



Date Submitted: 5/24/2022

Water Use Efficiency Annual Performance Report - 2021

WS Name: PUYALLUP CITY OF

Water System ID# : 70050

WS County: PIERCE

Report submitted by: *Craig Hale*

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 01/01/2021 To 12/31/2021

Incomplete or missing data for the year? No

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons 1,410,678,015 gallons

Authorized Consumption (AC) – Annual Volume in gallons 1,343,189,200 gallons

Distribution System Leakage – Annual Volume TP – AC 67,488,815 gallons

Distribution System Leakage – DSL = $[(TP - AC) / TP] \times 100 \%$ 4.8 %

3-year annual average - % 7.8 % 2019, 2020, 2021

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: 08/08/2018

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):

Over the 10-year period beginning in 2018, reduce the customer consumption per Equivalent Residential Unit (ERU) by 1 gpd per year.

Customer (Demand Side) Goal Progress:

ERU consumption for 2020 was 194.5 gpd/ERU, compared to 174 gpd/ERU in 2020, and 175 gpd/ERU in 2019. This 20.5 gpd/ERU increase resulted in 72.3 million gallons of additional residential water use in 2021. This significant increase in residential water use is likely due to the large number of people working and attending school from home due to the pandemic, as well as the unusually hot weather, with the area reaching all-time record temperatures in June. The City employs the following WUE measures: Automated meter reading, Annual meter replacement program, Bills showing consumption history, Conservation rate structure, Construction requirements, Customer education, Customer leak detection, Irrigation management, Landscape management, Leak detection surveys, and Program promotion.

Additional Information Regarding Supply and Demand Side WUE Efforts

The City's supply-side goal is to reduce distribution system leakage to a 3-year average of 9.0 percent by 2022. The City's DSL on a percentage basis decreased to 4.8% in 2021 from 9.4% in 2020 and 9.1% in 2019. For 2021 the 3-year rolling average is 7.8%, exceeding the goal. This large decrease in DSL is likely due to ongoing efforts to replace portions of the Salmon Springs Transmission Main, which transports water from the City's largest water source.

The City implemented a system-wide fixed base automated meter reading system in 2011 and improved the system software in 2019.

The City continues to replace a significant number of water meters each year in an effort to capture under-registered water, including 160 residential and commercial meters in 2021.

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.

The City is currently meeting its supply side goal. The City saved an estimated 63.8 million gallons of water in 2021 as compared to 2020 due to reduction in distribution system losses.

Monthly/Seasonal Water Usage:

What was your maximum daily water demand for the previous year (in gallons per day)? 7,000,000

Month	Volume of Water Produced in gallons
January	78,036,031
February	69,575,564
March	91,038,670
April	62,980,738
May	99,071,252
June	95,547,179
July	135,671,938
August	162,559,169
September	211,234,161
October	124,885,029
November	115,769,268
December	89,327,875

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

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)