CLARIFICATIONS ON THE PFAS MAILING

During the days following the public notice regarding PFAS, we have heard from many concerned customers. It is also our understanding that many more conversations are occurring on various social media platforms. If you have not read the public notice document, visited our webpage or visited the informative links (new ones added 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.

We would like to emphasize that the public notice document is a requirement of the Massachusetts Department of Environmental Protection (MassDEP) and most of the language contained therein was dictated by them. As conveyed to us by MassDEP staff on Thursday July 2, the actions in the public notice are only recommendations. The District and MassDEP have not told anyone that they must use alternate water sources or install filters. It is also important to highlight the treatment plant with the highest concentration of PFAS has not been in use since the end of April. The North Acton treatment plant was originally scheduled to have major maintenance activities completed in March of 2020, however due to the extent of those activities (fully replacing the existing filter media) and the impacts of COVID-19 on international shipments, travel, and contractor coordination, these repairs were delayed until May and are continuing at this time.

During the July 13, 2020 Board of Water Commissioners' meeting, District officials and staff, leadership from MassDEP, and residents discussed PFAS concerns, answered questions, and listened to one another. The portion of that meeting relating to PFAS may be viewed here: https://www.youtube.com/watch?v=5UEzewmQ4mE

DESIGN OF FILTRATION FOR NORTH ACTON

The District is pursuing a grant from the State of Massachusetts to assist with the testing and design of treatment plant upgrades that will reduce PFAS. The grant is for up to $200,000 and is expected to be very competitive. Engineering work will proceed in parallel to the grant application to expedite design work with anticipated submittal for full scale installation by January 2021. Additional water quality benefits are anticipated with the installation of additional filtration equipment at this site. Work to begin piloting treatment technologies has begun with the shipment of bulk water samples for bench scale testing by one potential vendor. Piloting activities are anticipated to commence at this site in early September.

OPERATIONAL CHANGES IN SOUTH ACTON

The South Acton Water Treatment Plant is supplied by five well sources. Changes in the contributing flow of these sources is being used to manage the PFAS contribution to the treated water. In July, the MassDEP agreed with our request to reactivate the Assabet 2 well source. This well had been replaced in the year 2000 by the Assabet 2A well, located approximately 50 feet away to improve the mineral content at that source. Now that full scale filtration is available, the raw water minerals are not of concern and the additional volume of what is believed to be lower PFAS concentration water, will help in our efforts. Ongoing discussions about how we manage and recycle backwash water is occurring to see if that can provide any immediate relief.

WHAT DID THE PUBLIC NOTICE SAY?

June 26, 2020 Public Notice

The Public Notice provided to all Postal Patrons in Acton on June 26, 2020 is a required notice by the MassDEP. We understand it may have been dense, confusing, and unexpected. The document may be summarized in a series of major take away messages.

- The Acton Water District (AWD) proactively sampled 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. Based on the results of initial testing, all production wells and treatment plants serving our system were sampled for PFAS.
- PFAS exposure can occur from drinking water and many other sources in the home and some workplaces.
- Currently two of our five water treatment plants have tested above the MassDEP Guideline and proposed drinking water regulatory limit of 20 parts per trillion (ppt) for six PFAS compounds.
- MassDEP is currently focused on the sum of six, out of thousands of PFAS compounds believed to exist. The six compounds include Perfluorooctane sulfonic acid (PFOS), and Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluorohexanesulfonic acid (PFHxS), Perfluoroheptanoic acid (PFHpA), and Perfluorodecanoic acid (PFDA).
- If you are in the sensitive subgroup, including pregnant women, nursing mothers, and infants, MassDEP advises not to consume water with greater than 20 ppt of the six PFAS substances of concern. Using bottled water that has been tested as PFAS free is recommended for the sensitive subgroup to use for drinking, cooking foods that absorb water, and preparing infant formula.
- PFAS as a chemical class are still considered an emerging contaminant and the ability to reliably test for PFAS in the ppt range is relatively new and challenging. Data takes time to be generated and interpreted. PFAS is also the first time we as a public water supplier have been tracking a contaminant at the ppt level. Typically, we work with contaminants in the part per million (ppm) and part per billion (ppb) concentrations.
- We are in the early stages of addressing PFAS and will provide updates as new information is available. Please sign up for email updates by sending an email with your name address, and email address to wq@actonwater.com with "Updates" in the subject line.
- The treatment facility with the highest concentration of PFAS is not currently serving water to the system pending further investigation.

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.

CURRENT DATA

August 8 Data Table
The most recent data representing water that has gone through our treatment plants is summarized here. These numbers may be subject to change if quality control review or compliance calculations change.

The next round of sampling has not been scheduled yet. Review of the July data needs to occur and inform any changes to the sampling scope of work.

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 tried to determine where the water serving them is from. Our water system is a dynamic system that includes five treatment plants (currently four are in operation), four treated water storage tanks, and over 130 miles of water main. 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, 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 is being sent to every Postal Patron in Acton. This includes many people who do not receive water from our sources of supply 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. If you did not receive this information, it can be found here: https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas-in-private-well-drinking-water-supplies-faq. Additional resources and information will likely be available for private well owners throughout Massachusetts in the future. 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 25, 2020
July 9, 2020
July 22, 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 if it is effective at 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 chose 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 proposed 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