

New Federal Drinking Water Standard for Per- and Polyfluoroalkyl Substances

The Westford Water Department has been closely monitoring a family of chemicals called per- and polyfluoroalkyl substances (PFAS) that have been detected in public water supplies in Massachusetts and across the nation. PFAS were widely used in manufacturing, many consumer products, and firefighting foam. When discarded, PFAS has leached from these products and into water sources. The presence of PFAS is the result of pollution and not any action taken by our water system.

Massachusetts passed a drinking water standard for PFAS in October of 2020 which applies only to Public Water Systems (PWS) in Massachusetts. On Wednesday, April 10th, the United States Environmental Protection Agency (EPA) announced that they have finalized a new federal National Primary Drinking Water Rule for PFAS, which will apply to PWS across the country. EPA's Maximum Contaminant Levels for PFAS compounds, PFOA and PFOS, at 4 parts per trillion (ppt), and PFNA, PFHxS, and GenX Chemicals at 10 ppt, are quite a bit lower than the Massachusetts Maximum Contaminant Level of 20 ppt for the sum of six PFAS compounds, which is referred to as PFAS6. The Westford Water Department has been monitoring for PFAS since the Massachusetts standard took effect. The below table represents the monthly PFAS6 ranges of finished water from both treatment plants. Compliance with the Massachusetts MCL is based on a quarterly average of monthly sampling, and the Westford Water Department has been in compliance with the MassDEP MCL since it's inception (the average during the quarter the monthly 20.6 ppt result from the Forge WTP below was collected was 10 ppt and in compliance with the MCL).

	Current MassDEP MCL	EPA Standard	FORGE WTP	NUTTING WTP
PFAS6	Combined 20 ppt	No EPA Standard	2.9 - 20.6	11.2 - 19.1
PFOA	Combined 20 ppt	4 ppt	2.3 - 6.1	6.4 - 10
PFOS	Combined 20 ppt	4 ppt	1.3 - 3.1	3.4 - 5.3
PFNA	Combined 20 ppt	10 ppt / Included in Hazard Index Calculation	ND - 9.3	ND - 0.8
PFHxS	Combined 20 ppt	10 ppt / Included in Hazard Index Calculation	1.0 - 1.5	1.4 - 2.0
PFHpA	Combined 20 ppt	No EPA Standard	0.97 - 2.1	1.8 - 3.3
PFDA	Combined 20 ppt	No EPA Standard	ND - 5.7	ND
PFBS	No MA Standard	Included in Hazard Index Calculation		
Gen X Chemicals (HFPO-DA)	No MA Standard	10 ppt / Included in Hazard Index Calculation		

ND = Not detected

all results in parts per trillion (PPT)

In Massachusetts, the Department of Environmental Protection (MassDEP) administers the federal Safe Drinking Water Act. MassDEP has to be at least as stringent with their

standard as EPA and will have up to two years to adopt the new lower standard to comply with EPA's primacy requirements. MassDEP has indicated they will convene a stakeholder group to advise them on adoption of new standards (MassDEP could choose to be more stringent than EPA or could act more quickly to adopt the standards than EPA allows). We expect to learn more about MassDEP's process in the coming weeks.

Now that a federal standard has been adopted, PWS across the country will be grappling with how to come into compliance with the new standards. What does this mean for our water system? While we are in compliance with MassDEP's current standard, when MassDEP adopts EPA's new standard, then we will have to work to bring the levels in our finished water down. We are currently working with our engineers to determine the best treatment method to get ready for compliance when the new standard takes effect in Massachusetts. This includes an ongoing pilot study to determine the best filter media, and preliminary engineering for 2 PFAS treatment plants at the locations of our existing facilities (Forge Village and Nutting Road). The Water Department is requesting an appropriation for \$24.5 million dollars at the upcoming 2024 Annual Town Meeting and pursuing low-interest funding from the Drinking Water Trust State Revolving Fund.

The research and understanding into potential health impacts of PFAS continues to evolve. When a water source contains PFAS above the Massachusetts standard, the Massachusetts Department of Environmental Protection recommends consumers in a sensitive subgroup (pregnant or nursing women, infants and people diagnosed by their health care provider to have a compromised immune system), are advised not to consume, drink, or cook with water when the level of PFAS6 is above 20 ppt. As our scientific understanding evolves, further guidance may be issued. Consumers concerned about potential health effects of PFAS should consult a medical professional.