

Navigating the Current PFAS Landscape:

*Thoughts for the
Clean Water Sector
to Consider*

Background

NACWA published *A Clean Water Utility's Guide to Considering Source Identification, Pretreatment, and Sampling Protocols for PFAS* in 2019 with input from member utilities experiencing preliminary concerns over PFAS.

In the four years since NACWA published the *Guide*, momentum has grown tremendously to address PFAS through the legislative, regulatory, and legal systems at the federal level and in various states. NACWA formed a Board of Directors PFAS Task Force to provide oversight and help coordinate the Association's PFAS initiatives and advocacy in this rapidly evolving landscape.

As a first step, the PFAS Task Force recommended updating the 2019 *Guide* with new considerations to help NACWA members understand the range of PFAS actions underway and how federal and/or state efforts could impact clean water utility treatment operations, biosolids management approaches, and long-term planning. The PFAS Task Force also recommended identifying areas where clean water agencies can navigate “on ramps” and “off ramps” to certain local, state, and federal PFAS initiatives.

This document is intended to help clean water agencies navigate the current landscape of federal and, where relevant, state efforts on PFAS. The document outlines a variety of regulatory and legislative activity as it relates to PFAS and how those actions may impact public clean water utilities.

However, nothing in this document is intended to provide utilities with legal advice nor does it make any recommendations on “best practices” related to PFAS. Each utility will need to make its own decisions related to PFAS based on its unique needs and any applicable state laws or regulations. Utility should consult with their own regulatory experts and legal counsel when making any decisions related to PFAS. This is also intended to be a “living document” that NACWA will update periodically as new information becomes available and developments occur.

Members with comments on this document or suggestions for additional information to include can contact [Emily Remmel](#), NACWA's Senior Director of Regulatory Affairs.

NACWA has a robust [PFAS resources page](#) on its website to provide additional background information that can help utilities address PFAS-related issues. We recommend that utilities not already familiar with federal PFAS regulations and NACWA's PFAS-related advocacy efforts review the materials in addition to the information provided below.

What Does the Science Tell Us?

The peer-reviewed scientific literature has significantly expanded over the last several years as heightened awareness over PFAS chemicals continues to grow. Epidemiological studies examining human exposure to PFAS and the associated risks also continue to increase. With an eye toward action under the Safe Drinking Water Act (SDWA), in 2021 the U.S. Environmental Protection Agency (EPA) formed a Science Advisory Board (SAB) ad hoc review panel to help the Agency evaluate the scientific understanding of the possible risks to public health from PFAS in drinking water. After a systematic review of the available human epidemiological and animal toxicity studies, EPA determined that PFOA and PFOS are likely to cause cancer – meaning there is no safe level of exposure which is transformative from a regulatory standpoint as it means the Agency is required by statute to promulgate drinking water standards to protect public health.

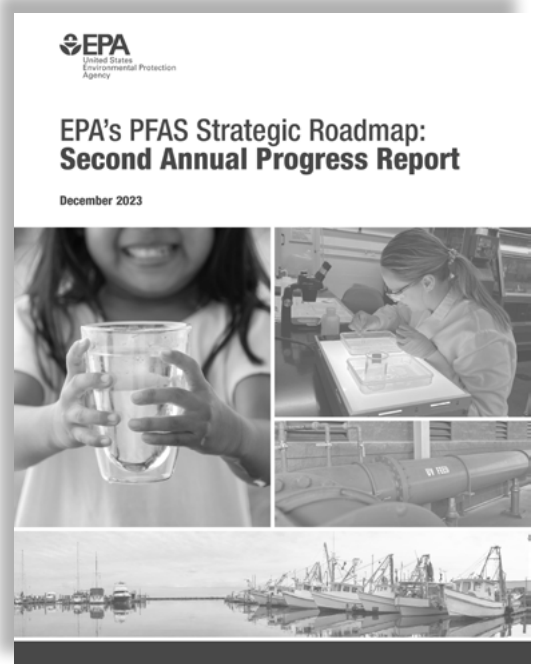
Further, EPA has found evidence that PFAS can have diverse negative effects on growth and development (e.g., low birth weight), hormone levels, the immune system (e.g., reduced vaccine response), and lipid levels (e.g., high cholesterol and obesity). These findings will ultimately impact standards set under the Clean Water Act (CWA) as well as SDWA.

The World Health Organization’s International Agency for Research on Cancer (IARC) in November 2023 promoted PFOA to “category one,” meaning that there is sufficient evidence to conclude PFOA is carcinogenic in experimental animals and strong mechanistic evidence that PFOA exhibits key characteristics of carcinogens in exposed humans.

U.S. EPA’s Strategic Roadmap Will Create New Obligations for Clean Water Agencies

EPA published its second iteration of its federal strategy on PFAS in 2021, its *PFAS Strategic Roadmap: EPA’s Commitments to Action 2021-2024*. The Strategic Roadmap outlines EPA’s actions currently underway to address PFAS and how the Agency plans to expand and leverage its authorities across the suite of federal environmental statutes to safeguard communities from PFAS contamination. The actions outlined in EPA’s Strategic Roadmap will have impacts on clean water agencies – from sampling and monitoring, biosolids management options, pretreatment efforts, affordability and more.

EPA is using an integrated approach across multiple federal environmental statutes to achieve its goals of researching, restricting, and remediating PFAS. Several of these actions will impact clean water utilities, and the water sector more broadly. Those with the potential to have the most significant effects on public wastewater utilities are highlighted below.



Safe Drinking Water Act (SDWA)

As EPA works to address PFAS through multiple federal environmental statutes, the first enforceable standards impacting the water sector are happening under the SDWA and will impact drinking water utilities and some wastewater utilities.

Because EPA has found scientific evidence that PFOA and PFOS are likely carcinogenic, the SDWA mandates that EPA set a Maximum Contaminant Level Goal (MCLG) of zero – meaning there is no safe level of exposure. This means EPA must establish legally enforceable National Primary Drinking Water Regulation and set a Maximum Contaminant Level (MCL) as close as possible to zero.

EPA is setting the MCL at 4 parts per trillion (ppt) as the for PFOA and PFOS which is the lowest concentration of these chemicals most analytical laboratories can reliably and with confidence detect. EPA is also setting MCLs for PFHxS, PFNA, and HPFO-DA (GenX) at 10 ppt. EPA is also using a Hazard Index of 1.0 for four PFAS chemicals if two or more are found together as a mixture. Now that EPA’s MCLs are final and effective, public drinking water systems will be required to monitor for these PFAS, notify the public of PFAS concentrations, and not exceed the finalized MCLs.

Compound	MCLG	MCL
PFOA	Zero	4.0 parts per trillion (ppt)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HPFO-DA (GenX)	10 ppt	10 ppt
Mixtures containing two or more PFNA, PF-HxS, PFBS, and HFPO-DA (GenX)	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index

Prior to proposing the National Primary Drinking Water Regulation, EPA used an unenforceable health advisory of 70 ppt for PFAS concentrations in public water systems as a guideline. Some states viewed the 70 ppt threshold level as too high and not sufficiently protective of public health or the environment and adopted lower drinking water standards to which utilities in those states are subject. States can have more stringent MCL values than what was set by EPA, but if a state promulgated less stringent MCL values than EPA, it will have to reduce those values to be at least as stringent as the finalized National Primary Drinking Water Regulations.

The Agency also established a relative source contribution (RSC) of 20%, which means that the proportion of the total exposure to PFAS expected to come from drinking water is 20%, with the remaining 80% of exposure expected to come from *all other potential sources* (e.g., food, air, dust). The RSC has significant influence on establishing drinking water criteria and has been used for decades. Some states are considering different, more conservative, approaches to setting RSCs for PFAS and other emerging contaminants. If states adopt a more conservative approach and establish higher relative source contributions in drinking water, state standards could be even more stringent than the 4 ppt proposed by the federal government.

What will this require of Clean Water Agencies?

The MCL values and the Hazard Index value will have a direct impact on certain clean water agencies once they are finalized. Clean water agencies that are involved with water recharge into groundwater aquifers that are used as drinking water resources will likely be required through their permitting regime to meet the requirements of the National Primary Drinking Water Regulations for PFAS, including monitoring and treatment if the MCLs are exceeded.

Also important for all clean water utilities, the SDWA and the CWA have a nexus with respect to developing toxicological impacts of a given pollutant on human health. EPA will use the same (or updated) reference doses and cancer slope factors it used to develop its SDWA standards when it develops PFAS-related human health water quality criteria (HHWQC) under the CWA. Given the reference doses and slope factors used in the development of the MCLs, clean water agencies will likely see very low toxicity values in any proposed HHWQC for PFAS.



Clean Water Act (CWA)

The Clean Water Act's Aquatic Life Criteria

EPA proposed draft recommended aquatic life ambient water quality criteria under CWA Section 304(a) in 2022. These are intended to protect aquatic life in freshwater over short-term and long-term exposures to PFOA and PFOS, individually. The draft criteria also include fish tissue-based concentrations to address PFAS bioaccumulation.

These criteria are not directly enforceable. Rather, once finalized, states and tribes will have to consider adopting them into their water quality standards, where they would then be translated into enforceable effluent limitations in the context of National Pollutant Discharge Elimination System (NPDES) permits and total maximum daily loads (TMDLs) for impaired waters.

The 2022 draft recommended freshwater aquatic life water quality criteria for PFOA and PFOS are:

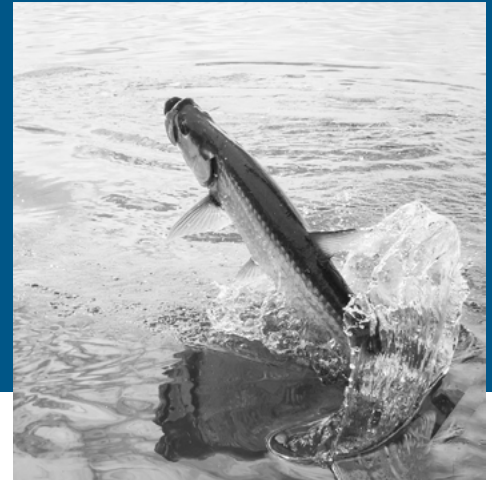
Criteria Component	Acute Water Column	Chronic Water Column	Invertebrate Whole-Body	Fish Whole Body	Fish Muscle
PFOA Magnitude	49mg/L	0.094 mg/L	1.11 mg/kg ww	6.10 mg/kg ww	0.125 mg/kg ww
PFOS Magnitude	3.0 mg/L	0.0084 mg/L	0.937 mg/kg ww	6.75 mg/kg ww	2.91 mg/kg ww
Duration	1-hour average	4-day average	Instantaneous		
Frequency	Not to be exceeded more than once in three years, on average		Not to be exceeded more than once in ten years, on average		

EPA has indicated, however, that it is reconsidering these values based on new scientific studies that have since become available.



What will this require of Clean Water Agencies?

While the 2022 draft criteria would not likely have impacted most clean water agencies' permitting requirements, if EPA finalizes more stringent criteria based on new data, utilities will have to reassess whether their adoption into state water quality standards would necessitate additional monitoring or treatment requirements.



The Clean Water Act's Human Health Criteria

EPA will be releasing draft human health criteria sometime in 2024 that will likely have a profound impact on clean water agencies. While EPA's human health criteria are only recommended values, if a state or tribal permitting authority adopts these criteria values into Clean Water Act standards, which is very likely for PFOA and PFOS, clean water agencies will face compliance and enforcement initiatives if they exceed discharge limits. It is unknown at this time what the exact criteria values for human health will be, but in light of the reference doses and cancer slope factors established under the National Primary Drinking Water Standards which are drivers for how EPA sets human health criteria, it is expected that human health criteria values will be very low.

Analytical Methods

At this time, there is no promulgated CWA analytical method for measuring PFAS in wastewater or biosolids. There is also no promulgated Clean Air Act analytical method for measuring PFAS in stack air emissions from sewage sludge incinerators.

Several draft analytical methods are under evaluation at EPA (and the Department of Defense) to measure PFAS accurately and reliably in the environment. While there are thousands of PFAS chemicals, EPA's draft Method 1633 can only measure 40 different PFAS analytes across aqueous, solid and tissue samples using liquid chromatography and mass spectrometry. This will be the primary method clean water agencies will use to measure PFAS in influent, effluent and biosolids.

EPA is also evaluating Method 1621, the Adsorbable Organic Fluorine (AOF) method, for clean water utilities to sample influent and effluent. This method, initially to be used to supplement draft Method 1633, is now appearing in NPDES permits as a requirement. This method can only be used as a screening method for influent and effluent since it does not identify an individual PFAS chemical per se, but rather measures the total organic fluorine in a sample which will reveal how much PFAS is in a given sample. There are concerns that this broad method also captures pharmaceuticals and pesticides containing inorganic fluorine, thereby over-estimating the true concentrations of PFAS in a given sample.

EPA is nearing the completion of its multi-laboratory validation studies for draft Method 1633 and will move forward with promulgating this analytical technique into the Clean Water Act as an approved method under 40 CFR Part 136.

Sampling Requirements in NPDES Permits

EPA's Office of Water published a memorandum, *Addressing PFAS Discharges in [NPDES Permits and Through the Pretreatment Program and Monitoring Programs](#)*, in December 2022 recommending that state regulatory authorities begin including monitoring requirements in NPDES permits. EPA Region 1, which issues NPDES permits in Massachusetts and New Hampshire, has already finalized several permits requiring utilities to monitor and report on their Discharge Monitoring Report (DMR) the PFAS concentrations found in influent, effluent, and biosolids.

NACWA expects that most states with primacy to issue NPDES permits will soon follow suit and begin to incorporate quarterly PFAS monitoring and reporting requirements in utility NPDES permits utilizing draft Method 1633. The Adsorbable Organic Fluorine (draft Method 1621) can be used *in conjunction* with draft Method 1633, *if appropriate*.



What will this require of Clean Water Agencies?

Clean water utilities may be required in their NPDES permit to take quarterly samples of influent, effluent, and biosolids, but enforcement and compliance actions related to PFAS discharges cannot be taken until a method is promulgated and approved under the CWA.

There are a handful of accredited laboratories across the country to evaluate and analyze PFAS in wastewater influent, effluent, and biosolids using draft Method 1633. While the number of accredited laboratories for draft Method 1633 is limited, it is expected to grow as more utilities are required to sample. There are even fewer accredited labs for the draft Method 1621 method. As the quantity of NPDES permits containing monitoring requirements grows, laboratory backlogs may as well. Clean water agencies should plan ahead and search the [NELAC Institute](#) or the Department of Defense's [Environment, Safety & Occupational Health Network and Information Exchange \(DENIX\)](#) for accredited laboratories for a given methodology.

The CWA's Pretreatment Program

Pretreatment standards can be an important tool for controlling the discharge of pollutants to POTWs from industrial sources. There are currently no national pretreatment standards for PFAS, but EPA's Effluent Guidelines Program has been investigating industrial sources of PFAS for several years through its Multi-Industry PFAS Study and is in the process of developing effluent guidelines and pretreatment standards for PFAS discharges from the Metal Finishing category, the Landfills category, and the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) category.

In [Effluent Guidelines Program Plan 15 \(ELG Plan 15\)](#), published in January 2023, EPA also announced that it would expand its detailed study of the Textile Mills category to gather information on the use, treatment, and discharge of PFAS by the industry. EPA will also continue to monitor PFAS discharges from the Pulp, Paper, and Paperboard category, the Electrical and Electronic Components (E&EC) category, the Metal Finishing category, and airports.

EPA also announced in ELG 15 that it would initiate a POTW Influent PFAS Study. EPA's current plans for the study include mandatory sampling at up to 400 of the nation's largest POTWs, with each POTW conducting one-time sampling of influent, effluent, biosolids, and up to ten industrial users. POTWs will be responsible for all costs associated with the study, including laboratory analyses, and EPA has said it will use its Clean Water Act Section 308 authority to require participation by the selected POTWs. NACWA has concerns about the study's design, the costs for utilities, and the requirement for biosolids analyses. NACWA's Pretreatment & Pollution Prevention Committee and Biosolids Management Committee have met with EPA staff multiple times to discuss the study.

NACWA has provided written recommendations to EPA for improving the POTW Influent Study. NACWA suggested that EPA first compile and analyze all existing PFAS sampling data, such as the statewide studies conducted in Michigan, California, and Maine, as well as data voluntarily submitted to EPA by POTWs. A focused sampling program could then be designed to fill the existing data gaps, rather than using the one-time snapshot sampling proposed by EPA. NACWA also recommended that the biosolids sampling program be decoupled from the PFAS discharge sampling program, since the biosolids sampling is not related to effluent guidelines development. EPA is considering our comments and must send the Study as a formal Informational Collection Request to the Office of Management and Budget to approve. After OMB approval, EPA must publish the study in the Federal Register and seek public comment. It is anticipated that utilities will start sampling late 2024 or early 2025.

Even without national pretreatment standards related to PFAS, pretreatment programs at some clean water agencies are still taking actions to identify and control PFAS discharges from industrial users. Sampling for industrial users of PFAS is occurring at some utilities, either voluntarily or as part of state requirements. Some utilities have also contacted their industrial users to ask them to proactively replace PFAS used in their processes, due to the environmental impacts of these compounds.



What will this require of Clean Water Agencies?

If EPA's timeline for the POTW Influent Study proceeds as planned, many clean water agency pretreatment programs will be asked to complete a questionnaire next year about their industrial users and PFAS discharges. Utilities may need to be prepared for the significant costs associated with the sampling and laboratory analyses for this study.

Even without national pretreatment standards, POTWs can consider asking their industrial users to proactively remove PFAS or control PFAS discharges. Developing local limits may also be possible after the PFAS analytical methods are finalized, especially if state water quality criteria for PFAS are also developed. If they have not already sampled industrial users for PFAS, utilities should consider whether they want to start sampling to identify PFAS sources.

Residuals and Biosolids

Understanding the risk of PFAS chemicals to the environment and public health from land applied municipal biosolids continues to be a priority of EPA, state regulatory authorities and clean water utilities alike. There are many efforts underway to better understand the concentrations of PFAS found in land applied municipal biosolids, the risks they may pose, and ways to reduce or eliminate PFAS in biosolids. Since public clean water agencies were not designed or constructed to destroy “forever” chemicals such as PFAS, PFAS that enter the treatment works through upstream industrial sources and everyday domestic household uses can pass through the treatment works and be found in trace concentrations in residuals.

EPA is currently assessing the risks that PFOA and PFOS found in biosolids may pose to public health and the environment. This is part of a larger effort by EPA to develop a new framework for how the Agency evaluates risks of pollutants found in biosolids. The framework includes prioritizing chemicals for an assessment, using a Biosolids Screening Tool to model and estimate the possible human and ecological hazards based on potential exposures (known as the problem formulation), and if risks are found, performing a full-blown refined risk assessment.

The Agency completed the problem formulation for PFOA and PFOS and aims to finalize the refined risk assessment by December 2024.

Under the Clean Water Act, EPA established requirements and management practices for the use and disposal of biosolids known as Part 503 regulations. These regulations include numeric pollutant limits, requirements for pathogen and vector attraction reductions, best management practices, monitoring and other recordkeeping and reporting obligations when biosolids are applied to land, incinerated or disposed of in landfills.

EPA has yet to set any CWA Part 503 requirements (numeric limits or management practices) for PFOA and PFOS, or any other PFAS chemicals in biosolids, yet many states and communities continue to express concern over the land application of municipal biosolids. As EPA works through the refined risk assessment for PFOA and PFOS, if a risk to human health or the environment is found, EPA will set regulations for those chemicals. However, many states and communities continue to express concerns over the land application of municipal biosolids even without EPA completing its risk assessment for PFOA and PFOS.

For example, Maine took an extreme stance and legislatively banned the land application of municipal biosolids in April 2022 – forcing utilities to send their residuals to landfills or out of state. To make matters worse, the state also banned the disposal of out-of-state construction material in Maine’s landfills which created a situation where there was not enough bulky material allow safe landfilling of biosolids without threatening landfill stability. This one legislative action where legislators failed to consider the unintended consequences required clean water agencies in Maine to ship their biosolids out of state at extremely high costs until temporary emergency action passed – allowing out of state construction material at one particular landfill to resume and therefore reopening the possibility for disposal of municipal biosolids.

Other states, like Michigan, have taken a more practical approach to managing PFAS in biosolids by initiating a robust sampling effort to differentiate between biosolids that are “industrially-impacted” (>125 parts per billion, or ppb) or “not-industrially impacted” (<125 ppb). For biosolids that are not industrially impacted, land application can continue. While these are only interim thresholds and not based on risk, the large-scale effort to understand the concentrations of PFAS in municipal biosolids has allowed clean water agencies to mitigate upstream industrial sources and continue land applying their residuals.

EPA’s Office of Science and Technology is facilitating conversations between public clean water agencies, solid waste management professionals, and state regulatory authorities on the challenges and opportunities for biosolids land application, incineration, and landfill disposal given the rise in concern over PFAS. NACWA helped initiate these discussions given the growing concerns and the importance of maintaining the three main biosolids management options. These convenings will allow EPA to gather experiential and anecdotal information on the challenges to managing PFAS in biosolids. EPA will collect and organize the information from key stakeholders and publish a summary of the meetings in late 2024.

What will this require of Clean Water Agencies?

Some utilities have proactively started to sample their influent, effluent, and biosolids for PFAS. Other clean water agencies are being asked by their state regulators (California, Michigan, Wisconsin and others) to sample their influent, effluent, and biosolids to get an idea of the concentrations that may be found in biosolids.

EPA's proposed POTW Influent Study also contains requirements for certain pre-identified clean water agencies to sample biosolids for PFAS and other pollutants. NACWA has asked the Agency to uncouple the biosolids sampling requirements from the larger Influent Study.



Comprehensive Environmental Response and Contamination Liability Act (CERCLA)

CERCLA, often referred to as the “Superfund Law,” addresses the cleanup of hazardous substances through short-term removal actions for releases or threatened releases requiring a prompt response, and long-term remedial actions designed to permanently reduce the dangers posed by the substances.

In addition to outlining when and how removal and remediation actions should be conducted, CERCLA imposes liability on a broad range of “potentially responsible parties” (PRPs) to conduct and/or pay for those cleanup actions. For contaminated sites where no PRPs can be identified, Congress established a trust fund under CERCLA (i.e., the “Superfund”) to pay for cleanups.

Importantly, unlike most statutes that clean water utilities are used to being regulated by, CERCLA is not a permitting statute. As a general matter, CERCLA is not concerned with actions that are going to happen, but rather with actions (specifically, releases of hazardous substances) that have already occurred, and how they need to be addressed (i.e., how are they going to be cleaned up and who is going to foot the bill).

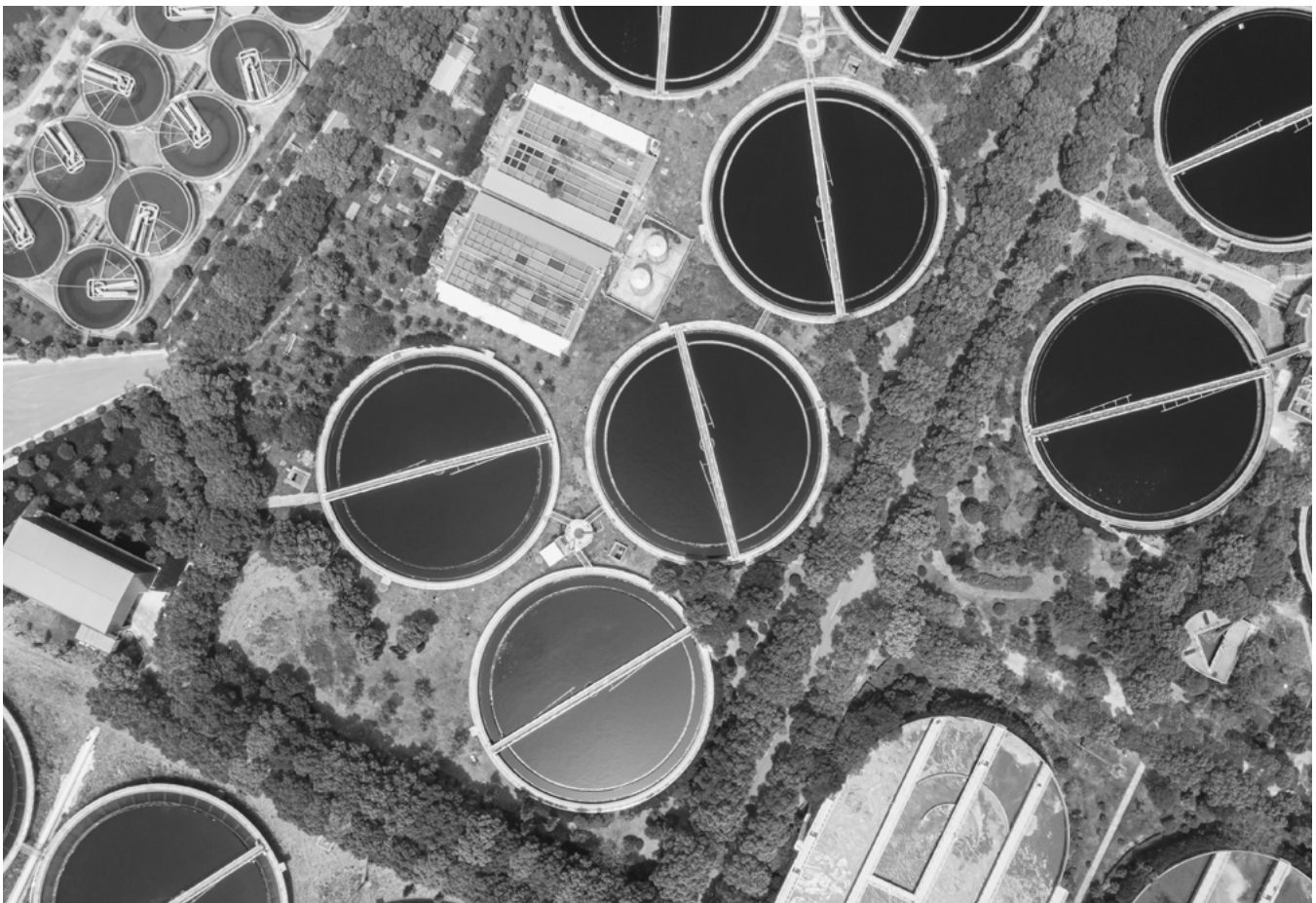
CERCLA liability is therefore retroactive, meaning that “releases” of hazardous substances that occurred years or even decades ago, either with or without a party’s knowledge, still expose any party responsible for that “release” to strict liability. Likewise, because of its focus on ensuring that cleanups are funded, CERCLA makes any party that is responsible for any portion of the contamination potentially liable for the *entire cost* of the site’s cleanup (this is known as “joint and several” liability).

EPA Actions under CERCLA

In September 2022, EPA proposed for the first time ever to use its authority under CERCLA Section 102(a) to designate two PFAS – PFOA and PFOS – as CERCLA “hazardous substances.” In April 2023, EPA additionally took comment on whether to also designate as CERCLA hazardous substances PFBS, PFHxS, PFNA, HFPO-DA (GenX), PFBA, PFHxA, or PFDA; precursors of any of those PFAS or of PFOA or PFOS; and/or categories of PFAS. EPA is expected to finalize its CERCLA designation for PFOA and PFPS in early 2024, but the timing on when it might propose to designate additional PFAS as hazardous substances remains uncertain.

Notably, all currently listed CERCLA hazardous substances received that designation automatically by virtue of being listed as CWA hazardous substances or toxic pollutants, Clean Air Act (CAA) hazardous air pollutants, Resource Conservation and Recovery Act (RCRA) hazardous wastes, or Toxic Substances Control Act (TSCA) imminently hazardous substances. The proposed PFAS designations, by contrast, represent the first time the Agency is proposing to mandate the cleanup of substances under CERCLA before utilizing its authority under its primary environmental statutes to limit their use or management in commerce, or determine safe levels in water, air, and soils.

This novel action poses unique challenges to clean water utilities and threatens to expose them to unprecedented levels of legal liability.



What will this require of Clean Water Agencies?

CERCLA imposes liability on any parties responsible for the “release” or “disposal” of hazardous substances. Unfortunately for clean water utilities, “releases” and “disposal” are very broadly construed under CERCLA to include many of the public health and environmental services they provide, such as biosolids management and the discharging of wastewater and stormwater, including for activities such as beneficial reuse or aquifer recharge.

Given the ubiquity of PFAS and their myriad sources, this means that, should EPA finalize the proposed designations, most utilities will be at risk of being liable under CERCLA as “PRPs” for PFAS-related cleanups by virtue of PFAS being present in their effluent discharges (including any overflows from either combined sewer or separate sanitary sewer systems) and/or biosolids.



Existing statutory exemptions, including those for “federally permitted releases” and the “normal application of fertilizer,” may apply to these activities in certain circumstances. However, both EPA and courts have limited their application such that utilities simply cannot rely on them to provide adequate protection from liability in many instances, even where they have acted in full compliance with their NPDES permits. For example, even if a utility is in full compliance with an NPDES permit for combined sewer overflows (CSOs) issued under an approved long-term control plan, unless PFAS was specifically addressed during the permitting process, PFAS reaching a contaminated site through a permitted CSO discharge will still likely expose the utility to CERCLA liability because the permit’s failure to address PFAS will likely disqualify any PFAS discharges made under that permit from being considered protected “federally permitted releases.”

While it is impossible to predict the costs of potential CERCLA PFAS cleanups, and therefore the scope of potential liability that EPA’s proposed PFAS hazardous substances designations could impose on utilities, one thing is certain: they would be significant.

PFAS are everywhere, meaning that the number of cleanups – both those led by EPA as well as those undertaken by private parties, which are also authorized by CERCLA – would likely be unprecedented. Nor is it clear what cleanup standards would be applicable to sites, or how, given the indestructible nature of PFAS chemicals by design, they would be achieved without simply spreading the contamination to a different site. And, perhaps most importantly for clean water utilities, EPA has not provided answers for how biosolids could be managed or effluent discharged affordably if both of those actions – which are vital to the protection of human health and the environment of communities nationwide – constantly trigger untenable amounts of legal liability for public utilities under CERCLA.

Critically for clean water agencies, “responsibility” under CERCLA does not equate to culpability for contamination. Clean water agencies will be exposed to CERCLA liability for any and all past and ongoing discharges of PFAS, even where they did not know or have reason to know PFAS were present and were operating in full accordance with all state and federal permits. NACWA and its water sector partners therefore have and continue to expend considerable effort to obtain relief from PFAS-related CERCLA liability in the form of a targeted statutory exemption for water, wastewater, and stormwater utilities as PFAS “passive receivers.”

Additionally, while a CERCLA statutory exemption is the only action that can fully address the needs of clean water utilities, NACWA and the water sector are also continuing to work with EPA on their proposed use of their enforcement discretion to shield utilities from CERCLA liability. The scope of EPA’s enforcement discretion under CERCLA is extremely limited; it cannot shield utilities from liability for the costs of private cleanups undertaken under CERCLA (which could include, for example, private cleanup of farmlands impacted by biosolids land application), nor can it stop other PRPs from bringing utilities into litigation over EPA-led cleanups even where EPA does not want utilities to bear any costs. However, it could still provide some important protections to utilities and potentially save them from having to expend significant public resources on prolonged litigation efforts if employed quickly and judiciously.

NACWA also continues to press EPA and the federal government more broadly to ultimately undertake meaningful and comprehensive source control efforts. Should PFAS be listed as CERCLA hazardous substances, their constant introduction into commerce will undoubtedly necessitate never-ending cleanup activities. The only way to stop that cycle is by significantly decreasing the use and import of PFAS in the U.S.



Clean Air Act (CAA)

EPA's Actions under the Clean Air Act

EPA is beginning to move the needle on PFAS under the Clean Air Act with two important proposed rulemakings which could potentially impact utilities that operate and maintain sewage sludge incinerators (SSIs).

EPA proposed an update to the Air Emissions Reporting Rule (AERR) which primarily impacts Major Sources under the Clean Air Act, but it could also bring in other sources that are not traditionally categorized as a Major Source. Notably, the proposed revisions to the AERR would significantly expand the reporting requirements to all Hazardous Air Pollutants (HAPs) – not just the 188 pollutants on the HAP list and it also includes reporting of all non-HAPs under the Toxic Release Inventory. EPA also admitted that there is no understanding of the inhalation toxicity for PFAS which is a glaring gap in the science.

EPA also proposed a new rulemaking on New Hazardous Air Pollutant (HAP) Additions under the Clean Air Act. Essentially this rulemaking helps define the regulatory process for when the Agency adds a new pollutant to the HAP list – which it did for one pollutant recently. This proposed framework could pave the way for EPA adding PFAS chemicals as HAPs under the CAA.

What will this require of Clean Water Agencies?

NACWA raised concerns that for many emerging contaminants, especially PFAS, there is very little understanding of the fate and transport of these chemicals in SSIs and the analytical techniques for measuring PFAS in air emissions is not widely available or known to produce accurate, reliable, and replicable data. Further, there is not a known technology to remove or treat for PFAS in emissions.

EPA also admitted that there is no understanding of the inhalation toxicity for PFAS in emissions which is a glaring gap in the science. Until there is reliable peer-reviewed literature on the toxicity in air emissions, and an approved Clean Air Act analytical method, EPA should not act prematurely and promulgate emissions standards for PFAS.

As EPA works through these proposals, states are beginning to introduce legislation that would impact clean water agencies operating SSIs. A State Senator from the Commonwealth of Massachusetts has introduced on several occasions a bill that would set a moratorium on the procurement of structures of activities generating PFAS emissions until both the U.S. EPA and Massachusetts Department of Environmental Protection promulgate air regulation standards for PFAS – which are likely many years away. This legislation, if it passes, would have a detrimental impact on municipal biosolids options in the state as it would force clean water agencies to seek more burdensome and costly biosolids management alternatives (e.g., landfilling).

The Big Picture Needs to Protect Public Health and the Environment

Clean water utilities have never manufactured or used PFAS but rather are passive receivers of PFAS simply by virtue of providing vital public services. There are growing concerns over the fact that clean water agencies – and the public – will be paying significant costs to clean up, manage and treat PFAS in perpetuity unless EPA and/or states start to eliminate non-essential PFAS from commercial products and uses. Even with non-essential PFAS phase outs, the remediation which may be required and potential for CERCLA liability could put utilities and the public on the hook for cleanups for decades.

Many states are actively drafting legislation or have already passed legislation banning the manufacture, sale, and distribution of products containing PFAS. Vermont, Maine, California are leading the charge on getting PFAS out of consumer goods, and essentially the environment.

Communicating Effectively with Ratepayers, the Public, the Media and Others

NACWA strongly encourages public clean water agencies to have a communications strategy for PFAS. Due to the ubiquity of these chemicals, their persistence in the environment and growing concern from the public, it is very likely that if you haven't already, at some point your utility will face questions from your community members or the public regarding PFAS. Proactively having a communications strategy will strengthen how effectively your utility responds to such inquiries.

Public clean water utilities are often getting questions about whether PFAS is present in discharges or in biosolids and how biosolids are managed. Questions have also come up as to whether PFAS presents any public health or environmental concerns. These are difficult questions for a utility to answer, especially given the complexity and technical nature of the PFAS issue. How these conversations play out will likely vary utility-by-utility based on the unique circumstances and operational characteristics of a given facility. There is no “one-size-fits all” answer.

NACWA has compiled a [Communications Toolkit](#) for PFAS for utilities to use when faced with common questions. NACWA encourages clean water agencies to use this toolkit.

Again, members with comments on this document or suggestions for additional information to include can contact Emily Rimmel, NACWA's Senior Director of Regulatory Affairs.