

Spada Lake

**Three Lakes Water Association**

# 2019 Annual Water Quality Report

**March 2020**

## *Your Drinking Water*

Three Lakes Water Association is pleased to provide our members with our 22nd annual water quality report. The purpose of this water quality report is to inform our customers about the high quality of their drinking water and their water system. We want you to know where your water comes from, what it contains, and how it compares to stringent state and federal water quality standards.

The water you drink is supplied from Spada Lake, which is managed by the City of Everett. A map located on the last page of this report illustrates the City's supply system which provides service to many water systems in

the area. Drinking water quality is determined by testing for a variety of natural and man-made contaminants that can enter the water system.

The City of Everett conducts an aggressive testing program which goes beyond the government requirements. Of the more than 175 substances the City tested for this past year, most were not detected and those that were detected were found at levels far below the most stringent drinking water standards. Please read through this report and if you have any questions, please contact the Association at (360) 568-8022.

## *Cross-Connection Control*

On November 13, 2018 the Association's Board of Trustees approved an updated Cross-Connection Control Program as required by the Washington State Department of Health (DOH). The full text of this program is available at the Association office. The program describes the purveyor's responsibility to protect the water system from contamination through cross-connections.

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment such as boilers, systems containing chemicals such as air conditioning systems, fire sprinkler systems or irrigation systems, or water sources of questionable quality.

Cross-connection contamination can occur through backpressure, which is when the pressure in the equipment or system is greater than the pressure in the drinking water line. Contamination can also occur through backsiphonage, which is when the pressure in the drinking water line drops due to unusual occurrences such as a main break or heavy water demand, causing contaminants to be sucked out from the equipment and into the drinking water line. Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool, animal water trough or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals.

## *Water Use Efficiency*

In October 2010, the State Supreme Court affirmed that the 2003 Municipal Water Law applies to privately-owned systems, including this Association. With the adoption of the water system plan, the Association extended its goal to reduce annual average day demand per connection by 0.5% per year.

The measures planned to achieve this goal include system-wide leak detection efforts and customer conservation. There has been a total of over 41.9 million gallons in net savings in the eleven years since the goal was originally set! Please continue to do your part!

**Be water smart!**

# Health Issues

## Residential Tap Monitoring for Lead and Copper



### Combined Regional Monitoring for Lead and Copper

Parameter & Units	MCLG	Action Level	90th % Level	# Homes exceeding action level
Copper, ppm	1.3	1.3	0.141	0 of 108 (0.0%)
Lead, ppb	0	15	2	0 of 108 (0.0%)

Source of Contamination: Corrosion of household plumbing system.

USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. Lead and copper monitoring is conducted by Everett and many of the water systems that it supplies in the combined service area as a regional group. The above data was collected in 2018. The next required round of sampling will be in 2021. The 90th% level is the highest result obtained in 90 percent of the samples collected when the results are ranked in order from lowest to highest. In the past, the results for water tested before it enters household plumbing were lower than tap results. This indicates that there is virtually no lead or copper in the water and that household plumbing may contribute to lead and copper at the tap.

The City of Everett's source waters contain virtually **no lead or copper**. 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.

Three Lakes Water Association is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two 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 at **1-800-426-4791** or <http://www.epa.gov/safewater/lead>.

Although there is no detectable lead in water, tests from household taps in the distribution system show there can be low levels of lead and copper in tap water. This is primarily caused from corrosion of household plumbing systems. You may potentially have small levels of lead and copper in your home. Everett treats the water to minimize the potential for lead to enter the water and the results indicate that the program is successful.

Three Lakes Water Association contributes to this testing by providing randomly taken water samples to the City for testing. The results provided in this report represent all testing performed by the City of Everett.

## Additional Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, or some elderly persons and infants can be particularly at risk of infection. These people should seek advice about drinking water from their healthcare providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline at **1-800-426-4791**.

During water treatment, organic polymer coagulants are added to improve coagulation and filtration processes that remove particulates from water. The particulates that are removed can include viruses, bacteria and other disease causing organisms. The USEPA sets limits on the type and amount of polymer that a water system can add to the water. In addition to the EPA limits, the State of Washington requires that all polymers used be certified safe for potable water use by an independent testing organization, NSF International. During treatment, Everett adds only NSF approved polymers and the levels used are far below the safe limits set by USEPA.

### Definitions

**Maximum Contaminant Level Goal (MCLG)** – 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.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available water treatment technology.

**Maximum Residual Disinfectant Level (MRDL)** – 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.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – 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.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

**ppm/ppb** – One part per million/one part per billion. A part per million means that one part of a particular contaminant is present for every million parts of water. Similarly, parts per billion indicate the amount of a contaminant per billion parts of water.

**N/A** – Not Applicable. Means the EPA has not established MCLGs for these substances.

# Water Monitoring

## 2019 Water Quality Monitoring Results

As water travels over the land, it dissolves natural minerals and picks up other substances produced by human and animal activities. The Department of Health and the U.S. Environmental Protection Agency sets national standards for over 100 potential drinking water contaminants.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants, Cryptosporidium and potential health effects can be obtained by calling the Safe Drinking Water Hotline at **1-800-426-4791**.

The results for the 2019 testing of your water supply are illustrated in the table below. The first column lists each compound tested and the units of measure. The second and third are the highest levels allowed by the U.S. EPA. The fourth column illustrates the levels found in the City of Everett's drinking water supply, including an average and a range. The last column shows the source of the compounds.

All of the compounds found in the City of Everett's water supply were found to be at **levels lower than the maximum allowed** by the U.S. Environmental Protection Agency.

Detected Parameter & Units of Measure	EPA's Goal (MCLG)	Maximum Allowed (MCL)	Levels in your water		Complies with Required Levels Compliance	Where does it come from? Typical Sources
			Average or Highest	Range or Other		
Turbidity, NTU <sup>1</sup>	N/A	TT	0.07	100%	Yes	Soil Erosion
Fluoride, ppm <sup>2</sup>	2	4	0.7	0.3-0.7	Yes	Dental health additive
Total Trihalomethanes (TTHM), ppb <sup>3</sup>	N/A	80	49	31-56	Yes	By-product of drinking water chlorination
Haloacetic Acids (5) (HAA5), ppb <sup>3</sup>	N/A	60	38	22-42	Yes	By-product of drinking water chlorination
Total Coliform Bacteria, % positive samples <sup>4</sup>	0	5% positive per month	0%	none	Yes	Naturally present in the environment
Residual Disinfectant Level (free chlorine), ppm	4.0 (MRDLG)	4.0 (MRDL)	0.7	0.2-1.2	Yes	Added as a drinking water disinfectant
Detected Unregulated Contaminants						
Bromodichloromethane, ppb	0	N/A	1.6	1.3-2.4	These substances are individual disinfection by-products for which no MCL standard has been set, but which must be monitored to determine compliance with the USEPA Stage 2 Disinfection By-products Rule MCLs for Total Trihalomethanes and Haloacetic Acids (5).	
Chloroform (Trichloromethane), ppb	70	N/A	38	30-54		
Dichloroacetic Acid, ppb	0	N/A	13	2-18		
Trichloroacetic Acid, ppb	20	N/A	21	18-24		

<sup>1</sup>Turbidity is a measure of the amount of particulates in water expressed in Nephelometric Turbidity Units (NTU). Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment processes in removing these particulates. The EPA turbidity limit is 0.3 NTU. The values reported are the lowest monthly percentage of samples that met the EPA limit and the highest four-hour combined water turbidity measurement obtained during the year. In 2019, no filtered water turbidity results were above the EPA limit so the lowest percentage was 100 percent. The plant targets production of filtered water turbidities of 0.1 NTU or less.

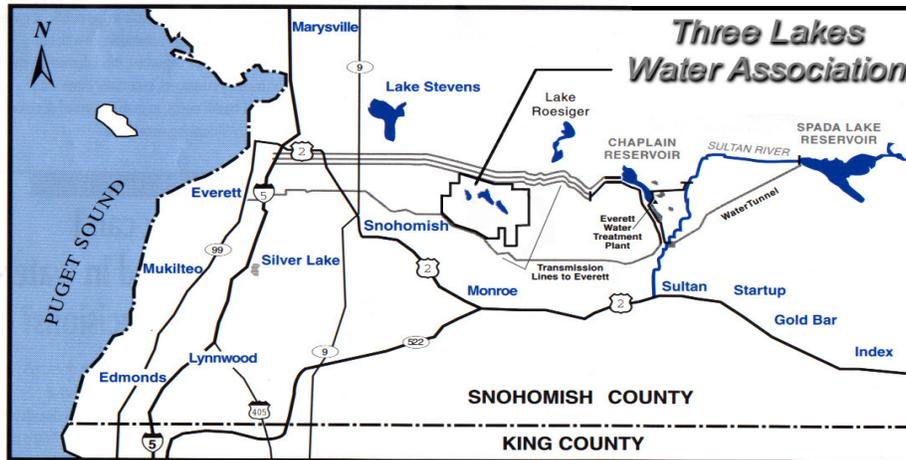
<sup>2</sup>Fluoride is added to your water in carefully controlled levels for dental health. The minimum value of 0.3 ppm was due to two maintenance-related feed outages that lasted no more than a day in duration each.

<sup>3</sup>Haloacetic acids and trihalomethanes form as by-products of the chlorination process that is used to kill or inactive disease-causing microbes. The TTHM and HAA5 results are from eight locations in Everett, which are monitored to determine compliance with the current regulations. The range of results are taken from all eight locations. The highest locational running annual average of the eight sites that were monitored are reported here.

<sup>4</sup>Total coliform bacteria monitoring tracks the microbial quality in the water distribution system. Everett collects approximately 125 samples per month or 1,500 per year. No more than 5 percent of the monthly tests can be positive for total coliforms. No total coliforms were detected in 2019.

## *Drinking Water Source*

The source of your drinking water is rain and snowmelt collected in the Spada Lake Reservoir, which is located in the Sultan Basin Watershed. Water from this 50 billion gallon reservoir flows through a tunnel and pipeline to the Chaplain Reservoir where it is held in preparation for treatment. The City of Everett maintains five large transmission pipelines, which run between the Chaplain Reservoir and the City. Three Lakes Water Association obtains your water from two different taps located on two separate Everett transmission mains.



## *Bottled Water*

To ensure that tap water is safe to drink, the Department of Health and U.S. Environmental Protection Agency prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## *Standpipe Cleaning and Inspection*

Three Lakes Water Association's standpipe was cleaned and inspected in July of 2018. This was the first cleaning and inspection performed by a professional diver with video recording capabilities since the standpipe was completed in 2011. The standpipe was reported to be in good condition with little sediment found and removed.

## *Association News*

The Association's website can be found at [www.3lwa.org](http://www.3lwa.org). Members can find Association news updates, Board meeting information, water quality data, as well as an online bill payment option. We also have a Facebook page to help you stay connected. Like our page to stay informed about Association news updates.

In order for the Association to exist, we need interested Board Trustees. Please volunteer and help out your Association. Monthly Board meetings are held at the office located at 17503 58th St SE on the second Tuesday of each month at 7 p.m.

**Come join us!**