage	5-10%	Turlock Municipal Code: 6-7-405(e)(1); Large commercial landscapes and City parks limited to irrigation one day per month.	Yes
6	Landscape - Prohibit all landscape irrigation	Percentage	10-25%	Turlock Municipal Code: 6-7-405(f)(2); Outdoor landscape watering shall be prohibited.	Yes
6	CII - Other CII restriction or prohibition	Percentage	15-20%	Turlock Municipal Code: 6-7-405(f)(1); Industry and commercial businesses shall be required to curtail consumption in order to maintain adequate supplies of water for health and safety.	Yes
6	Other water feature or swimming pool restriction	Percentage	0-5%	Turlock Municipal Code: 6-7-405(f)(3); Filling newly constructed or drained swimming pools with City water shall be prohibited.	Yes

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

NOTES:

**Submittal Table 10-1 Retail: Notification to Cities and Counties
Water Code Section 10621(b) and 10642**

City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
City of Turlock	Yes	Yes
City of Ceres	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Stanislaus County	Yes	Yes
NOTES:		

**Submittal Table 10-1 Wholesale: Notification to Cities and Counties
Water Code Section 10621(b) and 10642**

<input type="checkbox"/>	Check the box if the Supplier has notified more than 10 cities or counties. Completion of the table below is not required. Provide a separate list of the cities and counties that were notified.	
	Provide the page or location of this list in the UWMP.	
<input checked="" type="checkbox"/>	Check the box if the Supplier has notified 10 or fewer cities or counties. Complete the table below.	
City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
City of Turlock	Yes	Yes
City of Ceres	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Stanislaus County	Yes	Yes
NOTES:		

DWR 2025 Urban Water Management Plan Checklist

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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	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	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	Section 2.1
x	n/a	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	2-1R	Section 2.1
x	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 2.3
x	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 2.4
x	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 2.5.2 and Appendix D

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	n/a	Section 2.5
x	n/a	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 2.5.1
n/a	x	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan Preparation	2-4 W	Section 2.5.1
x	x	Chapter 3.0	10631(a)	Describe the Supplier service area.	System Description	n/a	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System Description	n/a	Section 3.3
x	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	3-1R, 3-1W	Section 3.4.1
x	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	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

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Optional	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	4-1R, 4-1W, 4-2R, 4-2W	Sections 4.2
x	Optional	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	4-5R	Section 4.3 and Appendix F
x	n/a	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System Water Use	4-6R	Section 4.3
x	n/a	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	n/a	Section 4.2.6
x	n/a	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	n/a	Section 4.2.3
x	n/a	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	n/a	Section 4.2.3
x	n/a	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	4-3R	Section 4.2.5
x	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 4.2.4 and 4.4
n/a	x	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and Targets	n/a	Section 9.1

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 5.2	10608.4	<p>Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier:</p> <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. <p>Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.</p>	Baselines and Targets	5-1	Section 5-2
x	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	Section 6-1
x	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 6.1, 6.2, , 6.3, 6.4, 6.5, 6.6, 6.7, 6.11 and 7.2
x	x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water... (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water Supplies and Recycled Water	6-1R and 6-1W	Section 6.1 and 6.2

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	n/a	Section 6.2.1
x	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 6.2.2
x	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 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins... describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water Supplies and Recycled Water	n/a	Section 6.2.2
x	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	6-1R and 6-1W	Section 6.2.6
x	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	n/a	Section 6.2.7 and UWMP Table 6-4

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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	6-8R and 6-9R; 6-8W and 6-9W	Section 6.10
x	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 6.3
x	n/a	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)	6-2R, 6-3R, and 6-3W	Section 6.7.2
x	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)	n/a	Section 6.7.2.2
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System Supplies (Recycled Water)	6-5R	Section 6.7.3 and 6.7.4
x	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)	6-4R	Section 6.7.4
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	6-4R, 6-4W, 6-5R, and 6-5W	Section 6.7.4
x	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)	6-6R	Section 6.7.5

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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 6.7.5
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	n/a	Section 6.8
x	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	6-7R and 6-7W	Section 6.9 and 7.4
x	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-1AR, O-1AW, and O-2	Section 6.12
x		Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water Supply Reliability Assessment	n/a	Section 7.1.1, 7.1.2
x	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	7-1R, 7-1W 7-2R, 7-2W, 7-3R, 7-3W, 7-4R, 7-4W	Section 7.2
x	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 7.4
x	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

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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	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	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	7-5R and 7-5W	Section 7.3.3
x	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 and 7.2
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	n/a	Section 8.2; Appendix G Turlock WSCP; Appendix H - SRWA WSCP
x	x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water Shortage Contingency Planning	n/a	Section 8.3; Appendix G: Turlock WSCP - Section 2.0; Appendix H: SRWA WSCP - Section 1.0

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 3.1; Appendix H: SRWA WSCP - Section 2.1
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 3.2; Appendix H: SRWA WSCP - Section 2.2
x	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	Turlock WSCP: 8-1; SRWA WSCP: 8-1	Appendix G: Turlock WSCP - Section 4.0; Appendix H: SRWA WSCP - Section 3.0
x	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	n/a	n/a; SRWA and Turlock use the six standard water shortage level categories

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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	Turlock WSCP: 8-2 ¹	Appendix G: Turlock WSCP - Section 5.3; Appendix H: SRWA WSCP - Section 4.3
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Turlock WSCP: 8-3; SRWA WSCP: 8-3 ²	Appendix G: Turlock WSCP - Sections 5.1; Appendix H: SRWA WSCP - Sections 4.1
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Turlock WSCP: 8-2 ³	Appendix G: Turlock WSCP - Section 5.4; Appendix H: SRWA WSCP - Section 4.4

¹ The SRWA WSCP was prepared under the 2020 Urban Water Management Plan Guidebook and was determined complete by DWR during review. It has not been revised. Locally appropriate supply augmentation actions are described in the narrative.

² The SRWA WSCP was prepared under the 2020 Urban Water Management Plan Guidebook and was not revised. The listed Relevant Submittal Table 8-3 herein is the 2025 DWR Reporting Submittal Table, which is equivalent to Submittal Table 8-2 from the 2020 DWR Reporting workbook.

³ The SRWA WSCP was prepared under the 2020 Urban Water Management Plan Guidebook and was determined complete by DWR during review. It has not been revised. Locally appropriate operational changes are described in the narrative.

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 5.2; Appendix H: SRWA WSCP - Section 4.2
x	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	Turlock WSCP: 8-2 and 8.3; SRWA WSCP: 8-3	Appendix G: Turlock WSCP - Section 5.0; Appendix H: SRWA WSCP - Section 4.0
x	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 8.3.1
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 6.0; Appendix H: SRWA WSCP - Section 5.0
x	x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 6.0; Appendix H: SRWA WSCP - Section 5.0
x	n/a	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 7.0

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 8.0; Appendix H: SRWA WSCP - Section 7.0
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. Water Shortage Emergencies.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 8.0; Appendix H: SRWA WSCP - Section 7.0
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 8.0; Appendix H: SRWA WSCP - Section 7.0
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 9.0; Appendix H: SRWA WSCP - Section 8.0
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 9.0; Appendix H: SRWA WSCP - Section 8.0

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, Excessive Residential Water Use During Drought.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 9.0; Appendix H: SRWA WSCP - Section 8.0
x	n/a	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 10.0; Appendix H: SRWA WSCP - Section 9.0
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 11.0; Appendix H: SRWA WSCP - Section 10.0
x	n/a	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	n/a	Appendix G: Turlock WSCP - Section 5.2.1; Appendix H: SRWA WSCP - Section 11.0
x	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	Appendix G: Turlock WSCP - Section 12.0; Appendix H: SRWA WSCP - Section 12.0

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	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 9.2
n/a	x	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand Management Measures	n/a	Section 9.1
x	n/a	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	n/a	Section 10.3
x	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, 10-2	Section 10.2.1
x	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	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	Section 10.5; Appendix D
x	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, 10-2	Section 10.3 and Appendix D

Appendix C UWMP Checklist



Retail x = required	Wholesale x = required	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	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 and Appendix I
x	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	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 10.5
x	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 10.5
x	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 and Appendix G, Section 12.0
x	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	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 and Appendix G, Section 12.0
x	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

**SRWA and City of Turlock Joint 2025 Urban Water Management Plan:
Agencies Contacted for 60-Day Notice of Preparation and Notice of Public Hearing**

Agency	Name and Position, if applicable
East Stanislaus Integrated Regional Water Management	Jim Alves, Senior Civil Engineer at City of Modesto
Del Puerto Water District	Anthea G. Hansen, General Manager
Merced County	Yorel Ackerman, Deputy Director of Public Works
Turlock Irrigation District	Brad Koehn, General Manager
City of Modesto	Joseph Lopez, City Manager
City of Hughson	Dominique Romo, City Manager
Eastside Water District	Tim Johnson, Chairman
Denair CSD	TJ McDonald, Chairman
Keyes CSD	Ernie Garza, General Manager
Stanislaus County Public Works Department	David Leamon, Director of Public Works
California State University Stanislaus	N/A (General Agency Contact)
Merced Irrigation District	Hicham ElTal, Deputy General Manager, Water Supply/Rights
Modesto Irrigation District	Jimi Netniss, General Manager
East Turlock GSA and West Turlock GSA	N/A (General Agency Contact)
Hilmar County Water District	Curtis Jorritsma, District Manager



Stanislaus Regional Water Authority and City of Turlock
156 S. Broadway, Ste. 270
Turlock, CA 95380
P: 209-668-4142 F:209-668-5695

December 22, 2025

SUBJECT: Preparation of Joint 2025 Urban Water Management Plan and City of Turlock Water Shortage Contingency Plan

To Whom it May Concern:

This letter is to notify you that the Stanislaus Regional Water Authority (SRWA) and City of Turlock are currently in the process of preparing their Joint 2025 Urban Water Management Plan (UWMP) and the City of Turlock is in the process of updating its Water Shortage Contingency Plan (WSCP).

The Urban Water Management Planning Act, Water Code Section 10610 et seq., requires every urban water supplier 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 to prepare and adopt an UWMP and periodically update that plan at least every five years. SRWA's and the City of Turlock's Joint UWMP is required to be submitted to the California Department of Water Resources (DWR) by July 1, 2026. The inclusion of a WSCP for each water supplier is a required element of the UWMP per DWR's UWMP Guidebook 2025.

The UWMP is a planning document and a source document which reports, describes, and evaluates water deliveries and uses, water supply sources, and conservation efforts. The WSCP provides a plan for response to various water supply shortage conditions. As urban water suppliers, SRWA and the City of Turlock are coordinating with water management agencies, relevant public agencies, and other water suppliers on the preparation of the UWMP.

If you wish to contact SRWA and/or the City of Turlock about their review process, you may email CFisher@turlock.ca.us. Thank you.

Sincerely,

A handwritten signature in blue ink that reads "Christopher Fisher".

Christopher Fisher
General Manager, Stanislaus Regional Water Authority
Municipal Services Director, City of Turlock



Stanislaus Regional Water Authority and City of Turlock
156 S. Broadway, Ste. 270
Turlock, CA 95380
P: 209-668-4142 F:209-668-5695

May 6, 2026

Re: Notice of Public Hearing for Joint 2025 Urban Water Management Plan and City of Turlock Water Shortage Contingency Plan

To Whom it May Concern,

This letter is to notify you that the Stanislaus Regional Water Authority (SRWA) Board of Directors and the Turlock City Council will hold the following public hearings to discuss the draft SRWA/Turlock Joint 2025 Urban Water Management Plan (UWMP). The Turlock City Council will also hold a public hearing to discuss the City's draft Water Shortage Contingency Plan (WSCP). It is anticipated that the SRWA Board will formally adopt the Joint 2025 UWMP following the public hearing at the Board meeting. Similarly, it is anticipated that the Turlock City Council will formally adopt the Joint 2025 UWMP and WSCP following the public hearings at the City Council meeting.

The SRWA public hearing to consider the adoption of the Joint 2025 UWMP is scheduled for May 21, 2026 at 12:00 pm at the SRWA Water Treatment Plant (1235 Aldrich Road, Hughson, CA 95326).

The City of Turlock public hearing to consider the adoption of the Joint 2025 UWMP and the City's WSCP is scheduled for May 26, 2026 at 6:00 pm Turlock City Hall, City Council Chambers (156 S. Broadway, Turlock, CA 95380).

The WSCP will be considered by the City of Turlock only and not by SRWA.

The Urban Water Management Planning Act, Water Code Section 10610 et seq., requires every urban water supplier 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 to prepare and adopt an UWMP and periodically update that plan at least every five years. SRWA's 2020 UWMP was adopted in October 2024. The City of Turlock's 2020 UWMP and WSCP were adopted in May 2021. The SRWA/Turlock Joint 2025 UWMP is required to be submitted to the California Department of Water Resources (DWR) by July 1, 2026. WSCPs for both SRWA and the City are required to be included in the UWMP per DWR's UWMP Guidebook 2025. SRWA's WSCP adopted in October 2024 is planned to be included in the SRWA/Turlock Joint 2025 UWMP and the City of Turlock's WSCP, anticipated for adoption concurrent with the SRWA/Turlock Joint 2025 UWMP, is also planned to be included in the SRWA/Turlock Joint 2025 UWMP.

The UWMP is a planning document and a source document which reports, describes, and evaluates water deliveries and uses, water supply sources, and conservation efforts. The WSCP provides a plan for response to various water supply shortage conditions. As urban water suppliers, SRWA and the City of Turlock are coordinating with water management agencies, relevant public agencies, and other water suppliers on the preparation of the UWMP.

If you wish to make a public comment at either of these meetings, please attend to provide verbal public comment.

The Draft SRWA/Turlock Joint 2025 UWMP and Draft Turlock WSCP will be available for public review on or before May 7, 2026, and will remain available through the conclusion of the public hearings. The Draft SRWA/Turlock Joint 2025 UWMP can be viewed on the following websites:

www.stanrwa.com

www.cityofturlock.org

The Draft Turlock WSCP can be viewed on the City of Turlock's website:

www.cityofturlock.org

For questions or more information on the Draft UWMP and WSCP, please contact Christopher Fisher, Municipal Services Director for the City of Turlock and General Manager for the Stanislaus Regional Water Authority, at cfisher@turlock.ca.us.

Challenges in court to any of the items identified in this public notice may be limited to only those issues raised at the public hearings described in this notice or in written correspondence delivered to the respective governing bodies at, or prior to, the public hearings.

Sincerely,

A handwritten signature in blue ink that reads "Christopher Fisher". The signature is written in a cursive style.

Christopher Fisher
General Manager, Stanislaus Regional Water Authority
Municipal Services Director, City of Turlock

When recorded mail to:

WEST YOST
2020 RESEARCH PARK DR, SUITE 100
DAVIS, CA 95618

PROOF OF PUBLICATION

(2015.5 C. C. P.)

STATE OF CALIFORNIA,

County of Stanislaus

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of twenty-one years, and not a party to or interested in the above entitled matter. I am the principal clerk of THE TURLOCK JOURNAL, 603 W F Street, Oakdale, California, a newspaper of general circulation, published in Turlock, California in the City of Turlock, County of Stanislaus, and which newspaper has been adjudged a Newspaper of general circulation, by the Superior Court of the County of Stanislaus, State of California. That the Notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

May 6, 13, 20, 2026

I certify or declare under penalty of perjury that the foregoing is true and correct.

Dated at Oakdale, California

This 20th day of May, 2026

Michelle Kendry

Signature

This space is for the County Clerk's Filing Stamp

Proof of Publication of PUBLIC HEARING

PUBLIC NOTICE NOTICE OF PUBLIC HEARINGS BY THE STANISLAUS REGIONAL WATER AUTHORITY AND THE CITY OF TURLOCK

California law requires urban water suppliers review and update their Urban Water Management Plan (UWMP) every five years. The Stanislaus Regional Water Authority (SRWA) and the City of Turlock have prepared a draft Joint 2025 UWMP. The City of Turlock has also drafted an update to its Water Shortage Contingency Plan (WSCP) - which will be included as an appendix to the Joint 2025 UWMP. Notice is hereby given that the SRWA and the City of Turlock will each hold separate public hearings to consider adoption of the Joint 2025 UWMP pursuant to the Urban Water Management Planning Act

(California Water Code Section 10610 et seq). Notice is also hereby given that the City of Turlock will hold a public hearing to consider adoption of its updated WSCP. STANISLAUS REGIONAL WATER

AUTHORITY PUBLIC HEARING
Date: Thursday, May 21, 2026 Time: 12:00 p.m. Location: SRWA Water Treatment Plant 1235 Aldrich Road, Hughson, CA 95326 to consider the adoption of the Joint 2025 UWMP.

CITY OF TURLOCK PUBLIC HEARING
Date: Tuesday, May 26, 2026 Time: 6:00 p.m. Location: Turlock City Hall, City Council Chambers 156 S. Broadway, Turlock, CA 95380 to consider the adoption of the Joint 2025 UWMP and the City's updated WSCP. The City's WSCP will be considered by the City of Turlock only and not by SRWA.

The Draft Joint 2025 UWMP and the City of Turlock's Draft WSCP will be available for public review on or before May 7, 2026, and will remain available through the conclusion of the public hearings. The Draft Joint 2025 UWMP can be viewed on the following websites: www.stanrwa.com www.cityofturlock.org The Draft Turlock WSCP can be viewed on the City of Turlock's website: www.cityofturlock.org

For questions or more information on the Draft UWMP or WSCP, please contact Christopher Fisher, Municipal Services Director for the City of Turlock and General Manager for the Stanislaus Regional Water Authority, at cfisher@turlock.ca.us.

If you wish to make a public comment on the Draft UWMP or WSCP, please attend the respective public hearings to provide verbal public comment.

Challenges in court to any of the items identified in this public notice may be limited to only those issues raised at the public hearings described in this notice or in written correspondence delivered to the respective governing bodies at, or prior to, the public hearings.

May 6, 13, 20, 2026

TJ#26-113

When recorded mail to:

WEST YOST
2020 RESEARCH PARK DR, SUITE 100
DAVIS, CA 95618

PROOF OF PUBLICATION

(2015.5 C. C. P.)

STATE OF CALIFORNIA,

County of Stanislaus

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of twenty-one years, and not a party to or interested in the above entitled matter. I am the principal clerk of THE CERES COURIER, 603 W F Street, Oakdale, California, a newspaper of general circulation, published in Ceres, California in the City of Ceres, County of Stanislaus, and which newspaper has been adjudged a Newspaper of general circulation, by the Superior Court of the County of Stanislaus, State of California. That the Notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

May 6, 13, 20, 2026

I certify or declare under penalty of perjury that the foregoing is true and correct.

Dated at Oakdale, California

This 20th day of May, 2026

Michelle Kendry

Signature

This space is for the County Clerk's Filing Stamp

Proof of Publication of PUBLIC NOTICE

PUBLIC NOTICE NOTICE OF PUBLIC HEARINGS BY THE STANISLAUS REGIONAL WATER AUTHORITY AND THE CITY OF TURLOCK

California law requires urban water suppliers review and update their Urban Water Management Plan (UWMP) every five years. The Stanislaus Regional Water Authority (SRWA) and the City of Turlock have prepared a draft Joint 2025 UWMP. The City of Turlock has also drafted an update to its Water Shortage Contingency Plan (WSCP) - which will be included as an appendix to the Joint 2025 UWMP.

Notice is hereby given that the SRWA and the City of Turlock will each hold separate public hearings to consider adoption of the Joint 2025 UWMP, pursuant to the Urban Water Management Planning Act (California Water Code Section 10610 et seq). Notice is also hereby given that the City of Turlock will hold a public hearing to consider adoption of its updated WSCP. STANISLAUS REGIONAL WATER AUTHORITY PUBLIC HEARING
Date: Thursday, May 21, 2026 Time: 12:00 p.m. Location: SRWA Water Treatment Plant 1235 Aldrich Road, Hughson, CA 95326 to consider the adoption of the Joint 2025 UWMP.

CITY OF TURLOCK PUBLIC HEARING
Date: Tuesday, May 26, 2026 Time: 6:00 p.m. Location: Turlock City Hall, City Council Chambers 156 S. Broadway, Turlock, CA 95380 to consider the adoption of the Joint 2025 UWMP and the City's updated WSCP. The City's WSCP will be considered by the City of Turlock only and not by SRWA.

The Draft Joint 2025 UWMP and the City of Turlock's Draft WSCP will be available for public review on or before May 7, 2026, and will remain available through the conclusion of the public hearings.

The Draft Joint 2025 UWMP can be viewed on the following websites: www.stanrwa.com www.cityofturlock.org

The Draft Turlock WSCP can be viewed on the City of Turlock's website: www.cityofturlock.org

For questions or more information on the Draft UWMP or WSCP, please contact Christopher Fisher, Municipal Services Director for the City of Turlock and General Manager for the Stanislaus Regional Water Authority, at cfisher@turlock.ca.us.

If you wish to make a public comment on the Draft UWMP or WSCP, please attend the respective public hearings to provide verbal public comment.

Challenges in court to any of the items identified in this public notice may be limited to only those issues raised at the public hearings described in this notice or in written correspondence delivered to the respective governing bodies at, or prior to, the public hearings.

May 6, 13, 20, 2026
CC#26-076



Appendix E

Water Sales Agreement

WATER SALES AGREEMENT

The Turlock Irrigation District (the "District"), and the Stanislaus Regional Water Authority, a California Joint Powers Authority ("SRWA") enter into this Water Sales Agreement ("Agreement") dated July 28, 2015, and agree as follows:

1. Definitions.

- (a) Board – The Board of Directors of the Turlock Irrigation District.
- (b) Closing Date - The date on which all approvals and permits under Sections 2(c), 2(d), and 4(m) have been obtain in accordance with those sections.
- (c) District Delivery Facilities – The raw water infiltration gallery, the raw water pump station, and the pipeline from the pump station to and including the delivery meter at the SRWA treatment plant. The District Delivery Facilities are solely owned by District.
- (d) District Delivery Facilities Capital Cost Allocation – Except as otherwise provided in this Agreement, the capital costs for existing and future District Delivery Facilities shall be allocated between the Parties as follows: District, Twenty Percent (20%); SRWA, Eighty Percent (80%).
- (e) Fish flow requirements – All requirements in the FERC hydroelectric license or in any other regulatory requirements and any other applicable agreements, licenses, permits, or governmental approvals, now or existing in the future relating to fish resources below Don Pedro Dam, including but not limited to the following: minimum fish flows requirements (e.g., existing FERC License Article 37), flow fluctuation limitations (e.g., existing FERC License Article 38), river water temperatures, ramping rates limitations, and fish studies. The SRWA acknowledges and understands that the ongoing FERC licensing process for the Don Pedro Project and the La Grange Project and regulatory proceedings at the State Water Resources Control Board could result in significant changes to the existing fish flow requirements.
- (f) Offset Water - Water provided by the SRWA to the District under Section 4(i) to offset the increased demand placed by the Project on TID water supplies.
- (g) Party - The SRWA or the District, or collectively, "Parties".
- (h) Point of Delivery - Defined in Section 4(a).
- (i) Project - The Project consists of all property and work desirable or necessary to design, build, operate, own and maintain a domestic water treatment plant and associated treated water transmission facilities, excluding the District Delivery Facilities.

- (j) Recycled water - Tertiary treated wastewater, which complies with all applicable laws and regulations for unrestricted agricultural use including, without limitation, use for row and feed crops and orchards.
- (k) Transfer Water - The amount of raw water required to be sold by District to SRWA in accordance with the terms and conditions of this Agreement, as set forth in Section 3(a) below.
- (l) Year - The twelve month period beginning April 1 through March 31 of the following year unless otherwise specified.

2. Overview.

- (a) Purpose. The purpose of this Agreement is to provide the terms and conditions under which the District will sell and deliver Transfer Water to the SRWA. The Parties have not committed to approve all or any part of this Project and retain discretion to approve the Project, approve an alternative to the Project, adopt mitigation measures, or disapprove the Project.
- (b) C.E.Q.A. District has performed the necessary CEQA investigation, analysis and documentation of CEQA requirements with respect to the District Delivery Facilities and the treatment plant, which documentation has been reviewed and approved by SRWA. In the event that additional work is required to update the District's previous CEQA work, the Parties agree that the District will be the CEQA lead agency and to split such costs based upon the District Delivery Facilities Capital Cost Allocation. SRWA will be the CEQA lead agency and will perform all other necessary CEQA investigation, analysis and documentation of CEQA requirements with respect to the Project and at SRWA's expense.
- (c) Water Rights. District will use commercially reasonable efforts to petition the State Water Resources Control Board (SWRCB), and SRWA will reasonably cooperate in District's request, for a Long-Term Transfer under Water Code section 1735, et seq., to the SRWA for up to 30,000 acre feet of water per year and to add municipal and industrial purposes of use under District's post-1914 water rights License 11058 and to add the District Delivery Facilities as a point of diversion.
- (d) SWRCB's Failure to Approve Section 2(c) Petition. In that event that District cannot obtain the required SWRCB approvals described in section 2(c) on terms and conditions acceptable to the District in the District's sole discretion, the Parties will fulfill their already existing obligations to one another in this Agreement and the Agreement will then terminate.
- (e) District Shall Maintain Rights. District shall diligently maintain the water rights to all Transfer Water throughout the life of this Agreement under all applicable laws and regulations. District agrees to diligently pursue renewal of the long-term water transfer prior to its expiration subject to the SRWA being in full compliance with this Agreement.

3. District to Sell Water.

- (a) Sale of Water. Subject to the delivery limitations, the Offset Water requirements, and other terms and conditions of this Agreement, District shall make continuously available to SRWA 30,000 acre feet of Transfer Water per year in accordance with section 4. District will make such Transfer Water available to SRWA within the scope of District's valid post-1914 appropriate water rights.
- (b) No Transfer of Water Rights. The Parties to this Agreement confirm that this constitutes a contractual right to purchase raw water and that no water right is being transferred by the District to the SRWA.

4. Delivery of Water.

- (a) Point of Delivery. The Point of Delivery of Transfer Water from District to SRWA shall be at the delivery meter located at the SRWA's domestic water treatment plant. The delivery meter is part of the District Delivery Facilities. SRWA will provide easements on any property owned or leased by SRWA or any member agency to the District required by the District to install, access, and maintain the District Delivery Facilities and any additional District facilities connecting the District Delivery Facilities to the District's Ceres Main. SRWA is responsible for ensuring that Transfer Water does not flow back into District Delivery Facilities.
- (b) Delivery Schedules. The amounts, times and rates of delivery of Transfer Water to SRWA during any Year will be in accordance with a water delivery schedule for that Year to be determined as follows:
 - (1) On or before January 1 preceding each new Year, the SRWA will submit to District a preliminary water delivery schedule indicating the amounts of water desired by the SRWA during each month of the next succeeding two Years. Beginning with the second full Year, the total amount of water requested for any given Year shall not vary by more than ten percent (10%) from the immediately prior Year and the next succeeding Year unless a greater variation is approved by the District. The delivery rate for each month of the schedule shall be at a fixed cubic feet per second.
 - (2) Upon receipt of a preliminary schedule, the District will review it and after consultation with SRWA will make such modifications as the District deems necessary. On or before March 1 preceding each new Year, District will determine and furnish to the SRWA the water delivery schedule for the coming new Year, commencing April 1, which will show the amounts of water to be delivered to the SRWA during each month of that Year. Because of fish flow requirements, SRWA agrees that during any river flow fluctuation limitation period, the SRWA delivery schedule may not reduce flows in the river by more than the amount or percentage of flow required by any fish flow requirement during the entire limitation period.
 - (3) A water delivery schedule may be amended by the District at its discretion upon the SRWA's written request. Proposed amendments will be submitted by the SRWA within a reasonable time before the desired change is to become effective, and shall be subject to review and modification by the District in like manner as the schedule itself. District will

not modify the delivery schedule if it will cause an increase in District's fish flow requirements under its FERC license.

(4) If the District determines during a Year that the availability of water to its agricultural and municipal customers has changed significantly, the District reserves the right to amend the delivery schedule in April or May of that Year for deliveries of Transfer Water during the remaining months of that Year.

- (c) Measurement of Water Delivered. The District will measure all water delivered to the SRWA and all water diverted through the District Delivery Facilities but which are delivered to the Ceres Main Canal and not to the SRWA. The District will keep and maintain accurate and complete measurement records. The District will install, operate, and maintain water metering equipment that are reasonably acceptable to both Parties at all delivery points for water from the District Delivery Facilities to the SRWA and to the District's Ceres Main Canal. The meters shall be examined, tested and serviced regularly by the District to maintain their accuracy in accordance with the meter manufacturer's written recommendations. The SRWA may inspect the metering equipment and the measurement records during regular business hours upon reasonable notice. The District will provide the SRWA with instrumentation output signals for water flow rate and water pressure information at each meter. SRWA retains the right to install reciprocal measuring devices that comply with the same standards and procedures set forth above. Disparities between District and SRWA measurements will be resolved pursuant to Section 12, Resolution of Differences, of this Agreement.
- (d) SRWA Responsible for Delivery Schedule Water Impacts.
- (1) If deliveries under the Delivery Schedule result in any increase in the amount of any fish flow requirements, whether required by the FERC or any other regulatory agency, which flows cannot be diverted at the Infiltration Gallery for use by the SRWA, then SRWA agrees to pay for the cost of that additional water at the same per-acre-foot price as for water delivered to the SRWA. O&M costs described in Section 7(e) shall not apply to flows which cannot be diverted at the Infiltration Gallery for use by the SRWA.
- (2) If the District releases water at La Grange Dam in accordance with the applicable Delivery Schedule but the SRWA fails to divert all or any portion of the water made available by the District for diversion at the Infiltration Gallery in accordance with the applicable Delivery Schedule, then the SRWA agrees to pay for the cost of the water at the same per-acre-foot price as for water delivered to the SRWA even if the District is actually able to divert all or any portion of the water into the Ceres Main Canal.
- (e) SRWA and Agriculture Water Delivery Treated on Parity Basis. District agrees to treat District's agricultural customers and SRWA on a parity basis. If at any time before or during a Year the District decides it is necessary to reduce deliveries, it will cut back its deliveries to its agricultural customers and to SRWA in equal proportions based upon the base allocation of water allocated during that Year. If at any time before or during a Year

the District decides it can increase deliveries, it will increase its deliveries to its agricultural customers and to SRWA in equal portions based upon the base allocation of water allocated during that Year. For agriculture customers, the base allocation will be 48 inches per acre. For the SRWA, the base allocation will be the amount of water requested by the SRWA in the current Year of the most current approved two year delivery schedule. District agrees that its commitments to its agricultural customers and to SRWA shall be met before any subsequent transfers for delivery of water outside District's boundaries, with the exception of transfers of water released pursuant any agreement with the City and County of San Francisco and/or the Modesto Irrigation District relating to fish flow requirements.

- (f) Formula for Reduction in Water Allocation. The allocation of Transfer Water to SRWA will be reduced in any Year that Y is less than 48 inches per acre.

$$(Y/48) \times Z = X$$

"Y" will be the actual final number of inches of water allocated by the Board to agricultural water users for the irrigation season commencing on or about April 1 of that Year. In the event a portion of the agricultural water allocation is optional and the fixed and optional amounts equal or exceed 48 inches, the Y will be 48 inches for the purposes of this calculation.

"Z" will be the total amount of water requested by the SRWA in the current Year of the two year delivery schedule.

"X" will be the actual amount of Transfer Water allocated to the SRWA for Years in which there is a reduction in the allocation. It is anticipated that from time to time District may modify its current agricultural water allocation. When District makes changes in its agricultural water allocation, the Parties will meet and confer and agree upon changes to ensure that reductions or increases in available water are in equal proportions as between District's agricultural customers and SRWA.

In no event will District be required to make available to SRWA more than the amount of Transfer Water than is stated in the delivery schedule. If there is a reduction or increase in the allocation in accordance with this section, the payment obligations of SRWA shall be adjusted in accordance with this Agreement.

- (g) Force Majeure. In the event of Force Majeure, District shall first supply SRWA and its agricultural users in parity, except in the event this becomes physically impossible. The District is not required to deliver, and is not liable for failure to deliver, water under this Agreement when the cause of the failure is beyond the control of any Party, and which by the exercise of due diligence such Party is unable to prevent or overcome, including but not limited to, failure or refusal of any other person or entity to comply with then-existing contracts, an act of God, fire, flood, explosion, earthquake, strike, sabotage, pestilence, an act of the public enemy (including terrorism), civil or military authority including court orders, injunctions and orders of a governmental entity, or failure to issue a requested

order, license, or permit. Should either Party become aware of any impending Force Majeure, it shall notify the other Party as soon as is reasonably possible.

(h) Curtailment of Delivery for Maintenance Purposes. The District may temporarily discontinue or reduce the delivery of Transfer Water for the SRWA for purposes of necessary investigation, inspection, maintenance, repair, or replacement of any of the District Delivery Facilities necessary for the delivery of Transfer Water to the SRWA. The District will notify the SRWA as far in advance as possible of any such projected discontinuance or reduction, except in cases of emergency, in which case prior notice need not be given. Maintenance reductions of Transfer Water shall be made up within one calendar year of the maintenance reduction on a delivery schedule mutually agreed by the Parties and subject to the capacity of the District Delivery Facilities and limitations of any fish flow requirements.

(i) Offset Water To Be Provided by SRWA to the District. In any Year when there is a reduction in the water allocation under section 4(f), SRWA must provide Offset Water to the District starting on April 1 in accordance with the following formula:

$$\text{Amount of Offset Water Required} = 2 \times \% \text{ of Reduction} \times \text{Actual Amount of Transfer Water Allocated}$$

“% of Reduction” will be the factor by which the water allocated by the Board to agricultural water users for the irrigation season commencing immediately prior to the Year is reduced from 48 inches. For example, if the agricultural water allocation is 36 inches, it has been reduced by 12 inches which is a 25 % reduction from 48 inches (12 ÷ 48 = 0.25). The % of Reduction is 0.25.

“Actual Amount of Transfer Water Allocated” will be the amount determined to be “X” in section 4(f), Formula for Reduction in Water Allocation.

SRWA will not, however, be required to provide more Offset Water in a given Year than the Actual Amount of Transfer Water Allocated. Thus, if after the formula is applied, the Amount of Offset Water Required is greater than the Actual Amount of Transfer Water Allocated, the Offset Water required will be equal to the Actual Amount of Transfer Water.

The following table illustrates examples of potential reductions and Offset Water requirements:

SRWA Request: 30,000 AF

	0% Reduction	25% Reduction	50% Reduction	75% Reduction	100% Reduction
Actual Amount of Transfer Water Allocated	30,000	22,500	15,000	7,500	0
Total Offset Water by SRWA	0	11,250	15,000	7,500	0
Shortage from SRWA's request of 30,000 AF	0	7,500	15,000	22,500	30,000

- (j) Upon approval by the State Water Resources Control Board, the City of Turlock, on behalf of the SRWA, will provide District with 2,000 AF of baseline recycled water every year, regardless of water year type. District would take delivery of the 2,000 AF of baseline recycled water only during the irrigation season, not to exceed 9.5 AF per day. The irrigation season would be determined yearly depending on water year. For planning purposes, it is assumed to be mid-March through mid-October or seven (7) full months. The treated wastewater that the City of Turlock provides to the District for the Walnut Energy Center is not included in the 2,000 AFY of baseline recycled water. During dry years when the SRWA is required to provide more Offset Water beyond the 2,000 AF of baseline recycled water, the SRWA may make up the difference with any other water source. The term "any other water source" shall mean water, which complies with all applicable laws and regulations for unrestricted agricultural use including, without limitation, use for row and feed crops and orchards; for example, well water.

Example: Assuming it is a dry year and there is a 25% reduction in water allocation. District would provide the SRWA with 22,500 AF of Transfer Water. The Offset Water required from SRWA would be 50% of the Transfer Water. In this case, the Offset Water required would be 11,250 AF. The City of Turlock, on behalf of the SRWA, would provide District with 2,000 AF of recycled water and the SRWA would provide the remaining amount of 9,250 AF from any other water source.

- (k) The District will pay all reasonable costs associated with obtaining any and all approvals to use recycled water for irrigation purposes, whether or not such approvals are issued or obtained, including attorney and filing fees. District shall obtain all permits necessary from the State Water Resources Control Board, Regional Water Quality Control Board, or any other entity to use recycled water for irrigation purposes. SRWA agrees to provide assistance and all relevant and available information to the District for its use in obtaining these permits. If the District cannot obtain all of the required approvals and permits on terms and conditions acceptable to the District in the District's sole discretion, the Parties will fulfill their already existing obligation to one another in this Agreement and the Agreement will then automatically terminate.
- (l) The District shall use all Offset Water within the Turlock Groundwater Subbasin. Offset Water provided by SRWA shall not be transferred outside the Turlock Groundwater Subbasin without prior SRWA approval, including but not limited to a revenue sharing agreement.
- (m) The Parties agree that in providing Offset Water to the District, no water right is being transferred by the SRWA to the District.
- (n) SRWA shall pay the design, construction, operation, maintenance, and replacement costs for the capital facilities needed to interconnect the Offset Water source or sources with the District's existing irrigation water delivery system. The Parties agree that the recycled water source shall interconnect with the District's Lateral 4 via the recycled water pipeline to Pedretti Park. The location and design of the interconnection facilities shall be subject to the prior review and approval of the District.

5. Responsibility for Distribution of Water.

- (a) Water Quality. The District assumes no responsibility for the quality of the water delivered to SRWA under this Agreement and the District does not warrant the quality of any such water for any particular use. The SRWA shall be responsible for the treatment of all such water to the minimum water quality standards for water for domestic use as may be established from time to time by the State of California and/or by federal government, and notwithstanding subsection 5(c) below, the SRWA shall defend, indemnify, and hold harmless the District from and against any and all claims, damages, costs, expenses, judgments, attorney fees or other liability to any person or entity asserting that said water does not meet or has not met domestic use water quality standards.
- (b) Non-Liability of District. Neither the District nor any of its officers, agents, or employees will be liable for the control, carriage, handling, use, disposal, or distribution of water delivered to the SRWA after such water has passed the Point of Delivery, nor for claims of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, treatment, carriage, handling, use, disposal, or distribution of the water beyond the Point of Delivery and attorneys' fees and related costs of defense. The SRWA shall defend, indemnify and hold harmless the District and its officers, agents, and employees from any damages or claims that arise under sections 5(a) and/or 5(b).
- (c) Non-Liability of SRWA. Neither the SRWA nor any of its officers, agents, or employees will be liable for control, carriage, handling, use, disposal, or distribution of water delivered to the SRWA until such water has passed the Point of Delivery, nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, treatment, carriage, handling, use, disposal, or distribution of the water before it has reached the Point of Delivery and attorneys' fees and related costs of defense. The District shall defend, indemnify and hold harmless the SRWA and its officers, agents, and employees from any such damages or claims that arise under this Section 5(c).

6. Water Use.

- (a) Sale or Other Disposition of Project Allotment by SRWA. Transfer Water provided under this Agreement is for beneficial use exclusively within the irrigation boundary of the District. SRWA agrees that the amount of water purchased under this Agreement will not exceed the amount of water used by SRWA's customers within the District's irrigation boundary during the Year. No sale or other disposition of all or any portion of the SRWA's allotment shall relieve SRWA of any of its obligations under this Agreement.
- (b) Ownership of Wastewater. Notwithstanding Paragraph 6(a), the SRWA will have sole ownership and responsibility for all wastewater and recycled water produced by SRWA's use of Transfer Water purchased under this Agreement. Once raw water furnished to

SRWA by District has passed the Point of Delivery, District shall not own or control it under any circumstances except by purchase, or except to the extent provided to the District by the SRWA as Offset Water.

7. SRWA Payment Obligations.

- (a) Payments. The SRWA shall make payments, at the times and in the manner set forth below.
- (b) Water Price. Subject to Section 4(d), District agrees to release and SRWA agrees to pay for all Transfer Water released at La Grange Dam in accordance with the delivery schedule and measured at the Point of Delivery minus the amount of any Offset Water that may be provided by the SRWA under Section 4(i). The price for the water delivered shall be the then current published per-acre-foot charge for the District's Tier 4 irrigation water subject to adjustment as approved by the District's Board of Directors. The District will issue monthly billing statements for the Transfer Water which will be due and payable on the first business day of each month, and will be considered delinquent if not paid within thirty (30) days of the due date.
- (c) SWRCB Proceedings. The SRWA will pay all costs associated with filing the petition for and obtaining the long term water transfer from the SWRCB, whether or not the petition is successful. This includes attorney and filing fees, and any costs associated with implementing the water transfer. District will issue monthly billing statements for these costs as they accrue. Payment will be due and payable within thirty (30) days of issuance by the District.
- (d) Capital Costs of the District Delivery Facilities.
 - (1) The District has paid a total of \$924,302 to permit, design, and construct the existing Infiltration Gallery. The Parties agree that those capital costs shall be allocated between the Parties in accordance with the District Delivery Facilities Capital Cost Allocation. The SRWA agrees to pay the District the sum of \$739,442 on the Closing Date.
 - (2) The District will incur additional capital costs to permit, design, and construct the pump station and the pipeline from the pump station to the treatment plant. The Parties agree that the pump station, pumps, and pipeline will be sized to a capacity of 100 cfs. The Parties recognize that the pump station will have multiple pumps and that the pumps may be installed in phases as the SRWA's Transfer Water demands or the District's use of the pumps increases over time. Unless the shared priority of use of the District Delivery Facilities under Section 7(f) changes, these additional capital costs will be allocated in accordance with the District Delivery Facilities Capital Cost Allocation.
 - (3) The Parties agree that the additional capital costs for the District Delivery Facilities under Section 7(d)(2) shall be paid by the Parties on a pay-as-you-go basis. Each Party shall be solely responsible for securing funds necessary to make all such payments.

- (e) Annual Operation and Maintenance Costs of the District Delivery Facilities. The Parties agree that the annual operation and maintenance costs of the District Delivery Facilities shall include, but not be limited to, the following: costs to operate and maintain the Infiltration Gallery, the pump station (including all pumps and associated equipment), the pipeline from the pump station to the treatment plant, and the delivery meter, the electricity to operate the pump station, and the repair and replacement of any component.
- (f) The Parties recognize and agree that the uses of the District Delivery Facilities will be for the following purposes: (1) delivery of the Transfer Water to the SRWA, (2) to divert water released at La Grange Dam to comply with fish flow requirements or to otherwise mitigate or enhance the fish habitat between La Grange Dam and the Infiltration Gallery and which is not delivered to the SRWA, and (3) if the District needs to provide irrigation water into the Ceres Main Canal. Uses (2) and (3) shall be called "District Water Use". Unless otherwise agreed pursuant to Section 7(d)(2), the scheduling of the use of the District Delivery Facilities for those purposes shall be on a prorate basis in accordance with the District Delivery Facilities Capital Cost Allocation.

The SRWA's annual share and payment of these costs shall be calculated as follows: The total number of acre feet of water delivered to the SRWA at the Point of Delivery in Section 4(a) ["SRWA Water Use"] divided by the sum of SRWA Water Use and District Water Use in acre feet pumped through the pump station during the Year with the resulting quotient expressed as a percentage. The total annual operation and maintenance costs shall be multiplied by the resulting quotient expressed as a percentage. The product shall be the amount of annual operation and maintenance costs payable by the SRWA to the District in 12 equal monthly installments.

- (g) Payments to District of Capital and Operation and Maintenance Costs.

(1) Budget Process. In preparing and reviewing budgets for the District Delivery Facilities, the Parties will be guided by the principle that the District Delivery Facilities will be operated in as economic a manner as practical in accordance with generally accepted waterworks practices as evidenced by well-designed and operated similarly sized facilities in Northern California.

(2) Budget Preparation. The District will prepare a preliminary annual budget for the first year of District Delivery Facilities operation at least six months prior to the date the SRWA projects it will conduct operational testing of the Project. Thereafter, for each Year during the operation of the Project, District will prepare a preliminary budget for the District Delivery Facilities prior to January 1 for the next two ensuing Years for review and comment by the SRWA. Each budget will include (i) any credits to be applied, (ii) operating and maintenance costs, (iii) capital replacement costs, and (iv) capital costs for new capital additions to the District Delivery Facilities and will also include the estimated monthly payment to be paid for the ensuing year. District staff will use its best efforts to resolve any questions or concerns during such review. The Board of Directors of the District will adopt a final annual budget for each Year on or before March 15 of

each year after a public hearing for which ten days' notice has been given, and will supply a copy of the adopted budget to the SRWA.

(3) The District will issue monthly billing statements for the monthly payment estimated in the applicable budget which will be due and payable on the first business day of each month, and will be considered delinquent if not paid within thirty (30) days of the due date.

(4) As soon as practicable after each Year, District will determine the actual amount of Transfer Water delivered and the cost thereof, as well as the actual costs of operation and maintenance, and capital costs for the preceding Year. District will notify SRWA of any over or under payment by the SRWA and any necessary adjustments will be amortized and applied, without interest, to the regular monthly billing statements remaining in the then current Year following completion of the calculations.

8. Default.

- (a) Written Demand Upon Failure to Perform. Upon failure of either Party to perform any obligation under this Agreement, the aggrieved Party shall send a written notice of default, specifying the nature of the default, and a demand for performance to the nonperforming Party.
- (b) 30 Days to Cure. If the Nonperforming Party does not remedy its failure within 30 days of receipt of notice, or the Parties have not agreed on a plan to cure the default within that time, either Party may invoke the procedures specified in Section 12.
- (c) Parties Liable for Cost of Default. Upon any default by the District or SRWA, the liable Party shall pay to the other Party all costs incurred because of the default, including attorney's fees, investigation costs, and other reasonable costs of implementing the default provisions. Neither party will be liable for breach-of-contract damages that the breaching party could not reasonably have foreseen on entry into this agreement.

9. Covenants of SRWA.

- (a) Rate Sufficiency Covenant. The SRWA covenants and agrees to establish and collect rates and charges for the water provided to the Project sufficient to provide revenues adequate to meet its obligations under this Agreement.
- (b) SRWA Annual Audited Financial Statements. The SRWA shall deliver to the District or make available to the District on the SRWA's website within 270 days following the end of each SRWA fiscal year, a copy of the SRWA's annual audited financial statements for such SRWA fiscal year. The annual statements will be prepared in accordance with the general accounting standards applicable to California joint powers agencies. In all cases the statements shall be for the most recent accounting period. If any such statements are not available on a timely basis due to a delay in preparation or certification, such delay shall not constitute a default under this Agreement so long as the SRWA diligently pursues the preparation, certification and delivery of the annual statements.

- (c) Transfer of Ownership of SRWA Water System. The SRWA shall not transfer ownership of all or any substantial portion of its water system that is receiving Transfer Water from the Project to another entity without the written consent of District.

10. Indemnification.

- (a) Indemnification by SRWA. The SRWA releases and agrees to defend and indemnify the District, its officers, employees and agents (collectively, the “Indemnified Parties”) from and against any and all losses, claims, damages, liabilities or expenses arising out of, resulting from the SRWA’s negligence, willful misconduct, or breach of this Agreement.

An Indemnified Party will promptly notify the SRWA in writing after receiving notice of any action against it for which indemnification may be sought against the SRWA. However, the omission to notify the SRWA of any such action shall not relieve the SRWA from any liability which it may have to the Indemnified Party under this indemnity agreement except to the extent that the SRWA is prejudiced thereby. If any action is brought against an Indemnified Party, the SRWA may, or if requested by the Indemnified Party must, participate in or assume the defense of the action with counsel satisfactory to the Indemnified Party at the SRWA’s option. After notice to the Indemnified Party that the SRWA has elected to assume the defense of the action, the SRWA will not be liable to the Indemnified Party under this section for any legal or other expenses subsequently incurred by the Indemnified Party in connection with defending against the action other than the cost of reasonable investigation.

The SRWA will not be liable for settlement of any action effected without its consent by any Indemnified Party. If the SRWA consents to settlement of the action, the SRWA agrees to indemnify and hold harmless the Indemnified Party to the extent provided in this agreement.

- (b) Indemnification by District. The District releases and agrees to indemnify the SRWA, its officers, employees and agents (collectively, the “Indemnified Parties”) from and against any and all losses, claims, damages, liabilities or expenses arising out of, resulting from the District’s negligence, willful misconduct, or breach of the Agreement.

An Indemnified Party will promptly notify the District in writing after receiving notice of any action against it for which indemnification may be sought against the District. However, the omission to notify the District of any such action shall not relieve the District from any liability which it may have to the Indemnified Party under this indemnity agreement except to the extent that the District is prejudiced thereby. If any action is brought against an Indemnified Party, the District may, or if requested by the Indemnified Party must, participate in or assume the defense of the action with counsel satisfactory to the Indemnified Party. After notice to the Indemnified Party that the District has elected to assume the defense of the action, the District will not be liable to the Indemnified Party under this section for any legal or other expenses subsequently incurred by the Indemnified Party in connection with defending against the action other than the costs of reasonable investigation.

The District will not be liable for settlement of any action effected without its consent by any Indemnified Party. If the District consents to settlement of the action, the District agrees to indemnify and hold harmless the Indemnified Party to the extent provided in the Agreement.

- (c) Term of Indemnity. The provision of this section will survive the termination of this Agreement.

11. **Term and Ownership of Facilities.**

- (a) Term. The term of this Agreement shall commence upon its execution by the authorized representatives of the Parties and shall continue in effect for 50 years, unless sooner terminated in accordance with this Agreement or unless extended by the mutual agreement of the Parties.
- (b) Reopening Negotiations. District may reopen this Agreement at any time for the purpose of negotiating changes to the amount of Transfer Water provided by District and Offset Water provided by SRWA if conditions or restrictions on the District's use of its water are imposed by the Federal Energy Regulatory Commission, the State Water Resources Control Board or any other entity.
- (c) Ownership of Facilities. At all times during the term of this Agreement, the District will have sole ownership of the District Delivery Facilities and the District facilities connecting the District Delivery Facilities to the Ceres Main Canal, and SRWA will have sole ownership of all physical facilities from the Point of Delivery meter. Nothing in this Agreement may be construed to create a partnership or joint venture of any kind.
- (d) Ownership of Real Property. Upon approval of the long-term water transfer by the SWRCB, the District agrees to sell the treatment plant site, subject to a reservation of such easements for the District's pipelines to the treatment plant from the pump station and from the treatment plant to the Ceres Main Canal, to the SRWA at a sales price of \$1,436,674.00 payable to the District on the Closing Date. The Parties agree that should the treatment plant not be built, SRWA will reconvey the treatment plant site to the District at the sales price of \$1,436,674.00. A legal description and parcel map of the treatment plant site is attached hereto as Exhibit "A" and incorporated herein by reference. SRWA will acquire such additional lands and/or easements to complete, operate and maintain the treatment plant and treated water delivery pipelines and facilities.

12. **Resolution of Differences.**

- (a) Dispute Resolution. This Section 12 shall apply to all disputes arising out of or relating to this Agreement. The Parties shall attempt in good faith to resolve any dispute promptly by negotiation between the District General Manager and the SRWA General Manager.
- (b) Binding Arbitration. If the District and the SRWA are unable to reach an agreement after discussions under subsection (a) above, within 90 calendar days after the date of the initial

Managers' meeting on the dispute, either Party may serve the other with a request for binding arbitration under the Arbitration Rules of the American Arbitration Association ("AAA") ("Rules") by a single arbitrator. The demand must set forth the nature of the dispute and the claim or relief sought. If the District and the SRWA cannot agree on a person to serve as the arbitrator, the dispute shall be submitted to one neutral arbitrator selected from the panels of arbitrators of the AAA. To this end, the Parties agree to select the arbitrator from a panel of five arbitrators offered by AAA by alternate strikes. The Party who served the request for binding arbitration shall strike first. The District and the SRWA agree that they will faithfully observe the Rules and will abide by and perform any award rendered by the arbitrator, and that a judgment of the court having jurisdiction may be entered on the award. Notwithstanding the Rules, discovery will be permitted and the provisions of the California Code of Civil Procedure Section 1283.05 are incorporated herein unless the parties agree otherwise. The District and the SRWA hereby consent to the jurisdiction of the courts of Stanislaus County, California, for the confirmation, correction or vacation of any arbitration award. The arbitrator may grant any remedy or relief deemed by the arbitrator just and equitable under the circumstances, whether or not such relief could be awarded in a court of law. The arbitrator will have no power to award punitive damages or other damages not measured by the Party's actual damages against any Party. This limitation of the arbitrator's powers under this Agreement shall not operate as an exclusion of the issue of punitive damages from this Agreement to arbitrate sufficient to vest jurisdiction in a court with respect to that issue. The arbitrator's award will be deemed final, conclusive and binding to the fullest extent allowed by California law, and may be entered as a final judgment in court.

13. Miscellaneous

- (a) Assignment. SRWA may not sell, transfer or assign all or any portion of this Agreement without the prior written consent of District. District agrees not to sell, transfer, or assign any of its right or interest in the Project including this Agreement, in whole or in part, without prior written consent of SRWA.
- (b) Amendment/Termination. This Agreement or any provision hereof may be changed, waived, or terminated only by a statement in writing signed by the Party against which such change, waiver or termination is sought to be enforced.
- (c) No Waiver. No delay in enforcing or failing to enforce any right under this Agreement will constitute a waiver of such right. No waiver of any default under this Agreement will operate as a waiver of any other default or of the same default on a future occasion.
- (d) Partial Invalidity. If any one or more of the terms, provisions, covenants or conditions of this Agreement are to any extent declared invalid, unenforceable, void or voidable for any reason whatsoever by a court of competent jurisdiction, the finding or order or decree of which becomes final, the Parties agree to amend the terms in a reasonable manner to achieve the intention of the Parties without invalidity. If the terms cannot be amended thusly, the invalidity of one or several terms will not affect the validity of the Agreement as a whole, unless the invalid terms are of such essential importance to this Agreement that it

can be reasonably assumed that the Parties would not have contracted this Agreement without the invalid terms. In such case, the Party affected may terminate this Agreement by written notice to the other Party without prejudice to the affected Party's rights in law or equity.

- (e) **Entire Agreement.** This Agreement is intended by the Parties as a final expression of their agreement and is intended as a complete and exclusive statement of the terms and conditions thereof. Acceptance of or acquiescence in a course of performance rendered under this Agreement shall not be relevant to determine the meaning of this Agreement even though the accepting or acquiescing Party had knowledge of the nature of the performance and opportunity for objection.
- (f) **Choice of Law.** This Agreement will be construed in accordance with the laws of the State of California.
- (g) **Further Assurances.** Each Party agrees to execute and deliver all further instruments and documents, and take all further action that may be reasonably necessary to complete performance of its obligations hereunder and otherwise to effectuate the purposes and intent of this Agreement.
- (h) **Headings.** The headings of the sections hereof are inserted for convenience only and shall not be deemed a part of this Agreement.
- (i) **Notices.** Any notice, demand, offer, or other written instrument required or permitted to be given pursuant to this Agreement shall be acknowledged by the Party giving such notice, and shall to the extent reasonably practicable be sent by hand delivery, and if not reasonably practicable to send by hand delivery, then by telecopy, overnight courier, electronic mail, or registered mail, in each case to the other Party at the address for such Party set forth below:

If delivered to SRWA:

STANISLAUS REGIONAL WATER AUTHORITY
General Manager
C/O City of Modesto Utilities Department
P.O. Box 642
Modesto, CA 95353

If delivered to the District:

TURLOCK IRRIGATION DISTRICT
General Manager
333 East Canal Drive
Turlock, CA 95380

A Party may change its place of notice by a notice sent to the other Party in compliance with this section.

- (j) No Third Party Beneficiaries. Except for the Parties and their respective successors and assigners, nothing in this Agreement, whether express or implied, is intended to confer any rights on any person or entity whatsoever.
- (k) No Breach of Other Agreements. Neither Party's execution and performance of this Agreement will result in the breach of any other agreement to which that party is a Party, or to which that Party is otherwise subject or bound.
- (l) No Party Drafter. Neither Party to this agreement shall be considered its drafter. The provisions of this Agreement shall be construed as a whole according to their common meaning and not strictly for or against either Party.

IN WITNESS WHEREOF, the SRWA has executed the Agreement with the approval of its Board, and the District has executed this Agreement in accordance with the authorization of its Board of Directors, as of the date first written above.

TURLOCK IRRIGATION DISTRICT

By: Casey Hashimoto
CASEY HASHIMOTO, General Manager

STANISLAUS REGIONAL WATER AUTHORITY

By: Stevan Stroud
STEVAN STROUD, Interim General Manager

ATTEST:

By: Judy Rosa
JUDY ROSA, Secretary to the Board

APPROVED AS TO FORM:

By: R. Stevens
ROLAND STEVENS, General Counsel

EXHIBIT "A"

**EXHIBIT A
LEGAL DESCRIPTION**

WATER TREATMENT PLANT PARCEL

All that certain real property situate, lying, and being a portion of that certain parcel of land described in the Grant Deed to Rodney Beard and Virginia Beard, recorded August 19, 1994 as Instrument No. 94082327, Stanislaus County Records, commonly known as Assessor's Parcel No. 018-006-002, lying in the west half of Section 2, Township 4 South, Range 10 East, Mount Diablo Base and Meridian, being more particularly described as follows:

COMMENCING at the south $\frac{1}{4}$ corner of said Section 2, thence northerly, along the north-south $\frac{1}{4}$ section line, North $0^{\circ}04'38''$ East 1533.54 feet, to the southeasterly corner of the aforementioned Beard Parcel, also being on the northerly line of the of the Turlock Irrigation District Ceres Main Canal, said point being the **POINT OF BEGINNING** of this description; thence, along the southerly line of said Beard Parcel and the northerly line of said Ceres Main Canal, South $78^{\circ}11'02''$ West 81.76 feet; thence, parallel with, and 80.00 feet west (measured at a right angle) of the east line of said Beard Parcel, North $00^{\circ}04'38''$ East 414.65 feet; thence North $77^{\circ}06'05''$ West 237.38 feet; thence North $75^{\circ}48'12''$ West 50.95 feet, to the beginning of a curve, concave to the south, having a radius of 295.00 feet, and a central angle of $49^{\circ}52'42''$; thence, along the arc of said curve, 256.81 feet; thence South $54^{\circ}19'06''$ West 246.25 feet; thence South $51^{\circ}35'56''$ West 292.30 feet; thence South $49^{\circ}54'08''$ West 106.47 feet; thence South $82^{\circ}06'37''$ West 9.20 feet; thence North $07^{\circ}52'53''$ West 688.63 feet; thence South $88^{\circ}25'07''$ West 30.18 feet, to an angle point on the westerly boundary of said Beard Parcel; thence, along the westerly and northerly boundary of said Beard Parcel, the following five (5) courses:

- 1) North $07^{\circ}52'53''$ West 803.65 feet; thence
- 2) North $33^{\circ}25'28''$ East 439.15 feet; thence
- 3) North $49^{\circ}50'18''$ East 217.57 feet; thence
- 4) North $88^{\circ}24'35''$ East 527.96 feet; thence
- 5) South $67^{\circ}15'25''$ East 461.54 feet,

to a point on the aforementioned north-south $\frac{1}{4}$ section line; thence, along said north-south $\frac{1}{4}$ section line, also being along the easterly boundary of said Beard Parcel, South $00^{\circ}04'38''$ West 1842.38 feet, to the point of beginning.

Containing a total of 47.90 acres, more or less.

SUBJECT TO:

And easement for ingress/egress over the following described portion of the parcel described above:

COMMENCING at the south $\frac{1}{4}$ corner of said Section 2, thence northerly, along the north-south $\frac{1}{4}$ section line, North $0^{\circ}04'38''$ East 1533.54 feet, to the southeasterly corner of the aforementioned Beard Parcel, also being on the northerly line of the of the Turlock Irrigation District Ceres Main Canal, said point being the **POINT OF BEGINNING** of this description; thence, along the southerly line of said Beard Parcel and the northerly line of said Ceres Main Canal, South $78^{\circ}11'02''$ West 81.76 feet; thence, parallel with, and 80.00 feet west (measured at a right angle) of the east line of said Beard Parcel, North $00^{\circ}04'38''$ East 414.65 feet; thence South $89^{\circ}55'22''$ East 80.00 feet, to a point on the easterly boundary of said Beard Parcel; thence, along said easterly boundary, South $00^{\circ}04'38''$ West 397.80 feet, to the point of beginning.

Containing a total of 0.75 acres, more or less.

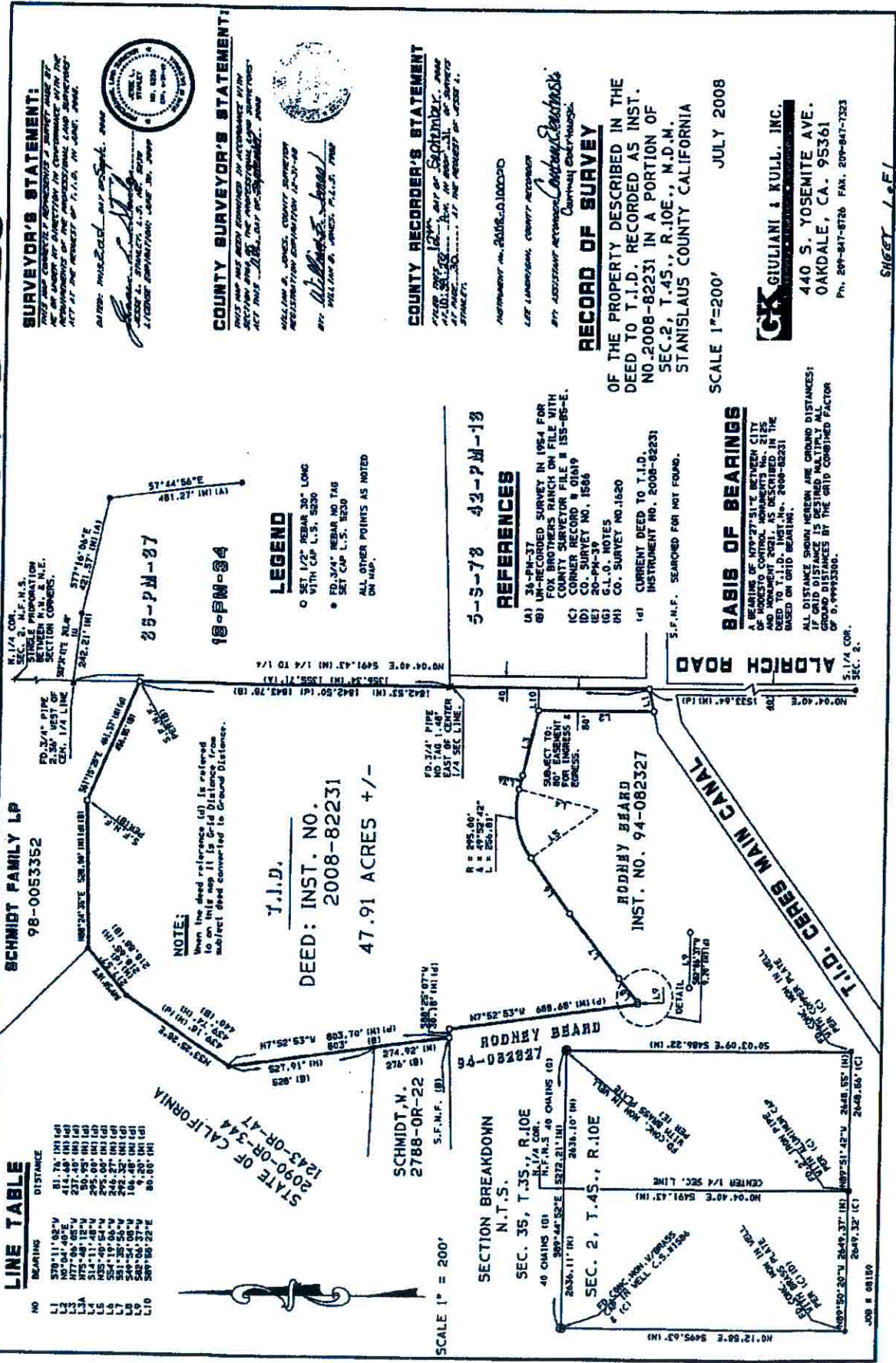
Subject to covenants, conditions, restrictions, reservations, rights, rights-of-way, and easements of record.

Bearings and distances are based on the California Coordinate System-83, Zone 3 (1991.35). A line between City of Modesto monuments 2021 and 2125 bears North $79^{\circ}27'51''$ East as calculated from City of Modesto GPS Control Network Survey, filed for record in Book 22 of Surveys, at Page 51, Stanislaus County Records. All distances are grid, based on a combination factor of 0.99993300. To convert distances shown hereon to ground, multiply by the reciprocal of said combination factor, 1.00006700.



Michael Halterman
9 JUN 08

31 S 30



LINE TABLE

NO	BEARING	DISTANCE
L1	S79°11'02"W	81.74' (IN) (L1)
L2	N07°04'40"E	414.48' (IN) (L2)
L3	S75°48'12"W	230.40' (IN) (L3)
L4	N75°48'12"W	230.40' (IN) (L4)
L5	S14°11'48"W	295.00' (IN) (L5)
L6	N05°40'04"W	295.00' (IN) (L6)
L7	S81°30'52"W	246.27' (IN) (L7)
L8	S44°54'08"W	106.48' (IN) (L8)
L9	S82°04'37"W	9.20' (IN) (L9)
L10	S89°00'22"E	80.00' (IN) (L10)

STATE OF CALIFORNIA
1243-OR-47
2090-OR-34

SCHMIDT, V.
2788-OR-22
S.F.M.P. (B)

SECTION BREAKDOWN
N.T.S.
SEC. 35, T.35, R.10E
40 CHAINS (B)
N.F.M.S. 40 CHAINS (C)
2434.11' (B)
2434.10' (C)

SEC. 2, T.45, R.10E
FOR (C) SEE V.100005
FOR (C) SEE V.100005

SCALE 1" = 200'

SURVEYOR'S STATEMENT:

THIS AND CORRECTED RECORDS OF SURVEY MADE BY ME OR UNDER MY SUPERVISION IN CONFORMANCE WITH THE ACTS OF CONGRESS RELATIVE TO THE PROFESSIONAL LAND SURVEYING ACT AT THE REQUEST OF T.I.D. IN JOB NO. 2008-82231.

DATE: 07/01/2008 BY: [Signature]

JOHN L. SCHMIDT, L.S., 2008
LAND SURVEYOR/REGISTERED PROFESSIONAL ENGINEER



COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED BY ME IN ACCORDANCE WITH THE ACTS OF CONGRESS RELATIVE TO THE PROFESSIONAL LAND SURVEYING ACT AND I HEREBY CERTIFY THAT THE SURVEYING AND MAPPING INFORMATION CONTAINED HEREON IS TRUE AND CORRECT.

WILLIAM B. JONES, COUNTY SURVEYOR
REGISTERED PROFESSIONAL ENGINEER

DATE: 07/01/2008 BY: [Signature]



COUNTY RECORDER'S STATEMENT

THIS INSTRUMENT WAS FILED FOR RECORD IN THE OFFICE OF THE COUNTY RECORDER ON JULY 1, 2008 AT 10:31 AM. IT IS THE PROPERTY OF THE COUNTY RECORDER'S OFFICE AND IS NOT TO BE REPRODUCED OR COPIED WITHOUT THE WRITTEN PERMISSION OF THE COUNTY RECORDER.

INSTRUMENT NO. 2008-010000

LEE LANGRISH, COUNTY RECORDER
REGISTERED PROFESSIONAL ENGINEER

RECORD OF SURVEY

OF THE PROPERTY DESCRIBED IN THE DEED TO T.I.D. RECORDED AS INST. NO. 2008-82231 IN A PORTION OF SEC. 2, T.45, R.10E, M.D.M. STANISLAUS COUNTY CALIFORNIA

SCALE 1"=200' JULY 2008

GIULIANI & KULL, INC.
440 S. YOSEMITE AVE.
OAKDALE, CA. 95361
Ph. 209-847-8728 FAX. 209-847-7323

REFERENCES

- (A) 24-PH-37
- (B) 24-PH-37
- (C) CORNER SURVEYOR FILE # 155-88-E
- (D) CO. SURVEY NO. 01619
- (E) 20-PH-39
- (F) G.L.O. NOTES
- (G) CO. SURVEY NO. 1650
- (H) CURRENT DEED TO T.I.D. INSTRUMENT NO. 2008-82231
- (I) S.F.M.P. SEARCHED FOR NOT FOUND.

BASIS OF BEARINGS

BEARINGS OF 1997-97 SITE BETWEEN CITY OF OAKDALE AND T.I.D. ARE DESCRIBED IN THE DEED TO T.I.D. INST. NO. 2008-82231 BASED ON GRID BEARING.

ALL DISTANCE SHOWN HEREIN ARE GROUND DISTANCES! IF GRID DISTANCE IS DESIRED MULTIPLY ALL GROUND DISTANCES BY THE GRID COMBINED FACTOR OF 0.99993306.

S.F.M.P. SEC. 2.

SHEET 1 of 1
31 S 30

**AMENDMENT NO. 1
TO TID/SRWA WATER SALES AGREEMENT**

THIS AMENDMENT TO AGREEMENT is made this April 16, 2020, between Turlock Irrigation District, a local government agency (**District**), and Stanislaus Regional Water Authority, a joint powers authority (**SRWA**), who agree as follows:

1. Recitals. The parties approve this Amendment with reference to the following background recitals:

1.1. On July 28, 2015, the parties entered into the Water Sales Agreement (the **Agreement**), which is on file in the District and SRWA offices.

1.2. The parties now desire to amend the Agreement to reflect changed circumstances and make other changes and clarifications. Capitalized terms in this Amendment shall have the same meanings as set forth in the Agreement.

2. Amendments to Agreement. The parties amend the Agreement as follows:

2.1. Section 1, subsection (b) is amended to read as follows:

(b) Closing Date - The date on which the Parties close escrow on the purchase and transfer of the treatment plant site pursuant to section 11(d).

2.2. Section 2, subsection (b) (CEQA) is amended by adding the following:

In 2018, after the 2015 approval of the Agreement, SRWA certified the Surface Water Supply Project Final Environmental Impact Report (**EIR**) for the Regional Surface Water Supply Project and approved the Project pursuant to the California Environmental Quality Act and CEQA Guidelines. The approval of this Amendment is consistent with and achieves the purposes as evaluated and approved in the 2018 EIR.

2.3. Section 2, subsections (c) and (d) are amended to read as follows:

(c) Water Rights. District submitted a water right petition to the State Water Resources Control Board (**SWRCB**) for a long-term transfer of a maximum of 17,375 acre feet of water per year of District's post-1914 water rights (SWRCB License 11058) and Water Code section 1735 et seq. to SRWA, to add the District Delivery Facilities as a point of diversion, and to add municipal and industrial as an authorized purpose of use. District will use commercially reasonable efforts to pursue and process the petition and SRWA will reasonably cooperate in District's request. District retains the sole discretion to (1) determine whether any terms and conditions that the SWRCB may impose pursuant to the change petition are acceptable, (2) and to determine whether Transfer Water will be delivered under the District's pre-1914 water rights, the District's post-1914 water rights, or some combination of both.

(d) SWRCB's Failure to Approve Section 2(c) Petition. In the event that District cannot obtain the SWRCB approval of the License 11058 water right change petition described in section 2(c) on terms and conditions acceptable to District in District's sole discretion, then District will deliver Transfer Water to SRWA under the District's pre-1914 water rights, the District's post-1914 water rights, or some combination of both..

2.4. Section 3, subsection (a) is amended to read as follows:

(a) Sale of Water. Subject to the delivery limitations, the Offset Water requirements, and other terms and conditions of this Agreement, District shall make continuously available to SRWA up to 30,000 acre feet of Transfer Water per year in accordance with section 4. District will make such Transfer Water available to SRWA within the scope of District's water rights as described in section 2(c).

2.5. Section 4, subsection (c) is amended to read as follows:

(c) Measurement of Water Delivered. SRWA will measure all water delivered to SRWA and all water diverted through the District Delivery Facilities but which are delivered to the Ceres Main Canal and not to the SRWA. SRWA will keep and maintain accurate and complete measurement records. SRWA will install, operate, and maintain water metering equipment that are reasonably acceptable to both Parties at all delivery points for water from the District Delivery Facilities to the SRWA and to the District's Ceres Main Canal. The meters shall be examined, tested and serviced regularly by the SRWA to maintain their accuracy in accordance with the meter manufacturer's written recommendations. The District may inspect the metering equipment and the measurement records during regular business hours upon reasonable notice. The SRWA will provide the District with instrumentation output signals for water flow rate and water pressure information at each meter. District retains the right to install reciprocal measuring devices that comply with the same standards and procedures set forth above. Disparities between District and SRWA measurements will be resolved pursuant to Section 12, Resolution of Differences, of this Agreement.

2.6. Section 4, subsection (h) (Curtailed of Delivery for Maintenance Purposes) is deleted.

2.7. Section 4, subsection (k) is amended to read as follows:

(k) The District will pay all reasonable costs associated with obtaining any and all approvals to use Recycled Water for irrigation purposes, whether or not such approvals are issued or obtained, including any attorney and filing fees. District shall obtain all permits necessary from the SWRCB Regional Water Quality Control Board, or any other federal, state, or local government agency with jurisdiction to use Recycled Water for irrigation purposes. SRWA agrees to provide assistance and all relevant and available information to the District for its uses in obtaining these permits. If the District cannot obtain all of the required approvals and permits on

terms and conditions acceptable to the District in the District's sole discretion by the time Transfer Water deliveries commence, SRWA will purchase the undelivered Recycled Water from the District in the same amount per acre foot that the City of Turlock receives for recycled water under the North Valley Regional Recycled Water Program until such approvals and permits are obtained.

2.8. Section 7, subsection (c) is amended to read as follows:

(c) Administration and Fees. District may elect to deliver water under this Agreement pursuant to one or both of the following:

(1) For the License 11058 water right supply option, SRWA will pay all costs associated with filing the water right change petition for and obtaining the long term water transfer from the SWRCB, whether or not the petition is successful. This includes attorney and filing fees, and any costs associated with implementing the water transfer. District will issue monthly billing statements for these costs as they accrue. Payment will be due and payable within thirty (30) days of issuance by the District.

(2) If pre-1914 water is transferred, SRWA will reimburse District for all liabilities and costs, including attorneys' fees, associated with delivering the pre-1914 rights under this Agreement, and defending any claims or challenges to the use of those water rights for purposes of this Agreement, including, but not limited to, any challenge under Water Code sections 1702, 1706, 1725 or stream adjudication. District will issue monthly billing statements for these costs as they accrue. Payment will be due and payable within thirty (30) days of issuance by the District.

2.9. Section 7, subsection (f) is amended to read as follows:

(f) Use of District Delivery Facilities; Cost Sharing. The Parties recognize and agree that the District Delivery Facilities will be used for the following purposes: (1) to divert and deliver the Transfer Water to the SRWA, (2) to divert and deliver water for District agricultural uses, or (3) to divert and deliver water for District agricultural uses if water was ordered by the SRWA pursuant to the Delivery Schedule but cannot be used by the SRWA after the water is released at La Grange Dam because of an emergency or operational problem at the water treatment plant or in the Project's treated water transmission system. Uses (1) and (3) shall cumulatively be called "**SRWA Water Use.**" Use (2) shall be called "**District Water Use.**" Upon SRWA's completion of construction of the District Delivery Facilities, the water diverted and delivered through the District Delivery Facilities will be used initially in the SRWA member agency public water systems and other community water systems within District boundaries that may become SRWA wholesale treated water customers.

Because SRWA initially will have sole use of the District Delivery Facilities, the SRWA shall operate, maintain, and, as necessary, repair and replace the District Delivery Facilities, and pay for 100% of the costs described in subsection (e) (the "**Operating and Maintenance Costs**") until such time that District commences regular District Water Use and there is dual use of the District Delivery Facilities by

both Parties. Once dual use of the District Delivery Facilities has begun, the SRWA's annual share and payment of the Operation and Maintenance Costs shall be calculated as follows: In acre feet, SRWA Water Use divided by the sum of SRWA Water Use and District Water Use pumped through the pump station during the Year with the resulting quotient expressed as a percentage. The total annual Operation and Maintenance Costs shall be multiplied by the resulting quotient expressed as a percentage. The product shall be the percentage share of annual Operation and Maintenance Costs payable by the SRWA. SRWA shall invoice District for the remaining percentage share of Operation and Maintenance Costs for District Water Use and District will pay any such invoice to SRWA pursuant to the budget and billing provisions set forth below. SRWA shall begin implementing the budget, billing, and collection procedures in subsection (g) when and after District commences regular District Water Use and there is dual use of the District Delivery Facilities by both Parties and shared Operation and Maintenance Costs.

2.10. Section 9, subsection (a) is amended to read as follows:

(a) Rate Sufficiency Covenant. SRWA covenants and agrees to bill and collect payments from the SRWA member agencies for the water provided to the Project sufficient to provide revenues adequate to meet its obligations under this Agreement.

2.11. Section 11, subsection (d) is amended to read as follows:

(d) Ownership of Real Property. District agrees to sell the treatment plant site, subject to a reservation of such easements for the District's pipelines to the treatment plant from the pump station and from the treatment plant to the Ceres Main Canal, to the SRWA at a sales price of \$1,436,674.00 payable to the District. Upon execution of Amendment No. 1 to the TID/SRWA Water Sales Agreement by both Parties, the Parties shall proceed expeditiously to open escrow with a mutually acceptable title company and to process and close escrow on the purchase and transfer of the site. The Parties agree that should the treatment plant not be completed by 2028, the District will have the option to require SRWA to reconvey the treatment plant site to the District at the sales price of \$1,436,674.00. A legal description and parcel map of the treatment plant site is attached hereto as Exhibit "A" and incorporated herein by reference. SRWA will acquire such additional lands and/or easements to complete, operate and maintain the treatment plant and treated water delivery pipelines and facilities.

3. No Effect on Other Provisions. Except for the amendments in Section 2, the remaining provisions of the Agreement are unaffected and remain in full force and effect.

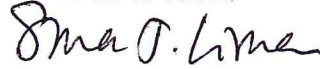
TURLOCK IRRIGATION DISTRICT

By: 
General Manager


Attest:


Secretary

Approved as to form:


General Counsel

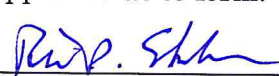
STANISLAUS REGIONAL WATER AUTHORITY

By: 
General Manager

Attest:


Secretary

Approved as to form:


General Counsel

Distribution System Water Loss Audits



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 Turlock (CA 5010019)
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.

WATER SUPPLIED

		----- Enter grading in column 'E' and 'J' ----->			
Volume from own sources:	+ ? 3	6,742.900	MG/Yr		
Water imported:	+ ? n/a	0.000	MG/Yr		
Water exported:	+ ? 3	5.705	MG/Yr		

Master Meter and Supply Error Adjustments

Pcnt:	Value:	MG/Yr
+ ? 3	<input type="radio"/> <input checked="" type="radio"/>	
+ ? 3	<input type="radio"/> <input checked="" type="radio"/>	
+ ? 5	<input type="radio"/> <input checked="" type="radio"/>	

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

WATER SUPPLIED: 6,737.195 MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	+ ? 5	6,028.500	MG/Yr
Billed unmetered:	+ ? n/a	0.000	MG/Yr
Unbilled metered:	+ ? 5	241.300	MG/Yr
Unbilled unmetered:	+ ? 5	16.843	MG/Yr

Click here: ?
for help using option buttons below

Pcnt:	Value:	MG/Yr
	<input type="radio"/> <input checked="" type="radio"/>	16.843

AUTHORIZED CONSUMPTION: 6,286.643 MG/Yr

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

450.552 MG/Yr

Apparent Losses

Unauthorized consumption: + ? 16.843 MG/Yr

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

Customer metering inaccuracies:	+ ? 3	127.955	MG/Yr
Systematic data handling errors:	+ ? 5	15.071	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 159.869 MG/Yr

Pcnt:	Value:	MG/Yr
0.25%	<input type="radio"/> <input checked="" type="radio"/>	
2.00%	<input type="radio"/> <input checked="" type="radio"/>	
0.25%	<input type="radio"/> <input checked="" type="radio"/>	

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 290.682 MG/Yr

WATER LOSSES: 450.552 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 708.695 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ? 9	305.0	miles
Number of <u>active AND inactive</u> service connections:	+ ? 9	19,468	
Service connection density:	+ ?	64	conn./mile main

Are customer meters typically located at the curbside or property line? No Yes

Average length of customer service line: + ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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

Average operating pressure: + ? 5 55.0 psi

COST DATA

Total annual cost of operating water system:	+ ? 10	\$7,715,146	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ? 9	\$1.07	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+ ? 5	\$200.12	\$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 50 out of 100 *****

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Billed metered



AWWA Free Water Audit Software: Reporting Worksheet

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

<input style="font-size: 8px; padding: 2px 5px;" type="button" value="?"/>	Click to access definition
<input style="font-size: 8px; padding: 2px 5px;" type="button" value="+"/>	Click to add a comment

Water Audit Report for: City of Turlock (CA 5010019)
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.

WATER SUPPLIED

----- Enter grading in column 'E' and 'J' ----->				
Volume from own sources:	+	?	3	6,456.400 MG/Yr
Water imported:	+	?	n/a	0.000 MG/Yr
Water exported:	+	?	3	6.218 MG/Yr

Master Meter and Supply Error Adjustments

	Pcnt:		Value:	
+	?	3	%	MG/Yr
+	?	5	%	MG/Yr

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

WATER SUPPLIED: 6,450.182 MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	5	6,048.800 MG/Yr
Billed unmetered:	+	?	n/a	0.000 MG/Yr
Unbilled metered:	+	?	5	6.824 MG/Yr
Unbilled unmetered:	+	?	5	16.125 MG/Yr

Click here: for help using option buttons below

	Pcnt:		Value:	
+	?	5	%	16.125 MG/Yr

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 6,071.750 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

378.432 MG/Yr

Apparent Losses

Unauthorized consumption: 16.125 MG/Yr

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

Customer metering inaccuracies:	+	?	3	123.584 MG/Yr
Systematic data handling errors:	+	?	5	15.122 MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 154.832 MG/Yr

	Pcnt:		Value:	
0.25%	+	?	5	MG/Yr
2.00%	+	?	5	MG/Yr
0.25%	+	?	5	MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 223.600 MG/Yr

WATER LOSSES: 378.432 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 401.382 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	9	305.0 miles
Number of <u>active AND inactive</u> service connections:	+	?	9	19,635
Service connection density:	+	?	?	64 conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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

Average operating pressure: 55.0 psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$9,898,154 \$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	9	\$1.24 \$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+	?	5	\$190.00 \$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 50 out of 100 *****

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Billed metered



AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association

Water Audit Report for: **City of Turlock**
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:

VOS	Volume from Own Sources:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="6,199.300"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="0.00%"/>	<input type="text" value="percent"/>	
WI	Water Imported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="1"/>	<input type="text" value="0.000"/>	MG/Yr				VOSEA
WE	Water Exported:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="6"/>	<input type="text" value="6.639"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/>	<input type="text" value="2.00%"/>	<input type="text" value="percent"/>	WIEA WEWA
WATER SUPPLIED:			<input type="text" value="6,192.526"/>	MG/Yr				

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="5"/>	<input type="text" value="5,483.100"/>	MG/Yr			
BUAC	Billed Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr			
UMAC	Unbilled Metered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/>	<input type="text" value="119.261"/>	MG/Yr			
UAC	Unbilled Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="13.708"/>	MG/Yr	<input type="text" value="0.25%"/>	<input type="text" value="default"/>	
Default option selected for Unbilled Unmetered, with automatic data grading of 3							
AUTHORIZED CONSUMPTION:			<input type="text" value="5,616.069"/>	MG/Yr			

WATER LOSSES

MG/Yr

Apparent Losses

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

choose entry option:

SDHE	Systematic Data Handling Errors:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="13.708"/>	MG/Yr	<input type="text" value="0.25%"/>	<input type="text" value="default"/>	
CMI	Customer Metering Inaccuracies:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="114.334"/>	MG/Yr	<input type="text" value="2.00%"/>	<input type="text" value="percent"/>	<input type="text" value="under-registration"/>
UC	Unauthorized Consumption:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/>	<input type="text" value="13.708"/>	MG/Yr	<input type="text" value="0.25%"/>	<input type="text" value="default"/>	
Default option selected for Unauthorized Consumption, with automatic data grading of 3							
Apparent Losses:			<input type="text" value="141.749"/>	MG/Yr			

Real Losses

MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

SYSTEM DATA

Lm	Length of mains:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="6"/>	<input type="text" value="305.0"/>	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="19,604"/>		(active and inactive)
Service connection density:		<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="64"/>	conn./mile main	
Lp	Are customer meters typically located at the curbstops/property line?	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="10"/>	<input type="text" value="Yes"/>		
Average length of customer service line has been set to zero and a data grading of 10 has been applied					
AOP	Average Operating Pressure:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/>	<input type="text" value="45.0"/>	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/>	<input type="text" value="\$1.52"/>	\$/1000 gallons (US)	Total Annual Operating Cost
VPC	Variable Production Cost:	<input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/>	<input type="text" value="\$195.31"/>	\$/Million gallons	

WATER AUDIT DATA VALIDITY TIER:

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

[go to dashboard](#)

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

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

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

- 1: Volume from Own Sources (VOS)
- 2: Billed Metered (BMAC)
- 3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:	<input type="text"/>	gal/conn/day
Unit Apparent Losses:	<input type="text"/>	gal/conn/day
Unit Real Losses ⁴ :	<input type="text"/>	gal/conn/day
Unit Real Losses ⁵ :	<input type="text"/>	gal/mile/day

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



AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association

Water Audit Report for: **City of Turlock**
 Audit Year: **2023** **Jan 01 2023 - Dec 31 2023** **Calendar**

To access definitions, click the **input name** Click 'n' to add notes To edit water system info: [go to start page](#)
Click 'g' to determine data validity grade
 All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

Water Supplied Error Adjustments

WATER SUPPLIED

VOS WI WE	Volume from Own Sources: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="5,862.682"/> MG/Yr Water Imported: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="1"/> <input type="text" value="32.570"/> MG/Yr Water Exported: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="4.779"/> MG/Yr	choose entry option: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="percent"/> <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="percent"/> <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="percent"/>	VOSEA WIEA WEEA
WATER SUPPLIED: 5,890.473 MG/Yr			

AUTHORIZED CONSUMPTION

BMAC BUAC UMAC UAC	Billed Metered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="5"/> <input type="text" value="5,041.500"/> MG/Yr Billed Unmetered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="n/a"/> <input type="text" value="0.000"/> MG/Yr Unbilled Metered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="4"/> <input type="text" value="102.000"/> MG/Yr Unbilled Unmetered: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="12.604"/> MG/Yr	choose entry option: <input type="text" value="0.25%"/> <input type="text" value="default"/> <input type="text" value="2.00%"/> <input type="text" value="percent"/> <input type="text" value="0.25%"/> <input type="text" value="default"/>	
Default option selected for Unbilled Unmetered, with automatic data grading of 3			
AUTHORIZED CONSUMPTION: 5,156.104 MG/Yr			

WATER LOSSES

734.369 MG/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3			
SDHE CMI UC	Systematic Data Handling Errors: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="12.604"/> MG/Yr Customer Metering Inaccuracies: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="104.969"/> MG/Yr Unauthorized Consumption: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="3"/> <input type="text" value="12.604"/> MG/Yr	choose entry option: <input type="text" value="0.25%"/> <input type="text" value="default"/> <input type="text" value="2.00%"/> <input type="text" value="percent"/> <input type="text" value="0.25%"/> <input type="text" value="default"/>	under-registration
Default option selected for Unauthorized Consumption, with automatic data grading of 3			
Apparent Losses: 130.177 MG/Yr			

Real Losses

Real Losses: 604.192 MG/Yr

WATER LOSSES: 734.369 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 848.973 MG/Yr

SYSTEM DATA

Lm Nc	Length of mains: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="6"/> <input type="text" value="308.0"/> miles Number of service connections: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/> <input type="text" value="19,908"/> Service connection density: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/> <input type="text" value="65"/> conn./mile main	(including fire hydrant lead lengths) (active and inactive)
Lp AOP	Are customer meters typically located at the curbstops/property line? <input type="text" value="Yes"/> Average length of customer service line has been set to zero and a data grading of 10 has been applied Average Operating Pressure: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="8"/> <input type="text" value="53.0"/> psi	

COST DATA

CRUC VPC	Customer Retail Unit Charge: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="7"/> <input type="text" value="\$1.52"/> \$/1000 gallons (US) Variable Production Cost: <input type="text" value="n"/> <input type="text" value="g"/> <input type="text" value="9"/> <input type="text" value="\$269.13"/> \$/Million gallons	Total Annual Operating Cost <input type="text" value="\$9,914,579"/> \$/yr (optional input)
-------------	---	---

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier II (26-50). See Dashboard tab for additional outputs. ***** [go to dashboard](#)

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

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

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

- 1: Volume from Own Sources (VOS)
- 2: Billed Metered (BMAC)
- 3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:	<input type="text"/>	gal/conn/day
Unit Apparent Losses:	<input type="text"/>	gal/conn/day
Unit Real Losses ⁴ :	<input type="text"/>	gal/conn/day
Unit Real Losses ⁵ :	<input type="text"/>	gal/mile/day

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



AWWA Free Water Audit Software: Worksheet

FWAS v6.1

American Water Works Association

Water Audit Report for: **City of Turlock**
Audit Year: **2024** **Jan 01 2024 - Dec 31 2024** **Calendar**

Click 'n' to add notes
Click 'g' to determine data validity grade
All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To edit water system info: [go to start page](#)

To access definitions, click the [input name](#)

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	<input type="text" value="n"/> <input type="text" value="g"/> 3	<input type="text" value="4,231.799"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> 8	<input type="text" value="volume"/>	<input type="text" value="1.093"/>	MG/Yr	<input type="text" value="under-registration"/>	VOSEA
WI	Water Imported:	<input type="text" value="n"/> <input type="text" value="g"/> 4	<input type="text" value="2,278.180"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> 4	<input type="text" value="percent"/>				WIEA
WE	Water Exported:	<input type="text" value="n"/> <input type="text" value="g"/> 3	<input type="text" value="5.100"/>	MG/Yr	<input type="text" value="n"/> <input type="text" value="g"/> 4	<input type="text" value="percent"/>				WEEA

WATER SUPPLIED: MG/Yr

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	<input type="text" value="n"/> <input type="text" value="g"/> 5	<input type="text" value="5,330.570"/>	MG/Yr						
BUAC	Billed Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> n/a	<input type="text" value="0.000"/>	MG/Yr						
UMAC	Unbilled Metered:	<input type="text" value="n"/> <input type="text" value="g"/> 4	<input type="text" value="111.103"/>	MG/Yr						
UUAC	Unbilled Unmetered:	<input type="text" value="n"/> <input type="text" value="g"/> 3	<input type="text" value="13.326"/>	MG/Yr						

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

AUTHORIZED CONSUMPTION: MG/Yr

WATER LOSSES

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"/> <input type="text" value="g"/> 3	<input type="text" value="13.326"/>	MG/Yr						
CMI	Customer Metering Inaccuracies:	<input type="text" value="n"/> <input type="text" value="g"/> 2	<input type="text" value="111.055"/>	MG/Yr						
UC	Unauthorized Consumption:	<input type="text" value="n"/> <input type="text" value="g"/> 3	<input type="text" value="13.326"/>	MG/Yr						

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

Apparent Losses: MG/Yr

Real Losses

Real Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

SYSTEM DATA

Lm	Length of mains:	<input type="text" value="n"/> <input type="text" value="g"/> 6	<input type="text" value="310.0"/>	miles						(including fire hydrant lead lengths)
Nc	Number of service connections:	<input type="text" value="n"/> <input type="text" value="g"/> 8	<input type="text" value="20,053"/>							(active and inactive)
	Service connection density:		<input type="text" value="65"/>	conn./mile main						

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

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

AOP Average Operating Pressure: 10 psi

COST DATA

CRUC	Customer Retail Unit Charge:	<input type="text" value="n"/> <input type="text" value="g"/> 7	<input type="text" value="\$1.52"/>	\$/1000 gallons (US)						
VPC	Variable Production Cost:	<input type="text" value="n"/> <input type="text" value="g"/> 9	<input type="text" value="\$158.33"/>	\$/Million gallons						
									Total Annual Operating Cost	
									<input type="text" value="\$9,997,083"/>	\$/yr (optional input)

Click here to calculate carbon emissions ---> [carbon](#)

WATER AUDIT DATA VALIDITY TIER:

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

[go to dashboard](#)

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

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

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

- 1: Volume from Own Sources (VOS)
- 2: Billed Metered (BMAC)
- 3: Water Imported (WI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:	<input type="text"/>	gal/conn/day
Unit Apparent Losses:	<input type="text"/>	gal/conn/day
Unit Real Losses ¹ :	<input type="text"/>	gal/conn/day
Unit Real Losses ² :	<input type="text"/>	gal/mile/day

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

City of Turlock Water Shortage Contingency Plan

City of Turlock Water Shortage Contingency Plan

JOINTLY PREPARED BY



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	5
3.3 Assessment Methodology	6
4.0 Standard Water Shortage Levels	6
5.0 Shortage Response Actions	7
5.1 Demand Reduction Actions	8
5.2 Additional Mandatory Restrictions	11
5.2.1 Water Features and Swimming Pools	11
5.3 Supply Augmentation and Other Actions	11
5.4 Operational Changes	12
5.5 Emergency Response Plan	12
6.0 Communication Protocols	13
6.1 Communication for Foreseeable Events	13
6.2 Communication for Unforeseeable Events	14
7.0 Compliance and Enforcement	14
7.1 Shortage Level Enforcement and Penalties	15
7.2 Appeal and Exemption Process	15
8.0 Legal Authorities	15
9.0 Financial Consequences of WSCP	16
10.0 Monitoring and Reporting	16
11.0 WSCP Refinement Procedures	16
12.0 Plan Adoption, Submittal, and Availability	17

Table of Contents

LIST OF TABLES

Table 1. Schedule of Assessment Activities.....	3
Table 2. Schedule of Decision-Making Activities.....	4
Table 3. Cross-reference for Standard vs Supplier Shortage Levels (DWR Table 8-1)	7
Table 4. Water Restrictions and Regulations by Water Shortage Level ^(a)	9
Table 5. Water Shortage Contingency Plan Demand Reduction Actions (DWR Table 8-3)	10
Table 6. Supply Augmentation and Other Actions (DWR Table 8-2).....	12

LIST OF ATTACHMENTS

Attachment A. Turlock Municipal Code Title 6 Chapter 7

LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AWSDA	Annual Water Supply and Demand Assessment
City	City of Turlock
CWC	California Water Code
DWR	Department of Water Resources
ENP	Emergency Notification Plan
ERP	Emergency Response Plan
Legislature	California State Legislature
RWQCF	Regional Water Quality Control Facility
SB	Senate Bill
SRWA	Stanislaus Regional Water Authority
TID	Turlock Irrigation District
TMC	Turlock Municipal Code
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant

Water Shortage Contingency Plan

1.0 INTRODUCTION

This plan presents the City of Turlock's (City's) Water Shortage Contingency Plan (WSCP). The WSCP describes the City's strategic plan in preparation for and responses to water shortages with a goal to proactively prevent catastrophic service disruptions. It includes water shortage stages 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. The Turlock Municipal Code (TMC) Chapter 6-7 (Water Conservation and Education) provides complementary text that supports the City's WSCP. This text has been updated over time and is included as Attachment A.

A water shortage may occur due to a number of reasons, such as population growth, 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 water supply available is insufficient to meet the normally expected customer water use at a given point in time.

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 has been updated so that it is consistent with the 2018 Water Conservation Legislation requirements. The City has modified portions of TMC Chapter 6-7 to support these updates. The City intends for this WSCP to be dynamic, so that it may assess response action effectiveness and adapt to emergencies and catastrophic events. Refinement procedures and adoption requirements are provided in this plan to allow the City to modify this WSCP outside of the Urban Water Management Plan (UWMP) process.

2.0 WATER SUPPLY RELIABILITY ANALYSIS

The City's water supply reliability analysis and drought risk assessment are included in Chapter 7 of the City's most recently adopted UWMP. The City's existing and projected water demands, and existing and planned water supplies are described in Chapter 4 and Chapter 6 of the UWMP, respectively.

The City's water supplies consist of the following:

- Groundwater pumped from city-owned and operated wells
- Treated surface water purchased from Stanislaus Regional Water Authority (SRWA) conveyed from the Tuolumne River through SRWA's Water Treatment Plant (WTP)
- Recycled water from Turlock's Regional Water Quality Control Facility (RWQCF)

During dry periods, SRWA's surface water allocations from the Turlock Irrigation District (TID) may be reduced. As a result, the City would receive less surface water from SRWA during dry periods and would increase pumping from local groundwater wells to meet remaining demand. While potable supplies will remain reliable and continue to meet water quality standards, the consistency of aesthetic water quality may be affected as water from the City's groundwater wells is generally less palatable than surface water.



Water Shortage Contingency Plan

Findings from the water supply reliability analysis show that the City can reliably meet their projected demands through 2050 in both normal and dry years. For a five-year drought (i.e., the drought risk assessment), no water supply shortfalls are anticipated for the City.

Statewide water supply conditions, changes in groundwater levels, subsidence, and actions by SRWA and TID, may impact the City's available water supply. For the City, a water shortage condition occurs when the supply of potable water available cannot meet ordinary water demands for human consumption, sanitation, fire protection, and other beneficial uses. The City may be able to foresee its water shortage condition in some cases; however, in other cases, the water shortage may be caused by an unforeseen sudden or emergency event. In general, the City's water supply conditions may be affected by the following issues:

- Reduction in SRWA surface water allocations from TID during dry years
- SRWA WTP operational issues
- City well production and/or groundwater quality issues

The City may experience unforeseen water shortages when catastrophic interruption of water supplies occurs due to regional power outage, an earthquake, or other potential emergency events.

The City conducts an annual water supply and demand assessment in accordance with Section 3. The analysis associated with this assessment was developed in the context of the City's water supply sources and reliability.

3.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning July 1, 2022, California Water Code (CWC) §10632.1 requires water suppliers to submit an Annual Water Supply and Demand Assessment (AWSDA). Water suppliers were also required to submit an Annual Water Shortage Assessment Report beginning July 1, 2022. This WSCP provides the procedures for the City to conduct its AWSDA. The findings from that assessment will provide information for the City's Annual Water Shortage Assessment Report.

The procedures provided in this section are intended to assist the City in planning for potential, foreseeable shortage in water supplies. These procedures provide the steps the City needs to take that may lead to declaring a water shortage emergency and associated water shortage level (see Section 4) and implementation of water shortage response actions (see Section 5).

3.1 Decision-Making Process

The decision-making process described below will be used by the City to determine its water supply reliability in a consistent manner annually. The City may adjust this process for improved decision-making during implementation.

The Municipal Services Director, or their designee, is responsible for the preparation of the City's AWSDA and Annual Water Shortage Assessment Report, and submittal of the reports to Department of Water Resources (DWR) by July 1 of each year. The Municipal Services Director, or their designee, will gather key data inputs described in Section 3.2 and conduct the assessment in accordance with Section 3.3. In June, the Municipal Services Director, or their designee, will finalize the assessment based on the SRWA allocated water amount from TID.



Water Shortage Contingency Plan

The City will follow the timeline of activities as shown in Table 1 for conducting the assessment, and Table 2 for its decision making. Due to variations in climate and hydrologic conditions, schedule 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, and to comply with the State’s reporting requirements.

Table 1. Schedule of Assessment Activities		
Schedule	Activities	Responsible Party
Early November of Prior Year	Convene Team.	Municipal Services Department
Mid- to Late November of Prior Year	Plan for water supply sources for current year and one subsequent dry year. Describe sources and quantities considering factors affecting supply as described in Section 3.2.	Municipal Services Department
Mid- to Late November of Prior Year	Plan for water demands for current year and one subsequent dry year. Describe demand types and quantities considering factors affecting supply as described in Section 3.2.	Municipal Services Department
Early December of Prior Year	Using the methodology described in Section 3.3, calculate the City’s water supply reliability for the current year and one subsequent dry year.	Municipal Services Department
Early March	Finalize assessment based on expected purchased water from SRWA.	Municipal Services Department
Mid to Late March	Draft Annual Water Shortage Assessment Report for DWR submittal.	Municipal Services Department
Early April	Review Annual Assessment and Annual Water Shortage Assessment Report and provide comments as needed.	Municipal Services Director or Designee
April - June	Finalize and approve Annual Assessment and Annual Water Shortage Assessment Report.	Municipal Services Department
Before July 1	Submit Annual Assessment and finalized Annual Water Shortage Assessment Report to DWR.	Municipal Services Department



Water Shortage Contingency Plan

Table 2. Schedule of Decision-Making Activities		
Schedule	Activities	Responsible Party
April	Based on finalized determinations of AWSDA regarding water shortage condition and recommended actions, prepare recommendations on water shortage condition determination and actions.	Municipal Services Department
April - June	Prepare ordinances or resolutions approving determinations and actions.	Municipal Services Department
April - June	If a water shortage emergency condition exists, activate WSCP protocols and follow Section 8.	Municipal Services Department
April - June	Coordinate interdepartmentally, with SRWA, and with County for the possible proclamation of a local emergency.	Municipal Services Department
April - June	Present finalized determinations and recommendations, along with ordinances or resolutions approving determinations and actions.	Municipal Services Department
April - June	Receive presentation of finalized determinations and recommendations. Make determination of degree of emergency and act on resolutions that declare a water shortage emergency condition. Authorize water shortage response actions for implementation. Act on ordinances or resolutions.	City Council
April - June	If a water shortage emergency condition is declared, implement the WSCP and the water shortage response actions as approved by City Council.	Municipal Services Department
April - June	Finalize Annual Water Shortage Assessment Report.	Municipal Services Department
Before July 1	Submit finalized AWSDA assessment and Annual Water Shortage Assessment Report to DWR.	Municipal Services Department

3.1.1 AWSDA Finding: Sufficient Water Supply to Meet Expected Demands

If the Annual Assessment 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. The City's Annual Water Shortage Assessment Report will be finalized using the AWSDA. The final approved documents will be submitted to DWR by July 1 each year.

3.1.2 AWSDA Finding: Available Water Supply Will Not Meet Demands

In the event that the AWSDA finds that available supply will not meet expected demands, the Municipal Services Director, or 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 level, and water shortage actions. The Municipal Services Director, or designee, will coordinate interdepartmentally and with SRWA and Stanislaus County, for the possible proclamation of a local emergency. The Municipal Services Director, or designee, will prepare the City's Annual Water Shortage Assessment Report using the finalized AWSDA and incorporate City Council determinations and approved actions.



Water Shortage Contingency Plan

Based on the findings of the assessment, the City Council will determine if a water shortage condition exists and, if needed, declare a water shortage emergency and water shortage level and authorize water shortage actions.

The Municipal Services Director, or designee, will then prepare the City's Annual Water Shortage Assessment Report, incorporating the City Council determinations and approved actions, and submit the report to DWR by July 1.

3.2 Key Data Inputs

The AWSDA requires the evaluation of supply and demands for the current year and one dry year that is assumed to follow the current year. The following key data inputs will be used to evaluate the City's water supply reliability, as necessary and applicable.

Planned water supplies will be used as inputs to the AWSDA for the current year and a subsequent single dry year. The subsequent dry year may be similar to a single dry year as defined in Chapter 7 of the City's most recently adopted UWMP. In planning for water supplies, the following factors are considered:

1. Hydrologic conditions (e.g., SRWA's surface water allocations from TID)
2. Regulatory conditions
3. Contractual constraints
4. Surface water and groundwater quality conditions
5. Well production limitations
6. Infrastructure capacity constraints or changes
7. Capital improvement projects implementation

Planned water supply sources and quantities will be described and be reasonably consistent with the supply projections in the City's most recently updated UWMP Chapter 6 (Normal-Year Water Supply Characterization) and Chapter 7 (Water Service Reliability and Drought Risk Assessment). Should the supply sources and projections deviate significantly from projections, an explanation for the difference will be provided.

Planned unconstrained water demands will be used as input to the AWSDA for the current year and a subsequent single 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:

1. Weather conditions
2. Water year type
3. Population changes (for example, due to development projects)
4. Anticipated new demands (for example, changes to land use)
5. Pending policy changes that may impact demands
6. Infrastructure operations



Water Shortage Contingency Plan

Planned water demand types and quantities will be described and be reasonably consistent with the demand projections in the City's most recently updated UWMP Chapter 4 (Water Use Characterization). Should the demand projections deviate significantly from projections, an explanation for the difference will be provided.

3.3 Assessment Methodology

In preparing the AWSDA, the City will follow the following assessment methodology and evaluation criteria will be used to evaluate the agency's water supply reliability for the current year and a subsequent single dry year.

The City uses a spreadsheet 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 monthly increments.

Supply and demand will be compared to determine the reliability of the City's water supply in the current year and a subsequent single dry year. The City's water supply for the current year and the following dry year will be determined to be reliable if water supply is sufficient to meet the planned water demands.

If water supply is insufficient to meet planned water demands in the current year and/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. As described in Section 3.1.1 and Section 3.1.2, if water supply is insufficient to meet planned water demands, the AWSDA findings will be presented to the City Council, along with recommendations for action for City Council consideration. If water supply is sufficient, the final approved documents will be submitted to DWR, and no further action will be required.

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 (or 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.

The City's six water shortage levels align with the State's standard levels as shown in Table 3 (DWR Table 8-1). The City's water shortage levels apply to both foreseeable and unforeseeable water supply shortage conditions. Water shortage is the gap between available supply and projected demands.



Water Shortage Contingency Plan

Table 3. Cross-reference for Standard vs Supplier Shortage Levels (DWR Table 8-1)

<input checked="" type="checkbox"/>	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
1	Up to 10%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		

As described in Section 3, the City will conduct an AWSDA to determine its water supply condition for the current year and a subsequent single dry year. The preparation of AWSDA helps the City ascertain the need to declare a water shortage emergency and water shortage level. In other 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 demand 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 which shortage response actions should be implemented.

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 include a combination of:

- Demand reduction actions
- Supply augmentation strategies
- Operational changes

The response actions implemented are dependent on the event that precipitates a water shortage level, the time of the year the event occurs, the water supply sources available at that time, and the condition of the City's water system infrastructure.

The City plans to use a balanced approach that combines demand reduction, supply augmentation, and operational changes to respond to water shortage events. Based on the City's water supply and demand monitoring described in Section 10, the City will adapt its response actions as necessary to close the gap between water supplies and water demand and to achieve the water use reduction goals associated with the declared water shortage level.



Water Shortage Contingency Plan

The shortage response actions described below serve as tools that allow the City to respond effectively to water shortage conditions. Because the City is often implementing multiple shortage response actions simultaneously and is continuously adjusting actions as needed to meet water demand reduction goals, it is difficult to quantify how each action may reduce the supply-demand gap. Therefore, the effectiveness of each shortage response action is provided as an estimate. Certain response actions, such as public outreach and enforcement, support the effectiveness of other response actions but do not directly produce quantifiable water savings on their own.

5.1 Demand Reduction Actions

During water shortage conditions, the City plans to reduce demand by implementing the actions shown in Table 4 and Table 5 (DWR Table 8-3). Table 4 presents the City's demand reduction actions organized by the triggering water shortage level. These actions are based on the City's Water Conservation and Education regulations contained in TMC Chapter 6-7 (Attachment A).

In general, demand reduction actions are initiated at a specified shortage level and continue to be implemented at higher shortage levels, unless they are replaced by more stringent measures. The City may request that its customers reduce their water use in response to any water shortage level through TMC Chapter 6-7.

Table 5 (DWR Table 8-3) is consistent with Table 4, but also includes additional non-enforcement demand reduction actions, such as public information campaigns and water loss reduction strategies. In addition, Table 5 (DWR Table 8-3) includes estimates of the potential reduction in the water shortage gap associated with each demand reduction action. For each action, Table 5 (DWR Table 8-3) also indicates whether the City uses compliance actions such as penalties, charges, or other enforcement.

During the 2012-2016 drought, the City was able to exceed its water conservation goals using a combination of public outreach and compliance actions. The City found that customers were very responsive to public outreach efforts. A mandatory watering schedule remained in place, although it was not significantly modified in recent years. Conservation efforts focused on continued public education, including promoting the removal of turf grass in landscaped medians, encouraging the use of non-potable water for irrigation where feasible, and maintaining strong messaging through outreach campaigns. The City also distributed home water survey kits and continued rebate programs for high-efficiency appliances. Compared to earlier drought responses, the key difference was a shift away from blanket restrictions toward policy-driven conservation triggers tied to local supply conditions, which allowed the City to target actions more effectively.



Water Shortage Contingency Plan

Table 4. Water Restrictions and Regulations by Water Shortage Level^(a)

Category of Demand Reduction Method	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
<i>Commercial</i>						Industry and commercial businesses shall be required to curtail consumption to maintain adequate supplies of water for health and safety.	
<i>Construction</i>			Construction water from City fire hydrants shall be banned but recycled water from the City of Turlock's Regional Water Quality Control Facility may be made available for construction water purposes.				
<i>Landscape Irrigation</i>	Outdoor landscape watering shall be limited to three times per week on an odd-even basis.	Outdoor landscape watering. Outdoor landscape watering shall be limited to two times per week .	Outdoor landscape watering shall be limited to one day per week .	Outdoor landscape watering shall be limited to one day per week , for trees only .		Outdoor landscape watering shall be prohibited .	
	Outdoor landscape watering is prohibited between the hours of 9:00 a.m. and 9:00 p.m.						
	Large commercial landscapes and City parks may have individual watering schedules approved by the Municipal Services Department	Large commercial landscapes and City parks shall also be limited to two days per week , as scheduled by the Municipal Services Department	Large commercial landscaping and City parks shall be limited to one day per week , as scheduled by the Municipal Services Department	Large commercial landscaping and City parks shall be limited to one day per month , as scheduled by the Municipal Services Department			
<i>Vehicle Washing</i>	Residential vehicle washing requires a quick-acting automatic positive shut-off valve and is limited to one washing per week during designated watering times.		Washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial car washes and commercial service stations and not in immediate interest of the public health, safety, and welfare shall be prohibited.				
<i>Water Features</i>			Further use of decorative fountains or reflection ponds shall be discontinued until further notice.				
						Filling newly constructed or drained swimming pools with City water shall be prohibited.	

(a) City of Turlock. Water Conservation Ordinance, TMC Chapter 6-7-405. Accessed at <https://www.turlock.ca.us/government/municipalcode/> on April 9, 2026.

Table 5. Water Shortage Contingency Plan Demand Reduction Actions (DWR Table 8-3)

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) (MG)		
1	Expand Public Information Campaign	Percentage	5-20%	Up to 5-20% water demand reduction anticipated depending on shortage level and extent of public information campaign.	No
1	Reduce System Water Loss	Percentage	5-10%	The City is actively working to reduce water loss (real and apparent losses) as described in Chapter 9 of the City's Joint UWMP.	No
1	Increase Water Waste Patrols	Percentage	0-10%	Up to 10% water demand reduction anticipated depending on shortage leve and amount of enforcement.	Yes
1	Landscape - Limit landscape irrigation to specific days	Percentage	0-5%	Turlock Municipal Code: 6-7-405(a)(1); Outdoor landscape watering shall be limited to three (3) times per week on an odd-even basis. If the address ends in an even number, the water days shall be Tuesdays, Thursdays, and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays, Fridays, and Sundays. No outdoor landscape watering on Mondays. Drip irrigation systems shall be exempt.	Yes
1	Landscape - Limit landscape irrigation to specific times	Percentage	0-5%	Turlock Municipal Code: 6-7-405(a)(2); Outdoor landscape watering is prohibited between the hours of 9:00 a.m. and 9:00 p.m.	Yes
1	CII - Other CII restriction or prohibition	Percentage	0-10%	Turlock Municipal Code: 6-7-405(a)(3); Large commercial landscapes and City parks may have individual watering schedules approved by the Municipal Services Department.	Yes
1	Other - Require automatic shut of hoses	Percentage	0-5%	Turlock Municipal Code: 6-7-302(d); Residential vehicle washing requires a quick-acting automatic positive shut-off valve and is limited to one washing per week during designated watering times.	Yes
2	Landscape - Limit landscape irrigation to specific days	Percentage	5-10%	Turlock Municipal Code: 6-7-405(b)(1); Outdoor landscape watering shall be limited to two (2) times per week on an odd-even basis. If the address ends in an even number, the watering days shall be Tuesdays and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays and Sundays. No outdoor landscape watering on Monday, Thursday, and Friday. Drip irrigation systems shall be exempt.	Yes
2	CII - Other CII restriction or prohibition	Percentage	0-10%	Turlock Municipal Code: 6-7-405(b)(2); Large commercial landscapes and City parks limited to irrigation two days per week.	Yes
3	Landscape - Limit landscape irrigation to specific days	Percentage	5-15%	Turlock Municipal Code: 6-7-405(c)(1); Outdoor landscape watering shall be limited to one (1) day per week on an odd-even basis. If the address ends in an even number, the watering day shall be Saturdays. If the address ends in an odd number, the watering day shall be Sundays. No outdoor landscape watering Monday through Friday. Drip irrigation systems shall be exempt.	Yes
3	CII - Other CII restriction or prohibition	Percentage	5-10%	Turlock Municipal Code: 6-7-405(c)(2); Large commercial landscapes and City parks limited to irrigation one day per week.	Yes
3	Other - Prohibit use of potable water for construction and dust control	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(3); Construction water from City fire hydrants shall be banned but recycled water from the City's Regional Water Quality Control Facility may be made available for construction water purposes.	Yes
3	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(5); Further use of decorative fountains or reflection ponds shall be discontinued until further notice.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0-5%	Turlock Municipal Code: 6-7-405(c)(4); Washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial car washes and commercial service stations and not in immediate interest of the public health, safety, and welfare shall be prohibited.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	Percentage	5-15%	Turlock Municipal Code: 6-7-405(d)(1); Outdoor landscape watering shall be limited to one (1) day per week, for trees only, only if a quick-acting automatic positive shut-off valve is used and in proper operating condition.	Yes
5	CII - Other CII restriction or prohibition	Percentage	5-10%	Turlock Municipal Code: 6-7-405(e)(1); Large commercial landscapes and City parks limited to irrigation one day per month.	Yes
6	Landscape - Prohibit all landscape irrigation	Percentage	10-25%	Turlock Municipal Code: 6-7-405(f)(2); Outdoor landscape watering shall be prohibited.	Yes
6	CII - Other CII restriction or prohibition	Percentage	15-20%	Turlock Municipal Code: 6-7-405(f)(1); Industry and commercial businesses shall be required to curtail consumption in order to maintain adequate supplies of water for health and safety.	Yes
6	Other water feature or swimming pool restriction	Percentage	0-5%	Turlock Municipal Code: 6-7-405(f)(3); Filling newly constructed or drained swimming pools with City water shall be prohibited.	Yes



Water Shortage Contingency Plan

5.2 Additional Mandatory Restrictions

In addition to demand reduction actions provided in Table 4 and Table 5 (DWR Table 8-3), the City may impose additional water use restrictions on its customers and enforce the regulations and restrictions provided in TMC Chapter 6-7-405 to achieve the percent demand reduction required by the water shortage level.

These additional mandatory restrictions would be implemented alongside any 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 TMC 6-7-405 prohibit the use of water in fountains and reflective ponds in Level 3 and more restrictive stages.

5.3 Supply Augmentation and Other Actions

This section discusses the City's supply augmentation strategies to increase available supply during water shortage conditions. As described in Section 2, the City's water supply portfolio includes treated surface water provided from SRWA, local groundwater, and recycled water. The City currently operates 15 active potable groundwater wells and 4 non-potable irrigation wells.

When surface water supplies are reduced, the City relies on its existing potable groundwater wells to meet remaining demands. Based on historical records, the local groundwater basin has proven to be reliable, and drought-related impacts on the City's groundwater supply are not anticipated. As described in the UWMP, the City actively manages its groundwater resources to ensure that water demands can be met even during periods of significantly reduced surface water allocations. In addition, the City has multiple planned groundwater supply projects intended to maintain existing well capacity.

Table 6 (DWR Table 8-2) summarizes the City's potential supply augmentation actions. During water shortage events that result in reduced surface water deliveries, the City may increase pumping from existing production wells and, if necessary, expedite the rehabilitation of existing wells and/or the construction of new production wells to meet demand. Given the City's planned groundwater capital improvement efforts, the City does not expect to need to augment supplies beyond currently planned projects except under more severe water shortage conditions and/or unforeseen emergency conditions.

Supply augmentation actions related to surface water supply from SRWA are not provided in Table 6 (DWR Table 8-2), as these actions would generally be performed by SRWA and are listed in SRWA's WSCP. As described in SRWA's WSCP, SRWA would notify the City in a timely manner during dry periods when surface water allocations are reduced regarding the timing and magnitude of any surface water supply



Water Shortage Contingency Plan

reductions. In the event of more severe allocation reductions, SRWA may evaluate opportunities to secure supplemental surface water supplies through alternative water transfer agreements.¹

The City does not currently plan to purchase or use water supplies other than local groundwater and surface water provided by SRWA to augment its water supply portfolio.

Table 6. Supply Augmentation and Other Actions (DWR Table 8-2)

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (MG)	
3	Other Actions (describe)	Volume	390-1,560	Rehabilitate existing wells, increase pumping of existing production wells, or install new production wells.
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES: Volume of supplemental groundwater assumes construction or rehabilitation of one to four potable groundwater wells, each with a capacity of 1,000 gallons per minute, and assuming a run time of 75 percent throughout the year.				

5.4 Operational Changes

The City may modify its operations on a short-term or long-term basis in response to any water shortage conditions. The City may take any one or a combination of the following actions.

1. The City may expedite repairs of leaks in its water distribution system. All meter leaks and emergency breaks would be repaired immediately after being reported. Non-emergency service line and main breaks would be repaired within three business days after detection.
2. During the duration of the water shortage condition, the City may limit its regular maintenance water system flushing operations such that flushing is conducted only in areas with known water quality issues.

5.5 Emergency Response Plan

As stated in Section 4, the City's water shortage levels outlined in TMC Section 6-7-405 apply to both foreseeable and unforeseeable water supply shortage conditions, including catastrophic water shortage conditions.

The City's 2023 *Water Distribution System Operations Plan* includes an Emergency Response Plan (ERP) that addresses extreme weather emergencies such as droughts when catastrophic water shortage conditions may occur. Water shortage emergency response is coordinated with the County's Office of Emergency Services. The ERP outlines response procedures associated with unforeseeable incidents such as water supply contamination, earthquake, infrastructure failure, and other events. The ERP includes

¹ SRWA. October 2024. *Water Shortage Contingency Plan*.



Water Shortage Contingency Plan

actions to be taken in preparation for, during, and recovery from such events. To maintain the security of the City's water system, the ERP is retained as a confidential document.

The City's response planning for continued water service includes the use of standby generators, water purification supplies and equipment, emergency drinking water storage, and water trucks. Water storage, treatment, and pumping facilities have been constructed to meet earthquake safety standards and are inspected regularly.

The City has access to surface water from the Tuolumne River through the SRWA WTP. This facility may supply emergency water to maintain normal distribution if the City's groundwater supply is impacted by a catastrophic supply interruption. Alternatively, if the catastrophic interruption is related to the surface water supply, the City will use the existing groundwater wells to provide sufficient water for health, sanitation, and fire protection for the duration of the emergency. If there is a catastrophic supply interruption that impacts both the City's groundwater supply and the surface water supply from SRWA, then outside emergency water supply assistance would be needed.

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 cell phones and City email accounts to communicate internally and externally.

6.1 Communication for Foreseeable Events

Water shortages may be foreseeable when the City conducts its AWSDA as described in Section 3. When the City determines the potential for a water shortage event, the City Council may find, determine and declare a water shortage emergency, and the associated water shortage level, in accordance with TMC Chapter 6-7-403.

The following communications protocol and procedures will be followed. The City may trigger any of these communication protocols at any water shortage level.

1. If a water shortage emergency is anticipated, the City will coordinate interdepartmentally and with Stanislaus County for the possible proclamation of a local emergency.
2. The City may hold a duly noticed City Council meeting in which the AWSDA findings and recommendations for a water shortage emergency and shortage response actions are presented.
3. The Municipal Services Director, or his or her designee, shall monitor the projected supply and demand for water by its customers, with heightened emphasis during the months of March through October.
4. The Municipal Services Director, or his or her designee, shall recommend to the City Manager and City Council the extent of the conservation compliance stage required in order for the City to prudently plan for and supply water to its customers.
5. The City Council may order that the appropriate stage of water conservation be implemented or terminated in accordance with the applicable provisions of this chapter.



Water Shortage Contingency Plan

When implementing mandatory water conservation compliance Stages 2, 3, 4, 5 and 6, said order shall be made by public announcement and shall be published a minimum of one (1) time in a daily newspaper of general circulation and shall become effective immediately upon such publication. Other forms of communication to inform customers, the public, and government entities shall include social media postings, email to customers and businesses in Turlock and radio broadcast. Public entities and officials are informed of water shortage information via email.

6.2 Communication for Unforeseeable Events

Water shortages may occur during unforeseeable events such as earthquakes, fires, infrastructure failures, civil unrest, and other catastrophic events. The City's 2023 *Water Distribution System Operations Plan* includes an Emergency Notification Plan (ENP) and ERP that provide specific communication protocols and procedures to convey water shortage contingency planning actions during these events. The City may trigger any of these communication protocols at any water shortage level, depending on the event.

The ENP provides a list of relevant contacts to notify in the event of an emergency at the local, regional, and state level. The ERP lists the City's emergency plans and procedures, resilience strategies, and mitigation actions. To maintain the security of the City water system, the *Water Distribution System Operations Plan* is maintained as a confidential document and may not be incorporated in this UWMP.

In general, communications and notifications should proceed along the chain of command. Notification decisions will be made under the direction of the Municipal Services Director or their designee. External communications will be managed by the Municipal Services Director or their designee. All City staff are provided their communication responsibilities. The Regulatory Compliance Officer and the Municipal Services Director will work with the Municipal Services Department staff to notify regulatory agencies.

7.0 COMPLIANCE AND ENFORCEMENT

TMC Chapter 6-7 supports the implementation of the City's WSCP actions. This text includes provisions for compliance and enforcement of its water use regulations, restrictions, and prohibitions and is available on the City's website. The City's water conservation website (<https://www.cityofturlock.org/watersewergarbage/waterconservation/>) provides the most current regulations and water restrictions.

When a water shortage is anticipated, the City Council determines the degree of the water shortage emergency and makes a declaration of the water shortage stage. The City Council may also hold a duly noticed public meeting to discuss the water shortage emergency.

Since the City's water service area is fully metered, customer water use can be quantified and compared to determine their extent of compliance to water reduction requirements. The City may also become aware of non-compliance through its water waste reporting outreach or through staff inspections. Non-compliance is deemed as a violation and is classified as an infraction. Each day of continued violation is considered as a separate offense.

The Municipal Services Director or their designee and duly designated representatives are authorized to enforce provisions of TMC Chapter 6-7 and make determinations with regard to the customer water allocations provided in TMC Chapter 6-7. For these purposes, they have the power and discretion of a law enforcement office.



Water Shortage Contingency Plan

7.1 Shortage Level Enforcement and Penalties

Enforcement and penalties for non-compliance with restrictions associated with a water shortage level or stage are provided in TMC 6-7-410. When the City becomes aware of a customer violating, causing, or permitting a violation of the restrictions or prohibitions associated with the adopted water shortage level, the City will issue a notice that describes the nature of the violation and includes an order that the violation be corrected within a stated period. Upon occurrence of a second violation or failure to correct the initial violation, the City will issue a second notice ordering immediate correction and imposing a surcharge as provided in the TMC. Upon occurrence of a third violation or failure to correct the initial violation, the City will issue a third notice ordering immediate correction and imposing a surcharge as provided in the TMC. Upon occurrence of a fourth violation, and each subsequent violation, or failure to correct the initial violation, the City will issue an additional notice ordering immediate correction and imposing a surcharge as provided in the TMC. The Municipal Services Director, or designee, may issue an order to cease and desist until appropriate remedial actions are taken. For continued violation, the Municipal Services Director or designee may order discontinuance of service.

The thirty days after the effective date of the Council's declaration of a water shortage emergency or the effective date stated in the resolution is considered as an adjustment period. During that period, no penalties will be imposed on violations to water use prohibitions and restrictions associated with the water shortage emergency.

After the initial thirty days after the effective date, customers are subject to enforcement and penalties associated with water use prohibitions and restrictions. For continued violation, the City may impose progressively stringent action, from issuance of a warning to increasing penalties and fines.

7.2 Appeal and Exemption Process

Per TMC Chapter 6-7-411 and 6-7-412, utility customers may appeal a Notice of Acts Constituting Water Wasting by submitting a written appeal to the Municipal Services Director within fifteen calendar days from the date of service of the Notice of Acts Constituting Water Wasting, or any water wasting penalty assessed to his or her account. The written appeal should include supporting facts and reasons. The hearing officer may hold an appeal hearing, where the appellant and the Municipal Services Director are heard. At the conclusion of hearing the appeal, the hearing officer may affirm, reverse or modify the Notice of Acts Constituting Water Wasting. The hearing officer's action on the appeal is final.

8.0 LEGAL AUTHORITIES

Title 6, Chapter 7, Article 4 of the TMC includes provisions for the emergency water shortage plan. When a water shortage is determined, the City will coordinate interdepartmentally, with SRWA, and with Stanislaus County for the possible proclamation of a local emergency in accordance with California Government Code, California Emergency Services Act (Article 2, § 8558).

In accordance with TMC Chapter 6-7 and California Water Code Chapter 3, Division 1, § 350 et seq, the City Council is required, unless an immediate emergency exists, to conduct a duly noticed public meeting for the purpose of determining 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 Division 1.



Water Shortage Contingency Plan

Water Code Section 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 of this WSCP and compliance and enforcement actions described in Section 7 of this WSCP.

9.0 FINANCIAL CONSEQUENCES OF WSCP

The City maintains an adequate operational reserve to protect against a temporary water shortage. The City anticipates reduced revenue due to decreased water use by its customers and additional costs associated with implementing water use restrictions and associated compliance actions. Reduced revenue and costs associated with compliance actions are considered in the City's water rate study.

10.0 MONITORING AND REPORTING

The City's water system is fully metered, from production facilities to individual customer connections, allowing for comprehensive monitoring of system supplies and demands. Water production data may be read on a daily basis. These meters may be used as monitoring tools for compliance and reporting purposes. The City regularly records its water meter readings, along with enforcement actions, to comply with State reporting requirements.

Meters can be read as frequently as needed to track the effectiveness of implemented response actions. Water production and water use can be compared to historical periods, analyzed by customer sector or at the individual customer level. This continuous monitoring allows the City to assess water system demands and compare it with its water demand reduction goals.

Based on these assessments, the City may adjust its shortage response actions to better align with its water demand reduction goals. For example, the City may intensify its public outreach or more rigorously enforce compliance with water use prohibitions if water demand reduction goals are not met for a specific shortage level.

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 and the need for compliance and enforcement actions described in Section 7 of this WSCP/ TMC 6-7-410, the City may adjust its response actions and may modify its WSCP. When a revised WSCP is proposed, the revised WSCP will undergo the process described in Section 12 for adoption by the City Council and distribution to the City, 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, through public hearings, and through regularly scheduled City Council meetings.



Water Shortage Contingency Plan

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 Joint 2025 UWMP, by separate resolution. Prior to adoption, a duly noticed public hearing was conducted. An electronic copy of this WSCP will be submitted to the DWR within 30 days of adoption.

No later than 30 days after submittal to DWR, this WSCP will be available at the City's offices. A copy will also be provided to Stanislaus County. An electronic copy of this WSCP as well as the Joint 2025 UWMP will also be available for public review and download on the City's website.



Attachment A

Turlock Municipal Code Title 6 Chapter 7

Title 6. Sanitation and Health

Chapter 6-7. WATER CONSERVATION AND EDUCATION

Article 4. Emergency Water Shortage Plan

§ 6-7-401. Title.

There is hereby established the "City of Turlock Emergency Water Shortage Plan."
(778-CS, Enacted, 04/28/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-402. Declaration of policy: Purpose.

- (a) Declaration of policy. The City Council hereby declares that the general welfare requires that the water resources available to the City be put to the maximum beneficial use to the extent to which the City is capable, and that the waste of, unreasonable use of, or unreasonable method of use of water be prevented. The conservation of such water is to ensure the reasonable and beneficial use thereof in the interests of the people of the City of Turlock and for the public welfare.
- (b) Purpose. The City Council finds and declares that consolidating the provisions of Ordinance Number 778-CS and Ordinance Number 782-CS into one (1) readily accessible document shall provide a more professional and usable work product as well as promote a better public understanding of the various procedures and provisions of the Turlock Emergency Water Shortage Plan. Additionally, adding provisions prohibiting water wasting and defining the acts which so constitute water wasting advances the purpose and policy of the Turlock Emergency Water Shortage Plan.

(778-CS, Enacted, 04/28/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-403. City Manager: Authorized action.

The City Manager, or his or her designee, is hereby authorized and directed to implement the provisions of this chapter upon a declaration by the City Council that a water shortage emergency condition prevails as specified in TMC 6-7-405.

(778-CS, Enacted, 04/28/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015; 1286-CS, Amended, 06/22/2021)

§ 6-7-404. Application.

The provisions of this chapter shall apply to all persons, customers, and property served by the City of Turlock.

(778-CS, Enacted, 04/28/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-405. Water conservation stages.

- (a) Stage 1. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section **350**, and publication of notice that Stage 1 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting, the following mandatory conservation compliance measures shall apply:
- (1) Outdoor landscape watering. Outdoor landscape watering shall be limited to three (3) times per week on an odd-even basis. If the address ends in an even number, the water days shall be Tuesdays, Thursdays, and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays, Fridays, and Sundays. No outdoor landscape watering on Mondays. Drip irrigation systems shall be exempt.
 - (2) Outdoor landscape watering is prohibited between the hours of 9:00 a.m. and 9:00 p.m.
 - (3) Large commercial landscapes and City parks may have individual watering schedules approved by the Municipal Services Department.
 - (4) Residential vehicle washing. Residents shall be allowed to wash their vehicles as established by TMC 6-7-302(d).
- (b) Stage 2. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section **350**, and publication of notice that Stage 2 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting and Stage 1 measures, the following Stage 2 mandatory conservation compliance measures shall apply:
- (1) Outdoor landscape watering. Outdoor landscape watering shall be limited to two (2) times per week on an odd-even basis. If the address ends in an even number, the watering days shall be Tuesdays and Saturdays. If the address ends in an odd number, the watering days shall be Wednesdays and Sundays. No outdoor landscape watering on Monday, Thursday, and Friday. Drip irrigation systems shall be exempt.
 - (2) Large commercial landscapes and City parks shall also be limited to two (2) days per week, as scheduled by the Municipal Services Department.
- (c) Stage 3. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section **350**, and publication of notice that Stage 3 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting, Stage 1 and Stage 2 measures and the following Stage 3 mandatory conservation compliance measures shall apply:
- (1) Outdoor landscape watering shall be limited to one (1) day per week on an odd-even basis. If the address ends in an even number, the watering day shall be Saturdays. If the address ends in an odd number, the watering day shall be Sundays. No outdoor landscape watering Monday through Friday. Drip irrigation systems shall be exempt.
 - (2) Large commercial landscaping and City parks shall be limited to one (1) day per week, as scheduled by the Municipal Services Department.
 - (3) Construction water from City fire hydrants shall be banned but recycled water from the City of Turlock's Regional Water Quality Control Facility may be made available for construction water purposes.
 - (4) Washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment not occurring upon the immediate premises of commercial car washes and commercial service stations and not in immediate interest of the public health, safety, and welfare shall be prohibited.

- (5) Further use of decorative fountains or reflection ponds shall be discontinued until further notice.
- (d) Stage 4. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section 350, and publication of notice that Stage 4 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting, Stage 1, Stage 2, and Stage 3 measures and the following Stage 4 mandatory conservation compliance measures shall apply:
- (1) Outdoor landscape watering shall be limited to one (1) day per week, for trees only, only if a quick-acting automatic positive shut-off valve is used and in proper operating condition.
- (e) Stage 5. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section 350, and publication of notice that Stage 5 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting, Stage 1, Stage 2, Stage 3, and Stage 4 measures and the following Stage 5 mandatory conservation compliance measures shall apply:
- (1) Large commercial landscaping and City parks shall be limited to one (1) day per month, as scheduled by the Municipal Services Department.
- (f) Stage 6. Mandatory water conservation compliance: Warning. Upon implementation of this chapter by the City Council pursuant to Water Code Section 350, and publication of notice that Stage 6 mandatory water conservation compliance measures are in effect, in addition to the outdoor landscape watering, water use prohibitions, and acts constituting water wasting, Stage 1, Stage 2, Stage 3, Stage 4, and Stage 5 measures and the following Stage 6 mandatory conservation compliance measures shall apply:
- (1) Industry and commercial businesses shall be required to curtail consumption to maintain adequate supplies of water for health and safety.
- (2) Outdoor landscape watering shall be prohibited.
- (3) Filling newly constructed or drained swimming pools with City water shall be prohibited.
(778-CS, Enacted, 04/28/1992; 782-CS, Amended, 06/09/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015; 1222-CS, Amended, 05/12/2016; 1286-CS, Amended, 06/22/2021)

§ 6-7-406. Mandatory conservation compliance phase implementation.

- (a) The Municipal Services Director, or his or her designee, shall monitor the projected supply and demand for water by its customers, with heightened emphasis during the months of March through October.
- (b) The Municipal Services Director, or his or her designee, shall recommend to the City Manager the extent of the conservation compliance stage required in order for the City to prudently plan for and supply water to its customers.
- (c) The City Manager may order that the appropriate stage of water conservation be implemented or terminated in accordance with the applicable provisions of this chapter. When implementing mandatory water conservation compliance Stages 2, 3, and 4 said order shall be made by public announcement and shall be published a minimum of one (1) time in a daily newspaper of general circulation and shall become effective immediately upon such publication.
(778-CS, Enacted, 04/28/1992; 785-CS, Amended, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-407. Water wasting prohibited.

Water wasting, as defined by TMC 6-7-408, is prohibited.

(785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-408. Acts constituting water wasting.

For the purposes of this title, acts constituting water wasting shall mean and include, but shall not be limited to, any of the following acts:

- (a) Failure to comply with the City of Turlock Emergency Water Shortage Plan, any conservation stage declared thereunder, and/or any guidelines or outdoor landscape watering schedules in effect pursuant thereto.
 - (b) Watering outdoor landscape areas or gardens such that excess water leaves the property or area being watered.
 - (c) Watering outdoor landscaping while raining and within forty-eight (48) hours following any measurable rainfall.
 - (d) Washing vehicles, boats, or equipment during restricted days or hours; and/or using an open hose not equipped with a quick-action automatic shut-off valve while so doing.
 - (e) Hosing down driveways, streets, sidewalks, parking lots, and building exteriors without the prior written consent of the Director of Municipal Services or his designee. If consent is given, any restrictions on the frequency, timing, or method would remain in effect unless a health or safety condition existed.
 - (f) Having leaky faucets, irrigation valves, sprinkler heads, or plumbing fixtures on the premises.
 - (g) Operating evaporated coolers which are not equipped with a recirculating pump.
- (785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-409. Notice of Acts Constituting Water Wasting.

- (a) Any person committing any act which constitutes the wasting of water, as provided in TMC 6-7-408, shall be served Notice of Acts Constituting Water Wasting.
 - (b) This Notice of Acts Constituting Water Wasting shall serve as a first warning and first Notice of Acts Constituting Water Wasting and shall:
 - (1) Identify the date, time, and circumstances of the violation;
 - (2) State the amount of the potential penalty for water wasting;
 - (3) Advise the customer of his or her appeal rights as provided herein;
 - (c) The Notice of Acts Constituting Water Wasting shall be served on any person committing any act which constitutes the wasting of water, as provided in TMC 6-7-408, shall be served Notice of Act Constituting Water Wasting.
- (785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-410. Penalty fee assessment for water wasting.

- (a) A penalty in the sum of Fifty and no/100ths (\$50.00) Dollars shall be assessed to the utility customer's account for a second violation within said one (1) year after being served with a first warning and a first Notice of Acts Constituting Water Wasting, pursuant to TMC 6-7-409. This penalty shall be waived if the owner of the premises where the violation occurred, or the occupant (if different than the owner, and the occupant committed the violation), attends a water conservation education workshop offered by the City within sixty (60) days after date of the penalty notice; provided, that only one (1) such penalty waiver shall be allowed for the premises within any twenty-four (24) month period.
- (b) A penalty in the sum of One Hundred and no/100ths (\$100.00) Dollars shall be assessed to the utility customer's account for a third violation within said one (1) year after being served with a Notice of Acts Constituting Water Wasting, pursuant to TMC 6-7-409.
- (c) A penalty in the sum of Two Hundred-Fifty and no/100ths (\$250.00) Dollars shall be assessed to the utility customer's account for a fourth and each subsequent violation within said one (1) year after being served with a Notice of Acts Constituting Water Wasting, pursuant to TMC 6-7-409.
(Formerly 6-7-411; 785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-411. Appeal.

- (a) Any person issued a Notice of Acts Constituting Water Wasting shall have the right to appeal to the Municipal Services Director, or his or her designee, the Notice of Acts Constituting Water Wasting, or any water wasting penalty assessed to his or her account.
- (b) The appeal hearing shall be held before the Municipal Services Director, or his or her designee. After hearing all of the evidence presented, he or she shall make the final administrative determination regarding the matter.
- (c) The customer shall be allowed to present such witnesses and evidence as he or she may desire.
- (d) Such appeal hearing is an administrative hearing and the rules of evidence shall not apply.
(Formerly 6-7-412; 785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-412. Appeal hearing request.

- (a) The utility customer must request an appeal hearing in writing within fifteen (15) calendar days from the date of service of the Notice of Acts Constituting Water Wasting, or any water wasting penalty assessed to his or her account, unless the fifteenth day falls on a weekend or City observed holiday.
- (b) The request for hearing shall be addressed to the Municipal Services Director and shall be deemed served only when received by the City. Failure to properly serve the request for hearing within the fifteen (15) calendar day period shall be deemed a waiver of the right to appeal the matter and the penalty will be assessed against the customer's account unless the fifteenth day falls on a weekend or City observed holiday.
- (c) The hearing officer shall give written notice by mail to the utility customer of the date, time, and location of the appeal hearing, which hearing shall be held no sooner than ten (10) days from receipt of the request for hearing and no longer than thirty (30) days from receipt of such request.
- (d) The decision of the hearing officer shall be final. If the Notice of Acts Constituting Water Wasting, or any water wasting penalty assessed to an account is upheld, the penalty shall be assessed to the customer's account.
(Formerly 6-7-413; 785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-413. Failure to pay penalty fee.

Failure of any utility customer to pay the penalty imposed pursuant to this article as required shall be grounds to discontinue utility service until compliance is obtained.

(Formerly 6-7-415; 785-CS, Enacted, 06/23/1992; 1209-CS, Amended, 06/25/2015)

§ 6-7-414. Hand watering exemption.

(a) Notwithstanding any provision of this chapter, the Municipal Services Director, or his or her designee, in his or her sole discretion, may authorize outdoor landscape hand watering before 9:00 a.m. and after 7:00 p.m. if:

- (1) Hand watering is the only form of watering available; and
- (2) It is the correct watering day for the address; and
- (3) Plants and groundcover are drought tolerant; and
- (4) Hand watering is not left unattended (hose left on the ground, running unattended); and
- (5) No more than fifty (50) gallons of water is used for hand watering on any given watering day.

(b) Any person seeking authorization for hand watering of outdoor landscape pursuant to this section shall submit a written application to the Municipal Services Director, or his or her designee. The application shall describe how the person meets the requirements of subsection (a) of this section, and provide any other information required by the Municipal Service Director, or his or her designee.

(1286-CS, Added, 06/22/2021)

SRWA Water Shortage Contingency Plan

Water Shortage Contingency Plan

PREPARED FOR

Stanislaus Regional Water Authority



PREPARED BY



Table of Contents

1.0 Water Supply Reliability Analysis	1
2.0 Annual Water Supply and Demand Assessment Procedures	2
2.1 Decision-Making Process.....	2
2.2 Key Data Inputs.....	4
2.3 Assessment Methodology	4
3.0 Six Standard Water Shortage Levels	5
4.0 Shortage Response Actions and Effectiveness	7
4.1 Demand Reduction	7
4.2 Additional Mandatory Restrictions	8
4.3 Supply Augmentation and Other Actions.....	8
4.4 Operational Changes	8
4.5 Emergency Response Plan.....	9
5.0 Communication Protocols	9
5.1 Communication for Foreseeable Events	9
5.2 Communication for Unforeseeable Events	10
6.0 Compliance and Enforcement	10
7.0 Legal Authorities	10
8.0 Financial Consequences of WSCP	11
9.0 Monitoring and Reporting	11
10.0 WSCP Refinement Procedures	11
11.0 Special Water Feature Distinction	11
12.0 Plan Adoption, Submittal, and Availability	11

LIST OF TABLES

Table 1. Schedule of Assessment Activities.....	2
Table 2. Schedule of Decision-Making Activities.....	3
Table 3. Water Shortage Contingency Plan Levels (DWR Table 8-1).....	6
Table 4. Demand Reduction Actions (DWR Table 8-2).....	8

Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS

AWIA	America’s Water Infrastructure Act of 2018
AWSDA	Annual Water Supply and Demand Assessment
Ceres	City of Ceres
Cities	Cities of Ceres and Turlock
CWC	California Water Code
DWR	Department of Water Resources
ERP	Emergency Response Plan
MGD	Million Gallons Per Day
SRWA	Stanislaus Regional Water Authority
TID	Turlock Irrigation District
Turlock	City of Turlock
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant

Water Shortage Contingency Plan

A water shortage may occur due to a number of reasons, such as population growth, 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 water supply available is insufficient to meet the normally expected customer water use at a given point in time.

This plan presents the Stanislaus Regional Water Authority (SRWA)'s Water Shortage Contingency Plan (WSCP). The WSCP describes SRWA's strategic plan in preparation for and responses to water shortages with a goal to proactively prevent catastrophic service disruptions. It includes water shortage levels and associated actions that will be implemented in the event of a water supply shortage. As part of the WSCP, SRWA's legal authorities, communication protocols, compliance and enforcement, and monitoring and reporting are included.

In 2018, the California State Legislature enacted two policy bills, (Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman)) (2018 Water Conservation Legislation), which set new requirements for water shortage contingency planning.

SRWA's WSCP has been prepared consistent with the 2018 Water Conservation Legislation requirements. Refinement procedures and adoption requirements are provided in this plan to allow SRWA to modify this WSCP outside of the Urban Water Management Plan (UWMP) process.

1.0 WATER SUPPLY RELIABILITY ANALYSIS

Chapters 6 and 7 of SRWA's 2020 UWMP present SRWA's water supply sources and reliability, respectively. Findings show that SRWA's five consecutive dry year supplies, single-dry year supplies, and even normal year supplies, whether occurring now or 20 years in the future, may be insufficient to meet projected demands – meaning that SRWA's wholesale customers, the City of Ceres (Ceres) and City of Turlock (Turlock) (Cities), cannot rely entirely on SRWA's surface water supplies to meet their demands.

Statewide water supply conditions, hydrologic conditions, changes in groundwater levels, subsidence, and actions by other agencies, may impact SRWA's available water supply. For SRWA, a water shortage condition occurs when the supply of potable water available cannot meet its customers' normal water demands for human consumption, sanitation, fire protection, and other beneficial uses.

The analysis associated with this WSCP was developed in the context of SRWA's water supply sources and system reliability. In some cases, SRWA may be able to foresee its water shortage condition, but the water shortage may also be caused by an unforeseen emergency event. In general, SRWA's water supply conditions may be affected by the following:

- Turlock Irrigation District (TID) supply allocations and storage levels, and resulting allocation reductions to TID customers, and
- Timing and frequency of TID's curtailment periods, and changes in Tuolumne River water quality that could not be addressed by the Regional Water Treatment Plant (WTP).

SRWA may also experience unforeseen water shortages when catastrophic interruption of water supplies occurs due to regional power outages, earthquakes, or other potential emergency events. In response to supply shortfalls, SRWA may declare a water shortage level (as described in Section 4.0).

In future years, SRWA will conduct an annual water supply and demand assessment in accordance with Section 2. The analysis associated with this WSCP was developed in the context of SRWA's water supply sources and reliability.

2.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Beginning July 1, 2022, California Water Code (CWC) §10632.1 requires water suppliers to submit an Annual Water Supply and Demand Assessment (AWSDA). Water suppliers are also required to submit an Annual Water Shortage Assessment Report beginning July 1, 2022. This WSCP provides the procedures for SRWA to conduct its AWSDA. The findings from that assessment will provide information for SRWA’s Annual Water Shortage Assessment Report.

Since SRWA did not begin operations until November 2023, and will not complete its first UWMP until November 2024, SRWA’s first AWSDA will be submitted to the California Department of Water Resources (DWR) by July 1, 2025.

The procedures provided in this section are intended to assist SRWA in planning for potential, foreseeable shortage in water supplies. These procedures provide the steps SRWA 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).

2.1 Decision-Making Process

The decision-making process described below will be used by SRWA to determine its water supply reliability in a consistent manner annually. SRWA may adjust this process for improved decision-making during implementation.

SRWA staff will prepare the Annual Water Shortage Assessment Report and submit it to DWR by July 1 of each year. Key data inputs described in Section 2.2 will be gathered and the assessment will be conducted in accordance with Section 2.3.

Staff will follow the sequence of activities shown in Table 1. Due to variations in climate and hydrologic conditions, SRWA’s assessment schedule may vary. SRWA intends to implement shortage response actions to effectively address anticipated water shortage conditions in a timely manner while complying with the State’s reporting requirements. SRWA recognizes that its wholesale customers’ AWSDA reporting and timely response to water shortage events is directly affected by its AWSDA. SRWA must complete its assessment in order to allow the Cities to complete their AWSDA reporting.

Typically, by the end of March of each year, SRWA will complete the assessment. Staff will present the AWSDA and Annual Water Shortage Assessment Report to the General Manager, or designee, for review and approval. 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. The final approved documents will be submitted to DWR by July 1st of each year.

Table 1. Schedule of Assessment Activities	
Schedule	Activities
Mid-March to Early-April	Using the most current information, prepare the summaries of water supply sources for current year and a subsequent dry year. Consider factors affecting supply as described in Section 2.2.
Mid-March to Early-April	Document water demands for the current year and a subsequent dry year. Demands will generally be based on the Cities’ delivery requests to SRWA by December of the prior year. Consider factors affecting demand as described in Section 2.2.

Schedule	Activities
Mid-March to Early-April	Using the methodology described in Section 2.3, calculate SRWA’s water supply reliability over the current year and a subsequent dry year. Determine if a water shortage condition is expected and recommend associated actions.
Mid-April	Prepare the AWSDA and Annual Water Shortage Assessment Report and submit to General Manager, or designee(s), for review. General Manager, or designee(s), to review and provide comments as needed.
Late April-June	Finalize and approve AWSDA and Annual Water Shortage Assessment Report.
Before July 1	Submit the AWSDA and Annual Water Shortage Assessment Report to DWR.

Should the annual assessment find that available supply will not meet expected demands, SRWA will coordinate with its customers to inform them of the AWSDA results. SRWA will inform the Cities that they will need to implement their WSCP and utilize alternative sources (i.e., City groundwater resources) to close the anticipated water supply gaps. The General Manager will present the finalized assessment to the Board, 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 level, and water shortage actions.

Based on the findings of the Annual Assessment, the Board will determine if a water shortage condition exists and, if needed, adopt a resolution declaring a water shortage emergency and an associated water shortage level, and authorizing water shortage actions. Staff will finalize the SRWA’s Annual Water Shortage Assessment Report, incorporating Board determinations and approved actions.

The schedule of decision-making activities is provided in Table 2. The schedule and the activities shown in this table are approximate and may be adjusted as needed to respond to the water shortage condition in a timely manner.

Start Date	Activities	Responsible Party
Mid-March to mid-April	Based on finalized determinations of AWSDA regarding water shortage condition and recommended actions, prepare recommendations on water shortage condition determination and actions.	SRWA Staff and/or Consultant
Mid-March to mid-April	Prepare ordinances or resolutions approving determinations and actions.	SRWA Staff and/or Consultant
April SRWA Board Meeting (currently third Thursday)	Receive presentation of AWSDA and Annual Water Shortage Assessment Report, including determinations and recommendations. Adopt resolution(s) approving determinations and actions, as appropriate.	SRWA Board
January-April	Finalize water transfer requests and any new agreements, if needed. New agreements will require SRWA Board approval.	SRWA Board

2.2 Key Data Inputs

The AWSDA requires the evaluation of supply and demands for the current year and one dry year that is assumed to follow the current year. The following key data inputs will be used to evaluate SRWA'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:

1. Delivery requests from the Cities, typically received by December 1 the year prior
2. Schedule of delivery, typically received from TID by mid-March
3. Hydrologic conditions
4. Regulatory conditions
5. Contractual constraints
6. Surface water and groundwater quality conditions
7. Well production limitations
8. Infrastructure capacity constraints or changes
9. Capital improvement projects implementation

Planned water supply sources and quantities will be described and be reasonably consistent with the supply projections in SRWA's last updated UWMP Chapter 6 (Water Supply Characterization). Should the supply sources and projections deviate significantly from projections, an explanation for the difference will be provided in the AWSDA report.

Planned unconstrained water demands will be used as input to the AWSDA for the current year and the following assumed 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:

1. Weather conditions
2. Water year type
3. Population changes (for example, due to development projects)
4. Anticipated new demands (for example, changes to land use)
5. Pending policy changes that may impact demands
6. Infrastructure operations

Planned water demands types and quantities will be described and be reasonably consistent with the demand projections in SRWA's last updated UWMP Chapter 4 (Water Demand Characterization). Should the demand projections deviate significantly from projections, an explanation for the difference will be provided in the AWSDA report.

2.3 Assessment Methodology

In preparing the AWSDA, SRWA will follow the following assessment methodology and evaluation criteria to evaluate SRWA's water supply reliability for the current year and an assumed subsequent dry year. SRWA will assess the data listed in Section 2.2 to develop its supply and demand forecasts, which are then compared to determine SRWA's water supply reliability. SRWA's water supply will be deemed reliable if it can meet planned, unconstrained water demands. If water supply cannot meet planned, unconstrained water demands in the current year or the following assumed dry year, the extent of the water shortage

condition will be determined. SRWA will prepare recommended response actions in accordance with this WSCP. Findings from the AWSDA will be presented to the SRWA Board, along with the recommendations for action.

3.0 SIX 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 mandated that water suppliers plan for six standard water shortage levels that correspond to progressive ranges of up to 10, 20, 30, 40, 50 percent, and greater than 50 percent shortages from the normal reliability condition. Each shortage condition should correspond to additional actions water suppliers would implement to meet the severity of the impending shortages.

For each of the State's standard shortage levels, Table 3 (DWR Table 8-1), summarizes the water shortage range (i.e., percent shortage from normal supplies), a brief narrative description of the corresponding water shortage condition, and the corresponding shortage response actions. These water shortage levels apply to both foreseeable and unforeseeable water supply shortage conditions.

As described in Section 2, beginning in 2025, SRWA will conduct an AWSDA to determine its water supply condition for the current year and a subsequent assumed dry year. The preparation of AWSDA will help SRWA ascertain the need to declare a water shortage emergency and water shortage level. In other cases, SRWA may need to declare a water shortage emergency due to unforeseen water supply interruptions. When SRWA anticipates or identifies that water supplies may not be adequate to meet the normal water supply needs of its customers, the SRWA Board will inform its customers that they will need to implement their WSCP and rely on alternative sources (i.e., City groundwater resources) to close the anticipated gap between supply and demand. The SRWA Board may also 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.

Table 3. Water Shortage Contingency Plan Levels (DWR Table 8-1)

Submittal Table 8-1 Water Shortage Contingency Plan Levels			
Shortage Level	Percent Shortage Range	Water Shortage Condition <i>(Narrative description)</i>	Shortage Response Actions <i>(Narrative description)</i>
1	Up to 10%	Assessment shows water supply is not able to meet demands by 10%; or definable event has reduced water supply by 10%.	Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. Work with Cities to adjust surface water delivery schedules as-needed. Refer to DWR Table 8-3 for more details.
2	Up to 20%	Assessment shows water supply is not able to meet demands by 20%; or definable event has reduced water supply by 20%.	Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. Work with Cities to adjust surface water delivery schedules as-needed. Refer to DWR Table 8-3 for more details.
3	Up to 30%	Assessment shows water supply is not able to meet demands by 30%; or definable event has reduced water supply by 30%.	Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. Work with Cities to adjust surface water delivery schedules as-needed. Refer to DWR Table 8-3 for more details.
4	Up to 40%	Assessment shows water supply is not able to meet demands by 40%; or definable event has reduced water supply by 40%.	Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. Work with Cities to adjust surface water delivery schedules as-needed. Refer to DWR Table 8-3 for more details.
5	Up to 50%	Assessment shows water supply is not able to meet demands by 50%; or definable event has reduced water supply by 50%.	Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. Work with Cities to adjust surface water delivery schedules as-needed. Refer to DWR Table 8-3 for more details.
6	>50%	Assessment shows water supply is not able to meet demands by over 50%; or definable event has reduced water supply by more than 50%.	<ul style="list-style-type: none"> -Inform Cities in timely manner about the timing of any water shortages or water allocation reductions from TID. -Work with Cities to adjust surface water delivery schedules as-needed and mediate a negotiation between the Cities for an alternative delivery schedule in instances where one City may forego some of their surface water allocation for a period of time to aid the other City. -Consider working with the Cities to arrange for supplemental surface water supplies through water transfer agreements -Alert Cities that deliveries will be discontinued if necessary -Work with Cities to coordinate water supply changes to maintain acceptable water quality throughout Cities' distribution systems. details. -Work with Cities to coordinate implementation of their respective WSCPs. Refer to DWR Table 8-3 for more
NOTES: The indicated stages are not intended to denote thresholds at which specific actions need to occur that are different from the actions at any other stage, except for Stage 6, at which point SRWA will either have to enter into a water transfer agreement for supplemental surface water supplies, or will no longer be able to deliver surface water to its customers.			

4.0 SHORTAGE RESPONSE ACTIONS AND EFFECTIVENESS

CWC Section 10632 (a)(4) requires shortage response actions that align with the defined shortage levels. SRWA's shortage response actions consist of a combination of demand reduction, supply augmentation, and operational changes. SRWA's suite of response actions are dependent on the event that precipitates a water shortage level, the time of year the event occurs, the water supply sources available, and the condition of its water system infrastructure.

SRWA plans to use a balanced approach, combining supply augmentation, and operational changes to respond to the event and the resulting water shortage level. SRWA 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.

SRWA's water system is fully metered, from production to Cities' turnouts. Records of water deliveries to each wholesale customer is prepared daily and can be used to track the effectiveness of SRWA's response actions. Water production and water use can be compared to the previous year, previous month, or previous week. Water use can also be compared by wholesale customer. This continuous monitoring allows SRWA to evaluate its demand reduction efforts in real-time and adjust its shortage response actions accordingly.

As noted above, SRWA's overall shortage response will be dynamic to close the gap between water supply and demands to meet the goal of the declared shortage level. For example, SRWA may intensify its public outreach or work with the Cities to enforce water use prohibitions more vigorously if water demand reduction goals are not met.

The shortage response actions discussed below may be considered as tools that allow SRWA to respond to water shortage conditions. Because SRWA may continuously monitor and adjust its response actions to reasonably equate demands with available supply, the extent to which implementation of each action reduces the gap between water supplies and water demand is difficult to quantify and thus only estimated. Certain response actions, such as working with the Cities to adjust surface water delivery schedules, support the effectiveness of other response actions and do not have a quantifiable effect on their own.

4.1 Demand Reduction

Since SRWA operates as a wholesale water agency, it cannot set or enforce consumption limits at the customer (e.g., household) level. As a result, this WSCP does not include per capita allotment, penalties, or customer incentives for conservation for any customer sector. SRWA may request that their wholesale customers reduce demands when supplies are insufficient. SRWA's wholesale customers will implement their respective WSCP, including any demand reduction response.

For all the shortage levels identified in Table 3 (DWR Table 8-1), SRWA is responsible for informing the Cities in a timely manner of the timing and extent of water supply reductions. SRWA will work with the Cities to schedule deliveries of limited surface water supplies.

Table 4 (DWR Table 8-2) summarizes SRWA's demand reduction actions, or perhaps more appropriately supply management actions, at different levels of supply reductions. SRWA will share water production metered data with the Cities so that they may ascertain the effectiveness of their demand reduction actions.

Table 4. Demand Reduction Actions (DWR Table 8-2)

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
<i>Add additional rows as needed</i>				
All Stages	Other	Up to the full shortage gap	SRWA will defer to the Cities' Demand Reduction Actions. SRWA will not impose separate Demand Reduction Actions.	No

4.2 Additional Mandatory Restrictions

As a wholesaler, SRWA does not have direct authority to institute water use prohibitions. SRWA will support mandatory restrictions imposed by the Cities on their customers and coordinate with the Cities to provide consistent public outreach messaging. SRWA will share water production metered data with the Cities so that they may ascertain the effectiveness of their mandatory restrictions.

4.3 Supply Augmentation and Other Actions

Chapter 6 of SRWA’s 2020 UWMP describes SRWA’s normal water supply portfolio, as well as dry-year and emergency supplies. SRWA uses entirely surface water supplies from the Tuolumne River. In the event of a dry year or other water supply interruption, when SRWA’s water allocations from TID are insufficient to meet all SRWA’s wholesale customer demands, SRWA will consider the option of purchasing additional water supplies from other TID customers or other upstream water right holders for diversion from the Tuolumne River via SRWA’s intake.

4.4 Operational Changes

SRWA may modify its operations on a short-term or long-term basis in response to any water shortage condition. SRWA may take any one or a combination of the following actions:

1. Reduce pumping according to the reduction in water allocation from TID that may come with the various levels of water shortage.
2. Investigate supplemental surface water purchase options.
3. Coordinate with the Cities to adjust the WTP capacity allocation for a limited period of time to augment one city’s supply, while reducing the other city’s supply. The capacity of the Cities’ Treated Water Transmission Pipelines is designed for buildout of each city. The Cities have flexibility for the season or months that the City receives a reduced allocation, as the Cities can use groundwater from their wells to meet their customer water demands throughout the year.

While SRWA will employ whatever operational changes may be necessary to respond to water shortage conditions, it will also prioritize maintaining a minimum diversion of 5 million gallons per day (MGD) each day to keep the WTP operational. When maintaining the minimum 5 MGD flow appears unlikely, SRWA will more seriously consider a supplemental surface water purchase to avoid the need to shut down the WTP.

4.5 Emergency Response Plan

As stated in Section 3, SRWA’s water shortage levels apply to both foreseeable and unforeseeable water supply shortage conditions.

SRWA is currently preparing its Emergency Response Plan (ERP) to support final operational permitting. The ERP is anticipated to be completed in October 2024. In addition, the ERP is being prepared to meet the requirements of the America’s Water Infrastructure Act of 2018 (AWIA). AWIA requires community water systems serving greater than 3,300 people to prepare or revise an ERP on a 5-year cycle. Since SRWA began operation in November 2023, the AWIA ERP compliance date of September 30, 2025 will be its first. Prior to this compliance date, SRWA will self-certify with the United States Environmental Protection Agency that the ERP has been updated.

The ERP outlines all-hazards response procedures for incidents such as water supply disruption, water supply contamination, earthquake, infrastructure failure, and other events. The ERP includes actions to be taken in preparation for, during response operations, and in recovery from such events. It also includes guidance and procedures for engaging with response partners such as Stanislaus County for water shortage emergencies.

SRWA’s current capabilities to prevent and respond to potential water service disruptions includes use of standby generators, storage of several weeks’ worth of treatment chemicals, and capable operations staff. Water storage, treatment, and pumping facilities have been constructed to meet earthquake safety standards.

5.0 COMMUNICATION PROTOCOLS

In the event of a water shortage, SRWA must inform their 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.

5.1 Communication for Foreseeable Events

Water shortage may be foreseeable when SRWA conducts its AWSDA as described in Section 2. For foreseeable water shortages, SRWA will follow the communication protocols and procedures detailed below. SRWA may trigger any of these protocols at any water shortage level.

1. If a water shortage emergency is anticipated, SRWA will coordinate with Stanislaus County and SRWA’s wholesale customers for the possible proclamation of a local emergency.
2. SRWA will schedule a duly noticed Board meeting in which the AWSDA findings and recommendations for a water shortage emergency and shortage response actions are presented.
3. SRWA will communicate conditions to the general public using some or all of the following options, as needed at the various shortage levels: press releases, radio/television coverage, social media posts, and postings on SRWA’s website. Public entities and officials are informed of water shortage information via email.

5.2 Communication for Unforeseeable Events

Water shortage may occur during unforeseeable events such as earthquakes, fires, infrastructure failures, civil unrest, and other catastrophic events. SRWA’s ERP will provide specific communication protocols and procedures to convey water shortage contingency planning actions during these events. SRWA may trigger any of these communication protocols at any water shortage level, depending on the event.

In general, communications and notifications should proceed along the chain of command. Notification decisions will be made under the direction of the General Manager. External communications will be managed by SRWA’s wholesale customers. The General Manager will work with the Project Manager/Plant Supervisor to notify regulatory agencies. The ERP provides a list of relevant contacts to notify at the local, regional, and state level.

To maintain the security of SRWA’s water system, the ERP will be maintained as a confidential document and may not be incorporated in this WSCP.

6.0 COMPLIANCE AND ENFORCEMENT

When supplies are insufficient, SRWA can ask the Cities to reduce demands, but the specific compliance and enforcement mechanisms are at the discretion of the Cities. SRWA is committed to working with and supporting the Cities in implementing water shortage response actions.

7.0 LEGAL AUTHORITIES

SRWA has the legal authority to create, manage, and activate emergency plans and carry out the responsibilities of those plans under the California Emergency Services Act, which authorizes all political subdivisions of the state (i.e., special districts, cities, and counties) to conduct emergency operations.

When a water shortage is determined, SRWA will coordinate with SRWA’s wholesale customers and with Stanislaus County for the possible proclamation of a local emergency in accordance with California Government Code, California Emergency Services Act (Article 2, Section 8558).

In a duly noticed meeting, the SRWA Board 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. SRWA shall declare a water shortage emergency in accordance with CWC Chapter 3 Division 1.

Water Code Section 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 5 of this WSCP.

8.0 FINANCIAL CONSEQUENCES OF WSCP

The Cities anticipate revenue losses, and SRWA could experience increased expenses, during the potential water shortages described in this WSCP. Revenue losses could result from decreased water sales due to conservation. Increased expenses can include supplemental water supply purchases. SRWA maintains an operational reserve fund to protect against a temporary water shortage.

Water conservation directly affects the Cities' revenue stability, as the Cities of Ceres and Turlock collect revenue for water system operating costs through volumetric or consumption-based rates. However, the majority of SRWA's operation costs are fixed. The Cities prepare for these events through prudent financial planning, including water rate studies and the establishment of reserves to offset revenue losses. A water shortage surcharge could be enacted by the Cities' Councils to address revenue impacts from conservation.

9.0 MONITORING AND REPORTING

In their UWMPs, SRWA's wholesale customers, the Cities of Ceres and Turlock, will detail their monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed to evaluate customer compliance with conservation goals. As mentioned above, SRWA's water system is fully metered, including production at its water treatment facilities. SRWA can also track deliveries to the Cities through their respective turnouts.

SRWA will work collaboratively with the Cities to monitor water use and support their reporting.

10.0 WSCP REFINEMENT PROCEDURES

This WSCP is an adaptive management plan. It is subject to refinements as needed to ensure that SRWA's shortage response actions and mitigation strategies are effective and produce the desired results. Based on monitoring described in Section 9 and the need for compliance and enforcement actions described in Section 6 of this WSCP, SRWA may adjust its response actions and may modify its WSCP. When a revised WSCP is proposed, the revised WSCP will undergo the process described in Section 12 for adoption by the SRWA Board and distribution to Stanislaus County, the Cities, and the general public.

11.0 SPECIAL WATER FEATURE DISTINCTION

SRWA is a water wholesaler and does not directly supply treated water to customers with water features. As described in their respective WSCP, the Cities distinguish water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

12.0 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

This WSCP was adopted concurrently with SRWA's 2020 UWMP, by separate resolution, on October 17, 2024. Prior to adoption, a 60-day notice of preparation was issued and a draft WSCP was made available for public review at least 14 days prior to adoption. A duly noticed public hearing was conducted. An electronic copy of this WSCP will be submitted to DWR within 30 days of adoption.

No later than 30 days after submittal to DWR, a hard copy of this WSCP will be available at SRWA's office. A copy will also be provided to Stanislaus County and SRWA's retailers. An electronic copy of this WSCP as well as the 2020 UWMP will also be available for public review and download on SRWA's website.

UWMP and WSCP Adoption Resolutions

BEFORE THE CITY COUNCIL OF THE CITY OF TURLOCK

IN THE MATTER OF ADOPTING THE 2025 }
URBAN WATER MANAGEMENT PLAN }
PREPARED JOINTLY BETWEEN THE CITY }
OF TURLOCK AND STANISLAUS }
REGIONAL WATER AUTHORITY AND }
AUTHORIZING AND DIRECTING THE }
MUNICIPAL SERVICES DIRECTOR OR }
HIS/HER DESIGNEE TO IMPLEMENT THE }
URBAN WATER MANAGEMENT PLAN IN }

RESOLUTION NO. 2026-061

WHEREAS, the Urban Water Management Planning Act (Act) (California Water Code Sections 10610 through 10656) requires urban water suppliers that provide more than 3,000 acre-feet of water annually or serve more than 3,000 connections to prepare and adopt an Urban Water Management Plan (UWMP) every five years; and

WHEREAS, the City of Turlock (City) is an urban water supplier and is required to adopt and submit a UWMP in accordance with the requirements of the Act; and

WHEREAS, for the 2025 UWMP cycle, the City and the Stanislaus Regional Water Authority (Authority) received approval to prepare a joint UWMP to improve coordination, ensure consistency in planning efforts, and achieve cost efficiencies; and

WHEREAS, the City and the Authority have prepared the 2025 Urban Water Management Plan in accordance with the requirements of the Act; and

WHEREAS, the City has provided notice of preparation, made the draft UWMP available for public review, and conducted a duly noticed public hearing in accordance with the requirements of the Act; and

WHEREAS, this action is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15378(b)(5) of the CEQA Guidelines, as it consists of organizational or administrative activities that will not result in direct or indirect physical changes in the environment.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Turlock does hereby:

1. Adopts the 2025 UWMP, prepared jointly with the Authority, which supersedes and replaces the previously adopted UWMP to the extent of any inconsistency; and
2. Authorizes and directs the Municipal Services Director or his/her designee to implement the UWMP in accordance with its terms and schedule and to submit the UWMP to the California Department of Water Resources as required by law.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Turlock this 26th day of May, 2026, by the following vote:

AYES:	Abram, Bixel, Monez, Phillips, Bublak	(5)
NOES:	None	(0)
NOT PARTICIPATING:	None	(0)
ABSENT:	None	(0)

ATTEST:



Nichole Fiez, City Clerk,
City of Turlock, County of Stanislaus,
State of California

BEFORE THE CITY COUNCIL OF THE CITY OF TURLOCK

IN THE MATTER OF ADOPTING THE 2025 }
WATER SHORTAGE CONTINGENCY PLAN }
AND AUTHORIZING AND DIRECTING THE }
MUNICIPAL SERVICES DIRECTOR OR }
HIS/HER DESIGNEE TO IMPLEMENT THE }
WATER SHORTAGE CONTINGENCY PLAN }
IN ACCORDANCE WITH ITS TERMS AND }
SCHEDULE }

RESOLUTION NO. 2026-062

WHEREAS, California Water Code Section 10632 requires every urban water supplier to prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan; and

WHEREAS, the City of Turlock (City) is an urban water supplier and is required to adopt and submit a Water Shortage Contingency Plan in accordance with State law; and

WHEREAS, the City has prepared the 2025 WSCP in accordance with the requirements of the California Water Code; and

WHEREAS, the WSCP establishes procedures, response actions, and communication measures intended to reduce water use during water shortage conditions and water supply emergencies; and

WHEREAS, the City has provided notice of preparation, made the draft WSCP available for public review, and conducted a duly noticed public hearing in accordance with applicable law; and

WHEREAS, this action is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15378(b)(5) of the CEQA Guidelines, as it consists of organizational or administrative activities that will not result in direct or indirect physical changes in the environment.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Turlock does hereby:

1. Adopts the 2025 Water Shortage Contingency Plan; and
2. Authorizes and directs the Municipal Services Director or his/her designee to implement the WSCP in accordance with its terms and schedule and to take such actions as necessary to carry out the requirements of the WSCP and applicable law.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Turlock this 26th day of May, 2026, by the following vote:

AYES:	Abram, Bixel, Monez, Phillips, Bublak	(5)
NOES:	None	(0)
NOT PARTICIPATING:	None	(0)
ABSENT:	None	(0)

ATTEST:



Nichole Fiez, City Clerk,
City of Turlock, County of Stanislaus,
State of California



SRWA
STANISLAUS REGIONAL
WATER AUTHORITY

BEFORE THE BOARD OF THE STANISLAUS REGIONAL WATER AUTHORITY

IN THE MATTER OF ADOPTING THE 2025 }
 URBAN WATER MANAGEMENT PLAN }
 PREPARED JOINTLY BETWEEN THE }
 STANISLAUS REGIONAL WATER }
 AUTHORITY (AUTHORITY) AND THE }
 CITY OF TURLOCK, ATTACHED HERETO }
 AS EXHIBIT A, AND AUTHORIZING AND }
 DIRECTING THE GENERAL MANAGER }
 OR HIS/HER DESIGNEE TO IMPLEMENT }
 THE PLAN IN ACCORDANCE WITH ITS }
 TERMS AND SCHEDULE }

RESOLUTION NO. 2026-002

WHEREAS, the Urban Water Management Plan Act (California Water Code Sections 10610 through 10657) requires urban water suppliers that provide more than 3,000 acre-feet of water annually or serve more than 3,000 connections to prepare and adopt an Urban Water Management Plan (UWMP) every five years; and

WHEREAS, the Stanislaus Regional Water Authority (Authority) is an urban water supplier and is required to adopt and submit a UWMP in accordance with the requirements of the Act; and

WHEREAS, for the 2025 UWMP cycle, the Authority and the City of Turlock (City) received approval to prepare a joint UWMP to improve coordination, ensure consistency in planning efforts, and achieve cost efficiencies; and

WHEREAS, the Authority and the City have prepared the 2025 Urban Water Management Plan in accordance with the requirements of the Urban Water Management Plan Act; and

WHEREAS, the Authority has provided notice of preparation, made the draft UWMP available for public review, and conducted a duly noticed public hearing in accordance with the requirements of the Act; and

WHEREAS, this action is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15378(b)(5) of the CEQA Guidelines, as it consists of organizational or administrative activities that will not result in direct or indirect physical changes in the environment.


NOW, THEREFORE, BE IT RESOLVED that the Board of the Stanislaus Regional Water Authority does hereby:

1. Adopts the 2025 Urban Water Management Plan, prepared jointly with the City of Turlock and attached hereto as Exhibit A; which supersedes and replaces the previously adopted Urban Water Management Plan to the extent of any inconsistency; and
2. Authorize and direct the General Manager or his/her designee to implement the Plan in accordance with its terms and schedule and to submit the Plan to the California Department of Water Resources as required by law.

PASSED AND ADOPTED at a regular meeting of the Board of the Stanislaus Regional Water Authority this 21st day of May, 2026, by the following vote:

AYES:	Phillips, Lopez, Bublak	(3)
NOES:	None	(0)
NOT PARTICIPATING:	None	(0)
ABSENT:	Casey	(1)

ATTEST:



Kelly Renteria, Board Secretary



**BEFORE THE GOVERNING BOARD OF THE
STANISLAUS REGIONAL WATER AUTHORITY**

**IN THE MATTER OF ADOPTING THE 2020
WATER SHORTAGE CONTINGENCY PLAN,
ATTACHED HERETO AS EXHIBIT A, AND
AUTHORIZING AND DIRECTING THE GENERAL
MANAGER OR HIS/HER DESIGNEE TO
IMPLEMENT THE 2020 WATER SHORTAGE
CONTINGENCY PLAN IN ACCORDANCE WITH
THE TERMS AND SCHEDULE SET FORTH IN
THE PLAN**

RESOLUTION NO. 2024-003

WHEREAS, the Urban Water Management Plan Act (and in particular California Water Code sections 10620-10621) requires the Stanislaus Regional Water Authority (Authority), as an urban water supplier, to prepare and adopt an Urban Water Management Plan and update the plan at least once every five years; and

WHEREAS, the Authority has prepared its 2020 Urban Water Management Plan in accordance with the wholesale supplier requirements of the Urban Water Management Plan Act; and

WHEREAS, California State Legislature enacted two policy bills - Senate Bill (SB) 606 (Hertzberg) and Assembly Bill (AB) 1668 (Friedman) (collectively referred to as the 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, which set new requirements for water shortage contingency planning; and

WHEREAS, the Urban Water Management Plan Act (Water Code section 10632) and 2018 Water Conservation Legislation require that the Authority prepare and adopt a Water Shortage Contingency Plan as part of its Urban Water Management Plan; and

WHEREAS, the Authority has prepared its 2020 Water Shortage Contingency Plan in accordance with the wholesale supplier requirements of the Urban Water Management Plan Act and is included as Appendix F of the 2020 Urban Water Management Plan; and

WHEREAS, the Authority has provided the Draft 2020 Water Shortage Contingency Plan to the Cities of Ceres and Turlock and other interested parties, has placed a copy for public review on the Authority's website, and has provided a 14-day public hearing

notice to the County of Stanislaus, neighboring water suppliers, and public, as required by the Urban Water Management Plan Act; and

WHEREAS, this action is not subject to the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15378(b)(5) of the CEQA guidelines because it consists of “organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment”.

BE IT RESOLVED AND ORDERED, that the Authority adopts the 2020 Water Shortage Contingency Plan, attached hereto as Exhibit A, and authorizes and directs the General Manager or his/her designee to implement the 2020 Water Shortage Contingency Plan in accordance with the terms and schedule set forth in the plan.

PASSED AND ADOPTED at a regular meeting of the Governing Board of the Stanislaus Regional Water Authority on October 17, 2024, by the following vote:

AYES:	Bublak, Franco, Silveira	(3)
NOES:	None	(0)
NOT PARTICIPATING:	None	(0)
ABSENT:	Lopez	(1)

ATTEST:



Nichole Fiez, Board Secretary