

1. What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of manmade chemicals used in many consumer and industrial products, including non-stick coatings and firefighting foams. The manufacture and use of some predominant PFAS compounds (perfluorooctane sulfonate [PFOS] and perfluorooctanoic acid [PFOA]) was discontinued in the U.S. about 20 years ago, but they may still appear in imported products.
- Many commercial household products contain PFAS. These products include stain- and water-repellant fabrics, nonstick cookware and other products, polishes, waxes, paints, and cleaning products.



PFAS does not break down easily in soil and water. As a result, they are widely found in the environment. They often move from the environment into the food supply and drinking water.

2. How are people exposed to PFAS?

People are exposed to PFAS from many sources. Most people have been exposed to PFAS via consumer products and/or industrial uses. Nationally, PFOA and PFOS blood levels have decreased over the past decade.

According to the U.S. Environmental Protection Agency (EPA), people are exposed to PFAS from food packaged in materials that include PFAS, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water. People may also have been exposed to PFAS in the workplace through production facilities or industries that involve chrome plating, electronics manufacturing, and oil recovery. PFAS found in drinking water is often originally from PFAS discharged from a nearby manufacturer, landfill, wastewater treatment plant, and/or firefighter training facility.

In the U.S. and other industrialized countries, most people have concentrations of PFAS in their blood. However, the National Health and Nutrition Examination Survey (NHANES), found that PFOA and PFOS blood levels have dropped more than 60% and 80% from 1999 to 2014.

781-334-3901

3. How is Massachusetts handling PFAS regulation?

The Massachusetts Department of Environmental Protection (MassDEP) issued regulations setting a drinking water standard, or a Maximum Contaminant Level (MCL), for six PFAS added together. The MCL is 20 parts per trillion (ppt) for what the regulations call PFAS6: the sum of the following six PFAS.

PFAS6	Acid name
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PFHxS	perfluorohexane sulfonic acid
PFNA	perfluorononanoic acid
PFHpA	perfluoroheptanoic acid
PFDA	perfluorodecanoic acid
REASE are regulated under Mass DEP's Drinking Water Standard (MCL)	

PFAS6 are regulated under MassDEP's Drinking Water Standard (MCL)

4. Is there PFAS in Lynnfield Center Water **District's water sources?**

Yes. Some of Lynnfield Center Water District (LCWD) water sources have been detected to have PFAS6 at levels above the state standard of 20 ppt. Those were detected in two of our four well stations:

Station	Average PFAS6 Detected
Station 1: Phillips Tubular Wellfield	30.5 ppt
Station 2: Main Street Well	24.3 ppt

These are the two smallest water sources for LCWD, comprising approximately 20 percent of supply.

5. How long has PFAS been in our water supply?

At this point, we don't know. While testing has improved so we can detect low levels of PFAS, the tests do not tell us when or how PFAS entered the water supply. This is emerging as an increasingly important water quality issue throughout the United States.

(FAQs continue on the next page)

Check out these MassDEP fact sheets:

PFAS Fact Sheet

https://www.mass.gov/service-details/per-andpolyfluoroalkyl-substances-pfas-in-drinking-water

PFAS in Drinking Water:

Questions and Answers for Consumers https://www.mass.gov/doc/massdep-fact-sheetpfas-in-drinking-water-questions-and-answers-forconsumers/download



QUESTIONS?

LCWD@LCWD.us



6. What is the LCWD doing to address the presence of PFAS?

The LCWD is working to reduce PFAS6 in your drinking water. We have already taken the following actions:

- Taken the well with the highest level of PFAS6 (Phillips Tubular Wellfield at Station 1) out of service.
 That well will remain out of service.
- Increased production of the two stations with PFAS6 levels below the MCL. That water is blended with water from the remaining station (Main Street Well at Station 2, which had PFAS levels just above the MCL) to minimize PFAS exposure.
- Committed to continued monitoring of PFAS6 in the water supply.

We are also investigating further actions, including:

- Short- and long-term treatment options to lower PFAS6 in the water supplied by Main Street Wellfield at Station 2.
- Other operational changes and optimization of the current capital improvement projects underway to minimize potential PFAS exposure.
- A program for providing an alternative water supply to sensitive populations.

7. Are there funding sources available to mitigate the cost of addressing PFAS in the water supply?

MassDEP has implemented a number of grant and funding opportunities to assist water systems with supplies exceeding the PFAS6 MCL. At the Federal level, the \$550 billion bipartisan infrastructure bill includes \$10 billion for PFAS. LCWD is investigating each of these opportunities and will maximize the resources available.

8. What are the health concerns related to PFAS?

Scientific studies suggest potential links between exposure to certain PFAS in the environment and negative health effects. It is important to remember consuming water with high PFAS levels does not mean adverse effects will occur.

High levels of exposure to some PFAS compounds (above the drinking water standard) may be associated with increased cholesterol, changes in liver enzymes, small decreases in birth weights, decreased vaccine response in children, high blood pressure or pre-eclampsia in pregnant women, and increased risk of kidney or testicular cancer.

MassDEP says that "consuming water with PFAS6 above the recommended limits does not mean that adverse effects will occur. The degree of risk depends on the level of the chemicals and the duration of exposure." This means that drinking water with PFAS6 levels above the MCL does not automatically mean a negative health impact. MassDEP and the Center for Disease Prevention and Control (CDC) both note more research is needed and ongoing.

9. Is my water safe to drink?

In the majority of the area served by LCWD, the water from Station 2 blends with the other water sources, reducing the PFAS6 levels below the MCL. However, a small area within the LCWD is supplied directly by water from Station 2. LCWD is investigating immediate alternative water sources to be available for sensitive populations served by Station 2.

For consumers in this limited area served by Station 2, and not in a sensitive population, the MassDEP indicates you may continue to consume the water. As of now, the MassDEP recommends that pregnant women, nursing mothers and infants, and people diagnosed by their health care provider to have a compromised immune system avoid consuming water, including drinking and cooking, with PFAS6 above the MCL. For those affected, options to avoid drinking water that has PFAS may include in-home filtration systems or bottled water confirmed to not have PFAS in it. Refer to **Question 10** on the next page for additional information. For consumers not in one of those categories, MassDEP does not recommend alternative water sources, and the water may continue to be used.

(FAQs continue on the next page)

This FAQ sheet is available at Town Hall, the Library and online at www.LCWD.us



10. If I am a sensitive population, how do I determine my water supply is solely from Station 2?

The area served by Station 2, with minimal blending from other sources, is shown in **Figure 1**. Customers in this area are mostly likely to be exposed to PFAS6 over the MCL in their drinking water.

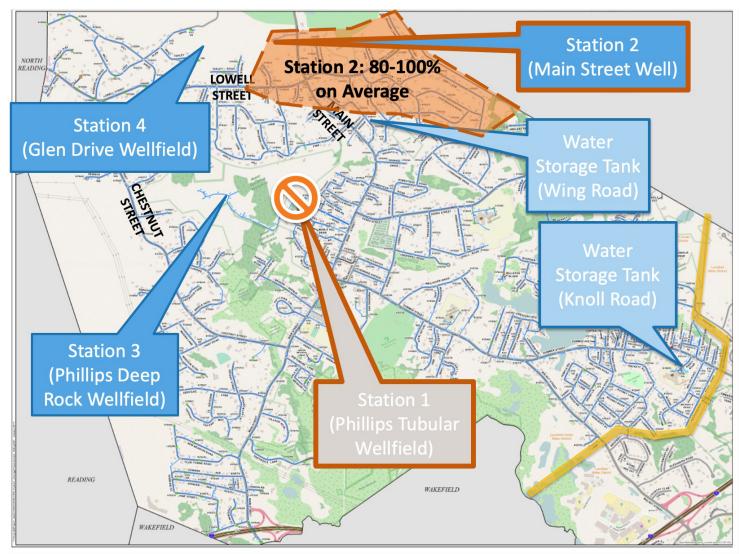


Figure 1

11. Am I at risk if I drink or drank water with PFAS above health standards?

Not necessarily. The MassDEP PFAS6 MCL and U.S. Environmental Protection Agency (EPA) lifetime health advisories are set to overestimate potential exposures. Their goal is to make sure that sensitive populations, like infants and pregnant or breastfeeding mothers, are protected.

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To learn more about PFAS refer to *MassDEP's website* – https://www.mass.gov/info-details/ per-and-polyfluoroalkyl-substances-pfas As stated by MassDEP in their **PFAS in Drinking Water: Questions and Answers for Consumers Fact Sheet**, "the drinking water standard assumes that individuals drink only contaminated water, which typically overestimates exposure, and that they are also exposed to PFAS6 from sources beyond drinking water..." The best way to reduce the potential health risks is to limit your exposure to PFAS as much as possible from all sources.



12. What can I do as a private homeowner to remove PFAS from my water?

You have two options:

- Use bottled water.
- Install a PFAS treatment system:
 - point of entry treatment (POET) system treats the water when it enters your house
 - water filters that remove PFAS at the countertop or under the sink (at the point of use)

When installing a private treatment system, talk to a professional to make sure it will correctly treat PFAS, and work with them throughout the process, including how to maintain the system and dispose of the PFAS-laden treatment media.

Consumer information



MassDEP bottled water and home water filters

www.mass.gov/info-details/per-and-polyfluoroalkylsubstances-pfas#bottled-water-and-home-water-filters-

13. What else can you do to prevent exposure to PFAS?

It is unlikely that you can avoid all PFAS exposure. However, you can take the following actions to limit your exposure:

- Read product labels and avoid using products that contain PFAS.
- Check fish advisories in your area and follow advisories if reduced consumption is recommended.

14. Is it safe to shower using water that contains PFAS?

Yes, PFAS is not easily absorbed through the skin. While some exposure to PFAS may occur from accidentally swallowing or breathing in steam while bathing or showering, it is not significant.



15. Is it safe for me to bathe my baby using water that contains PFAS?

Yes. PFAS are not easily absorbed through the skin, so bathing is not a significant source of exposure. Take care to limit accidental swallowing or breathing of PFAS-impacted water during bathing.

16. Is there a way to test my or my family's blood serum levels for PFAS?

Yes. If you would like to have your or your family members blood tested, talk to your health care provider. Your regional Pediatric Environmental Health Specialty Unit (PEHSU) can help you interpret the test results but does not offer testing. The blood test results will not predict or rule-out the development of future health problems related to a PFAS exposure.

Remember that PFAS are found in the blood of humans and animals worldwide. Most people in the United States have one or more specific PFAS in their blood, especially PFOS and PFOA. If you are concerned and choose to have your blood tested, test results will tell you how much of each PFAS is in your blood, but it is unclear what the results mean in terms of possible health effects. The blood test will not be diagnostic (attributable to an existing health condition) or prognostic (predictive of a future health condition), nor will it provide information for treatment. At this point, the only benefit of a PFAS blood test is to identify the amount of PFAS in a person's blood, relative to the broader population.

For more information on PFAS blood testing and talking to your doctor check out ASTDR's website:



CLICK HER

Agency for Toxic Substances and Disease Registry PFAS fact sheet www.atsdr.cdc.gov/pfas/docs/pfas fact sheet.pdf

17. How can I help decrease PFAS pollution entering the environment and potentially the water supply?

The best action you can take to decrease PFAS pollution is to purchase less PFAS-containing products. This can be challenging because so many everyday products, from food packaging, to carpets to raincoats, may have PFAS in them. Other products, like fertilizers and compost, may also have PFAS in them. Purchasing PFAS-free alternatives will help decrease the amount of new PFAS entering the environment.

The EPA's website has information on reducing PFAS exposure:

https://www.epa.gov/pfas/meaningful-andachievable-steps-you-can-take-reduce-your-risk