



AMERICAN WATER

WE KEEP LIFE FLOWING®

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 standards and development of new regulations will produce benefits for our customers.



PFAS

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. 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?

No, the U.S. EPA has not set drinking water limits for PFAS. They are currently developing drinking water limits for PFOA and PFOS and gathering additional information on the occurrence and health effects of other PFAS chemicals. More information about the U.S. EPA's PFAS Strategic Roadmap is available at <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>. As the U.S. EPA sets new water quality regulations, we will make necessary improvements or treatment adjustments to comply with the new standards.

In the interim, U.S. EPA has established guidance in the form of health advisories for PFOA, PFOS, PFBS, and GenX.

The science and understanding of PFAS is changing. We are investing time and effort for our own independent research and are engaging with other experts in the field to understand where PFAS are and how they move in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because investment in research is critical to address PFAS contamination.

Lauren Weinrich, Ph.D.

Principal Scientist,
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HAS AMERICAN WATER ADDRESSED PFAS IN THE PAST?

Yes. We have successfully addressed PFAS in the past. Here are two examples:

- **Picatinny Arsenal, NJ:** In January 2018, American Water's Military Services Group made recommendations to remove PFOA/PFOS 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



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FOR MORE INFORMATION

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

the design, permitting, implementation, construction and treatment in just 38 days. Sample results were returned that showed PFOA/PFOS 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 process(es) is strongly dependent on background water matrix composition and targeted PFAS. American Water's engineering and research teams continually 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 an EPA accredited lab with high throughput, fast turnaround time, and expanded capability for PFAS. The Central Laboratory is NELAC certified and prepared for UCMR 5 monitoring of 29 PFAS chemicals. UCMR 5 monitoring will be done with EPA methods 533 and 537.1. American Water is also using expanded technologies and analytical capabilities in our research labs 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 changes 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 Perfluoroalkyl Substances."

