



Date Submitted: 6/13/2023

Water Use Efficiency Annual Performance Report - 2022

WS Name: GARDINER LUD 1

Water System ID# : 07877

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 12/29/2021 To 12/28/2022

Incomplete or missing data for the year? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons	10,022,800 gallons
Authorized Consumption (AC) – Annual Volume in gallons	9,013,758 gallons
Distribution System Leakage – Annual Volume TP – AC	1,009,042 gallons
Distribution System Leakage – DSL = [(TP – AC) / TP] x 100 %	10.1 %
3-year annual average - %	9.7 % 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/Customer Side Goal established, and approved by the PUD BOC, in the 2020-2025 Water Use Efficiency Program is: 1. Maintain 160 gallons per day per connection at 3-year mean average (2017 - 2019).

Customer (Demand Side) Goal Progress:

The four-tier water conservation rate structure remains as an incentive for customers to conserve water.

Billing statements graph annual usage by month allowing the customer to track and compare monthly usage.

Rebates are available for water and energy efficient clothes washers. None were awarded to Gardiner customers in 2022.

An annual water newsletter is sent to customers with links to our website that has conservation tips for both indoor and outdoor usage.

The PUD pumped 60,500 gals less in 2022 than in 2021. Gardiner customers as a group used 149,813 gals less.

In 2022, Gardiner water customers used on average approximately 170 gals/day or 10 gals/day more than the 160 gal/day goal – essentially the same as in 2021. Perhaps homeowners were replanting landscapes after the “heat dome” event stressed and killed property vegetation. Gardiner has a lot of large lots with abundant landscaping needs, more so when newly planted vegetation needs water to take root. So long as there are no additional “events”, per connection water usage may approach the goal.

Additional Information Regarding Supply and Demand Side WUE Efforts

The 3 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.*

The 2022, annual DSL for the Gardiner water system rose to 10.1% elevating the 3 year average to 9.7%, just below the state mandated 10% DSL. The 2022 DSL while high, thanks to the averaging meet both supply goals No 1 and 2. In 2022, the well production was 10,022,800 gallons, 475,567 gallons more than the 3-year average target of 9,547,233 gallons, about a 150,000 gal less than last year. Further capital improvements such as line replacement could continue lowering the DSL and reduce the need to pump high water volumes to Gardiner customers.

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 saved was described earlier, however, per customer usage did not change in 2022. In 2022, Gardiner water customers used on average approximately 170 gals/day or 10 gals/day more than the 160 gal/day goal. Perhaps homeowners were replanting landscapes after the “heat dome” event stressed and killed property vegetation. Gardiner has a lot of large lots with abundant landscaping needs, more so when newly planted vegetation needs water to take root. So long as there are no additional “events”, per connection water usage may approach the goal.

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	145.0	
February	02/07/2022	145.0	
March	03/07/2022	145.0	
April	04/04/2022	145.0	
May	05/09/2022	145.0	
June	06/06/2022	145.0	
July	07/11/2022	145.0	
August	10/01/2022	145.0	
September	09/12/2022	145.0	
October	10/03/2022	145.0	
November	11/07/2022	145.0	
December	12/05/2022	145.0	

Water level data:

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

Well tag Id number: ACM503

Well depth: 315.0

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, screened multiple intervals

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft) 48.057968, -122.944568

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) 144.5 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	444,019
February	668,103
March	414,547
April	416,171
May	519,973
June	563,723
July	769,147
August	1,083,503
September	1,514,041
October	825,263
November	538,149
December	538,149

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