

INFORMATION PERTAINING TO PFAS COMPOUNDS IN DRINKING WATER

What are PFAS Compounds and can they be found in Lynn's Water?

There has been considerable information in the news in recent months about the presence of substances known as Per- and Polyfluoralkyl Substances or PFAS being found in drinking water and other sources. There are currently no regulations or monitoring requirements pertaining to PFAS compounds. However, at the request of the Massachusetts Department of Environmental Protection (Mass DEP), the Lynn Water & Sewer Commission (LWSC) conducted four rounds of monitoring at the Water Treatment Plant during 2019 and 2020. The results of the monitoring have been reviewed by LWSC staff and submitted to Mass DEP. The results indicated that LWSC's water contained PFAS compounds at concentrations that were below all current and proposed United States Environmental Protection Agency (USEPA) and Mass DEP standards for PFAS in drinking water.

What are considered to be acceptable levels of PFAS in drinking water?

The USEPA or individual states may establish Maximum Contaminant Levels (MCLs) for drinking water contaminants. There is currently no federal or Mass DEP MCL for PFAS in drinking water. In 2016 the USEPA established a lifetime Health Advisory for drinking water of 70 parts per trillion (ppt or ng/L) for the total of two of the PFAS compounds which were Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS). In 2020, the Mass DEP issued a public health guideline of 20 ppt in drinking water for the total of six PFAS compounds which includes Perfluorooctanoic Acid (PFOA), Perfluorooctanesulfonic Acid (PFOS), Perfluorononanoic Acid (PFNA), Perfluorohexanesulfonic Acid (PFHxS), Perfluoroheptanoic Acid (PFHpA), and Perfluorodecanoic Acid (PFDA). The Mass DEP has also proposed regulations that will establish a MCL of 20 ppt in drinking water for the total of the above listed six PFAS compounds.

What levels of PFAS has LWSC found in Lynn's drinking water?

Initial testing by LWSC in 2015 found Non Detectable levels of PFAS in the drinking water. Since that time, the ability to detect PFAS compounds at lower levels has been developed. At the request of the Mass DEP, LWSC conducted additional monitoring during 2019 and 2020. The monitoring results revealed the following:

	Sept 2019	Nov 2019	Mar 2020	May 2020	Average
PFOS &PFOA:	10.2 ppt	6.1 ppt	7.4 ppt	7.9 ppt	7.9 ppt
Six PFAS Total:	18.2 ppt *	9.3 ppt	10.6 ppt	11.1 ppt	12.3 ppt

Note: The September 2019 PFAS results may have been elevated due to possible contamination from Teflon pipe identified in the sample line.

Is Lynn's water safe to drink?

Lynn's water meets all current state and federal drinking water standards.

When will LWSC conduct Additional Monitoring?

After consulting with Mass DEP, it was agreed that LWSC would be conducting PFAS monitoring on a quarterly basis. The LWSC will continue to review all monitoring results with Mass DEP and take appropriate actions, as needed. Such actions will depend on what PFAS are detected, if any results exceed the proposed MCLs, and the timeline associated with the pending regulations going into effect. The LWSC will publish all detected PFAS results in the Water Quality Reports.

What are PFAS and where do they come from?

PFAS are a group of manmade chemical compounds that were first developed in the 1940's and began finding widespread use in the 1950's due to their ability to repel water, protect surfaces and resist heat, among other applications. PFAS were widely used for carpet and fabric protectants (prior to 2001) and in making non-stick cookware (Teflon prior to 2013). In the 1960's the U.S. Navy developed firefighting foams containing PFAS that were extensively used to put out aviation and other fuel fires. PFAS compounds can be found in fabric softeners, hand moisturizers, Post-Its, certain inks, water proof clothing, leather products, non-stick cookware, and many more items that are commonly found at home. Because PFAS compounds are found in so many materials, extreme care must be taken to prevent contamination while collecting samples.

How do PFAS end up in drinking water?

PFAS can enter the drinking water when there is a potential source of PFAS contamination in the vicinity of the water supply source. PFAS are resistant to natural breakdown in the environment. Sources associated with PFAS contamination include airfields, fire training areas, manufacturing facilities, waste disposal sites and landfills. PFAS compounds have been identified in common piping materials such as Teflon tubing and pipe thread tape.

What are the Potential Health Effects?

Studies indicate that exposure to sufficiently elevated levels of certain PFAS may cause a variety of health effects including developmental effects in fetuses and infants, effects on the thyroid, liver, kidneys, certain hormones and the immune system. Some studies suggest a cancer risk may also exist in people exposed to higher levels of some PFAS.

Need Additional information?

For more information pertaining to Lynn's drinking water, please contact Richard Dawe by calling 781-596-2400 or by email at rdawe@lynnwatersewer.org. Additional information about drinking water can also be found at the USEPA Safe Drinking Water Hotline at 1-800-426-4791 and by contacting the Mass DEP Drinking Water Main Line at 1-617-292-5770 or on Mass DEP webpage at <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>.