



## Per- and Polyfluoroalkyl Substances (PFAS) and State Drinking Water Program Challenges

**Who is ASDWA:** The Association of State Drinking Water Administrators (ASDWA) represents the drinking water program administrators in the 50 states, the five territories, the Navajo Nation, and the District of Columbia. ASDWA’s members regulate and provide technical assistance and funding for the nation’s 160,000 public water systems, and coordinate with multiple partners to ensure safe drinking water.

**PFAS Background:** The understanding of potential drinking water impacts from PFAS has significantly increased over the past decade. This class of chemicals started to get publicity in 2001 & 2002 due to water contamination from the Washington Works Plant located outside of Parkersburg, West Virginia, on the West Virginia/Ohio border. The class-action lawsuit against DuPont due to water contamination at Little Hocking Water District and Lubeck Public Service District generated additional publicity. In 2006, DuPont and other manufacturers such as 3M, agreed to principally phase out the production of PFOA and PFOS.

**Third Unregulated Contaminant Monitoring Rule (UCMR3):** Due to escalating concerns, six PFAS compounds were included in EPA’s final UCMR3. UCMR3 monitoring occurred between January 2013 and December 2015 and included two to four quarterly samples at mostly large water systems throughout the country using EPA Method 537. As typical for the UCMRs, EPA regularly released the UCMR3 monitoring data, starting in late 2013.

**EPA’s 2009 Provisional and 2016 Revised Health Advisories (HAs):** In 2009, EPA established provisional health advisories (HAs) for PFOA at 400 parts per trillion (ppt) and for PFOS at 200 ppt; those two numbers were the benchmark at that time, even though an EPA health effects review was underway. Based on the provisional health advisories, national occurrence in UCMR3 for PFOA and PFOS, at the time, appeared to be relatively low (see table below). In May 2016, EPA released revised HAs for PFOA and PFOS, with the revised HA for both PFOA and PFOS set at 70 ppt, as well as an HA for the sum of PFOA and PFOS at 70 ppt. This numerical reduction significantly increased the number of water systems impacted.

UCMR3	UCMR 3	Detections at 2009 EPA HAs	2016 Revised HAs
PFOA	Perfluorooctanoic acid	117 out of 4,920 systems with 13 > HA level 400 ppt	70 ppt (individual and combined sum with PFOS)
PFOS	Perfluorooctanesulfonic acid	95 out of 4,920 systems with 95 > HA level 200 ppt	70 ppt (individual and combined sum with PFOA)
PFNA	Perfluorononanoic acid	No HAs, Low occurrence for all four with detections in 8-86 water systems	N/A for all four
PFHxS	Perfluorohexanesulfonic acid		
PFHpA	Perfluoroheptanoic acid		
PFBS	Perfluorobutanesulfonic acid		

**HAs Versus Regulatory Standards Create Challenges:** Use of HAs as guidance, versus a Safe Drinking Water Act (SDWA) regulation with an established Maximum Contaminant Level (MCL) creates challenges for state drinking water programs and public water systems. The HAs for PFOA and PFOS do not provide clarity on necessary actions for water systems to address the compounds, and how to communicate their actions and the associated health risks to the public.

**State Regulatory and Oversight Challenges:** States are having to make tough decisions about whether or how to implement HAs and address PFAS in drinking water in the absence of federal standards.

## ASDWA – PFAS and Drinking Water

The table here shows the states that have proposed or established PFAS standards or guidelines that are lower or different than EPA’s HAs. These numbers demonstrate the variation in health risk goals and risk reductions among states in the absence of federal standards and are creating public confusion about what levels of PFAS are safe in drinking water.

State	Drinking Water Action	Compound	Level (ppt)
Connecticut	<a href="#">Action Level</a>	Sum of PFOA, PFOS, PFNA, PFHxS, PFHpA	70
Minnesota	<a href="#">Health Based Guidance for Water</a> Surrogate of PFOS HBV	PFOA PFOS PFHxS	35 27 27
New Jersey	<a href="#">Proposed Regulation</a> Reg in Development	PFNA PFOA	13 14
North Carolina	<a href="#">Health Advisory</a>	GenX	140
Vermont	<a href="#">Groundwater Quality Enforcement Standards</a>	Sum of PFOA and PFOS	20

### More PFAS Contamination Sites are Being Found:

The number of PFAS contaminated sites continues to grow. Over the past decade, PFAS contamination was found in many more locations than where the UCMR3 required water

systems to conduct monitoring. Initially, contamination was thought to be somewhat limited to the chemical manufacturing facilities but has now expanded to include military bases, fire-fighting foam application sites, storage, and disposal sites, manufacturing sites of fire-retardant materials, landfills, and many other locations, including some that appear to be caused by air deposition.

**The Number of PFAS Being Manufactured Continues to Grow:** The number of PFAS compounds that might be a cause of concern is thought to be in the hundreds and continues to grow. Since the phase-out of PFOA and PFOS, companies have shifted to “short-chain” PFAS such as GenX, which is now a significant concern in the Cape Fear Watershed downstream of a Chemours manufacturing plant in North Carolina. The increasing number of PFAS of concern is creating a host of data collection and analysis issues, as regulators and researchers are struggling to obtain enough robust health effects, analytical methods, and treatment data to make smart decisions.

## ASDWA PFAS Recommendations to EPA and CDC

### ASDWA’s January 12, 2018 letter to EPA and CDC includes the following recommendations:

- **Form a working committee** with ASDWA, EPA, CDC, and Department of Defense (DoD) leadership.
- **Develop a unified message and work with other stakeholders** to minimize the potential adverse effects to public health and the environment.
- **Directly engage with states** on any new federal actions and support current state efforts to consistently assess and address PFAS; and develop guidance for public water systems.
- **Conduct more health effects research and increase funding and support non-targeted analyses of drinking water** for known and unknown PFAS, and substitute compounds.
- **Develop rules or guidance for other media** (e.g., UIC, wastewater, soil leaching, air emissions).
- **Directly engage with stakeholders and industry** to assess and address the universe of known and unknown PFAS compounds, and evaluate fire-fighting foam and alternatives.
- **Address laboratory and sampling needs** for analytical methods and standards, lab vendors, standardization of lab results, and increase lab programs and capacity beyond UCMR3.

For more information and to see ASDWA’s full letter of recommendations to EPA and CDC, visit the ASDWA website or contact Deirdre Mason of ASDWA at [dmason@asdwa.org](mailto:dmason@asdwa.org) or 703-812-4775.