



BIRCH BAY WATER AND SEWER DISTRICT

2015 Drinking Water Quality Annual Report

Birch Bay Water and Sewer District (BBWSD) is pleased to provide our customers with its annual "Consumer Confidence Report" for calendar year 2015. This report explains the quality of drinking water provided by BBWSD. The report also 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.

OVERVIEW

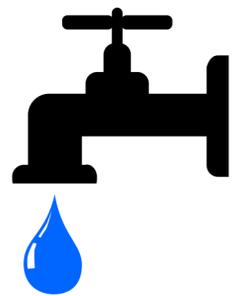
The City of Blaine protects, provides and treats our water supply. Various monitoring occurs at specific frequencies (continuously, daily, monthly, quarterly or annually) and at different locations (prior to treatment, entering the distribution system and throughout the distribution system) in accordance with federal and state regulations. The City testing includes inorganic compounds (IOC), synthetic organic compounds (SOC), volatile organic compounds (VOC), microbial substances and chlorine disinfection by-products.

The Birch Bay Water and Sewer District purchases water from Blaine, designs, operates, repairs and maintains your local water storage and distribution system. The District also checks chlorine levels, monitors and inspects new construction and follows coliform bacteria, lead and copper, chlorine byproducts and asbestos sampling and monitoring plans in which water sample tests are taken at various locations and frequencies to assure water quality. Specific District water quality questions can be directed to the District's Operations Manager, Mike Sowers, at (360) 371-7100.

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 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.

LEAD AND COPPER

The District is required to monitor for lead and copper in their distribution system. The District has taken 161 lead and copper samples in residences since 1998 with NO EXCEEDANCES (levels are all below EPA limits). As a result, the District is on a reduced monitoring schedule of once every three years between June and September. The District will be collecting its next round of lead and copper samples this summer.

The District has been using LEAD-FREE materials since 2014 and low-lead materials were used prior to that (i.e. brass fittings like pipe saddles and water service shut-off valves). Residential piping in the District is copper or poly (polyethylene) pipe, which is a very low health risk. If lead is found within a residence, it is usually due to residential piping, service lines, and/or fixtures. Some faucets and fixtures have a combination of brass, copper, zinc and very small amounts of lead.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If water has been sitting for several hours (such as overnight), 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.



Lead Free

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.

INORGANIC CONTAMINANTS (MEASURED AT WELLS) *COLLECTED 2015

Detected Compounds	Violation Yes/No	Detected Range	Units	MCLG	MCL	Source of Contamination
Nitrate	NO	ND - 1.2	mg/L	10	10	Erosion of natural deposits, runoff from fertilizer use, leaching septic tanks, sewage
Radionuclides Radium 228	NO	ND - 5.0000	pCi/L	0	5	Naturally occurring, labs, power plants
Gross Alpha	NO	3.0000	pCi/L	0	15	Naturally occurring

INORGANIC PARAMETERS (MEASURED AT HOMESITES) *COLLECTED JULY 2013

Detected Compounds	Violation Yes/No	Detected Range	90th Percentile	Units	MCLG	AL	Typical Source
Lead	NO	ND—0.001	0.002	ppb	0.015	0.015	Erosion of natural deposits, corrosion of household plumbing systems
Copper	NO	ND—0.005	0.094	ppm	1.3	1.3	Erosion of natural deposits, corrosion of household plumbing systems, erosion of natural deposits

MICROBIOLOGICAL CONTAMINANTS

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

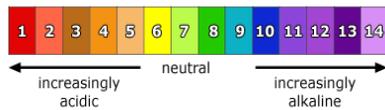
SECONDARY/OTHER PARAMETERS (MEASURED IN DISTRIBUTION SYSTEM)

Detected Compounds	Violation Yes/No	Level Detected	Units	MCL
Manganese	NO	0.034	ppm	0.05
Iron	NO	ND	ppm	0.3
Chloride	NO	25	ppm	250
Sulfate	NO	7.5	ppm	250
Flouride	NO	0.13	ppm	4.0

HARDNESS - Water hardness tested at 68.4 mg/L in 2014; considered moderate. Hardness typically varies seasonally; past samples indicate hardness may peak as high as 100 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

pH - Your water varies between a pH of 7.8 and 8.2, with an average of about 8.0.



Chlorine (CL2)

Free CL2 residual is typically 0.02-0.08 mg/l in the distribution system. (MCL 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.

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.

Miligrams per Liter (mg/L): A unit of concentration of a constituent in water. It represents 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 not detected at a level greater than or equal to the state reporting level.

SUMMER WATERING SCHEDULE

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

From June 1 to September 15, the District implements a voluntary summer watering schedule to help manage our water supply during the summer months. Residents with odd numbered street addresses may water on Wednesdays, Fridays and Sundays. Residents with even numbered street addresses may water on Tuesdays, Thursdays and Saturdays. Mondays are non-watering days to allow the District's reservoirs to recharge after the weekend. For more information visit www.bbwsd.com or contact the District at 360-371-7100.

Birch Bay Water and Sewer District is a partner of the Whatcom Water Alliance, a regional water conservation group in Whatcom County. Alliance members share a passion in providing clean and safe water to protect your health, planet and quality of life. Your investment in our water and sewer infrastructure through utility rates helps to keep it functional for current and future generations.

