



The City of Bremerton is pleased to serve you. For more information, please visit www.BremertonWA.gov or call the City of Bremerton Customer Response Line (360) 473-5920, the Kitsap Public Health District (360) 728-2235, Washington State Department of Health (360) 236-3030, or the EPA Safe Drinking Water Hotline 1-800-426-4791.

Fact Sheet: PFAS

What are PFAS chemicals?

PFAS (per- and polyfluoroalkyl substances) are a category of manufactured chemicals that have been used in industry and consumer products since the 1940s due to characteristics that make them useful in a variety of products, including nonstick cookware, waterproof clothing, and firefighting foam, as well as in certain manufacturing processes. PFAS are often called “forever chemicals,” because they persist in the environment for long periods of time. Although EPA has outlawed the use of many of these chemicals in the United States, imported products may still contain these chemicals.

PFAS can enter the environment from multiple sources to include military/airport/fire department firefighting foam runoff to soils and surface waters; manufacturing wastewaters, solid waste, and air emissions; and landfill leachate from leaky landfills.

What are their health effects?

Some PFAS can cause serious health problems – even at low levels – over a long period of time. Exposure to these PFAS can increase the risks of a range of health effects, including:

- Reproductive effects such as increased high blood pressure in pregnant people
- Developmental effects or delays in children, including low birth weight, bone variations, or behavioral changes
- Increased risk of some cancers, including kidney and testicular cancers
- Reduced ability of the body’s immune system to fight infections, including reduced vaccine effectiveness
- Interference with the body’s natural hormones, including thyroid hormones
- Increased cholesterol levels
- Liver damage

What do State and Federal regulations require?

Federal:

EPA promulgated the PFAS Rule **April 11, 2024**

Specifies:

- **An enforceable Maximum Contaminant Level (MCL) for PFOA and PFOS = 4 parts per trillion (4 nanograms/liter, ng/L)**
- **An enforceable MCL for PFNA, PFHxS, and HFPO-DA (GenX chemicals) = 10 parts per trillion (10.0 ng/L)**
- **An enforceable Hazard Index MCL on mixtures of PFNA, PFHxS, PFBS, and HFPO-DA (GenX chemicals) = 1**
- **Monitoring**
- **Public notification**
- **Treatment**

State:

The Board of Health adopted changes to the Group A Rule (Chapter 246-290 WAC) **effective January 1, 2022.**

Specifies:

- **State Action Levels for PFOA (10 ng/L), PFOS (15 ng/L), PFNA (9 ng/L), PFBS (345 ng/L), PFHxS (65 ng/L)**
- **Monitoring**
- **Public notification**

Does Bremerton's drinking water contain PFAS?

The City volunteered to participate in early EPA-funded monitoring in 2022. There was one well with a detection of only one of the 25 types of PFAS monitored (Well 19, located near Gold Mountain Golf Course). The detected amount of Perfluorobutanesulfonic Acid (PFBS) was 3.66 ng/L.

Under 2024 EPA PFAS Rule - PFBS does not have an individual Maximum Contaminant Level (MCL), but it is regulated via a Hazard Index Maximum Contaminant Level developed to address potential mixtures of PFAS substances. The Hazard Index cannot exceed 1. The level of detection in Well 19 results in a Hazard Index of only 0.002, well below the Hazard Index MCL.

Under 2022 Washington State PFAS Rule - The State Action Level (SAL) for PFBS is 345 ng/L. As Well 19's concentration was less than 20% of the SAL, only one additional quarterly sample was required. The City collected that quarterly sample in accordance with the rule, and the detected concentration was 2.77 ng/L. As this second sample was also less than 20% of the SAL, no further action was required.

Are treatment technologies available to remove PFAS?

Technologies capable of removing PFAS from drinking water include granular activated carbon (GAC), anion exchange resins (AIX), reverse osmosis (RO), and nanofiltration (NF).

How much does it cost to treat for PFAS?

Extremely costly! An example is the Lakewood Water District where 12 wells were drawing water from contaminated aquifers. The district has already spent \$8.86 million of its own reserves along with additional grant funds to install treatment at 4 of the wells. Further, the treatment processes to remove PFAS result in hazardous waste byproduct with additional costly and complicated disposal requirements.

Are there alternatives to treatment?

Water systems have other options, if available. These include:

- Use an alternate source
- Develop a new source
- Blend water from a clean source with the contaminated source
- Purchase water from an adjacent purveyor

For more information, Bremerton water customers can call the Customer Response Line at 473-5920 or visit www.BremertonWA.gov or look for our [drinking water quality report](#) (with more information about PFAS, including a table of substances sampled). For information on federal and state activity around PFAS, please visit

<https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>
and <https://doh.wa.gov/community-and-environment/contaminants/pfas>.