

Acton Water District

SUMMER 2023

Water Words Notice

Greetings and thank you for your interest in the Acton Water District. This newsletter contains a variety of important information regarding your drinking water, the system that supplies it, and the people who manage it. Most notably, it serves as our annual Consumer Confidence Report, which contains a summary of water quality results for the previous year. Please read it carefully and contact us with any questions you may have regarding water quality or the District's operation. Our staff is ready and willing to speak with you!

After more than 13 years of service as the Environmental Manager, I am pleased to now serve the community as District Manager. My hope is to build on the planning work we have done around Per- and Polyfluoroalkyl Substances (PFAS), continue to build our staff in the face of retirements, and provide a sustainable water supply for the community. In revisiting my "Welcome to the District" article in the 2009 summer *Water Words*, <https://tinyurl.com/bdyv37cv>, my desire to utilize my interests and abilities to better the community remain strong even though I no longer live in Acton!

With my promotion, I would like to recognize the former District Manager, Chris Allen, who came to the District on July 30, 2007 and is retiring after 16 years of service. Prior to coming to Acton, Chris worked for the public water systems in Littleton and Worcester; he served in the Navy before joining the water works industry. Chris was tasked with implementing an ambitious capital improvement plan, resulting in three major treatment plants, numerous distribution systems improvements, and a framework for ensuring adequate water supply for the community. I appreciated my time working with Chris and want to thank him for the opportunities he provided me and recognize his commitment to the District as an organization and the community at large.

Efforts to address PFAS in our water supply continue with regular updates provided on our dedicated PFAS webpage, <https://www.actonwater.com/pfas>. The Assabet 3 well was activated in February, increasing the available volume of water we can produce while also helping to dilute the PFAS concentrations at our South Acton Water Treatment Plant (SAWTP). The



The Massachusetts Department of Environmental Protection (MassDEP) recently awarded the District for its water conservation efforts. Pictured left to right are State Senator Jamie Eldridge; State Representative Dan Sena; EPA Region 1 Associate Director of Drinking Water Jane Downing; MassDEP Commissioner Bonnie Heiple; District officials Matthew Mostoller, Steven Stuntz, Christine McCarthy and Alexandra Wahlstrom; MassDEP official Paula Caron; and MWWA President Mark Warren.

contract for installing PFAS filtration via Granular Activated Carbon (GAC) at the North Acton Water Treatment plant (NAWTP) has been awarded; the contractor expects to mobilize in July. Most importantly, voters approved articles at our Annual Meeting in March to construct PFAS upgrades at the Central Acton Water Treatment Plant (CAWTP) and SAWTP. District staff are working with consulting engineers towards the design of these upgrades with anticipated bidding of the construction contracts in 2024.

In the meantime, we continue to manage our sources to reduce exposure to PFAS via drinking water; however, this results in a reduced quantity of water that is available for customer use. Your continued efforts to reduce non-essential water use are appreciated and play a critical role in our ability to meet customer demand. As a result of the impressive work in the community to use water efficiently, the Massachusetts Department of Environmental Protection (MassDEP) recognized the District at Drinking Water Awards Day on May 11th at the State House for outstanding performance in Water Conservation for 2022. Staff and elected officials from the District were on hand, along with Senator Jamie Eldridge and Representative

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Greetings

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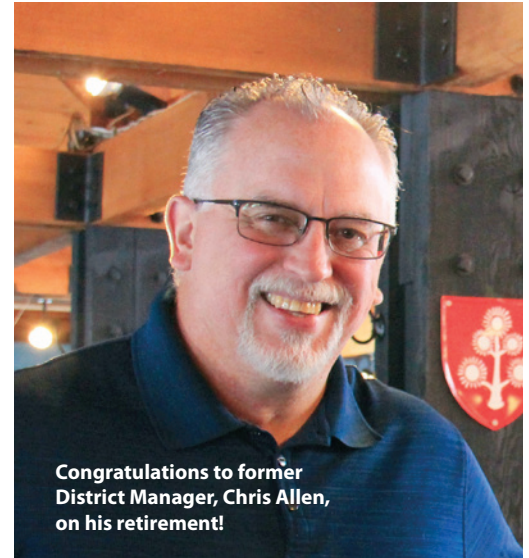
Dan Sena. Ongoing recognition of our conservation and efficiency programs is a testament to the partnership we have with you, our water users, and we are thankful for your support and cooperation.

Our work is made better by your feedback, participation in our proceedings, and general engagement around water. Please contact us via phone, email, Twitter, web inquiry, or, if you subscribe, our WaterSmart program, with any questions or comments you may have, or suggestions you may wish to make. Thank you!

Respectfully submitted,



Matthew Mostoller
District Manager



Congratulations to former District Manager, Chris Allen, on his retirement!



Congratulations to our raffle winners who took home more than just some knowledge after our Open House!

Celebrating our Water Resources on Earth Day

In honor of the importance of our local water resources, the District celebrated Earth Day by hosting an open house at our recently completed Central Acton Water Treatment Plant (CAWTP) on April 22nd. This facility, which can treat up to one million gallons of water per day, is designed to remove the naturally occurring iron and manganese from our Conant I and II sources and helps ensure the reliability of the District's water supply.

More than 60 attendees joined us for treatment facility tours, land tours of 549 Main Street, educational displays, and giveaways. All three of the treatment facility tours were led by Jim Cray of Wright-Pierce, the engineering firm that designed and oversaw construction of the CAWTP. Participants were able to get a behind-the-scenes look at the inner workings of this facility and got to see first-hand much of the equipment and instrumentation involved in the processes utilized to ensure clean, healthy water makes its way to our consumer's taps from the CAWTP. Meanwhile, two

walking tours of 549 Main Street were given jointly by Dr. Brewster Conant, Jr. and District Manager, Matthew Mostoller. Attendees were able to see several of the natural, water supply, and historical resources this property affords while learning more about its future value as it relates to open space and recreation.

For those in between tours, materials relating to water conservation and efficiency, water quality, and water system components were displayed throughout the facility with District staff available to field questions. We even gave a demonstration of our groundwater model to some young scientists! Additionally, the District raffled off a rain barrel, a WaterSense-labeled dual flush toilet, and a WaterSense-labeled rain showerhead to three lucky open house attendees. A big congratulations to our winners, Martha Morrison, Sharon Gruet, and Paul Motyka! Thank you to our partner organizations and all who attended to make this open house a success.

Outdoor Water Use Reminder

With the growing season in full swing and the official start of summer on the horizon, we'd like to remind our customers that seasonal outdoor water use restrictions are in effect until further notice. Most notably, the one day per week lawn watering restriction that was first implemented in April 2021 remains in place. As ongoing impacts from PFAS necessitate operating some sources of supply at a reduced capacity, we appreciate all customers abiding by these guidelines to help ensure a safe, sufficient, and reliable supply of water for the community.

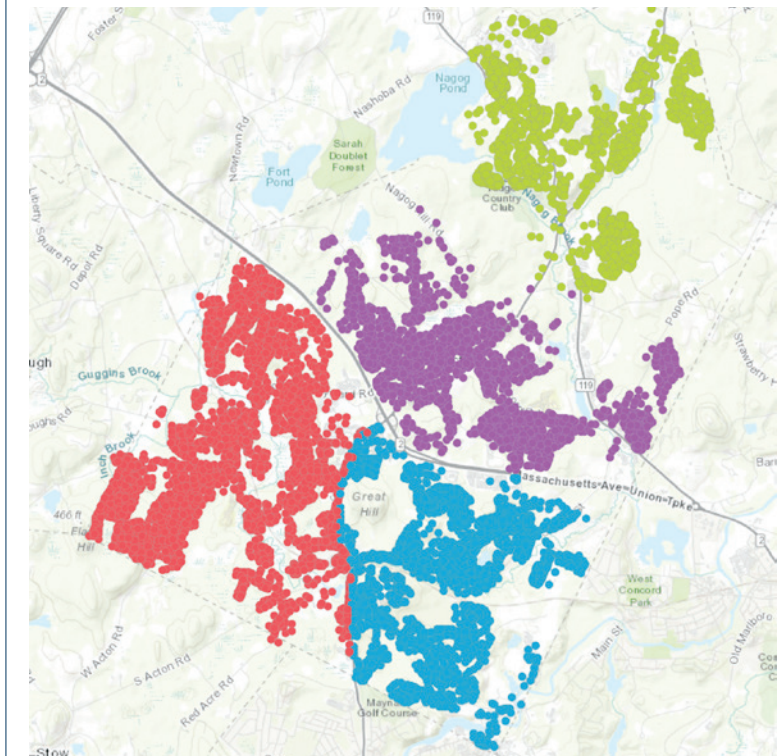
Lawn watering via above ground sprinklers and automated inground irrigation systems is limited to one day per week before 7am and after 7pm based on

Lawn Watering, one day per week, before 7am and after 7pm

- Tuesday:** North Acton—North of Brook Street including Great Road from Brook Street to Littleton line
- Wednesday:** 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:** West Acton—South of Route 2 and West of Main Street (even side of Main Street follows this schedule)
- Friday:** South Acton—South of Route 2 and East of Main Street (odd side of Main Street follows this schedule)

address. All other outdoor water uses are limited to odd/even days by street number. **No outdoor water use is permitted on Mondays.** Any violations will be subject to a fine of up to \$200 per incident.

We thank you for your cooperation and any water conservation efforts that you make. Updates on the status of our outdoor water use restrictions will be communicated on our website, through our WaterSmart program, and via Twitter [@ActonWater](#). Read on for answers to some of the most frequently asked questions about our outdoor water use restriction program.



Water Use Restriction FAQ's

Q: Are there any exceptions for watering new lawns?

A: No. The one day per week lawn watering restriction applies equally to both new and established lawns. The District does not have a waiver program; however, hand watering can be done on your odd/even days to keep the new installation moist in between your designated lawn irrigation day.

Q: How do I determine my lawn watering day?

A: To find your lawn watering day, please visit our website at <https://www.actonwater.com/conservation/outdoor-water-restrictions>.

Q: Can I water my garden/fill my pool/wash my vehicle?

A: All other outdoor water uses including watering gardens, filling or topping off pools, power washing, vehicle washing, and recreation are permitted on odd/even days by street number. Even addresses may use water outdoors on Tuesday, Thursday, and Saturday while odd addresses may use water outdoors Wednesday, Friday, and Sunday. No outdoor water use is permitted on Mondays.

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.

Beyond the Classroom

For the first time in four years, we had the pleasure of once again hosting an intern from the Acton-Boxborough Regional High School through the Senior Internship Program administered by Genevieve Hammond, the Senior Career Activities Coordinator. This year, Kara McEnery was paired with our Environmental Analyst for three weeks in May before she heads off to Arizona State University in Tempe, Arizona this fall. Kara plans on majoring in chemistry and minoring in forensics at ASU and her love of chemistry is what drew her to interning with the District.

During her time with us, Kara gained experience with water quality sampling, laboratory analyses, and data management. She participated in some of our public education and outreach efforts when she joined us for presentations to 5th grade students at the Gates School (where she was once a student!) and helped facilitate our spring lead and copper customer sampling program. According to Kara, her favorite part of the internship was “being in the lab, testing different water samples for minerals. I didn’t know how much chemistry was involved in water treatment, but I am very grateful I have gotten the chance to learn about it.” We thank Kara for all her assistance and wish her the very best as she takes on new challenges and opportunities at ASU!



Senior intern, Kara McEnery analyzing water quality samples and assisting in sludge sampling!

A Finance Committee Farewell

The Finance Committee is an advisory committee to the Board of Water Commissioners, made up of three appointed members.



During our annual reorganization on May 8th following Town elections, the District Moderator appointed a new Finance Committee member, John Petersen. This was a position previously held by Charles “Chuck” Bradley. Chuck began his tenure on the committee in 1990 and has provided 33 years of dedicated service! Thank you to Chuck for your time and financial acumen over the years and welcome to the team, John.

FY24 Rate Increase

The District has made tremendous progress in providing the Town of Acton with a resilient and sustainable water system. Much work remains as it relates to PFAS and addressing aging underground infrastructure. The staff and elected officials responsible for this work are ever mindful of the impact this has on our water users and rate payers. To that end, we try to implement cost effective solutions and pursue opportunities to offset or recoup the cost of the service we provide outside of water rates and fees. This can be done through low or zero interest loans, grants, legislative earmarks, lease arrangements, legal actions, and making strategic improvements to the water system. Nonetheless, supplying an essential service like drinking water entails a variety of goods and services. Due to the rising costs that we incur, no matter the global circumstances, periodic rate increases are necessary for sustainability of the water supply. The approved budget for the 2024 fiscal year, which begins on July 1st, calls for a 2.5% rate increase. The District remains committed to helping our customers use water efficiently and reducing the financial burden. If you have questions about your water bill or ways to reduce your water use, please contact our office during normal working hours, Monday-Friday, 7:30am–4pm or check our website. If you haven’t already, you can also subscribe to WaterSmart to track your historical usage and billing and receive alerts for leaks and other abnormalities. Many District announcements are sent via electronic mail through WaterSmart’s customer portal, and the program facilitates paperless bill pay. Visit <https://www.actonwater.com/customer-service/watersmart> for more information or to enroll in the program free of charge.

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. 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. Based on this 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 6,400 service lines in our community. *There are no lead service lines in our distribution system.*

While we have made 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/bl/form/f9ee39b7972f-443ca63e8b936cd7f92b>. 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.

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 District staff instead. To do so, please send an email to alex@actonwater.com with “Service Line ID Appointment” in the subject line



From this MA-LSLI submission, we were able to identify the private side of this customer’s service line as plastic.

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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Welcome Aboard!

This spring, we were able to welcome a new employee to our operations group to help meet our current staffing needs. Joel Gilbert joined the District in April 2023 as a Treatment Systems Operator. After graduating from UMass Amherst with a degree in Business Administration, Joel later went on to work for the Town of Pepperell for a decade. His six years there as a Laborer in the Sewer Division followed by four years as an Operator in the Water Division make him a well-rounded employee and ready to hit the ground running in Acton. His outgoing personality and helpful nature are added assets. If you see Joel in your neighborhood or at our office, please say hello!



Joel Gilbert joined the District this spring as our newest employee.

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!



Jump Into Pool Efficiency

While your pool may be your favorite place to relax and keep cool during the warmer months, it could be sending water and money down the drain if not managed with water efficiency in mind. Pools can consume water through evaporation, leaks, splashing, and filter backwashing. Luckily, EPA's WaterSense program recently released their Jump Into Pool Water Efficiency guide (<https://www.epa.gov/system/files/documents/2022-09/ws-outdoor-pool-guide.pdf>) to help residential pool owners and maintenance professionals understand and minimize pool water use by implementing water-efficient practices. Check out this resource to learn more, including how certain pool covers can reduce evaporation by more than 90 percent, how filter selection can impact your backwash frequency and reduce the risk of leaks, and how to conduct a DIY leak test on your pool!



Report on Water Quality

SUMMER 2023 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) prescribes regulations that limit the amounts of certain contaminants in water provided by public water systems. In 2022, 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 2022. 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.

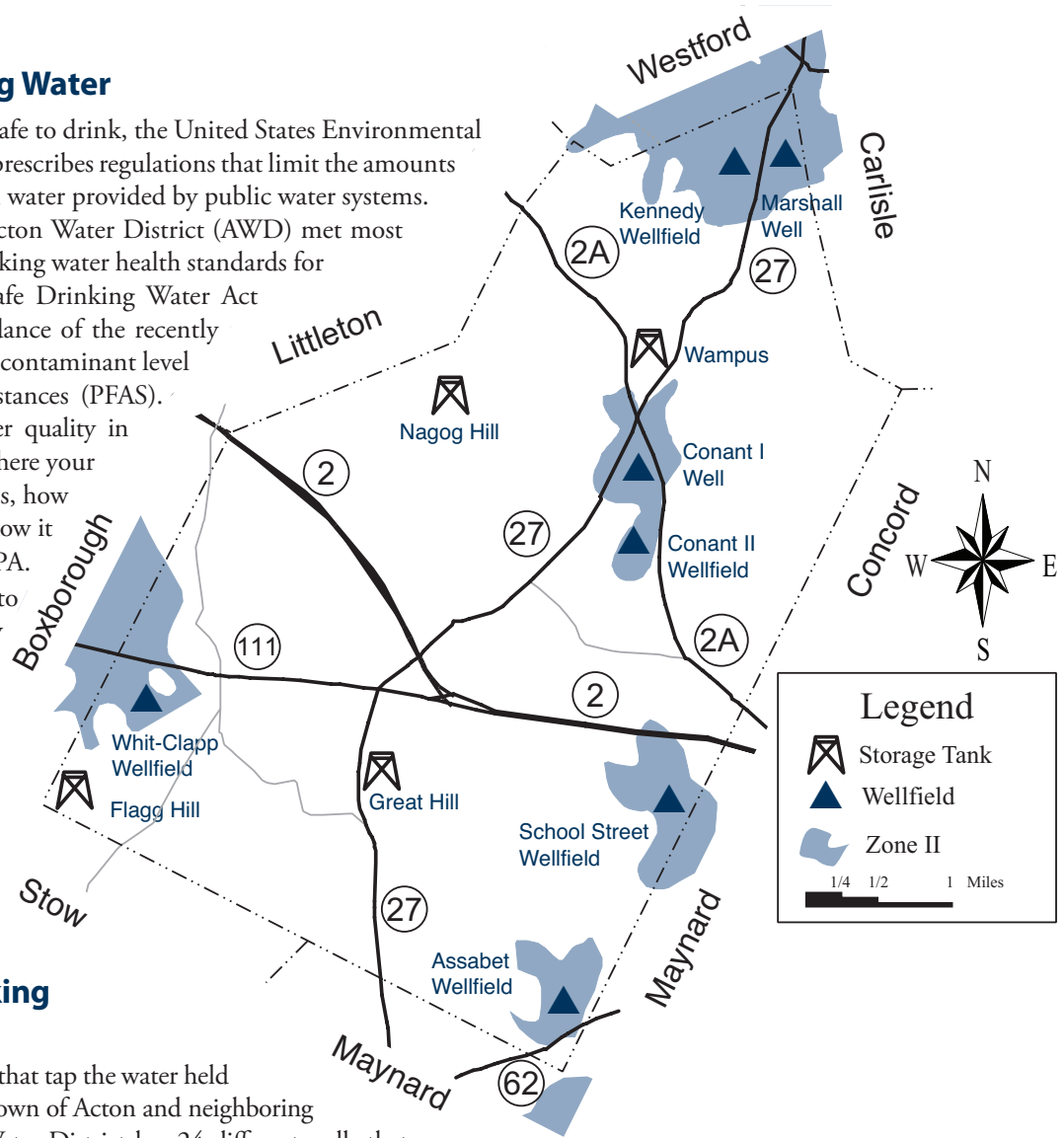
The Source of Your Drinking Water

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 2022 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)					
Alpha Emitters (pCi/L)	0.7	15	0	Erosion of natural deposits	No
Barium (ppm)	0.01–0.05	2	2	Erosion of natural deposits	No
Chlorine (ppm)	0.01 - 1.64 Highest RAA: 0.19	4 (MRDL)	4 (MRDLG)	Water additive used to control microbes	No
Combined Radium (pCi/L)	0.2	5	0	Erosion of natural deposits	No
Fluoride (ppm) *	0–1.0	4	4	Water additive which promotes strong teeth	No
Haloacetic Acids (ppb)	2.3–18 LRAA: 11	60	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant	No
Nitrate (ppm)	0.29–1.81	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	No
Perchlorate (ppb)	0–0.41	2	No MCLG	Rocket propellants, fireworks, munitions, flares, blasting agents	No
PFAS6 (ppt)	5.6–28.6 Highest quarterly average: 27.4	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)	17–54 LRAA: 45	80	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant	No
Turbidity (Nephelometric Turbidity Unit)	0.01–0.57 Lowest Monthly % Samples: 95	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)	0–0.22	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)	0–58	No MCL	No MCLG	Residue from water treatment process: erosion of natural deposits.	
Chloride (ppm)	46.9–212	No MCL	No MCLG	Runoff and leaching from natural deposits	
Chloroform (ppb)	0.6–12	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Chlorodibromomethane (ppb)	2.2–4.8	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Bromodichloromethane (ppb)	1.7–6.8	No MCL	No MCLG	Formed when natural organic material present in the water reacts with chlorine added as a disinfectant.	
Bromoform (ppb)	0–1.3	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.	
Perfluorobutanesulfonic acid (PFBS) (ppt)	0–6.6 Average: 3.5	No MCL	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.	
Perfluorohexanoic acid (PFHxA) (ppt)	0–9.6 Average: 5.2	No MCL	No MCLG		
Sodium (ppm)	38.3–107	No MCL	No MCLG	Erosion of natural deposits, road salting.	
Sulfate (ppm)	12.4–23.2	No MCL	No MCLG	Natural Sources.	
Substance (units)	90th percentile	Action Level	# sites (# sites above Action Level)	Typical Source	
Lead (ppb)	6.0	15	60 (3)	Corrosion of household plumbing systems; Erosion of natural deposits	No
Copper (ppm)	0.272	1.3	60 (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 through the ground it dissolves naturally occurring minerals. It can also pick up substances resulting from animal or human activity. Contaminants that may be present in source water include:

- **microbiological** 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 <i>VOC removal</i>		●	●	●	●	●	●
Chlorination <i>disinfection</i>	●	●	●	●	●	●	●
Fluoridation <i>tooth decay prevention</i>	●	●	●	●	●	●	●
pH Adjustment <i>corrosion control</i>	●	●	●	●	●	●	●
Carbon Filtration <i>taste/color control</i>							●
Membrane Filtration <i>mineral/color removal</i>			●	●	●	●	
GreensandPlus™ Pressure Filtration <i>iron/manganese removal</i>	●	●					

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 by volume

ppb: parts per billion by volume

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.

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, we were required to conduct one Level 1 assessment. A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system. One Level 1 assessment was completed. In addition, we were required to take three corrective actions and we completed all three of these actions.

1,4-DIOXANE: During 2022 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 this compound at the WR Grace and Nuclear Metals, Inc. Superfund sites near our South Acton wells. 1,4-dioxane is not a regulated contaminant, and the MassDEP has not established an 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 fluoride dose to 0.7 mg/L. We implemented the new 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 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 (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 on page 8 are accepted samples from our treated water during the 2022 calendar year. Additional PFAS detects were reported in the unregulated table on page 8. 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 particularly vulnerable to impurities in drinking water. 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 the website: www.ActonWater.com.

The AWD has long recognized the susceptibility of its sources and has worked closely with the town and state to maximize the protection of all of its Zone IIs. For more information, please call Matthew Mostoller, AWD District Manager, at 978-263-9107.

Required Non-Compliance Information

In September 2022, the District was issued an Administrative Consent Order with Penalty (ACOP) by MassDEP. This ACOP is regarding 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

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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.

Do You Know About Cross Connections?

A cross connection is any actual or potential connection between a potable drinking water pipe and any potential sources 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 District ensures that the water supplied down to the last free-flowing tap in every home and facility 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!

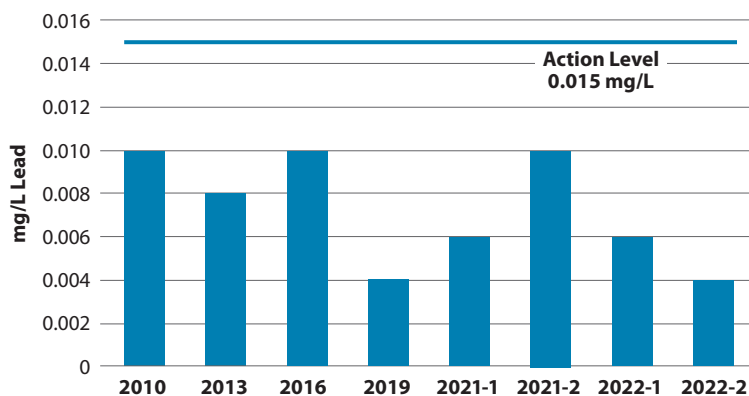
Since the early 2000's, the District has qualified for reduced lead and copper monitoring. Samples have historically been collected from 30 homes and two schools/childcare facilities in town once every three years to confirm the effectiveness of our corrosion control efforts. Aeration, primarily used 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 and reactivating the Assabet 2 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 2024 and beyond as the District pursues additional water quality and capacity improvements.

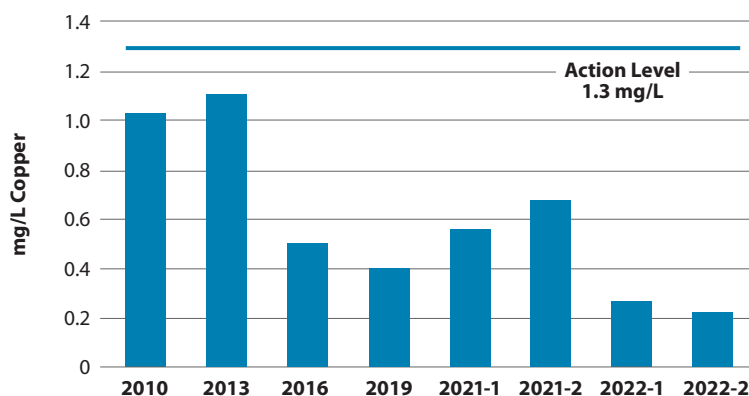
Lead levels in more than 96% of the residential samples collected in 2022 were below the Action Level (AL). All AL exceedances were reported to homeowners immediately and follow-up sampling was offered; when conducted, repeat sampling indicated low lead levels. Often, replacing old household plumbing fixtures that contained lead results in improved water quality. There were no AL exceedances for any of the samples collected in schools/childcare facilities as part of the 2022 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.

Non-Compliance

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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 third week of November 2022, we did not monitor or test for Haloacetic Acids and Trihalomethanes and therefore cannot be sure of the quality of our drinking water during that time. Soon after this oversight was discovered, sampling occurred during the third week of December 2022; results were well within the allowable levels, and steps have been taken to ensure future sampling occurs during the scheduled week. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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

Phone: 978-263-9107 Fax: 978-264-0148 • Email: alex@ActonWater.com