PFAS in Firefighting Foam

Aqueous film-forming foam (AFFF) is a firefighting foam used to combat flammable liquid-based fires. AFFF extinguishes fires by creating a barrier between the material fueling the fire and the air, cutting off the oxygen it needs to burn.

Per- and polyfluoroalkyl substances (PFAS) are used in firefighting foam due to their ability to resist heat and dissolve in water. However, **PFAS are toxic chemicals that do not naturally break down in the environment.**

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How does PFAS-containing firefighting foam impact people and the environment?

If firefighting foam isn't properly cleaned up, PFAS can evaporate into the air or seep into the soil. This can contaminate groundwater and drinking water.

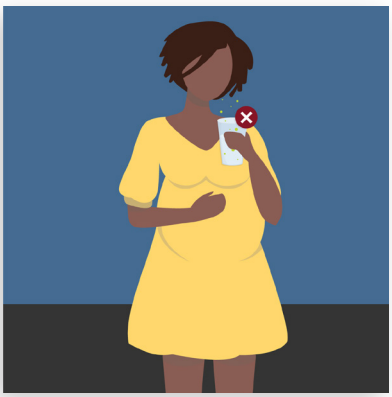
Firefighting foam is suspected to be the source of all known PFAS contamination in Washington's drinking water. This toxic contamination negatively impacts our health. PFAS are linked to reproductive impairment, increased cancer risk, reduced immune system response, and more.[1]

1 Current peer-reviewed scientific studies have shown that exposure to high PFAS levels may lead to adverse health outcomes, including decreased fertility, increased high blood pressure in pregnant women, developmental effects or delays in children, increased cancer risk, reduced immune system response, hormonal interference, increased cholesterol levels, and increased obesity risk. Read more about the health impacts of PFAS here: https://apps.ecology.wa.gov/publications/SummaryPages/2004043.html.

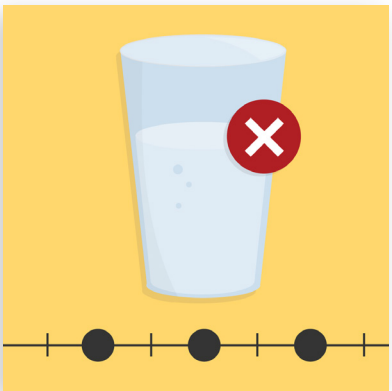
1. Fighting a fire with AFFF.

2. Once the fire is put out, the foam can seep into the ground if not properly cleaned up.

3. In the ground, PFAS can easily contaminate groundwater (PFAS are water soluble and highly mobile).



4. PFAS build up in our bodies when we consume contaminated water. PFAS are so toxic that only a few drops would make the water in an Olympic-size pool unsafe to drink.



5. Because these substances don't break down naturally, our exposure to PFAS could continue for hundreds or thousands of years.

What's Washington doing about PFAS-containing foam?

The Washington State Legislature restricted the manufacture and sale of PFAS-containing foam in Washington and banned its use for training. Ecology developed a collection program to assist municipal fire departments with the proper disposal of unused PFAS-containing foam. As part of the collection program, Ecology is developing an Environmental Impact Statement (EIS) to determine a feasible and safe way to dispose of the foam. The EIS will address the potential impacts of foam collection, storage, transportation, and disposal on public health and the environment.

Airport rescue and firefighting personnel respond to an incident at Washington's Joint Base Lewis McChord.

Ecology is preparing an Environmental Impact Statement about the disposal of PFAS-containing firefighting foam.

Want to get involved?

- **Share your feedback** on the EIS's scope and potential AFFF disposal options! Please send comments to sean.smith@ecy.wa.gov.
- Once we publish the Draft EIS, **give feedback during the public comment period and/or attend the public hearing.**

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Additional information

- Toxics in Firefighting Agents and Equipment Law[1]
- Ecology's Toxics in Firefighting Law webpage[2]
- Ecology's PFAS webpage[3]

1 https://app.leg.wa.gov/rcw/default.aspx?cite=70A.400
2 https://ecology.wa.gov/ToxicsInFirefighting
3 https://ecology.wa.gov/PFAS