



## MassDEP Drinking Water Program

# Per- and Polyfluoroalkyl Substances (PFAS) in Private Well Drinking Water Supplies FAQ

### Introduction

This fact sheet provides answers to questions frequently asked by private well owners about per- and polyfluoroalkyl Substances (PFAS) in a private drinking water supply. A separate MassDEP fact sheet “PFAS in Drinking Water: Questions and Answers for Consumers” describes the sources of PFAS compounds, health effects, and MassDEP recommendations to reduce consumer exposure. This consumer factsheet is available at <https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers>. In addition, Massachusetts Department of Public Health has issued the following factsheet on PFAS in drinking water located at <https://www.mass.gov/doc/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water>

### What are PFAS?

PFAS are a group of man-made chemicals manufactured and used in a variety of consumer products and industries throughout the world. Two PFAS chemicals, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were extensively produced and are the most studied and regulated of these chemicals. Several other PFAS that are similar to PFOS and PFOA exist. These PFAS are contained in some firefighting foams used to extinguish oil and gas fires. They have also been used in a number of industrial processes and to make carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) that are resistant to water, grease, and stains. Because these chemicals have been used in many consumer products, most people have been exposed to them.

### What are the levels of concern for PFAS chemicals?

PFAS Drinking Water Levels of Concern or Limits in Massachusetts				
Organization	Date	Criterion	Levels of concern in parts trillion (ppt) or ng/L	Status
US EPA	2016	Health Advisory	70 - Individually or for the sum of PFOS and PFOA	current
MassDEP	2018	ORSG <sup>1</sup>	70 - Individually or for the sum of PFOS, PFOA, PFNA, PFH <sub>x</sub> S, PFH <sub>p</sub> A	current
MassDEP Bureau of Waste Site Cleanup (BWSC)	2019	groundwater cleanup standard, GW-1	20 - Individually or for the sum of PFOS, PFOA, PFH <sub>x</sub> S, PFH <sub>p</sub> A, PFNA, and PFDA	proposed
MassDEP		Maximum Contaminant Level (MCL)	to be determined	under development

<sup>1</sup> Office of Research and Standards Guideline

In 2016, the USEPA established a lifetime Health Advisory for drinking water of 0.070 ug/L (or 70 parts per trillion, ppt) for any combination of PFOA and PFOS, two of the most common PFAS compounds.

In June 2018, MassDEP issued a public health guideline for drinking water of 70 ppt to address five PFAS compounds (individually or the sum of the five): PFOA, PFOS, PFNA, PFHxS, and PFHpA. This type of guideline, known as an Office of Research and Standards Guideline (ORSG), provides recommended contaminant levels in drinking water and is set to be protective against adverse health effects for all people consuming the water.

On April 19, 2019 the MassDEP BWSC Program issued draft regulations under 310 CMR 40.0000 (Massachusetts Contingency Plan [MCP]). The draft regulations establish reportable concentrations and clean-up standards of 20 ppt combined for six PFAS compounds in groundwater used or potentially used as drinking water. The public comment period for these proposed regulations closed on July 19, 2019 and MassDEP is working to finalize the regulations.

In April 2019, MassDEP also initiated the process to develop a drinking water standard for public drinking water systems, known as a Massachusetts Maximum Contaminant Level (MMCL), which will cover then same PFAS as those addressed under the MCP. This forthcoming MMCL will be proposed through the Commonwealth's standard regulation development process, which includes a public comment period. MassDEP seeks to align the forthcoming MMCL with the MCP Ground Water 1 (GW-1) standard and any revised ORSG. Information on the MMCL development effort, including information on stakeholder meetings, can be found at <https://www.mass.gov/lists/development-of-a-pfas-drinking-water-standard-mcl>.

### ***How do PFAS get into private well water supplies?***

While consumer products and food are the largest source of exposure to these chemicals for most people, private drinking water can be an additional source of exposure in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example, an airfield at which they were used for firefighting or a facility where these chemicals were produced or used.

### ***Should I test my private well for PFAS?***

If your well is located within one to two miles of a known source of PFAS or to other water supplies where PFAS has been detected, you may wish to consider sampling your water source. Sources of PFAS may include airfields, fire training areas, certain manufacturing facilities, and some waste disposal sites. Your local health department may have information on historical or potential sources of PFAS, or other PFAS impacted water supplies, that may be in proximity to your private well. Because PFAS have been widely used in consumer products, it is possible that some septic systems may also be a source of PFAS to ground water.

### ***How can I test my well water for PFAS?***

- Currently, there are two USEPA testing methodologies for testing drinking water for PFAS that can be used. Laboratories will analyze drinking water for PFAS using either USEPA Method 537 or 537.1.

These methods test for either 14 or 18 PFAS compounds and both methods include the PFAS compounds that are part of the current MassDEP Guideline and proposed groundwater standard.

- Until MassDEP begins certifying labs for PFAS analysis, we recommend you use a laboratory from the list of [MassDEP DWP approved labs](#) or use a lab certified by another state or certification authority for the analysis of PFAS; see the [National Environmental Laboratory Accreditation Management System](#).
- We encourage you to ask the lab to use a reporting level of 5 ppt or lower for the PFAS that are part of the current MassDEP Guideline and proposed groundwater standard.
- When collecting the sample, to avoid contaminating the sample, we encourage you to carefully follow the PFAS sample collection procedures located at <https://www.mass.gov/doc/field-sampling-guide-for-pfas/download>.

***Can I use a Point of Use (POU) or a Point of Entry (POE) water treatment device to remove PFAS if it is found in my well water supply?***

The type of treatment will depend on the level of specific PFAS contamination. There are home water treatment filters to remove PFOS and PFOA from drinking water for the countertop, under the sink or the main water line serving a whole house. Filters certified to meet National Sanitation Foundation (NSF) standard P473 will remove these compounds to concentrations below the USEPA Health Advisory of 70 ppt. Many of these filters will likely be able to reduce levels to well below 70 ppt. If you chose to install a filter you should check to see if the manufacturer has independently verifiable monitoring results demonstrating that the device can reduce PFAS below your level of concern. We recommend that you also follow all manufacturer specifications. Check that the filtration device is [NSF Certified](#).

***Can I use bottled water if I have concerns about PFAS in my private well water?***

If PFAS has been detected in your private well and you are a consumer in one of the groups considered most sensitive to PFAS (pregnant women, nursing mothers, and infants) you can minimize your exposure by using bottled water that has been tested for PFAS for drinking, making infant formula, and cooking of foods that absorb water.

Consumers can contact bottled water companies to see if their water is tested for PFAS. In addition, MassDEP surveyed all Massachusetts permitted bottled water companies to determine if they sampled their water sources for PFAS and to request that they voluntarily share the results of such testing with MassDEP for posting to the Commonwealth's website. See the current list of Massachusetts permitted bottled water companies that have voluntarily provided MassDEP with their results at <https://www.mass.gov/doc/bottled-water-tested-for-pfas>

***Who can I contact for more information on PFAS in drinking water?***

Private well owners or users should contact their local board of health or town government for information specific to their local water supply. For any additional PFAS drinking water inquiries, contact the MassDEP Drinking Water Program at: [Program.director-dwp@mass.gov](mailto:Program.director-dwp@mass.gov), Subject: PFAS

**Where can I get more information on PFAS?**

- MassDEP PFAS Information can be found at: <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>
- MassDEP Fact Sheet - Questions and Answers for Consumers: <https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers/download>
- Massachusetts Department of Public Health information about PFAS in Drinking Water: <https://www.mass.gov/service-details/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water>
- U.S. Environmental Protection Agency PFAS webpage on PFAS: <https://www.epa.gov/pfas>
- Interstate Technology and Regulatory Council (ITRC) PFAS webpage: <https://www.itrcweb.org/Team/Public?teamID=78>
- Association of State Drinking Water Administrators PFAS webpage: <https://www.asdwa.org/pfas/>
- EPA's Drinking Water Health Advisories for PFOA and PFOS: <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>
- The Centers for Disease Control and Prevention's webpage on PFAS: <https://www.atsdr.cdc.gov/pfas/index.html>

**For health-related questions contact:****Environmental Toxicology Program****Bureau of Environmental Health, MDPH**

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