



Water Quality Report

2018



The City of Marysville provides **exceptional** water for you

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking-water safety

emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Customer views are always welcome

Call the City of Marysville Public Works Department's Water Division at (360) 363-8100 for information about the next opportunity for public participation in decisions about your drinking water. You can also visit us at our office located at 80 Columbia Avenue, Marysville, WA.

Where does your water come from? How is it treated?

The **Lake Goodwin Well** is a high-quality source that pulls water from a deep aquifer. The water purity is well above regulatory standards and no treatment is necessary; however a small amount of sodium hypochlorite (chlorine) is added to the water as an additional safety measure.

Edwards Springs and Wells are Marysville's original water source, developed in 1920. The springs and wells sources do not require filtration due to its high-quality water and protected watershed. The spring water is disinfected by two methods to ensure that any contaminants naturally present in the environment are inactivated.

The first method is to pass water through Ultra-Violet Reactors, commonly known as a UV disinfection system. The UV system inactivates larger organisms such as Cryptosporidium and Giardia. In addition to UV, sodium hypochlorite (chlorine) is added, which is the best method

for disinfection of viruses and bacteria that might pass through the UV system. The wells system requires disinfection with sodium hypochlorite only.

The **Sunnyside Water Treatment Facility** provides the City with additional water production capacity. Comprised of a fully automated greensand filtration system with emergency power backup, this source will serve Marysville residents with a reliable source of drinking water for current and future generations.

Water purchased from the **City of Everett** comes from the Spada Lake Reservoir in the Cascade Mountains where rainwater and snowmelt is collected. At the Everett water treatment plant the water is filtered, disinfected, fluoridated, and the pH is adjusted to control corrosiveness.



Stillaguamish Filtration Plant

At the Stillaguamish Filtration Plant, water is piped from a Ranney Well located on the Stillaguamish River to a state-of-the-art treatment system. Water is filtered through an Ultra-Filtration Membrane which removes over 99.99% of any microbiological contaminants. After filtration, a small amount of sodium hypochlorite (chlorine) is injected into the system for disinfection of any remaining biological contaminants that might pass through the filters.

Does our water have fluoride?

The City of Marysville's water system is comprised of multiple sources including water purchased from the City of Everett, as well as several city-owned wells and springs. The City of Everett adds fluoride to its drinking water as a means of promoting dental health. City of Marysville sources are not fluoridated. As a result, Marysville residents may receive water that is fluoridated, non-fluoridated or only partially fluoridated depending on water system operating conditions. Residents concerned with the level of fluoride who are unsure of which source provides their water should contact the City's Water Quality Division at (360) 363-8100.



DISTRIBUTION LEAKAGE STANDARD

Water suppliers are required to maintain water loss in their distribution system to 10% or less, based on a rolling three year average.

CITY OF MARYSVILLE DISTRIBUTION SYSTEM LEAKAGE FOR YEARS 2016-2018 (in million gallons)

Total Water Produced and Purchased	6,552 million gallons
Authorized Consumption	6,340 million gallons
Distribution Leakage Volume	212 million gallons or 3%

The City of Marysville wants to ensure there are abundant natural resources for a livable and sustainable community. Therefore, the City has adopted a conservation program comprised of regional and local measures. The measures are part of a regional conservation program called the Everett Water Utility Committee or EWUC program.

You can become part of our local and regional conservation solution by picking up your FREE conservation kits and receive a one-time rebate up to a maximum of \$50 for certain low-flow toilets, tumble-action washing machines, and other water saving devices. Call (360) 363-8100 for more information.

WATER QUALITY RESULTS 2018 (PWSID# 51900C)

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 well below the 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.

REGULATED AT THE SOURCE

CITY OF EVERETT

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Arsenic (ppb)	0	10	0.1	<0.1	0.2	2018	Yes	Erosion of natural deposits; Runoff from orchards
Nitrate (ppm)	10	10	0	N/A	0	2018	Yes	Erosion of natural deposits; Animal waste
Turbidity (ntu)	N/A	TT	0.06	100% of samples met limits		2018	Yes	Soil run-off

EDWARD SPRINGS TREATMENT PLANT

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Arsenic (ppb)	0	10	6	3	8	2016	Yes ¹	Erosion of natural deposits; Runoff from orchards
Nitrate (ppm)	10	10	1.2	0.1	2.9	2018	Yes	Erosion of natural deposits; Animal waste
Turbidity (ntu)	N/A	TT	0.95	N/A	N/A	2018	Yes	Soil run-off

LAKE GOODWIN WELL

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Arsenic (ppb)	0	10	4	N/A	4	2015	Yes	Erosion of natural deposits; Runoff from orchards
Nitrate (ppm)	10	10	0	N/A	0	2018	Yes	Erosion of natural deposits; Animal waste

STILLAGUAMISH FILTRATION PLANT

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Arsenic (ppb)	0	10	0	N/A	0	2015	Yes	Erosion of natural deposits; Runoff from orchards
Nitrate (ppm)	10	10	0.4	N/A	0.4	2018	Yes	Erosion of natural deposits; Animal waste
Turbidity (ntu)	N/A	TT	0.09	100% of samples met limits		2018	Yes	Soil run-off

SUNNYSIDE TREATMENT PLANT

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Fluoride (ppm)	MRDLG = 2	4	0.1	N/A	0.1	2018	Yes	Erosion of natural deposits
Nitrate (ppm)	10	10	ND	N/A	ND	2018	Yes	Erosion of natural deposits; Animal waste

REGULATED IN THE DISTRIBUTION SYSTEM

Substance	MCLG	MCL	Your Water	Range		Sample Date	Complies?	Typical Sources
				Low	High			
Chlorine (ppm)	MRDLG = 4	4	0.8	0.00	1.8	2018	Yes	Water additive used to control microbes
Fluoride (ppm) from Everett Source	MRDLG = 2	4	0.7	0.03	0.9	2018	Yes	Dental health additive
TTHM (ppb)	N/A	80	36	13	43	2018	Yes	Byproduct of drinking water disinfection
HAA(5) (ppb)	N/A	60	41	17	47	2018	Yes	Byproduct of drinking water disinfection

LEAD & COPPER RULE - REGULATED AT THE CONSUMER TAP

Substance	MCLG	Action Level	Your Water (90th %)	# of Samples Exceeding the AL	Complies?	Sample Date	Typical Sources
Lead (ppb)	0	15	3	0 out of 75	Yes	2018	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.9	3 out of 75	Yes	2018	Corrosion of household plumbing systems; Erosion of natural deposits

(1) Your drinking water currently meets EPA's standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water.

UNREGULATED CONTAMINANT MONITORING RULE 4 (UCMR4)*

Substance	MRL	Your Water	Range
Bromide	20 (ppb)	7	0 - 20
Manganese	0.4 (ppb)	140	0 - 1403
Dichloroacetic Acid	0.5 (ppb)	8	2 - 13
Monochloroacetic Acid	1.0 (ppb)	2	0 - 5
Trichloroacetic Acid	0.5 (ppb)	14	4 - 23
Bromochloroacetic Acid	0.5 (ppb)	1	0 - 2
Bromodichloroacetic Acid	0.5 (ppb)	1	0 - 4
Chlorodibromoacetic Acid	0.5 (ppb)	0	0 - 1

*The Safe Drinking Water Act requires that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems, called the Unregulated Contaminant Monitoring Rule (UCMR). We are sharing the results of those substances that were detected in our water during the Round 4, which occurred in 2018. As these substances are not regulated, there is no current maximum contaminant level (MCL) associated with these sample results.



UNIT DESCRIPTIONS: ppm (parts per million), ppb (parts per billion), mg/L (milligrams per liter)

- AL** Action Level – concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
- MCL** Maximum Contaminant Level – highest level of contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.
- MCLG** Maximum Contaminant Level Goal – level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- MRDLG** Maximum Residual Disinfectant Level Goal – level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- 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.
- MRL** Method Reporting Limit - The lowest amount of an analyte in a sample that can be quantitatively determined.
- N/A** Not Applicable
- ND** Not Detected
- NTU** Nephelometric Turbidity Units
- TT** Treatment Technique – a required process intended to reduce a contaminant level in drinking water.

Health information about your water

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's Safe Drinking Water Hotline (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).

Is there lead in my water?

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 Marysville 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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://water.epa.gov/drink/info/lead>.

Can the water at my home be tested for lead?

The water from City sources do not contain lead, however, there can be plumbing components within some homes which can contribute to higher lead levels in your water. The most common of these components are pipe, pipe fittings, solder, and individual fixtures (i.e. faucets). You can find additional information through the EPA's website at <https://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>. If you are concerned that your home's plumbing is susceptible to lead release, you can contact a local lab to have your water tested. Laboratories accredited by the Department of Ecology can be found at: <https://fortress.wa.gov/ecy/laboratorysearch/>.