



Date Submitted: 6/14/2023

Water Use Efficiency Annual Performance Report - 2022

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 02/07/2022 To 01/06/2023

Incomplete or missing data for the year? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons	2,036,580 gallons
Authorized Consumption (AC) – Annual Volume in gallons	1,936,226 gallons
Distribution System Leakage – Annual Volume TP – AC	100,354 gallons
Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$	4.9 %
3-year annual average - %	8.0 % 2020, 2021, 2022

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 four-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 and same period last year usage. Rebates for water and energy efficient clothes washers are available to customers. An annual water newsletter is mailed to customers that contains links to indoor and outdoor water conservation tips on the utility's website.

Relative to the customer usage in 2021, Quilcene residents used 166,332 gallons less in 2022. While customers didn't meet the goal this year, they did in 2021. Perhaps 2022 was an aberration.

Additional Information Regarding Supply and Demand Side WUE Efforts

The 3 Supply Side Goals approved by the BOC in the 2020-2025 Water Use Efficiency Program are:

- 1. Supply Side - Maintain distribution systems leak (DSL) percentage at or below 10-percent of system production as calculated on a 3-year average.*
- 2. Supply Side - Water systems not at or below DSL of 10-percent, reduce DSL by 10-percent in the next 3-years (Note: Baseline 3-year average from 2019, 2018 & 2017).*
- 3. Supply Side - Maintain water production at or below the 3-year mean average.*

In 2022, the DSL was 4.9%. This helped lower the the regulatory 3-year average to 8% meeting the state required standard of 10% or less. The 4.9% represents steady progress toward staying under the 10% DSL standard as the annual DSL has dropped each of the last two years.

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.

Water production in 2022 was 2,036,580 gals or 74,087 gallons below the 2,110,667 gallon per year production goal, meeting the stated production/supply goal.

To the best of our knowledge, all usage in Quilcene is now metered and/or accounted for. Many thanks to Quilcene Fire & Rescue who continue to report their hydrant usage allowing us to reduce these DSL numbers and achieve our goals. A new pump was installed at the US Forest Service compound possibly improving efficiency.

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	01/03/2022	42.3	
February	02/07/2022	41.6	
March	03/07/2022	43.1	
April	04/04/2022	42.3	
May	05/09/2022	42.3	
June	06/06/2022	41.8	
July	07/11/2022	42.4	
August	08/01/2022	43.6	
September	09/12/2022	43.8	
October	10/03/2022	43.8	
November	11/07/2022	44.0	
December	12/05/2022	43.3	

Water level data:

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

Well tag Id number: ABR 399

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 interval, 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

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	121,600
February	106,130
March	94,167
April	94,167
May	143,538
June	178,705
July	203,393
August	232,575
September	272,813
October	188,604
November	106,104
December	97,466

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