



# ECOLOGYCENTER

Healthy People, Healthy Planet

## THE FACTS ABOUT PFAS

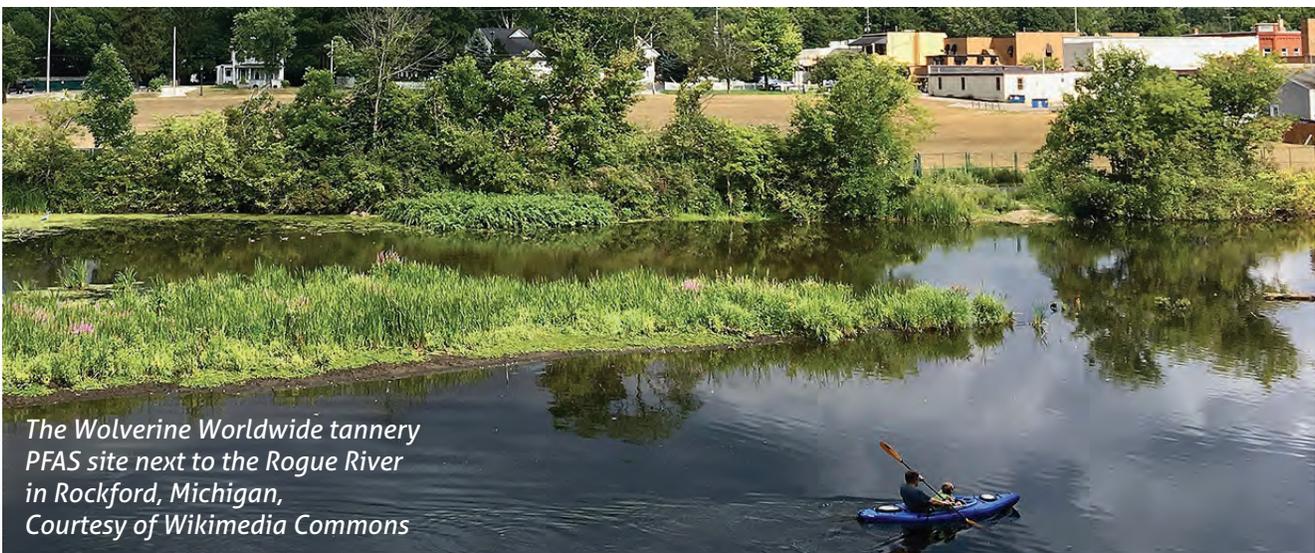
Per- and polyfluoroalkyl substances (PFAS) are a class of thousands of chemicals widely used in manufacturing and consumer products. They are often referred to as “forever” chemicals, because their strong carbon-fluoride bonds don’t break down in nature. PFOS and PFOA were phased out in 2010, but continue to pollute our environment. Moreover, we are detecting newer PFAS in our water, soil, fish, and wildlife.

### **PFAS contamination is widespread in Michigan.**

The Michigan PFAS Action Response Team (MPART), has found PFAS in bodies of water across Michigan. Over 2,000,000 Michigan residents live in areas with PFAS in their drinking water sources. Some major sites include:

- **Oscoda:** Firefighting foam used at Wurtsmith Air Force base contaminated soil, ground and drinking water. A “do not eat” advisory was issued for fish in Clark’s Marsh and the Au Sable River and for deer around the base.
- **Ann Arbor and Huron River:** Two automobile supply plants in Wixom that discharged PFAS into the Huron River, resulting in high levels in municipalities along the Huron River watershed and “do not eat” advisories for fish. Water in Ann Arbor exceeded EPA recommendations, requiring advisories and new filtration systems.
- **Parchment:** PFAS levels 25 times the EPA’s recommended level were detected in drinking water and traced to an old paper mill that used PFAS to coat food-wrap paper.

**These are only a few examples of the many contaminated sites across our state!**



*The Wolverine Worldwide tannery  
PFAS site next to the Rogue River  
in Rockford, Michigan,  
Courtesy of Wikimedia Commons*

## **PFAS affects human health.**

PFAS has been detected in human blood, semen, and breast milk. PFAS can cross the placenta, exposing unborn children. Studies of people exposed to high levels of PFAS have shown links to:

- Thyroid disease
- Immune disorders
- Abnormal liver function
- Abnormal cholesterol levels
- Decreased fertility in men and women
- Complications of pregnancy and abnormal development of children exposed in utero
- Kidney and testicular cancer

Recent studies have shown that PFAS can mimic human hormones including thyroid, estrogen and testosterone, resulting in low function. One study looking at young men exposed to high levels of PFAS over long periods of time found lower testosterone activity resulting in smaller genitalia and lower sperm counts.

## **PFAS are impossible to avoid.**

In addition to drinking water, fish and wildlife, PFAS are in food packaging, non-stick cookware, polishes, waxes, paints, cosmetics, cleaning products and many other goods. Plant foods grown in contaminated soil can take up the short-chain PFAS. Young children exposed to stain-resistant carpeting and water repellent surfaces can absorb PFAS from hand-to-mouth contact. PFAS levels can be detected in almost every human being on our planet.

It is virtually impossible to get rid of PFAS:

- Filtration systems remove some long-chain PFAS, but are not sufficiently effective in removing short-chain compounds. Disposal of the filters in landfills can result in contamination of leachate that ends up in our groundwater. Incinerating filters results in discharge of PFAS into air. PFAS in surface water can end up in contaminated soil and sludge.
- PFAS builds up in animals and humans. Studies have shown high levels of PFAS in human liver, lung, kidney, brain and testicles. There is no medically proven way remove PFAS from our bodies.

## **The Michigan Legislature must act to protect our health and our natural resources.**

- Set a health protective maximum contaminant level (MCL) for PFAS in drinking water. Levels should be set by considering the most sensitive health endpoints for each contaminant and should be written to protect the most sensitive population like developing babies. The current action level of 70 ppt is too weak to protect children's health.
- Ban the use of firefighting foams containing PFAS and establish a program to take back existing stock of these foams. Safer alternatives are available for use.
- Assure all state purchasing eliminates the purchase of PFAS-containing products where they are non-essential or when safer alternatives exist.
- Provide adequate funding to continue testing for PFAS, remediation of contaminated sites, and treatment funds for water utilities and private well users to provide safe drinking water.
- Create a publicly available database and maps of all known sites of contamination (PFAS and other contaminants of concern), along with test results as they are received.