



Date Submitted: 6/14/2021

## Water Use Efficiency Annual Performance Report - 2020

WS Name: SEQUIM CITY OF

Water System ID# : 77620

WS County: CLALLAM

Report submitted by: *Arnold Tjemsland*

### 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:

**Total Water Produced & Purchased (TP)** – Annual volume gallons

341,628,652 gallons

**Authorized Consumption (AC)** – Annual Volume in gallons

317,899,170 gallons

Distribution System Leakage – Annual Volume TP – AC

23,729,482 gallons

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

6.9 %

3-year annual average - %

11.3 %

2018, 2019, 2020

### Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: 06/10/2013

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):**

Data in Table 1 show that in 2012, total consumption increased 5.6 percent from 2011, which lead to an overall increase in per-capita use of 3 gallons per capita per day (gpcd). Although there was a slight increase in use from 2011 to 2012, the City is still on track to accomplish their goal of reducing per-capita usage by 5 percent by 2020. TABLE 1: Water and Per Capita Consumption Summary Customer Class 2011 Value 2012 Value Residential (gall) 146,143,043 154,370,047 Commercial (gall) 75,456,497 70,864,300 Other (gall) 47,500,266 58,973,942 Total Consumption (gall) 269,099,806 284,208,289 Population 6,821 7,043 Per-capita use (gpcd) 108 111 The City has taken other steps to lower per-capita consumption through promotion and distribution of complimentary low-flow water fixtures and public outreach. These low-flow kits are available at City Hall and the Public Works building. Informational materials are also available at these locations as well as o

### **Customer (Demand Side) Goal Progress:**

Data in Table 1 show that in 2020, total consumption decreased 1.3 percent from 2019, which lead to an overall decrease in per-capita use of 4 gallon per capita per day (gpcd). Although there was a slight decrease in use from 2019 to 2020, the City is still on track to accomplish their goal of reducing per-capita usage by 5 percent by 2025. TABLE 1: Water and Per Capita Consumption Summary Customer Class 2019 Value 2020 Total Consumption (gallons) 322,083,011 // 317,899,170 // Population 7,695 // 7,860 Per-capita use (gpcd) 111 // 107 The City has taken other steps to lower per-capita consumption through promotion and distribution of complimentary low-flow water fixtures and public outreach. These low-flow kits are available at Civic Center and the Public Works. Informational materials are also available at these locations as well as online.

## Additional Information Regarding Supply and Demand Side WUE Efforts

Data in Table 1 shows that in 2020, total consumption decreased by 1.3% percent from 2019, and per-capita use of 107 gallons per capita per day (GPCD) a 4 gallon per day decrease from last year.

TABLE 1: Water and Per Capita Consumption Summary

Year 2018 Value 2019 Value 2020

*Total*

Consumption (Gal.) 307,239,159 322,083,011 317,899,170

Population 7,460 7,695 7,860

*Per-capita use*

(GPCD) 110 111 107

The City has taken other steps to lower per-capita consumption through promotion and distribution of complimentary low-flow water fixtures, building codes and public outreach. These low-flow kits are available at City Hall and the Public Works building. Informational materials are also available at these locations as well as on the City's website.

In 2012, the City completed the replacement of residential and commercial water meters and will continue to study the conversion from the current automated meter reading (AMR) units to a fixed based system. A fixed based system will provide more accurate water readings, aids the City in water conservation, decreases vehicle fuel use, and decreases O&M. The City replaced the source meter at Silberhorn Wellfield with a magnetic flow meter (2016), and performed the same replacement to the Port Williams Wellfield in the early 2017. Magnetic flow meters provide better accuracy and reliability. In 2017-2018 the City replaced approximately 1,100 feet of water main, service connections, valves, hydrants and galvanized laterals on Sunnyside Ave. In 2019-2020 the City replaced 2700 feet of AC and Galvanized pipe on West Cedar.

Since 2000, the City has been using reclaimed water for park irrigation, construction projects, street sweeping, and stream augmentation. During the 2015 state wide declared drought the City along with Washington State Departments of Ecology, Health, Fish & Wildlife, Farmer and Irrigation District joined forces to supply 18 million gallons of reclaimed water to a farmer for irrigation water from end of July to the end of September. The City is continues to work with Ecology and others to develop additional uses for reclaimed water. Rapid Infiltration basins have been constructed for year round reclaimed water use at the Reuse Demonstration Site.

## 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 use quantities for the City's service area are summarized in the table below.*

*TABLE 2: 2018 and 2019 Water Use and Distribution System Leakage Summary*

<i>Parameter</i>	<i>2018 Value</i>	<i>2019 Value</i>	<i>2020</i>
<i>Total water Pumped (Production, Gal.)</i>	<i>362,624,524</i>	<i>365,060,871</i>	<i>341,628,652</i>
<i>Authorized Consumption (Gal.)</i>	<i>307,239,159</i>	<i>322,083,011</i>	<i>317,899,170</i>
<i>DSL (Gal.)</i>	<i>55,385,365</i>	<i>42,977,860</i>	<i>23,729,842</i>
<i>DSL (Percent)</i>	<i>15.27%</i>	<i>11.77%</i>	<i>6.81%</i>
<i>3-year rolling average (Percent)</i>	<i>11.28%</i>		

*Data from 2018 indicate that the City's DSL was 15.27 percent of a total produced volume of 362,624,524 gallons. In 2019, the City's DSL decreased to 11.77 percent. DOH regulations require that a 3-year rolling average of DSL be below 10 percent in order to avoid further water loss control actions. The City DSL decreased for 2020 by 4.96 percent which caused the 3-year rolling average to decrease by 1.45%.*

*Because the 3-year running average remains more than 10 percent, the City is required to complete a Water Loss Control Action Plan. This Plan outlines methods the City will take to reduce the 3-year running average below 10 percent. The plan includes measures such as regular meter inspection and calibration, replacement of leaky, deteriorating galvanized, and/or asbestos cement pipe, reservoir inspections, and leak detection surveys.*

*A leak detection survey was completed in the fall of 2019 and the City has continued to budgeted funds to address the problem areas identified in the survey. The City purchased leak detection equipment to do spot checks. Also, because of suspected leaks, the City removed their existing 500,000 gallon concrete reservoir from service in 2006. Meters are inspected on an annual basis and are replaced as necessary. The City has budgeted funds on an annual basis to support these monitoring efforts, and has identified several CIP projects that will repair or replace existing pipes suspected to contribute to DSL. The City has partnered with th*

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**