

NORTHEAST CONFERENCE ON THE SCIENCE OF
Pfas: Public health and the environment
Northeast Waste Management Officials' Association

Commissioner Martin Suuberg
Massachusetts Department of Environmental Protection



MassDEP PFAS Efforts

Adopted Drinking
Water and Cleanup
Standards

Conducting Statewide
Sampling & Analyses
for Public Water
Systems and Private
Wells

Firefighting Foam
Take-Back Program

Assessing Sources &
Environmental Levels:
e.g. mosquitocides

Providing Technical
Assistance, Education,
Outreach,
Coordination

Evaluating other
Media and Exposure
Pathways

Work with Legislative
Task Force



MassDEP PFAS Regulations

- **MassDEP is addressing a subclass of PFAS – currently six**
 - **More than 50% of MA public water supply samples have 3 or more PFAS**
- **The six in the regulated subclass include those:**
 - **very closely related chemically**
 - **most frequently detected in drinking water**
 - **typically detected at the highest levels in drinking water**
 - **of greatest concern due to persistence in the human body and toxicity**
- **Review of rules will take place between now and the end of 2023**



Regulatory Requirements for Public Water Suppliers

Community and Non-Transient Non-Community PWS are required to take action if PFAS6 is detected > MCL of 20 ppt



Actions may include:

Issuing Public Education

Issuing Public Notice

Reducing PFAS6 levels below the MCL in finished water



Public Water Supply Sampling Status

1,468 PWS required to sample

991 PWS sampled for PFAS to date

1,066 signed up for free sampling
program

104 PWS detected PFAS6 > 20 ppt MCL

95% of residents drinking water below
MCL



State Funding to Date for PFAS Remediation

- Funding provided by two supplemental budgets: [Chapter 142 of the Acts of 2019](#) and [Chapter 31 of the Acts of 2020](#))
- \$8.4M for PWS testing and treatment design, including reimbursement for costs already incurred, including three rounds of grant funding:
 - PFAS Design Grants #1 - \$1.98M to 10 PWS
 - PFAS Design Grants #2 - \$3M for 17 PWS
 - State funding for Public Water Supply Testing
 - Free Private Well Drinking Water testing -



State Funding for PFAS Remediation

- Clean Water Trust; State Revolving Fund
 - Priority funding; 0% loans
 - \$180 million in SRF financing for 16 projects in 2021
 - More in 2022



AFFF Takeback Program 2018-2019

- Partnered with the Department of Fire Services (DFS)
- ~200,000lbs from 75+ public safety agencies (~ \$213,000)
- 149,016 pounds (17,531 gallons) removed and disposed



EPA/MassDEP PFAS Permit Requirements for Municipal and Industrial Discharges

- Monitoring
 - Municipal WWTPs
 - Quarterly influent, effluent, and sludge samples
 - Annual effluent samples from industrial facilities discharging to WWTP
 - Industrial
 - Quarterly effluent samples
- EPA Timing
 - Conditions go into effect 6 months after EPA's multi-lab validated method for PFAS in wastewater is made available



MassDEP's Additional PFAS Conditions in Wastewater Permits

- Industrial Dischargers' Permit Source Reduction
 - Within 6 months of effective date of permit must evaluate use of PFAS-containing products and whether use can be reduced or eliminated
 - EEA Office of Technical Assistance to work directly with industrial dischargers and industrial facilities discharging into municipal WWTPs
- MassDEP Timing
 - Most facilities: monitoring begins 6 months after EPA's multi-lab validated method for PFAS in wastewater is available, **or 2 years from the effective date of the permit**, whichever is earlier
 - For facilities discharging upstream of drinking water intakes, effluent monitoring begins **180 days** after the effective date of the permit



PFAS in Residuals: Context

- Wastewater residuals: 38% reused as fertilizer in MA
- MassDEP regulates 35 entities that land apply residuals
- PFAS Testing: quarterly requirement for residuals that are land applied (as of July 2020)
- Land application standards; MassDEP evaluating options and consulting with stakeholders
- Alternative disposal alternatives include landfill, incineration, export
- Policy issues
 - Impacts of PFAS on water, crops, biota
 - Impacts of regulating reuse and reuse market disruption



PFAS in Residuals: MassDEP Actions

- Stakeholder Process
 - Industry groups, AOS holders, environmental advocacy organizations, health advocacy organizations, academic researchers, agriculture groups, and other state agencies
 - First meeting held in 2021. Gathering information and perspectives
- Technical work underway
 - Leachate model
 - Review of others' research/coordination with other states
 - Technical subcommittee meeting
 - Establish screening values



River Sampling



- MassDEP jointly funded a U.S. Geological Survey (USGS) water quality study to evaluate the presence of PFAS in Massachusetts' rivers and streams at 64 sites in 27 2020 and analyzed the samples for 24 individual PFAS.
- Sampling sites were located upstream or downstream of discharges from 24 wastewater treatment facilities and at 16 other stream sites, including sites downstream of suspected nonpoint and industrial sources and at sites not associated with suspected PFAS sources.
- <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas#pfas-in-massachusetts-rivers->



Where Next?

- **Continued Work with Water Suppliers and Affected Communities**
 - **MCL implementation**
 - **Site Discovery**
 - **Funding for Remediation**
- **Engagement with the Legislative Task Force as it considers recommendations**
- **Ongoing work on residuals and surface water quality issues**
- **3 year review of MCLs**
 - **Consider work underway by EPA**
- **Implications for Landfill Monitoring**
- **Air Program**
- **Other**



More Information on MassDEP PFAS webpage


<https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>

or just google MassDEP PFAS

MassDEP addressing PFAS contamination

Projects by Public Water Systems PWS in Massachusetts to address PFAS contamination. This story map consists of clickable seven tabs that present interactive maps, dashboards and photographs that describe the efforts by MassDEP and the PWSs to address PFAS contamination.

PFAS information



1 Introduction

2 Testing

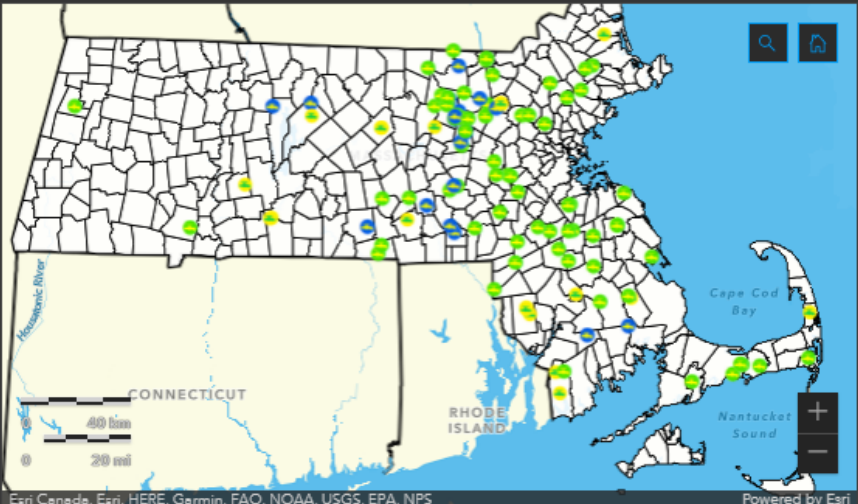
3 Public Water Systems Tested

4 PFAS detections and responses by public water systems

MassDEP recently adopted a drinking water standard limiting the sum of six specific PFAS to no more than 20 parts per trillion. Together, these six PFAS are referred to as "PFAS6." The following interactive map displays locations where public water systems have detected the sum of these six state-regulated PFAS at levels over 20 parts per trillion in "finished" water, or in water that is made available for public use.

Public Water System PFAS Detection and Response Actions

Public Water Systems (PWS) who detected PFAS6 over the Maximum Contaminant Level (MCL) in their finished water and their res...



Map PWS types More info

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PWS detected PFAS6 above 20 ppt

- Andrews Farm Water Co., Inc
- Applewood Community Corporation
- Aquarion Water Company, Millbury
- Assurance Technology
- Attleboro Water Department
- Avon Water Department
- Ayer DPW Water Division
- Ayer Road Properties, LLC
- Barnstable Fire District Water Department
- Bedford Water Dept
- Bellingham Water Dept

Last updates: a few seconds ago

LEGEND

Public Water Systems type

TYPE

- Community water system

The Massachusetts Maximum Contaminant Level (MCL) for PFAS6 = 20 parts-per-trillion (ppt) or 20 nanograms per liter (ng/L). PFAS6 is the sum of the concentrations of the following six specific PFAS:

- 1 Perfluorooctane sulfonic acid (PFOS)

Disclaimer on the map