STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION





Summary of Wastewater Effluent Monitoring Data for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Wastewater PFAS Monitoring Program

In October 2022, the Department of Environmental Protection (Department) initiated a wastewater effluent monitoring program to require sampling for PFAS compounds in wastewater effluent from certain licensed discharges. This monitoring is being required under the authority granted in P.L. 2021, ch. 641, Act to Prevent the Further Contamination of the Soils and Waters of the State with So-called Forever Chemicals.

Sampling commenced in October 2022 at 105 publicly owned treatment works (POTWs)¹ and 19 private facilities (such as certain businesses and industries). These facilities are sampling their effluent monthly (or on an alternative schedule for non-continuous dischargers) for approximately 10 months. This data is being reported to the Department monthly. After the data has undergone a quality control review it will be posted on the Department's website at: https://www.maine.gov/dep/spills/topics/pfas/

Source of PFAS

As early as the 1940's, PFAS became widely used in household products, industrial settings, and firefighting foams. Because they have a unique ability to repel oil, grease, water, and heat, PFAS are used in many common products. For example, they have been used to make non-stick cookware, stain-resistant carpets and furniture, water-resistant clothing, heat-resistant paper/cardboard food packaging (like microwave popcorn and pizza boxes), and some personal care products. PFAS break down very slowly and are persistent in the environment. This means that PFAS may build up in people, animals, and the environment over time. Health agencies are working to understand more about the health effects of low level, long-term exposure.

While PFAS may be present in effluent and biosolids from POTWs, the POTW is not the original source of the PFAS. PFAS is discharged to POTWs from homes, businesses, or industries where PFAS containing materials may be in use. While POTWs do a very good job of treating the conventional pollutants in sanitary wastewater, they are not designed to remove PFAS. PFAS removal from effluent requires specialized, costly, and newly evolving treatment technologies. Reduction or elimination of PFAS at its source is the most practical and efficient removal mechanism.

¹ A POTW is a municipal or quasi-municipal wastewater treatment facility that treats wastewater from homes, businesses, and sometimes industries. POTWs are licensed by the Department to ensure compliance with the Clean Water Act and Maine law.

PFAS Wastewater Regulation

Sampling results will be used by the Department to establish a baseline understanding of PFAS levels in wastewater effluents throughout the state that may be used for future regulation of PFAS. A tentative regulatory schedule is as follows:

December 31, 2023 – The Department completes 10-12 months of effluent sampling.

June 1, 2024 – The Maine Department of Health and Human Services to promulgate a drinking water Maximum Contaminant Level for PFAS. (Maine's current interim drinking water standard is 20 parts per trillion for a sum of six PFAS compounds.)

December 31, 2024 – The federal Environmental Protection Agency to promulgate human health ambient water quality criteria for PFAS.

December 31, 2025 – The Department to complete rulemaking to adopt aquatic life and human health ambient water quality criteria for PFAS.

Following rulemaking to promulgate the criteria cited above, the Department plans to incorporate applicable PFAS limitations and monitoring requirements in wastewater discharge permits as needed, with schedules of compliance if necessary.