

2.9 Water Use Efficiency Program

Step 1: Describe your prior water conservation program.

The goal of the prior program was to maintain a DSL below 10 percent, and to reduce average residential use by 2 percent. In order to meet these goals, the City installed and calibrated source and service meters, and educated customers about water use efficiency (WUE) once per year.

Step 2: Describe your source of water supply.

The System is supplied by groundwater from three deep basalt wells. All three wells draw from the Wanapum formation. Complete source information can be found in table 2-1 of this SWSMP.

Step 3: Adopt a WUE goal that supports water demand efficiency.

The System will keep its previous goal of keeping DSL leakage under 10 percent and reducing average daily demand by another 2 percent over the next 6 years. Copies of official adoption documentation and public notice of the goal-setting meeting are included in Appendix ().

Step 4: Select WUE measures that support your goal and evaluate them for cost-effectiveness.

On the demand side, City water use efficiency measures involve notifying customers of high meter reads. All customer classes will be affected by these measures. According to the WUE guidebook, a measure that is applied to multiple customer classes counts as multiple measures.

The measures are estimated to save 10 gallons per day/equivalent residential units (gpd/ERU) at minimal cost. There are four total customer classes: Full-time single-family residences, apartment buildings, full-time residential units in apartments, and commercial. Therefore, providing notification of high meter reads to all customers qualifies as four WUE measures.

Notifying customers of high meter reads as a WUE measure is extremely cost-effective. Notifications can take place in person or via mail at little to no cost.

Another measure that supports the System's WUE Goal would be to include water savings tips via the "Stop Water Waste" brochure produced by the DOH in all customer's monthly bills twice per year. Educating customers on voluntary means of practicing WUE is a cost-effective way contributing to the System's WUE Goal.

Step 5: Decide which WUE measures to implement.

The City proposes to include water savings tips via the "Stop Water Waste" brochure produced by the DOH in all customer's monthly bills twice per year. Since all four customer classes served by the system will be receiving the brochure, this effort will count as four WUE measures.

Step 6: Educate your customers on using water efficiently.

The City encourages WUE by including water conservation information in its annual consumer confidence report. The City intends to continue this effort. The semiannual distribution of the "Stop Water Waste" brochure to all System Customers will also aid this effort.

Step 7: Estimate projected water savings from the selected WUE measures.

A combination of the City's four measures to accomplish water savings is projected to have a resultant savings of 10 gpd/ERU within 6 years, reducing average daily demand/equivalent residential units (ADD/ERU) from 524 gpd to 514 gpd.

Step 8: Decide how to evaluate the effectiveness of your WUE program.

The City's goal is centered upon lowering the ADD/ERU within its service area. The City will know if the measures are effective toward meeting this goal if the ADD/ERU within our service area drops by two percent or more in the next six years.

Step 9: Determine distribution system leakage.

The 2022 DSL was 5.8 percent.

Step 10: Evaluate rate structures that encourage water demand efficiency.

The current rate structure is outlined in Appendix B. The City's water rate fee structure is a combination of a flat base rate and a uniform usage rate structure. There is a flat rate based on the size of the customer service meter that constitutes a minimum monthly charge and includes the provision of a base amount of water. On top of the base monthly rate, there is a uniform rate of \$2.00 per 1,000 gallons for any water used past the base amount.

Since there is a flat rate component to the City's rate structure, it will be evaluating the possibility of implementing a fully uniform rate structure.

The pros of implementing a uniform rate structure over the hybrid that is currently in place would be that the customer would be billed in a manner that would be directly proportional to the amount of water consumed. This would encourage WUE since customers would have a greater awareness of the link between their water consumption and their bill. This structure would also benefit the customers who use less water than allotted in the base portion of the bill by lowering their overall bill to better reflect consumption.

The cons of implementing a uniform rate structure over the current hybrid of flat and uniform would include the disproportionate benefit smaller customers would receive in their access to the distribution system infrastructure. Even if a customer consumes less water, the cost of the distribution infrastructure remains the same. The current rate structure includes a uniform usage rate on top of a flat rate. The flat rate is included to require all customers to help offset the cost of construction of the distribution system, as well as fixed costs of the system such as debt service, operator labor, insurance, etc. System customers pay for both the water and the water system operations. A uniform or inclining block rate, being fully usage-based, does not require customers who have lower consumption to help offset the fixed costs of the System. Additionally, the flat component of the rate structure guarantees monthly revenue from smaller system customers, while the uniform usage rate structure discourages larger customers from overusing water as their bill is still significantly impacted by their consumption.

Understanding these benefits and drawbacks to changing the rate structure of the City's system, it has been concluded that the existing rate structure is the most beneficial to generating system revenue and

equitably distributing fixed system costs to all customers, while not encouraging unsustainable or wasteful use.

TABLE 2-14
Water Use Efficiency Program

Completed	Task	Completion Date
<input checked="" type="checkbox"/>	Step 1: Describe previous water use efficiency efforts or WUE program.	October 2023
<input checked="" type="checkbox"/>	Step 2: Describe your source of supply.	October 2023
<input checked="" type="checkbox"/>	Step 3: Establish a WUE goal in a public forum. Include a short description.	November 2023
<input checked="" type="checkbox"/>	Step 4: Select measures to support the WUE goal and evaluate them for cost-effectiveness. Include a list of your proposed measures. <i>You do not have to evaluate the measures you choose to implement.</i>	October 2023
<input checked="" type="checkbox"/>	Step 5: Identify measures you will implement in the next six years. List the selected measures and implementation schedule.	October 2023
<input checked="" type="checkbox"/>	Step 6: Provide WUE education material to your customers. Attach a copy or brief description.	October 2023
<input checked="" type="checkbox"/>	Step 7: Estimate projected water savings for each selected measure. Include a brief description.	October 2023
<input checked="" type="checkbox"/>	Step 8: Establish how you will evaluate your WUE program for effectiveness. Include a brief description.	October 2023
<input checked="" type="checkbox"/>	Step 9: Determine your system's DSL. Use data from the same year used to calculate total water production and consumption in Section 2.6 and 2.7. Include the DSL totals.	October 2023
<input checked="" type="checkbox"/>	Step 10: Evaluate the feasibility of adopting a conservation rate structure. Include a brief description of the results.	October 2023

