

# PFAS in Drinking Water

## The Massachusetts MCL and its Impact on Public Water Suppliers

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# Maximum Contaminant Level

- MCL for PFAS6 established in October 2020
- MCL = 20 parts-per-trillion (nanograms per liter)
- “PFAS6” MCL is the sum of six PFAS
  - PFOS: perfluorooctane sulfonic acid
  - PFOA: perfluorooctanoic acid
  - PFHxS: perfluorohexane sulfonic acid
  - PFNA: perfluorononanoic acid
  - PFHpA: perfluoroheptanoic acid
  - PFDA: perfluorodecanoic acid
- Sampling requirement rolled out over time depending on type of PWS and population size
- TNCs not subject to MCL but must collect one sample


# Public Water Supply Testing Results

- 1,344 PWS out of the 1,425 (non-consecutive systems) have sampled to date
- 161 PWS (12%) detected PFAS6 > 20 ppt in one or more of their finished water sources (80 Community PWS)
- 47% of PWS detected one or more of the PFAS6 compounds in their water. A detection is a result greater than 2 parts-per-trillion.
- PFOS and PFOA the most common



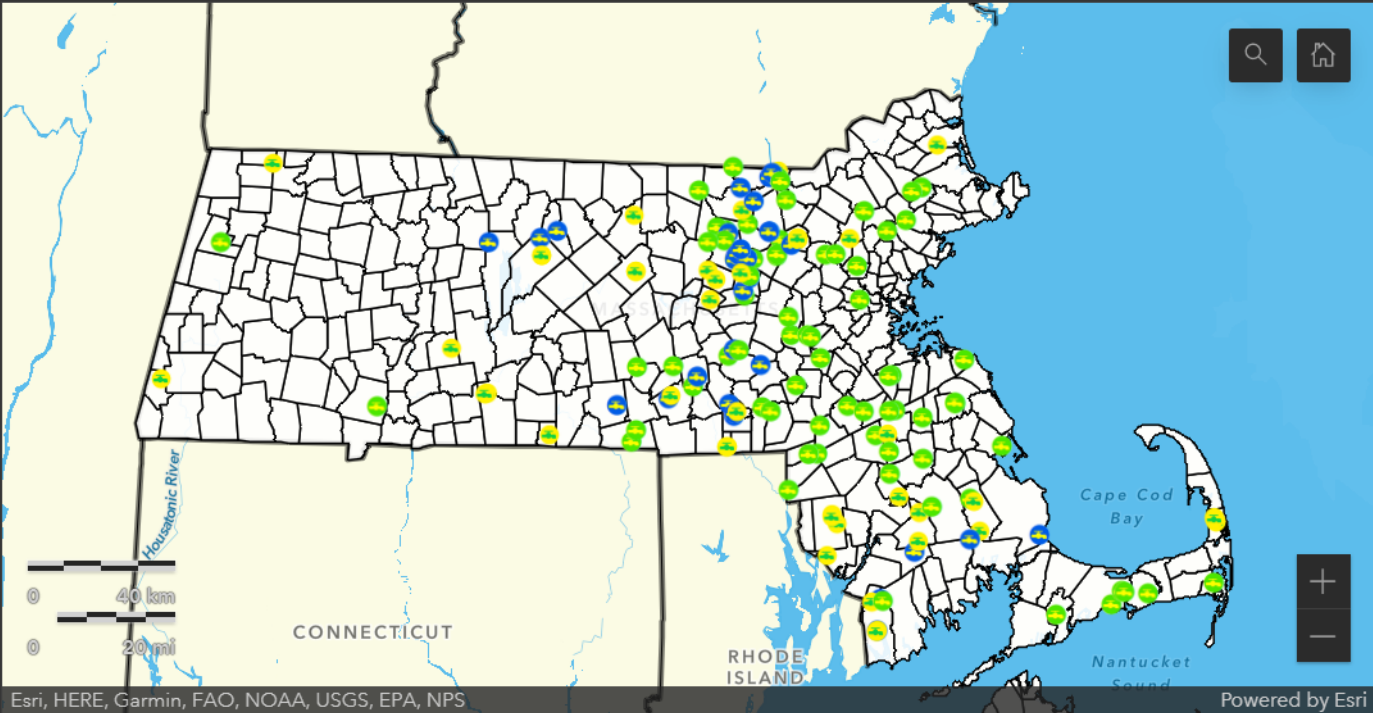
# PFAS discovered at PWS sources

google [MassDEP PFAS](#) for our webpage w/maps



## 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 response actions



### PWS detected PFAS6 above 20 ppt

- 28 Hasting Street Corp
- 330 Codman Hill Road  
Boxborough
- 85 Swanson Rd LLC
- Abington/Rockland Joint Water Works
- Acton Water District
- American Aquafer
- Andrews Farm Water Co., Inc
- Applewood Community Corporation
- Aquarion Water Company, Millbury
- Arnold's Restaurant
- Assurance Technology
- Attleboro Water Department

*Last update: 16 seconds ago*

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS  
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[Map](#) [PWS types](#) [More info](#)

# Actions Being Taken by PWS

- New treatment (most common is GAC but also Ion Exchange Resin being used)
- Shutting off wells
- Interconnections to other PWS
- Blending water from several sources
- New water mains
- New wells



Vessels containing GAC at the Stow Center School

# Financial Investment



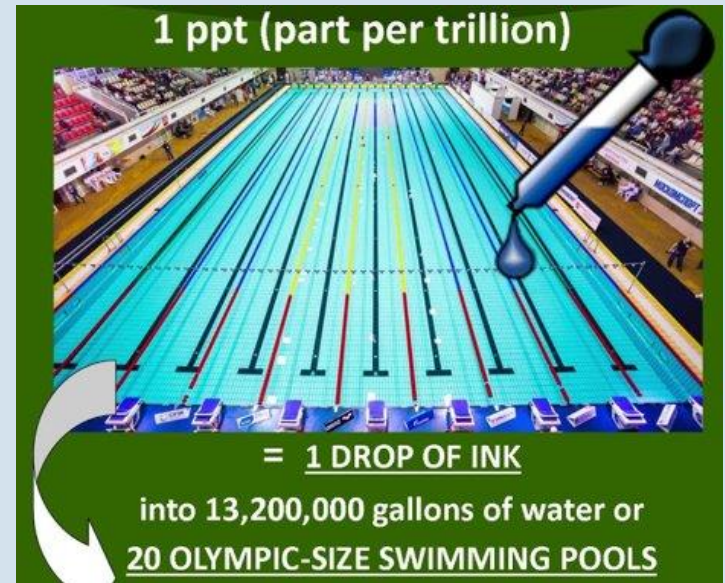
- \$10 million in grants awarded to PWS for the design and planning of treatment
- \$100 million in zero interest loans/loan commitments issued through the DWSRF to PWS for construction projects to address PFAS
- 25 more PWS have applied for loans this year
- \$1 million in lab analysis for the free sampling program (\$300/sample)
- Some of the treatment facilities paid for by a third party responsible for the contamination, but often the source of PFAS is unidentified and the cost is falling on our PWS

# Risk Communication

- Low level of PFAS is a concern based on health studies
- PFAS bioaccumulates
- ppt levels of some chemicals in blood have significant effects
- Why focus on drinking water when food is the main source?

Drinking water contributes 20% and up to 75% near contaminated sites.

Drinking water is main source for infants.



Chemical	Levels
Normal estradiol in women of child-bearing age	15-350 ppt
Normal insulin in adults	56 - 560 ppt



Thank You