CITY OF CAMBRIDGE

MASSACHUSETTS
CAMBRIDGE WATER DEPARTMENT
250 FRESH POND PARKWAY
CAMBRIDGE, MASS. 02138

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Managing Director

617-349-4770

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To Cambridge Water Customers:

The following information is being provided in order to give an update on the Cambridge Water Department's monitoring program for Per and Polyfluoroalkyl Substances (PFAS) contaminants.

IMPORTANT – PLEASE NOTE:

It is important to note that the City's Water Supply is in compliance with the Massachusetts Department of Environmental Protection's (MassDEP) standards regarding PFAS and that this information is being provided because after many months of sampling, the City experienced one reading in September, 2021 that was just slightly above 20 ppt (@ 20.7 ppt). All previous readings, and the most recent reading in October 2021, which is currently undergoing review by MassDEP, have been below 20 ppt, and the City has consistently been in compliance with the PFAS6 Maximum Contaminant Level (MCL) published by MassDEP since we started our PFAS monitoring program in August 2019.

Like many public water supply operators, the City has been aware of the emergence of PFAS as contaminants of concern in recent years. The MassDEP standard for the level of PFAS in public drinking water is 20 nanograms per liter (ng/l), or 20 parts per trillion (ppt) for six specific compounds called "PFAS6". The Water Department has been in compliance with the MassDEP regulations at all times since we started monitoring for PFAS in August 2019, and has also been proactively monitoring for PFAS in our water supply reservoirs since that time (Hobbs Brook, Stony Brook and Fresh Pond) to stay on top of this emerging issue.

While the levels of PFAS we have found in our monitoring program since August 2019 have been below state standards and federal guidelines, the Water Department has been aggressively evaluating how to reduce these levels to below 10 ppt since that time. This level is one-half of the state standard of 20 ppt.

The MassDEP promulgated a new regulation on October 2, 2020 for the six PFAS compounds designated as PFAS6. Within about a year from when this new regulation was adopted, the City tested and obtained approval from the MassDEP to replace the Granular Activated Carbon (GAC) filter media in our water purification facility to strengthen our ability to remove PFAS

from the water supply. We are in the process of completing the technical specifications to bid out and replace our filter media. We expect that this will be completed in the spring of 2022. When the filter media is replaced, it is anticipated that our PFAS levels will be lower and will reliably and consistently be below 10 ppt.

Please see the attached Public Education Materials recommended by the MassDEP for more detailed information, and feel free to contact us if you have any questions or would like any additional information.

Sam Corda

E. Dowling for S. Corda

Managing Director
Cambridge Water Department

Important Public Education Materials about Per- and Polyfluoroalkyl Substances (PFAS)

This material contains important information about your drinking water. Please translate it, speak with someone who understands it or ask the contact listed below for a translation.

What is the Current Regulatory Compliance Status?

Our Public Water Supply is in compliance with the MassDEP Published PFAS regulations, which went into effect beginning October 2, 2020, requiring that each quarterly average be at or under the Maximum Contaminant Level (MCL) of 20 ppt for the sum of six PFAS compounds.

The six PFAS compounds are: 1) PFOS: perfluorooctanesulfonic acid; 2) PFOA: perfluorooctanoic acid; 3) PFNA: perfluorononanoic acid; 4) PFHxS: perfluorohexanesulfonic acid; 5) PFHpA: perfluoroheptanoic acid and 6) PFDA: perfluorodecanoic acid. MassDEP abbreviates this set of six PFAS compounds as "PFAS6."

What PFAS Levels Have Been Detected in Our Drinking Water?

A summary of the PFAS6 monitoring results, since January 1, 2021, are provided below - all results are in parts per trillion* (ppt):

	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sum of PFAS6	12.2	11.3	15.8	17.1	14.0	16.7	17.9	18.5	20.7	17.8 [1]	-	-
Quarterly Compliance Average		13			16			19				
Compliance with Regulation?		Yes			Yes			Yes				

*For reference, 1 part per trillion (ppt) is a microscopic measurement for substances in the water and is equivalent to a single drop of water in the combined water volume of 20 Olympic size swimming pools.

1 = PFAS results are currently undergoing quality assurance/quality control review by MassDEP as required for all PFAS sample results.

Some people who drink water containing PFAS6 in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS6 may also elevate the risk of certain cancers.

For more information on PFAS, see the links below.

(See PFAS Quarterly attachment)

(See PFAS Historical attachment)

What should I do?

For 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 the 20 ppt.**
- are advised to use bottled water for drinking and cooking of foods that absorb water (like pasta).
- **For infant formula,** use bottled water or use formula that does not require adding water.
- **Bottled water should only be used if it has been tested.** The Massachusetts Department of Public Health requires companies licensed to sell or distribute bottled water or carbonated non-alcoholic beverages to test for PFAS. See https://www.mass.gov/info-details/water-quality-standards-for-bottled-water-in-massachusetts#list-of-bottlers-

For all other consumers not in a sensitive subgroup

- **If you are not in a sensitive subgroup,** you may continue to consume the water because the 20 ng/L value is applicable to a lifetime consuming the water and shorter duration exposures present less risk.
- **If you have specific health concerns regarding your past exposure,** you should see the Centers for Disease Control and Prevention's link below and consult a health professional, such as your doctor.

Steps you can take to reduce your intake - Consider taking the following steps while actions are being implemented to address this issue:

- **For older children and adults (not in a sensitive subgroup),** the 20 ng/L value is applicable to a lifetime of consuming the water. For these groups, shorter duration exposures present less risk. However, if you are concerned about your exposure while steps are being taken to assess and lower the PFAS6 concentration in the drinking water, use of bottled water will reduce your exposure.
- **Home water treatment systems** that are certified to remove PFAS by an independent testing group such as NSF, UL, or the Water Quality Association may be effective in treating the water. These may include point of entry systems, which treat all the water entering a home, or point of use devices, which treat water where it is used, such as at a faucet. For information on selecting home treatment devices that are effective in treating the water for PFAS6 see the weblinks below.
- **In most situations, the water can be safely used for washing foods, brushing teeth, bathing, and showering.**

Please note: Boiling the water will not destroy PFAS6 and will somewhat increase its level due to evaporation of some of the water.

What are PFAS?

PFAS are fluorinated organic chemicals that are contained in: consumer products that are resistant to water, grease, or stains; nonstick cookware; waterproof clothing, carpeting and furniture upholstery; water-resistant food wrappers and containers, firefighting foams and many other products. The Cambridge Fire Department does not use firefighting foam with PFAS. Very low levels of human-made PFAS compounds are commonly found in drinking water supplies throughout the United States without a known source of contamination. Most uses of PFAS compounds were phased out 10 to 15 years ago and replaced with other compounds that are thought to pose fewer health risks. But because PFAS were used in so many consumer products and they degrade slowly, if at all, most people have been exposed to them.

The PFAS family of chemicals are often referred to as "forever chemicals" due to the fact they degrade very slowly in the environment.

What is the City of Cambridge Water Department Doing About PFAS?

The Water Department has been aggressively pursuing steps to monitor for PFAS and to implement measures to address the levels of PFAS, including replacing the filter media (the material in the filters) at the City's treatment plant in order to reduce the PFAS levels detected. Our accomplishments so far: 1) appropriated $1.4M (FY21 Budget) to replace the filter media; 2) obtained approval from the Massachusetts Department of Environmental Protection (MassDEP) to perform a Pilot Study to select the best filter media; 3) Completed the Pilot Study (November 2020 – July 2021); 4) Submitted a report, with the recommended filter media, to MassDEP for approval; 5) Obtained MassDEP approval to replace the filter media on October 18, 2021; 6) Initiated the development of the bid specifications to purchase and install the recommended filter media.

Our next steps: a) complete the bid specifications; b) put the purchase and replacement of the filter media out to bid; c) review and award the installation contract; d) replace the filter media. The anticipated completion date is Spring 2022.

How are People Exposed to PFAS?

While consumer products and food are the largest source of exposure to these chemicals for most people, 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 where they were used for firefighting or a facility where PFAS were produced or used. As is the situation with other public water supplies, very low levels of human-made PFAS compounds have been detected in our drinking water reservoirs. To date, we have not identified any specific source of contamination, as PFAS degrade very slowly and are commonly found in groundwater and soils.

What are the Health Advisory and Regulatory Levels for PFAS?

In 2016, the EPA published a lifetime Health Advisory (HA) of 70 parts per trillion (ppt) for the combination of two PFAS compounds – PFOS and PFOA – in drinking water. In 2021, EPA has taken action to collect new data needed to improve understanding of PFAS and to begin to develop a national primary drinking water regulation for PFAS.

In December 2019, MassDEP amended Massachusetts hazardous waste cleanup regulations (the Massachusetts Contingency Plan or "MCP") to add Reportable Concentrations and cleanup standards for soil and groundwater to address sites contaminated with PFAS. The new standard for groundwater that is currently used (or could be used) for drinking water is 20 ppt for 6 PFAS compounds, which is consistent with the new drinking water regulatory limit described below.

In October 2020, MassDEP finalized a drinking water standard for public water systems, known as a Maximum Contaminant Level, for PFAS6. A Maximum Contaminant Level or MCL means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. Information on this effort, including information on stakeholder meetings, can be found at https://www.mass.gov/lists/development-of-a-pfas-drinking-water-standard-mcl. The MCL is 20 ppt individually or for the sum of the concentrations of six specific PFAS compounds, based on a quarterly average (PFOS, PFOA, PFNA, PFHxS, PFHpA, and PFDA) in drinking water. ***Some people who drink water containing PFAS in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS6 may also elevate the risk of certain cancers.*** MassDEP and the CDC both note that more research is needed and is ongoing, and it is important to remember that consuming water with PFAS6 above the MCL quarterly average does not mean adverse effects will occur.

If You Have Additional Concerns, What Can You Do?

There is still much that we do not know about PFAS and its impact on human health. As of now, the MassDEP advises consumers in sensitive subgroups avoid consuming water with PFAS6 that is not in compliance with the 20 ppt quarterly average. It is important to note that the Cambridge Water Supply is currently in compliance. Although not required based on the sampling results the City has completed, if you are a sensitive consumer (pregnant women, nursing mothers and infants or people diagnosed by their health care provider to have a compromised immune system) you can further minimize your exposure by using bottled water that has been tested for PFAS for drinking, making infant formula, and cooking foods that absorb water (like pasta). Alternatively, you can use a home water treatment system that is certified to remove PFAS by an independent testing group such as NSF International, Underwriters Laboratories, Water Quality Association, or the CSA Group. See the MassDEP PFAS webpage for more information: https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas.

- Boiling water will not destroy PFAS and will somewhat increase their levels due to evaporation of some of the water.

As PFAS compounds are not well absorbed through the skin, you may safely use the water for bathing and showering. If you are concerned about your exposure, even though the risk is very low, you may use bottled water for brushing your teeth and cleaning items like dentures, pacifiers, fruits and vegetables.

If you have specific health concerns regarding your exposure, you may want to consult a health professional, such as your doctor.

Where Can You Get More Information?

For more information on the City of Cambridge's proactive approach, please contact:

Ed Dowling: 617-349-4773; edowling@cambridgema.gov

Krystyna McInally: 617-349-4780; kmcinally@cambridgema.gov

Sam Corda: 617-349-4792; scorda@cambridgema.gov

Cambridge Water Department, 250 Fresh Pond Parkway, Cambridge, MA 02138
617-349-4700; CWD@cambridgema.gov

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You may also find more information on PFAS from the following sources:

MassDEP Fact Sheet – PFAS in Drinking Water: Questions and Answers for Consumers https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers/download

- **MassDEP Fact Sheet - Home Water Treatment Devices - Point of Entry and Point of Use Drinking Water Treatment** – (https://www.mass.gov/service-details/home-water-treatment-devices-point-of-entry-and-point-of-use-drinking-water)
- **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

USEPA's Drinking Water Health Advisories can be found at: https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos
The Centers for Disease Control (CDC) and Prevention's Public Health Statement for PFOS and PFOA can be found at: https://www.atsdr.cdc.gov/pfas/index.html
For additional information on possible health effects, you may contact the Massachusetts Department of Environmental Protection, Office of Research and Standards, at 617-556-1165.

Please share this information with other people who drink this water, especially those who may not have seen this notice (for example, people in apartments, nursing homes, schools, and businesses).