



CITY OF SULTAN

Annual Water Report

Report Year 2019

Water Excellence

The City of Sultan is pleased to provide you with our annual Water Quality Report. The City's water team surpasses all federal and state requirements in producing and testing the City's water and providing quality water to you, our customer.

Clear Quality

The city works to maintain the delivery of quality water to the residents of Sultan. This includes infrastructure projects throughout Sultan:

- Replacing Water Lines on Third Street
- 135th Avenue (Wisteria) Extension to Reroute Water flow
- Pedestrian Bridge - new piping included for west side of Sultan
- Updated Water Plant Design

We also have highly qualified operators at our water treatment plant. Waterworks operators must continually participate in educational programs and a recertification program under the Washington State Department of Health, Professional Growth and Certification Renewal program. The Washington Waterworks Operator Certification Program requires a certified operator to demonstrate professional growth during each reporting period of at least three years. Our team includes:

- Mike Williams - Water Systems Manager Level 3 Certification with over 20 years experience.
 - Matt Wood - Water Treatment Plant Operator Level 3 Certification with 7 years experience.
 - Jason Strauss - Water Treatment Plant Operator Level 2 Certification with 7 years experience.
- * All are certified as Cross Connection Specialists.

The City tests water quality daily by checking the pH, chlorine residual, water temperature, fluoride level and turbidity. Monthly fecal coliform testing is completed at five State approved locations in the City. These samples are taken to a state certified laboratory with results reported back to the City within 48 hours. We also provide State required monthly coliform testing of Lake 16. Reports are sent to the State of Washington Department of Health.

The City additionally tests for lead and copper once every three years as required by state law. The City of Sultan's drinking water has consistently exceeded the state standards for copper and lead.

Air entrained in our water causes the water to appear milky coming from your tap. The City tries to flush the majority of air out through fire hydrants; however some of the air molecules still get through to the highest point in your home. If you experience this, let your tap run a short time to release the trapped air. It is not hazardous to your health.

Where Does Your Water Come From?

The City of Sultan has two sources of drinking water: Lake 16 and water purchased from the City of Everett. City of Everett water is sourced from Spada Lake Reservoir. Sultan's water source (Lake 16) is located in the City of Sultan's 360 acre watershed located approximately 6 miles north of Sultan adjacent to Sultan Basin Road. Lake 16 was created by constructing a concrete dam in 1949. The dam was recently reinforced in 2011. From Lake 16, water flows by gravity approximately 2 miles to the City's water treatment facility.

- The Water Treatment Plant has the capacity to produce 1.3 million gallons of drinking water per day.
- The City owns and operates two storage reservoirs with a capacity of 2.5 million gallons.
- A secondary water supply is available from the City of Everett as a redundant supply source.

The Safe Drinking Water Act requires water systems to provide customers with annual reports on the quality of their drinking water. This report summarizes the findings of the City of Sultan water quality-testing program. If you have any questions, please contact our water quality staff at 360.793.2231.

Drinking Water Treatment

Your drinking water is treated with advanced filtration and disinfection. During the treatment process, polymers are added to improve the filtration process. In December 2013, the State approved the use of soda ash to enhance the coagulation process of the polymers. This upgrade has improved the filtering process significantly. The pH level of the water is also adjusted with sodium hydroxide to make it less corrosive to pipes and plumbing fixtures. Chlorine is added as a disinfectant to eliminate any potentially harmful organisms that were not removed by the filtration process. Fluoride is injected after treatment for dental health purposes. Fluoride must remain between 0.5 and 0.9 milligrams per liter to be in compliance with State regulations. These additives are carefully monitored and the water is continually tested to maintain safe levels. We test our source water and our finished drinking water, providing great tasting, safe drinking water to the community.



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Special points of interest

- The Water Treatment Plant has the capacity to produce 1.3 million gallons of drinking water per day.
- Your drinking water meets or exceeds all government standards and is safe to drink
- Our drinking water has consistently exceeded the state standards for copper and lead.
- If your water appears milky let your tap run a short time to release the trapped air.
- The average household uses approximately 4,500 gallons per month in winter; 8,000 gallons per month in summer.

Water Use Efficiency

Lake 16 vs. City of Everett Water Supply Comparison

	2018	2019
Lake 16	180,535,700	204,516,000
Everett	6,447,438	2,337,662
Total Gallons	186,983,138	160,931,662

Year	2018	2019
Water Produced or Purchased	145 Million Gallons	155 Million Gallons
Distribution System	19%	16%

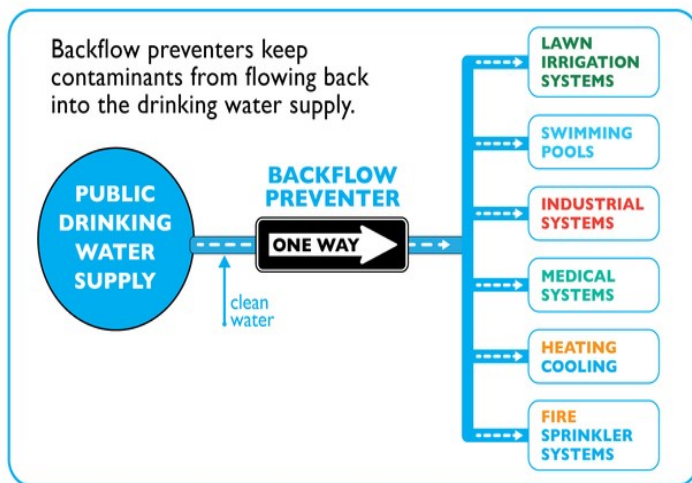
On January 22, 2007, the Municipal Water Law's Rule (MWL) on Water Use Efficiency (WUE) went into effect in the State of Washington, requiring all public water systems to implement measures, and in some cases reconstruct their conservation programs, to help meet new planning and efficiency requirements. There are seven key components of the MWL the City has complied with. Some of these components are annual requirements, and others are requirements for planning. The City of Sultan is not currently in compliance for all requirements. The City of Sultan's goals are as follows:

- To reduce the average per capita consumption by 4 percent by 2022. (Currently an average of 97 gallons per person per day is current usage.) The city is complying with this goal.
- To reduce our rolling three year average of unaccounted for water in our collection system to less than 10 percent by 2022. The city did not comply with this goal due to water main breaks, there was 19% water that was unaccounted.

HELP KEEP OUR DRINKING WATER SAFE

CROSS CONNECTION ALERT FOR ANNUAL BACKFLOW ASSEMBLY TESTING

A connection between your drinking water pipes and a source of contamination is called a cross connection. Examples include irrigation systems; dialysis machines; nearly every hose-end applicator used for fertilizers, pesticides and herbicides; photo developing equipment; hot tubs, wading & swimming pools, and industrial waste uses.



To help minimize the dangers of cross connection, please use the following tips:

- Avoid using hose-end spray applicators for landscaping chemicals.
- Install a backflow assembly if there is an existing or potential cross-connection.
- Every year, all Sultan water utility customers who have backflow assemblies must have them tested and send a copy of the certification to the Public Works Department.
- Have the backflow assembly tested by a state-certified backflow tester after installation and send a copy to the City of Sultan Public Works Department, PO Box 1199, Sultan WA 98294 or fax to 360.793.3344.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's website at www.epa.gov/safewater/crossconnection.html. You can also call the Safe Drinking Water Hotline at 800.426.4791. You can also contact our Cross Connection Specialist at mike.williams@ci.sultan.wa.us.

SAMPLING RESULTS: During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The key information is: **YOUR DRINKING WATER MEETS OR EXCEEDS ALL GOVERNMENT STANDARDS AND IS SAFE TO DRINK.**

CITY OF SULTAN DATA

Contaminant (Unregulated)	Year	MCL	MCLG	Amt Detect	Range	Comply
Total Coliform Bacteria	2018	5% Positive per Month	0	0%	None	Yes
Total coliform bacteria monitoring tracks the microbial quality of the water distribution system. No total coliform was detected in 2018.						
Fluoride (ppm)	2019	4	2	0.5 - 0.9	0.5 - 0.9	Yes
Fluoride is added to your water in carefully controlled levels for dental health.						
Residual Disinfectant Level (ppm) (free chlorine)	2019	4.0 (MRDL)	4.0 (MRDLG)	0.4	0.2 - 1.2	Yes
Haloacetic Acids (5) (HAA5) (ppb)	2019	60	N/A	2.4 - 3.0	22 - 43	Yes
Total Trihalomethanes (TTHM)	2019	80	N/A	9.2 - 9.3	32 - 59	Yes
Haloacetic acids and trihalomethanes form as by-products of the drinking water chlorination process. The TTHM and HAA5 results are from eight locations in Everett which are monitored to determine compliance with current regulations.						
Turbidity (ntu)	2019	TT	N/A	.02 - .16	100%	Yes
The EPA turbidity limit is 0.3 NTU.						
Contaminant (Unregulated)	Year	MCL	MCLG	Amt Detect	Range	Comply
Bromodichloromethane (ppb)	2017	NA	0	1.19	.83 - 1.49	Yes
Chloroform (ppb)	2017	NA	70	11.51	7.59 - 20.4	Yes
Dichloroacetic Acid (ppb)	2017	NA	0	.41	.1 - 1.58	Yes
Trichloroacetic Acid (ppb)	2017	NA	20	4.13	.75 - 11.4	Yes
These substances are disinfection by-products for which no MCL standard has been set, but which must be monitored to determine compliance with the EPA MCL's for Total Trihalomethanes and Haloacetic Acids (5).						
Contaminant	Year	Action Level (AL)	MCLG	Amt Detect	Homes Exceed AL	Comply
Lead (ppb)	2018	0.015	0	ND	0%	Yes
Copper (ppb)	2018	1.3	1.3	.091	0%	Yes
USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. The above data was collected in 2018. The next required round of sampling will be in 2021.						
pH (s.u.)	2019	Daily Avg 7.4	Min. Daily Avg 7.4	Average 7.6	Minimum 7.2	Yes
Sultan is required to operate corrosion control treatment at or above a minimum daily average pH of 7.4. The average daily pH cannot be below 7.4 for more than nine days every six months.						

Message from the EPA

All drinking water, including bottled water, can reasonably be 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 call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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).

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 of Sultan is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been

Definitions

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

MCL (Maximum Contaminant Level): 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 treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is known or expected risk to health. MCLGs allow for a margin of safety.

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.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity or turbidity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter). One drop in 14,000 gallons.

ppm (parts per million): One part substance per million parts water (or

CITY OF EVERETT DATA

Detected Regulated Contaminants	Year	MCL	MCLG	Amt Detect	Range	Comply
Total Coliform Bacteria	2019	5% positive per Month	0	0%	None	Yes
Total coliform bacteria monitoring tracks microbial quality in the water distribution system. Everett collects around 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.						
Fluoride (ppm)	2019	4	2	0.7	0.3 - 0.7	Yes
Fluoride is added to your water in carefully controlled levels for dental health. The minimum value of 0.03 ppm was due to a maintenance-related feed outage that lasted no more than one day in duration						
Residual Disinfectant (ppm)	2019	4.0 (MRDL)	4.0 (MRDLG)	0.7	0.2 - 1.2	Yes
Haloacetic Acids (ppb)	2019	60	N/A	38 ²	22-42 ¹	Yes
Total Trihalomethanes (ppb)	2019	80	N/A	80 ²	31-56 ¹	Yes
Haloacetic acids and trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease-causing microbes. The TTHM and HAA5 results are from eight locations in Everett, which are monitored to determine compliance with current regulations. ¹ Range of results taken from all eight locations. ² Highest locational running annual average of the eight sites that were monitored.						
Turbidity (ntu)	2019	TT	N/A	0.07	100%	Yes
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 0.10 NTU or less.						
Contaminant (Unregulated)	Year	MCL	MCLG	Amt Detect	Range	Comply
Bromodichloromethane (ppb)	2019	N/A	0	1.6	1.3-2.4	Yes
Chloroform (ppb)	2019	N/A	70	38	30 - 54	Yes
Dichloroacetic Acid (ppb)	2019	N/A	0	13	2-18	Yes
Trichloroacetic Acid (ppb)	2019	N/A	20	21	18-24	Yes
These substances are disinfection by-products for which no MCL standard has been set, but which must be monitored to determine compliance with the EPA MCL's for Total Trihalomethanes and Haloacetic Acids (5).						
Contaminant	Year	Action Level (AL)	MCLG	Amt Detect	Homes Exceed AL	Comply
Lead (ppb)	2018	15	0	0.002	0%	Yes
Copper (ppb)	2018	1.3	1.3	.141	.0%	Yes
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 even lower than the 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.						
Contaminant	Year	Daily Avg	Min Daily Avg	Average	Minimum	Comply
pH (s.u.)	2019	7.6	7.3	7.6	7.0	Yes

The Washington State Department of Health requires Everett to operate corrosion control treatment at or above a minimum daily average pH of 7.4. Everett measures pH six times per day (once every four hours). The average daily pH cannot be below 7.4 for more than nine days every six months. In 2019, the average daily pH dropped below 7.4 for one day.

WHAT DOES A 20% REDUCTION in water use look like?



AVERAGE DAILY USE

Here are some easy ways to reduce water use.



INSTALL AERATORS ON BATHROOM FAUCETS

saves
1.2 GALLONS
per person/day



TURN OFF WATER WHEN BRUSHING TEETH OR SHAVING

saves
10 GALLONS
per person/day



FILL THE BATHTUB HALFWAY OR LESS

saves
12 GALLONS
per person



FIX LEAKY TOILETS

saves
30-50 GALLONS
per day/toilet



INSTALL A HIGH-EFFICIENCY TOILET (1.28 GALLON/FLUSH)

saves
19 GALLONS
per person/day



WASH ONLY FULL LOADS OF CLOTHES

saves
15-45 GALLONS
per load



TAKE FIVE MINUTE SHOWERS INSTEAD OF 10 MINUTE SHOWERS

saves
12.5 GALLONS
with a water efficient showerhead



INSTALL A WATER-EFFICIENT SHOWER HEAD

saves
1.2 GALLONS
per minute

OR

10 GALLONS
per average 10-minute shower



RUN DISHWASHER WHEN FULL INSTEAD OF HALF FULL

saves
5-15 GALLONS
per load

For more tips on reducing water use, visit saveourH2O.org/



CAN YOU BE MORE EFFICIENT?

An average single-family household in Sultan uses approximately 4,500 gallons a month in the winter and approximately 8,000 gallons a month in the summer. **Is your water use above average or do you want to increase your water use efficiency?** Here are some simple ways to save water. *Wait to wash clothes until you have a full load.*

- * Switch to an efficient showerhead and take a shorter shower.
- * Don't run the water while brushing your teeth.
- * Match the right plant to the right place in your garden.
https://www3.epa.gov/watersense/docs/water-efficient_landscaping_508.pdf
- * Choose low water use plants and shrubs. Concentrate watering on the root area of plants, not on trunks and leaves.
- * Locate and fix leaky faucets, faulty fittings and broken pipes and hoses.
- * Check tank toilets for leaks by conducting a dye-tablet test.
- * Lessen the frequency with which vehicles are washed.

You can find even more ways to conserve

http://epa.gov/watersense/our_water/start_saving.html

Or <http://www.partners4water.org>

FREE OUTDOOR AUTO SHUT OFF WATERING TIMERS ARE AVAILABLE AT CITY HALL

Kids Zone - Kids can help with water conservation, too.

Visit <http://www.watchknowlearn.org> or click the hyperlink here: [from Water Conservation at Home](#)

Watch and Learn Videos for all ages to show kids how to conserve water while brushing their teeth, washing their hands and even tips on getting teenagers to limit showers.

Water Waste Adds Up Drops Turn Into Gallons

Count the number of drops in 30 seconds to see how many gallons is wasted.

	1 Day	1 Year
5 drops	0.8	292
10 drops	1.6	584
15 drops	2.4	876
20 drops	3.2	1,168
25 drops	4	1,460
30 drops	4.8	1,752



“Do one thing each day that will save water. Even if savings are small, every drop counts.”