Greetings,

We are writing to provide perspective regarding poly- and perfluorinated alkyl substances (PFAS). Our comments pertain to federal and state regulatory policies and responses to the widespread presence of PFAS in the environment, including in drinking water, wastewater, and wastewater residuals (e.g. biosolids, septage, etc.).

Clean, safe water is critical to this region’s citizens, businesses, economy, and quality of life. Our organizations represent hundreds of professionals in the water quality field in New Hampshire and surrounding states, who work on drinking water, wastewater, and wastewater residuals management, in both the public and private sectors. Our members include environmental stewards working every day on the front lines to protect both public health and the environment.

As policies are considered and regulations are developed related to PFAS – including numerical standards for drinking water (e.g. Maximum Contaminant Levels or MCLs) or ground water – we urge careful consideration of the following:

- Cleaned wastewater, septage, biosolids, and other residuals are all returned to the environment. Most of these – and some drinking water sources – currently contain PFAS at low, but measurable levels. While some analytical techniques are highly advanced, the ability to measure PFAS in matrices other than drinking water are still developing and are not as robust as they need to be. **However, mere presence of PFAS does not necessarily equate to risk.**
- Options are limited for treating drinking water and managing wastewater, septage, biosolids, and other residuals. These are complex functions on which public health relies. While there are technologies that remove PFAS from drinking water at a moderate expense, removal from wastewater and residuals will be more challenging, although likely possible – **but at considerable expense.**
- Any changes or additional requirements in water and wastewater treatment will be costly to the municipalities and other entities who own and manage these systems. **This issue is not of their making. Ultimately, the costs of addressing PFAS in these systems will be borne by rate-payers and tax payers and need to be considered along with other government responsibilities and public demands for services.** It is important to be cognizant of this when setting policy. Financial and technical aid should be provided in support of whatever is determined to be necessary.

Zero levels of PFAS will not be achieved any time soon. However, debate should continue about acceptable levels in drinking water and other matrices. Better understanding of the risks and health impacts will come with on-going research. We need to take the time to get this right and all work together to decide how much our municipalities,
states, and federal government are willing and able to spend on addressing trace levels of PFAS, and the benefits of doing so.

We urge USEPA, the New Hampshire Department of Environmental Services (NH DES), and other agencies to continue to carefully prioritize PFAS responses by:

- focusing on the obvious, highly-impacted industrial and military sites that show PFAS contamination, and
- encouraging a continued focus on phasing-out the use of concerning PFAS, like the already dramatic reduction in PFOA and PFOS.

Even as risks are thereby reduced, research should proceed as quickly as possible to obtain data and improved understanding of the potential impacts of trace levels of PFAS in drinking water, wastewater, septage, biosolids, and other residuals – before rushing ahead with additional regulatory actions, the implications of which may disrupt critical water systems and wastewater at considerable expense.

We thank you for your consideration of these comments. Please feel free to contact any of us for more information.

Sincerely,

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PFAS are classic contaminants of emerging concern (CECs): chemicals that have been in use for a long time – more than 50 years in the case of PFAS – but which are now measurable in minute quantities in various matrices throughout the environment because of advances in analytical methods. As water quality professionals, over the years we have seen and addressed numerous CECs (e.g. PCBs, dioxins, antimicrobials, etc.) through thoughtful research, risk analyses, and, where needed, actions for source reductions or phase-outs and/or technological fixes (e.g. treatment, removal, etc.).

PFAS are a particularly challenging family of contaminants, with a wide variety of properties, a wide variety of uses, widespread distribution, and several probable correlations to human health impacts. Their presence in drinking water has garnered the greatest focus. And research and investigations have identified the most significant sources, particularly of the most-widely-used PFAS – perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS): military and fire training sites, industrial facilities, and landfills. At these kinds of sites, PFOA and PFOS and other PFAS have impacted groundwaters and surface waters at levels at or higher than EPA’s public health advisory level of 70 ng/kg (ppt) for PFOA and PFOS combined. Currently, as investigations turn attention to other places PFAS may be found, additional attention is being paid to their conveyance in wastewater, treated effluent, septage, and biosolids. These are not sources, per se, but conveyors of PFAS used in our daily lives.

Our water quality systems and state regulatory agencies have been challenged in understanding and addressing the presence of PFAS in water, wastewater and related materials. There are significant gaps in the data about the chemicals and their fate and transport in the environment, as well as the extent of their potential health impacts. PFOA and PFOS are best understood. But with other data lacking, and with the understandable desire on the part of the public for precautionary actions to be taken, legislators and regulators are seeking ways forward in the face of considerable uncertainty.

We understand the nature and urgency of this challenge. At the same time, we want to ensure consideration of all of the implications of policies and actions. As USEPA and states move forward, we urge careful consideration of the following additional facts:

- PFOA and PFOS have been mostly phased out in the U. S., the EU, and Canada. Already, over the past 15 years, PFOA and PFOS levels in human blood have declined 60% (CDC NHANES, 2015). In other words, U.S. human exposure is already way down. That alone is improving public health protection dramatically. PFOA and PFOS are at lower levels in modern wastewater and residuals than in the past, due to the phase-outs.
- PFAS are ubiquitous and our environmental exposure is pervasive through numerous household products. Even wastewater, wastewater effluent, septage, and biosolids with no industrial inputs can have 1’s to 10’s parts per billion (ppb).
- Wastewater, septage, and biosolids are not sources, but conveyors of PFAS found in our homes and daily living environments. Source control and phase-outs are the best option for reductions of any that have significant potential negative health impacts. But we will not get to zero PFAS in wastewater, septage, biosolids and the environment any time soon.
- Presence does not necessarily mean risk. For wastewater, septage, and biosolids, there is no significant dermal, inhalation, or ingestion risk from the levels of PFAS currently found in these materials. Indirect pathways of leaching to waters is the only possible human health concern, and that will depend on the endpoint screening or regulatory levels that are set for drinking water and ground- and surface waters.
- Scientific data are currently inadequate for robust risk modeling related to many of the PFAS concerns. Most states recognize this. There are no approved EPA analytical methods for any matrix other than drinking water. EPA is addressing this, but it takes time. Efforts are underway for regional and/or national studies to address data gaps.
- Regarding potential environmental impacts: Wastewater, septage, & biosolids have contained PFAS for 50+ years – including PFOA & PFOS at higher levels than today. Bioassay research and experience over the years evaluating uses of effluent and biosolids have not found significant negative impacts, only benefits.

More About PFAS and Municipal Water Management Systems