# PFAS Sampling At Sewer Plants: Information About EPA Method 1633 and NYS SPDES Permit Strategy

This document addresses the following guiding questions:

1. What is the purpose of Environmental Protection Agency (EPA) Method 1633 (Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS), and what questions was the method designed to answer?
2. What is the purpose of the NYS Department of Environmental Conservation (DEC) Publicly Owned Treatment Works (POTWs) Permitting Strategy for Implementing Guidance Values for PFOA, PFOS, and 1,4-Dioxane?

## EPA Method 1633

EPA method 1633 was designed to standardize laboratory methods for analyzing per- and polyfluoroalkyl substances (PFAS) in wastewater. It can be used to test for 40 types of PFAS compounds (see EPA Method 1633, Table 1).

Previous EPA-approved methods for PFAS analysis focused on drinking water. Laboratories had to adapt them for wastewater (including sewage) due to differences in the physical nature of wastewater and drinking water. Although the adaptations had become fairly well standardized, they introduced discrepancies and uncertainty. The new method resolves many of these questions.

EPA published a final version of Method 1633 in December 2024, and proposed a rulemaking to add the method to the Clean Water Act (CWA) list of approved methods on January 17, 2025. If the rulemaking is approved, Method 1633 will be required for CWA compliance, such as State Pollutants Discharge Elimination System (SPDES). Until then, the method is recommended by EPA. The Safe Drinking Water Act (SDWA) will continue to use a different set of PFAS analysis methods that are specific to drinking water.

EPA's rulemaking was frozen on January 20, 2025 as part of President Trump's blanket "regulatory freeze". However, the comment period remains open until February 20, 2025. The proposed rule, comments, and comment submission portal can be found here.

## NYS Permitting Strategy for PFOA, PFOS and 1-4-Dioxane

In 2023, the NYS Department of Environmental Conservation (DEC) issued "guidance values" for surface water concentration limits of PFOA, PFOS, and 1,4-Dioxane; guidance on appropriate testing methods for these parameters; and a strategy for implementing the guidance values in sewer plant State Pollutant Discharge Elimination System (SPDES) permits.

DEC prioritized its rollout of PFAS limits SPDES permits by focusing on facilities that (a) discharge to drinking water, and (b) apply sludge to land (aka 'recycle biosolids'). For such facilities (mapped here), DEC is requiring quarterly sampling over a 12-month period.

In our project study area, which includes the portions of the Mohawk and Hudson Rivers that are used as drinking water sources, plus the connecting river segments, 14 sewer plants accept landfill leachate. Of these, 11 will be required to test under DEC's strategy (see table below).

Per DEC's testing methods guidance, EPA Method 1633 should be used for analysis of PFOA, PFOS, and 1,4-Dioxane.

### Summary of Testing Requirements Under DEC's Permitting Strategy for Implementing Guidance Values for PFOA, PFOS, and 1,4-Dioxane For Sewer Plants In the Project Area that Accept Landfill Leachate

| Facility Name | Testing Required? |
|---|---|
| Albany County Water Purification District - North Plant | N |
| Kingston WWTF | Y |
| Beacon Water Pollution Control Plant | Y |
| Catskill - V WWTP | Y |
| Poughkeepsie STP | Y |
| Hudson - C STP | Y |
| Glasco Wastewater Treatment Plant (Town of Saugerties) | Y |
| Rensselaer Co Sd 1 WWTP | N |
| Gloversville-Johnstown Joint WWTP | Y |
| Mohawk View Water Pollution Control Plant | Y |
| Amsterdam - C Wastewater Treatment Plant | Y |
| Canajoharie - V STP | N |
| Rotterdam Sewer Dist #2 | Y |

| | |
|---|---|
| Schenectady Water Resource Recovery Facility | Y |

## Our Assessment

In our opinion, DEC's strategy does not apply firm limits on PFOA, PFOS, and 1,4-Dioxane with enough urgency. The strategy relies too much upon additional monitoring and non-binding measures such as SPDES permit Action Levels.

Notably, the strategy includes potential future permit modifications requiring sewer plants to develop "Pollutant Minimization Programs (PMP)," which would "identify potential sources and implement actions to reduce effluent concentrations of PFOA, PFOS, and 1,4-Dioxane." Sewer plants could take similar action immediately under the Industrial Pretreatment Program.

## Our Recommendation

Landfill leachate potentially contains thousands of chemicals, many of which belong in the category of emerging contaminants – substances that are suspected to cause harm, but are not yet regulated. These substances are present in a vast array of consumer and household goods, and have been for decades. They enter the environment through landfill leachate, and will continue to do so for the foreseeable future.

Some emerging contaminants are known to pose risks, but they are not currently regulated (and will not be in the near future) because our regulatory frameworks require extensive data about routes of exposure; mechanisms of harm; unsafe concentration thresholds; sampling and analysis methods; treatment technologies; and implementation costs. Complicating this picture, emerging contaminants are often dangerous at extremely low concentrations and have unpredictable effects in mixtures. These facts challenge the assumptions underlying our environmental regulations, among them that contaminants are safe in low concentrations and can be managed one by one.

As regulations for PFOA, PFOS, and 1,4-Dioxane are developed and implemented, one of the first sensible actions is to assess how regulations will affect municipalities, communities, and budgets by testing for their presence and concentration. However, in the case of landfill leachate, compliance with regulations is not an adequate goal. Our Leachate Loophole report explains how our regulatory approach has failed to protect drinking water sources and people's

health. New York's new regulations on PFOA, PFOS, and 1,4-Dioxane will improve the situation, but they are not a complete solution to the problem.

Because of the large number of potential contaminants in leachate, and the lack of epidemiological studies about emerging contaminants, it is not possible to design a testing regime that can ensure protection of the environment, aquatic life, and people who drink water from areas where sewage plants are discharging leachate. Protections need to be in line with the known threats, and this means that landfill leachate management will require a new approach. For now, leachate should remain onsite at the landfill.