



City of St. Helena
Water and Wastewater Advisory Committee Special Meeting
Thursday, May 21, 2026 @ 10:30 AM
City Hall Main Conference Room
1088 College Avenue, St. Helena CA

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes.

Members of the public and other parties are welcome to email their comments to the Staff Liaison at rwhite@cityofsthenana.gov. All public comments must be received three hours prior to the meeting. Public comments received after the deadline will be attached to the item the next business day or soon thereafter. Public comments will not be read out loud but will be publicly available and attached to the online agenda.

1. CALL TO ORDER

2. ROLL CALL

Chair: Brent Randol Vice Chair: Garry Rose Committee Members: Jay Kouba,
Mario Trinchero, Peter White
Alternate Member: Carl Myers
Staff Liaison: Joe Leach, Assistant City Manager/Public Works Director/City
Engineer

3. PUBLIC FORUM

An opportunity for the public to directly address the Committee on items of interest to the public that are not listed on the agenda. Any person addressing the Committee should provide his or her name and address, and limit comments to four minutes. Because of restrictions imposed by the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.

4. REPORTS BY STAFF/COMMITTEE

Reports by staff and/or committee on items of general interest. Brief questions for clarification may be posed and answered, and Committee may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the Water and Wastewater Advisory Committee.

4.1. Water Treatment Plant Operations Update

Prepared By: Michele Ferrell, CPO - Water

5. CONSENT ITEMS

5.1. Water and Wastewater Advisory Committee Meeting Minutes of April 9, 2026.

6. OLD BUSINESS

7. NEW BUSINESS

7.1. Review and Discussion of Draft Water Management Plan Chapters 1 & 3

Prepared By: Monique Day, West Yost

7.2. Discussion of Recent Drinking Water Notice Regarding HAA Exceedance

Prepared By: Joseph Leach, Director of Public Works

8. SUBCOMMITTEE UPDATES

8.1. Water Quality

Prepared By: Jay Kouba & Peter White

8.2. Water Security

Prepared By: Jay Kouba

8.3. Preparation of Water and Wastewater Rate Study

Prepared By: Garry Rose & Mario Trincherro

9. FUTURE AGENDA ITEMS

9.1. Discussion of Decommissioning of Lower Reservoir

9.2. Discussion of Alternate Energy Options at Water and Wastewater Facilities

10. ADJOURNMENT

The next Water and Wastewater Advisory Committee meeting is scheduled for June 18, 2026.

This agenda was posted at City Hall, 1088 College Avenue, St. Helena on May 18, 2026.

Rebecca White, Administrative Assistant

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 967-2792. Notification 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

MINUTES
City of St. Helena
Regular Water and Wastewater Advisory Committee Meeting
Thursday, April 9, 2026 @ 10:30 AM
City Hall Main Conference Room
1088 College Avenue, St. Helena CA

1. CALL TO ORDER

Vice Chair Garry Rose called the meeting to order at 10:30a.m.

2. ROLL CALL

Present: Vice Chair Garry Rose, Member Jay Kouba, Member Mario Trincherro, Member Peter White, Alternate Member Carl Myers (arrived 11:04a.m.)

Absent: Chair Brent Randol

3. PUBLIC FORUM

An opportunity for the public to directly address the Committee on items of interest to the public that are not listed on the agenda. Any person addressing the Committee should provide his or her name and address, and limit comments to four minutes. Because of restrictions imposed by the Brown Act, the Committee may not engage in substantive discussion, nor take action on matters not described on the agenda.

Public comment was opened and comments were received from Tom Belt and Kelly Wheaton. Public comment was closed.

4. REPORTS BY STAFF/COMMITTEE

Reports by staff and/or committee on items of general interest. Brief questions for clarification may be posed and answered, and Committee may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the Water and Wastewater Advisory Committee.

Director Joe Leach reported on the failure of the chlorinator at the Water Treatment Plant on March 19 & 20, 2026.

5. CONSENT ITEMS

5.1. Water and Wastewater Advisory Committee Meeting Minutes of March 12, 2026.

Member White moved to approve the Minutes of the March 12, 2026 meeting.
Member Kouba seconded the motion.
All voted in favor of the motion.

6. OLD BUSINESS

6.1. Capital Improvement Plan FY27-31 Discussion, Project Proposals, & Prioritization

Prepared By: Joseph Leach, Director of Public Works

Director Leach presented on the Capital Improvement Plan for fiscal years 2027-2031.

7. NEW BUSINESS

8. SUBCOMMITTEE UPDATES

8.1. Water Quality

Prepared By: Jay Kouba & Peter White

Member Kouba discussed reviewing analytical data from City of Napa's water and reported that the water is consistently lower in metal content than the City of St. Helena's water.

Public comment was opened and Michelle Covell provided a comment. Public comment was closed.

8.2. Water Security

Prepared By: Jay Kouba

Member Kouba discussed unbilled water and the possible discrepancy of how produced water and water consumption is being measured.

Public comment was opened and comments were received from Tom Belt and Kelly Wheaton.

8.3. Preparation of Water and Wastewater Rate Study

Prepared By: Garry Rose & Mario Trinchero

Vice Chair Rose reported that the subcommittee is waiting for Fiscal Year 2025 financials and is working on determining how the rate study is affected by items such as bond rates.

Public comment was opened and comments were received by Kelly Wheaton and Tom Belt. Public comment was closed.

9. FUTURE AGENDA ITEMS

9.1. Discussion of Decommissioning of Lower Reservoir

9.2. Discussion of Alternative Energy Options at Water and Wastewater Facilities

10. ADJOURNMENT

The next regular Water and Wastewater Advisory Committee meeting is scheduled for May 14, 2026, at 10:30 a.m., City Hall Conference Room, 1088 College Avenue, St. Helena.

Vice Chair Rose adjourned the meeting at 11:45a.m.

APPROVED:

Brent Randol, Chair

ATTEST:

Joe Leach, PE, Staff Liasion

Water Management Plan

PREPARED FOR

City of St. Helena



PREPARED BY



Water Management Plan

Prepared for

City of St. Helena

Project No. 705-60-24-16

Prepared by: _____

_____ Date

QA/QC Review: _____

_____ Date

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AMI	Advanced Metering Infrastructure	3-6
CCF	One-Hundred Cubic Feet	3-7
City	City of St. Helena	1-1
DMM	Demand Management Measure	3-1
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CHAPTER 1

Introduction

This chapter describes the City of St. Helena's (City's) need for a Water Management Plan (WMP), the objectives and priorities of the WMP, and the organization of the WMP.

1.1 OVERVIEW OF WATER SERVICE AREA

The City of St. Helena is centrally located in Napa County and sits at the heart of the upper Napa Valley, a region known for its diverse soils, microclimates, and success as a center for agriculture and the wine-making industry. The City is located approximately 65 miles north of San Francisco and 77 miles west of Sacramento. State Route 29 connects St. Helena to other communities in the Valley, including Calistoga to the north and Yountville, Napa, and American Canyon to the south. The City serves as a commercial and business center for the surrounding towns and unincorporated areas, including Calistoga, Angwin, Deer Park, Rutherford, and the unincorporated area south of St. Helena.

St. Helena is bisected by State Route 29 (also known as Main Street) and surrounded by agricultural uses. The community stands out in the Valley for its unique, historic character and its ability to attract visitors while also supporting the needs of its resident population. Major economic drivers in the City include agriculture, winemaking, tourism, and education. Several wineries are located within St. Helena, providing jobs and economic benefits associated with tourism. Educational institutions located in the City, such as the Culinary Institute of America and the upper Valley campus - now the new location of St. Helena City Hall, provide jobs and educational opportunities for the area.

The City, incorporated in 1876, provides water, sewer, and storm drainage services to its residents. The City provides water services for residential, commercial, and industrial customers, as well as fire protection services. The City's water service area includes approximately 5,900 people, including about 600 people who are located outside the City limits but within the service area.¹

The City currently has three potable water supply sources:

- Treated surface water from Bell Canyon Reservoir (treated at the City's Louis Stralla Water Treatment Plant)
- Groundwater from the City's Stonebridge Wells
- Purchased water from the City of Napa

1.2 NEED FOR WATER MANAGEMENT PLAN

A key driver for this WMP is the City's updated understanding of its available water supply, along with the need to identify options for optimizing the use of existing supplies, developing new supplies, and implementing water conservation measures to meet customer needs within the revised safe yield. Safe yield estimates prepared in 2026 indicate that the City's annual safe yield is approximately 1,666 acre-feet (AF), lower than the previous estimate of 1,950 AF from 2011. This reduction is due to updated hydrologic data, regulatory requirements, and operational constraints. The City must ensure that its water

¹ Service area population is based on estimates from State of California Department of Finance Tables E-4 Historical Population Estimates for Cities, Counties, and the State, plus a population estimate of 600 persons outside of City limits but within the water service area per the City's General Plan Update 2040 Draft EIR.



system can reliably meet current and projected demands within this revised safe yield while continuing to implement the General Plan and uphold the Water Neutrality Policy.

The City has a Water Neutrality Policy in place which requires that water demand for new development be offset with improvements to existing homes and businesses such that the new development results in no net increase in the City's water demand. The City is looking to document the cost and scope of the water system projects necessary to implement the City's recommended water management approach so that private developers' contributions to water neutrality project costs can be clearly determined.

The City has also recently completed major upgrades to its Wastewater Treatment Plant (WWTP), bringing the treated wastewater into compliance with State standards for disinfected tertiary recycled water. This recycled water creates a potentially significant new non-potable water supply resource. Before moving forward with a recycled water program, the City must identify the most cost-effective investment that also supports the most City goals.

The City faces a range of capital investment decisions related to its water system and supply infrastructure. This WMP provides a framework to evaluate available water supply options and its associated costs and benefits, allowing the City to identify a strategic path forward.

1.3 WATER MANAGEMENT PLAN OBJECTIVES AND PRIORITIES

The purpose of this WMP for the City of St. Helena is to document the City's existing water supplies and demands and to determine the best strategy(ies) to implement moving forward to execute the City's General Plan Update while maintaining water neutrality.

The primary objectives of this WMP for the City are to:

- Document the City's existing water supplies, City's water supply management strategies (including a water neutrality policy), and the City's demand management measures;
- Establish and assess future demands for water based on expected future developments and population growth for next 5 to 30 years;
- Describe and evaluate the various water supply options available to the City (including groundwater, recycled water, stormwater, and water exchanges);
- Establish the most feasibly sustainable water supply management path forward for the City; and
- Document the cost and scope of the projects necessary to implement the City's recommended path forward so that private developers' contributions to water neutrality project costs can be clearly determined.



1.4 PREVIOUS AND ONGOING EFFORTS

The City's previous and ongoing efforts related to this WMP are discussed below, and include:

- 2010 Water Supply Plan
- General Plan Update 2040
- 2026 Safe Yield Update
- 2026 Groundwater Supply Strategy Analyses
- Water System Hydraulic Model Update (ongoing)

1.4.1 Water Supply Plan (2010)

In October 2010, the City prepared a Water Supply Plan to compare the City's potable water supplies and demands in support of the General Plan Update Environmental Impact Report. The Water Supply Plan also included recommendations for water supply strategies to facilitate the General Plan and Housing Element, and to reduce the probability and impact of future water supply deficiencies.

As part of the preparation of the Water Supply Plan, a safe yield estimate for the City's Bell Canyon Reservoir was developed under various hydrologic conditions using a spreadsheet-based reservoir yield model. Based on the findings of that work, the City's Safe Yield Committee prepared a March 2011 report summarizing the safe yield estimate for the City's water supply system.

1.4.2 General Plan Update 2040

In June 2019, the City adopted an update to its General Plan (GP) that outlines the City's long-term physical and economic development and community enhancement through the year 2040. The 2040 GP defines the City's policies and goals for managing its existing and future land use, public facilities, resources, etc. within the City's Sphere of Influence (SOI) and the larger Planning Area.

The City's GP is built on a number of policies and implementation actions that are related to the provision of safe and reliable water supplies, and as such have led to development of this WMP. The GP's Public Facilities Policy 1.1 states that the City will "Require that the approval of new development be contingent upon the ability of the City to provide water without exceeding the safe annual yield of its water supply system." Additionally, Implementation Action 1.C states that the City will "Continue to aggressively look for new water supply sources adequate to serve St. Helena's population into the future. New sources may include adoption of new technologies, such as effective water recycling."

1.4.3 Safe Yield Update (2026)

The City recently developed a Safe Yield Update, which updated the City's estimate of available water supply to reflect recent hydrologic conditions, regulatory requirements, and operational needs. The safe yield represents the volume of water that can be reliably supplied each year under most conditions, including dry years, without imposing undue hardship on customers.

The Safe Yield Update was based on an evaluation of available water supply data through Fiscal Year 2022/23. Based on the findings of the study, the City's updated annual safe yield estimate is 1,666 AF (compared to the 2011 annual safe yield estimate of 1,950 AF). The Safe Yield Update is included in this WMP as Appendix A.



1.4.4 Groundwater Supply Strategy Analyses (2026)

The City developed a Groundwater Supply Strategy Analysis (Groundwater Study) with Luhdorff & Scalmanini Consulting Engineers (LSCE) in April 2026 to support the WMP. The Groundwater Study explored potential new well sites and the reuse of recycled water as approaches to improve water supply reliability and help achieve groundwater management objectives and goals outlined in the Napa Valley Subbasin Groundwater Sustainability Plan (GSP).

The purpose of the Groundwater Study was to evaluate opportunities to enhance the City's water supply portfolio through the development of additional municipal groundwater resources and strategic management of existing supplies, including recycled water. This evaluation included assessing the feasibility and benefits of constructing a new municipal drinking water supply well, as well as adjustments to the operation of the City's existing Stonebridge Wells. The evaluation included a review of regional hydrogeology, groundwater conditions, and available well data near three candidate sites identified for a potential new municipal well. Each site was evaluated for its suitability as a public drinking water source.

In addition, the study assessed the potential benefits of adjusting groundwater operations and the impact of using recycled water supplies on local groundwater and surface water conditions. Recycled water scenarios that were evaluated included both direct recharge and in-lieu recharge (i.e., reducing groundwater pumping for landscape or agricultural irrigation).

Findings from the Groundwater Study are referenced in Chapter 5 (Groundwater Evaluation) and Chapter 6 (Recycled Water Evaluation) and supported development of the City's recommended water supply management approach described in this WMP.

1.4.5 Water System Hydraulic Model Update

In 2024, the City began efforts to perform an update and calibrate its existing potable water system hydraulic model. The model update and calibration will allow the City to better manage its existing flushing program and strategically address water quality issues. It will also allow the City to more accurately evaluate operational scenarios for managing the City's three water supply sources, including how these sources could be adjusted seasonally throughout the year to better manage available water supply.

The City's existing hydraulic model was developed by Carollo Engineers to support the City's Integrated Utility Master Plan (IUMP) in 2021. Results from the hydraulic model were determined to be reasonable through a comparison of the modeled facility operations and system pressures against the City's general expectations of operations and pressures (based on pressure zone operating bands). However, a formal calibration and/or verification effort associated with the IUMP development was not documented.

The more recent model update and calibration effort is currently on hold. Preliminary attempts to calibrate the model highlighted limitations in the availability and quality of system data. The City is in the process of implementing improvements to its water system Geographic Information System (GIS) data and upgrading Supervisory Control and Data Acquisition (SCADA) systems at certain water production facilities. These ongoing improvements are expected to provide more accurate, higher-resolution system data necessary to support a model calibration. The City intends to resume the hydraulic model update and calibration effort once these data system enhancements are completed.



1.5 REPORT ORGANIZATION

This WMP is organized into the following chapters:

Chapter 1: Introduction	Describes the purpose and objectives for the WMP, its relationship to previous and on-going studies, report organization, and acknowledgments
Chapter 2: Current Supplies and Existing and Proposed Demands	Documents the City's existing water supplies and its constraints, as well as the City's historic, current, and projected future water demands
Chapter 3: Demand Management Measures	Documents the City's current extensive water conservation efforts and discusses what additional measures could be reasonably taken to further reduce water demands
Chapter 4: Future Supply Options	Presents future water supply options for the City to consider including the scope and planning level cost estimate for each option
Chapter 5: Groundwater Evaluation	Summarizes the groundwater alternatives evaluation that LSCE conducted concurrent with the WMP, which identifies groundwater supply options that best align with Napa Valley Subbasin Groundwater Sustainability Plan objectives
Chapter 6: Recycled Water Evaluation	Evaluates recycled water use options by building on the City's prior recycled water demand assessment and LSCE's modeling results for quantifying recycled water benefits in offsetting groundwater pumping
Chapter 7: Water Supply Alternatives Evaluation	Compares and evaluates the water supply options presented in Chapter 4, and identifies the next steps needed to proceed with each alternative
Chapter 8: Funding for Future Supply Options	Provides funding options for the City's preferred water supply options identified in Chapter 7
Chapter 9: Recommendations/Conclusions	Provides recommendations for the chosen water management path forward for the City and the next steps the City should implement

The following appendices to this WMP contain additional technical information, assumptions, and calculations:

Appendix A: Title	Description
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1.6 ACKNOWLEDGMENTS

The development of this WMP would not have been possible without the focused involvement and assistance of City staff. In particular, the following staff provided comprehensive information, significant input, and important insights throughout development of this WMP:

Name

Title

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LIST OF ACRONYMS AND ABBREVIATIONS

AMI	Advanced Metering Infrastructure	3-6
HCF	One-Hundred Cubic Feet	3-7
DMM	Demand Management Measure	3-1
MC	Municipal Code	3-1
MWEL	Model Water Efficient Landscape Ordinance	3-2

Chapter 3
Demand Management Measures



NRW	Non-Revenue Water	3-8
PRV	Pressure Reducing Valve	3-9
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SCADA	Supervisory Control and Data Acquisition	3-9
ULF	Ultra-Low Flush	3-1

DRAFT

CHAPTER 3

Demand Management Measures

This chapter describes the City's existing demand management measures (DMMs) and water conservation programs, water shortage emergency DMMs, as well as additional DMMs that the City may consider implementing to further decrease water demand and/or water loss. The City has limited water resources and implementation of various DMMs helps maximize availability of its existing water supplies for the most necessary uses.

As described in the Safe Yield Update, the City recognizes that new water supply projects are likely to be expensive, potentially increasing the cost of water. Thus, the City should continue to promote water conservation and water use efficiency, seeking to reduce water demand by all customer types.

3.1 EXISTING DEMAND MANAGEMENT MEASURES

The City's existing water conservation programs and DMMs have proven effective based on the significant reduction in per capita water use and water production over the past ten years. As described in Chapter 2, the City's residential per capita water use was 128 gpcd in 2013 compared to the recent five-year average (2020 through 2024) of 102 gpcd. This change represents a 20 percent reduction in residential water use since 2013 and reflects the strong efforts of City customers in conserving water. In addition to the per capita water use reduction, the City's annual water production decreased 23 percent - from 1,846 AF in 2013 compared to the recent five-year average (2020 to 2024) of 1,428 AF.

The City's established DMMs include:

- Water Neutrality Policy
- Mandatory Water Conservation Measures
- Encouraged Water Conservation Measures
- Water Conservation Rebate Program
- Free Water Conservation Supplies

DMMs that have been recently implemented within the past year are described separately, as water savings from these DMMs may not have been realized yet. The City's recently implemented DMMs include:

- Water Meter Replacement
- Leak Reduction through Water Main Rehabilitation and Replacement

Artificial turf has also been installed by some large landscape irrigation customers within the City (e.g., school fields), although this DMM is not implemented by the City.

In addition, the City has emergency DMMs, which are triggered under Water Shortage Emergency Conditions. These emergency DMMs are discussed separately in Section 3.2. Each of the City's non-emergency time DMMs listed above are discussed in detail in the remaining portion of Section 3.1.



3.1.1 Water Neutrality Policy

The City implemented a Water Neutrality Policy in 2011 which is aimed at ensuring that any new development does not increase the City's overall water demand.¹ Developers are required to offset their water use by contributing to conservation projects or upgrading existing infrastructure. The Water Neutrality Policy is defined in Section 13.12.030 of the City's Municipal Code (MC), and is summarized below:

- New development shall completely offset its water requirement by installing City-approved ultra-low flush (ULF) toilets and associated water efficient hardware in a sufficient number of existing homes or non-residential properties having toilets that use 1.6 gallons per flush or greater.
- If the City Council determines that retrofitting of existing residential or non-residential buildings is impractical or constitutes an unusual hardship on an applicant, it may authorize the payment to the City of an in-lieu retrofit fee.
 - The in-lieu fee shall be the equivalent of the cost of retrofitting a sufficient number of existing homes with the ULF toilets and other required water-saving devices.
 - In the event that an in-lieu fee is accepted, the City will administer a rebate program to retrofit existing homes using the fees collected or may use the fees for another water use efficiency purpose as approved by the Council.
 - The Public Works Department is authorized to require retrofitting and not accept an in-lieu retrofit fee, regardless of hardship, if it appears likely that existing home retrofitting prior to the expected occupancy by the new development can be completed.

Based on the updated safe yield estimate as described in Chapter 2, enforcement of the Water Neutrality Policy is critical to maintain the availability and reliability of water supplies for the City's existing water customers. The City is working on revisions to the Water Neutrality Policy to make its implementation more efficient and its outcomes more effective. As described in the Safe Yield Update, the City should update its Water Neutrality Policy to clarify allowable actions to effectively offset water demands associated with new development.

3.1.2 Mandatory Water Conservation Measures

The City's MC Section 13.04.221 specifies the City's mandatory and encouraged (non-mandatory) water conservation measures. The City's mandatory conservation measures are described below, and are required by all the City's water customers:

1. The application of potable water to any driveway or sidewalk is prohibited, unless the person proposing such application of potable water documents to the Director of Public Works' satisfaction that application is necessary to abate a condition constituting a public health hazard.
2. Using a hose that dispenses potable water to wash a motor vehicle is prohibited, unless the hose is fitted with a shut-off nozzle.

¹ City of St. Helena. July 2021. *Report to the City Council Regular City Council – 23 Feb 2021. Informational Report on City of St. Helena's Safe Yield Analysis, Related Water Emergency Regulations, and Water Neutrality Policy.*



3. Customers shall install new landscaping in existing or new development that is water efficient within the meaning of the State's Model Water Efficient Landscape Ordinance (MWELO).
4. Using potable water to water outdoor landscapes in a manner that causes runoff to adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots or structures is prohibited.
5. Using potable water in a fountain or decorative water feature is prohibited, unless the water is part of a recirculating system.
6. Withdrawing water from fire hydrants, except for firefighting, firefighting training, and water system maintenance purposes, is prohibited.
7. Use of potable water for grading, dust control, street, pipeline, or similar construction is prohibited.
8. The application of potable water to outdoor landscapes during and up to forty-eight (48) hours after measurable rainfall is prohibited.
9. No person shall use potable water to irrigate ornamental turf on public street medians.
10. Restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink is served and/or purchased shall supply water to patrons only upon request.
11. Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each bathroom using clear and easily understood language.
12. All projects for which the planning department requires approved landscape plans must adhere to the city's xeriscape standards or the State's MWELO, whichever is stricter, in order to obtain plan approval.
13. Any new water connection for new development must offset new demand by an amount of water equal to the new demand on the city water system using the methodology defined in Section 13.12.030. The offset must be clearly demonstrated, to the satisfaction of the Director of Public Works.

3.1.3 Encouraged Water Conservation Measures

The City's encouraged (non-mandatory) water conservation measures are described below, per MC Section 13.04.221:

1. Establish procedures in the home and business to recycle water.
2. Install water-saving devices in existing facilities including low flow showerheads, faucet aerators, ULF toilets, and WaterSense certified (or successor certification) appliances.
3. Refrain from additional irrigation and unnecessary use of water, such as car washing, when the temperature exceeds 90 degrees Fahrenheit.
4. Limit the expansion or installation of new water-using appliances, plumbing or improvements, such as lawns, landscaping, pools, sprinkler irrigation systems, wash-down equipment, larger washing machines or garbage disposal units. In the event that a new water-using appliance is necessary, installation of water efficient devices is encouraged.
5. All schools, social and professional groups, churches, etc., should discuss water conservation as a regular agenda item and forward worthwhile suggestions to the department for consideration and implementation.



6. Limit irrigation of potable water to landscaping between the hours of 8 a.m. and 8 p.m.
7. All sites with irrigated landscapes or gardens are encouraged to establish the following irrigation practices:
 - a) Turn off irrigation systems during the off-peak season (November through April).
 - b) Reduce the amount of time for all outdoor irrigation.

3.1.4 Water Conservation Rebate Program

The City offers a comprehensive water conservation rebate program that provides incentives for customers to replace older water fixtures with high-efficiency models.² The City offers the following rebate programs:

- Toilet Retrofit
- Smart Irrigation Controller (Weather Based Irrigation Controller)
- Cash for Grass
- Laundry to Landscape (Greywater)
- Rainwater Harvesting
- Clothes Washer
- Water Filter
- Recirculating Hot Water Pump

The City's water conservation program flyer, which provides details on the rebate programs, is published on the City's website (<https://www.cityofstheleena.gov/336/Water-Conservation-Rebates>) and is also included in Appendix A.

3.1.5 Free Water Conservation Supplies

The City also offers free water conservation supplies, or "Water Wise Toolkits," to its customers on a first-come, first-served basis to support water conservation. The water conservation supplies may include shower timers, low flow shower heads, hose nozzles, toilet dye tabs, and faucet aerators. The Water Wise Toolkits help customers conserve water and provide basic information on easy ways to reduce household water consumption. The City offers these toolkits at City Hall as well as at the St. Helena Farmers' Market.

3.1.6 Water Meter Replacement

The City is nearing completion of its water meter replacement project and is bringing the project to acceptance in May 2026. The meter replacement project replaced approximately 85 percent of its existing customer water meters with advanced metering infrastructure (AMI), commonly referred to as smart meters. The water meter replacement project will improve metering accuracy and allow customers to monitor water usage in real time. The City is finalizing the water meter replacement.

² City of St. Helena. *Water Conservation & Rebates*. Accessed at <https://www.cityofstheleena.gov/336/Water-Conservation-Rebates> on May 13, 2026.



The City determined the need to replace customer water meters based on meter age and significant water losses in the system, i.e. the difference in water production and metered water consumption. As water meters age and wear, they typically measure less flow than actually passes through the meter. The water meter replacement project is expected to reduce apparent water losses³ in the system and provide more accurate water consumption data, which is critical for implementing successful water conservation programs. AMI is also expected to encourage water conservation by allowing customers to more easily track and view water usage.

After the smart meter is installed, customers will have access to the 'EyeOnWater' portal which is an online tool and mobile app that offers:

- Real-time water usage tracking,
- Customizable alerts for potential leaks,
- Daily, weekly, and monthly usage comparisons,
- Enhanced insight into peak water use times, and
- User-friendly dashboards to support conservation.

As part of the transition to smart meters, the City is shifting from bi-monthly to monthly utility billing to allow for easier household budgeting and water use monitoring. Additionally, water use will now be measured and billed in gallons instead of one-hundred cubic feet (HCF), providing a more understandable way for customers to monitor water use.

3.1.7 Leak Reduction through Water Main Rehabilitation and Replacement

Rehabilitation and replacement (R&R) of older water mains in the distribution system is anticipated to reduce leakage and real losses in the distribution system. The City has a CIP Project No. W18-118 which will replace some of the City's undersized water mains that are less than 6 inches in diameter, recognizing that water mains less than 6 inches in diameter are generally older. The project began in FY 2024-25 and continues through FY 2028-29 with an annual budget of approximately \$300,000 per year.

Real losses represent the physical losses of water from the distribution system and are comprised of breaks and leaks from water mains, pipe joints and fittings, customer service connections and piping, leaking storage tanks, and storage tank overflows. The total volume of leakage losses occurring in a particular water distribution system depends on:

- The operating pressure in the piping distribution system;
- Whether the geology, soil type, and road cover material allow water to be visible at the surface;
- The frequency and scope of active leakage control to detect, locate, and repair unreported leaks; and
- The integrity of the piping infrastructure and its degree of upkeep via best-practice R&R programs.⁴

³ Apparent losses are the non-physical losses that occur when water is successfully delivered to the customer but is not measured or recorded accurately.

⁴ American Water Works Association. 2016. *Manual of Water Supply Practices – M36. Water Audits and Loss Control Programs. Fourth Edition.*



3.1.8 Artificial Turf Installation

Artificial turf has been installed by multiple large landscape irrigation users (e.g., school athletic fields) within the City to replace grass and reduce irrigation demand. However, this measure is not a City-implemented DMM.

Artificial turf has been installed at multiple sports fields within the City. Most recently, the St. Helena Unified School District installed artificial turf for the St. Helena High School softball field in 2025 and at the Robert Louis Stevenson Middle School sports field in 2024.⁵

3.2 WATER SHORTAGE EMERGENCY MEASURES

To meet water needs during severe drought conditions, the City has defined three water shortage emergency phases which impose increasingly stringent mandatory conservation measures. The City's MC Section 13.04.220 specifies the procedure for establishing water shortage emergency conditions. The conservation measures, triggered by water shortage emergency conditions, vary from implementing additional landscape irrigation restrictions to limiting residential users to a maximum water allocation of 60 gpcd.

Table 3-1 summarizes the criteria for imposing each water shortage emergency phase and some of the notable water conservation measures required under the phase. Appendix B provides the full list of water conservation measures for each water shortage emergency phase.

Table 3-1. Water Shortage Emergency Condition Criteria		
Emergency Phase	Criteria	Highlights of Mandatory Conservation Measures ^(a)
Phase I (13.04.230)	1. Supply/usage balance, as calculated at the beginning of the fiscal year, is in deficit; 2. Volume of water to be delivered by the City of Napa in any fiscal year will not exceed 400 AF; 3. Volume of water anticipated to be available prior to the next May 1st is not sufficient to meet projected demand through May 1st without demand reduction measures being implemented; or 4. Conditions requiring the establishment of a Phase II water emergency appear to be imminent.	• Outdoor irrigation of ornamental landscapes or grass with potable water is limited to no more than two days a week. • Prohibited from expanding or installing landscaping or appliances that will increase overall water use. • Not meeting conservation measures is punishable by a fine of up to \$500 for each day in which the violation occurs.

⁵ Robert Louis Stevenson Middle School Track and Field. Accessed at <https://www.carducciassociates.com/projects/project/robert-louis-stevenson-middle-school-track-and-field> on May 13, 2026.



Table 3-1. Water Shortage Emergency Condition Criteria

Emergency Phase	Criteria	Highlights of Mandatory Conservation Measures ^(a)
Phase II (13.04.240)	1. Volume of water anticipated to be available prior to the next May 1st from all potable water sources is not sufficient to meet the projected demands through May 1st without demand reduction measures beyond the Phase I reductions being implemented; or 2. Conditions requiring the establishment of a Phase III water emergency appear imminent. <i>Note: In assessing the need to impose Phase II restrictions, due weight shall be accorded to the trigger system which is based on water levels in Bell Canyon Reservoir, with the level necessary to trigger a water emergency being adjusted each month to reflect the supply capacity of groundwater and water to be delivered by the City of Napa at that time.</i>	• No new water connections for new development shall be permitted. • Commercial, industrial, and institutional users will receive an allocation per billing period which will be 10 percent less than the average use during the same billing period from the three preceding non-shortage years • Residential users will receive an allocation per billing period which will be limited to 65 gpcd (a separate landscape irrigation allocation is provided based on customer class).
Phase III (13.04.250)	1. Volume of water anticipated to be available prior to the next May 1st from all potable water sources is not sufficient to meet the projected demands through May 1st without demand reduction measures beyond the Phase II reductions being implemented. <i>Note: In assessing the need to impose Phase III restrictions, due weight shall be accorded the trigger system which is based on water levels in Bell Canyon Reservoir, with the level necessary to trigger a water emergency being adjusted each month to reflect the supply capacity of groundwater and water to be delivered by the City of Napa at that time.</i>	• All non-essential uses of water shall be prohibited, which includes the use of water for irrigation of lawns or landscaping. • Commercial, industrial, and institutional users will receive an allocation per billing period which will be 20 percent less than the average use during the same billing period from the three preceding non-shortage years. • Residential users will receive an allocation per billing period which will be limited to 60 gpcd (a separate landscape irrigation allocation is provided based on customer class).

(a) Appendix B provides the full list of water conservation measures for each water shortage emergency phase.

3.3 ADDITIONAL DEMAND MANAGEMENT MEASURES FOR CONSIDERATION

This section describes additional DMMs that the City may consider implementing to further decrease water demand and/or water loss. These measures include:

- Annual Water Loss Audits
- Acoustic Leak Detection for Prioritizing Water Main Rehabilitation and Replacement
- Supply Integration and Seasonal Optimization Study
- Unidirectional Flushing Program
- Distribution System Pressure Management



Following the description of each of these DMMs in Section 3.3, an estimate of potential water savings is provided for each of the DMMs in Section 3.4.

3.3.1 Annual Water Loss Audits

As discussed in Chapter 2, the City has had a significant amount of non-revenue water (NRW) in recent years, up to 25 percent of total water production in FY 2023-24. The City attributes the majority of NRW to its aging distribution system (i.e. leakage), aging customer water meters that under-register flow, and the need to frequently flush portions of the distribution system due to water quality issues (i.e., discolored water). Reducing water loss is a critical goal for the City, as it will maximize available water supply without increasing water production. Although there is no standard for an acceptable percentage of water loss, the American Water Works Association (AWWA) suggests that a well-managed system should aim for a water loss percentage between 10 and 15 percent.

An AWWA water loss audit is a standardized accounting framework developed by the AWWA to compare total water supplied with billed consumption and identifying the difference as water losses. The audit categorizes losses into real losses (e.g., leaks) and apparent losses (e.g., meter inaccuracies or billing errors), providing a structured water balance for the system. In California, annual validated AWWA water loss audits are required only for “urban retail water suppliers,” defined as systems with more than 3,000 service connections or that supply more than 3,000 AF per year. Because the City’s water system is smaller than these thresholds, it is not required to complete or submit annual AWWA water loss audits, nor is it required to meet the State’s recently established water loss standards for urban water retail suppliers.

Even though preparing an annual water loss audit is not required by State law, it may be beneficial to the City to more consistently track water losses. By completing the audit on a regular basis, the City can track changes in water loss over time, evaluate the effectiveness of system improvements such as meter replacement or leak repair programs, and establish performance benchmarks from year to year. This approach supports more informed capital planning and operational decision-making, allowing the City to prioritize the most cost-effective actions to reduce losses and make better use of its existing water supplies.

The AWWA Water Audit Software is available at no cost, making it a low-cost planning tool for smaller systems.⁶ If the City were to move forward with participating in the State program voluntarily, the City would need to invest in staff training to obtain a Water Audit Validator Certificate and/or have a consultant provide the service on an annual basis.

3.3.2 Acoustic Leak Detection for Prioritizing Water Main Rehabilitation and Replacement

It is recommended that the City continue to replace older water mains that have exceeded their design life, have known existing leaks, or have had a history of leaks. To prioritize R&R of water mains, the City may also consider using acoustic leak detection services to proactively identify water mains with unreported or hidden leaks (after completing R&R of water mains with known leaks). Acoustic leak detection is the most used form of proactive leak detection for water utilities and involves the use of sensitive listening devices along water mains.

⁶ American Water Works Association. *Free Water Audit Software*. Accessed at <https://www.awwa.org/toolbox/free-water-audit-software/> on May 13, 2026



It should be noted that acoustic leak detection cannot detect extremely low flow-rate leaks, which are common on older water main joints and fittings and known as background leakage. Background leakage can be addressed by water main R&R and improved pressure management in the distribution system.

3.3.3 Supply Integration and Seasonal Optimization

The City completed a Condition Assessment of its LSWTP in 2025 which evaluated the condition of the existing WTP facilities and determined capital improvement projects needed for the WTP. The Condition Assessment also included a review of the current operations of the LSWTP including procedures for sampling and chemical additions. The assessment recommended developing a more systematic and rigorous decision-making process for chemical dosages by conducting a pretreatment optimization study and improving data collection for water quality and maintenance procedures.

Based on these recommendations, the City began working with Water Quality & Treatment Solutions, Inc.⁷ (WQTS) in January 2025 to address water quality issues, including discoloration from iron and manganese and the formation of disinfectant by-products (DBPs). Efforts have focused on optimizing treatment and chemical dosages at the LSWTP and the Stonebridge Well Complex, as well as evaluating water quality within the distribution system. This work is on-going.

One major objective of the WQTS water quality evaluation is to reduce the frequency of discolored water events within the distribution system and improve overall water quality. Achieving this objective could also reduce the frequency of water main flushing and reduce the City's operational water use.⁸ It should be noted that these improvements would not fully eliminate the need for water main flushing; routine flushing of dead-end mains would be needed to improve water age and chlorine residual.

In parallel with the on-going WQTS water quality evaluation, the City may consider conducting a supply integration and seasonal optimization study to better understand the water quality relationships and combinations of the City's three water supplies (surface water, groundwater, and purchased water). This integration and optimization study would also allow the City to better understand how it can adjust its production facilities on a seasonal and annual basis to optimize water supply availability while maintaining adequate water quality. Implementing the recommended operation adjustments from the study could lead to improved and more consistent water quality and a reduction in volume of water needed for water main flushing. Additional discussion on supply integration and seasonal optimization is provided in Chapter 4.

3.3.4 Unidirectional Flushing Program

Distribution system flushing is an important component of routine water system maintenance. It involves forcing water through water mains at high velocities and discharging the flushed water through hydrants until the water runs clear. This process removes accumulated sediment, mineral deposits, and biofilm from pipes, helping maintain water quality, improves disinfectant residuals, and reduces customer complaints related to taste, odor, and discoloration.

⁷ WQTS is now part of Hazen and Sawyer.

⁸ Discolored water in distribution systems is typically due to elevated concentrations of iron or manganese, or from corrosive water corroding the interior of water mains and releasing iron into the water.



Traditional (conventional) flushing consists of opening hydrants within targeted areas and allowing water to flow until visible water quality improves. While effective, this method can be water-intensive and less controlled.

Unidirectional flushing (UDF) is a more efficient and targeted approach and is included as a proposed DMM to reduce water use associated with distribution system maintenance. UDF involves isolating specific sections of the distribution system to create high-velocity flow in a single direction. This focused approach enhances scouring effectiveness while minimizing water waste.

Key benefits of a UDF program include:

- Improved cleaning effectiveness through higher and more controlled flow velocities,
- Reduced water use, with studies indicating approximately 30 to 40 percent less water consumption compared to conventional flushing,
- Shorter flushing durations, and
- Improved distribution system water quality, including reduced turbidity and more consistent disinfectant residuals.

By incorporating UDF techniques, the City can reduce the overall volume of water used during flushing activities while maintaining or improving system performance. As a result, UDF represents a practical strategy for integrating operational efficiency with water conservation objectives.

Prior to implementing a UDF program, it is recommended for the City to complete calibration of its existing water system hydraulic model. A calibrated model helps to ensure that the model is accurately simulating available hydrant flows, as well as reduces the risk that flushing operations inadvertently isolate portions of the distribution system that can cause pressures to drop below allowable limits.

3.3.5 Distribution System Pressure Management

Pressure management is an operational strategy for maintaining distribution system pressure at a reasonable level to minimize leakage and energy usage while still maintaining adequate minimum pressures. Two pressure management options are discussed: systemwide pressure reduction in the City's distribution system, and installation of individual pressure reducing valves (PRVs) at customer service connections that regularly experience high pressures.

3.3.5.1 Systemwide Pressure Reduction

To help reduce leakage in the distribution system, the City may consider adjusting distribution system operations to achieve a systemwide reduction in pressure while still maintaining adequate minimum system pressures. High water pressure can lead to:

- Increased leakage from water mains and customer water laterals,
- Higher rates of water main breaks,
- Increased flowrates from customer water fixtures, and
- Higher energy costs due to increased pumping.



It is recommended for normal working pressures to be approximately 50 to 80 pounds per square inch (psi) and not less than 35 psi. Under fire flow conditions, residual pressures should not be less than 20 psi.⁹

Current distribution system operations within the City require higher pressures for some Zone 1 customers in order to fill Tank 2 while meeting minimum pressures for customers at higher elevations in Zone 1. Per the City's 2021 IUMP, approximately 15 percent of the system exceeds 120 psi. The AWWA Partnership for Safe Water Self-Assessment Guide for Distribution System Optimization flags water pressure levels above 100 psi as noteworthy.

If the City were to consider reducing pressures systemwide (e.g., adjusting pressure zone boundaries and/or constructing additional pumping facilities and adjusting storage and pumping operations), the City should ensure that minimum pressures under fire flow conditions would still be met. Reductions in pressure should not compromise the integrity of the water system or service quality for any customers. Due to the extensive analysis and expected infrastructure improvements, it is not expected that the City will implement this DMM in the near-term. The City may consider this DMM in the future during large scale changes in water system infrastructure, e.g., storage tank or pump station replacement. Similar to the UDF program, it is recommended for the City to complete calibration of its existing water system hydraulic model prior to implementing systemwide pressure reduction strategies.

3.3.5.2 Individual Pressure Reducing Valves at Service Connections

Assuming that systemwide pressures are not reduced in the near-term, it is recommended to install individual PRVs for customer service connections exceeding a static pressure of 80 psi, as required by the 2022 California Plumbing Code.¹⁰ Installing PRVs at customer service connections with high pressures would reduce flowrates from customer water fixtures, thereby decreasing customer water usage. It would also mitigate damage to customer's plumbing systems and appliances. However, unlike systemwide pressure reduction, it would not reduce leakage within the City's water mains or the customer's service lateral.

The City does not currently maintain an inventory of PRVs on customer service laterals, as the PRVs are the responsibility of the customer to install and maintain.¹¹ Nevertheless, it is recommended that the City confirm that customers that receive water at static pressures exceeding 80 psi (which can be identified based on hydraulic model results or hydrant pressure recorder data) have a properly installed PRV.

While some customers may be concerned about the City reducing their water pressure, the City should carefully communicate that a pressure of 80 psi will still be comfortably high, and the reduced pressure will protect the customer's appliances and plumbing systems. The City may also consider providing technical assistance or financial incentives to install PRVs on the customer service lateral.

⁹ National Fire Protection Agency. 2019. *NFPA 24 Standards for the Installation of Private Fire Service Mains and Their Appurtenances*. Annex C, Section C.4.1.3.

¹⁰ See Section 608.2 of 2022 California Plumbing Code. The City adopted the 2022 California Building Standards Code per MC Section 15.20.010.

¹¹ City of St. Helena MC Section 13.04.075 *Property owner's obligation to maintain, repair and replace private water laterals*.



3.4 SUMMARY OF POTENTIAL WATER SAVINGS

Table 3-2 shows an estimate of water savings for the City's recently implemented DMMs discussed in Section 3.1 and the additional DMMs provided in Section 3.3. Recently implemented DMMs are included in Table 3-2 as water savings from these DMMs may not have been realized yet.

It is estimated that the water meter replacement project may reduce total water demands by 20 AFY, and the additional DMMs for consideration could further reduce total water demands by 22 AFY, for a total of 42 AFY. Estimates of water savings are not provided for some DMMs such as leak reduction through water main R&R, as it is difficult to quantify the sources of non-revenue water. Therefore, actual water savings from implementing all DMMs may exceed 42 AFY.

DRAFT

Chapter 3

Demand Management Measures



Table 3-2. Estimate of Water Savings for Planned and Additional Demand Management Measures

Demand Management Measure	Estimate of Water Savings, AFY	Basis for Water Savings Estimate
Recently Implemented Demand Management Measures		
Water Meter Replacement	20	USEPA Water Conservation Plan Guidelines ^(a) estimates that public education and behavior changes (e.g., City's 'EyeOnWater' portal and updated billing system) can reduce water use by 2 to 5 percent of total water use. Estimate assumes that total water consumption is reduced by 2 percent for all customers equipped with smart meters and new water use portal (approximately 85 percent of all customers).
Leak Reduction through Water Main R&R	-	It is difficult to quantify the amount of water lost through leakage in the distribution system, as there are multiple other sources of unaccounted for water (e.g., leakage in customer service lateral, water main flushing, meter inaccuracies).
Subtotal – Recently Implemented DMMs	20	
Additional Demand Management Measures for Consideration		
Annual Water Loss Audits	-	It is difficult to quantify the amount of water savings from performing annual water loss audits. The primary objective of this DMM is to help the City to better track and understand water losses, supporting ongoing improvement of its water loss control program.
Acoustic Leak Detection for Prioritizing Water Main R&R	-	It is difficult to quantify the amount of water lost through leakage in the distribution system, as there are multiple other sources of unaccounted for water (e.g., leakage in customer service lateral, water main flushing, meter inaccuracies).
Supply Integration and Seasonal Optimization	5	Assumes annual flushing volume is reduced by 20 percent. Flushing volume is based on the City's records of 'Non-Potable Water Demand'.
Unidirectional Flushing Program	10	Assumes annual flushing volume is reduced by 30 percent. Flushing volume is based on the City's records of 'Non-Potable Water Demand'.
Systemwide Pressure Reduction	5	USEPA Water Conservation Plan Guidelines ^(a) estimates that systemwide pressure reduction can reduce water use and water leakage by 3 to 6 percent of total water production. The low-end value of 3 percent was applied to an assumed new pressure zone incorporating 20 percent of Zone 1 demands.

Chapter 3

Demand Management Measures



Individual Pressure Reducing Valves at Service Connections	2	USEPA Water Conservation Plan Guidelines ^(a) estimates that selective PRV installation as a pressure management strategy can reduce water use by 5 to 30 percent of each customer's water use. Estimate assumes that water use is reduced by 10 percent for residential customers with PRVs installed. It is also assumed that new PRVs would be installed on approximately 5 percent of City's customer service connections, equivalent to 100 residential customers.
Subtotal – Additional DMMs for Consideration	22	
Total	42	
(a) USEPA Water Conservation Plan Guidelines Appendix B. Table B-4.		



3.5 REFERENCES

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CITY OF ST. HELENA

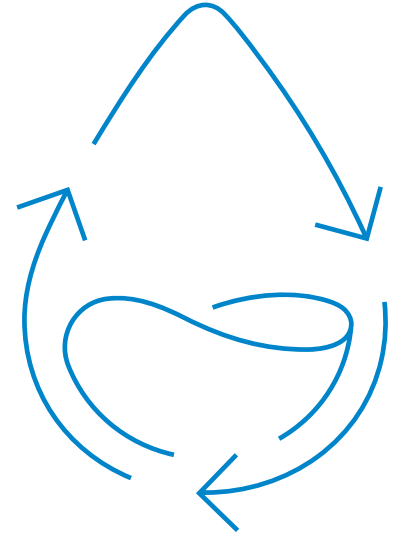
WATER MANAGEMENT PLAN:

Introduction and Demand Management Measures

May 21, 2026

Agenda

- Summarize Water Management Plan (WMP) Chapter 1 - Introduction
 - Goals and Objectives
 - Need for WMP
 - Safe Yield Update
- Summarize WMP Chapter 3 - Demand Management Measures (DMMs)
 - Existing DMMs
 - Potential DMMs for City's Consideration
- Discuss WMP Schedule and Next Steps



What is the Water Management Plan?

- Comprehensive plan:
 - Documenting the City's existing water supplies, demands, and resources
 - Identifying strategies for long-term water supply sustainability



OVERVIEW

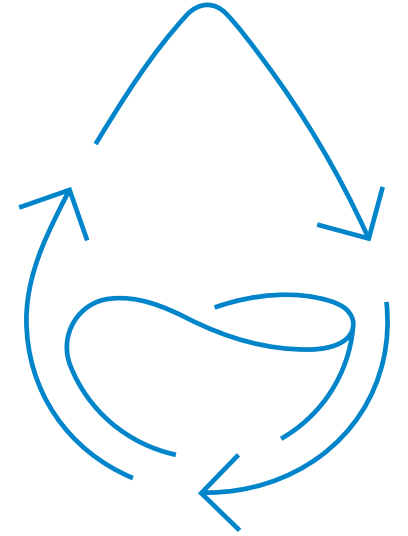
Water Management Plan Contents

Chapter	Draft Complete?	Draft Reviewed by Staff?
1. Introduction	X	X
2. Current Supplies and Existing and Proposed Demands	X <i>(Updating with new data)</i>	X
3. Demand Management Measures	X	X
4. Future Supply Options	X <i>(Updating with new data)</i>	
5. Groundwater Evaluation		
6. Recycled Water Evaluation	In-progress	
7. Water Supply Alternatives Evaluation	In-progress	
8. Funding for Future Supply Options		
9. Recommendations/Conclusions		

Water Management Plan Goals

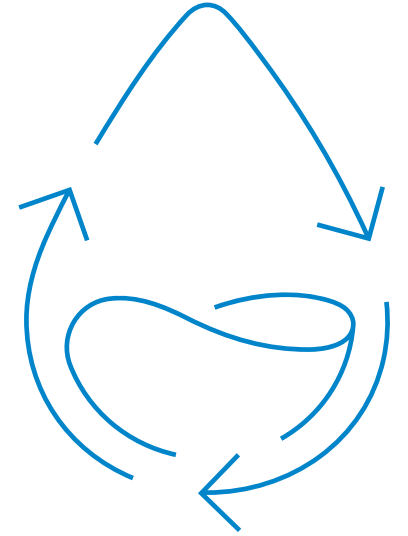
Chapter 1

- Document current and projected water supplies and demands, including difference between existing supplies and future demands through 2050
- Discuss existing and potential future supply-side and demand management strategies
- Describe and evaluate potential water supply options
- Identify most feasible and sustainable supply management path to guide future capital improvement projects
- Document projects required to implement City's recommended path forward



Need for Water Management Plan

Chapter 1



Reduced Safe Yield Estimate:

- Updated annual safe yield of 1,666 acre-feet (AF) compared to 2011 estimate of 1,950 AF, requiring evaluation of supply and demand approach

Water Neutrality Policy Guidance:

- New development must offset its water use; help City to better determine developer contributions

New Recycled Water Opportunity:

- Recent WWTP upgrades now produce tertiary recycled water, creating potential new non-potable supply requiring evaluation before beneficial use

Framework for Capital Decisions:

- City faces multiple water supply infrastructure investment choices; WMP provides a structure to compare and evaluate various water management strategies

Summary of Safe Yield Estimate

Chapter 1

Supply Source	2011 Annual Safe Yield Estimate, AF	2025 Updated Annual Safe Yield Estimate, AF	Basis for Update
Bell Canyon Reservoir	700	516	Based on available daily reservoir operations data through July 2023
Groundwater (Stonebridge Wells No. 1 and 2)	450	350	Groundwater Sustainability Plan (GSP) requires City to reduce pumping by 10% from its 2005-2014 average groundwater pumpage
City of Napa Supply	800	800	No change - based on full contractual amount from the City of Napa (including the 200 AF option)
Total Annual Safe Yield Estimate	1,950	1,666	

Demand Management Measures (DMMs)

Chapter 3

Established DMMs:

- Water Neutrality Policy
- Mandatory Water Conservation Measures
- Encouraged Water Conservation Measures
- Water Conservation Rebate Programs
- Free Water Wise Toolkits

Recently Implemented DMMs:

- Water Meter Replacement
 - Project completion May 2026
 - Expected to improve metering accuracy and customer water use tracking
- Leak Reduction through Water Main Rehabilitation and Replacement (R&R)
 - CIP Project No. W18-118 began in FY 2024/25.
 - Expected to reduce real water losses

Additional DMMs for City's Consideration

Chapter 3

Proposed Demand Management Measure	Purpose	Estimate of Water Savings
Annual Water Loss Audits	To benchmark performance and guide capital investment	N/A
Acoustic Leak Detection for Prioritizing Water Main R&R	Proactively identify water main leaks and prioritize pipe replacement	N/A
Supply Integration and Seasonal Optimization	Optimize supply availability while maintaining adequate water quality	5 AFY
Unidirectional Flushing Program	Increase pipe-flushing efficiency while reducing water use by 30–40%	10-20 AFY
Distribution System Pressure Management	Reduce leakage, main breaks, and energy costs	2-5 AFY

Anticipated WMP Schedule

- Update Chapter 2 (Supply and Demands) – **May 2026**
- Update Chapter 4 (Future Supply Options) – **May 2026**
- Complete Chapter 5 (GW) – **May/June 2026**
- Complete Chapter 6 (RW) – **May/June 2026**
- Complete Chapter 7 (Alternatives Evaluation) – **June/July/August 2026**
- Complete Chapter 8 (Funding) – **July/August 2026**
- Complete Chapter 9 (Recommendations) – **August 2026**
- Draft Water Management Plan City Review – **September 2026**
- **Water/Wastewater Committee Meeting/Public Meetings/GSA Meeting – September 2026**
- **Finalize Water Management Plan – October 2026**



Next Steps for Committee

Current Meeting: Review and provide comments on Chapters 1 and 3



June Meeting: Receive and review Chapters 2 and 4



July Meeting: Receive and review Chapters 5 and 6



August Meeting: Receive and review Chapters 7 and 8; discuss recommendations (Chapter 9)



September Meeting: Receive and review compiled draft WMP



October Meeting: Receive final WMP

- Submit comments on chapters via email to:

- Rebecca White at rwhite@cityofsthelena.gov and

- Monique Day at mday@westyost.com

THANK YOU

