Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Date Submitted: 6/30/2025

Water Use Efficiency
Annual Performance Report - 2024

WS Name: BELLINGHAM-WATER DIVISION CITY OF

Water System ID# : 05600 WS County: WHATCOM

Report submitted by: *Torhil Ramsay*

Meter Installation Information:

Estimate the percentage of metered connections: *100%*

If not 100% metered – Did you submit a meter installation plan to DOH? No

Within your meter installation plan, what date did you commit to completing meter installation?

Current status of meter installation:

Production, Authorized Consumption, and Distribution System Leakage Information:

12-Month WUE Reporting Period *01/01/2024* To *12/31/2024*

Incomplete or missing data for the year? *No*

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons	*2,927,760,000*	gallons	
Authorized Consumption (AC) – Annual Volume in gallons	*3,319,911,952*	gallons	
Distribution System Leakage – Annual Volume TP – AC	*-392,151,952*	gallons	
Distribution System Leakage – DSL = [(TP – AC) / TP] x 100 %	*-13.4 %*		
3-year annual average - %	*0.0 %*		*2015, 2016, 2017*

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: *10/12/2020*

Has goal been changed since last performance report? *Yes*

Note: Customer goal must be re-established every 6 years through a public process.

Customer WUE Goal (Demand Side):

While our goal for 2024 remained the same, we adopted a new goal in 2025 for the 2025-35 reporting period. For future reports, we will provide data on the new goal: Keep consumption below 154 gallons per day per single-family residential account.

Customer (Demand Side) Goal Progress:

In 2024, we continued efforts on both indoor and outdoor water conservation.

Our Peak Day Demand on 7/9/2024 was 12.51 MGD, down slightly from the previous year‘s PDD of 12.84 MGD, both well below our goal of 14 MGD.

In 2024, 27 single-family residences received rebates for water saving devices, saving an estimated 106,267 gallons of water. 343 multi-family units were assessed for water saving measures, saving an estimated 98,670 gallons of water. 27 devices at commercial properties were upgraded, saving an estimated 105,460 gallons of water. A total of 310,397 gallons of water was estimated to be saved in 2024 through these device upgrades (including low-flow toilets, sink aerators, and low-flow showerheads). In 2024, we received 137 water saving pledges, and provided 426 water saving devices through youth education, outreach events, and online pledges. We also continued promoting our Manage Weeds Naturally program and voluntary summer watering schedule to reduce outdoor watering.

Additional Information Regarding Supply and Demand Side WUE Efforts

In 2020, the water meter on the demand side of the system was verified to report inaccurate flows during times of low demand. Current system condition is a 60” main that is reduced down to a 48” pipe where an electromagnetic insertion style flow meter is located. This flow meter is considered one of the most accurate for this size of pipe. Further reductions of pipe size would affect the ability to maintain storage levels at times of high demand. The typical recommended flow range for this meter is 2-20 ft/s. We conducted multiple flow checks on this meter and find flow velocities range from 0.4 to 2.0 ft/s. Of these flow checks 22% were below 1.0 ft/s (8.2 mgd) and 100% of the test flows were below 2.0 ft/s (16.3 mgd). We also did flow checks where we maintained flows below 1.0 ft/s and could not obtain repeatable data to allow for percentage corrections. System layout limits the ability of simple or low-cost system modification.?

Describe Progress in Reaching Goals:

- Estimate how much water you saved.
- Report progress toward meeting goals within your established timeframe.
- Identify any WUE measures you are currently implementing.
- If you established a goal to maintain a historic level (such as maintaining daily consumption at 65 gallons per person per day for the next two years) you must explain why you are unable to reduce water use below that level.

An estimated 620,794 gallons of water was saved through water conservation device installations. With the installation of smart meters, the City’s water department is able to use the data points provided to detect higher-than-normal water consumption, which usually indicates a leak. The water division runs regular reports to check for high consumption and potential leakage. Using month-to-month comparative data, customers with unusually high-water usage are notified either by letter or phone call, depending on the severity of the use. Customers are provided with information on identifying leaks, making repairs, and implementing water saving methods. The Water Distribution Division of Public Works continues to efficiently and effectively maintain the flow of water to our customers. Practices such as the annual flushing program will continue to improve over time and can lead to reduced water consumption. For example, in 2024,10,966,400 gallons of water were used in the annual flushing program. Staff will work to reduce this amount through improved processes and staff training.

The following questions will help DOH better understand water usage, water resources management and drought response. The data will be used to provide technical assistance, not for regulatory purposes.

All questions are voluntary

Month	Date of Measurement	Static Water Level (feet below measuring point)	Dynamic Water Level (feet below measuring point)
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

Water level data:

Please provide the following information (if known) to help us better utilize the water level data.

Well tag Id number:

Well depth:

Water level accuracy (within 0.01 ft < 1 ft ~ 1 ft)

Completion type (e.g., cased open interval, cased open-ended, cased open-ended with perforations, etc…)

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft)

Water level parameter name (e.g. depth below measuring point, depth below top of casing, depth below ground surface)

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7)

Monthly/Seasonal Water Usage:

What was your maximum daily water demand for the previous year (in gallons per day)?

Month	Volume of Water Produced in gallons
January	240
February	205
March	215
April	219
May	243
June	261
July	340
August	306
September	257
October	226
November	207
December	202

Water shortage response:

Did you activate any level of water shortage response plan the previous year?

☐ Yes ☐ No ☑ There was no need to

If you activated a water shortage response plan the previous year, what level did you activate? (Check all that apply)

☐ Advisory Conservation ☐ Voluntary Conservation

☐ Mandatory Conservation ☐ Rationing ☐ Other

What factors caused your water shortage the previous year?

☐ Drought ☐ Fire ☐ Landslides ☐ Earthquakes

☐ Flooding ☐ Water Supply Limitations ☐ Other

Do not mail, fax, or email this report to DOH