

WA Legislature considers [SB 5033](#), a bill initiating testing for “Forever Chemicals” in biosolids spread on crops: What to know

What are PFAS?

Per- and Polyfluoroalkyl Substances (PFAS) are known as “Forever Chemicals” — they don't break down naturally and can persist in the environment for thousands of years. There are over 5,000 distinct types of PFAS molecules used in a wide variety of materials, such as water-resistant and stain-resistant clothing, nonstick cookware, personal care products such as shampoo, make-up, and dental floss as well as in hospitals and industries. This means that PFAS are being washed down our pipes daily and travel to our wastewater treatment plants.

Most PFAS molecules have an affinity for solids, so when wastewater is initially separated into solids and liquids, most of the PFAS will end up in the solid material. Eighty percent of Washington State treatment plants process their sewage sludge into biosolids, which is then spread onto land as fertilizer. Over 100,000 dry tons of biosolids are produced in Washington annually. While most of the biosolids are produced in western Washington, the majority of them are spread on agricultural land on the east side. However, a considerable amount is used on the west side: 13 wastewater treatment plants in Whatcom County and 7 in Skagit County produce biosolids that are spread or sold locally. Biosolids can be purchased at common garden stores as compost with no disclosures of origin or potential contamination (ex: Tagro). WA state has a law that says sewage sludge must be beneficially used, which precludes it from being put in landfills.

To protect our health, we need to know where these chemicals are going

The PFAS in the biosolids can migrate into plants and groundwater, be picked up by wind and blown elsewhere, or be washed into rivers and streams. Unless you are eating certified organic food, there is a good chance you are eating food grown in biosolids, which means there is a good chance you are consuming PFAS (full circle: from frying pan to frying pan). This helps explain why it is estimated that over 98% of the U.S. population has detectable amounts of PFAS in their blood. This is very concerning given that PFAS, in extremely small quantities, has been linked to kidney and testicular cancers, low birth weights, reduced immune response, thyroid and liver disease, and high blood pressure and cholesterol.

Even though 80% of the state's biosolids are applied to land, they are not tested for PFAS, nor is food, soils or groundwater. Currently, only municipal drinking water supplies have started to be

tested and these results indicate that PFAS is showing up in unexpected places. In 2024, the EPA approved a PFAS testing technology to measure PFAS in biosolids (EPA Method 1633), which means we now have a reliable and accredited method to measure PFAS — there is no reason to not test our biosolids and soil. EPA just published a Risk Assessment for 2 types of PFAS (PFOA and PFOS) and found that soils containing 1 part per billion of PFAS could pose an unacceptable risk to human health. A study that analyzed commercially available fertilizers made from biosolids found they contained PFAS ranging from 38 to 223 parts per billion.

What is the state legislature doing?

[SB 5033](#) will initiate a testing program for PFAS in the biosolids that are produced in the state. This is a crucial first step in understanding how contaminated our biosolids are and where PFAS may be concentrated. It may also give us insight into the quality of our food and crops grown on land where biosolids have been repeatedly spread.

SB 5033 is not without shortcomings, however. The bill still requires that biosolids be used for “beneficial use”, which can potentially limit more sustainable processing technologies. There are also thousands of other unregulated toxic contaminants in biosolids such as microplastics, pharmaceuticals, and PBDE (firefighting foam), but this bill only addresses PFAS. It also does not include testing biosolids made from septic tank sludge, which can be highly contaminated.

References:

[Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid \(PFOA\) and Perfluorooctane Sulfonic Acid \(PFOS\). EPA Federal Register.](#)

[Hannah Heights Water System Tests Positive for PFAS. San Juan County, Washington.](#)

[Serum Concentrations of Per- and Polyfluoroalkyl substances and risk of Renal cell Carcinoma. Journal of the National Cancer Institute.](#)

[Washington Biosolids Management 2018 - State summary. National Biosolids Project.](#)

[Sludge in the Garden: Toxic PFAS in home fertilizers made from sewage sludge](#)

Good overview video:

Growing Broke: Forever chemicals tightening food supply, destroying US farms by NewsNation: <https://youtu.be/LldCgjDoB1U?si=paSwUc0TK5EHqFKI> (#1 Recommendation presented in video: test sludge for PFAS before applying to land).