



**AQUARION**  
Water Company

*Stewards of the Environment™*



December 4, 2019

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MILLBURY MA, 01527

Dear Millbury Customer,

Throughout the northeast and across the nation, state and local officials, health departments, and water utilities including Aquarion have focused their attention on a group of man-made chemicals called per- and polyfluoroalkyl substances (PFAS) that have been detected in drinking waters, including public and private water supplies, and bottled water. Some health officials indicate that consumer products, food, and cookware represent the largest exposure of PFAS to people. However, drinking water contaminated with PFAS can also be a source of exposure.

Although Massachusetts and federal health officials have not yet defined the maximum amount of these chemicals that they will allow to be present in drinking water, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) recommend that PFAS concentrations in drinking water not exceed 70 parts per trillion (ppt); this limit is referred to as a Health Advisory Level or guideline.

To ensure the highest quality water for our customers, Aquarion voluntarily tested for PFAS chemicals in all of our water sources.

This past October we sampled all three of our water supply well locations in Millbury. Initial sample results received on October 21, 2019 indicated that the level of PFAS found in our Oak Pond Well exceeded the Health Advisory Level of 70 ppt. As a result, Aquarion immediately turned off the Oak Pond Well and consulted with MassDEP. Sample results from our two other water sources in Millbury (the Jacques Wells and the Millbury Avenue Well) showed levels of PFAS below the current Health Advisory Level of 70 ppt, as well as below a future 20 ppt guideline now under consideration by MassDEP. These two water supplies remain in service. Please visit our website, [www.aquarionwater.com/pfas](http://www.aquarionwater.com/pfas), to view the test results.

MassDEP requested that Aquarion collect a second round of samples at the Oak Pond well location to validate the accuracy of the initial results. We are now informing the public that the initial test results have been confirmed, and the Oak Pond well will remain offline.

We want to assure our customers and Millbury residents that we have adequate clean, safe water to reliably supply the needs of the community even with Oak Pond Well offline, and that the water we are providing meets all federal and state regulations for safe drinking water.

As a next step, Aquarion will work to determine the most effective long-term solution to meet the drinking water needs of our Millbury customers. Aquarion will continue to keep you informed as we move through this process.

Additional information is included in the enclosed public notice and MassDEP PFAS Fact Sheet. To learn more about PFAS, please visit [www.aquarionwater.com/pfas](http://www.aquarionwater.com/pfas) or the MassDEP website at <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>. Aquarion is also available to answer any questions you may have at **1-800-732-9678**.

Sincerely,

A handwritten signature in black ink that reads "John Herlihy". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

John Herlihy  
Vice President – Water Quality and Environmental Management



## **Aquarion Water Company Millbury, Massachusetts**

### **Important Information for all consumers receiving Drinking Water from our system -- Translate it or speak with someone who understands it --**

**Important Notice:** This notice provides important information regarding your drinking water and contaminants known as Per- and Polyfluoroalkyl Substances (PFAS). Recent results from voluntary testing performed by Aquarion Water Company at its Oak Pond Well source have detected PFAS in the drinking water below the current health guideline established by the United States Environmental Protection Agency (EPA) but above the current health guideline established by the Massachusetts Department of Environmental Protection (MassDEP). This notice provides information about Aquarion's and MassDEP's ongoing efforts to address PFAS in drinking water and provide health-protective guidelines.

In 2016, EPA published a drinking water Health Advisory Level for two of the PFAS compounds (Perfluorooctane sulfonic acid, PFOS, and Perfluorooctanoic acid, PFOA) combined at 0.070 micrograms per liter (ug/L) or 70 parts per trillion (ppt). In June 2018, MassDEP issued an Office of Research and Standards guideline (ORSG) for drinking water of 0.070 ug/L or 70 ppt for five PFAS compounds combined. Those compounds are PFOA, PFOS, PFNA (Perfluorononanoic acid), PFHxS (Perfluorohexane sulfonic acid) and PFHpA (Perfluoroheptanoic acid). The ORSG was established to be protective against adverse health effects for all people consuming the water for a lifetime and is also applicable to shorter-term exposures of weeks to months during pregnancy and breast-feeding.

**Based on the current ORSG, MassDEP has recommended that:**

- 1) consumers in sensitive subgroups (pregnant women, nursing mothers and infants) not consume water when the level of the five PFAS substances, individually or in combination, is above 70 ppt; and,**
- 2) public water suppliers take steps expeditiously to lower levels of the five PFAS, individually or in combination, to below 70 ppt for all consumers.**

As part of the agency's efforts to address PFAS compounds, MassDEP continues to review the current scientific information, studies and assessments on PFAS and based on this evaluation, MassDEP is undertaking the following actions:

- 1) MassDEP proposed draft amendments to the Massachusetts hazardous waste cleanup regulations (the Massachusetts Contingency Plan or "MCP") that include groundwater and soil cleanup standards. Consistent with the proposed ORSG level described below, the proposed standard for groundwater that is currently used or could be used as drinking water is 20 ppt for the five compounds noted above plus PFDA (Perfluorodecanoic acid) (six total).

- 2) MassDEP's Office of Research and Standards has convened its Health Effects Advisory Committee to provide input on the technical basis of the proposed MCP standards and its implication for a potential revised ORSG with a limit of 20 ppt for the sum of the six PFAS compounds.
- 3) MassDEP has also begun the process to develop a drinking water standard for public drinking water systems, known as a Maximum Contaminant Level (MCL), for the six PFAS compounds combined. 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>.

### ***What PFAS Levels have been detected in your drinking water, and what should you do?***

Results of samples collected at the Oak Pond Well were received on **October 21, 2019** and showed a total of **77 ppt** for the following five PFAS: PFOA, PFOS, PFNA, PFHxS, and PFHpA. The well was immediately taken off-line (turned off). Additional sampling was conducted on **October 25, 2019**, and the results indicated a range of **66 to 91 ppt**. The well remains off-line and is **not** being pumped into the Millbury system.

- You do not need to do anything at this time because the source with PFAS has been shut off and levels of PFAS at all other sources are below the current EPA and MassDEP health advisory guidelines and the new 20 ppt guideline now under consideration by MassDEP.
- If you have specific health concerns regarding your past exposure, you should consult a health professional, such as your doctor.

### ***What is our water system doing?***

Aquarion has taken the following actions:

- The source with elevated PFAS levels, Oak Pond Well, was immediately turned off on 10/21/19 and will remain off until further notice.
- Aquarion's other water supply sources in Millbury were tested for PFAS and the results indicated that they did not contain any combination of the five PFAS above 20 ppt. We will continue to voluntarily test our water for PFAS and report the results on our website, [aquarionwater.com/pfas](http://aquarionwater.com/pfas).
- We are working diligently to evaluate options for addressing PFAS in the Oak Pond Well, which will remain off until further notice.

### ***What are PFAS and how are people exposed to them?***

PFAS are fluorinated organic chemicals. PFOA and PFOS have been the most extensively produced and studied of these chemicals. PFAS are contained in firefighting foams, which have been used in training exercises and to extinguish oil and gas fires at a variety of locations including airfields and military installations. PFAS are also used in a number of industrial processes and have been used to manufacture



carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., nonstick cookware) that are resistant to water, grease or stains. Because these chemicals have been used in many consumer products, most people have been exposed to them.

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 at which they were used for firefighting or a facility where these chemicals were produced or used.

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

For more information on what our system is doing about this situation, please contact **Aquarion** at **800-732-9678** or **waterquality@aquarionwater.com**.

You can also get more information on PFAS from the following sources:

- Aquarion Water Company: [www.aquarionwater.com/PFAS](http://www.aquarionwater.com/PFAS)
- MassDEP Fact Sheet – PFAS in Drinking Water: Questions and Answers for Consumers <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>
- 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 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 all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by:  
PWS Name: Aquarion Water Company  
PWS ID#: 2186000  
Date distributed: December 4, 2019



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## Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water: Questions and Answers for Consumers

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### ***What are PFAS and how are people exposed to them?***

PFAS are fluorinated organic chemicals. 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.

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 at which they were used for firefighting or a facility where these chemicals were produced or used.

### ***What are the levels of concern?***

Scientific information and regulatory actions on PFAS are rapidly evolving. Currently, there are no enforceable federal or Massachusetts state standards for these substances in public drinking water. However, in May 2016, the United States Environmental Protection Agency (EPA) issued a lifetime drinking water Health Advisory (HA) of 0.070 µg/L (70 parts per trillion or ppt) for any combination of PFOA and PFOS. In June 2018, MassDEP extended this advisory to include three additional related PFAS chemicals - perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS) and perfluoroheptanoic acid (PFHpA). This Massachusetts value, called a MassDEP Office of Research and Standards Guideline (ORSG), is a maximum recommended level for drinking water. It is set to be protective against adverse health effects for all people consuming the water for a lifetime and also applies to shorter-term exposures of weeks to months during pregnancy and breast-feeding.

Based on the current ORSG, MassDEP recommends that:

- 1) consumers in sensitive subgroups (pregnant women, nursing mothers and infants) not consume water when the level of the five PFAS substances, individually or in combination, is above 0.070 micrograms per liter (µg/L) or 70 parts per trillion (ppt); and,
- 2) public water suppliers take steps expeditiously to lower levels of the five PFAS, individually or in combination, to below 70 ppt for all consumers.

The June 2018 MassDEP ORSG and associated recommendations were developed out of an abundance of caution because the five PFAS compounds included in the ORSG share very similar chemical structures and the available data indicates they most likely exhibit similar toxicities.

### ***New standards / guidelines under development***

As part of its efforts to address the rapidly evolving science and policy on PFAS compounds, EPA is taking steps to further evaluate PFAS. As the national timeframes for action on drinking water are often long, MassDEP has

prioritized reviewing the current scientific information and assessments on these chemicals, and the agency taking actions to protect public health.

Based on this ongoing evaluation, MassDEP is currently engaged in a number of coordinated, concurrent efforts to inform its final decisions regarding PFAS at hazardous waste sites and in drinking water in MA. These efforts will be implemented over the next several months and include:

- Proposing draft amendments to the state’s hazardous waste cleanup regulations (the Massachusetts Contingency Plan or “MCP”) that include groundwater and soil cleanup standards for six PFAS. The proposed standard for groundwater that is used or may be used as drinking water is 20 ppt for 6 PFAS: the 5 compounds noted above, plus perfluorodecanoic acid (PFDA). MassDEP is accepting comment on the draft MCP regulations, including this proposed PFAS groundwater cleanup standard, until July 19, 2019.
- Having a group of independent scientists and public health professionals, coordinated by MassDEP’s Office of Research and Standards, review the technical basis of the proposed MCP groundwater cleanup standard for these PFAS.
- Revising the state’s PFAS drinking water guideline (ORSG).
- Working to establish a drinking water standard, called a Maximum Contaminant Level (MCL), for PFAS in public drinking water systems. The formal process to develop an MCL was launched in April 2019 and will align the MCL with the MCP GW-1 standard and revised ORSG and will include opportunities for public comment.

#### **What does MassDEP currently recommend while the standard and guideline are being finalized?**

If you are a sensitive consumer (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 or use a home water treatment system that is certified to remove PFAS by an independent testing group such as National Sanitation Foundation (NSF), Underwriters Laboratories (UL), Water Quality Association or the CSA Group. See MassDEP’s website on PFAS (under “Bottled water and home water filters”) for more information <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>.

#### **What health effects are associated with exposure to PFAS?**

EPA’s 2016 Health Advisory values for PFOS and PFOA were based on studies of these substances in laboratory animals and were also informed by studies of exposed people. Overall, these studies indicate that exposure to sufficiently elevated levels of PFOA and PFOS, as well as other closely-related PFAS compounds, may cause developmental effects in fetuses during pregnancy and in breastfed infants. Effects on the thyroid, the liver, kidneys, hormone levels and the immune system have also been reported. Some studies suggest a cancer risk may exist in people exposed to levels well above the EPA Health Advisory.

It is important to note that consuming water with PFAS 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. The recommended limit assumes that individuals drink only contaminated water, which typically overestimates exposure, and are also exposed to PFAS from sources beyond drinking water, such as food. To enhance safety, several uncertainty factors are additionally applied to account for the differences between animals and humans, and to account for the differences between people. Scientists are still working to study and better understand the health risks posed by exposures to PFAS. If your water has been found to have PFAS and you have specific health concerns, you may wish to consult with your doctor.

## **How can I find out about contaminants in my drinking water?**

If you get your water from a public water system, you should contact them for this information. For a contact list for all public water systems in the Commonwealth you may visit:

<https://www.mass.gov/lists/drinking-water-health-safety#contacts> then under “Contacts” click on “MA Public Water Supplier contacts sorted By Town.”



For private well owners, you may want to contact your local Board of Health, Town government or town public water supplier for information specific to your Town’s water supply. For water testing, MassDEP recommends the use of a state certified analytical laboratory. Local Private Well Regulations may specify the use of a state certified lab. A searchable list of MassDEP certified labs can be found at:

<http://eeonline.eea.state.ma.us/DEP/Labcert/Labcert.aspx>

## **What options should be considered when PFAS in drinking water is above MassDEP’s drinking water guideline (ORSG) or new draft recommendation?**

- ✓ Sensitive subgroups, including pregnant women, nursing mothers and infants, should consider using bottled water that has been tested for PFAS, for drinking, cooking of foods that absorb water (like pasta) and to make infant formula. Bottled water that has been tested for PFAS, or formula that does not require adding water, are alternatives.
- ✓ For older children and adults, the recommended guideline 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 taken to assess and lower the PFAS concentration in your drinking water, use of bottled water that has been tested for PFAS will reduce your exposure.
- ✓ Water contaminated with PFAS can be treated by some home water treatment systems that are certified to remove PFAS by an independent testing group such as NSF, UL, Water Quality Association or the CSA Group. 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.
- ✓ In most situations the water can be safely used for washing and rinsing foods, cleaning dentures and pacifiers and washing dishes.
- ✓ The water can be safely used by adults and older children for brushing teeth. However, use of bottled water should be considered for young children as they may swallow more water than adults when they brush their teeth. If you are concerned about your exposure, even though the risk is very low, you could use bottled water for these activities.
- ✓ Because PFAS are not well absorbed through the skin, routine showering or bathing are not a significant concern unless PFAS levels are high. Shorter showers or baths, especially for children who may swallow water while playing in the bath, or for people with skin conditions (rashes, cuts, etc.) would limit any absorption from the water. Based on information from the Connecticut Department of Health, which is the only State to have issued guidance on this issue, water should not be used, long-term, for showering and bathing if the PFAS level exceeds 210 ppt.
- ✓ For pets, the health effects and levels of concern to mammalian species, like dogs, cats and farm animals are likely to be similar to those for people. There is some evidence that birds may be more sensitive to PFAS. There is little data on PFAS effects on other species like turtles, lizards, snakes and fish. As a precaution, if you have elevated levels of PFAS in your water, you should consider using alternative water for your pets.
- ✓ For gardening or farming, some plants are likely to take up some PFAS from irrigation water and soil. Unfortunately, there is not enough scientific data to predict how much will end up in a specific crop. Since people eat a variety of foods, the risk from the occasional consumption of produce grown in soil or irrigated with water contaminated with PFAS is likely to be low. Families who grow a large fraction of their produce would experience higher potential exposures and should consider the following steps, which should help reduce PFAS exposures from gardening:



- Maximize use of rainwater or water from another safe source for your garden.
- Wash your produce in clean water after you harvest it.
- Enhance your soil with clean compost rich in organic matter, which has been reported to reduce PFAS uptake into plants.
- **NOTE ON BOILING WATER:** Boiling water will not destroy these chemicals and will increase their levels somewhat due to water evaporation.
- **NOTE ON BOTTLED WATER:** Even though bottlers are not required to test for PFAS, some bottlers have tested. The best way to know if the bottled water you are drinking or plan to drink has been tested for PFAS is to contact the bottler and ask for the latest testing results. Contact information should be available on the bottle or you may need to search the internet. For more information, see MassDEP's website on PFAS (under "Bottled water and home water filters") <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>.

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

MassDEP PFAS Information. <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>

Interstate Technology and Regulatory Council (ITRC). PFAS. <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 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 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 Environmental Protection, Office of Research and Standards at 617-556-1165.

For information on the MassDEP Drinking Water Program, you may visit <https://www.mass.gov/drinking-water-program> or contact the program at [program.director-dwp@state.ma.us](mailto:program.director-dwp@state.ma.us) or 617-292-5770.