



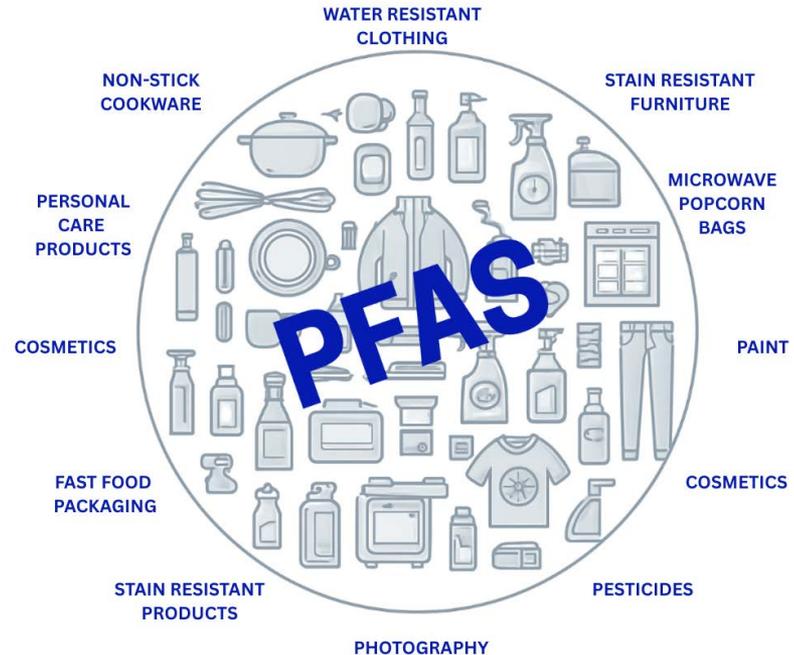
**MWRA Advisory Board Update:
Per- and Polyfluoroalkyl Substances (PFAS)
Requirements and Results**

March 19, 2026



Overview

- Drinking Water
- Wastewater
- Biosolids
- Industrial Pretreatment
- Recent Legislative and Regulatory Actions





Drinking Water Regulatory Actions

PFAS Compounds Included in Federal DW Regulations		
PFOA	Perfluorooctanoic acid	4 ppt
PFOS	Perfluorooctanesulfonic acid	4 ppt
PFNA	Perfluorooctanoic acid	10 ppt
PFHxS	Perfluorohexanesulfonic acid	10 ppt
HFPO-DA (GenX)	Hexafluoropropylene oxide dimer acid	10ppt
Mixtures containing two or more PFHxS, PFNA, HFPO-DA and PFBS		Hazard Index

EPA announced a National Primary Drinking Water Regulation in April, 2024. However, in May 2025 EPA announced plans to rescind MCLs for 4 PFAS compounds (PFNA, PFHxS, HFPO-DA, and Hazard Index with PFBS) and delay compliance deadlines for PFOA and PFOS until 2031.

PFAS Compounds Included in MassDEP PFAS6 DW Regulations	
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PFNA	Perfluorooctanoic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpA	Perfluoroheptanoic acid
PFDA	Perfluorodecanoic acid

- Existing state drinking water regulations
 - 20 parts per trillion (ppt) for PFAS6
- New federal drinking water regulations
 - Initial monitoring must be completed by April 2027, with results reported in annual water quality reports.



MWRA meets EPA and MassDEP Drinking Water Standards

- MWRA's results are all either not-detectable or at trace levels, for both state and federally regulated PFAS compounds.
- Results can be found here: <https://www.mwra.com/your-water-system/drinking-water-quality/pfas>
- Massachusetts Department of Environmental Protection (MassDEP) has additional information about Public Water Systems (PWSs) across the state: <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water>



Unregulated Contaminant Monitoring Rule 5

- Every five years, EPA issues a list of unregulated contaminants to be monitored by PWSs (UCMR)
- UCMR5 included 29 PFAS compounds and lithium
- UCMR5 results can be found here:
<https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule-data-finder>
- Sampled at entry point to the distribution system.
 - For fully served communities, only one detect (suspect tap)
 - For partially served communities, some samples > 4 ppt PFOA/PFOS; other PFAS components detected but not part of federal rule



Wastewater

- MWRA's treatment plants are subject to both a National Pollutant Discharge Elimination System (NPDES) permit issued by the U.S. Environmental Protection Agency (EPA) and a state requirements issued by MassDEP
- **There are currently no PFAS effluent limits for wastewater treatment facilities in Massachusetts**
- Monitoring Requirements
 - Quarterly for influent, effluent, and biosolids
 - Methods 1633A (PFAS) and 1621 (Absorbable Organic Fluorine)



Influent Concentrations

Sample Type	PFOA	PFOS	PFAS 6	PFAS 40
units ppt	average	average	average	average
	(range)	(range)	(range)	(range)
DITP Influent	7	9	22	106
	(ND-12)	(ND-17)	(4-37)	(42-233)
Residential	7	6	17	58
	(ND-85)	(ND-98)	(ND-260)	(ND-429)
Background	6	20	29	70
	(ND-36)	(ND-870)	(ND-880)	(3-1357)
I&I	6	7	16	54
	(ND-12)	(ND-19)	(ND-38)	(ND-209)

Effluent Concentrations

Sample Type	PFOA	PFOS	PFAS 6	PFAS 40
units ppt	average	average	average	average
	(range)	(range)	(range)	(range)
DITP Effluent	8	7	20	59
	(ND-10)	(ND-12)	(8-30)	(25-87)

ppt: parts per trillion; equivalent to nanograms per liter (ng/L)

ND: nondetect = not detected above the laboratory's method detection limit

PFAS 6: the 6 PFAS compounds currently regulated by MassDEP's drinking water regulations; includes PFOA, PFOS, PFNA, PFHxS, PFHpA, PFDA

PFAS 40: The 40 PFAS compounds that are measured by EPA Method 1633

All samples analyzed using EPA Method 1633



- MassDEP issues Approval of Suitability permits
- Type I approval for land application
- No PFAS limit
- Quarterly PFAS sampling for 16 compounds
- Current permit expires May 15, 2027

Biosolids Concentrations

Sample Type	PFOA	PFOS	PFAS6	PFAS 40
units ppb	average	average	average	average
	(range)	(range)	(range)	(range)
DITP biosolids	ND	12.13	12.13	16.24
	(ND-ND)	(5.56-15.9)	(5.56-15.9)	(10.42-24.33)

ppb: parts per billion; equivalent to micrograms per liter (ug/L) or micrograms per kilogram (ug/kg)

ND: nondetect = not detected above the laboratory's method detection limit

PFAS 6: the 6 PFAS compounds currently regulated by MassDEP's drinking water regulations; includes PFOA, PFOS, PFNA, PFHxS, PFHpA, PFDA

PFAS 40: The 40 PFAS compounds that are measured by EPA Method 1633

All samples analyzed using EPA Method 1633



Industrial Pretreatment (Toxic Reduction and Control)

PROGRAM GOALS:

- Prevent the introduction of pollutants that will interfere with operations, including interference with use or disposal of municipal sludge
- Prevent the introduction of pollutants that will pass through the treatment works
- Improve opportunities to recycle and reclaim municipal and industrial wastewater and sludge



Industrial Sampling Requirements

- Federal Requirements:
 - Annual sampling of:
 - Commercial Car Washes
 - Platers/Metal Finishers
 - Paper and Packaging Manufacturers*
 - Tanneries and Leather/Fabric/Carpet Treaters
 - Manufacturers of Parts with Polytetrafluoroethylene (PTFE) or Teflon type coatings
 - Landfill Leachate
 - Centralized Waste Treaters
 - Known or Suspected PFAS Contaminated Sites
 - Fire Fighting Training Facilities
 - Airports
 - Any other Known or Expected Sources of PFAS
- Additional State (MassDEP) Requirements:
 - Annual sampling of all Significant Industrial Users



Sewer Use Discharge Permits Requirements

- Permitted Industrial Users make up less than **3%** of flow to Deer Island
- Number of permits:
 - Total: approximately 2,500
 - Significant Industrial Users: 177
- PFAS samples required with some permit applications
- TRAC added PFAS sampling requirements to **46 existing Industrial Permits** (added based on results from permit application sampling results and industry types suspected to have PFAS)
- New industrial users/connections with PFAS in their discharge will have a limit of 20 ppt



Sewer Use Discharge Permits

TRAC added PFAS sampling requirements to **46 Industrial Permits**
(Added based on results from permit application sampling results and industry types suspected to have PFAS)

120 Industrial Users have been sampled for PFAS (97 by the MWRA)

218 Industrial Connections sampled

444 PFAS samples collected at Industrial Users

