January 27, 2023

Attn: NJ Clean Water Council
Re: PFAS Compounds in Water and Wastewater Residuals

The New Jersey Sierra Club is pleased to see the NJ Clean Water Council's efforts to address the impact of PFAS in the wastewater system and biosolids. While the federal government and many industries are scrambling to manage the use and emissions of PFAS chemicals, there are key ways that states can move more quickly to prevent PFAS pollution. We recommend that New Jersey take immediate action to prevent high levels of PFAS from being discharged into the wastewater system and being spread back into the environment from the disposal of wastewater effluent and biosolids.

The Council is specifically seeking testimony to address the management of PFAS in wastewater residuals. We offer both high level and specific comments related to this effort.

In general Federal and State regulators have been missing a key opportunity to prevent or limit PFAS pollution in biosolids, which is identifying and averting the most concentrated sources of discharge into the wastewater system. In late 2022, EPA directed states to use existing Clean Water Act authorities to identify and avert concentrated discharges of PFAS.[1]

To follow this guidance the New Jersey Department of Environmental Protection (NJDEP) should modify permit conditions for **industrial facilities** that are known or suspected of discharging PFAS into water bodies to include:

- Effluent monitoring for the 40 PFAS compounds detectable by draft analytical method 1633, conducted at least quarterly
- Best Management Practices (BMPs) to prevent PFAS pollution
- Permit Limits to eliminate or reduce PFAS discharges

New Jersey is already in the process of collecting data from key dischargers, but this monitoring should be continued quarterly. Given the significant presence of PFAS manufacturing sites in the state, NJDEP should consider requiring testing methods that would identify the amount of PFAS chemicals that are not presently quantifiable with EPA method 1633, including the TOP Assay, total organic fluorine or non-target analyses.

NJ DEP can immediately begin to mandate Best Management Practices, including the replacement of PFAS-containing AFFF firefighting foams with PFAS-free options. PFAS-based foams are widely held at industrial facilities and petroleum storage tanks. Furthermore industries using PFAS-based chemistries, including chromium plating, can be directed to use PFAS-free technologies where they exist.

[1] EPA. 2022. Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs. https://www.epa.gov/system/files/documents/2022-12/NPDES_PFAS_State%20Memo_December_2022.pdf

Finally, several states including Michigan, Colorado and North Carolina have begun to update NPDES permits for key industries to require pre-treatment of effluent to remove PFAS. North Carolina's NPDES permit for the Chemours Fayetteville facility sets technology-based limits for GAC-based filters to achieve non-detectable levels of PFOS as well as GenX chemicals. Colorado has a draft permit for the state's sole petroleum refinery that would require PFAS monitoring as well as treatment of storm and wastewater.

The Council heard a presentation by the state of Michigan, which has made impressive progress to limit inputs of PFOS into the wastewater system using pre-treatment mandates. We would urge New Jersey to extend the Michigan approach to include all PFAS chemicals. This will maximize pollution prevention benefits by pushing industries to select PFAS-free alternatives instead of simply switching from longer-chain PFAS to newer generation chemicals, a story all too well known by New Jersey. Also, pre-treatment systems can be designed and managed to remove *all PFAS* to non-detectable levels instead of just reducing PFOS.

Municipal **wastewater treatment plants (WWTP)** are also key points of intervention. EPA recommends states modify NPDES permits to require the following permit conditions:

- Effluent, influent, and biosolids monitoring for the 40 PFAS compounds detectable by draft analytical method 1633, conducted at least quarterly and all data must be reported on Discharge Monitoring Reports
- Direct WWTP to identify and reduce sources of PFAS from industrial users that send their wastewater to municipal treatment plants

Colorado has enacted this approach, mandating the state's WWTP to engage in routine monitoring of PFAS in influent, effluent and biosolids. Further it requires the state's largest metropolitan water districts to perform a source identification study within a two-year period. Colorado has already enacted another EPA recommendation that alerts downstream parties when NPDES permits are being updated, to allow downstream drinking water systems to weigh in on potential health threats from upstream dischargers.

When it comes to the management of municipal and industrial residuals, options for pollution control are more challenging and costly. To respond more specifically to the management questions related to biosolids.

1. Which types of residuals should the Department prioritize? We urge NJ DEP to require PFAS testing for all industrial residuals. The state should also track the historic disposal patterns for industrial residuals known to use PFAS. The historic wastes from leather tanning, paper and pulp, metal plating have been identified as major threats to agricultural lands and food safety in both Maine and Michigan. Very few other states have tested agricultural lands of food crops.

The state should consider testing and robust management or treatment of PFAS in sewage septage tank waste, which has been found to have elevated PFAS levels in Maine. Careful attention should be paid to any types of Class A biosolids made available to the public as

bagged fertilizer, compost or topsoil, including use in community and school gardens, parks or other public spaces. We are concerned about ingestion of sludge-based fertilizer as well as exposure to food crops not typically treated with biosolids in commercial agriculture, including food crops eaten raw. The public should be clearly informed about the fact these fertilizers are made of sewage waste and about the potential exposure to PFAS and other persistent contaminants.

2. Should the department require data collection regarding land application?

Yes, the department should not wait for guidelines from the federal government before beginning to collect information about the impacts of current and historic land applications on groundwater, soil contamination and food crops, particularly dairy.

3. How should the department prioritize monitoring requirements for residuals generators?

We recommend that NJDEP follow the approach laid out by the State of Colorado which tiers monitoring frequency for WWTP by their size and capacity. All systems need to test at least annually. Where pre-treatment and best management practices are enacted for point sources, monitoring should ensure measures are effective in lowering PFAS levels.

4. Effectiveness of "treatment" technologies.

A variety of technologies are under development to treat PFAS in biosolids. These are costly, energy intensive and must be used on a long-term basis. For this reason prevention measures are favorable to treating residuals. Where treatment is required, NJDEP should ensure it is effective in destroying PFAS and poses no risk of spreading contamination. We are particularly concerned about the incineration of sewage sludge and see inadequate documentation of PFAS destruction in incinerators, and gasification or pyrolysis plants. Where treatment is developed, New Jersey should use cost recovery, federal infrastructure grants, and discharger fees to ensure that the public is not left paying the price of pollution cleanup.

Sincerely,

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