

## Questions & Answers: PFAS National Primary Drinking Water Regulation

### What are PFAS?

PFAS are a category of chemicals that can cause serious health problems if you are exposed to them over a long period of time, or at certain critical life stages like pregnancy and early childhood. Some of the most harmful PFAS have been largely phased out due to health and environmental concerns. But there are thousands of PFAS, and they are still found in use. PFAS tend to break down extremely slowly in the environment and can build up in people, animals, and the environment over time.

### What is the new rule?

With this rule, EPA is establishing legally enforceable levels for six PFAS known to occur individually and/or as mixtures in drinking water. EPA will regulate five PFAS as individually. They are PFOA, PFOS, PFNA, PFHxS, and HFPO-DA. EPA will regulate four PFAS as a mixture: PFHxS, PFNA, HFPO-DA, and PFBS.

PFAS can often be found together and in varying combinations as mixtures. Decades of research show mixtures of different chemicals can have additive health effects, even if the individual chemicals are each present at lower levels. With this rule, EPA has set limits for these chemicals individually and/or as mixtures.

### Why is EPA taking this step now?

We rely on safe drinking water from the moment we wake up and make a cup of coffee to when we brush our teeth at night. Every person should have access to safe drinking water. That's why EPA is acting now to protect people's drinking water from certain PFAS.

The science is clear: exposure to these six PFAS is linked to significant health risks. EPA is following the process outlined in the Safe Drinking Water Act for regulating drinking water contaminants. Regulating PFAS in drinking water is a significant way EPA protects the health of hundreds of millions of people and is a cornerstone of EPA's approach to protect people and the environment from PFAS.

### What does this mean for public drinking water systems?

Public water systems will have three years to complete the initial monitoring requirements. They must inform the public of the level of PFAS measured in their drinking water and they must implement solutions to reduce PFAS in their drinking water to levels below the standards within five years.

There are readily available solutions on the market now – GAC, ion-exchange, reverse-osmosis – and research is underway on more technologies for everything from treatment to residual management and destruction and EPA is working to assure the most promising technologies will continue to mature and be available.

### What is the impact of this rule for drinking water consumers?

This action will reduce exposure to PFAS for approximately 100 million Americans, saving thousands of lives and preventing tens of thousands of serious illnesses, including certain cancers and liver and heart impacts in adults, and immune and developmental impacts to infants and children.

Water systems that currently exceed the drinking water standard will have to switch to uncontaminated source

waters or install treatment to assure their water complies with EPA's PFAS standard. This will improve the quality and safety of drinking water, but it may result in increased drinking water costs for consumers.

### **What will implementation of this rule cost, and what are its quantifiable benefits?**

EPA considered all available information and analyses for costs and benefits, quantifiable and non-quantifiable, of this rule and determined that the benefits justify the costs.

The health benefits include fewer cancers, lower incidents of heart attacks and strokes, and reduced birth complications; when monetized, these quantifiable benefits alone exceed \$1.5 billion per year. Additionally, EPA could not quantify all the health benefits, including developmental, cardiovascular, liver, immune, endocrine, metabolic, reproductive, musculoskeletal, and carcinogenic effects, and therefore the benefit estimates are likely greater than \$1.5 billion per year.

EPA estimates the costs for public water systems to implement this regulation are approximately \$1.5 billion per year. These costs include water system monitoring, communicating with customers, and if necessary, installing and maintaining treatment technologies or obtaining new or additional sources of water.

### **How many utilities does EPA estimate will be impacted by this proposal?**

There are over 66,000 public water systems that are subject to the PFAS drinking water rule. Most of these systems will primarily have to conduct monitoring to confirm that they do not have PFAS at levels exceeding the regulatory standards. EPA estimates that between about 6% and 10% of the 66,000 public drinking water systems subject to this rule may have to take action to reduce PFAS to meet these new standards.

The Safe Drinking Water Act (under which this rule was developed) generally provides a three-year timeframe for compliance with new rules. Because of the additional time required for capital improvements for systems to comply with the PFAS MCLs, the EPA is exercising its authority under the Safe Drinking Water Act and is extending the typical three-year timeline for compliance to five years. Systems must comply with the other requirements, such as notifications, starting the three-years after the rule is final.

### **How will water systems pay for it? Are federal resources available to help?**

Protecting people's drinking water from PFAS will mean that some water systems with higher levels of these regulated PFAS will need to take actions to reduce PFAS in their drinking water. This could mean installing and maintaining treatment technologies to remove PFAS or finding uncontaminated sources of water. To find resources to make these investments, water systems and local officials will need to consider all available funding options, including federal grant and loan dollars, other capital sources, and in some cases by raising rates paid by customers.

The Infrastructure Investment and Jobs Act provides \$9 billion specifically to invest in communities with drinking water impacted by PFAS and other emerging contaminants. This includes more than \$5 billion in grant funding specifically for small or disadvantaged communities, which may be disproportionately impacted by PFAS pollution. EPA's free Water Technical Assistance (WaterTA) services support communities to identify water challenges, develop plans, build capacity, and develop application materials to access water infrastructure funding <https://www.epa.gov/water-infrastructure/water-technical-assistance-waterta>.

States and communities can further leverage an additional nearly \$12 billion in Infrastructure Investment and Jobs Act funding for Drinking Water State Revolving Funds (DWSRF) dedicated to making drinking water safer, and billions more through funds that Congress provides annually to fund DWSRF loans.

EPA is also taking additional actions under its PFAS Strategic Roadmap to hold polluters accountable for their actions and help pay for cleanups, and to reduce the amount of PFAS pollution entering the environment in the first place, so that local communities do not have to bear the burden.

As public water systems determine the best way to tackle the investments they may need, EPA will continue to work with states, Tribes, communities, and other partners to help them make the long-term investments needed to make our nation's drinking water safe from PFAS.

### **Can I drink my water?**

EPA estimates that between about 6% and 10% of the 66,000 public drinking water systems subject to this rule may have to take action to reduce PFAS to meet these new standards. That's why EPA recommends contacting your local water utility to find out more about your drinking water, including what contaminants may be present, if they are monitoring for PFAS, what the levels are, and to see whether any actions are being taken.

The standards in this rule are set to reduce PFAS to the lowest levels that are feasible for effective implementation. If you are concerned about the level of PFAS in your drinking water, consider installing in-home water treatment (e.g., filters) that are certified to lower the levels of PFAS in your water. For more information: <https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>.

### **Should I stop breastfeeding my infant?**

EPA encourages women and people who are currently pregnant, nursing, or bottle feeding an infant with formula to consult with their physician regarding concerns related to breastfeeding and potential exposure to chemicals such as PFOA, PFOS, GenX chemicals (i.e., HFPO-DA and its ammonium salt), PFHxS, PFNA, and PFBS. For more information about PFAS and breastfeeding, visit the CDC's [Agency for Toxic Substances and Disease Registry](#).

### **Does bathing/showering with my tap water present a health risk?**

Studies have shown that only a small amount of PFAS can get into your body through skin. Hence, neither bathing nor showering are likely to be primary routes of PFOA, PFOS, GenX chemicals (i.e., HFPO-DA and its ammonium salt), PFHxS, PFNA, or PFBS exposure.

### **Can I boil PFAS out of my water?**

No. These chemicals cannot be removed by heating or boiling water.

### **Should I drink bottled water?**

Deciding whether to buy and drink bottled water is a personal choice. The U.S. Food and Drug Administration (FDA) regulates food, including bottled water. The FDA has not established standards for any PFAS in bottled water at this time, but now that EPA has finalized these standards, FDA is required under Section 410 of the Federal Food, Drug, and Cosmetic Act to evaluate what PFAS standards are appropriate for bottled water.

FDA has analyzed for PFAS in bottled water (carbonated and non-carbonated) through a targeted survey (2016) and through the FDA's Total Diet Study samples. Results from the studies did not detect PFAS in any sample. The FDA is currently conducting an additional targeted survey for PFAS in bottled water and results will be posted on the [FDA's website](#) when complete. If you have questions about bottled water, please contact the FDA at: 1-888-INFO-FDA (1-888-463-6332).

Individuals who are concerned about PFAS in their water may wish to consider in-home water treatment filters that are certified to lower PFAS levels in water. Learn more about these filters:

<https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>.

## How much of my exposure to PFAS is through drinking water?

PFAS in drinking water can be a significant portion a person's total PFAS exposure in places where there is PFAS drinking water contamination.

Exactly how much of a person's exposure comes from drinking water depends on a range of variables, including the levels of PFAS present in their drinking water, as well as other environmental factors like proximity to industrial sites that may release PFAS into the air or soil. The types of products people use in their daily lives that may contain PFAS, include nonstick cookware, waterproof clothing, stain-resistant fabrics, and certain water- or sweat-resistant cosmetics. Some people may also have higher levels of exposure through their work, like fire-fighters who may use fire-fighting foam that contains PFAS. All of these factors make it difficult to determine exactly how much of a person's exposure comes through any single source.

People can be exposed to many different PFAS at the same time, which can magnify these health risks. Reducing your exposure to PFAS lowers your risk for these health problems.

## Should I use a filter to reduce levels of PFAS in my water?

The more you reduce your exposure to PFAS, the more you reduce your risk. Many water pitcher filters and other home-based water filters are able to reduce the levels of PFAS in drinking water. If you decide to use a filter, look for ones that are certified to reduce PFAS. Be aware that current filters on the market will not yet be certified to reduce PFAS to the new EPA standard, but the added filtration they provide can help reduce your exposure. For more information: <https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>.

## How were the enforceable limits for PFAS set?

The Safe Drinking Water Act requires EPA to set goals, known as Maximum Contaminant Level Goals, or MCLGs, based only on health data and the potential impacts to public. MCLGs are not regulatory levels and are not enforceable. EPA then sets the enforceable Maximum Contaminant Level, or MCL, as the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. The MCLs, which are used for compliance determination, are set at specific concentrations that laboratories nationwide can measure with high certainty.

Also, PFAS can often be found together and in varying combinations as mixtures. Decades of research shows mixtures of different chemicals can have additive health effects, even if the individual chemicals are each present at lower levels. With this rule, EPA has set limits for these chemicals individually and as mixtures. For more information about the Hazard Index, see our fact sheet [here](#).

## My state has had a PFAS regulation for a few years, but it's higher than EPA's new standard. Why is EPA's standard different?

Over the last several years, states like Massachusetts, Michigan, New Jersey, Pennsylvania, New York, and many others have been setting limits, working with water systems to conduct monitoring, and helping water systems to take necessary steps to come into compliance with the state regulations.

EPA is taking a signature step to protect public health by establishing nationwide limits for several PFAS known to occur individually and/or as a mixture in drinking water. This rule is informed by the work of states and considers feedback from state regulators on effective implementation. It also is the result of reviewing extensive research and science on how PFAS affects public health, engaging with the water sector, and considering 120,000 comments on the proposed rule from a wide variety of stakeholders.

Over the next two years, states will have to adopt requirements and apply for approval (known as primacy) to oversee implementation of these regulations. States must ensure that their regulations are no less stringent than the regulations promulgated by the EPA. EPA will provide guidance to support states, territories, and Tribes on applying for primacy. More information on primacy responsibilities under the Safe Drinking Water Act can be found at [here](#).

### **What should I do if I am concerned about PFAS in my drinking water?**

If you are concerned about PFAS in your drinking water, EPA recommends contacting your local water utility to find out more about your drinking water, including what contaminants may be present, if they are monitoring for PFAS, what the levels are, and to see whether any actions are being taken. Some public drinking water systems may not have this information at this time. If you choose to test your water yourself, it is important to use a state-certified laboratory using EPA-developed testing methods.

You can also contact your state environmental protection agency or health department and your local water utility to find out what actions they recommend.

If you remain concerned about PFAS in your drinking water, you may consider installing in-home water treatment (e.g., filters) that are certified to lower the levels of PFAS in your water. Learn about certified in-home water treatment filters.

### **What if I am concerned about PFAS and I use my own well?**

The quality and safety of drinking water from wells that service fewer than 25 persons, such as most household wells, are not regulated by the Federal Government under the Safe Drinking Water Act nor by many state governments and laws. To ensure that safe drinking water is provided to their households, EPA recommends that you test your household well annually for total coliform bacteria, nitrates, total dissolved solids, and pH levels. If you choose to test your water yourself, it is important to use a state-certified laboratory using EPA-developed testing methods. You can also:

Contact your state environmental or health agency for detailed advice or to obtain a list of state-certified laboratories using EPA-developed testing methods in drinking water. The National Environmental Laboratory Accreditation Management System website may also be helpful in finding a laboratory to test for PFAS.

- If you remain concerned about the level of PFAS in your drinking water:
  - Contact your state environmental protection agency or health department and your local water utility to find out what actions they recommend.
  - If possible, consider using an alternate water source for drinking, preparing food, cooking, brushing teeth, preparing baby formula, and any other activity when your family might swallow water.
  - Consider installing an in-home water treatment (e.g., filters) that are certified to lower the levels of PFAS in your water. Learn about certified in-home water treatment filters.

## What is EPA doing to help household well owners?

Private well owners are responsible for assuring safe drinking water for their households. The quality and safety of drinking water from private domestic wells are not regulated by the federal government under the Safe Drinking Water Act nor by most state governments and laws.

With this announcement of the rule, EPA is also announcing nearly \$1 billion for states and territories, through the Emerging Contaminants in Small or Disadvantaged Communities ([EC-SDC](#)) Grant Program, which can be used for initial testing and treatment at both public water systems and to help owners of household wells address PFAS contamination. Learn more using link 3 below.

EPA is updating the EC-SDC and the Small, Underserved, and Disadvantaged Communities (SUDC) grant programs (see links 2&3 below) so that states can further assist household well owners to address drinking water contaminants.

In addition, EPA is providing training and technical assistance (T&TA, link 1) to owners and managers of private drinking water wells and the technical assistance providers that serve private well owners and/or are charged with protecting public health. Under this grant, the TA provider can provide test kits to test for emerging contaminants, such as PFAS, and provide follow-up technical assistance to household well owners who receive results indicating contamination.

For more on these grants visit:

1. [Training and technical assistance](#)
2. [Emerging Contaminants in Small or Disadvantaged Communities Grant Program](#)
3. [Small, Underserved, or Disadvantaged Communities Grant Program](#)

## What does a part per trillion look like? How much is that?

Parts per trillion is a unit of measure. It is a very tiny amount. For example, one part per trillion in time, is the equivalent of one second out of nearly 32,000 years.

## What's a Hazard Index? How much PFAS are in the water with an Index of 1?

The Hazard Index is a long-established approach that the EPA regularly uses, for example in the Superfund program, to understand health risk from exposure to chemical mixtures. The EPA's Hazard Index Maximum Contaminant Level (MCL) applies to any mixture containing two or more of PFNA, PFHxS, PFBS, and GenX Chemicals.

The Hazard Index is made up of a sum of fractions. Each fraction compares the level of each PFAS measured in the water to the highest level below which there is no risk of health effects. For more on how to calculate the Hazard Index, see: [https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr\\_fact-sheet\\_hazard-index\\_4.8.24.pdf](https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_fact-sheet_hazard-index_4.8.24.pdf).

## If systems have five years to comply with the rule, what should I do until then if I'm concerned about PFAS in my water?

EPA understands that the PFAS final rule will require some public water systems to make significant investments and that it will take time for them to plan and construct the treatment systems or take other actions they need to comply. That's why the rule allows systems the flexibility and time to determine the best solutions for their community.

EPA also understands that people may be concerned about the PFAS in their drinking water today. If you are concerned about PFAS in your drinking water, EPA recommends contacting your local water utility. Your utility can tell you more about your drinking water, including what contaminants may be present, if they are monitoring for PFAS, what the levels are, and to see whether any actions are being taken. Some public drinking water systems may not have this information at this time. If you choose to test your water yourself, it is important to use a state-certified laboratory using EPA-developed testing methods. You can also contact your state environmental protection agency or health department and your local water utility to find out what actions they recommend. If you remain concerned about PFAS in your drinking water, you may consider installing in-home water treatment (e.g., filters) that are certified to lower the levels of PFAS in your water. For more information: <https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>.