

Department of Public Works Annual Water Quality Report

2023 report on your Water Quality



Town of North Attleborough
Department of Public Works

PFAS Update from DPW Director Mark Hollowell

The Town has worked diligently to address PFAS in its water supply throughout the years, especially since MassDEP announced its new PFAS public drinking water standard in October 2020 and in anticipation of the EPA releasing its regulations.

“Since 2020, the Town has brought the Adamsdale Well to compliance with MassDEP’s regulations and subsequently the EPA’s new PFAS regulation. In September, a new water treatment system at the McKeon Well will also be online, meeting both the MassDEP and EPA’s regulations.

During the first quarter of 2024, the Town’s well systems are meeting the DEP regulation of below 20 ppt of PFAS. We will continue to rent the water kiosk (supplied and maintained by Blue Drop Inc.) until the McKeon Plant is fully online, but we will not be required to send a quarterly notification.

The Department of Public Works will also begin working with its engineers to develop a timeline to bring the Whiting and Hillman Wells, which currently meet MassDEP’s regulations, into compliance with the new EPA’s regulations within the next five years.

The Town’s private water system, the Kings Grant Water Company, which serves approximately 155 homes, will also be required to comply with the EPA’s new regulations, but the implementation of this new regulation will be under EPA/DEP and is not under the purview of the Town.

The Town remains committed to keeping the impact on our ratepayers to a minimum. While the Town acknowledges that PFAS requirements are good for communities and those consuming our water, the companies that put those contaminants in the water should be held accountable and be a part of the financial solution. The Town would also like to see the EPA commit more funding or provide assistance to those working to bring their wells to compliance in the wake of their new regulation.

We would like to thank Congressman Jake Auchincloss for his earmark of approximately \$1 million in funding to assist the Town in addressing PFAS, as well as the commitments the DEP has made to the Town through the Drinking Water State Revolving Fund Program.

North Attleborough's Water System.....

North Attleborough's water supply comes from two large watersheds, the Ten Mile River Basin and the Blackstone Basin. The two basins supply water to eight groundwater wells located throughout the Town and in neighboring Plainville. The Department of Environmental Protection (DEP) restricts the maximum amount of water that can be withdrawn from these two basins. Raw water from six Town wells is treated at either the McKeon or Whiting Street Treatment Facilities. The remaining two wells, located in the western section of Town are pumped directly from the wells to the distribution system. Water is delivered to three water storage tanks, the Oldwood South, High Street and Elmwood standpipes. The three storage tanks have a combined capacity of more than 3.5 million gallons of water. The tanks serve to provide an adequate supply of potable water to meet peak usage as well as to provide water in the event of emergencies such as fire fighting. North Attleborough has two booster stations designed to increase pressure to homes and businesses. Potable water travels through a system of water mains ranging in size from 4" to 16" to our residential and business customers. North Attleborough's water system contains approximately 146 miles of water main, 1300 fire hydrants and 8,000 water service connections. The water system is maintained by DPW Water Division licensed operators. All components of the water system are closely monitored and controlled through a Supervisory Control and Data Acquisition (SCADA) computer system 24 hours a day, 7 days a week.



Adamsdale Well PFAS Removal Treatment Facility was turned on to the water system on October 13, 2023. Pictured is one of two granular activated carbon (GAC) filters which removes PFAS from the well water. An identical facility is currently under construction at the McKeon Treatment Plant.



Understanding Our Treatment Process.....

To maintain compliance with Federal and State drinking water regulations, source water must be treated before it reaches consumers' taps. Raw water is sent from our wells to the Whiting and McKeon Treatment Plants for process. These facilities are designed to remove iron and manganese, naturally occurring minerals found in groundwater. Greensand filters remove iron and manganese by trapping it within the filters. An oxidant is added as needed to help assist in the removal process. An additional aeration process is utilized at the Whiting Treatment Facility which removes any potential volatile organic substances from contributing wells located in Plainville. Chlorine is added to the water as a precautionary measure to eliminate any pathogens that may be present as it is pumped from the treatment facilities through the distribution system and to homes and businesses. Chlorine levels are continuously monitored and controlled to ensure disinfection levels are maintained. North Attleborough injects the lowest quantity needed to ensure the safety of your water without compromising taste. The water chemistry is adjusted to increase the pH and alkalinity of the water designed to reduce any corrosion of lead and copper usually found in residential plumbing systems and water service connections to homes and businesses. Fluoride is added at the Whiting Treatment Facility and serves to promote dental health. Fluoride levels vary depending on the location within the Town. Two wells located in the Blackstone Basin have low concentrations of iron and manganese in the raw water, therefore requiring no filtration. At these well sites, chlorine, fluoride and potassium hydroxide are added to the water at the water pumping stations for disinfection and pH adjustment and then pumped to the distribution system. If you would like more information on our treatment process, please call (508) 695-7790.

Massachusetts DEP completed a Source Water Assessment and Protection Program Report (SWAP) for North Attleborough's public water system. The Source Water SWAP Program, established under the Federal Safe Drinking Water Act, requires every State to inventory land uses within the recharge area of all public water supply sources and assess the susceptibility of drinking water sources to contamination from these land uses. A susceptibility ranking of "high" was assigned utilizing the information collected during the assessment. A source susceptible to contamination does not indicate poor water quality. Actual quality is best reflected by results of water analyses. Regular testing is conducted by independent State certified laboratories on our source water for a wide range of contaminants. Water test results continue to show that your drinking water continues to exceed all drinking water standards. North Attleborough has adopted bylaws and health regulations designed to preserve and protect existing and potential sources of drinking water supplies. The Department of Environmental Protection approved the Town's water source protection strategy based on land use and operational restrictions. The Town actively reviews all activities within 400 feet of our water sources and regularly patrols our well sources. The SWAP Report is available online at <http://www.mass.gov/dep/water/drinking.htm>. For more information, please contact the North Attleborough Water Department at (508) 695-7790.

Tested at the Source

Substance	(MCL) Highest Level Allowed	Highest Detected Level	Range of Detections	(MCLG) Ideal Goal	Violation	How it Gets in the Water
Nitrate (ppm)	10	3.7	0.22 - 3.7	1	no	Runoff from fertilizer use
Perchlorate (ppb)	2.0	0.38	not detected - 0.38	2.0	no	Component of propellants found in fireworks
Gross Alpha (pCi/L)	15	2.09	2.09	0	no	Erosion of natural deposits
Fluoride (ppm)	4	0.8	0.6 - 0.8	4	no	Water additive for dental health.
Arsenic (ppb)	10	1.0	not detected - 1.0	n/a	no	Erosion of natural deposits

Monitored In the Distribution System

Substance	(MCL) Highest Level Allowed	Highest Quarterly Average	Range of Detections	(MCLG) Ideal Goal	Violation	How it Gets in the Water
Total Trihalomethanes	80	54.7	15.6 -54.7	0	no	By-products of disinfection.
Haloacetic Acids	60	36.5	6.7 - 36.5	0	no	By-products of disinfection.
Chlorine	4 MRDL	0.56	0.33 - 0.58	4 MRDLG	no	Water additive for disinfection.

Microbiological

Substance	Number of Samples Col- lected per month	Number of Positive Samples and Month	Violation	How it Gets in the Water
Total Coliform	36	#4 - August	yes	Naturally present in the environment.

Oldwood South Storage Tank positive for Total Coliform along with 3 repeat samples. All samples E.coli negative. The storage tank was deactivated for inspection and cleaning.

At the Tap Sampling - Resident Homes

July - Sept. 2022

Substance	(AL) Action Level	(MCLG) Ideal Goal	Number of Sites Exceeding AL	90th Percentile Value	Violation	How it Gets in the Water	
Lead (ppb)	Jan. - June	15.0	0	1	5.5	no	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	July - Dec.	15.0	0	2	8.4	no	
Copper (ppm)	Jan. - June	1.3	0	0	0.15	no	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Copper (ppm)	July - Dec.	1.3	0	0	0.14	no	

Regulated PFAS 6 - 2023 Quarterly Sampling

Sample Location	Detected Range	Highest Quarter Average	Violation	Possible Sources	Health Effects
McKeon Plant - ppt	19.8 - 28.2	25.1	yes	Discharge / emissions from industry associated with manufacturing & production of oil and moisture resistant coatings. Other sources includes fire fighting foam	Some people who drink water containing PFAS in excess of the MCL may experience adverse effects including effects on the liver, blood, immune system, thyroid and fetal development. It may also elevate the risk of certain types of cancer,
Whiting Plant - ppt	11.0 - 18.2	16.7	no		
Hillman Well - ppt	9.8 - 16.0	15.2	no		

Unregulated PFAS

Substance	Detected Range	Highest Detect	Average	Office of Research & Standards Guidelines
Perfluorobutanesul- fonic Acid (PFBS)	2.51 - 4.43.	4.43	3.32	There is no ORS guidance for these compounds
Perfluorohexanoic Acid (PFHxA)	2.44 - 5.59	6.38	3.19	

Key: MCL=Maximum Contaminant Level - The highest level of a contaminant allowed in water. MCLG=Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. MRDL=Maximum Residual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. MRDLG=Maximum Residual Disinfectant Level Goal - The level of a drinking water disinfectant below which there is no known expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. AL=Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow. 90th Percentile - Out of every 10 homes, 9 were at or below this level. ppm - parts per million. ppb - parts per billion ppt - parts per trillion. pCi/L = picocuries per liter (measure of radioactivity)

North Attleborough Lead Results.....

Under the EPA Lead and Copper Rule (LCR), water suppliers throughout the country must routinely test tap water in a sample of homes that are likely to have high lead levels. These are usually homes with lead service lines or lead solder. The EPA rule requires that 9 out of 10, or 90%, of the sampled homes must have lead levels below the Action Level (AL) of 15 parts per billion (ppb). The latest round of lead sampling conducted from July through 1st through December 2023 continue to show corrosion control treatment continues to make a significant impact reducing lead levels in homes with lead.

Important Information about your Water.- Monitoring Requirements Not Met

We are required to collect 60 samples semiannually from DEP approved homes that have participated in previous lead and copper sampling. In Sept.2003, we collected samples from 40 homes out of the required 60 locations listed in the DEP approved plan. Consequently, Mass DEP issued a Notice of Noncompliance for failure to collect 60 DEP approved samples during the monitoring period of July 1st to December 31st, 2023, for lead and copper.The next round of sampling is scheduled for Jan. 1 - June 30th 2024.

The following is required language from Mass. DEP:

We are required to monitor your drinking for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the July 1st to December 31st. 2023 monitoring period, we were unable to collect the minimum required number of samples for lead and copper. Please share this information with all other people who drink this water, especially those who may have not received this notice directly (people in apartments, nursing homes, schools and businesses.

How We Treat Your Water For Lead.....

North Attleborough’s water pipes that carry the water to your homes and businesses are made mostly of iron and steel and do not add lead to water. However lead can get into tap water through pipes in your home, lead service lines, lead solder used in plumbing and some brass fixtures. North Attleborough is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. Corrosion of lead-based materials can add lead to tap water especially if water sits for a long period of time in the pipes before it is used. To prevent lead from leeching into your water, North Attleborough treats your drinking water prior to entering the distribution system. The water chemistry is adjusted to increase the alkalinity and pH of the water which is designed to reduce any corrosion of lead in residential plumbing systems and service connections to homes and businesses.

Information From the EPA About Lead in Tap Water.....

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. North Attleborough is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or www.epa.gov/safewater/lead.

North Attleborough Information on PFAS6

On October 2, 2020, the Massachusetts Department of Environmental Protection (MassDEP) promulgated a new drinking water regulation and MCL of 20 nanograms per liter (ng/L) or parts per trillion (ppt) for the sum of six per- and polyfluoroalkyl substances called “PFAS6”. The North Attleborough Water Department confirmed elevated levels of PFAS6 in the Adamsdale Well, one of the Town’s four drinking water sources, during voluntary PFAS6 monitoring. Immediately upon receipt of initial PFAS6 sampling results, the North Attleborough Water Department took the Adamsdale Well out of service even though the level was below the MCL, a PFAS6 MCL violation did not occur. A PFAS6 Maximum Contaminant Level (MCL) violation occurs when the average of all monthly samples collected over a quarter exceeds the MCL of 20 parts per trillion. Construction of a new PFAS removal treatment facility using granular active carbon (GAC) treatment began in 2021. GAC is recognized as an effective technology that significantly reduces PFAS compounds.

We are pleased to announce the new Adamsdale Well PFAS removal facility has been completed and began pumping to the water system on October 15, 2023 restoring approximately 820,000 gallons daily the of PFAS free water to North Attleborough, The new treatment plant underwent significant testing for PFAS and other contaminants prior to startup. PFAS testing will continue monthly while the treat facility is in operation.

A new PFAS treatment facility at the McKeon Treatment Plant is currently under construction. Similar to the Adamsdale Well, the McKeon Treatment Facility will use GAC filtration to remove PFAS compounds in the drinking water. The expected completion date is December 2024.

Monthly PFAS results as well a other information can be found the Town of North Attleborough website, <https://www.nattleboro.com/Department-of-Public-Works>.

The Department of Public Works is providing an alternative water that complies with the drinking water standard free of charge at a self-service water filling station at 49 Whiting Street, DPW Office.

Where does PFAS come from?

PFAS6 includes perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS), perfluorodecanoic acid (PFDA) and perfluoroheptanoic acid (PFHpA). PFAS are man-made chemicals that have been used in the manufacturing of certain fire-fighting foams, moisture and stain resistant products and other industrial processes.

Special Concerns for People With Weakened Immune Systems.....

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly individuals and infants can be particularly at risk from infections. Those people should seek advice from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

Water Conservation Tips

Summer is an especially important time to save water. During the summer, residential water usage increases. You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. Here are a few suggestions that will show you ways to use water more efficiently within your home and outdoors, make garden maintenance easier, save money, and more importantly, save our water supply for future generations.

- Water new trees, shrubs and plantings with a slow trickle at the roots to encourage root growth.
- A drip (or trickle) irrigation system can save 30 - 70% of the water used by overhead sprinkler systems.
- Repair leaky faucets. A slow drip can waste up to 2,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak.
- When using a garden hose, control the flow with an automatic shut-off nozzle.
- Sweep driveways, sidewalks and steps rather than hosing off.
- Install low-flow aerators and showerheads.

Cross Connection Information for Residents

A cross connection is any actual or potential connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply in a home or business. When drinking water piping connects to various plumbing fixtures or water utilizing equipment a cross-connection is created. If improperly protected, contamination can result allowing contaminants to reverse flow from the fixture or equipment back into the drinking water piping.

How you can prevent outdoor faucet backflow.

Everyday things you do when using an outdoor faucet can put you and your family at risk. If an outdoor faucet is in contact (directly or via a hose) with dirty water and there is an unexpected change in water system pressure, that water can be sucked back into your home's drinking water pipes. The North Attleborough Water Department recommends the installation of backflow prevention devices, such as low cost hose bib vacuum breakers, for all inside and outside hose connections. You can purchase these at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in the Town. For additional information, please contact the North Attleborough Water Department.



Substances Found in Bottled Water and Tap Water.....

Sources of drinking water, both bottled and tap water, include water that travels over the surface of the land or through the ground. This water comes in contact with soil, rock, plants and other material as it follows nature's path to water sources. While this process helps filter and clean the water, it can also carry small amounts of material into the water. Minerals from soils and rock, including low levels of radioactive materials, do not usually cause problems in the water. Water can also carry contaminants from human and animal activity. These include bacteria, viruses, pesticides and fertilizers, some of which can cause illness. In order to ensure that your tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain substances in water for public water supplies.

Bottled and tap water may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. The EPA requires all water suppliers to conduct many tests before and after treatment to check the water you are drinking. Your drinking water is routinely monitored for these contaminants and other substances by State certified laboratories in accordance with Federal and State drinking water regulations. North Attleborough goes beyond monitoring requirements to ensure we produce and deliver the highest quality of water to our residents and businesses. We are proud to say that your water meets or exceeds all drinking water standards for quality. For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Restriction Notice

As mandated by the Department of Environmental Protection Water Management Permit and to ensure a sustainable water supply through the Town's high water demand season, the North Attleborough Water Department has issued a Mandatory Non-Essential Water Use Restriction beginning May 1, 2024 through September 30, 2024.

All non-essential water is based on an **ODD/EVEN time schedule.**

- **ODD numbered addresses** are allowed on **TUESDAY** only before 9 AM and after 5 PM.
- **EVEN numbered addresses** are allowed on **THURSDAY** only before 9 AM and after 5 PM.

Non-essential water use is defined as the following:

- Irrigation of lawns via sprinklers or automatic irrigation systems
- Washing of vehicles, except in a commercial car wash
- Washing of exterior building surfaces, parking lots, driveways, except as necessary to apply surface treatments such as paint, preservatives or cement.

The following uses are **ALLOWED** when mandatory restrictions are in place:

- Irrigation to establish new lawns and new plantings during the months of May and September.
- Irrigation of recreational parks and public fields by automatic sprinklers outside the hours of 9 AM to 5 PM.
- Watering lawns, gardens, flowers and ornamental plants by means of a hand-held hose.

Violation of the restriction may result in the following penalties:

- 1st Offense** - Reminder notice to home (documented).
- 2nd Offense** - Written warning delivered by mail.
- 3rd Offense** - \$100 fine (daily for each additional offense).

Nonessential outdoor water use is allowed **ONE DAY** per week before 9 AM and after 5 PM (Monday) whenever a Drought Warning or higher is declared by the Massachusetts Drought Management Task Force.

Your anticipated cooperation is appreciated.

North Attleborough Department of Public Works
49 Whiting Street
North Attleborough, MA 02760

*What you should know
about your.....*

Drinking Water

Drinking
Water Test
Results

