



**American Water Works  
Association**

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## **PFAS: the View from Affected Citizens and States**

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Good morning, Chairman Carper, Ranking Member Capito, and members of the committee. My name is Tracy Mehan, and I am Executive Director for Government Affairs for the American Water Works Association, or AWWA, on whose behalf I am speaking today. I appreciate this opportunity to offer AWWA's perspectives on the many issues surrounding per- and polyfluoroalkyl substances, or PFAS.

AWWA's 50,000 members represent the full spectrum of water utilities – small and large, rural and urban, municipal and investor-owned. We are an international, non-profit, scientific and educational society dedicated to protecting public health through the provision of safe drinking water. While AWWA is primarily a drinking water association, about 60 percent of our utility members are dual utilities, that is they have a division of drinking water and a division of

wastewater and possibly stormwater as well. I speak not only from the perspective of AWWA, but as a former state and federal regulator and an adjunct professor of environmental law.

On behalf of those 50,000 members, I thank the committee for the open, collaborative manner in which it worked with stakeholders to develop S. 914, the Drinking Water and Wastewater Infrastructure Act of 2021. The success of this process is no doubt reflected in the overwhelming bipartisan approval the bill received in the full Senate vote this spring. The investment in the nation's water infrastructure that S. 914 represents would significantly enhance protection of our human and environmental health, and help jump-start our nation's economic recovery from the pandemic by creating a host of jobs.

Turning to the host of chemical compounds known as PFAS, AWWA would like to bring to the committee's attention several issues. We understand and appreciate the committee's concerns that PFAS compounds pose both human health and ecological risks that warrant greater attention and management.

As you probably know, PFAS compounds are a group of more than 3,000 man-made chemicals manufactured in the United States and other countries since the 1940s. In 2019, the U.S. Environmental Protection Agency (EPA) reported that more than 1,200 PFAS compounds had been used in commerce, and that about 600 are still in use. They may be found in food packaging, non-stick products, stain- and water-repellent products, fire-fighting foams, polishes, cleaning agents and other commercial products. The most well-known and common of these compounds are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Related compounds are also causing concern: perfluorononanoic acid (PFNA), perfluorohexanoic acid

(PFHxA), perfluorohexanesulfonic acid (PFHxS), perfluorodecanoic acid (PFDA), perfluorobutanesulfonic acid (PFBS) and fluoropolymers known as GenX. Much of our current data is focused on long-chain PFAS compounds, which have largely been replaced with less-researched, short-chain PFAS. Two of these compounds, PFOA and PFOS, were voluntarily phased out by the primary manufacturers nearly two decades ago, but still remain in use by many industries still today.

Currently more than half of the states in this country have developed policies to address PFAS contamination in the environment and, in particular, drinking water. Since 2018, six states have developed drinking water standards for PFAS and several more are assessing standards of their own. At the same time, a broader group of states have developed policies addressing PFAS in groundwater and surface water with the objective of protecting drinking water sources. The overwhelming majority of these policies include, but are not limited to, PFOA and PFOS and other long-chain PFAS such as PFNA and PFHxS.

### **AWWA Guiding Principles on PFAS Regulation**

Because control of PFAS contamination is such an important, complex issue, AWWA developed the following principles for PFAS regulation to guide our discussions with regulators and other stakeholders:

#### **1. Commitment to public health protection**

Protecting public health is AWWA's first core principle concerning PFAS and all drinking water matters. While human health impacts from PFAS exposure at levels found in drinking water are uncertain, AWWA recognizes PFAS as a growing public health concern that merits swift and serious attention.

## 2. Fidelity to scientific process

The Safe Drinking Water Act mandates a consistent, transparent, and science-based process for the consideration of new regulations. AWWA supports following the essential SDWA steps—without undue delay—to assure PFAS risks are effectively and efficiently reduced.

## 3. Protection of source water

The best way to keep drinking water safe is to protect it at its source.

AWWA believes EPA should utilize existing laws to understand and control PFAS risks before harmful substances are introduced into commerce, and that PFAS producers—not consumers and water utilities—should be liable for cleaning up drinking water and the environment.

## 4. Investment in research

More funding for research is needed to assess and address the human health effects of exposure to PFAS; identify analytical methods that quantify levels of PFAS in source water, drinking water and wastewater; and further develop technologies to cost-effectively remove PFAS compounds to levels that do not pose health concerns.

### **Use of Existing Authorities to Address PFAS**

Drinking water utilities and state environmental agencies need to know where to focus monitoring resources to understand what risks may be in source waters. We need to know where PFAS compounds have been produced and in what volumes. There are existing tools that EPA could be using to a greater degree to help address such concerns regarding PFAS. In particular, there is the Toxic Substances Control Act (TSCA). TSCA has data-gathering authority that the agency could use to garner more information from the manufacturing sector about the number of PFAS compounds that have been developed, in what quantities they were

produced and where they were produced. TSCA data indicates that manufacturers have already discontinued the use of a number of PFAS compounds, but state and local risk managers need more information than is currently available to manage legacy compounds and proactively manage PFAS that are currently in use. Deploying TSCA authorities in the service of safe drinking water is “source water protection” at the strategic level.

The Clean Water Act (CWA) can come into play in controlling PFAS as well. Information gleaned via TSCA to target assessments of PFAS in the environment will assist in the development of industrial pre-treatment actions under that act. CWA authority will also come into play in the development of analytical methods for PFAS in industrial wastewaters and in development of appropriate and reliable treatment methods.

EPA has yet to take substantial action under TSCA, nor the CWA, to collect substantial data on PFAS in the United States. In contrast, EPA recently proposed a rule that places the responsibility on public water systems to take the lead to identify potential sources of PFAS in the environment as opposed to taking action under TSCA and CWA to substantively identify these sources. This will once again place the burden onto public water systems – and their customers – to address the PFAS issue that was borne by polluters.

In testimony to this subcommittee in June 2019, AWWA emphasized the need for EPA to take action under TSCA and other authorities to collect data on aspects of the use of PFAS in the United States to support state and other stakeholders in identifying potential sources. Progress to date is limited to the addition of certain PFAS to the Toxics Release Inventory, which was a provision from the National Defense Authorization Act for Fiscal Year 2020. The first year of data

under this program is due next month. AWWA hopes the data provides some clarity on potential sources, but we have previously raised concerns about limitations of the previous administration's implementation of this provision.

Utilizing its oversight authority over federal agencies, we once again urge Congress to work closely with EPA career staff to ensure that the agency takes full advantage of existing authorities under TSCA and the Safe Drinking Water Act to manage risks posed by PFAS compounds. Using such authorities, the agency should:

- provide a report in one year and update it every two years describing
  - the location of current and past PFAS production, import, processing and use in the United States for individual PFAS compounds based on data collected through TSCA;
  - appropriate actions taken or planned under TSCA to restrict production, use and import of PFAS and support improved risk communications with the public;
  - actions taken by other federal agencies, and in particular the departments of Defense and Health and Human Services, to address PFAS concerns; and
  - a summary of statutory and non-statutory barriers encountered in gathering and distributing information on PFAS in order to inform risk management decisions by EPA, states and local risk managers.

We understand the interest in designating at least some PFAS compounds as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). However, we must flag some unintended consequences of such actions that need to be taken into account.

If any PFAS compounds are to be designated hazardous substances under CERCLA, we urge Congress to keep liability for PFAS cleanup with PFAS manufacturers and formulators. Congress should not hold community drinking water and wastewater facilities liable for PFAS contamination caused by PFAS products that the country now realizes should not have been allowed into commerce in the United States.

Designating PFAS as a CERCLA hazardous substance would help communities that have a known responsible party with financial means to pay for cleanup. However, it could also create liability for communities that encounter PFAS in their water treatment activities. Once PFAS is removed from water, it then must be disposed of. A water utility that properly disposes of residuals containing PFAS, in a manner consistent with applicable laws, must not be held liable under CERCLA for future costs associated with PFAS cleanup. Those costs and responsibilities must remain with the original polluters that introduced PFAS into the environment. Failure to protect water utilities from this liability would victimize the public twice: once when they are forced to pay to remove PFAS from their water, and again when they are forced to pay to clean up PFAS elsewhere.

Wastewater utilities receive and treat water from a range of sources from homeowners to industries. That water may contain PFAS compounds. Even though they are not the source of these compounds, wastewater or stormwater utilities could end up liable for cleaning up these substances. If biosolids from wastewater treatment plants have been applied to land as fertilizer, such liability increases. Removing PFAS from wastewater requires advanced technologies, such as granular activated carbon, ion exchange or reverse osmosis. Then, as with advanced drinking water treatment techniques, there is the issue of how to dispose of the concentrated PFAS mix. A recent report found that the impacts of this could include more than a 35% increase in disposal costs for biosolids.

If Congress does designate PFAS as a hazardous substance under CERCLA, an exemption for water and wastewater treatment residuals should be included. Some parties have argued this is unnecessary because EPA has never gone after municipalities in CERCLA actions before. However, in the past, “potentially responsible parties” in CERCLA actions have sued more than 650 municipalities and counties in 12 states for contributions for cleanup costs (Salzman & Thompson, 2019).

### **The Importance of the SDWA Process**

The process for determining which substances EPA should regulate in drinking water and how they should be regulated is of course extremely important public health issues. We witnessed what happened with the 1986 amendments to the Safe Drinking Water Act, in which EPA faced a mandate to regulate 25 new contaminants every three years. That quota-driven process bogged down into something unmanageable at the federal and state level, as we pointed out in previous testimony before this subcommittee.

Robert Perciasepe, EPA Assistant Administrator for Water in 1996, noted at that time, “The current requirement to regulate 25 new contaminants every 3 years needs to be replaced with a scientifically defensible, risk-based approach. The current regulatory treadmill dilutes limited resources on lower priority contaminants, and as a consequence may hinder more rapid progress on high priority contaminants. A new selection process should maintain a mandatory duty to collect data, conduct research, and make publicly accountable decisions on whether or not regulations are needed.”



EPA, state drinking water agencies and drinking water utilities do need to know where to focus resources to address the greatest risks to public health. This led to the process that was developed for the 1996 amendments to the SDWA, in which occurrence and health effects data is gathered before making a determination to regulate a particular substance based on the substance's potential risk to public health. We understand that this process can be frustratingly slow. However, a scientific, risk-based and data-driven process is indeed going to take a significant amount of time. By-passing such processes may result in ineffective use of limited resources.

That said, we are eager to follow the data on potentially harmful substances, wherever it may go in the investigative process so that we may know how to best protect public health. We will then prepare our members to comply with any new regulations.

Removing PFAS compounds from water typically requires treatment techniques such as filtration through granular activated carbon or ion exchange. While these advanced technologies can be effective, they are also expensive, and generate waste streams that require specialized disposal methods that are not readily available across the country.

Recently, my staff did a preliminary analysis for the Congressional Budget Office on the potential national costs associated with implementing drinking water treatment to remove PFOA and PFOS. While there are, of course, hundreds of PFAS in commerce, these two are known concerns, and this allowed us to make some calculations. The costs to PFOA and PFOS from drinking water would quickly exceed \$3 billion if the standard is to be based on EPA's current health advisory, which has been largely ignored by states, which are regulating at even lower

limits. If EPA were to move closer to the standard used by states such as New Jersey, capital costs quickly exceed \$38 billion. These figures do not include operating costs and waste management, which would likely exceed \$1 billion *annually*, again, depending on the regulatory standard and waste management requirements currently under consideration by Congress and EPA. If PFOA, PFOS and other contaminants are designated as hazardous wastes or substances under RCRA and Superfund, respectively, costs skyrocket.

In our 2012 study, *Buried No Longer: Confronting America's Water Infrastructure Challenge*, AWWA determined that the United States needs to spend about \$1 trillion over 25 years to maintain and expand our current level of water service. Therefore, over time, regulatory actions needs to be prudently implemented to avoid aggravating affordability issues for customers, particularly those with low incomes. AWWA's biennial rate survey found that during the period between 2016 and 2018, charges increased 7.2% for water and 7.5% for wastewater, outpacing the consumer price index by 3 percentage points. This follows a larger trend, whereby water rates have more than doubled the pace of inflation since 2014. Water systems across the United States are striving to provide the best water quality possible at a reasonable cost to their customers. Investing in a treatment requirement based on inadequate information can leave fewer resources to address other known risks, such as failing infrastructure or lead service line replacement.

Because of these challenges, drinking water utilities face increasing fiscal stress and are looking to an SDWA risk-based approach to ensure that each investment provide maximum public health benefit. Such challenges therefore focus our interest in seeing increased investment in water infrastructure via the Water Infrastructure Finance and Innovation Act program, the state revolving loan fund programs and grants for lead service line removal and PFAS mitigation.

## Research

Research is key in addressing substances for potential regulation. The lack of clear health effects data on most substances has long held back regulatory determinations under the SDWA. Before a substance can be regulated, the SDWA requires that it “is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems.”

Different substances have unique structures and unique chemical properties that impact the development of analytical methods, their fate and degradation in the environment and the effectiveness of different treatment technologies. To effectively manage new contaminants, the environmental engineering community needs each piece of information to guide design and operation of treatment technologies.

Research to provide information necessary to make informed risk management decisions is expensive and has been inadequately funded. However, extensive research programs are needed in these areas:

- Health effects data to identify substances that pose a human health risk;
- Analytical methods to quantify levels of such contaminants in environmental samples (natural waters, wastewaters, soil, finished water);
- Technologies to cost-effectively remove problematic contaminants from drinking water to levels that do not pose public health concerns.
- Waste management strategies to ensure contaminated wastes can safely be managed.

We urge Congress to ensure that the EPA and other relevant agencies or research bodies have the tools and resources they need to answer the needs listed above.

### **Setting Achievable Expectations**

It is important that the committee request and examine technical and economic analysis from career staff at EPA before proceeding with any legislation to regulate PFAS compounds. For example, the SDWA framework does not require a binary decision between setting standards for individual compounds one-by-one, and requiring treatment for all PFAS as a class. Taking steps to control PFAS exposure will shift public resources from other essential tasks. To do so warrants understanding the practical implications of legislative language. AWWA recommends that Congress allow EPA to develop regulations and guidance that target steps that provide a meaningful opportunity for health risk reduction.

AWWA and water systems across the United States are committed to providing high-quality drinking water and protecting consumers from demonstrable risks. To assure that PFAS risks are effectively and efficiently reduced, these compounds must be properly addressed within the scientific framework of the SDWA and through statutory authorities that prevent pollution at the source. Water systems also need Congress to work with EPA to ensure that the agency has the funding to properly execute its work under all of the available statutes to protect our nation's water resources.

## **G. Tracy Mehan, III**

G. Tracy Mehan, III, became AWWA's Executive Director for Government Affairs in August 2015. Before that, he was a principal with The Cadmus Group, Inc., an environmental consulting firm. Mehan served as Assistant Administrator for Water at the U.S. Environmental Protection Agency from 2001 to 2003, directing both the Safe Drinking Water Act and Clean Water Act programs. He developed new policies and guidances on watershed-based permitting and water quality trading. He also promoted and expanded ambient water quality monitoring and innovative approaches to meeting the challenge of the infrastructure financing gap. Mehan served as director of the Michigan Office of the Great Lakes (1993-2001) and as Associate Deputy Administrator of EPA in 1992. He served as director of the Missouri Department of Natural Resources from 1989 to 1992, managing the state's environmental, parks, historic preservation, geology and other programs. He represented Missouri in all negotiations over the management of the Missouri River. Mehan is a graduate of Saint Louis University and its School of Law. Mehan is an adjunct professor in environmental law at George Mason University School of Law.

## **What is the American Water Works Association?**

The American Water Works Association (AWWA) is an international, nonprofit, scientific and educational society dedicated to providing total water solutions to protect public health and assure the effective management of water. Founded in 1881, the association is the largest organization of water professionals in the world.

Our membership includes more than 4,500 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our 50,000 members represent the full spectrum of the water community: public water and wastewater systems, environmental

advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.

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