PFAS, the Clean Water Sector and Advocacy Asks

FALL 2021 Update

The Issue

Per- and polyfluoroalkyl substances, or PFAS, are perhaps one of the most perplexing pollutants federal and state legislators and regulatory agencies have had to grapple with in decades. PFAS are synthetic substances, of which there are thousands of known chemical varieties, that have been in commercial use for decades. While PFAS use has persisted for decades, the scientific understanding of the potential public health and environmental impacts continues to grow. Increased public concern and awareness is driving enhanced analytical capabilities which can now detect PFAS at extremely low levels– in parts per trillion (ppt) concentrations – across all environmental media from air to soil to water.

Impacts on Clean Water Agencies

Publicly owned clean water utilities are “passive receivers” of PFAS, since they do not produce or manufacture PFAS but de facto “receive” these chemicals through the raw influent that arrives at the treatment plant. This influent can come from domestic, industrial, and commer-cial sources and may contain PFAS constituents ranging from trace to higher concentrations, depending on the nature of the dischargers to the sewer system. Although the influent is not generated by the utility, the utility is responsible for treating it under the Clean Water Act.

Municipal clean water utilities were not traditionally designed or intended with PFAS treatment capabilities in mind. Today, there are no cost-effective techniques available to treat or remove PFAS for the sheer volume of wastewater managed daily by clean water utilities. While the clean water community is not responsible for generating or profiting from PFAS or the PFAS- containing commercial products, public utilities would bear considerable economic costs for treating and removing these chemicals - costs that would be passed onto ratepayers.

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Understanding the Potential Unintended Consequences

The clean water community and other receivers are not responsible for creating PFAS concerns yet could face severe unintended

consequences of potential liability and clean-up costs if federal or state legislation moves forward without recognizing the key dichotomy between PFAS receivers and PFAS producers.

A CERCLA hazardous substance designation, one potential regulatory approach receiving significant interest as a means of advancing remediation of heavily contaminated sites, could create unintended consequences that hold public utilities potentially liable for cleanup costs, particularly where biosolids from the treatment process containing low levels of PFAS have been beneficially land-applied for their organic matter and fertilizer value.

Removing PFAS chemicals from wastewater influent and effluent to meet potential water quality standards requires advanced treatment techniques such as granular activated carbon, ion exchange or reverse osmosis which are prohibitively expensive for the volume that needs to be treated. It also remains unanswered how and where to dispose of the PFAS-containing concentrations generated from these processes.

Public wastewater flow is generated 24/7/365 at massive volumes and cannot be halted, underscoring the need for greater PFAS source reduction, treat-ment, and disposal mechanisms before major PFAS policy changes come into effect.

EPA Update: PFAS Council and Other Actions

The U.S. Environmental Protection Agency (EPA) announced over the summer its intent to spearhead a new PFAS Council that will shape federal strategy on addressing PFAS moving forward. While delayed, the PFAS Council is expected to release recommendations on how it aims to achieve this any day now. It is anticipated that the PFAS Council will take a hard look at EPA's PFAS Action Plan, published in February 2019 and updated in February 2020, and revise actions accordingly.

Some states, concerned over the absence of federal regulatory action, are moving ahead establishing state-specific regulations and/or guidance documents. Actions vary, but some states have established or are in the process of establishing maximum contaminant levels (MCLs) for drinking water, narrative surface water quality standards, industrial pretreatment standards, surface water monitoring requirements, moratoriums on the land application of biosolids, groundwater protection standards, and more.

Below are key EPA PFAS efforts that are relevant to the public clean water sector's advocacy efforts:

- **Drinking Water Standards —**
  EPA published its draft 5th Contaminant Candidate List (CCL5) on July 19, 2021 that identifies unregulated contaminants for which public water systems should monitor. The draft CCL5 identifies PFAS as a group. CCL5 builds off prior EPA efforts, like the Agency's final regulatory determination for contaminants on the 4th Contaminant Candidate List (CCL4) on February 22, 2021, making a final determination to regulate PFOA and PFOS.

- EPA is now moving forward with developing national primary drinking water regulations for these two PFAS chemicals and may further evaluate whether additional PFAS chemicals or groups of PFAS should be included. Prior to this, EPA had issued lifetime drinking water health advisories for two of the more prominently found PFAS constituents-- PFOA and PFOS-- at 70 ppt or 70 ng/L combined. Health advisories provide information on potential public health effect water may present a risk; however, health advisories are non-regulatory and not enforceable.

- **Hazardous Substance Designation —**
  In 2020, EPA issued a pre-publication notice for an Advanced Notice of Proposed Rulemaking (ANPRM) for the potential regulation of PFOA and PFOS under CERCLA and RCRA. This ANPRM was "frozen" according to a White House Memorandum issued on January 20, 2021. EPA's PFAS Action Plan and 2020 PFAS Action Plan Update both indicate the Agency's desire to move forward with the regulatory pro-cess to designate PFOA and PFOS as hazardous substances under CERCLA.

- There have been numerous petitions for EPA to use its authority under the Resource Conservation and Recovery Act (RCRA) to designate PFAS as hazardous waste. EPA continues to review and evaluate these petitions. A designation under RCRA would lead to an automatic designation as a hazardous substance under CERCLA.

- **Industrial Pretreatment Program —**
  EPA recently announced its Preliminary Effluent Guidelines Program 15 on September 14. Plan 15 will develop effluent limitation guidelines (ELGs) and pretreatment standards for certain industries discharging wastewater containing PFAS, specifically to address discharges from chromium electroplating facilities within the Metal Finishing category and Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) category. EPA also stated that it will continue its Multi-Industry PFAS Study and plans to further study PFAS discharges such as landfills and textile and carpet manufacturing.

- **Destruction and Disposal —**
  EPA published draft interim guidance in late 2020 on destroying and disposing certain PFAS and PFAS-containing materials. While EPA's interim guidance is narrow and is more informational in nature, it acknowledges that land application of biosolids is not a destruction or disposal technique and is therefore outside the scope of the document. However, the vague language in the draft interim guidance creates the perception that biosolids land application is a pathway for PFAS-migration and contamination. Without broader context explaining that land application of biosolids is heavily regulated and a beneficial recycling process, the interim guidance leaves readers without a complete and accurate picture of biosolids land application.

- **Analytical Method Development for Non-Drinking Water Media —**

- EPA, in partnership with the Department of Defense (DoD), recently published Method 1633, a draft single-laboratory validated method for sampling 40 different PFAS compounds across a range of environmental media, including wastewater, surface water, biosolids and others. While the step-by-step analytical method was released, the corresponding validation report that provides critical information on the methodology's precision, bias, sensitivities and other key scientific parameters was not published. The release of this analytical methodology before the report is concerning, especially because EPA has approved Method 1633 for use in individual National Pollutant Discharge Elimination System (NPDES) permits.

- EPA continues to develop additional methodologies for monitoring PFAS in non-drinking water media and is working through the traditional analytical validation process for direct injection (SW-846/Method 8327) and was working to develop an isotope dilution analytical method.

- **NPDES Monitoring and Sampling Requirements —**
  EPA's Office of Water issued a Memorandum on November 22, 2020 recommending that federally issued Clean Water Act permits include phased-in monitoring and best management practices where PFAS is expected to be present in point source wastewater and stormwater discharges. Monitoring requirements would be triggered at a time after EPA's analytical methods are "made available" to the public and published on EPA's website. These provisions only impact the few states whose CWA permits are issued directly by USEPA, but the provisions could ultimately guide state-issued CWA permits too.

- **Biosolids Risk Assessment —**
  EPA has completed the initial work on its problem formulation—the first step in a risk assessment—for determining potential public health and ecological risks associated with chemicals, including PFOA and PFOS, in land applied biosolids. The problem formulation and pollutant screening tool will be reviewed by the Scientific Advisory Board (SAB) which is expected to begin in 2022.

- **Water Quality Criteria —**
  EPA's most recent 2019 and 2020 Action Plans mention the development of ambient water quality criteria under the Clean Water Act, if there is sufficient data. Proposed rulemakings for water quality criteria could be likely for human health in 2021 and for aquatic life in 2022.

Advocacy Asks

Support adding protections against PFAS contamination through TSCA requirements.

U.S. EPA recently issued a proposed rulemaking using its authority under TSCA Section 8(a)(7) to require industries and producers of PFAS since January 1, 2011 to report information to the Agency including use, production volume, disposal practices and other detailed data. Given the near indestructibility of PFAS by their very design, increased source identification and source control is imperative to truly reduce PFAS prevalence. Clean water utilities are passive receivers of PFAS and will benefit greatly from increased transparency on upstream sources of PFAS. Further, municipal wastewater treatment systems and biosolids land application are not the sources of PFAS contamination, and clean water utilities should not bear the cost of removal alone.

Empower the CWA pretreatment program.

U.S. EPA should continue to identify and address high-priority PFAS discharges to municipal wastewater facilities. The pretreatment program can have a significant impact on reducing PFAS loading into municipal wastewater streams by targeting upstream industries that indirectly discharge PFAS to POTWs.

U.S. EPA should provide utilities with any additional authorities and Congress should provide the funding necessary to help clean water utilities prevent the pass-through of these constituents and interference with the treatment process.

Consider unintended consequences.

Based on toxicity information and relative risk, wastewater effluent and bio-solids containing low levels of PFAS must be exempt from CERCLA liability. While low levels of PFAS can be detected with advanced analytical tech-niques, the amounts may be well below background levels or amounts found in everyday consumer products and household items.

Close the scientific gaps.

Congress must provide U.S. EPA the resources it needs to address PFAS chemicals. Closing scientific gaps on risk assessment is imperative to gain a better understanding of the concentrations of these chemicals, individually or aggregated, that pose an actual risk to public health and the environment, as well as the fate and transport pathways by which these chemicals move in the environment.

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