



# PFAS Communication

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**American Water**

# Insights into Customer Communication Needs

- Customers are concerned about drinking water contamination but may not be familiar with PFAS.
- AW Customers were surveyed in 11 states.

## Q3. Concern with Contamination

In general, how concerned are you about drinking water contamination?

Total responses: 567

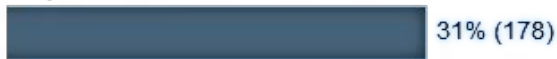
Not at all concerned



Somewhat concerned



Very concerned



Did not answer



## Q4. Knowledge about PFAS

How knowledgeable are you about emerging water contaminants such as PFAS/PFOA?

Total responses: 563

Not at all knowledgeable – I've never heard of PFAS/PFOA



Somewhat knowledgeable – I know a little bit about PFAS/PFOA



Very knowledgeable – I have a strong understanding of PFAS/PFOA



# WRF Project 5124 – PFAS Communication Toolkit

<https://www.waterrf.org/research/projects/pfas-one-water-risk-communication-messaging-water-sector-professionals>

Project #5124

## PFAS One Water Risk Communication Messaging for Water Sector Professionals

Research Investment: \$260,080    Completion Year: 2022

Please log in to access this resource

This resource is only available to Public Plus or Subscriber accounts. If you are not a subscriber, you can [register for a Public Plus account](#). Need to login as a Subscriber and unsure if you have login credentials? Try [resetting your password](#). If we have that email on file, you will receive an automated email with a reset link. If, after resetting your password, you still don't have subscriber access, please [Contact Us](#).

Do you have a Public+ account? [Login Now](#)

Materials are accessible *via free registration* using the **Public Plus** option.

Water Research Foundation "PFAS One Water Risk Communication Messaging for Water Sector Professionals"

- The Water Research Foundation (WRF) published PFAS communication materials in 2022 (Project 5124), developed with input from water industry experts, stakeholders, and PWS customers
  - See "[PFAS Communication Guidance](#)" *Advances in Water Research*, July-Sept, Vol. 32, No. 3
- WRF Toolkits help guide water systems to design their own Frequently Asked Questions (FAQs) and other messaging for sharing with customers, stakeholders, and on websites
  - UCMR 5 Toolkit (December 2022)
  - One Water Toolkit (July 2022)

Materials are available by registering for a free *Public Plus* account on the WRF website at:  
<https://www.waterrf.org/research/projects/pfas-one-water-risk-communication-messaging-water-sector-professionals>

United States Environmental Protection Agency

Office of Water  
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...and EPA has links to the materials.



# American Water PFAS Web Page

★ / Corporate / Water Quality & Wastewater Service / PFAS

PFAS and Your Water

What are PFAS?

+

What is my state doing about PFAS in drinking water?

+

What can I do to reduce my overall exposure to PFAS?

+

What can I do to help decrease PFAS entering the environment and potentially the water supply?

+

How can I learn more about PFAS in drinking water?

+


PFAS and Your Water

×

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon™), stain repellants (e.g., Scotchgard™), and waterproofing (e.g., GORE-TEX™). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.

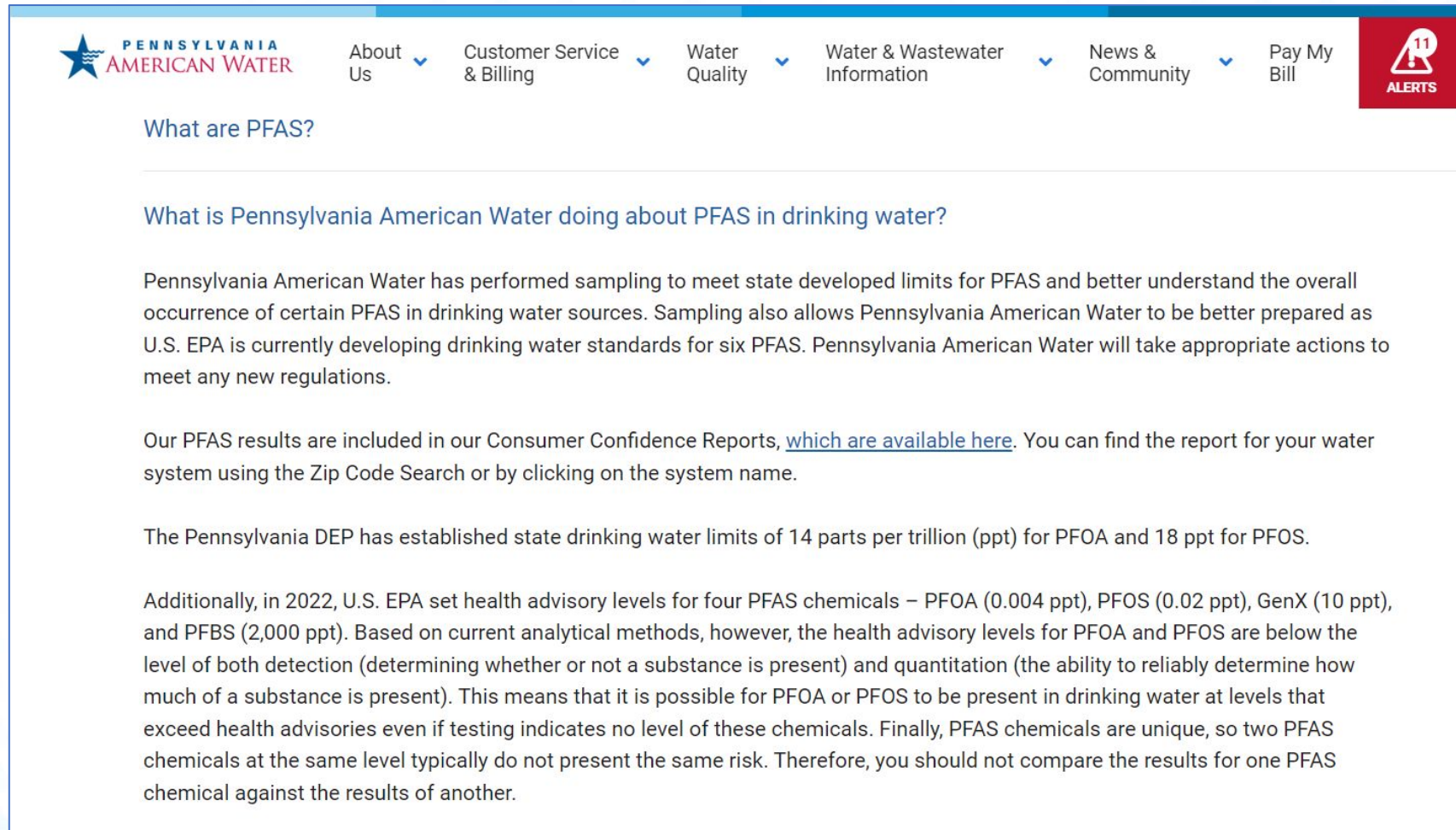
Additional information on PFAS from the United States Environmental Protection Agency (U.S. EPA) can be found at <https://www.epa.gov/pfas>.

 AMERICAN WATER

Provide URL when live

4

# State Specific PFAS Web Pages



The screenshot shows the top navigation bar of the Pennsylvania American Water website. The navigation menu includes: About Us, Customer Service & Billing, Water Quality, Water & Wastewater Information, News & Community, and Pay My Bill. There is also a red 'ALERTS' button with a bell icon and the number 11. The main content area is titled 'What are PFAS?' and contains the following text:

**What is Pennsylvania American Water doing about PFAS in drinking water?**

Pennsylvania American Water has performed sampling to meet state developed limits for PFAS and better understand the overall occurrence of certain PFAS in drinking water sources. Sampling also allows Pennsylvania American Water to be better prepared as U.S. EPA is currently developing drinking water standards for six PFAS. Pennsylvania American Water will take appropriate actions to meet any new regulations.

Our PFAS results are included in our Consumer Confidence Reports, [which are available here](#). You can find the report for your water system using the Zip Code Search or by clicking on the system name.

The Pennsylvania DEP has established state drinking water limits of 14 parts per trillion (ppt) for PFOA and 18 ppt for PFOS.

Additionally, in 2022, U.S. EPA set health advisory levels for four PFAS chemicals – PFOA (0.004 ppt), PFOS (0.02 ppt), GenX (10 ppt), and PFBS (2,000 ppt). Based on current analytical methods, however, the health advisory levels for PFOA and PFOS are below the level of both detection (determining whether or not a substance is present) and quantitation (the ability to reliably determine how much of a substance is present). This means that it is possible for PFOA or PFOS to be present in drinking water at levels that exceed health advisories even if testing indicates no level of these chemicals. Finally, PFAS chemicals are unique, so two PFAS chemicals at the same level typically do not present the same risk. Therefore, you should not compare the results for one PFAS chemical against the results of another.



# Consumer Confidence Reports



2022 Annual  
**WATER QUALITY  
REPORT**

## PFAS MONITORING

Before the Pennsylvania Department of Environmental Protection set maximum contaminant levels for PFAS, Pennsylvania American Water performed voluntary sampling to better understand the occurrence of certain PFAS in drinking water sources. This voluntary sampling effort was necessary because protecting public health is always the number one priority. Collecting PFAS data from all our drinking water sources in the state has allowed us to compare our results against health advisory levels set by the EPA, and MCL's set by the state.

PFAS Chemicals					
Parameter	Units	Year Sampled	Average Result	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	ppt	2021	6.28	4.0 to 7.7	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance
Perfluorooctanesulfonic Acid (PFOS)	ppt	2021	2.95	2.5 to 3.3	

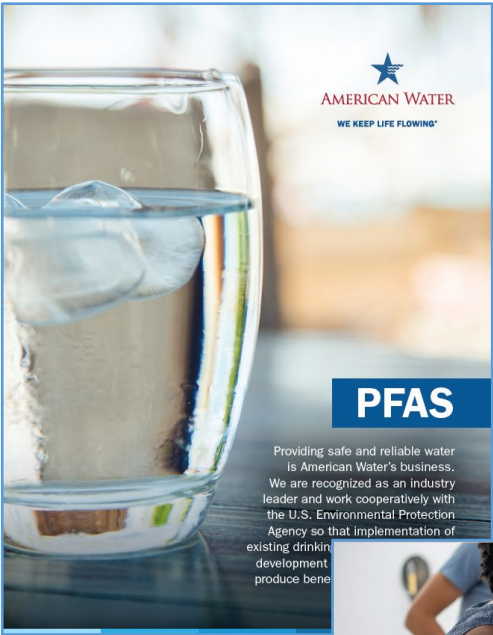
In 2022, U.S. EPA set health advisory levels for four PFAS chemicals – PFOA (0.004 part per trillion (ppt)), PFOS (0.02 ppt), GenX (10 ppt), and PFBS (2,000 ppt). These are interim health advisory levels and will remain in place until EPA establishes a National Primary Drinking Water Regulation. Based on current analytical methods, however, the health advisory levels for PFOA and PFOS are below the level of both detection (determining whether or not a substance is present) and quantitation (the ability to reliably determine how much of a substance is present). This means that it is possible for PFOA or PFOS to be present in drinking water at levels that exceed health advisories even if testing indicates no level of these chemicals.

On January 14, 2023, changes to PA Code 25, Chapter 109 were published in the Pennsylvania Bulletin establishing MCLs and monitoring requirements for PFAS. The regulation sets a maximum contaminant level of 14 ppt for PFOA, and 18 ppt for PFOS. Initial required monitoring will begin in January 2024.

Finally, PFAS chemicals are unique, so two PFAS chemicals at the same level typically do not present the same risk. Therefore, you should not compare the results for one PFAS chemical against the results of another.

For more information on PFAS, please visit <https://www.amwater.com/resources/pdf/american-water-PFAS.pdf>.

# PFAS Brochure



## PFAS

Providing safe and reliable water is American Water's business. We are recognized as an industry leader and work cooperatively with the U.S. Environmental Protection Agency so that implementation of existing drinking water development produce bene



## COMMONLY ASKED QUESTIONS AND ANSWERS

**WHAT ARE PFAS?**  
Per- and polyfluorinated substances (PFAS) are manufactured chemicals historically used in many household products including nonstick cookware (e.g., Teflon®), stain repellents (e.g., Scotchgard®), and waterproofing (e.g., GORE-TEX®). They are or were also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals and they persist in the environment. The most well-known are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS).  
Additional information on PFAS from the United States Environmental Protection Agency (U.S. EPA) can be found at <https://www.epa.gov/pfas>.

**HAS U.S. EPA SET DRINKING WATER LIMITS FOR PFAS?**  
In March 2022, U.S. EPA announced a proposed drinking water regulation to set limits for six PFAS. American Water submitted comment on the proposed drinking water regulation based on our extensive experience in designing and installing treatment for groundwater and surface water, including treatment for PFAS that allows us to meet state standards, and implementing drinking water regulations across our footprint.  
Additionally, U.S. EPA has established guidance in the form of health advisories for PFOA, PFOS, PFBS, and HFOODA.  
As the U.S. EPA sets new water quality regulations, we will make necessary improvements or treatment adjustments to comply with the new standards.

(continued on pg. 4)

## PROTECTING PUBLIC HEALTH THROUGH DRINKING WATER STANDARDS FOR PFAS

- American Water supports the United States Environmental Protection Agency's (U.S. EPA) efforts to protect public health by proposing national drinking water standards for PFAS. These contaminants are among the multiple challenges the water industry faces regarding water quality, quantity, and reliability. That is why American Water remains committed to being a leader in the U.S. water and wastewater industry and a provider of solutions to these challenges.
- We carefully reviewed and submitted comments regarding the U.S. EPA's proposed drinking water regulation to assess the 4.0 parts per trillion (ppt) requirements for PFOA and PFOS and the application of the Hazard Index approach for PFNA, PFBS, PFHxS, and HFOODA chemicals.
- The estimated national cost to install treatment facilities and processes to remove PFOA and PFOS at drinking water facilities to levels required by the U.S. EPA's proposal exceeds \$47 billion, which is approximately \$35 billion above what would be required to meet current state-established PFAS limits. (Data and approach as presented in a recent study conducted by Black & Veatch on behalf of American Water Works Association.)
- It will require, on a national basis, more than \$700 million annually for operating costs, which is approximately \$500 million more than what would be required to meet current state-established PFAS limits. These dollar values are significantly higher than EPA's cost estimates. (Data and approach as presented in a recent study conducted by Black & Veatch on behalf of American Water Works Association.)
- Based on initial estimates, American Water alone will likely have more than 100 of our existing drinking water treatment facilities that will need to be upgraded to provide PFAS removal capability.
- We estimate an investment in excess of \$1 billion of capital to install additional treatment facilities over a 3- to 5-year period and annual operating expenses related to testing and treatment would be near \$50 million in today's dollars. (Preliminary estimates.)
- American Water calls for sound policies that will ensure compliance by all water utilities—whether privately or municipally owned—while protecting customers and communities from the high cost of monitoring and mitigating PFAS. This includes advocating for policies that hold polluters accountable.
- American Water's operating utilities in most of our states are currently plaintiffs in the Multi-District Litigation against multiple PFAS manufacturers because we firmly believe that the ultimate responsibility for the cleanup of these contaminants should fall to those who created the problem.
- American Water joins other water organizations urging the U.S. EPA, Congress, and other decision-makers to implement policies that will:
  - keep harmful PFAS out of our drinking water supplies and our communities;
  - exempt all water and wastewater systems from financial liability for PFAS under CERCLA;
  - ensure all water and wastewater utility providers, regardless of ownership, have equal access to any and all Federal and/or state funding related to treating PFAS; and
  - establish a permanent federally funded water and wastewater low-income customer assistance program.
- States should treat these expenditures for regulated utilities as federally mandated requirements that are recoverable in customer rates through expeditious means.
- Providing safe, reliable, and affordable water is American Water's business, and we look forward to working cooperatively and collaboratively with the U.S. EPA, Congress, regulators, and policymakers so that the implementation of these proposed water standards protects customers, communities, and the general public.

## HAS AMERICAN WATER ADDRESSED PFAS IN THE PAST?

- Yes. We have successfully addressed PFAS in the past. Here are two examples:
- Piscataway Arsenal, NJ:** In January 2018, American Water's Military Services Group made recommendations to remove PFOA/PPFS contaminants and were awarded a contract in April 2018 to install a temporary Granular Activated Carbon (GAC) system within 90 days. The American Water-led team kept the project ahead of schedule, completing the design, permitting, implementation, construction and treatment in just 38 days. Sample results were returned that showed PFOA/PPFS were at non-detect levels across the system, highlighting the effectiveness of the GAC treatment system.
  - Sacramento Region, CA:** California American Water applied for grant funding for PFAS treatment to address PFOA in a well in the Suburban/Rosemont system in July 2016, and in March 2017, the notice to proceed on construction of a treatment plant was issued. Four months later, California American Water learned that it was denied state grant funding due to lack of state guidance on the contaminant. However, the company continued with construction, and in September 2017, California American Water placed its new PFAS treatment unit into operation.

## WHAT IS AMERICAN WATER DOING TO ADDRESS PFAS AND PROTECT OUR CUSTOMERS?

- American Water has a cross-functional team focused on the scientific and regulatory framework related to PFAS detection and emerging technologies for removal.
- Selecting the most efficient and cost-effective PFAS removal processes is strongly dependent on background water matrix composition and targeted PFAS. American Water's engineering and research teams continuously conduct studies to evaluate new monitoring and treatment technologies.
- We are piloting ion exchange resins along side granular activated carbon (GAC) to compare PFAS removal and media performance.
- American Water's research group is actively involved in externally-funded projects related to the detection, occurrence and removal of PFAS.
- American Water continues to improve analytical method detection limits for PFAS.
- GAC has been installed to remove PFAS compounds from five locations that have elevated source water levels.

## EXPERTISE

Our Central Laboratory, located in Belleville, IL, is a U.S. EPA accredited lab with high throughput, fast turnaround time, and expanded capability for PFAS. The Central Laboratory is NELAP certified and prepared for LCMS 5 monitoring of 20 PFAS chemicals. LCMS 5 monitoring will be done with U.S. EPA methods 533 and 537.1. American Water is also using expanded technologies and analytical capabilities in our research lab to better understand the broader occurrence of these chemicals in the environment, including fluorinated replacements such as short-chain and other next generation PFAS chemicals.



## WORKING WITH OTHERS ON PFAS

- American Water is active in several external collaborations that are helping us stay at the forefront of regulatory and monitoring strategies:
- American Water staff are members of the technical advisory workgroup for Safe Drinking Water Act Processes and New Contaminants of the American Water Works Association, which has been actively contributing to the fast-paced change related to detection and regulatory strategies for PFAS.
  - American Water experts frequently collaborate with state and federal regulators in departments of environmental protection, EPA, CDC, American Water Works Association, Water Research Foundation, universities and other organizations to better understand issues related to PFAS and public health.
  - American Water is a utility participant in the Water Research Foundation project, entitled "Investigation of Treatment Alternatives for Short-Chain Poly and Perfluorinated Substances."

## FOR MORE INFORMATION

For more information, customers can contact the US Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

## Updated brochure developed to help educate on PFAS

- Commonly asked questions and answers
- Key points on how we're working to protect public health through drinking water standards
- Expertise and experience
- Collaboration with others on PFAS
- Available at [amwater.com](http://amwater.com) as a downloadable PDF



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# Thank you!

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