

# CITY OF SHELTON ANNUAL WATER QUALITY & EFFICIENCY REPORT

2019 REPORT FOR THE YEAR  
2018

WATER SYSTEM INFORMATION  
Public Water System ID# 78170N

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The City is pleased to provide you with our 2019 Annual Water Quality Report. You will be happy to know that our drinking water is safe and meets all state and federal requirements for water-quality standards, safety, and appearance. Our goal is, and always has been, to provide you a safe and dependable supply of drinking water. We encourage public interest and participation in our utility decisions affecting drinking water. Citizen input is welcomed at our regularly scheduled Council Meetings. Please visit the City's website at [www.shelton.wa.gov](http://www.shelton.wa.gov) or contact the City Clerk's office for a schedule of meetings.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it. If you have any questions about this report or concerning your water utility, please contact the Water Department at (360) 432-5192 or the Public Works Department at (360) 426-9731.

## THE PURPOSE OF THIS REPORT:

The Federal Safe Drinking Water Act (SDWA) and the US Environmental Protection Agency (EPA) requires that every community water system must prepare and distribute a consumer confidence report (water quality report) annually to the public it serves. This annual report describes your drinking water sources, provides actual water quality test results, compares those results to stringent federal water quality standards, and informs you about important water quality issues. Although this report is technical in nature, we have attempted to provide this information in such a way as to make it meaningful to our customers. Our goal is to help you understand what is in your water and how it may affect you. So please, take a few minutes to read this important information regarding the quality of the water you and your family drink every day.



## 2018 TEST RESULTS FOR THE CITY OF SHELTON TOTAL CITY WATER SYSTEM

### Chlorine: Disinfectant Residual Results

| Contaminant                     | MCLG | MCL | Your Water | Range      | Sample Date | Violation | Typical Sources                    |
|---------------------------------|------|-----|------------|------------|-------------|-----------|------------------------------------|
| Chlorine Cl <sub>2</sub> (mg/L) | 4    | 4   | .01 to 1.0 | .01 to 4.0 | 2018        | No        | Water additive to control microbes |

### Volatile Organic Compounds

| Contaminant                | MRDLG | MRDL | Your Water | Range | Sample Date | Violation | Typical Sources                           |
|----------------------------|-------|------|------------|-------|-------------|-----------|---|
| Trihalomethanes            | NA    | 80   | 29.6       | NA    | 2018        | No        | By product of drinking water disinfection |
| THM Total (ppb)            | NA    | 80   | 9.9        | NA    | 2018        | No        | By product of drinking water disinfection |
| Halocetic Acids HAA5 (ppb) | NA    | 80   | 9.9        | NA    | 2018        | No        | By product of drinking water disinfection |

### 2018 Coliform Bacteria and Fecal Coliform

| Contaminant             | MCLG | SRL | MCL | Unit Measure | Level Detected | Violation | Likely Source of Contamination       |
|-------------------------|------|-----|-----|--------------|----------------|-----------|--------------------------------------|
| Total Coliform Bacteria | 0    | 0   | 0   | # per 100 mL | ND             | No        | Naturally present in the environment |
| Fecal coliform (E.coli) | 0    | 0   | 0   | # per 100 mL | ND             | No        | Human and animal fecal waste         |

### 2018 Test Results by Water Source Nitrates

| Source  | Contaminant | MCLG | SRL | MCL | Unit Measure | Level Detected | Violation | Likely Source of Contamination  |
|---------|-------------|------|-----|-----|--------------|----------------|-----------|---|
| Well #1 | Nitrate     | 10   | 10  | 0.5 | mg/L         | 0.0038         | No        | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits |
| Well #3 | Nitrate     | 10   | 10  | 0.5 | mg/L         | ND             | No        | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits |
| Well #4 | Nitrate     | 10   | 10  | 0.5 | mg/L         | ND             | No        | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits |

### 2018 Herbicide

| Source  | Contaminant              | SRL             | MCL             | Units Measure | Level Detected | Violation | Likely Source of Contamination                                      |
|---------|--------------------------|-----------------|-----------------|---------------|----------------|-----------|---|
| Well #1 | Dalapon Dinoseb Picloram | 1<br>0.2<br>0.1 | 200<br>7<br>500 | Ug/L          | ND             | No        | Runoff from herbicide used on crops and residue of banned herbicide |
| Well #3 | Dalapon Dinoseb Picloram | 1<br>0.2<br>0.1 | 200<br>7<br>500 | Ug/L          | ND             | No        | Runoff from herbicide used on crops and residue of banned herbicide |

### Inorganic Compounds

| Source  | Contaminant                                      | SRL | MCL | MCL  | Unit Measure | Violation | Likely Source of Contamination |
|---------|--|-----|-----|------|--------------|-----------|--------------------------------|
| Well #1 | Iron, Nickel, Fluoride, Zinc, Manganese, Arsenic | 0.1 | 0.3 | mg/L | ND           | No        | Naturally occurring            |
| Well #3 | Iron, Nickel, Fluoride, Zinc, Manganese, Arsenic | 0.1 | 0.3 | mg/L | ND           | No        | Naturally occurring            |

### 2018 Lead and Copper

| Contaminant  | MCLG     | SRL        | AL         | Your Water (90th %) | Sample # | Violation | Likely Source of Contamination                                       |
|--|----------|------------|------------|---------------------|----------|-----------|--|
| Lead 90th Percentile Sample taken at consumers tap   | 0 mg/L   | 0.001 mg/L | 0.015 mg/L | 0.0012 mg/L         | 30       | No        | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper 90th Percentile Sample taken at consumers tap | 1.3 mg/L | 0.02 mg/L  | 1.3 mg/L   | 0.057 mg/L          | 30       | No        | Corrosion of household plumbing systems; Erosion of natural deposits |

# SOURCE INFORMATION



The City has four water sources. We currently draw water from Well #1, Well #3, and Well #4. The wells and Shelton Springs are all located on a City owned 266-acre water shed and the wells draw water deep from

underground aquifers. The most recent evaluation of the City's Water System Model (Carollo, March 2016) indicated that redevelopment (replacement) of Well #1 is needed to supply the systems existing customers. At the time of this publication the Shelton City Council is considering refurbishing the well and replacing the pump. Also slip lining the distribution water line from Well #1 to the High School Tank.

All City supplied water is treated with the least amount of chlorine necessary to provide safe drinking water to everyone, while minimizing taste and odor issues. Staff collects samples daily to verify if the appropriate residual level of chlorine exists in the system required for public safety. Shelton Springs is an additional water source that the City can use in the event of a water emergency. It is not chlorinated.

For further information on the City's water system, please refer to the 2010 Water Comprehensive Plan, (new Water Comprehensive Plan will be available sometime in 2019) available from our Public Works office. The 2010 Water Comprehensive Plan includes a water system analysis, demand forecasting, water conservation and reliability, and a source water assessment and protection plan.

To ensure that tap water is safe to drink, the Department of Health and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations established limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or EPA website <http://water.epa.gov/drink/>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791 or EPA website <http://water.epa.gov/drink/info/>.



**LEAD** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water and is also required to test for lead and copper contamination every 3 years; the next testing is in June 2021.

Although the City complies with state lead free requirements, the City cannot control the variety of materials used in private plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or EPA website <http://water.epa.gov/drink/info/lead/>.

**WATER PRESSURES** Standards recommend that normal water pressure should range between 30 and 80 pounds per square inch (psi). If water pressure is greater than 80 psi the customer should consider installing a pressure-reducing valve (PRV) to reduce pressure to a normal level of between 30 and 80 psi. The City is working to resolve areas that have a pressure of 30 psi by adding additional storage and pumping capabilities to the City water system.

**TASTES AND ODORS** Taste and odor problems within the distribution system are generally caused by pressure surges in the main water system, which causes sediment in the pipes to become suspended in the water. Among the causes of pressure disturbances are watermain breaks, street construction, or the use of firefighting connections. This is why the City flushes its water mains periodically. The most common cause of pressure changes in home plumbing systems is the corrosion of galvanized plumbing systems. This situation is usually indicated by yellow or reddish water and appears in the first water drawn from the faucet each day.

## EFFICIENCY REPORT WATER USAGE INFORMATION

The City's total water production for 2018 was, 380,438,789 gallons. Of that, City metered customers used 339,928,673 gallons; the remaining, 40,510,116 gallons (10.6%) was identified as distribution system leakage (DSL). This DSL currently includes small leaks, theft of water and other unknown water losses as well as water used for firefighting, new construction, main breaks, street sweeping and system flushing and testing. The amount of DSL listed above is greater than Washington State's Limit of 10% and the City has a 3 year annual average of 12.7%.

To order to reduce water usage and address increasing DSL, the Water Comprehensive Plan includes goals to reduce consumption and water loss:

1. Reduce total water consumption by 1% annually from 2014 to 2020.
2. Maintain a DSL amount equal to or lesser than 8% for the period 2014 to 2020.
3. Reduce residential water consumption by 3% from 2014 to 2020.

Some of the actions taken by the City to reduce consumption and loss include: Annual leak detection by zone, Recalibrated meters and Replaced old/worn meters

In addition, the City is looking at other options and community incentives to meet its goals, such as a rebate program or reclaimed water program expansion.

# BACKFLOW PREVENTION (CROSS CONNECTION CONTROL)

In a continuing effort to ensure that we maintain the highest quality of water, the City has a Cross Connection Control Program that requires customers with a potential backflow or cross connections to install a backflow prevention assembly.

It also requires (in compliance with state law) customers to have them tested by a certified backflow assembly tester annually. The most common cause of backflow is backsiphonage due to lowered main pressure caused by instances of high water withdrawal (i.e., during firefighting). When backsiphonage occurs, water can be siphoned from a home or business bringing unwanted materials into the distribution system. For example, typical in-ground sprinkler systems may have stagnant or polluted water in the pipes that could be siphoned back into the water system and forced back into your home. For this reason, the City requires all sprinkler systems to have a backflow prevention assembly installed. A Double Check Valve Assembly (DC) is the minimum assembly allowed for sprinkler systems in the city. If you have any questions regarding this program, or would like more information, please call (360) 432-5192.



## WHAT DO THE TABLES MEAN?

Every year the City is mandated by the Department of Health to test for contaminant compounds. The tables on the back page display the results for each City water source and the compounds tested in 2018. Each table

also lists the ideal goals for public health (MCLG), the highest level allowed by regulation (MCL), the amount detected, and the usual sources of such contamination. Below is a key and definitions to terms in the tables.

### KEY & DEFINITION TO TABLES

| Term   | Definition  | PPB:            | Parts per billion or Micrograms per liter  |
|--------|---|-----------------|--|
| AL     | Action Level: The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.  | PPM:            | Parts per million or Milligrams per liter (mg/l)   |
| MCLG   | Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.                    | RDL:            | Reporting Detection Limits   |
| MCL    | Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLs as feasible using the best available treatment technology. | SRL:            | State Reporting Level: Indicates the minimum reporting level required by the Washington Department of Health.  |
| MFL:   | Million Fibers per liter  | TT:             | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.   |
| mg/L:  | Milligrams per liter  | Lead and Copper | 90th Percentile: Out of every 10 homes sampled, 9 were at or below this level.   |
| mL:    | Milliliter  | ug/L:           | Micrograms per liter MRDLG: Maximum Residual / Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. |
| MRL:   | Method Reporting Limit  | MRDL:           | Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants (e.g. chlorine, chloramines, chlorine dioxide)             |
| N/A:   | Not Applicable  |                 |  |
| ND:    | Not Detected  |                 |  |
| pCi/L: | Picocuries per liter (a measure of radioactivity)   |                 |  |