

THE ADVENTURE STARTS HERE!



DRINKING WATER QUALITY REPORT

City of Monroe

2019



Water is a life-essential resource yet, at less than a penny a gallon, it costs very little compared to its value.

The City of Monroe prides itself on distributing world class water services. From system maintenance and storage, to distributing water to your tap, we continually strive to be stewards of this precious resource. This ensures high-quality water and service for years to come.

As this year's Drinking Water Quality Report shows, safe, clean, great-tasting water takes a team effort from source to tap.

WATER QUALITY ANALYSIS

Where does our water come from? How is our water treated? What is it tested for? Do we have an adequate supply?

FINISH READING ON PG. 2 & 3

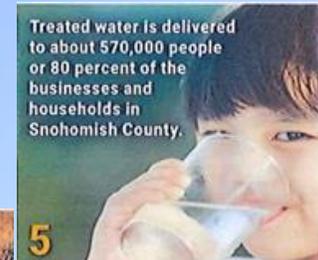
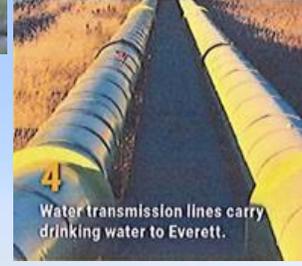
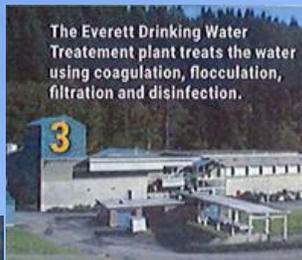
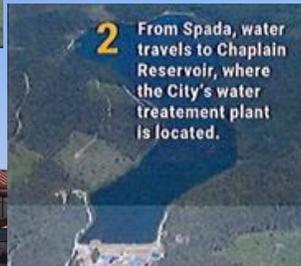
*City of Monroe
Public Works Department
806 West Main St
Monroe, WA 98272*

FACTS & FIGURES

What the Environmental Protection Agency wants you to know, and how you can use it to ensure the best possible drinking water.

FINISH READING ON PG. 4





FROM SPADA TO YOU:

Clean, safe drinking water delivered to your tap

Your drinking water comes from Spada Lake Reservoir, located about 25 miles north-east of Monroe 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 located 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 of Monroe.

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

The City of Monroe partners with the City of Everett who provides water to the majority of water systems in Snohomish County and administers a regional water conservation program. The program is planned and developed with the water systems served, and funded from water system revenues. More than \$7.7 million has been invested in regional water conservation since 2001. This includes such activities as school education, conservation kits, rebates for efficient appliances, leak detection, business audits, and school irrigation audits



Quick Facts:

- ❖ Water savings of over 3.5 million gallons per day.
- ❖ In 2019
 - Water conservation workshops were conducted in classrooms throughout Snohomish County.
 - Over 18,000 Students reached
 - 2,400+ Indoor conservation kits
 - 2,900+ Outdoor conservation kits

2019 Water Quality Analysis Results

Detected Regulated Contaminants

Parameter	Major Source	Units	EPA Regulations		Monroe 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	<5%	Yes
Total coliform bacteria monitoring tracks microbial quality in the water distribution system. Monroe collects around 30 samples per month or 360 per year. No more than 5 percent of the monthly tests can be positive for total coliform. In 2018 there were 14 coliforms detected in one sampling. Over 50 retake samples were conducted for this event with no coliforms being detected. This event was considered to be an error in testing. Best sampling practices were evaluated and a level one survey was conducted.							
Fluoride	Dental health additive	ppm	2	4	0.3 - 0.7	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 Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.2-1.1	0.6	Yes
Haloacetic Acids (5) (HAA5)	By-product of drinking water chlorination	ppb	N/A	60	22-38	33.2	Yes
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	ppb	N/A	80	20-61	39.6	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 four locations in Monroe, which are monitored to determine compliance with current regulations. Results are an average taken from all four locations.							
Turbidity	Soil erosion	NTU	N/A	TT	100%	0.07	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 2018, 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.							

Detected Unregulated Contaminants

Parameter	Units	Ideal Level/Goal (MCLG)	Monroe Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	1 - 2.5	1.8
Chloroform (trichloromethane)	ppb	70	19.1 - 59	37.8
Dichloroacetic Acid	ppb	0	4.4 - 14.4	10.9
Trichloroacetic Acid	ppb	20	17 - 25.2	20.9

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).

IMPORTANT TERMS

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.

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 Contaminants from Unregulated Contaminant Monitoring Rule 4 (UCMR4) Sampling

Parameter	Major Source	Units	Monroe Water Results	
			Range Detected	Average Value or Highest Result
Total Organic Carbon*	Naturally present in the environment	ppm	<0.81-2.6	1.35
Manganese	Naturally present in the environment	ppb	3.2	3.2
Bromochloroacetic Acid	By-product of drinking water chlorination	ppb	ND-0.6	0.45
Bromodichloroacetic Acid	By-product of drinking water chlorination	ppb	0.5-0.8	0.6
Brominated Haloacetic Acid (HAA6Br)	By-product of drinking water chlorination	ppb	0.5-1.8	1.025
Haloacetic Acid (9) (HAA9)	By-product of drinking water chlorination	ppb	28.6-48	41.025

*Samples taken at treatment plant after influent. All other samples taken in the distribution system of Monroe.

Lead, Copper and pH

Parameter	Major Source	Units	EPA Regulations		Monroe & Everett 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	2	0 of 108 (0.0%)	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.141	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	Average 7.6	Minimum 7.3	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. 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. Results for water tested before it enters household plumbing are lower than tap results, which indicate that household plumbing may contribute to lead and copper at the tap.

The Washington State Department of Health requires Everett, Monroe's water provider, 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 2018, the average daily pH dropped below 7.4 for two days.

USEPA required lead statement: 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 Everett 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 exposure is available from the Safe Drinking Water Hotline or at epa.gov/safewater/lead.

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, 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.

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (EPA) prescribes regulations which limit the amount 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 Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. Environmental Protection Agency 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.

City of Monroe Water Quality Office:

360.863.4515 or 360.863.4616

www.monroewa.gov/301/Drinking-Water

State Department of Health:

1.800.521.0323

www.doh.wa.gov/ehp/dw/

US Environmental Protection Agency:

1.800.426.4791

www.epa.gov/safewater

To get involved:

In decisions affecting your drinking water attend and comment at Monroe City Council meeting every Tuesday in the Council Chambers at 806 West Main St. Meeting begin at 7:00pm and run the first through the fourth Tuesdays of the month. Agendas are available on the City's Website at www.monroewa.gov

City of Monroe Elected Officials:

Mayor: Geoffrey Thomas

City Council: Kevin Hanford, Patsy Cudaback, Jeff Rasmussen, Heather Rousey, Ed Davis, Jason Gamble, Kirk Scarboro