



Date Submitted: 4/19/2024

Water Use Efficiency Annual Performance Report - 2023

WS Name: QUILCENE

Water System ID# : AB292

WS County: JEFFERSON

Report submitted by: William Graham

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 02/08/2023 To 01/08/2024

Incomplete or missing data for the year? Yes

If yes, explain:

December customer meter data was accidentally overwritten after being billed. For the report, a 5-year average was used for the month of December.

Total Water Produced & Purchased (TP) – Annual volume gallons	2,812,690 gallons
Authorized Consumption (AC) – Annual Volume in gallons	2,455,865 gallons
Distribution System Leakage – Annual Volume TP – AC	356,825 gallons
Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$	12.7 %
3-year annual average - %	8.8 % 2021, 2022, 2023

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: 09/23/2020

Has goal been changed since last performance report? No

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

Customer WUE Goal (Demand Side):

The Demand Side Goal approved by the PUD Board of Commissioners (BOC) in the 2020-2025 Water Use Efficiency Program is: 1. Maintain gallons per day per connection at 3-year (2017-2019) mean average of 117 gal/day. Goals were based on single family home use.

Customer (Demand Side) Goal Progress:

The 4-tier water conservation rate structure remains in place as an incentive for customers to conserve water. Billing statements graph annual usage by month allowing the customer to track and compare monthly usage and sometimes identify leaks. Customers receive an annual water newsletter that includes links to the PUD's website and conservation tips for indoor and outdoor water usage. Rebates are available for customers who have purchased new energy and water efficient clothes washers. Information on how to apply can be found at <https://www.jeffpud.org/additional-rebates/>.

Residential customers, the target of the goals set for Quilcene, met the goal of 117 gpd or under by a lot at 90 gpd, which is a savings of about 27 gpd. This is an overall savings of nearly 10,000 gallons annually against the goal. It's a very good gallon per day number but is well over 3 times that of commercial accounts in 2023. Commercial accounts have no set goals but will in 2026 when the rules will be reset. Your Quilcene water system is primarily commercial in its customer base and the conservation goals should be set to reflect that. Regardless, well done Quilcene residential customers!

Additional Information Regarding Supply and Demand Side WUE Efforts

The stability of the PUD's water levels, even over the course of the dry and wet seasons, is perhaps the most robust of all PUD sources. This is likely due to the Big Quilcene River losing water into sands and gravels downstream of the HY101 bridge in a consistent supply of water to the aquifer year-round.

This year the PUD completed the installation of a 105,000 gallon tank on the USFS compound that will allow commercial PUD customers fire flows for insurance purposes. Unfortunately, the PUD did not meet its production goals either in 2023 pumping 700,000 gallons over our target. Coupled with that we leaked more in 2023, but are still within our goal of being below 10% leakage in our 3 year average. Much of that leakage may have occurred during testing of the new tank.

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.

See descriptions above.

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	01/02/2023	41.8	
February	02/01/2023	42.0	
March	03/01/2023	41.6	
April	04/01/2023	42.8	
May	05/01/2023	41.8	
June	06/01/2023	42.2	
July	07/01/2023	41.8	
August	08/01/2023	41.1	
September	09/09/2023	44.4	
October	10/06/2023	43.4	
November	11/07/2023	43.2	
December	12/01/2023	43.0	

Water level data:

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

Well tag Id number: ABR399

Well depth: 165.0

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

Completion type (e.g., cased open interval, cased open-ended, cased open-ended with perforations, etc...) Cased, open ended, no perforations, screened.

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 47.823, -122.885 (10 ft)

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

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7) 83 ft

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	255,640
February	223,900
March	252,270
April	181,450
May	273,450
June	266,400
July	357,530
August	307,670
September	174,410
October	212,040
November	111,630
December	196,300

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