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Consulting Engineers

PFAS

What are they?

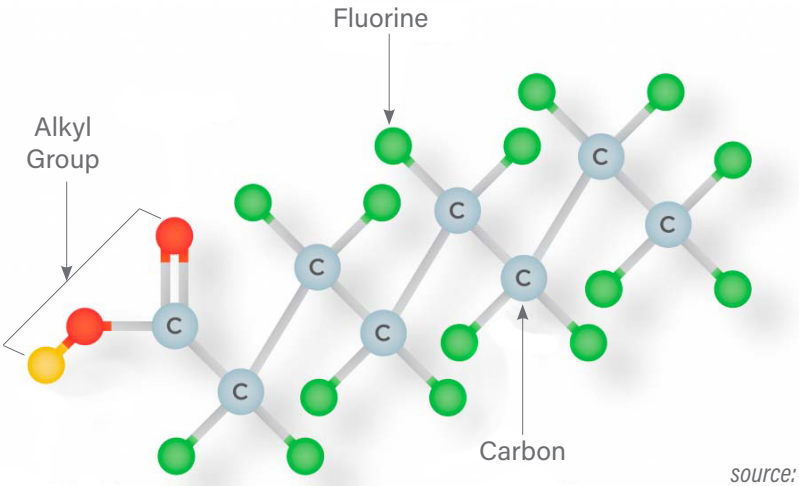
Where do they come from?

What's on the regulation horizon?

This information is accurate as of August 4, 2025. Changes in regulations and advances in technology and understanding of PFAS may affect the validity of the information provided in this booklet.

What Are PFAS?

PFAS stands for Per- and Polyfluoroalkyl Substances



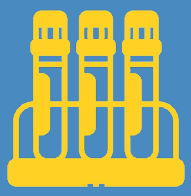
source: American Water Works Association

- A family of over 9,000 manmade chemicals that share the common characteristics of a carbon chain with fluorinated bonds and different alkyl group endings.
- Invented in the 1940s and offer a variety of useful characteristics such as stain and grease resistance, water resistance, and heat resistance.
- Often called "forever chemicals" because PFAS don't degrade naturally and can last for a very long time, resulting in significant accumulation in the environment and human tissue.
- Have been linked to various health effects such as endocrine system disruption, development effects, decreased vaccine response, and cancer.

PFAS Quick Facts

Water and Wastewater Treatment Facilities do not create or add PFAS to the water

PFAS can linger in the environment for decades

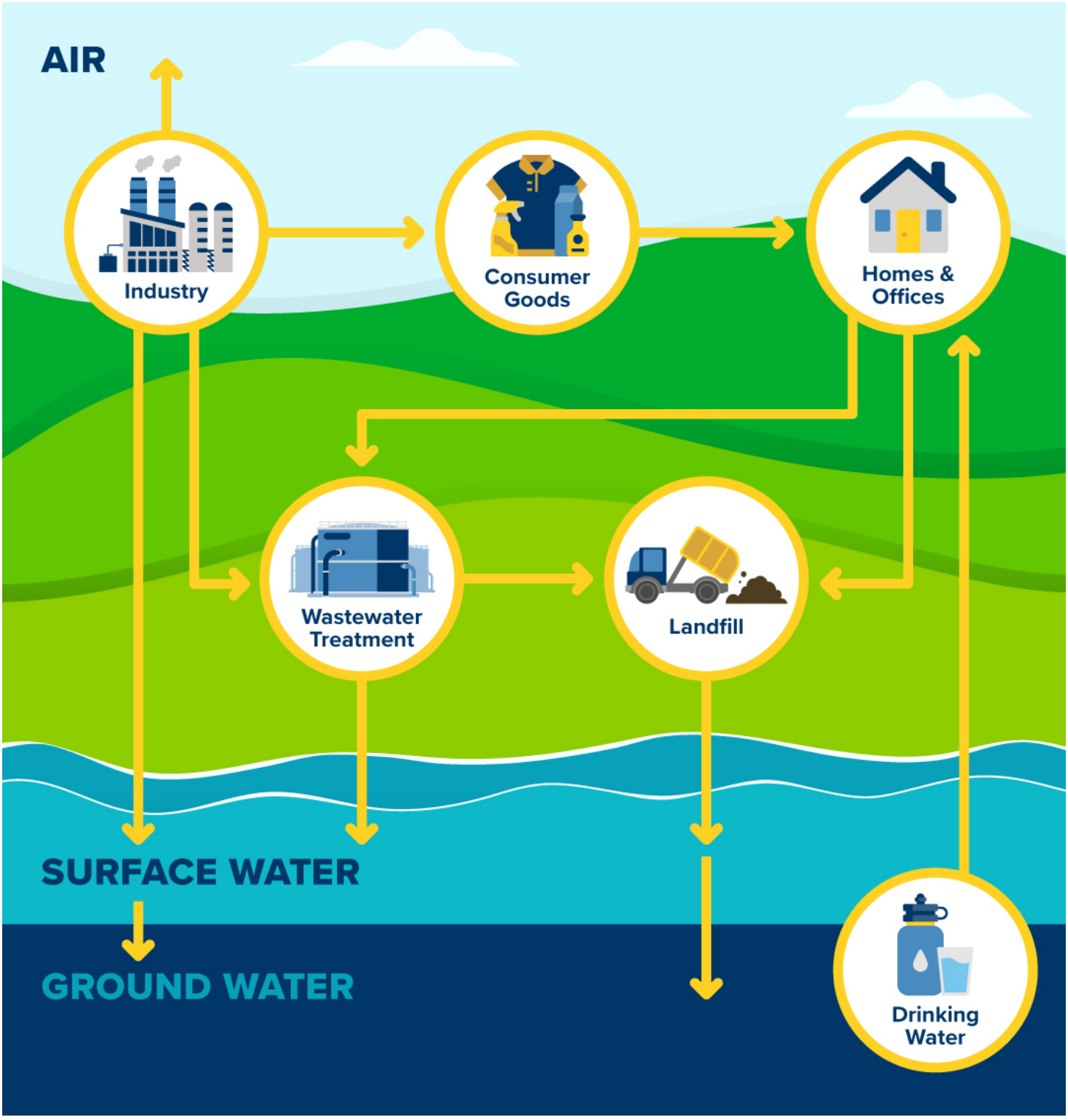


Nearly all people in the US have detectable levels of PFAS in their blood

The PFAS Cycle

PFAS are manmade and can enter the environment through various waste or production streams. They start their journey in industry and are dispersed through industrial discharges and PFAS-containing consumer goods.

Baxter & Woodman can help you navigate evolving U.S. Environmental Protection Agency (USEPA) regulations with tailored, cost-effective compliance plans for your water and wastewater systems.



Products That Contain PFAS

PFAS are durable and resistant to water, oils, grease, and heat. These properties make them attractive for use in everyday items such as food packaging and non-stick, stain repellent, and waterproof products, including clothing and other items used by outdoor enthusiasts. PFAS are also widely used in industrial applications and for firefighting.

Drinking Water

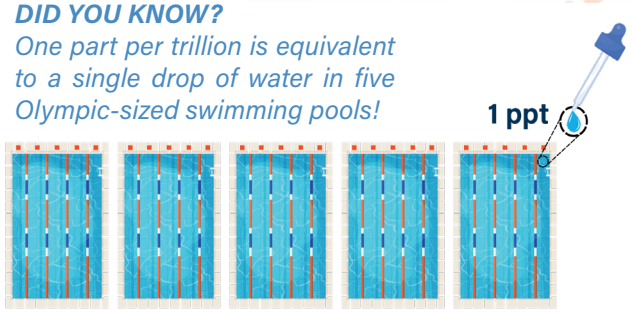
New Maximum Contaminant Levels (MCL)

In April of 2024, the USEPA released Maximum Contaminant Levels (MCLs) for five kinds of PFAS in drinking water. Currently, Community Water Systems have until April of 2027 to perform initial testing and until April of 2029 to reach compliance.

PFAS Type	Proposed MCL
PFOA	4 PPT
PFOS	4 PPT
PFHxS	10 PPT
PFNA	10 PPT
HFPO-DA (GenX)	10 PPT

DID YOU KNOW?

One part per trillion is equivalent to a single drop of water in five Olympic-sized swimming pools!



In addition to the five traditional MCLs, the USEPA is also regulating four chemicals—PFHxS, PFNA, HFPO-DA (GenX), and PFBS—using a **Health Index** method. Under this approach, the concentration of each compound is compared to a reference value, and the combined total must remain below a value of one:

$$\frac{[PFBS]}{2000\ ppt} + \frac{[PFHxS]}{10\ ppt} + \frac{[PFNA]}{10\ ppt} + \frac{[HFPO\text{-}DA]}{10\ ppt} = Health\ Index$$

Testing

Under the new rule, Community Water Systems must perform initial PFAS testing by April of 2027. Surface water and groundwater systems serving over 10,000 customers must conduct four quarterly samples. Groundwater systems serving fewer than 10,000 customers must conduct two semi-annual samples within 12 months. These samples will determine ongoing testing requirements based on the trigger levels.

Compound	Individually or As Group	MCL	Trigger Level
PFOA PFOS	Individually	4 PPT	2 PPT
PFNA PFHxS HFPO-DA (GenX)	Individually	10 PPT	5 PPT
PFNA PFHxS HFPO-DA PFBS	As Group	1 Health Index	0.5 Health Index

To see ongoing monitoring requirements, click below for a PFAS Sampling Flowchart:

VIEW FLOWCHART

Baxter & Woodman can help you interpret results, engage stakeholders, and develop an actionable plan.

Contact **Megan Fox** at *mfox@baxterwoodman.com* for assistance!

What's on the Horizon?

- Potential changes to the drinking water MCLs.
- Announcement of UCMR-5 testing results and potential regulatory action.
- Advancements in PFAS testing methods.

On May 14, 2025, the USEPA announced plans to propose a rule extending the MCL compliance date to 2031. The proposal is expected in fall 2025 with finalization in spring 2026. Schedule changes could also affect testing compliance dates. USEPA also announced the MCLs for PFOA and PFOS will remain; however, changes are anticipated for PFHxS, PFHA, HFPO-DA, and the Health Index.

Industrial Pretreatment

Current Regulations & Best Practices

- The USEPA is developing federal regulations for industrial pretreatment of PFAS discharges, focusing on Effluent Limitation Guidelines (ELGs) and National Pollutant Discharge Elimination System (NPDES) permits, including studies and rulemakings for specific industries like metal finishing and landfills.
- Publicly Owned Treatment Works (POTW) with an Industrial Pretreatment Program are encouraged to begin having informal discussions with their permitted users to determine potential sources of PFAS.
- How can communities prepare? Start by including PFAS questions into the required Industrial Pretreatment Program's annual industrial user (IU) inventory (or "IU survey").

The USEPA's ELG Plan 15 outlines analyses, studies, and rulemakings related to effluent limitations guidelines and pretreatment standards for industrial wastewater discharges with a focus on PFAS.

VIEW ELG PLAN 15

Baxter & Woodman has experts in IU classification and can assist in identifying PFAS sources.

Contact **Nichie Schaeffer** at *nschaeffer@baxterwoodman.com* to learn more!

What's on the Horizon?

- ELG Plan 15 has identified specific Code of Federal Regulations categories of industries which will be evaluated for PFAS discharges, and eventually, effluent limits may be determined.

Wastewater & Biosolids

The USEPA provides numerous resources for understanding and addressing PFAS, including data and tools, research efforts, and guidance for states and communities.

2024 INTERIM GUIDANCE

POTW INFLUENT PFAS STUDY

NATIONAL SEWAGE SLUDGE SURVEY

Baxter & Woodman can assist you with wastewater treatment facility sampling plans and laboratory analyses.

Contact **Amanda Streicher** at *astreicher@baxterwoodman.com* for more information!

Current Regulations & Best Practices

- While there are not specific federal regulations for PFAS in biosolids or wastewater at this time, the USEPA continues taking important steps to research, restrict, and remediate PFAS in the environment.
- Along with ELG Plan 15, the USEPA's 2024 updated interim guidance on PFAS destruction and disposal provides information on technologies for managing PFAS and PFAS-containing materials.

What's on the Horizon?

- The USEPA plans to conduct a Publicly Owned Treatment Works (POTW) Influent PFAS Study primarily to gather nationwide data on industrial sources of PFAS discharges to the environment.
- The USEPA is planning the next National Sewage Sludge Survey (NSSS) to focus on obtaining current national concentration data on PFAS in sewage sludge.
- Data generated by the POTW Influent PFAS Study and NSSS will help determine future risk assessment and risk management actions for wastewater and biosolids.

State Actions

WISCONSIN

Water

In addition to following the USEPA monitoring and maximum contaminant levels, Wisconsin has a 8 ppt limit for PFOA and PFOS in surface waters.

Wastewater

The Wisconsin Pollutant Discharge Elimination System (WPDES) permits have begun to include monitoring and source reduction for PFOA and PFOS. Wisconsin has also issued an interim strategy for PFAS in biosolids and land application that includes testing, identifying application sites with high PFAS levels, and investigating source reduction options.

Contact Scott Hartay, PE
shartay@baxterwoodman.com | 815-444-4439

FAQs

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of over 9,000 man-made chemicals that have been used in various industrial and consumer products for their resistance to heat, water, oil, and grease. They are commonly found in products such as non-stick cookware, textiles, and firefighting foams.

Do water utilities add PFAS to water?

No, water utilities do not add PFAS to the water.

How do PFAS get into drinking water?

PFAS do not break down naturally in the environment. PFAS are in many commonly used products, any time these products are thrown away or washed, PFAS can enter the environment. It can then travel through the environment in the air, water, or soil and enter drinking water supplies.

Are PFAS harmful to health?

With so many chemicals in the PFAS family, research is still needed to understand the health effects. However, some PFAS have been linked to various health issues, including liver damage, thyroid disease, decreased fertility, high cholesterol, and cancer.

What is being done to regulate PFAS in drinking water?

The U.S. Environmental Protection Agency (USEPA) has established legally enforceable levels for six PFAS of the most concern in drinking water. Water systems are required to monitor for these PFAS and take action to reduce levels if they exceed the limits.

How can I find out if my drinking water contains PFAS?

Your community water system is required to test for PFAS and report the results to the public. You can contact your water provider for more information.

What can I do if PFAS are found in my drinking water?

If PFAS levels in your drinking water exceed the regulatory limits, your water provider will take steps to meet the regulatory limit.

Can I use a home water filter to remove PFAS?

Certain home water filters, such as those using activated carbon or reverse osmosis, can reduce PFAS levels in drinking water. Be sure to use a filter certified to remove PFAS and follow the manufacturer's instructions.

Where can I get more information about PFAS?

For more information about PFAS, you can visit the USEPA's website (**epa.gov**) or contact your local water utility.

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