



City of Bremerton Drinking Water Quality Report 2019

Bremerton Drinking Water Quality is Excellent

The City of Bremerton Water Utility is pleased to provide you with its annual water quality and efficiency report. Bremerton is committed to safeguarding its surface and groundwater sources. This report is a summary of the test results for water provided to over 55,000 customers last year. It reflects the commitment of Water Utility employees to deliver you excellent quality water. Included are details about:

- where your water comes from,
- what it contains, and
- how it compares to standards set by regulatory agencies.

Safe drinking water is essential. Well-informed customers can wisely utilize water resources and support improvements necessary to maintain high quality drinking water.



Protecting Our Water Supplies

Bremerton is fortunate to have high quality, well-protected water supplies. Surface water from the Union River headwaters and groundwater from wells located in the Bremerton area provide Bremerton's water supply. All sources are managed according to state and federal regulations and best management practices for water supply systems. Bremerton owns and protects the 3,000-acre watershed surrounding the Union River supply - this is a great value to our rate payers. Access to the watershed is secured, patrolled, and limited to water supply and forestry management activities. Each year the Washington State Department of Health inspects the surface supply. Groundwater wells are also safeguarded through efforts to protect critical areas around the wellheads. All water facilities are monitored and patrolled. Bremerton was selected for an "Exemplary Source Water Protection" Award in 2017 by the American Water Works Association.

Bremerton Water Needs Minimal Treatment

Bremerton's water system is operated and maintained by experienced personnel certified by the State. Bremerton's Union River water source is such good quality that the City is not required to install a filtration facility as long as all water quality, operational, and watershed protection requirements are met. Bremerton consistently meets these high standards. Treatment of Bremerton's water currently consists of disinfection (chlorine and ultraviolet light) and corrosion control. Corrosion treatment increases the pH of water to about 8 and is required to prevent Bremerton's water from leaching lead from customer's household plumbing. Sampling results confirm this treatment is successful in achieving corrosion control.



The City of Bremerton performs systematic flushing of the water distribution system. Customers are notified about flushing through newspaper ads, neighborhood signs, the City's website, e-News, and the Water Hotline (360-473-5490). Flushing is a process of sending a rapid flow of water through the mains to clean them. This helps to maintain water quality by removing naturally-occurring sediment. Flushing may cause temporary discoloration of your water. If this happens, call the Water Hotline or visit Bremerton's website for instructions on flushing your service. If your water does not clear up after the flushing process, please call the Customer Response Line at 360-473-5920.

Water Quality Summary

Your drinking water is regularly tested according to federal and state regulations for over 50 substances in both the water sources and the distribution system. Last year the City of Bremerton conducted over 1,000 tests for the parameters listed below. Only those detected are listed in the water quality summary.

SAMPLING SCHEDULE			
Parameter	Frequency	Parameter	Frequency
Chlorine residual	Continuous monitoring	Giardia/Cryptosporidium	Semiannual
Turbidity	Continuous monitoring	Nitrate	Annually
pH	Continuous monitoring	Inorganic chemicals	Every 3 years
Total coliform bacteria	Weekly	Volatile organic compounds	Every 3 years
Disinfection by-products	Quarterly	Radionuclides	Every 6 years

Listed below are the few substances detected in Bremerton's water last year. All results meet protective standards set by federal and state agencies. Not listed are the substances that were tested but NOT detected. The amounts allowed in drinking water are so small, they are measured in parts per million or parts per billion. We have tried to make this report easy to understand; however, drinking water quality issues can be technical. For additional water quality information, please call 360-473-5920.

SUBSTANCES DETECTED						
Parameter	Highest Level Allowed EPA's MCL	Ideal Goals EPA's MCLG	Potential Sources	Highest Level Detected in 2018 to Determine Compliance	Ranges of Levels Detected in 2018	Meets Standards
Regulated at the Surface Water Source						
Turbidity	Treatment Technique 5 NTU	N/A	Soil runoff	1.72 NTUs	0.49 - 1.72 NTUs	Yes
Sodium <small>Most recently sampled in 2012</small>	No limit set	N/A	Naturally-occurring	5.73 ppm	ND - 5.73 ppm	Yes
Nitrate	10 ppm	10 ppm	Fertilizer use	0.31 ppm	0.31 ppm	Yes
Regulated at the Groundwater Sources						
Arsenic <small>Most recently sampled in 2012</small>	10 ppb	0	Erosion of natural deposits	4 ppb	ND - 4 ppb	Yes
Sodium <small>Most recently sampled in 2012</small>	No limit set	N/A	Naturally-occurring	7.39 ppm	5.92 - 7.39 ppm	Yes
Nitrate	10 ppm	10 ppm	Fertilizer use	0.12 ppm	< 0.1 - 0.12 ppm	Yes
Regulated in the Distribution System						
Total Coliform	Presence of coliform in less than 5% of monthly samples	0	Naturally-occurring	There were no coliform present in the 904 samples taken in 2018.		Yes
Trihalomethanes	80 ppb	N/A	By-product of drinking water chlorination	68 ppb locational running annual average	12 - 75 ppb	Yes
Haloacetic acids	60 ppb	N/A	By-product of drinking water chlorination	47 ppb locational running annual average	8 - 56 ppb	Yes
Chlorine	4 ppm	4 ppm	Water additive used to control microbes	0.73 ppm annual average	0.10 - 1.37 ppm	Yes
Regulated at the Customer Tap						
Lead <small>Most recently sampled in 2017</small>	Action Level = 15 ppb	0	Household plumbing	3 ppb 90th percentile	No sample sites exceeded Action Level	Yes
Copper <small>Most recently sampled in 2017</small>	Action Level = 1300 ppb	0	Household plumbing	61 ppb 90th percentile	No sample sites exceeded Action Level	Yes

Action Level is the concentration of contaminant that, if exceeded, triggers treatment or other requirements a water system must follow. Ninety percent (90%) of all samples must be below this amount.

MCL (Maximum Contaminant Level) is 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.

MCLG (Maximum Contaminant Level Goal) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level) is the highest level of a disinfectant allowed in water.

MRDLG (Maximum Residual Disinfectant Level Goal) is the level of a drinking water disinfectant below which no known or expected risk to health exists.

pCi/l stands for picocuries per liter. This is in parts per trillion.

ppb is parts per billion and is the same as a microgram per liter (ug/L) (equivalent to one penny in \$10,000,000).

ppm is parts per million and is the same as a milligram per liter (mg/L) (equivalent to one penny in \$10,000).

N/A means not applicable.

ND means the laboratory did not detect this substance.

NTU (Nephelometric Turbidity Unit) is the measurement of water clarity. Monitoring turbidity is a good indicator of water quality.

Treatment Technique is a required process intended to reduce the level of a contaminant. Bremerton's surface supply is shut off when turbidity increases above set points.

Information From EPA



Sources of both tap and bottled drinking water include rivers, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring substances such as minerals and radioactive materials. It also dissolves substances resulting from animal or human activity. Contaminants that may be present in source water are microbes; pesticides; herbicides; and radioactive, organic and inorganic chemicals. To ensure tap water is safe to drink, the Environmental Protection Agency (EPA) and the Washington State Board of Health regulate the amount of certain contaminants in public drinking 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 at 1-800-426-4791.

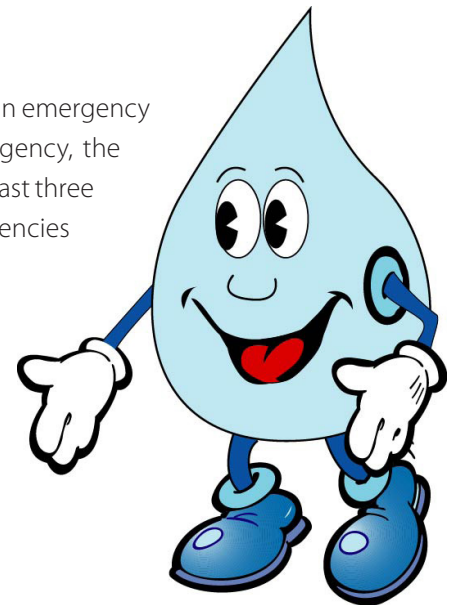
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA 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. Please note that *Cryptosporidium* was not detected in Bremerton's source water last year and Bremerton's ultraviolet treatment inactivates *Cryptosporidium*.

Be Prepared for Emergencies

Normally your water is safe to drink, but should a disaster happen, you will need to treat it or have an emergency supply on hand if the city's water supply is interrupted. To prepare for a drinking water emergency, the American Red Cross recommends storing one gallon of water per person per day – enough for at least three days for drinking, food preparation, and sanitation. For more information on preparing for emergencies we recommend the following resources:

"Treating Drinking Water for Emergency Use"
Washington Department of Health
<http://www.doh.wa.gov/portals/1/Documents/pubs/331-115.pdf>

"Preparedness"
Kitsap County Department of Emergency Management
<http://www.kitsapdem.org/preparedness.aspx>



Professional Water Organizations

The City of Bremerton is proud to be members of the following professional water organizations:



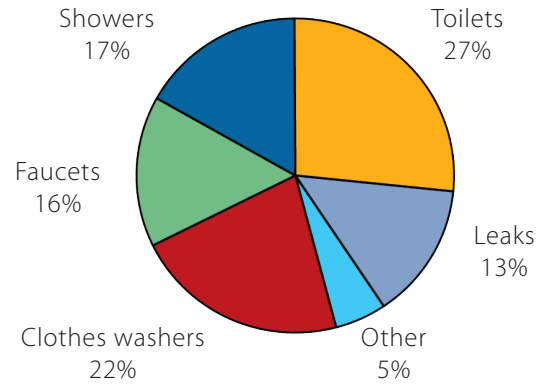
Water Use Efficiency Performance Report for 2018

Efficient water use benefits the environment, public health, and economy by helping to improve water quality, maintain aquatic ecosystems, and protect water resources. The City of Bremerton has emphasized water use efficiency since the 1990s. The City has a customer conservation program and is active in water use efficiency programs such as the Water Purveyors Association of Kitsap County, the Partnership for Water Conservation, the Alliance for Water Efficiency, and EPA's WaterSense.

2018 Total Annual Water Production—6.2 Million Gallons per Day

Bremerton's Main System Water Use Efficiency	
Goal	How Goal Was Met Last Year
Maintain water use per single family residence to below 180 gallons per day on a three year average.	Three year average water use per single family residence was 136 gallons per day. Goal was met. Great job by our customers!
State Regulation	How Regulation Was Met Last Year
Keep distribution system leakage less than 10% on a three year average.	Bremerton water system leakage was 6.1% on a three year average.

Average Residential Indoor Water Use



Source: American Water Works Association Research Foundation, "Residential End Uses of Water"

How to Use Water Wisely

Rain fills the reservoir and feeds underground aquifers to supply our drinking water. Wise water use is always recommended and your conservation efforts are important. Use water wisely to save money and this remarkable resource.

Tackle the biggest water guzzlers first!

- Install high efficiency low flow toilets.
- Consider purchasing a water/energy efficient clothes washer/dishwasher.
- Repair leaky toilets and faucets.
- Use water-saving habits such as washing full loads only. Turn off the faucet when you shave or brush your teeth, and take shorter showers.
- Install low flow showerheads.
- Look for the WaterSense label on new plumbing fixtures.

Nearly 1/3 of the water demand in the summer is used outdoors.

- Water late in the evening or early in the morning.
- Consider drought tolerant plants and native plants in your landscape.
- Use soaker hoses or install drip irrigation.
- Repair broken irrigation system sprinkler heads.
- Water lawns no more than 1 inch per week using a shallow can to measure.
- Install a rainwater collection barrel.
- Wash your car in a commercial car wash that recycles.

Bremerton Water is a Great Value

Your water rates pay for delivering high-quality water to your tap and keeping the water system in top condition. City customers pay water rates among the lowest in Washington State and nationwide. We are able to keep rates low through ownership of the watershed, conscientious system operation and maintenance, and award of ARRA funding for our Advanced Disinfection Facility completed in 2011.

Customer's Views Welcome

Public Works & Utilities Department • 100 Oyster Bay Ave N • Bremerton, WA 98312

Contact Customer Response at 360-473-5920 or Bremerton1@ci.bremerton.wa.us.
Check out **Bremerton1** in your app store.

The Bremerton City Council meets Wednesdays at 5:30 p.m.
at the Norm Dicks Government Center, 345 6th Street, Bremerton.

For billing information call 360-473-5316. The Bremerton Utility Billing Division
is located on the first floor of the Norm Dicks Government Center.

For flushing instructions call our Water Hotline at 360-473-5490.

Visit the City's website at www.BremertonWA.gov/e-News and sign up for
e-News to receive updates about the City of Bremerton.



Celebrate National Drinking Water Week
First Full Week of May

Call 360-473-5920 for more information.