



Date Submitted: 4/24/2024

Water Use Efficiency Annual Performance Report - 2023

WS Name: BYWATER BAY

Water System ID# : 02043

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? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons 19,534,000 gallons

Authorized Consumption (AC) – Annual Volume in gallons 18,345,299 gallons

Distribution System Leakage – Annual Volume TP – AC 1,188,701 gallons

Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$ 6.1 %

3-year annual average - % 3.3 % 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 in the 2020-2025 Water Use Efficiency Program is: 1. Maintain gallons per day per connection at 3-year (2017 – 2019) mean average of 199 gallons/day

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/>.

Bywater Bay customers did a great job last year exceeding the goal of 199 gpd by using 159 gpd. This has been a continuing trend. Many new customers came online in 2023 from Shine Plat. These customers were counted as connections Even though they weren't connected for the full year, they were online for the high demand season. That counts! Well done, all and welcome aboard, Shine Plat folks!

Additional Information Regarding Supply and Demand Side WUE Efforts

Water levels in our primary source well have held steady annually, although the water levels vary seasonally by as much as 20 ft or more. Your sources are entirely dependent upon (wet) seasonal precipitation. While the well has recovered each year, last year it hit a 3 year low. Cautious, wise water use is warranted. Regular monthly monitoring will continue on your primary source.

The PUD went over its production goal by just over a million gallons. The reason the demand side goals progress doesn't match the supply side is likely due to the increased leakage at 6.1%. Also the addition of Shine Plat, which will factor in when we reset the goal in 2026. Hopefully, these leaks can be identified and remedied with the diligence of our staff and customers if they see a leak. Regardless of the increase in leakage, the system is still well within the state mandated 3 yr average of less than 10% leakage.

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	180.8	
February	02/01/2023	179.8	
March	03/01/2023	180.8	
April	04/01/2023	180.1	
May	05/01/2023	189.4	
June	06/01/2023	190.6	
July	07/01/2023	194.8	
August	08/01/2023	197.0	
September	09/09/2023	192.2	
October	10/06/2023	194.2	
November	11/07/2023	194.0	
December	12/01/2023	182.6	

Water level data:

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

Well tag Id number: AAB869

Well depth: 295.0

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 interval.

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 47.876, -122.665 (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) 222.5 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	827,960
February	796,120
March	869,250
April	1,633,090
May	2,781,750
June	3,460,620
July	3,019,960
August	2,564,510
September	1,089,420
October	883,590
November	739,590
December	868,140

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