

Your Annual Water Quality Report

2022 Consumer Confidence Report

Chromium	
Copper	
Cyanide	
1,2-dichloroethane	
Trichloroethylen	
Fluoride	
Lead	
Chloride	
Calcium	
Magnesium	
Sulfate	
Hardness	
pH	
Total Dissolved Solids	
Total Hardness	
Total Suspended Solids	
Total Solids	
Iron	
Manganese	
Nitrate	
Nitrite	
Ammonia	
Ammonium	
Phosphate	
Silica	
Zinc	
Barium	
Bromide	
Chlorine	
Fluoride	
Iodide	
Sulfate	
Sulfide	
Thiocyanate	
Urea Nitrogen	
Vanadium	
Other	



• Quality • Taste • Value

MUKALTEO
WATER AND WASTEWATER DISTRICT

IMPORTANT TERMS AND ABBREVIATIONS

Turbidity

Turbidity is a measure of particulates suspended in water in nephelometric turbidity units (NTU) and is an essential 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 contaminant level 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 contaminant level 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 disinfectant level is allowed in drinking water. There is convincing evidence that adding a disinfectant is necessary to control 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.

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 contaminant per billion parts of water.

Not Applicable (N/A)

EPA has not established MCLGs for these substances.

REQUIRED POLYMER STATEMENT

During water treatment, organic polymer coagulants are added to improve the coagulation and filtration processes that remove particulates from water. The removed particulates can include viruses, bacteria, and other disease-causing organisms. The USEPA limits the type and amount of polymer a water system can add to the water. In addition to the EPA limits, the State of Washington requires that all polymers 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.

**BOARD OF
COMMISSIONERS**

**Mike Dixon
PRESIDENT**

**Mike Johnson
VICE PRESIDENT**

**Jeff Clarke
SECRETARY**

Dear Mukilteo Water and Wastewater District Customer,

Reliable access to safe water is Mukilteo Water and Wastewater District's (District) highest priority.

The District conducts extensive water quality tests throughout the year to deliver on that commitment. An independent laboratory analyzes the water samples collected to ensure we adhere to the Environment Protection Agency and Washington State Department of Health regulations.

On behalf of the District's Board of Commissioners, I am pleased to report:

Mukilteo Water and Wastewater District drinking water continues to meet all federal and state water quality standards and safety regulations.

This annual Consumer Confidence Report covers water quality testing for the 2022 calendar year, summarizing everything you need to know about your water. It includes detailed results of water quality tests as well as information about the required regulations for public drinking water purveyors.

The District takes great pride in providing you with safe, clean, and reliable drinking water.

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 providing high-quality drinking water for generations. As this year's Consumer Confidence Report shows, this is an exceptional value for the clean, safe, excellent-tasting drinking water you receive.

Sincerely,

Dave Barnes

Dave Barnes

General Manager, Mukilteo Water and Wastewater District

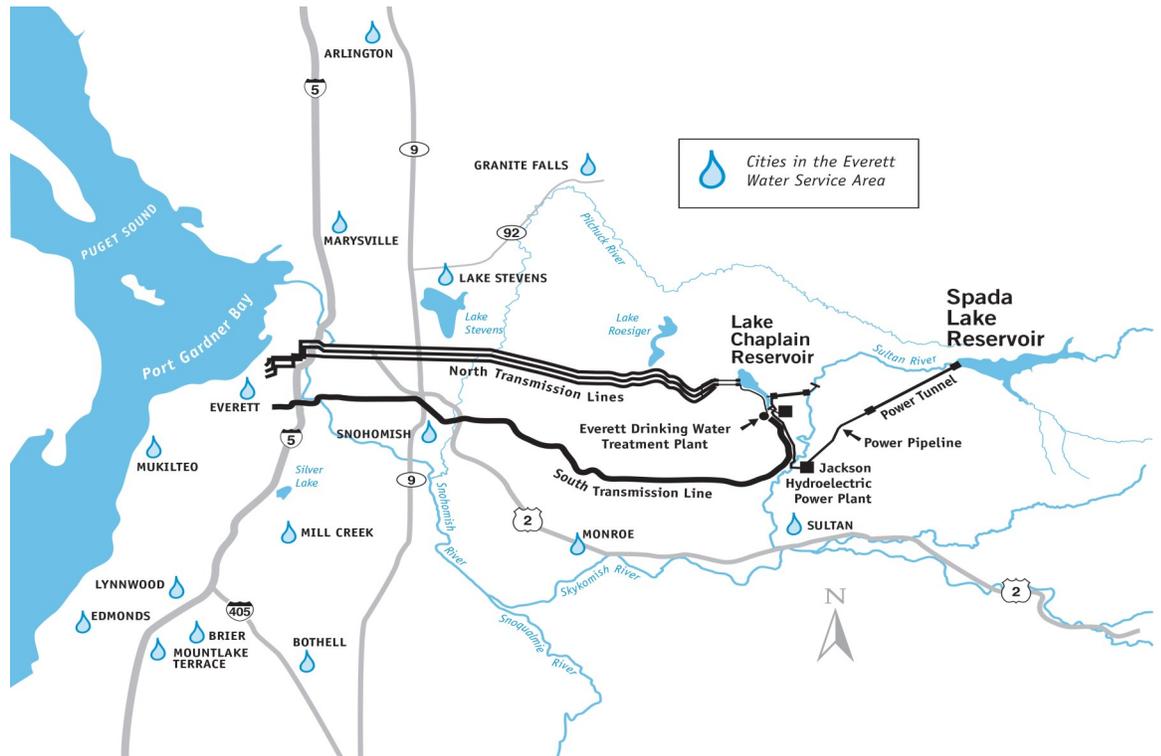
FROM SPADA LAKE TO YOU

Clean and 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 is 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, 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, roughly five times the rain in our area.

Water quality in the Sultan Basin is carefully monitored. The watershed is patrolled to protect the naturally pristine water in Spada Lake Reservoir, and human activities are limited to minimize the impact on water quality.



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



From Spada Lake water travels to Chaplain Reservoir to be treated using coagulation, flocculation, filtration, and disinfection at the City of Everett's Water Treatment Plant.

ENSURING AN ADEQUATE SUPPLY

Conservation helps meet the needs of people, industries, businesses, and farms while helping fish and other aquatic life

Water is a precious resource. The District has set conservation goals that are reported through the Annual Water Use Efficiency Performance Report (WUE). This report tracks our progress and accomplishments.

One of our 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 served with treated water from the City of Everett. Water system revenues fund this program. The WUE goal for 2020-2029 is to reduce the regional demand for water by approximately 2 million gallons per day (mgd) annually and continue to provide school education and conservation kits, along with the continued support of large water users.

Since 2001, more than 8.6 million dollars have been invested in regional water conservation activities. These activities include school education, indoor and outdoor water conservation kits, leak detection, business water audits, and school irrigation audits. In 2022, 472 workshops were conducted with school classes throughout Snohomish County, reaching 12,465 students. Water systems purchased 2,500 indoor conservation kits and 3,767 outdoor conservation kits. These activities saved an estimated 0.66 mgd regionally.

An additional conservation goal is maintaining a distribution leakage rate significantly less than the 10% required by the WUE. In 2022, the District distributed over 586 million gallons of water. By calculating the difference between water purchased and water sold, the District can determine the leakage rate. In 2022, the difference indicated a distribution system leakage rate of 2.37%, well under the WUE requirement.

The District pursued an aggressive conservation approach before 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 and currently estimates it has received substantial water savings and is on track to meet all stated goals.



Water transmission lines carry drinking water to Everett and is distributed to wholesale customers.



Treated water is delivered to about 640,000 businesses and households in Snohomish County.

2022 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 microbial quality in the water distribution system. MWWD collects 25 samples per month (300 per year). No total coliforms were detected in 2022.

Fluoride	Dental health additive	ppm	2	4	0.3 - 0.8	0.7	Yes
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Fluoride in carefully controlled levels is added to your water for dental health.

Residual Disinfectant Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.21 - 1	0.6	Yes
Haloacetic Acids (5) (HAA5)	A by-product of drinking water chlorination	ppb	N/A	60	17 - 46 ¹	33 ²	Yes
Total Trihalomethanes (TTHM)	A by-product of drinking water chlorination	ppb	N/A	80	23 - 48 ¹	36 ²	Yes

Haloacetic acids and trihalomethanes form by-products of the chlorination process used to kill or inactivate disease-causing microbes. The TTHM and HAA5 results are from four monitored locations in Mukilteo/Everett, which are monitored to determine compliance with current regulations. ¹Range of results taken from all four areas. ²Highest locational running annual average of the four sites that were monitored.

Turbidity	Soil erosion	NTU	N/A	TT	100%	0.05	Yes
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Turbidity measures 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 values reported are the lowest monthly percentage of samples that met the EPA turbidity limit and the highest four-hour combined water turbidity measurements obtained during the year. In 2022, non-filtrated water turbidity results exceeded the EPA 0.3 NTU limit, so the lowest percentage was 100 percent. The plant targets the production of filtered water turbidities of 0.10 NTU or less.

USEPA required lead statement: If present, elevated lead levels 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 at 1-800-426-4791 or online at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

We test your drinking water 365 days a year.

Learn more at www.mukilteowwd.org

Lead and Copper							
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	0.0007	0 of 5 (0.0%)	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.0463	0 of 5 (0.0%)	Yes

USEPA and state regulations require water systems to monitor the presence of lead and copper at household taps every three years. The above data was collected in 2021. The next round of required sampling will be in 2024. The 90th percentile is the highest result obtained in 90 percent of the samples collected when the results are ranked from lowest to highest. In the past, the results for water tested before it entered household plumbing were even lower than the tap results. This indicates that there is virtually no lead or copper in the water and shows that household plumbing may contribute to lead and copper at the tap.

Parameter	Major Source	Units	EPA Regulations		MWWD Water Results		
			Ideal Level/ Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
p ^H	Soda ash is added to reduce water corrosivity by increasing pH and alkalinity	Standard Unit	Daily Average 7.6	Min Daily Average 7.4	Average 7.6	Minimum 6.8	Yes

The Washington State Department of Health requires the City of 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 2022, the average daily H was never below 7.4.

Detected Unregulated Contaminants				
Parameter	Units	Ideal Level/ Goal (MCLG)	MWWD Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	1 - 2	1.5
Chloroform (trichloromethane)	ppb	70	22 - 46	34
Dichloroacetic Acid	ppb	0	3 - 15	10
Trichloroacetic Acid	ppb	20	9 - 31	22

These substances are 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).

***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 land's surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, can naturally occur or result from urban surface water, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides may come from various sources, such as agriculture, urban surface water, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants can be naturally occurring or result from oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the number of specific 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 contain at least small amounts of 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 healthcare providers. EPA and US 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 at 1-800-426-4791.



WATER SAMPLING STATION

Our water quality team uses sample stations throughout our service area to collect and send water samples to the laboratory for testing.

