



Date Submitted: 5/21/2024

Water Use Efficiency Annual Performance Report - 2023

WS Name: QUIMPER

Water System ID# : 05783

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 01/01/2023 To 12/31/2023

Incomplete or missing data for the year? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons 276,874,000 gallons

Authorized Consumption (AC) – Annual Volume in gallons 258,949,206 gallons

Distribution System Leakage – Annual Volume TP – AC 17,924,794 gallons

Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$ 6.5 %

3-year annual average - % 8.0 % 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? Yes

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 in the 2020-2025 Water Use Efficiency Program is:

1. Maintain gallons per day per day (GPD) per connection at 3-year (2017 – 2019) mean average. See goals below. Bold italics with * indicate goals were met.

Route	Goal (GPD)	2020 (GPD)	2021 (GPD)	2022 (GPD)	2023 (GPD)
216	132	143	142	145	137
218	166	176	175	*151	*159
220	154	*154	159	*153	163
222	129	144	139	*122	*120
223	154	171	159	*147	*144
228	120	*110	*113	*119	*117
300	123	126	127	*108	*102
400	171	176	*157	*161	*158
450	153	*139	*150	*140	*132

Key

216 – Four Corners Area

218 – N. Hadlock/Chimacum

220 – E. Hadlock/Oak Bay Rd

222 – W. Hadlock/S Irondale

223 - Irondale

228 – Marrowstone Is

300 – South Hastings/LUD#3

400 – Woodland Hills

450 – Kala Point

A map of these meter read routes can be found here:

<https://www.jeffpud.org/wp-content/uploads/2022/05/Water-Read-Routes-Quimper.pdf>

For further information, contact Bill Graham at bgraham@jeffpud.org.

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/>. Last year 5 customers in Quimper received rebates for installing new energy and water efficient clothes waters, saving approximately 1,500 to 2,000 gallons.

Additional Information Regarding Supply and Demand Side WUE Efforts

For this year's report, we tried to isolate single family residential customer usage from commercial usage as much as possible. That means we subtracted usage from 76 of the largest commercial customers (Chimacum School District, Indian Island Naval Magazine, Jefferson County Parks, Fort Flagler and Old Fort Townsend State Parks, grocery stores, restaurants, etc.) and some of the smallest of similar types (Oak Bay Campground, Jefferson County Public Works). The intent was to assess the residential use goal progress by subtracting the same set of commercial customers annually over a 4 year period. In the case of Route 216, the goal has never been met, but its getting closer than ever. All other routes have shown greater progress.

Overall progress toward the customer's goals across the system has been positive in keeping single family residential water usage at or below the PUD's set goals. The Four Corners area (Route 216) is the only route to never meet its set goal; all others have at least once. Conversely, Marrowstone Island residents per home have used 120 GPD or less, meeting their goal the last 4 years running. The long-standing water conservation culture of Marrowstone Island continues to set the standard for wise water usage in the district! Well done! And thank you all for your efforts!

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.

PUD well production goals were not met in 2023 and haven't since they were set in 2020 with the closest within 16.5 million gallons of the goal in 2021. While that is a large amount of water, as a percentage of overall production, the difference from the goal is less than 7% of overall production. Much could be made up in the future by reducing distribution system leakage (DSL). The DSL in 2023 remains below the 3 year average of 10% mandated by the state and achieving the stated PUD goal at 8% (staying under 10% DSL).

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	77.4	
February	02/01/2023	78.4	
March	03/01/2023	78.5	
April	04/01/2023	79.3	
May	05/01/2023	81.5	
June	06/01/2023	81.1	
July	07/01/2023	79.9	
August	08/01/2023	77.3	
September	09/06/2023	76.5	
October	10/05/2023	78.3	
November	11/06/2023	76.1	
December	12/06/2023	76.3	

Water level data:

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

Well tag Id number: ACF484

Well depth: 133.0

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, without perforations

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 48.035, -122.785, (~10 ft)

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

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7) 124.9 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	6,800,000
February	6,900,000
March	7,900,000
April	8,100,000
May	17,400,000
June	21,630,000
July	28,320,000
August	27,810,000
September	15,600,000
October	10,800,000
November	11,400,000
December	9,500,000

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