The City of Blaine
2022 Drinking Water Quality Report

The City of Blaine is pleased to provide our customers with its annual "Consumer Confidence Report" for the calendar year 2022. This report explains the quality of drinking water provided by Blaine. The report includes results from required water quality tests, as well as an explanation of where our water comes from and tips on how to interpret the data.

Why Monitor?

The sources of 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 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** (viruses, bacteria & parasites)
- **Inorganic Contaminants** (salts & metals, naturally occurring)
- **Pesticides & Herbicides** (agricultural, stormwater runoff, residential uses)
- **Organic Chemicals** (industrial by-products, septic tanks, gas stations
- **Radioactive Contaminants** (naturally occurring or as a result of mining and /or gas production)

In order to ensure that tap water is safe to drink, the WA Department of Health and the United States Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

Overview

The water comes from several deep wells within the City of Blaine's well field. The City of Blaine protects, provides and treats the water supply with a small amount of chlorine. Sampling occurs at specific frequencies (continuously, daily, monthly, quarterly or annually) and at different locations (prior to treatment, as it enters the distribution system, and throughout the distribution system) in accordance with federal and state regulations. City testing includes inorganic compounds (IOC), synthetic organic compounds (SOC), volatile organic compounds (VOC), microbial substances and chlorine disinfection by-products.

Your drinking water meets or exceeds all water quality parameters established by State and Federal Law.

Lead and Copper

The City is required to monitor for lead and copper in the distribution system. The City has taken lead and copper samples in residences since 1994 with NO EXCEEDENCES (ALL BELOW epa Limits). As a result, the City is on a reduced monitoring schedule of once every 3 years between June and September. The City will be collecting its next round of lead and copper samples summer 2022.

Your Questions and Views are Welcomed

If you have questions about this report or about your water quality, please contact Public Works at 360.332.3718. We want our valued customers to be informed about their water quality. If you want to learn more, you are welcome to attend any of our regularly scheduled City Council Meetings held on the 2nd & 4th Mondays of each month at 6:00 pm at Blaine City Hall, 435 Martin Street Suite 4000, Blaine.

All 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)

The Safe Drinking Water Hotline is also available online at water.epa.gov/drink/hotline.

SUMMER WATERING SCHEDULE						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**
ODD ADDRESS	**NO WATERING**	EVEN ADDRESS	ODD ADDRESS	EVEN ADDRESS	ODD ADDRESS	EVEN ADDRESS

INORGANIC CONTAMINANTS (MEASURED AT WELLS) COLLECTED THROUGHOUT 2021

Detected Compounds	Violation Yes/No	Detected Range	Units	MCLG	Source of Contamination
Nitrate	NO	ND	ppm	10	Erosion of natural deposits, runoff from fertilizer use, leaching septic tanks, sewage

INORGANIC PARAMETERS (MEASURED AT HOMESITES) COLLECTED JULY 2019 – 3 yr test cycle (Long cycle due to consistent low levels)

Detected Compounds	Violation Yes/No	Detected Range	90th Percentile	UNITS	MCLG	TYPICAL SOURCE
Lead	NO	0 to 12	2	ppb	0	Erosion of natural deposits, corrosion of household plumbing systems.
Copper	NO	0 to .15	0.05	ppm	1.3	Erosion of natural deposits, corrosion of household plumbing systems.

MICROBIOLOGICAL CONTAMINANTS

Detected Compounds	Violation Yes/No	Level Detected	Units	MCLG	MCL	Maior Source of Contamination
Total Coliform	NO	NONE	MPN	0	1	Naturally present in the environment
Fecal Coliform & E-coli	NO	NONE	MPN	0	0	Human and animal fecal waste

DISINFECTION BYPRODUCTS COLLECTED THROUGHOUT 2020

Detected Compounds	Violation Yes/No	Level Detected	Units	MCL
HAA5	NO	2	ppb	60
TTHM	NO	.5	ppb	80

Disinfection Byproducts (DBPs) can form in water when disinfectants (such as chlorine) used to control microbial pathogens combined with naturally occurring minerals. Some studies have shown that high levels of DBPs are associated with an increased risk of some cancers.

SECONDARY/OTHER PARAMETERS (Aesthetic, cosmetic, technical ONLY)

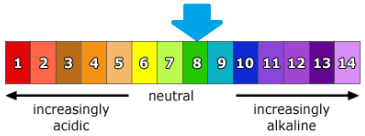
Detected Compounds	Violation Yes/No	Level Detected	Units	MCL
Manganese	NO	0.032	ppm	0.05
Iron	NO	ND	ppm	0.3
Chloride	NO	21.13	ppm	250
Sulfate	NO	9.81	ppm	250
Fluoride	NO	0.17	ppm	4.0

Iron and Manganese can fluctuate throughout the year and may be noticeable as reddish, rusty deposits or surface film. They are aesthetic (visual, appearance) concerns only, not health hazards. Samples collected upon request of DOH, numbers above reflect collections in 2021.

HARDNESS - Water hardness is typically in the range or 50-95 mg/L; considered moderately hard. Hardness can vary seasonally; past samples indicate hardness may peak as high as 120 mg/l. Hardness is not a health hazard, but if water is too hard, deposits and scaling can occur and a water softener may be needed.

Water Hardness Scale		
Grains/Gal	mg/L & ppm	Classification
Less than 1	Less than 17.1	Soft
1 – 3.5	17.1 - 60	Slightly Hard
3.5 - 7	60 - 120	Moderately Hard
7 - 10	120 - 180	Hard
Over 10	Over 180	Very Hard

<u>pH</u> - Your water varies between a pH of 7.8 and 8.2, with an average of about 8.0. This higher pH helps to minimize corrosion and the leaching of metal Ions (iron, copper, lead, etc…) from plumbing fixtures into the system.



CHLORINE (CL2) - A minimal free CL2 residual, typically 0.02-0.08 mg/l, is maintained in the distribution system to ensure that it remains free of pathogens and provide biological protection. A low chlorine residual helps to minimize the formation of Disinfection Byproducts. (MCL for chlorine is 4.0 mg/l)

DEFINITIONS AND ACRONYMS

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 treatment technology.*

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; an individual would have to drink 2 liters of water/day at the MCL level every day to have a one-in-a-million chance of having the described health effect*

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): *One part per million corresponds to one minute in two years; a single penny in $10,000.*

Parts Per Billion (PPB): *One part per billion corresponds to one minute in 2,000 years; a single penny in $10,000,000.*

Milligrams per Liter (mg/L): *A unit of concentration, representing 0.001 grams of a constituent in 1 liter of water.*

Picocuries per Liter (pCi/L): *A unit of measuring radionuclide levels.*

Most Probable Number Index (MPN): *The concentration of coliform bacteria in the sample (expressed as the number of bacteria per 100mL of sample).*

No Detect (ND): *A compound that was analyzed and <u>not</u> detected at a level greater than or equal to the state reporting level (which is based on instrument & procedure accuracy and sensitivity)*

HAA5: *Refers to a collective group of halo acetic acids which are undesirable disinfection byproducts .*

TTHM (Total Trihalomethanes): A *group of disinfection byproducts that form when chlorine compounds that are used to disinfect water react with other naturally occurring chemicals in the water.*