

2020

Drinking Water Quality Report

Quality · Taste · Value

Water is a life-essential resource—yet, at less than a penny a gallon, it costs very little compared to its value. Your water rates pay for everything it takes to operate your water system, from storage and treatment, to delivering the water to your tap. Your water rates also help pay for water system improvements ensuring we continue to provide high-quality drinking water for generations to come. As this year's Drinking Water Quality Report shows, this is an exceptional value for the clean, safe, great tasting drinking water you receive.



Mukilteo Water and Wastewater District

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Mukilteo Water and Wastewater District
2020 Water Quality Analysis Results

Detected Regulated Contaminants

Parameter	Major Source	Units	EPA Regulations		MWWD Water Results		
			Ideal Level/Goal (MCLG)	Maximum Allowable (MCL)	Range or Other	Average Value or Highest Result	Comply?
Total Coliform Bacteria	Naturally present in the environment	% Positive	0	5% Positive per Month	None	0%	Yes
Total coliform bacteria monitoring tracks the microbial quality in the water distribution system. MWWD collects approximately 30 to 41 samples per month or 360 to 491 per year. Not more than 5 percent of the monthly total can be positive for total coliforms. No total coliforms were detected in 2020.							
Fluoride	Dental health additive	ppm	2	4	0.2-0.8	0.7	Yes
Fluoride is added to your water in carefully controlled levels for dental health. Due to system maintenance, there were three days during the year in which the daily average feed value was below the state minimum for dental health of 0.5ppm.							
Residual Disinfectant Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.14-1.2	0.75	Yes
Haloacetic Acids (5) (HAA5)	By-product of drinking water chlorination	ppb	N/A	60	25-42.6*	32.9**	Yes
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	ppb	N/A	80	31-63.3*	43.1**	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 the four locations which are monitored to determine compliance with current regulations. * = range of results taken from all four locations. ** = highest locational running annual average of the four sites that were monitored.							
Turbidity	Soil erosion	NTU	N/A	TT	100%	0.08	Yes
The EPA turbidity limit is 0.3 NTU. In 2020, no filtered water turbidity results exceeded 0.3 NTU so the lowest percentage that met the EPA limit was 100%. During the month of July 2020, an equipment malfunction at Everett's Water Treatment Plant caused erroneous turbidity measurements to be made for six days on water before treatment. Although the problem was limited to measurements on the water before treatment, this constitutes a monitoring violation that requires public notification (see below).							

REQUIRED MONITORING VIOLATION STATEMENT:

We are required to monitor our drinking water for specific parameters on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards or not. During the month of July 2020, the City of Everett did not complete all monitoring or testing for turbidity, and therefore cannot be sure of the quality of our drinking water during that time. There is nothing you need to do. At no time was the quality of our drinking water compromised. The plant has resolved the problem and taken steps to prevent a repeat occurrence.

REQUIRED POLYMER STATEMENT:

During water treatment, organic polymer coagulants are added to improve the 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 the USEPA.

Detected Unregulated Contaminants

Parameter	Units	Ideal Level/Goal (MCLG)	MWWD Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	1.2-2.5	1.6
Chloroform (trichloromethane)	ppb	70	26-61	41
Dichloroacetic Acid	ppb	0	2-14	9
Trichloroacetic Acid	ppb	20	18-27	23

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 MCL's for Total Trihalomethanes and Haloacetic Acids (5).

IMPORTANT TERMS

Turbidity - Turbidity is a measure of particulates suspended in water in Nephelometric Turbidity Units (NTU) and is an important test in determining drinking water quality. Particulates in water can include bacteria, viruses and protozoans that can cause disease.

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 which a water system must follow.

Parts per Million (ppm)/ Parts per Billion (ppb) - 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.

Not Applicable (N/A) - Means EPA has not established MCLGs for these substances.

Lead, Copper, and pH

Parameter	Major Source	Units	EPA Regulations		MWWD Water Results		
			Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Lead	Plumbing, erosion of natural deposits	ppb	0	15	<0.0005	0 of 5 (0%)	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.0756	0 of 5 (0%)	Yes

USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. Everett and many of the water systems it supplies conduct lead and copper monitoring in their 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, but household plumbing may contribute to the presence of lead and copper at the tap.

Parameter	Major Source	Units	Daily Avg	Min Daily Avg	Average	Minimum	Comply?
pH	Soda ash is added to reduce water corrosivity by increasing pH and alkalinity	s.u.	Daily Avg 7.6	Min Daily Avg 7.3	Average 7.6	Minimum 7.0	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. pH is measured 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 2020, the average daily pH dropped below 7.4 for one day.

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 lines and home plumbing. The Mukilteo Water and Wastewater District 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 exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



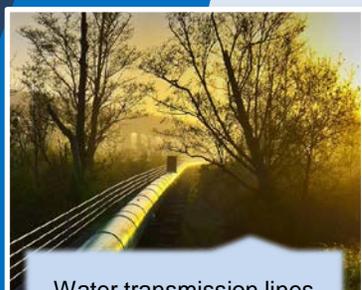
Precipitation and snowmelt from the Cascade Mountains are collected in Spada Lake Reservoir.



From Spada, water travels to Chaplain Reservoir, where the City's water treatment plant is located.



The Everett Drinking Water Treatment Plant treats the water using coagulation, flocculation, filtration, and disinfection.



Water transmission lines carry drinking water to Everett.



Treated water is delivered to about 640,000 people, or 75 percent of the businesses and households in Snohomish County.

From Spada to you:

Clean, safe drinking water delivered to your tap

Your drinking water comes from Spada Lake Reservoir, located about 30 miles east of Everett at the headwaters of the Sultan River. This 50-billion-gallon storage facility serves as a collection point for rain and snowmelt from the Cascade Mountains. It was created in 1964 through a partnership between the City of Everett and the Snohomish County PUD as part of the Jackson Hydroelectric Project. Spada Lake Reservoir is in the Upper Sultan River Watershed, an area encompassing more than 80 square miles. This is one of the wettest watersheds in the continental United States. The average annual rainfall is about 165 inches, five times the rainfall in Everett. Water quality in the Sultan Basin is carefully monitored. To protect the naturally pristine water in Spada Lake Reservoir, the watershed is patrolled, and human activities are limited to minimize the impact on water quality. We continue to evaluate and adjust our security measures on an ongoing basis.

Ensuring an Adequate Supply

Water is a precious resource. Conservation helps fill the needs of people, industries, businesses, and farms while also keeping fish and other aquatic life alive and well. Mukilteo Water and Wastewater District (District) has set conservation goals in accordance with the Washington State Department of Health Water Use Efficiency (WUE) rules and is required to report our progress and accomplishments annually.

One of the District's conservation goals is met by participating in the City of Everett's Regional Water Conservation Program. This program is planned and developed in coordination with the water systems that are served with treated water from the City of Everett. This program is funded from water system revenues. Since 2001, more than \$7.9 million dollars has been invested in regional water conservation activities. These activities include school education, indoor and outdoor water conservation kits, rebates for water efficient clothes washers and toilets, leak detection, business water audits, and school irrigation audits. There were 242 water conservation workshops conducted throughout Snohomish County in 2020, reaching more than 5,400 students. These efforts have saved more than 5.6 million gallons of water per day (MGD); enough water to fill more than 133,000 bathtubs. Water systems in the program distributed more than 2,900 indoor conservation kits and 4,800 outdoor conservation kits. These activities saved an estimated 0.68 MGD regionally.

The second conservation goal is to maintain a distribution leakage rate significantly less than the 10% required by the WUE. In 2020, the district distributed over 582 million gallons of water. By tracking the purchases and sales the district can calculate the difference. In 2020, the difference indicated a distribution system leakage rate of 2.7%, well under the WUE requirement.

The district pursued an aggressive conservation approach prior to the WUE requirement including annual customer leak surveys, distribution leak surveys, blow-off replacements, customer consumption databases, and irrigation management. The district continues to utilize this approach to achieve our conservation goals. The district currently estimates it has received substantial water savings and is on track to meet all stated goals.

THE FOLLOWING STATEMENTS ARE REQUIRED BY THE
U.S. ENVIRONMENTAL PROTECTION AGENCY.

Your Drinking Water Facts and Figures

All water sources (both tap water and bottled water) contain impurities. As water flows over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban surface water, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban surface water and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 EPA 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 people, such as people with cancer undergoing chemotherapy, people 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 and US Center for Disease Control (CDC) guidelines on appropriate means to lessen risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Mukilteo Water and Wastewater District
Water Quality Office
425-355-3355
info@mukilteowwd.org

To get involved
Attend and comment about decisions
affecting your drinking water at MWWD
Board meetings the 1st and 3rd
Wednesday of each month at 5:30 p.m.

MWWD Board of Commissioners
Mike Johnson
Jeff Clarke
Thomas McGrath



We test your drinking water 365 days a year.
Learn more about your water at www.mukilteowwd.org

State Department of Health
1-800-521-0323
doh.wa.gov/ehp/dw

U.S. Environmental Protection Agency
1-800-426-4791
epa.gov/safewater

City of Everett
425-257-8800
everettwa.gov/water