



Date Submitted: 6/1/2021

## Water Use Efficiency Annual Performance Report - 2020

WS Name: BYWATER BAY

Water System ID# : 02043

WS County: JEFFERSON

Report submitted by: *Samantha Harper*

### 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 01/01/2020 To 12/31/2020

Incomplete or missing data for the year? No

If yes, explain:

<b>Total Water Produced &amp; Purchased (TP)</b> – Annual volume gallons	16,713,490 gallons
<b>Authorized Consumption (AC)</b> – Annual Volume in gallons	15,693,271 gallons
Distribution System Leakage – Annual Volume TP – AC	1,020,219 gallons
Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$	6.1 %
3-year annual average - %	4.4 % 2018, 2019, 2020

### 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):

1. Maintain gallons per day per connection at 3-year mean average.

## Customer (Demand Side) Goal Progress:

The customer 3-year average usage was below the target baseline by about 20 gallons per day per connection. This degree of reduction is unusual and is likely due to the change in number of steady, year-round customers. Also, usage per customer in Bywater Bay is the highest per connection of any of the PUD's water systems. The reason is that some have very large lots with significant landscaping requirements. Approved by the Board of Commissioners in 2019 and implemented in 2020, the PUD increased its rates for customers that use more than 30,000 over the course of a billing period to curb high usage. High water usage can put a burden on the system itself and limit what resources we have available to serve existing as well as future customers.

## Additional Information Regarding Supply and Demand Side WUE Efforts

*The three Supply Side Goals established, and 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.*

## 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.

*In 2020, the Bywater Bay Water System increased the 3-year average leakage rate by less than 1-percent from the average base years (2019, 2018 and 2017); however, the system remains below the state standard of 10-percent leakage rate. Also, the Bywater Bay system produced less water in the 3-year average period by 949,167 gallons than the 3-year average production baseline (2017, 2018 and 2019). During the 3-year average period, the PUD installed additional supervisory controls and data acquisition (SCADA) equipment, allowing remote monitoring of reservoir levels and the ability to control the system remotely. This upgrade resulted in significant production. Also, in 2020 the PUD completed tying in a new source, the Reynolds well.*

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: AAB869

Well depth: 295.0

Water level accuracy (within 0.01 ft < 1 ft ~ 1 ft) 0.1 feet

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

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 47° 52' 24" N 122° 40' 03" W

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

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7) 236

## 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	787,938
February	774,358
March	733,600
April	889,931
May	1,135,252
June	1,323,119
July	1,367,311
August	2,444,724
September	2,679,184
October	1,379,360
November	896,041
December	848,226

## 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**