

2019

Annual Water Quality Report

This report contains information about your drinking water, required by the Environmental Protection Agency (EPA)



*The bottom line is this:
Our water is safe to drink.
Our water quality meets
or exceeds state and
federal standards.*



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Edmonds Water Source: Where our drinking water comes from

Along with most residents within the City of Edmonds, you receive your water from Everett's Spada Reservoir in the Sultan Basin, which is considered surface water. Our water source is disinfected with chlorine, which destroys Giardia, bacteria and viruses that may be present in the source water. Our water source also adds fluoride to prevent tooth decay.

Everett Surface Water Source

The Sultan Basin watershed, which fills Spada Reservoir, is protected and patrolled regularly. This watershed receives more than 160 inches of rain each year. Water from Spada Reservoir is routed by pipe to Chaplain Reservoir. There, this pristine high quality mountain water is treated at the City of Everett's filtration plant before being distributed for consumption. From the source, the greatest care is taken to ensure the water you use meets federal and state requirements as well as Everett's own high local standards.

Along its way to your tap, the water is tested frequently for microbiological and chemical quality to ensure you receive safe water each time you use your faucet. The City of Everett provides this water for their own customers and numerous other water utilities. The City of Edmonds purchases Everett's water through Alderwood Water District, Alderwood Water District also supplies several other water utilities within Snohomish county.



Edmonds Distribution System:

Within the City of Edmonds water distribution system, there are three 1.5 million gallon and one 3.0 million gallon reservoirs. There are numerous connections throughout the Edmonds water system to other water systems including Seattle, Lynnwood, and Olympic View Water and Sewer District in case additional water is needed.

The City of Edmonds water system identification number is 22500U, issued by the State of Washington Department of Health.



2018 Water Quality Monitoring

The 2018 water quality monitoring results listed in the following tables show no contaminants were measured at or above allowable levels. The sources of all drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, which can be vulnerable to contamination. In Edmonds water supply, these potential contaminants and their sources include:

-  Microbial contaminants, such as viruses and bacteria, from wildlife;
-  Inorganic contaminants, such as salts and metals, which are naturally occurring, and;
-  Organic contaminants, which are by-products of the water chlorinating processes.

Managing the Distribution System

A key to maintaining good water quality is effectively managing the water distribution system. It is important for water to remain fresh and retain sufficient chlorine for disinfection. The City has a flushing program and also has a cross-connection prevention program designed to keep any contaminants coming from homes and businesses from entering the drinking water system.

Please call us at 425-771-0235 if you would like more information on the water system.

2018 WATER QUALITY DATA

Parameter	Units	EPA's Allowable Limits		Alderwood Water		Typical Sources	Comply
		MCLG	MCL OTHER	RANGE OR OTHER	AVERAGE VALUE OR HIGHEST RESULT		
Fluoride	ppm	2	4	0.2 - 0.8	0.7	Dental additive	Yes
Nitrate	ppm	10	10	None	None	Erosion from natural deposits	Yes
% of positive samples for Total Coliform Bacteria	%	0	5% per month	None	0.0%	Naturally present in the environment	Yes
Microbial Parameters (Measured in Edmonds Distribution System)							
% of positive samples for Total Coliform Bacteria	%	0	5% per month	None	0.0%	Naturally present in the environment	Yes
Turbidity, inorganics, and Microbial Contaminants							
Turbidity	NTU	N/A	TT	100%	0.15	Soil Erosion	Yes

Turbidity is a measure of the amount of particulates in water measured 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 used to remove these particulates. Values reported are the lowest monthly percentage of samples that met the EPA turbidity limit and the highest single filtered water turbidity measurement obtained during the year. In 2018, no filtered water turbidity results were above the EPA 0.3 NTU limit so the lowest percentage was 100%.

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 no known or expected risk to health. MCLGs allow for a margin of safety.

NTU = Nephelometric Turbidity Unit: The unit of measurement for turbidity.

TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. The turbidity MCL that applies to the Tolt water supply is 5 NTU.

AL = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow (for lead and copper monitoring results).

N/A - Not Applicable (EPA has not established these goals).

ND - Not Detected.

NR - Not Regulated (these substances are not regulated by EPA).

ppm = Parts per Million: (One part of a particular contaminant is present for every million parts of water).

ppb = Parts per Billion: (One part of a particular contaminant is present for every billion parts of water).

Conversions:

1 part per million (ppm) = 1 mg/L 1 ppm = 1000 ppb

1 part per billion (ppb) = 1 ug/L 1 mg/L = 1000 ug/L

Detected Unregulated Contaminants

Parameter	Units	Ideal Level/Goal (MCLG)	Edmonds Water		Typical Sources
			Range	Average	
Bromodichloromethane ^{1,2}	ppb	0	1.55 - 1.725	1.625	Disinfection by product from chlorine
Chloroform (trichloromethane) ^{1,2}	ppb	70	34.43 - 44.83	38.98	
Total Trihalomethanes (TTHM) ²	ppb	See Note 3	33.7 - 47.0	40.6	
Dichloroacetic Acid ^{1,2}	ppb	0	3.4 - 19.6	11.18	
Trichloroacetic Acid ^{1,2}	ppb	20	19.9 - 30.2	24.71	
Haloacetic Acids (HAA5) ²	ppb	See Note 4	25.4 - 50.1	36.48	

¹These substances are disinfection by-products which must be monitored to determine compliance with the USEPA Stage 1 and Stage 2 Disinfectants/Disinfection By-products Rules (Stage 2 D/DBPR).

² Includes results for 16 study sites and four additional sites that are monitored for compliance with current regulations. The study sites were monitored during October and December 2015 as part of a required study to identify new distribution system monitoring sites. This study known as the initial distribution system evaluation, or IDSE, and will continue through August 2016. The IDSE is required by the Stage 3 D/DBPR regulations.

³The MCL for TTHM is 80 ppb.

⁴The MCL for HAA5 is 60 ppb.

Voluntary Information

Parameter	Units	Everett Water Results	
		Range Detected	Average Value
Alkalinity ¹	ppm	12.0 - 22.0	16.6
Aluminum ¹	ppm	0.008 - .038	0.02
Arsenic ²	ppb	<0.1 - 0.2	0.1
Calcium Hardness ¹	ppm ³	6.0 - 14.0	9.3
pH ¹	s.u.	7.5 - 9.1	8.0
Sodium ²	ppm	5.9 - 6.5	6.2
Total Hardness ¹	ppm ³	7.5 - 15.9	12.1

¹Results are from samples collected from 26 locations in Everett's distribution system

²Arsenic and Sodium were monitored at the treatment plant effluent.

³Hardness and alkalinity units are in ppm as CaCO₃ (calcium carbonate equivalent units).

Possible Water Quality Concerns

Cryptosporidium

Cryptosporidium is a one-celled intestinal parasite that if ingested may cause diarrhea, fever, and other gastrointestinal distress. It can be found in all of Washington's rivers, streams, and lakes and comes from animal or human wastes deposited in the watershed.

Cryptosporidium is resistant to chlorine, but is removed by effective filtration and sedimentation treatment such as that used by Everett. It can also be inactivated by certain types of alternate disinfection processes such as ozonation and UV light contactors. Past monitoring results suggest that *Cryptosporidium* is present in Everett's source only occasionally and at very low concentrations. In 2015, Everett collected monthly *Cryptosporidium* oocyst samples from the source water at the plant intakes. None were detected.

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. The Environmental Protection Agency (EPA) / Center 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 Drinking Water Hotline by calling 1-800-426-4791.

Information from the EPA

To ensure tap water is safe to drink, EPA adopts regulations setting water quality standards for public water systems. The Federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same level of public health protection. 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 and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

2018 Annual Water Use Efficiency Summary

The Edmonds water system is fully metered. The State requires that water suppliers maintain their Distribution System Leakage (DSL) at 10 percent or less. The State also recognizes that a certain amount of leakage is expected and unavoidable.

Total water purchased	1,085,279,932 gallons
Total authorized & qualified uses	1,032,374,862 gallons
Distribution System Leakage (DSL)	52,905,070 gallons
DSL percentage of total water	4.9%
3 year annual average	7.9%

*DSL refers to all the water that could not be accounted for, and can be attributed to water main breaks, small ongoing leaks, meter inaccuracies, and water theft.

For further information see our website at <http://edmondswa.gov>.

USEPA Required Lead Statement

The USEPA drinking water regulations require this statement be included with the lead and copper sampling results regardless of the levels observed: 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 line and home plumbing. The city of Edmonds Utilities Division 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 30 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 your exposure is available from the safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Lead, Copper, and pH

Parameter	Major source	Units	EPA Regulations		Everett Water Results		
			Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.141	0 of 108 (0.0%)	Yes
Lead	Plumbing, erosion of natural deposits	ppb	0	15	2	0 of 108 (0.0%)	Yes
pH	Soda ash is added to reduce water corrosivity by increasing pH and alkalinity	s.u.	Daily Avg 7.6	Min Daily Avg 7.4	Avg 7.6	Minimum 7.3	Yes

The Washington State Dept. of Health requires Everett to operate the corrosion control treatment program 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. In 2018, the average pH never dropped below 7.4.