

Per- and Polyfluoroalkyl Substances (PFAS)

WHAT DID THE PUBLIC NOTICE SAY?

May 17, 2021 Public Notice

The Public Notice (PN) provided to all billed customers of the Acton Water District during the week of May 17, 2021 is a required notice by the Massachusetts Department of Environmental Protection (MassDEP). Additional recipients included managers of multi-unit housing (apartments and condominiums), who were asked to communicate the message to residents of those communities, and individuals signing up for our PFAS email updates. All recipients are asked to share this information with anyone else who drinks this water.

If you have not read the public notice document, reviewed our webpage, or visited the informative links below, we highly encourage you to do so. This may seem like a large request, however, PFAS is a complicated matter with multiple aspects to understand.

The Acton Water District has been conducting monthly sampling of its operating sources for per-and polyfluoroalkyl substances (PFAS) since the beginning of 2021. Our compliance with the Massachusetts drinking water standard, which was adopted in October 2020 (the MassDEP Press release can be found here: <https://www.mass.gov/news/baker-polito-administration-establishes-strict-standards-for-pfas-in-drinking-water-to-protect>.) is calculated for each treatment plant on a quarterly average basis. In February, we resumed use of the North Acton Water Treatment Plant (NAWTP) while maintenance work was conducted on other wells and treatment facilities. When our sampling results were reviewed and calculated for compliance by MassDEP, this triggered an exceedance of the Maximum Contaminant Level (MCL). We were recently notified of this violation and the requirement to send public notice to our customers.

The current notice is similar to the original notice sent town wide in June 2020. The continued focus is to make the community aware that PFAS is in Acton and to remind members of the sensitive sub-population of the potential risks in consuming the water. One important note is the addition of customers with a medically diagnosed compromised immune system to the sensitive population. This was previewed with customers in our December 16, 2020 update.

Actions to address PFAS in the public water system are ongoing. Of note, we have altered how we operate our wells and treatment plants, reactivated idle wells, and performed testing to identify potentially appropriate treatment technologies. This work is ongoing, and we continue to review the latest water quality data and adjust our course as needed. An internal working group is being formed to further address the community wide impact of PFAS. This will include discussions on both short- and long-term measures to address PFAS, associated costs, ways to lessen the financial burden and recover costs incurred, and possible source identification and reduction measures.

At this time, the District is not the only impacted water system in Acton and all direct neighboring communities have identified PFAS in varying concentrations. This includes both public and private wells in these communities.

CURRENT DATA AND UPDATES

[July 20, 2021 Data Table](#)

[Calendar Year 2020 Data Table](#)

The Acton Water District proactively began sampling for PFAS based on the presence of two Superfund Sites in Acton and the push towards further regulation of PFAS at the State and Federal level. At this time, the Superfund sites do not appear to be the source of the PFAS in our community although additional monitoring is scheduled in 2021 associated with these sites.

Monthly monitoring of our treated water has been initiated for the 2021 calendar year. This will help determine our compliance with the recently adopted drinking water standard of 20 parts per trillion (ppt), for water systems in Massachusetts. Previous monitoring in 2020 has improved our knowledge of how PFAS is impacting our water system and we continue to work with State regulators, consultants, and others to address PFAS in Acton's drinking water.

Based on our January sampling results, and the trends observed in the second half of 2020, the NAWTP was returned to service on February 18th. Additional sampling will be done to assess the continued use of this facility. A pilot test was completed at the NAWTP between September 2020 and January 2021. The engineering study is being reviewed by District personnel.

The Conant 2 Treatment Plant was permanently turned off in November 2020 as part of the construction of the new Central Acton Water Treatment Plant, therefore no additional sampling has occurred at this site. More about this project can be found on our website <https://www.actonwater.com/about-us/cawtp/>. We anticipate these wells becoming active again in the summer of 2021. Two new sources of supply are also being pursued in this area. A long duration pumping test was conducted on these wells during the spring of 2021 to support permitting by MassDEP. These wells have exhibited minimal concentrations of PFAS and, if permitted, could help reduce the PFAS concentration from the CAWTP when it becomes operational.

Wells serving the South Acton Water Treatment Plant (SAWTP) have been operating at a reduced capacity to help maintain PFAS levels at or below the MCL. To help restore the volume of water at this location, the Assabet 2 well was reactivated in October 2020. At our Annual District meeting on May 5, voters authorized funding to connect the previously permitted Assabet 3 well to the SAWTP. This project is anticipated to take place in the coming months and will help to restore some of the capacity at this facility. These are two short term solutions to help us manage PFAS and maintain flexibility in our system to meet demands for water.

At the September 14, 2020 Board of Water Commissioners' meeting, the Board voted to sign on to PFAS litigation against manufacturers of these chemicals. The law firm of Napoli Shkolnick, PLLC with offices in New York and soon in Massachusetts, was selected to represent the District as an affected party.

HOW DOES PFAS GET INTO MY DRINKING WATER?

According to the United States Environmental Protection Agency, PFAS are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

PFAS can be found in:

- **Food** packaged in PFAS-containing materials, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water.
- **Commercial household products**, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams (a major source of groundwater contamination at airports and military bases where firefighting training occurs).
- **Workplace**, including production facilities or industries (e.g., chrome plating, electronics manufacturing or oil recovery) that use PFAS.

- **Drinking water**, typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- **Living organisms**, including fish, animals and humans, where PFAS have the ability to build up and persist over time.

Certain PFAS chemicals are no longer manufactured in the United States as a result of phase outs including the [PFOA Stewardship Program](#) in which eight major chemical manufacturers agreed to eliminate the use of PFOA and PFOA-related chemicals in their products and as emissions from their facilities. Although PFOA and PFOS are no longer manufactured in the United States, they are still produced internationally and can be imported into the United States in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber and plastics.

PART PER TRILLION

In order to understand what a chemical measurement means, one needs to have a basic understanding of the type of measuring units used, and what they mean. As mentioned above, most of our contaminants are measured using concentration units such as ppm and ppb. But what is a ppm, ppb, or ppt for that matter, in plain English?

As an example, let's use an example of liquid chlorine added to our water in the treatment process at 1.0 ppm. This value refers to one part of chemical (in this case liquid chlorine) found in one million parts of our water. To realize how small a value this actually is, read the analogies listed below:

One part per million (ppm) equals:

- 1 inch in 16 miles

One part per billion (ppb) equals:

- 1 inch in 16,000 miles

One part per trillion (ppt) equals:

- 1 inch in 16 million miles (600+ times around the earth)

HOW CAN I STAY INFORMED?

If you do not typically receive a water bill from the Acton Water District and wish to receive future updates regarding PFAS, please visit this website periodically or send an email to wq@actonwater.com with "Updates" in the subject line. Please include your name, address, and email to be informed of new information and future developments related to PFAS.

WHAT TREATMENT PLANT SERVES MY HOME?

Many people have asked which source the water serving them is from. Our water system is a dynamic system that includes four treatment plants, four treated water storage tanks, and over 130 miles of water pipes. Because the water all pumps into the system, and system hydraulics (how the water moves around in the pipes) can change based on time of day, season, water demand, and how we are operating the various systems, it is difficult to pinpoint this information. For some customers it is relatively easy to pinpoint but other areas are more challenging, and an answer provided today could be different in a week. Given our current knowledge of PFAS, the numbers reported at our treatment plants should represent a worst-case scenario, as the water blends in the piping distribution system and storage tanks, it is anticipated that PFAS concentrations would be lower.

WHAT IF I AM NOT SUPPLIED WATER BY AWD?

In consultation with MassDEP, our initial Public Notice regarding PFAS in June 2020, was sent to every Postal Patron in Acton. This included many people who do not receive water from the District but may have an interest in knowing that PFAS is present in the community. If you have questions regarding PFAS in your primary water supply, you may wish to contact one of the following water systems that may serve recipients of our Public Notice. Contact phone numbers listed are from publicly available records and may not be current.

Concord Water Division 978-318-3250

Littleton Water Department 978-540-2222

Pine Hill Condominium 978-264-0166

Strawberry Hill Apartments 781-894-3952

Acton Indoor Tennis/Nashoba Sportsman's Club 978-263-9059

Planet Gymnastics/All Seasons Tennis 978-263-1900

PRIVATE WELL RESOURCES

In the spring of 2020, the Acton Board of Health mailed a fact sheet regarding PFAS to owners of private wells that they had contact information for. Additional resources and information are available for private well owners which can be found here: <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas-in-private-well-drinking-water-supplies-faq>. You may contact the Acton Health Department at 978-929-6632 for additional information on private wells.

ARCHIVE OF STATUS UPDATES

As new updates are provided, the previous information will be available here organized by date.

[June 17, 2021 Data Table](#)

[May 19, 2021 Data Table](#)

[April 1, 2021](#)

[February 18, 2021](#)

[December 16, 2020](#)

[September 29, 2020](#)

[August 10, 2020](#)

[July 22, 2020](#)

[July 9, 2020](#)

[June 25, 2020](#)

WATER FILTERS

For customers wishing to reduce exposure from PFAS in drinking water by filtration in the home should follow the guidance of MassDEP featured below. The Acton Water District does not make recommendations on filters. If you currently own a filter, it is best to contact the manufacturer directly to determine its effectiveness reducing or removing PFAS. If a current filter is not effective, the manufacturer may be able to advise you on an alternate filter that can be installed using existing equipment.

From MassDEP:

Home Water Filters

There are also home water treatment filters capable of removing PFAS from drinking water for the countertop or under the sink. Filters certified by NSF have been demonstrated to be effective in removing two of these compounds, PFOS and PFOA, to below the USEPA Health Advisory of 70 parts per trillion (ppt). Many of these filters will likely be able to reduce PFAS levels to well below 70 ppt, however **MassDEP has no independently verifiable monitoring results demonstrating this performance**. If you choose to install a filter, you should check to see if the manufacturer has monitoring results demonstrating that the device can reduce PFAS to below your level of concern. For example, MassDEP recently instituted a drinking water limit, or Maximum Contaminant Level, of 20 ppt for the sum of the levels of six PFAS compounds.

Discharge of Reverse Osmosis Reject Water

MassDEP's Title 5 regulations prohibit the discharge of water purification or filtration devices to septic systems. The groundwater discharge regulations provide that such discharges to a dry well or otherwise to the ground would need a permit, unless they are registered with MassDEP through the Underground Injection Control (UIC) program. Here is the link to MassDEP's guidance on UIC wells: <https://www.mass.gov/service-details/standard-design-guidelines-for-shallow-uic-class-v-injection-wells#:~:text=Standard%20Design%20Guidelines%20for%20Shallow%20UIC%20Class%20V,Minimum%20Design%2C%20Installation%2C%20Monitoring%2C%20Maintenance%20%26%20Recordkeeping%20Standards>

RESOURCES/LINKS

USEPA PFAS Resources

<https://www.epa.gov/pfas>

MassDEP PFAS Resources for Public Water Supplies

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

MassDEP PFAS Regulatory Process

<https://www.mass.gov/lists/development-of-a-pfas-drinking-water-standard-mcl>

MassDEP Bottled Water PFAS Results

<https://www.mass.gov/doc/bottled-water-tested-for-pfas>

MassDEP Certified Labs

<https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas#laboratories,-testing-and-sample-collection->

MassDPH

<https://www.mass.gov/service-details/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water>

Green Acton

<https://greenacton.org/2020/07/06/pfas-101/>

Agency for Toxic Substances and Disease Registry (ATSDR) Guide for Clinicians

<https://www.atsdr.cdc.gov/pfas/docs/clinical-guidance-12-20-2019.pdf>

American Water Works Association PFAS Cycle

<https://www.awwa.org/Portals/0/AWWA/ETS/Resources/HowPFASCycleThroughtheEnvironmentV2.jpg?ver=2019-11-14-104702-713>

Safe Water Massachusetts

<https://www.safewatermass.org/>

July 13, 2020 Acton Water District PFAS Meeting

<https://www.youtube.com/watch?v=5UEzewmQ4mE>

October 14, 2020 Green Acton and the League of Women Voters Virtual PFAS Forum

<https://greenacton.org/2020/10/29/pfas-panel-discussion-follow-up#more-6421>