



Date Submitted: 5/19/2022

Water Use Efficiency Annual Performance Report - 2021

WS Name: NISQUALLY HIGHLANDS 364

Water System ID# : 00953 WS County: THURSTON

Report submitted by: *Sandra Furth*

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 *12/02/2020* To *12/02/2021*

Incomplete or missing data for the year? *No*

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons	<i>9,576,600</i> gallons
Authorized Consumption (AC) – Annual Volume in gallons	<i>5,422,140</i> gallons
Distribution System Leakage – Annual Volume TP – AC	<i>4,154,460</i> gallons
Distribution System Leakage – DSL = [(TP – AC) / TP] x 100 %	<i>43.4 %</i>
3-year annual average - %	<i>36.8 % 2019, 2020, 2021</i>

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: *10/19/2020*

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):

Between 2021 & 2031, reduce and/or maintain the annual average demand per connection, for all Group A systems, to no more than 250 gallons per day.

Customer (Demand Side) Goal Progress:

The Nisqually Highlands water system is fully metered and the total water produced for 2021 was 9,576,600 gallons. The system had a 7.90 gallon per minute leak loss for the year, leak detection is ongoing and prioritized in 2022. In 2021, the average household used 270 gallons per day not meeting the PUD's current conservation goal.

Additional Information Regarding Supply and Demand Side WUE 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.

In support of reaching our goals, TPUD has implemented several conservation measures 1) Irrigation 'smart' weather based irrigation controller rebate program; 2) Mechanical garden watering timers a simple control for hose taps available by request; 3) Provide customer usage history on each monthly bill for comparison of the previous year's usage; 4) Has conservation tips available on our website; 5) Uses the billing system to flag unusually high consumption so that we can reach out to customers about any potential leaks; 6) Offered customers the option to upgrade to a 'smart' cellular meter which allowed for access to a web based consumer portal to set up leak alerts and view consumption history.

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:

Well depth:

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

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

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

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

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

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	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

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