Acton Water District

SUMMER 2024

Water Words Notice

Greetings and thank you for your interest in the Acton Water District. I am writing this letter at a time of transition for many projects that the District has embarked on or is involved with. You can find more detailed information on these projects in this newsletter, which also serves as our *Annual Consumer Confidence Report*, on our website, or by reaching out using your preferred method of communication!

The District recently received our amended Water Management Act permit, requiring a two-day per week seasonal limit on non-essential outdoor water uses. This is a more stringent request to reduce demand by our customers than our prior program, and we look forward to ongoing adoption of the new requirements by our customers to help us both maintain compliance and sustainably manage the water system.

The major construction project to improve traffic flow, pedestrian connections, and aesthetics in Kelley's Corner is progressing. In conjunction with the larger project, a new water main is being installed, which is nearing completion. In June, the first customers will be connected to these newly installed pipes, improving water quality, fire protection, and reliability of service in this important area of town. Along with most people moving through this busy intersection, we look forward to the next phases of the project getting underway, which will get us all closer to the finish line!

Efforts to address Per- and Polyfluoroalkyl Substances (PFAS) in our water supply continue, with regular updates provided on our dedicated PFAS webpage, *https://www.actonwater.com/pfas*. Early on the morning of June 1st, the upgrades to our North Acton Water Treatment Plant (NAWTP) were put to work, as water with non-detectable levels of PFAS began flowing to our distribution system from this facility! This is a monumental step towards addressing the PFAS contamination first identified in the community in 2020. The Town of Acton enabled this project to get a jump start by designating a portion of the American Rescue Plan Act (ARPA) funding towards design work. The Clean Water Trust (CWT) also provided an emergency loan to enable the project to move forward out of sequence with regular borrowing timetables. Without the Town's assistance, the flexibility offered by the CWT, and the diligent work of our engineering and technology providers, Wright-Pierce and Veolia Water Technologies, this project would still be in the construction phase.

Looking forward, the District believes our PFAS response actions to date put us in a favorable position to address the recently adopted more stringent federal PFAS standards.

Major system components, including the trailers shown above that house the PFAS filter vessels, were delivered to the NAWTP on December 5, 2023. This facility began supplying water with non-detectable levels of PFAS to our distribution system on June 1, 2024, after nearly four years of effort on this project!

Construction of the improvements at the South and Central Acton Water Treatment Plants is expected to begin this summer. Notably, after a successful vote at a Special District meeting held on June 13th, the necessary additional funds to move the Central Acton project forward are in place. The phasing of these two projects was a critical component of both the design and funding decisions that have driven us towards construction and will be critical to ensure flexibility as the new systems come online.

Recognizing the high costs associated with constructing PFAS treatment, as well as the future maintenance costs for replacing the filtration media, the District will continue to advocate for protecting the water resources of our community.

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Greetings

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Preventing ongoing degradation of our source water will help to maximize the life of our filter media and help avoid additional costly treatment upgrades in the future. The recent acquisition of 549 Main Street and the pending acquisition of land off Knox Trail is a testament to our focus on a multi-pronged approach to managing the water supply.

Finally, I would like to thank you, our customers, for supporting the improvements that we are working diligently to complete. Recognizing the importance of a safe and reliable water supply in the face of challenging financial times speaks to the high priority drinking water has in the community. On behalf of our local officials and staff, we hope to continue to serve your needs and have your support in the coming years as we continue to take a long-term look at Acton's water needs.

Respectfully submitted,

Matthew Mostoller
District Manager

Unregulated Contaminant Monitoring Rule (UCMR) Results

In accordance with provisions in the Safe Drinking Water Act (SDWA), public water suppliers are required to monitor for up to 30 unregulated contaminants on a five-year cycle. Unregulated contaminants are those that don't yet have a drinking water standard set by the United States Environmental Protection Agency (EPA). Monitoring for these contaminants helps EPA determine the contaminant's occurrence and whether future regulation is warranted to protect public health. During 2023 and early 2024, the District monitored for 30 contaminants at our treatment facilities as part of the UCMR 5 program. These contaminants included 29 Per- and Polyfluoroalkyl substances (PFAS) and lithium.

During this monitoring, eight of the 29 PFAS analytes were detected above the Minimum Reporting Level (MRL) at one or more of the District's treatment plants, while lithium was not detected in any of the samples. These results are comparable with those from routine monitoring conducted in accordance with Massachusetts' PFAS6 standard. Four of the detected analytes are currently regulated in the Commonwealth, while three do not presently have any proposed regulatory standards.

Results of the 2023 monitoring are presented in the Water Quality Data Table on page 8. All results from 2023–2024 monitoring are available on our website at *https://actonwater.com/water-quality/ucmr*. More information on the UCMR 5 program and the specific contaminants monitored for can be found at *https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule*.

District Counsel: Changing of the Guard

We wish Attorney Mary Bassett (l) the best in her retirement and welcome Attorney Spencer Holland (r) to the District!

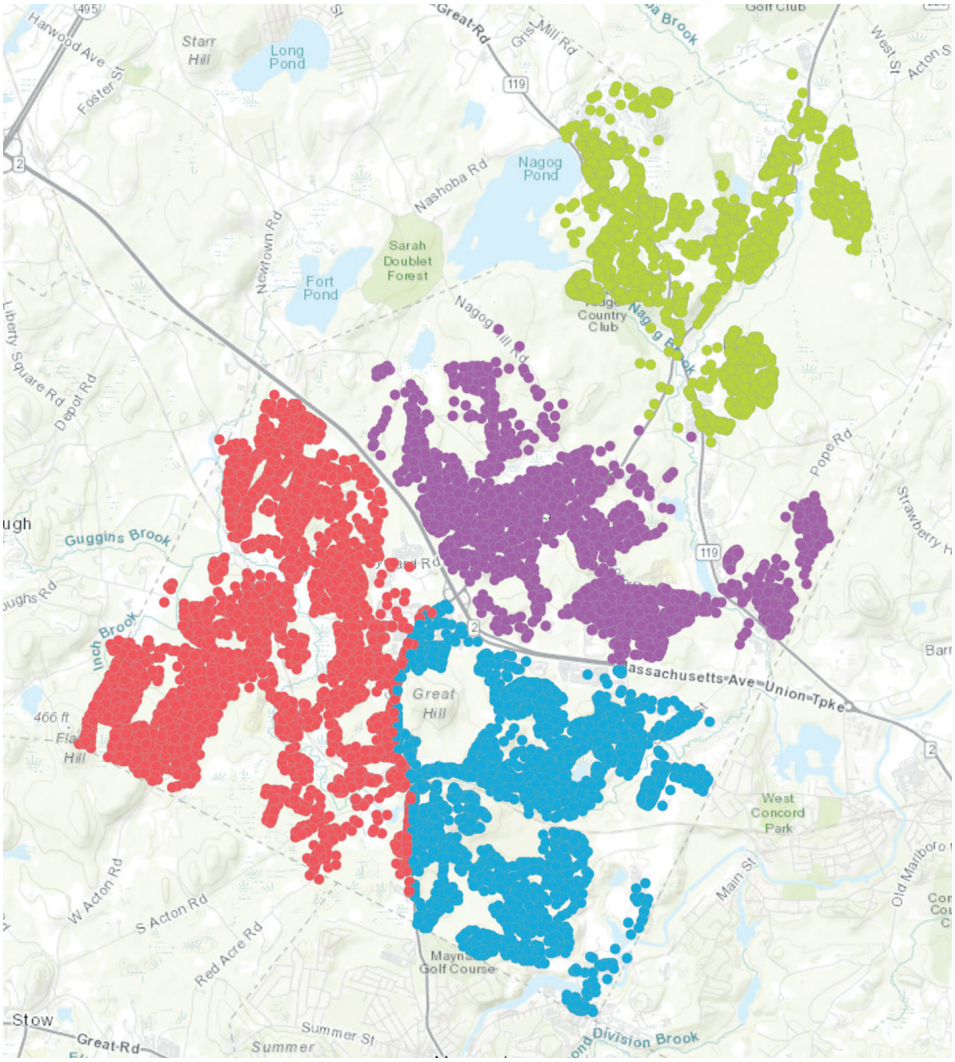
Attorney Mary Bassett was first appointed Assistant District Counsel in 1994. Shortly thereafter, she was appointed District Counsel in 1996 after the untimely passing of Charlie Orcutt, Jr. Mary served in this role for nearly 30 years until May 2024, at which time she retired at the end of her appointment. During this time, Mary helped the District in many capacities, including water contamination lawsuits, property acquisitions, and contract review and dispute resolution, as well as by being a wealth of institutional knowledge. Mary also represented several other water districts in Middlesex and Worcester counties, making her an invaluable resource. We wish Mary all the best in her retirement as she pursues new adventures!

In preparation for Mary's impending retirement, the Board and District Manager proactively selected and began onboarding new District Counsel over the winter. We are pleased to welcome newly appointed District Counsel Attorney Spencer Holland and his team from Mirick O'Connell to the District and look forward to a long partnership ahead!

Revised Outdoor Water Use Restriction Program

With the first official day of summer just around the corner, we'd like to remind our customers that our seasonal outdoor water use restriction program was recently revised and a new two-day-per-week restriction went into effect on May 1st. This restriction replaces the three-day-per-week odd/even schedule that was previously the default for over two decades and is a result of a condition in the District's final amended Water Management Act (WMA) permit issued by the Massachusetts Department of Environmental Protection (MassDEP).

Nonessential outdoor water uses that are restricted to **two days per week before 7AM and after 7PM** include lawn watering via aboveground sprinklers and automated irrigation systems, pool filling, vehicle washing, and washing of exterior surfaces (i.e. power washing). Outdoor water use days have been assigned geographically, with each quadrant permitted to use water outdoors on one weekday and one weekend day. To find your watering days using our interactive map or address search tool, please visit *https://www.actonwater.com/conservation/outdoor-water-restrictions.*



Please note that watering of lawns, gardens, and ornamental plantings using a handheld spring-loaded hose nozzle is not subject to mandatory restrictions, nor is watering with harvested rainwater, a private well, or other privately owned water source. Limiting these activities to before 7AM and after 7PM remains encouraged as a best practice. ***No outdoor water use is permitted on Mondays.*** Violations will be subject to a fine of up to $200 per incident.

If the favorable hydrologic conditions we are currently experiencing change during the growing season or we experience operational constraints, the number of days nonessential outdoor water use is permitted may be reduced. Any changes to the status of our outdoor water use restrictions will be shared on our website, through our WaterSmart program, and via *Facebook* and *Twitter*. Read on for answers to some of the most frequently asked questions about our outdoor water use restriction program.

Nonessential outdoor water use, two days per week, before 7am and after 7pm.

- **Tuesday & Saturday:** North Acton – North of Brook Street including Great Road from Brook Street to Littleton line
- **Wednesday & Saturday:** Acton Center/East Acton—North of Route 2 to South of Brook Street (562 Main Street follows this schedule) including Pope Road and Great Road to Concord line
- **Thursday & Sunday:** West Acton – South of Route 2 and West of Main Street (even side of Main Street follows this schedule)
- **Friday & Sunday:** South Acton – South of Route 2 and East of Main Street (odd side of Main Street follows this schedule)

Water Use Restriction FAQ's

Q: Are there any exceptions for watering new lawns?
A: No. The two-day-per-week water use restriction applies equally to both new and established lawns. The District does not have a waiver program for new lawns.

Q: How do I determine my watering days?
A: To find your watering days, please visit our website at *https://www.actonwater.com/conservation/outdoor-water-restrictions.*

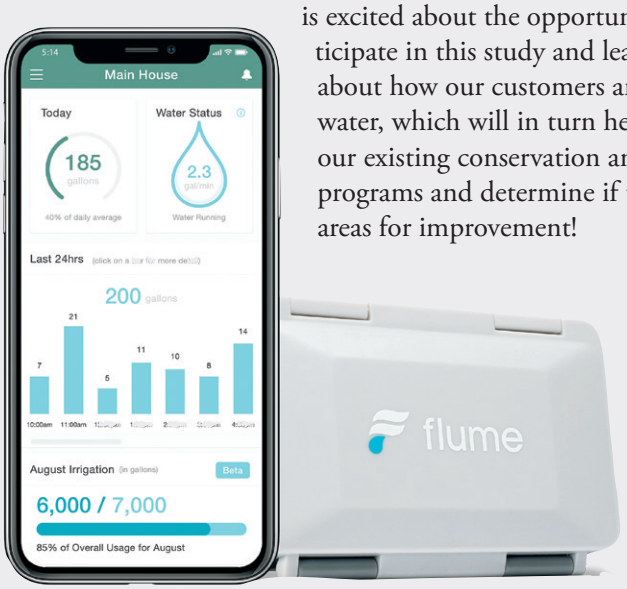
Q: Can I water my garden/plantings/lawn by hand?
A: Watering of gardens, ornamental plantings, and lawns using a handheld spring-loaded hose nozzle is not subject to mandatory restrictions. We recommend doing so before 7 AM and after 7 PM as a best management practice to reduce water lost to evaporation and evapotranspiration.

Q: I have a private well or other source for outdoor water use. Do these restrictions apply to me?
A: No, these outdoor water use restrictions do not apply to properties served by private wells or other alternative water sources like harvested rainwater. However, all property owners are encouraged to abide by these restrictions to conserve and protect our water resources.

Q: I've seen others not abiding by the outdoor water use restrictions. How can I report them?
A: You may report suspected water use restriction violations by calling our office at 978-263-9107, emailing *alex@actonwater.com*, or using our non-emergency online reporting form at *https://actonwater.com/customer-service/reporting-form*. District staff will follow up on all reports.

The Residential End Uses of Water Study

The Acton Water District is collaborating with *Flume Water and WaterDM* as part of a water use study that will analyze trends within single and multi-family homes across the US and Canada. The Residential End Uses of Water study is funded by the Water Research Foundation and is conducted about once every decade. The study utilizes disaggregated water use data to understand and quantify residential end uses of water and is expected to kick off this summer and last for about 18 months. This version of the study will in part be informed by data collected from Flume devices. The Flume is a smart home water monitor that enables residents to track their water usage down to the minute from a smartphone or other mobile device 24/7 and provides alerts for possible leaks. The District is excited about the opportunity to participate in this study and learn more about how our customers are using water, which will in turn help us evaluate our existing conservation and efficiency programs and determine if there are areas for improvement!



Andrew Bozek joined the District this spring as our newest employee.

Welcome Aboard!

This spring, we were able to welcome a new employee to our operations group to help meet our current staffing needs. Andrew Bozek joined the District in May 2024 as a Water Systems Laborer. After graduating from the Nashoba Valley Technical High School in 2023, Andrew worked as a plumber's apprentice. He recently completed the basic treatment and distribution prerequisite course required to become a licensed drinking water operator in Massachusetts. Andrew is eager to put his skills to work and is a valuable addition to our team. If you see Andrew in your neighborhood or at our office, please say hello!

Developing a Comprehensive Service Line Inventory: We Need Your Help!

On December 22, 2020, the U.S. Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. One key component of this update is the requirement for public water systems to develop an initial service line inventory by October 16, 2024, a deadline that is quickly approaching! Establishing an inventory of service line materials and identifying the location of any lead components is a necessary foundation for removing lead and protecting public health.

A service line is the pipe that brings water from the water main in the street into a building, and generally consists of two parts; the "public" side, which runs from the main to the curb stop and the "private" side, which runs from the curb stop into the building. District staff began proactively developing our initial service line inventory in early 2022 by reviewing available records, consulting with current and former staff, and conducting field identifications during meter appointments. Shortly thereafter, the District began implementing strategies to determine unknown service line materials, including requesting customers to self-identify the material used on the "private" side and conducting hydro vacuum excavations to enable physical inspections of the "public" side. Based on our review, copper and plastic are the most common service line materials. Galvanized iron was used historically but represents a small percentage of the more than 6,500 service lines in our community. *There are no known lead service lines in our distribution system.*

While we continue to make progress in developing our initial inventory, data gaps remain. To help fill in some of these gaps and make our inventory more robust, the District invites our customers to use the Mass Lead Service Line Identification (MA-LSLI) Web App. This web-based application was developed by the Massachusetts Department of Environmental Protection (MassDEP) for consumers to submit information on their service line material to their public water supplier. You can access the MA-LSLI Web App by scanning the QR code to the left or visiting the following link - *https://app.smartsheet.com/b/form/f9ee39b7972f443ca63e8b936cd7f92b*. The app may be accessed on any mobile device, tablet or computer with internet access and does not require you to download anything. All you need to do is take a photo of your service line, upload it to the app's website and answer a few basic questions. Be sure to select *Acton* as the City/Town and *Acton Water Supply District* as Your Water Supplier to ensure your submission is received.

From this site visit, we were able to identify the private side of this customer's service line as copper.

If you are having difficulty identifying your service line material or navigating MassDEP's web app, you can schedule a service line identification appointment with a District staff member instead. To do so, please send an email to *alex@actonwater.com* with "Service Line ID Appointment" in the subject line and include your name and address in the body of the email.

We look forward to your interest and participation in this important water system inventory project!

How to Self-Identify Your Service Line

Galvanized: A dull, silver-gray color. Strong magnets will typically cling to galvanized pipes.

Copper: The color of a copper penny.

Plastic: Usually blue or black rigid pipe.

1. Find your water meter, which is typically located in the basement.
2. Look for the pipe that comes through the outside wall of your home and connects to your water meter. (Note: You may need to wipe this pipe with a rag to remove dust, etc.)
3. Evaluate the color of this pipe. Does it appear to be plastic or metal?
4. If the pipe appears to be metal and you cannot determine the material by color alone, place a strong magnet on the pipe.
   a. If the magnet sticks, your pipe is likely *galvanized steel.*
   b. If the magnet does not stick, your pipe is likely *copper.*

Note: Please do not attempt to scratch your service line for identification purposes. Depending on the material, this may damage the pipe and result in a leak.

Water Words Notice
is published twice a year
for all customers of the
Acton Water District

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What was it?

Our last photo seems to have stumped readers, as no one correctly identified this lead gooseneck. A gooseneck is a short piece of flexible piping used to connect from the water main to the portion of the service line that extends to the shut off located at or near the property line. Lead was commonly used for goosenecks because of its durability and flexibility and was connected to galvanized iron service lines in the District's system. To date, more than 135 of these goosenecks have been removed and efforts are ongoing to locate any that remain.

What is it?

Please email your answers to *webgeek@ActonWater.com*. Winners (and the correct answer) will be posted in the next *Water Words Notice*. Customers with a correct answer, as determined by AWD staff, may receive a prize—in addition to the fame of having your name published in this space!

Report on Water Quality

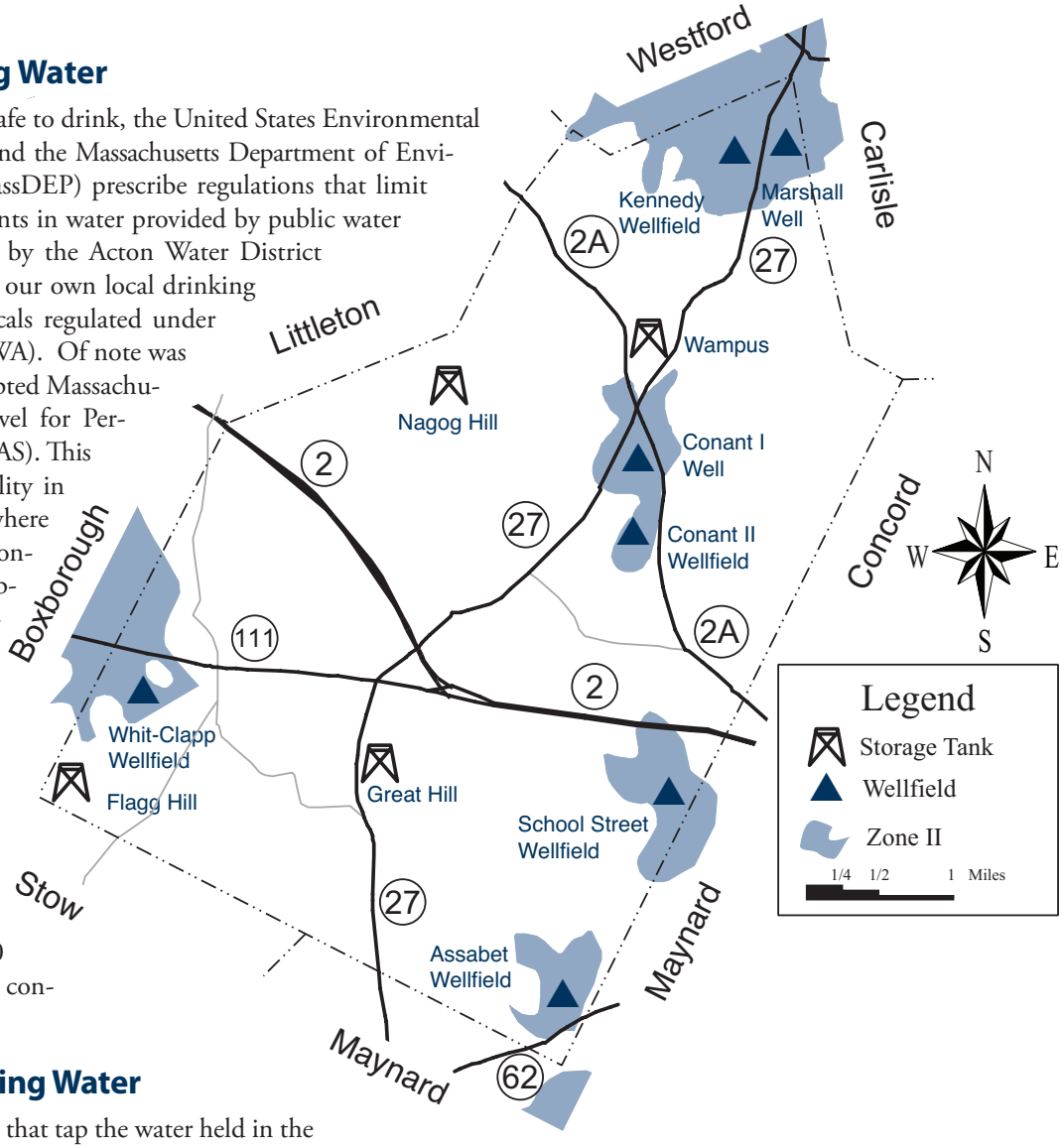
SUMMER 2024 PWS 2002000

Acton Water District

Testing for Your Drinking Water

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) prescribe regulations that limit the amounts of certain contaminants in water provided by public water systems. In 2023, water supplied by the Acton Water District (AWD) met most EPA, state, and our own local drinking water health standards for chemicals regulated under the Safe Drinking Water Act (SDWA). Of note was the exceedance of the recently adopted Massachusetts Maximum Contaminant Level for Per- and Polyfluoroalkyl Substances (PFAS). This report is a snapshot of water quality in 2023. Included are details about where your water comes from, what it contains, how it is treated and distributed, and how it compares to standards set by the EPA.

The AWD works diligently to safeguard your water supplies by employing multiple barriers for protection, including source water protection, distribution system protection, ongoing monitoring, and treatment. Last year, we collected more than 650 samples and tested them for more than 100 different potential drinking water contaminants.



The Source of Your Drinking Water

Your water comes from wells that tap the water held in the ground beneath the town of Acton and neighboring communities. The Acton Water District has 24 different wells that withdraw water from seven wellfields located in various parts of town. Water from each well is pumped to treatment facilities located in each of the various wellfields, and then into the distribution system (a network of over 135 miles of water mains, four storage tanks, and more than 1,100 fire hydrants), where it blends together and is delivered to homes, businesses, schools, and other public users. The map on this page shows the various storage tanks, wellfields, and the critical protective radius (called the Zone II) around each wellfield.

Protection for Your Drinking Water

The Acton Water District employs three important "barriers" to maintain the highest possible quality of drinking water:

- A protective area called the Zone II surrounds each of Acton's wells. Land use activities that could adversely affect water quality are restricted within the Zone II area.
- Each of Acton's wells is treated in order to remove impurities and improve the taste of the water. Water treatment specifics are listed on page 9.
- The system of pipes that delivers water to your home is protected by a program that works to minimize "cross connections" between potable (intended for human consumption) and non-potable water. An example of a cross connection is a point where a drinking water pipe might connect to a fire suppression system or to an outside irrigation system.

Water Quality Data Table

The data presented in the table below are from calendar year 2023 unless otherwise noted. Only compounds that were detected in the water delivered to customers are reported in this table. Because water from all wellfields is blended within the distribution system, these data represent the range of water quality across all wellfields.

Substance (units)	Range of Detects	Level Allowed (MCL)	Goal (MCLG)	Typical Source	Exceeds MCL?
Regulated Substances (MCL has been established)					
Barium (ppm)	0.014–0.041	2	2	Erosion of natural deposits	No
Chlorine (ppm)	0.01–1.26 Highest RAA: 0.21	4 (MRDL)	4 (MRDLG)	Water additive used to control microbes	No
Fluoride (ppm) *	0–1.0	4	4	Water additive which promotes strong teeth	No
Haloacetic Acid (ppb)	1.1–28 LRAA: 10	60	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant	No
Nitrate (ppm)	0–0.47	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	No
PFAS6 (ppt)	8.4–25.8 Highest quarterly average: 21.8	20	No MCLG	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.	Yes
Trihalomethanes (ppb)	21–104 LRAA: 56	80	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant	No
Turbidity (Nephelometric Turbidity Unit)	0.02–0.47 Lowest Monthly % Samples: 99.4	Maximum Day 1 NTU (TT)	95% of samples <0.3 NTU Monthly (TT)	A measure of the cloudiness of water. It is a good indicator of the effectiveness of our treatment processes.	No
Unregulated Substances (MCL has not been established)					
1,4-dioxane (ppb)	0.18–0.23	No MCL	No MCLG	Chemical solvent, lab reagent, stabilizer, adhesive, may be found in cosmetics, detergents, and shampoo.	Unregulated contaminants have no established MCL
Aluminum (ppb)	0–50	No MCL	No MCLG	Residue from water treatment process: erosion of natural deposits.	
Chloride (ppm)	73.2–120	No MCL	No MCLG	Runoff and leaching from natural deposits	
Chloroform (ppb)	0.8–79	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Chlorodibromomethane (ppb)	0.7–3.6	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Bromodichloromethane (ppb)	2.2–11	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Bromoform (ppb)	0–0.9	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Iron (ppm)	0–0.01	No MCL	No MCLG	Erosion of natural deposits.	
Manganese (ppb)	0–0.01	No MCL	No MCLG	Erosion of natural deposits.	
Perfluorobutanoic acid (PFBA) (ppt)	0–20.6 Average: 15.5	No MCL	No MCLG	Breakdown product of other PFAS that are used in stain-resistant fabrics, paper food packaging, and carpets; also historically used for manufacturing photographic film.	
Perfluorobutancesulfonic acid (PFBS) (ppt)	0–7.1 Average: 3.2	No MCL	No MCLG	Manmade chemical; used as a replacement for perfluorooctane sulfonic acid (PFOS); used in the manufacture of paints, cleaning agents, and water- and stain-repellent products and coatings, including carpeting, carpet cleaners, floor wax and food packaging.	
Perfluorohexanoic acid (PFHxA) (ppt)	0–7.1 Average: 4.7	No MCL	No MCLG	Manmade chemical; breakdown product of stain- and grease-proof coatings on food packaging and household products	
Perfluoropentanoic acid (PFPeA) (ppt)	0–8.4 Average: 6.0	No MCL	No MCLG	Manmade chemical; used in products to make them stain, grease, heat, and water resistant	
Sodium (ppm)	45.6–65.8	No MCL	No MCLG	Erosion of natural deposits, road salting.	
Sulfate (ppm)	13.1–26.7	No MCL	No MCLG	Natural Sources.	
Substance (units)	**90th percentile**	**Action Level**	**# sites (# sites above Action Level)**	**Typical Source**	**Exceeds AL?**
Lead and Copper (60+ sites sampled semi-annually: May - June and October - December 2023)					
Lead (ppb)	4.0	15	60 (1)	Corrosion of household plumbing systems; Erosion of natural deposits	No
Copper (ppm)	0.253	1.3	61 (0)	Erosion of natural deposits; Leaching; Corrosion of household plumbing systems; from wood preservatives	No

For terms and abbreviations, see page 9.

* Fluoride has a secondary contaminant level (SMCL) of 2 ppm to better protect human health.

Why Are Impurities in Your Drinking Water?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **microbial** contaminants (such as viruses and bacteria) that may come from septic systems, agriculture, and wildlife
- **inorganic** contaminants (such as salts and metals) that may be naturally occurring or result from stormwater runoff, wastewater discharge, mining, or farming
- **pesticides and herbicides**, which may come from a variety of sources, such as agriculture, stormwater runoff, and residential uses
- **organic chemical** contaminants, which are byproducts of industrial processes, and can also come from gas stations, urban stormwater runoff, and septic systems
- **radioactive** contaminants, which can occur naturally or be the result of oil and gas production or mining activities

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some impurities. The presence of an impurity does not necessarily indicate that the water poses a health risk. The Acton Water District has compiled information on drinking water and potential health effects in its drinking water resource center. Please feel free to visit or call us for information, or call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Treatment for Your Water

To meet local, state, and federal requirements, and to improve taste and appearance, the Acton Water District treats all of its water before it is supplied to customers. The table below shows the treatment provided at each wellfield.

Treatment	Conant I Well	Conant II Wellfield	Marshall Wellfield	School Street Wellfield	Assabet Wellfield	Kennedy Wellfield	Clapp/Whitcomb Wellfield
Aeration *VOC removal*	♦	♦	♦	♦	♦	♦	♦
Chlorination *disinfection*	♦	♦	♦	♦	♦	♦	♦
Fluoridation *tooth decay prevention*	♦	♦	♦	♦	♦	♦	♦
pH Adjustment *corrosion control*	♦	♦	♦	♦	♦	♦	♦
Carbon Filtration *taste/color control*							♦
Membrane Filtration *mineral/color removal*			♦	♦	♦	♦	
GreensandPlus™ Pressure Filtration *iron/manganese removal*	♦	♦					

TERMS AND ABBREVIATIONS

AL (Action Level): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Locational Running Annual Average): The highest level of contaminant as determined by a running annual average of all the samples taken from a sampling point.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs 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 or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NTU: Nephelometric Turbidity Units

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

pCi/L: picocuries per liter (a measure of radioactivity)

RAA (Running Annual Average): The average of four consecutive quarters of data.

TT (Treatment Technique): A required process intended to reduce the level of contaminant in drinking water.

90th Percentile: Out of every 10 homes sampled, nine were at or below this level. This number is compared to the action level to determine lead and copper compliance.

Discussion of Data Table Detections

COLIFORM: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify any problems that were found during these assessments.

During the past year, two Level 2 Assessments were required to be completed for our water system. A Level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and /or why total coliform bacteria have been found in our water system on multiple occasions. Two Level 2 assessments were completed. In addition, we were required to take seven corrective actions; we completed six of these actions and the seventh corrective action is in progress.

1,4-DIOXANE: During 2023 we collected samples for this compound in the raw and treated waters of the Assabet and School Street wells. This sampling was conducted due to the presence of 1,4-dioxane at the WR Grace and Nuclear Metals, Inc. Superfund sites near our South Acton wells. 1,4-dioxane is not a federally regulated contaminant, and the MassDEP has not established a state MCL. The AWD is following the potential regulation of this contaminant and the effect it may have on our water system. Some people who drink water containing 1,4-dioxane at high concentrations for many years could experience chronic kidney and liver effects and liver cancer. More information is available at *www.actonwater.com/water-quality/14-dioxane*

FLUORIDE: The Acton Board of Health voted in 1970 to adjust the fluoride level in drinking water to prevent tooth decay/cavities. On June 8, 2015, the Acton BOH voted to adopt the Centers for Disease Control's recommended adjusted optimal fluoride dose of 0.7 mg/L. We implemented this adjusted dose at all our treatment plants in 2015.

LEAD AND COPPER: 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. The AWD is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two 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 (1-800-426-4791) or at *http://www.epa.gov/safewater/lead*.

PFAS6: Some people who drink water containing these 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 PFAS may also elevate the risk of certain cancers. The AWD began monitoring for PFAS in January 2020, before MassDEP required it. Results presented in the regulated table above are accepted samples from our treated water during the 2023 calendar year. Additional PFAS detects were reported in the unregulated table above. More information is available at *www.actonwater.com/pfas*

SODIUM: Although sodium does not have an MCL, MassDEP has a guideline of 20 parts per million (ppm) for sensitive individuals, such as those on very salt-restricted diets. The AWD notifies the Acton Board of Health of sodium results, and results of the most recent sodium tests are posted at various locations in town. Sodium levels in drinking water vary considerably from well to well and month to month. For the most accurate data on sodium levels at your home, an individual tap sample would be necessary.

VOLUNTARY MONITORING: In addition to the monitoring required by the Safe Drinking Water Act, the AWD voluntarily conducts hundreds of additional tests each year to ensure high-quality water is provided to our customers. For more information on our voluntary monitoring, please contact us.

VULNERABILITY: Some people may be more vulnerable to impurities 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 persons, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (1-800-426-4791).

Source Water Assessment and Protection Report Available

The Source Water Assessment and Protection (SWAP) program requires states to assess the susceptibility of public water supplies to potential contamination. The Massachusetts Department of Environmental Protection (MassDEP) has completed its assessment on each of the Zone II areas for the Acton Water District's wells. A susceptibility ranking of "high" was assigned to each Zone II using the information compiled by MassDEP. Copies of the SWAP report are available at the Acton Water District office or on our website: *www.ActonWater.com*.

The AWD has long recognized the susceptibility of its sources and has worked closely with both the Town of Acton and the state to maximize the protection of all its Zone IIs. For more information, please contact Matthew Mostoller, AWD District Manager, by phone at 978-263-9107 or by email at *matt@actonwater.com*.

Required Non-Compliance Information

In September 2022, the District was issued an Administrative Consent Order with Penalty (ACOP) by MassDEP. This ACOP is for the Clapp Whitcomb Water Treatment Plant backwash water. This is not a drinking water violation, but a violation of wastewater regulations, therefore public health was not immediately at risk. Although the treatment plant is operated in accordance with its original design, MassDEP's expectations for managing waste from facilities such as this have changed over the past 35 years. Our immediate response was to relegate this facility to emergency use only and provide a bag filter to remove some of the solids contained in the backwash water. Due to the age of the treatment equipment and declining water quality from the wells in West Acton, this facility should be replaced in the coming years; however, those plans have been deferred so we can focus on PFAS treatment upgrades at our newer facilities. By entering into the ACOP with MassDEP, the District is able to work with the regulators and our engineers to implement more permanent solutions that fit into our capital planning and improvement plans.

Additionally, we are required to monitor your drinking water 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 October to December 2023 monitoring period, we did not monitor or test for Volatile Organic Compounds (VOCs) at the South Acton Water Treatment Plant (SAWTP) and therefore cannot be sure of the quality of our drinking water during that time. Treatment for VOC removal is provided at the SAWTP and exposure to this contaminant would be unlikely. Soon after this oversight was discovered, sampling occurred on January 3, 2024 after the required monitoring period; results were well within the allowable levels, and steps have been taken to ensure future sampling occurs during the scheduled quarter. Please share this information with all 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.

Do You Know About Cross Connections?

A cross connection is any actual or potential connection between a potable drinking water pipe and any potential source of pollution or contamination, such as a waste, soil, or sewer pipe; a drain; or any other unapproved source. If not properly protected or eliminated, a cross connection can cause health problems and spread disease if a backflow event were to occur.

There are two types of backflow conditions by which contamination can enter the drinking water: backpressure and backsiphonage. Backpressure occurs when the pressure in the property exceeds that of the drinking water distribution system. This can be caused by air conditioning units, boiler systems, and other pressure-building devices connected to the distribution system. Backsiphonage occurs when the drinking water pressure drops off and the resulting vacuum sucks the water from the building, causing it to flow backward into the distribution system. This can be caused by routine occurrences such as a fire department's use of water for fire suppression, water main breaks, and other heavy water demand.

Most cross connections are addressed by installing a backflow prevention device. A hose bibb vacuum breaker, sold at any hardware store, prevents the typical garden hose cross connection. Backflow devices come in all different types to protect even the most dangerous liquids from being able to contaminate the drinking water supply. To our knowledge, there has never been a cross connection incident in Acton, but there have been several in the state of Massachusetts and even more nationally.

Everyone should be aware of and do their part to prevent drinking water from becoming contaminated by cross connections. By surveying all industrial, commercial, and institutional facilities for cross connections, the Acton Water District ensures that the water supplied down to the last free-flowing tap in every building is of the highest quality. All residential homes with irrigation systems are required to have backflow protection. You can learn more about cross connections by contacting Bob Murch, our Cross Connection Coordinator, at *bobm@actonwater.com*.

Irrigation systems that are connected to the distribution system are required to be equipped with a backflow prevention device, such as the one shown here, to protect against cross connections.

Good to the Last Drop!

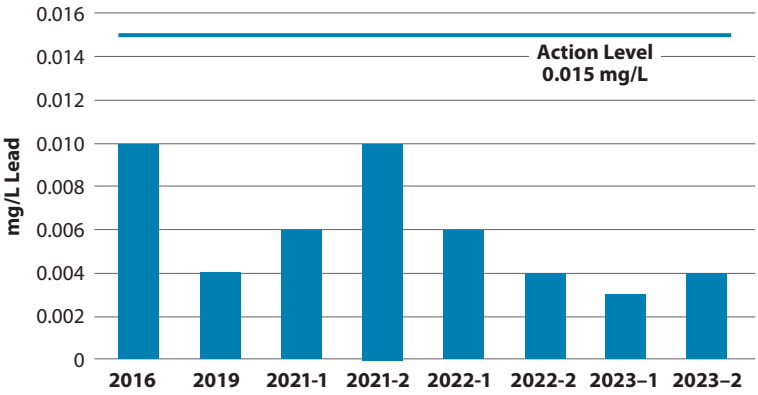
Since the early 2000's, the District has qualified for reduced lead and copper monitoring. Samples have historically been collected from 30 homes and two schools/childcare facilities in town once every three years to confirm the effectiveness of our corrosion control efforts. Aeration, primarily used for VOC removal, is often sufficient in raising the pH of our naturally corrosive water supplies from slightly acidic to neutral. As needed, further upward pH adjustment is achieved by adding potassium hydroxide. Upwardly adjusting the pH reduces the potential for metals like lead and copper to leach from building pipes and plumbing fixtures into the water carried through them.

Because several system improvements were initiated in 2020, including breaking ground on the recently constructed Central Acton Water Treatment Plant, reactivating the Assabet 2 Well, and activating the Assabet 3 Well, the District returned to semi-annual lead and copper monitoring at 60 homes and two schools/childcare facilities beginning in 2021. We anticipate semi-annual monitoring will continue through 2025 and beyond as the District pursues additional water quality and capacity improvements, including the construction of PFAS treatment at the South and Central Acton WTPs and the construction of two bedrock wells in Acton Center.

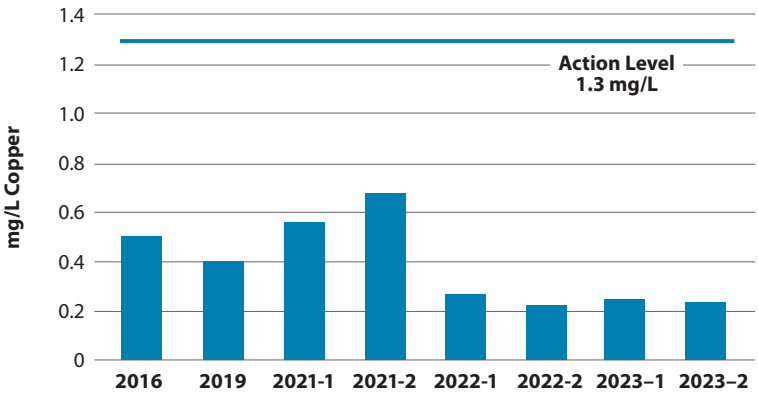
Lead levels in more than 97% of the residential samples collected in 2023 were below the Action Level (AL). All AL exceedances were reported to homeowners immediately and follow-up sampling was offered; when conducted, repeat sampling indicated low lead levels. Often, replacing old household plumbing fixtures that contained lead results in improved water quality. There were no lead AL exceedances for any of the samples collected in schools/ childcare facilities as part of the 2023 program.

When your water has been sitting for several hours, like first thing in the morning or upon returning home from work, you can minimize your lead exposure by flushing your tap for up to two minutes or until the water becomes noticeably colder before using it for drinking, cooking, or preparing baby formula. Always use cold water for these activities, as lead dissolves faster in hot water than it does in cold. It's also important to note that boiling water does not decrease the level of lead; rather, it increases it. Additionally, the aerators on the end of your faucets should be removed at least every six months to rinse out any debris that may include particulate lead.

Lead Levels



Copper Levels



Lead and copper compliance data demonstrate effective corrosion control practices at our treatment plants, which reduce leaching of metals from building pipes and plumbing fixtures.

Do You Want to Get Involved?

The Board of Water Commissioners meetings are typically scheduled on the second and fourth Mondays of each month at 7:00 pm; meetings are open to the public. The beginning of each meeting is set aside for public comments that may not be on the agenda for discussion. If you wish to attend, please visit our website (*https://actonwater.com/meeting-schedules*) to confirm the next meeting date. The Acton Water District Annual Meeting is held on the third Wednesday of March. All interested persons are welcome to attend.

For more information, additional copies, or to comment on this report, please contact:

Acton Water District

Attn: Alexandra Wahlstrom PO Box 953, 693 Massachusetts Ave., Acton, MA 01720

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