



# PFAS National Leadership Summit

May 22-23, 2018, Washington, D.C.

*The material in this document summarizes perspectives and views of meeting participants. The perspectives provided by the participants are their own and do not necessarily reflect those of the U.S. Environmental Protection Agency.*

## Summit Overview

On May 22–23, 2018 the Environmental Protection Agency (EPA) hosted a National Leadership Summit on per- and polyfluoroalkyl substances (PFAS). The leadership summit included representatives from over 40 states, tribes, and territories; 13 federal agencies; Congressional staff; associations; industry groups; and non-governmental organizations. During the summit, through a combination of panel presentations, digital brainstorming, plenary Q & A, and small table discussions, participants:

- Shared information on ongoing efforts to monitor and characterize risks from PFAS;
- Discussed specific near-term actions, beyond those already underway, that are needed to address challenges currently facing states and local communities; and
- Discussed risk communication strategies to address public concerns with PFAS.

Former EPA Administrator Pruitt opened the meeting and announced four additional significant actions EPA will take following the summit:

- EPA will initiate steps to evaluate the need for a maximum contaminant level (MCL) for PFOA and PFOS. EPA will convene its federal partners and examine everything they know about PFOA and PFOS in drinking water.
- EPA is beginning the necessary steps to propose designating PFOA and PFOS as “hazardous substances” through one of the available statutory mechanisms, including potentially CERCLA Section 102.
- EPA is currently developing groundwater cleanup recommendations for PFOA and PFOS at contaminated sites and will complete this task by fall of this year.
- EPA is taking action in close collaboration with federal and state partners to develop toxicity values for GenX and PFBS by this summer.

Starting on June 25, 2018 EPA will begin visiting and engaging directly with communities impacted by PFAS – including New Hampshire, Colorado, North Carolina and Pennsylvania. The purpose of the community engagements is to allow communities the opportunity to identify ways the EPA can best support the work that’s being done at the state, local, and tribal levels. Using information from the National Leadership Summit, community engagements, and public input provided by the docket, EPA will develop a PFAS Management Plan for release later this year.

## National Leadership Summit Overview

EPA designed the National Leadership Summit to lead meeting participants in sharing perspectives on opportunities to support state and community efforts regarding PFAS. This section reflects a high-level synthesis of the perspectives participants shared during the summit and do not imply consensus, endorsement or agreement on any of the topics. The summarized perspectives follow the structure of the opening session and three separate but related sessions from the National Leadership Summit:

1. Identifying PFAS in your community
2. Solutions for addressing PFAS in your community
3. Communicating PFAS

On Day 1 of the Summit, the opening session included remarks from former EPA Administrator Scott Pruitt, as well as remarks from Craig Butler, Director of the Ohio Environmental Protection Agency, on the state perspective. It also included an overview of PFAS to date from Jessica Bowman, Senior Director of Global Fluoro-Chemistry for the American Chemistry Council, and Jeff Morris, Director of EPA’s Office of Pollution Prevention and Toxics, in order to provide context for the days’ discussions. Video recordings of these presentations are

available at <https://www.epa.gov/pfas/pfas-national-leadership-summit-and-engagement>. Following the opening session, participants heard panel presentations, engaged with the panelists via Q&A, and participated and reflected during a digital brainstorming, for each of the areas listed above.

On Day 2 of the Summit, participants were seated around tables in groups of 8-12. For each of the three areas listed above, participants shared their thoughts on both the most important ideas that emerged as part of Day 1 discussions and their perspectives on opportunities for collaboration among federal partners and co-regulators to address needs and challenges identified on Day 1.

## **Identifying PFAS in Your Community**

### ***Presentations:***

#### **Maureen Sullivan**

*Deputy Assistant Secretary of Defense for Environment, Safety & Occupational Health, Department of Defense*

Deputy Assistant Secretary of Defense Sullivan described the ways in which the Department of Defense (DoD) has been addressing Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) at DOD sites and neighboring communities. Deputy Assistant Secretary Sullivan emphasized the DoD priority to address PFOS/PFOA to protect personnel living and working on installations and the surrounding communities that have been impacted.

#### **Tracie White**

*Federal Facilities Remediation and Restoration Unit Lead, Colorado Department of Public Health and Environment*

Ms. White spoke about the issues faced by the Colorado Department of Public Health and Environment in characterizing PFAS sites, including the identification of sources, delineation of nature and extent, and quantifying potential exposures and risks. Ms. White emphasized the need for a collaborative approach and the identification of lessons-learned to facilitate addressing emerging contaminants in the future.

#### **Alexandra Dunn**

*Regional Administrator, EPA Region 1*

Regional Administrator Dunn emphasized the extensive work that EPA Region 1 has ongoing with states and communities throughout the Region to address challenges with PFAS contaminants in the environment. The Regional Administrator emphasized the importance of working with impacted communities and discussed their plans to convene the first community engagement meeting in Region 1 on June 25–26.

## **Day 1 Perspectives**

### **1. Participants expressed substantial interest in enabling more sampling and monitoring for PFAS in the environment.**

- There was a sense that a current gap exists between the potential scope of the PFAS problem and the amount of monitoring taking place; and that the efforts to characterize PFAS in the environment is far from complete.
- A key area of discussion was ‘regulatory backing’ (e.g., hazardous substance determination under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and/or Maximum Contaminant Level (MCL) development to support increased sampling and monitoring).

## 2. Participants acknowledged that PFAS poses a substantial monitoring challenge as a very broad class of compounds.

- Discussions acknowledged that:
  - There are many PFAS compounds and limited analytical tools and toxicity information.
  - Differing approaches are being taken to implement PFAS monitoring efforts including a focused monitoring approach and a broad sampling approach to fully characterize the presence of PFAS in the environment.
- Interest was expressed in:
  - Furthering the understanding of specific compounds that have already received extensive attention (e.g., PFOA/PFOS).
  - Exploring the potential to address broader groups or classes of PFAS compounds.
  - Continuing to advance understanding of potential toxicity of PFAS compounds and expanding development of analytical methods.
  - Expanding the Unregulated Contaminant monitoring efforts to include additional PFAS.

## 3. Participants expressed that sources of funding are needed to support expanded monitoring.

- Discussions identified priority areas to explore, including:
  - The relationship between ‘regulatory backing’ and the ability to fund monitoring efforts.
  - Private wells, which were identified as a current, unfunded gap in monitoring efforts.
  - A concern with lab capacity as monitoring efforts expand.

## 4. Participants identified the need for a better understanding of exposures beyond drinking water.

- PFAS is prevalent in commerce and consumer products leading to multiple human exposure pathways.
- Considering non-drinking water exposure pathways, there is a need for further risk evaluation and a characterization of relative risk across all exposure pathways, such as in-home exposures and exposures through food, to ensure resources are effectively targeted to address risks.
- Participants identified the need to understand additional routes of exposure, in addition to oral ingestion of drinking water, such as dermal and inhalation.

## Solutions for Addressing PFAS

### ***Presentations:***

#### **Carel Vandermeijden**

*Director of Engineering, Cape Fear Public Utility Authority*

Mr. Vandermeijden focused his presentation on the experience of the Cape Fear Public Utility Authority, which detected numerous Per- and Polyfluoroalkyl Substances (PFAS), including GenX and Nafion byproducts, in source

### **Day 2 Additional Perspectives on Identifying PFAS in Your Community**

1. Effective strategies should be identified to better share data among partners.
2. Funding discussions should be tied specifically to identification of monitoring goals and priorities.
3. Participants emphasized the importance of effective risk communication tools for PFAS.
4. Participants emphasized the important role EPA laboratories have in supporting PFAS response efforts and expressed concerns regarding limitations in laboratory capacity.
5. Participants emphasized the need to accelerate the understanding of toxicity of PFAS compounds and expanding development of analytical methods.

and drinking water. Actions taken to address this contamination included: a partnership with UNC-Wilmington to identify and quantify other PFAS in the river; the removal of 50 million gallons of water containing PFAS from the aquifer storage/recovery well; and a pilot study to investigate the feasibility of removing PFAS from the drinking water. The presentation included a summary of the cost impacts of additional treatment for PFAS on ratepayers and a review of the federal assistance needs for water utilities.

### **Brandon Kernan**

*Drinking Water and Groundwater Bureau, New Hampshire Department of Environmental Services*

Mr. Kernan spoke about the range of PFAS needs and challenges facing communities in New Hampshire, including the current lack of standards or health advisories, the plethora of PFAS compounds on the global market, the variety of exposure pathways, and the need for cost effective disposal options for wastes from cleanup efforts. Mr. Kernan described several strategies to reduce exposure, from the development of regulations supported by science to restricting import of compounds that bioaccumulate and are potentially toxic. The presentation concluded with recommended strategies for community engagement.

### **Andrew Gillespie**

*Associate Director, EPA's National Exposure Research Laboratory*

Dr. Gillespie focused his remarks on the importance of closing the information gaps that currently exist in addressing PFAS. Dr. Gillespie pointed to the need to develop standard, non-regulatory human toxicity values for informing risk assessment and management decisions and computational toxicity screening tools to better understand the 'PFAS Universe.' Additionally, Dr. Gillespie pointed to a need for the EPA to work with states to develop, test, and apply measurement methods to detect and quantify PFAS, and remediation and treatment approaches to remove or destroy PFAS in the environment. The presentation concluded with an overview of information gaps that still exist in risk management, including the need to integrate, synthesize and present information to stakeholders in an easily-accessible format.

## **Day 1 Perspectives**

### **1. Participants recognized that understanding and addressing PFAS is an EPA-wide effort.**

- Participants noted that addressing PFAS requires deploying resources across EPA programs to most effectively address risk, and this includes utilizing all available statutes, including the Toxic Substance Control Act (TSCA) to help avoid future problems, CERCLA to support remediation efforts, and the Safe Drinking Water Act (SDWA) to provide for direct drinking water intervention strategies.
- Participants and panelists identified the need to link efforts across the federal family, particularly the Centers for Disease Control and Prevention (CDC) (for risk evaluation), Department of Defense (DoD) (for site characterization and remediation activities), and EPA for risk evaluation, source control, and regulatory actions.

### **2. Participants expressed substantial interest in further action related to source control and remediation.**

#### **Potential actions identified:**

- The consideration of authorities under multiple statutes to address PFAS exposures and contamination of drinking water (e.g., TSCA, CERCLA, SDWA, Resource Conservation and Recovery Act (RCRA), Clean Air Act (CAA), Clean Water Act (CWA)/National Pollutant Discharge Elimination System (NPDES), Federal Food, Drug, and Cosmetic Act (FFDCA), Emergency Planning and Community Right-to-Know Act (EPCRA)-Toxics Release Inventory (TRI).

- The identification of short-term action items and effective practices while the science advances (improved understanding of toxicity, exposure pathways, monitoring methods, and intervention approaches).
- Further exploration of the toxicity and persistence of ‘legacy PFAS’ (long-chain molecular structure) relative to the short-chain molecular structure PFAS compounds in current use.
- The promotion of product substitution, reformulation, and best management practices (for example, aqueous film forming foam (AFFF)).

**3. Participants acknowledged that PFAS contamination in source water and finished drinking water can lead to substantial challenges for local communities. Discussions identified the following:**

- Understanding and effectively implementing drinking water treatment technologies and the importance of sharing performance outcomes.
- The significant cost burden and affordability concerns for impacted communities and their rate payers.
- Choosing an overall communication strategy that considers decision making under uncertainty and rapidly evolving understanding of risk (e.g., need for community engagement, robust treatment strategies - those that can provide effective treatment as risk management needs evolve).
- The potential for impacts related to the use of PFAS-containing biosolids and how to address residuals from PFAS treatment processes.

### **Day 2 Additional Perspectives on Solutions for Addressing PFAS**

1. Participants emphasized the need for a coordinated effort and a dedicated resource to collect and compile federal and state data and actions.
2. Participants described the need for a ‘one-stop shop’ of information on PFAS treatment options.
3. Participants described a need for guidance designed to help communities understand funding options for treatment (e.g., WIFIA and DWSRF) and monitoring programs.
4. Participants emphasized the need to understand all potential exposure pathways.
5. Participants identified an opportunity to collaborate with industry and users of PFAS materials on voluntary preventative measures as a viable near-term strategy.
6. Participants identified a need to support decision makers by enabling easier access to public health information.

## **Communicating PFAS**

### ***Presentations:***

#### **Pat Breyse**

*Director, National Center for Environmental Health, Agency for Toxic Substances and Disease Registry*

Dr. Breyse discussed the role of NCEH/ATSDR in supporting states and communities, including their mandate to produce toxicology profiles and Minimal Risk Levels. His presentation included how NCEH/ATSDR has been actively engaging with communities; and activities around biomonitoring in support of community concerns and as part of National Health and Nutrition Examination Survey (NHANES). He also touched on the PFAS exposure assessment toolkit developed by NCEH/ATSDR that includes how to do representative sampling in a community, risk communication materials, and tools for physicians. Lastly, he discussed future work including 8 exposure assessments across the country intended to provide a platform from which they can design future health studies.

## **Erik Olson**

*Director, Health Program, Natural Resources Defense Council*

Mr. Olson spoke about the need to work with the public, scientific experts, and people from communities directly impacted by PFAS contamination in discussions to address PFAS and the associated risks. To ensure the appropriate regulation and cleanup of PFAS, Mr. Olson recommended nine measures, including control of PFAS in water discharges, actions to ensure Superfund and RCRA cleanups, the expansion of clean up budgets, changes to DOD specifications for AFFF formulation and use, bans on new PFAS chemicals and uses, and rules to ensure the careful management of wastes containing PFAS. Mr. Olson presented a set of actions to better understand the toxicity across PFAS compounds. He also noted a need for requirements for public disclosure of toxicity information and of PFAS releases and detections, and for monitoring for PFAS in drinking water. Mr. Olson concluded the presentation with a recommendation that testing methods and clean up/treatment technologies should be developed and/or validated to better support states.

## **Heidi Grether**

*Director, Michigan Department of Environmental Quality*

Ms. Grether provided her perspective from her experience in Michigan. She touched on the sources of PFAS found in Michigan, the objective of getting a state-wide perspective by looking at both public water supplies and private wells, and the importance of planning, particularly how the PFAS action response team played a role in risk communication. She also discussed risk communication best practices including mechanisms for communication (e.g., websites, interactive information, maps), in person communication (e.g., community and government forums, talking with tribes), and the importance of communicating what we know and what we do not know. Lastly her presentation included the importance of consistent messaging and collaboration between states and EPA.

## **Day 1 Perspectives**

- 1. Participants identified the need for near-term attention to the critical role of risk communication.**
- 2. Participants expressed interest in advancing regulatory development processes to provide greater certainty and strengthen the foundation for communicating human health risk from PFAS.**
  - Participants identified the need to both update risk estimates and explain why risk numbers associated with levels that vary among different federal and state programs.
- 3. Participants identified a range of current risk communication resources that provide a foundation to build from to further risk communication on PFAS (e.g., Interstate Technology & Regulatory Council (ITRC), Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile).**
- 4. Participants explored the implications of a commitment to transparency in the context of the current uncertainty and complexity surrounding PFAS and the rapid evolution of our understanding. Discussions identified the following:**

- The need to share information with the public quickly and the importance of making sure the information is as accurate as possible.
- The need to be transparent and informative to maintain public trust.
- The need for a greater understanding of the significance of the drinking water exposure pathway in the context of household, dietary, and other environmental exposure pathways.
- The need to establish better understanding of the role that drinking water advisory levels and other risk-related exposure levels play in characterizing risks to the public, and how that translates to public perception of acceptable exposure levels.

**5. Participants identified a set of key strategies to engage the public on PFAS. Key strategies discussed included:**

- Coordinated, consistent messaging (e.g., risk messages), and ‘a unified voice’ among the federal family and between state and tribal co-regulators on what is known and unknown to help build trust in the safety of drinking water.
- Information to help convey challenges associated with characterizing and addressing PFAS compounds more clearly. The need to engage early and often with affected communities considering: 1) the difficulty of communicating risks on PFAS; and 2) the evolving understanding of PFAS risks and intervention options.

## Day 2 Additional Perspectives on Communicating PFAS

1. Participants identified several risk communications needs:
  - Need for strategies to help reduce the interpretation of advisory levels as defining a bright line between safe and unsafe levels of exposure.
  - Need to develop comparative risk assessment materials for the different PFAS exposure pathways.
  - Need better communications materials to characterize the unique aspects of PFAS compounds.
  - Need materials to assist water purveyors with communications with customers.
  - Talking points to assist with communicating the differences between the EPA Health Advisory and the ATSDR toxicity profile.
  - Need for guidance and examples on how to best engage communities when working with a high level of uncertainty.
  - Need for standard risk communications materials for distribution at public meetings.
2. Participants described a need for guidance on how to productively start the PFAS conversation in a community.
3. Participants recognized the important distinction between voluntary and involuntary risks.
4. Participants expressed that further consideration is needed on how to best support the risk communications need for small water purveyors.

## Day 2 Perspectives on Overarching Opportunities for Collaboration

- 1. Participants identified the need for robust near-term action while longer-term strategies are completed.**
  - Participants discussed the need for immediate, on-the-ground action to address current contamination of drinking water and the need for more time-consuming but necessary risk characterization, methods development, and potential federal regulatory steps (e.g., MCL development).
  - Participants discussed the need to collaborate with industry and users of PFAS materials on voluntary preventative measures as a viable near-term strategy (source control).
- 2. Participants expressed a need to more fully engage the environmental and public health community and data providers.**
  - Participants identified the need to coordinate data and information with the United States Food and Drug Administration (USFDA), ATSDR, and National Institutes of Health (NIH).
- 3. Participants articulated the need to share information and data in the following areas:**
  - Sharing experiences with successful and unsuccessful strategies
  - Successful monitoring strategies
  - Successful communications materials and strategies
  - Successful funding strategies
  - Status of research (including method development)
  - Current knowledge related to sources of PFAS in the environment
  - Current extent of state authorities
  - Approaches for addressing treatment and secondary waste stream solutions and approaches
- 4. Participants expressed the need for a venue to coordinate activities and efforts nationally.**
  - Participants indicated that an important coordination effort is needed to develop integrated risk communications messaging.
  - State participants reiterated a suggestion from the May 21, 2018 ECOS letter to EPA to create a federal-state PFAS working group to foster collaboration.

### Additional Resources

- **PFAS Leadership Summit Presentations and Information:** <https://www.epa.gov/pfas/pfas-national-leadership-summit-and-engagement>
- **Information on submitting comments to the EPA Docket.** Input may be submitted by visiting <https://www.regulations.gov/> enter docket number: OW-2018-0270
- **EPA PFAS Home:** <https://www.epa.gov/pfas>

*The material in this document summarizes perspectives and views of meeting participants. The perspectives provided by the participants are their own and do not necessarily reflect those of the U.S. Environmental Protection Agency.*