



CITY OF TUALATIN

Staff Report

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos, City Manager

FROM: Lindsay Marshall, Public Works Management Analyst II, Jake Hush, Public Works Management Intern, Nic Westendorf, Deputy Public Works Director

DATE: October 14, 2024

SUBJECT:
Water Management and Conservation Plan

EXECUTIVE SUMMARY:

Water Management and Conservation Planning (WMCP)

Water Management and Conservation Planning (WMCP) provides an opportunity to develop a strategy for managing water supplies in the most efficient manner possible and for meeting existing and future demands. A WMCP is a plan developed by a water supplier (such as a city water system, water district, or a private organization) that describes the water system and its needs, identifies its sources of water, and explains how the water supplier will manage and conserve those supplies to meet present and future needs. Therefore, a WMCP is considered a long-term water management and conservation tool which includes evaluation of different conservation and management actions that suppliers can undertake.

WMCPs are required from suppliers under Oregon Administrative Rules Chapter 690, Division 86 (OAR 690-086), which are administered by the Oregon Water Resources Department (OWRD). A WMCP consists of five "chapters," which include: plan elements, water supplier description element, water conservation element, water curtailment element, and water supply element. The City of Tualatin signed a 30-year wholesale water contract with Portland Water Bureau (PWB) in March 2024 and is therefore considered a water supplier. The PWB completes a full WMCP on behalf of itself and all contracted wholesalers and submits it to the State of Oregon. Per the wholesale contract, the City is only required to complete Chapter 3: Water Conservation Element, which is submitted to the PWB every five years. Following the OWRD guidebook, the Public Works Department has drafted a WMCP Chapter 3 and will submit to PWB in November 2024, fulfilling our contractual obligation. Completing Chapter 3 of a WMCP not only fulfills our contractual obligation to PWB, but also aligns with the City's Climate Action Plan Action 4.1.7 (Establish citywide water conservation program) and identified City Council interests.

Chapter 3: Water Conservation Element Requirements

The water conservation element has two main components: 1) a description of past and current water conservation measures performed by the supplier, and 2) a description of the water supplier's scheduled five-year benchmarks for implementation or continuation of conservation activities so progress can be evaluated. Benchmarks are specific actions that a water supplier commits to doing, along with a schedule to implement and/or carry out the water conservation activities within the next five years.

There are two types of conservation measures:

1. **Basic** - OAR 690-086 lists specific basic conservation measures that all water suppliers must implement.
2. **Enhanced** - Implementation of enhanced conservation measures under OAR 690-086-0150(6) must be evaluated and considered if the water supplier serves a population greater than 7,500. The population threshold triggers this requirement for the City of Tualatin. Under the enhanced measure, suppliers are generally required to evaluate the feasibility of each of the measures and to implement any measures the supplier concludes are feasible. If the measure is not concluded to be feasible, the supplier must document why.

Basic Measures Required of All Suppliers OAR 690-086-0150(4)	Enhanced Measures Required of Select Suppliers OAR 690-086-0150(5)&(6)
<ol style="list-style-type: none"> 1. Annual Water Audit 2. System-Wide Metering 3. Meter Testing and Maintenance 4. Rate Structure 5. Leak Detection Program (if system leakage exceeds 10 percent) <i>*Does not currently apply.</i> 6. Public Education 	<ol style="list-style-type: none"> 1. Leak Detection Program (if system leakage exceeds 15%) <i>*Does not currently apply. Loss estimate is 5.54%</i> 2. Technical and Financial Assistance Programs 3. Retrofit/Replacement of Inefficient fixtures 4. Rate Structure/Billing Practices for Conservation 5. Reuse, Recycling, Non-Potable Opportunities

Drafted Basic Benchmarks

The City currently meets all required basic measures and has crafted benchmarks to reflect the continuation of these efforts (see WMCP draft for additional details, attached).

1. Annual Water Audit - The City will continue to audit and calculate the system's water balance (input and output)
2. System-Wide Metering - The City will continue to maintain a fully metered water system.
3. Meter Testing and Maintenance - The City will continue to test, replace, and repair meters and calibrate lines 3" or greater twice per year.
4. Rate Structure - The City will continue to bill customers monthly and review rates regularly.
5. Leak Detection Program (if system leakage exceeds 10 percent) **Does not currently apply. Loss estimate is 5.54%*
6. Public Education - The City will continue to develop and implement educational and outreach efforts to support the Tualatin community in water conservation.

Drafted Enhanced Benchmarks

After extensive research into the variety of ways in which the City might meet the enhanced measures, the Public Works Department has drafted benchmarks to explore over the next five years.

Leak Detection Program (if system leakage exceeds 15%) - This does not apply to the City of Tualatin, as our system leakage does not exceed 15%. The City's calculated water loss rate (which includes accounting for leakages, unauthorized uses, etc.) for 2022 was 5.54%.

Technical and Financial Assistance Programs - Water suppliers are required to evaluate and consider implementing programs to offer technical and financial assistance to encourage and aid its residential, commercial and industrial customers in implementation of conservation measures.

- Proposed benchmark - Set a community standard for water conservation by offering educational materials and assisting customers. This can be accomplished through staff created outreach materials, as well as utilizing resources from the City's water conservation focused partner programs like the Regional Water Provider's Consortium and Backyard Habitat.
- Other benchmarks considered:
 - Training for local businesses – Not feasible due to staff capacity, but is a current planning conversation at Consortium.
 - Perform water audits for customers - Not feasible due to staff capacity
 - Rebates – Rebates are excellent for customer service. However, due to high administrative burdens in processing rebate requests, efficiency requirements in modern plumbing code, and the potential for inequitable distribution of benefits (upfront costs are on the customer), rebates were not included as a draft benchmark.

Retrofit/Replacement of Inefficient fixtures - Water suppliers can reduce demand by either providing some type(s) of efficient water using equipment to customers or providing financial incentives for customers to invest in water-efficient products (rebates).

- Proposed benchmark - Implement a conservation kit program to help customers retrofit or replace inefficient residential fixtures. Kits can be made available upon request by existing customers and can be sent to all new residential customers.
- Other benchmarks considered:
 - Rebates – Rebates are excellent for customer service, but as discussed above, are not being included as a recommended benchmark.

Rate Structure/Billing Practices for Conservation – Water suppliers should evaluate and consider adopting rate structures, billing schedules, and other associated programs that support and encourage water conservation.

- Proposed benchmark - Conduct a study about the potential for a water conservation focused rate structure. Such structures include tiered rates, whereby customers are charged a uniform base fee, and usage fees that are assessed based on the “tier” of consumption. Tiers are incremental blocks of water volume; the higher the tier, the higher the price. Another option is a seasonal rate, whereby customers are charged a different rate based on wet/dry seasons. A seasonal structure would charge more for discretionary water uses, like irrigation, while keeping basic water use for health and safety as affordable as possible.
- Proposed benchmark - Currently, meters are physically read by a person on a monthly basis. Automated Meter Reading (AMR) or an Advanced Metering Infrastructure (AMI) systems allow for automated or real-time meter readings. This allows for consistent billing cycles, which supports tiered rates, and provides real time data to catch leaks faster. The City will install retrofit capable meters as old or failed meters reach end-of-life. All newly installed meters will work with an AMR/AMI system. This will help position the City's transition to an AMI / AMR system in the future.
- Other benchmarks considered: The proposed benchmarks are the most feasible options to explore at this time.

Reuse, Recycling, Non-Potable Opportunities - Water suppliers should evaluate and consider implementing programs to make use of water reuse, water recycling, and non-potable water opportunities.

- Proposed benchmark - Explore expanding Clean Water Services' Durham Treatment Plant Purple Pipeline, which would allow facilities like Tualatin Community Park to be irrigated with non-potable water. This would reduce the use of drinking water for irrigation purposes.
- Other benchmarks considered – The proposed benchmark is the most feasible option to explore at this time.

Public Works staff recommend evaluating and considering the proposed benchmarks for the November 2024 submission of WMCP Chapter 3 of the PWB.

OUTCOMES OF DECISION: If Council is supportive, staff will submit the attached draft WMCP to the Portland Water Bureau and pursue the identified benchmarks over the coming 5-year period.

ALTERNATIVES TO RECOMMENDATION: Council could direct staff to pursue other benchmarks.

FINANCIAL IMPLICATIONS:

Some of the proposed benchmarks will require funding and future budgetary considerations. These items will be brought to Council as necessary.

ATTACHMENTS:

- Presentation - Water Management and Conservation Plan
- Draft Water Management and Conservation Plan Chapter 3