


# Providing Safe Drinking Water, From Watershed To Workplace

## MASSACHUSETTS WATER RESOURCES AUTHORITY
## 2023 DRINKING WATER TEST RESULTS





This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

Si usted desea obtener una copia de este reporte en español, llámenos al teléfono 617-788-1190.

La relazione contiene importanti informazioni sulla qualità dell'acqua della Comunità. Tra-durlo o parlarne con un amico che lo comprenda.

O relatório contém informações importantes sobre a qualidade da água da comunidade. Tra-duza-o ou peça a alguém que o ajude a entendê-lo melhor.

Sprawozdanie zawlera ważne informacje na temat jakości wody w Twojej miejscowści. Poproś kogoś o przellurnaczenie go lub porozmawiaj z osobą która je dobrze rozumie.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيداً.

Η κατοθεν αναφορα παρουσιαζη σπουδαιες πληροφοριες για το ποσιμο νερο σας. Πρακτικλω να το μεταφρασετε η να το σξολειασετε με καποιον που το καταλαβαινη απολητας.

Im Bericht steht wichtige Information über die Qualität des Wassers Ihrer Gemeinschaft. Der Bericht soll übersetzt werden, oder sprechen Sie mit einem Freund, der ihn gut aversteht.

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

इस रिपोर्ट में 'पीने के पानी' के विषय पर बहुत जरूरी जानकारी दी गई है। कृपया इसका अनुवाद कीजिये, या किसी जानकार से इस बारे में पूछिये।

របាយការណ៍នេះមានតតិមានសំខាន់អំពីទឹកបរិភោគ។ សូមបកប្រែឬពិគ្រោះជាមួយអ្នកដែលយល់របាយការណ៍នេះ។

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

Ce rapport contient des informations importantes à propos de votre eau potable Demander à quelqu un de traduire ces informations pour vous ou discuter avec une personne qui comprend ces informations.



**Massachusetts Water Resources Authority**
**and the Chicopee Water Dept., South Hadley F.D. #1,**
**and Wilbraham Water Division**

## Where To Go For Further Information

| | | |
|---|---|---|
| Massachusetts Water Resources Authority (MWRA) | www.mwra.com | 617-242-5323 |
| Department of Conservation and Recreation (DCR) | www.mass.gov/dcr/watersupply | 617-626-1250 |
| Massachusetts Dept. of Public Health (DPH) | www.mass.gov/dph | 617-624-6000 |
| Massachusetts Dept. of Environmental Protection | www.mass.gov/dep | 617-292-5500 |
| US Centers for Disease Control & Prevention (CDC) | www.cdc.gov | 800-232-4636 |
| List of State Certified Water Quality Testing Labs | www.mwra.com/testinglabs.html | 617-242-5323 |
| Source Water Assessment and Protection Reports | www.mwra.com/sourcewater.html | 617-242-5323 |
| Information on Water Conservation | www.mwra.com/conservation.html | 617-242-SAVE |

## Public Meetings

| | | |
|---|---|---|
| MWRA Board of Directors | www.mwra.com/boardofdirectors.html | 617-788-1117 |
| MWRA Advisory Board | www.mwraadvisoryboard.com | 617-788-2050 |
| Water Supply Citizens Advisory Committee | www.mwra.com/wscac.html | 413-213-0454 |

For A Larger Print Version, Call 617-242-5323.

This report is required under the Federal Safe Drinking Water Act. MWRA PWS ID# 6000000

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Dear Customer,

On behalf of the over 1000 women and men who work every day to provide you with excellent drinking water, I am happy to present this year's annual water quality report. You can be sure that the reliability and safety of your drinking water is our top priority.

This report provides you with the results of our drinking water testing for 2023. Our staff conduct hundreds of thousands of tests each year to ensure that your water is safe. Our state-of-the-art surveillance system monitors your water every step of the way from the reservoir all the way to your kitchen tap. Once again, MWRA met every federal and state standard and the quality of your drinking water is excellent.

Every day, we see news stories about PFAS—or 'forever chemicals'—in drinking water. Because our source water is so well protected, the water we deliver to you meets the current state, as well as the new federal EPA standards issued in April, with levels so low they cannot be quantified.

MWRA continues to be a leader in working to reduce the risk of lead in drinking water. System-wide, we remain below the Lead Action Level. Since 2016, we have provided $41 million in zero-interest loans to 17 communities for full lead service line removals. Please read your community's letter on page 7 for more information on your local water system, and consider replacing your lead service line if your home has one.

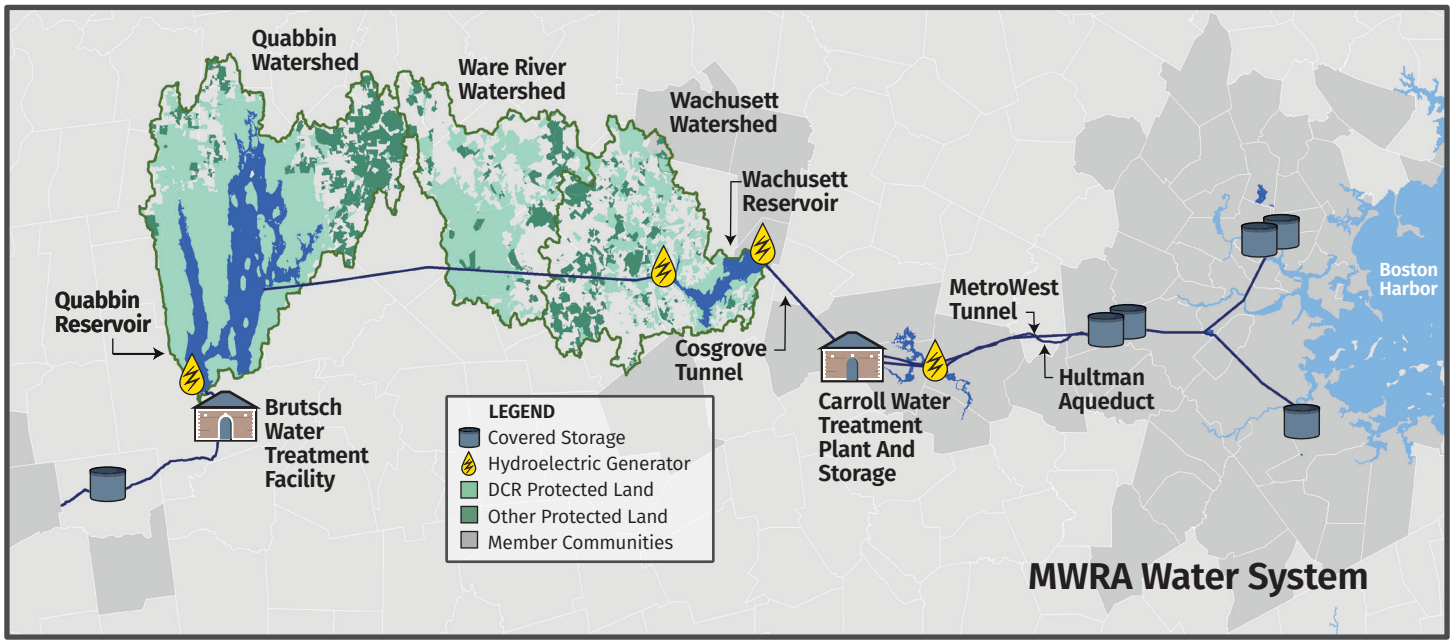
While 2023 was a wet year, as stewards of these reservoirs, we know how precious a resource we have and we cannot afford to waste it. It is an exciting time to be working at MWRA as we continue to maintain and modernize the regional system begun over 175 years ago, while providing a vital service every day.

Please take a moment to read this report. We want you to have the same confidence in the water we deliver to your homes and businesses as we do. Please contact us with any questions or comments about your water quality, or any of MWRA's programs.

Sincerely,

Frederick A. Laskey
Executive Director

For more information on MWRA and its Board of Directors, visit www.mwra.com



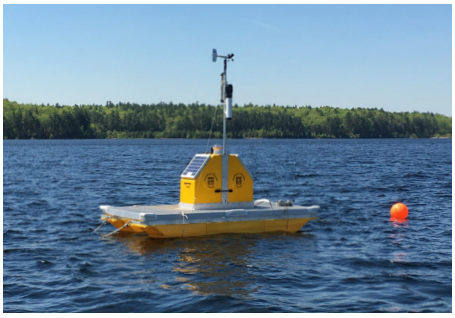
# Providing Safe Drinking Water, From Watershed To Workplace

For over 175 years, water professionals have been working to build, maintain, and operate the regional system that provides a reliable safe supply of drinking.

Today, MWRA professionals work to ensure the delivery of safe, pure water for your home, school or business, 24/7/365. Our staff collaborate with water departments in 53 communities to ensure the continuing delivery of safe drinking water to 2.5 million people at their homes and businesses.

This annual MWRA drinking water quality report for 2023 provides information on how we work to provide high quality water to you and your community.

MWRA staff work with staff at your community, the Department of Conservation and Recreation (DCR), and state and federal health professionals and regulators to provide and protect your drinking water. From the 400 square mile forest covered watersheds, to billions of gallons of water in the reservoirs, through treatment and thousands of miles of pipelines, and finally to your drinking water faucet, MWRA's water experts conduct hundreds of thousands of tests on your water every year. From watershed to water tap, MWRA's staff across our entire organization carry out the work needed to protect your water.



## Protected at the Source

The water MWRA and your community provide to your home or business starts with the pristine Quabbin reservoir in central Massachusetts. Together the Quabbin and Wachusett Reservoirs provide an average of 200 million gallons of pure, highly protected, high quality water each day to 53 communities. The Ware River provides additional water when needed. Quabbin Reservoir provided an average of 7.3 million gallons per day to the three CVA communities in 2023.

The Quabbin watershed— the area that drains water to the reservoir—is naturally protected. More than 85% of the land is covered with forests and wetlands, which filter the rain and snow that enter the streams that flow to the reservoirs. This water comes in contact with soil, rock, plants, and other material as it follows its natural path to the reservoirs. This process helps to clean the water, but it also can dissolve and carry very small amounts of material into the reservoir. Minerals and rock do not typically cause problems in the water. Water can also transport contaminants, including naturally occurring minerals, and bacteria, viruses or other potential pathogens from human and animal activity that can cause illness. Testing results show that few contaminants are found in the reservoir water, and those few are in very small amounts well below EPA's treatment standards.

MWRA and DCR staff work together to implement our nationally recognized watershed protection program. The Department of Environmental Protection's (MassDEP) Source Water Assessment report for the Quabbin and Wachusett Reservoirs commended DCR and MWRA for our source water protection plans. The report states that our "watershed protection programs are very successful and greatly reduce the actual risk of contamination." MWRA and DCR follow the report recommendations to maintain the pristine watershed areas and high quality source water. For more information on our source water, go to: www.mwra.com/sourcewater.html.

This annual water quality report provides MWRA customers with important information on water quality. MWRA also has monthly water quality reports, information on specific potential contaminants, water system updates, and more at mwra.com. We welcome your questions at 617-242-5323 or Ask.MWRA@mwra.com.

## Water: Tested From the Source

DCR biologists and environmental scientists sample the streams that feed the reservoir to identify and resolve potential pollution sources, and to monitor water quality trends. MWRA and DCR scientists sample and analyze water in the reservoir, and use specialized monitoring buoys to remotely and continuously monitor the reservoir. Based on this information, MWRA operators can make key decisions on how to manage the water in the Quabbin reservoir.

A key, initial test for reservoir water quality leaving the reservoirs is turbidity, or cloudiness. Turbidity refers to the amount of suspended particles in the water and can impair water disinfection. All water must be below 5 NTU (nephelometric turbidity units), and water can only be above 1 NTU if it does not interfere with effective disinfection. In 2023, typical levels in the Wachusett Reservoir were 0.25 NTU, and highest level was only 0.4 NTU

MWRA also tests water for potential disease-causing organisms, including fecal coliform bacteria, and parasites such as *Giardia* and *Cryptosporidium*, that can enter the water from animal or human waste. All test results were well within state and federal treatment standards. Learn more about test results for waterborne contaminants and their potential health impacts at: mwra.com.

## How We Treat Your Water

MWRA's Brutsch Water Treatment Facility, located in Ware, provides state of the art treatment and monitoring of your water. Well trained and licensed operators add measured doses of treatment chemicals to improve the quality of your water. Water treatment includes:

- Ultraviolet light (UV), a similar but more powerful form of natural disinfection than sunlight, renders pathogens non-infectious.
- Chlorine disinfects the water, killing bacteria, viruses and other organisms, and protects the water as it travels through miles of pipelines to your home.
- Each community treats the water to reduce the leaching of lead from home plumbing.
- Chicopee performs additional booster disinfection at the point where the local pipes take water from the MWRA aqueduct.

*Washing vegetables at a pump (Greenwich)*

**The 2,500 people who lived in the four towns that were removed to build the Quabbin Reservoir didn't work for the water system, but their sacrifices help protect our drinking water, even today. Learn more at MWRA.com.**

# Testing All The Way To Your Home

After we treat your water, MWRA operators and environmental quality staff test it as it leaves the treatment plant, and as it travels towards your home, as required by EPA and state regulations. MWRA sampling teams, and chemists and biologists at MWRA's four laboratories conduct hundreds of thousands of tests per year for over 120 contaminants. A complete list is available on mwra.com. The results for 2023 are shown in the table below and elsewhere in this report. They confirm the quality and safety of the water your community receives from MWRA.

## Monitoring For PFAS

PFAS, or per- and polyfluoralkyl substances, used since the 1940's for many purposes, from stain and water proofing to firefighting, continue to be a concern. Due to our well protected sources, tests of MWRA water show only trace amounts of these compounds, well below the state PFAS6 standard of 20 parts per trillion. MWRA also meets the new EPA standards announced in April 2024. See mwra.com for results and more details.

## Working With Your Community To Test Your Water

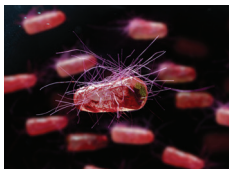
Water conditions can change within your town's distribution system. Water department staff in each community test for contaminants that can vary within community pipes.

MWRA staff work with local water departments to sample and test water each week for total coliform bacteria. Total coliform bacteria can come from the intestines of warm-blooded

animals, or can be found in soil, plants, or other places. Most of the time, they are not harmful. However, their presence could signal that harmful bacteria from fecal waste may be there as well. If total coliform is detected in more than 5% of water samples in a month, the water system is required to investigate the possible source and fix any identified problems. No CVA community exceeded the total coliform trigger in 2023. If a water sample does test positive, our laboratory staff run a more specific test for *E. coli*, a bacteria found in human and animal fecal waste which may cause illness. No *E. coli* was found in any CVA community water in 2023.

## MWRA Coliform Assessment

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. In September 2023, we found coliforms at one sample tap indicating the need to look for potential problems in water treatment or distribution.

When this occurs, we are required to take additional samples and to conduct an assessment to identify and correct problems found during the assessment. No positive samples were identified in the follow up samples at community entry locations. We completed the Level 1 assessment, which identified potential issues with the sampling tap, and submitted it to MassDEP. We modified our sampling procedures to reduce the risk of stagnant water affecting results.

## Maintenance and Reliability

MWRA continues to invest in consistent, reliable, water treatment. During 2024, portions of the chlorination equipment at the Brutsch Water Treatment Facility will be upgraded.

Your community is investing in reliability as well. MWRA provides zero-interest loans to communities for pipeline rehabilitation and other water quality improvements. During 2023, we loaned $50 million to 17 communities for pipeline projects. Additional information on local projects can be seen on page 7.

### Your Water Wins Awards

The MWRA received an award from Mass DEP for outstanding performance in 2023.

## Water Quality After Treatment

| Compound | Units | (MCL) Highest Level Allowed | (We Found) Detected Level-Average | Range of Detections | (MCLG) Ideal goal | Violation | How It Gets in the Water |
|---|---|---|---|---|---|---|---|
| Barium | ppm | 2 | 0.006 | 0.005–0.006 | 2 | No | Common mineral in nature |
| Nitrate^ | ppm | 10 | 0.009 | 0–0.009 | 10 | No | Atmospheric deposition |

## Water Quality in Community Systems

| Local Tests for 2023 | Total Trihalomethanes (TTHMs) in ppb MCL = 80 ppb (Avg) | | Haloacetic Acids (HAA5) in ppb MCL = 60 ppb (Avg) | | Chlorine in ppm MRDL = 4 ppm (Avg) MRDLG = 4 ppm | | Sodium in ppm |
|---|---|---|---|---|---|---|---|
| | Annual Average | Range | Annual Average | Range | Annual Average | Range | Highest Level |
| Chicopee | 52.7 | 29.1–55.4 | 42.6 | 16.3–35.5 | 0.55 | 0.14–0.98 | 13.5 |
| South Hadley FD #1 | 65.5 | 31.8–84.9* | 23.8 | 13.2–25.7 | 0.37 | 0.01–1.05 | 7.3 |
| Wilbraham | 59.7 | 31.6–58.2 | 21.1 | 2.7–23.3 | 0.36 | 0.2–1.04 | 7.2 |

Key: MCL=Maximum Contaminant Level. The highest level of a contaminant allowed in water. MCLs are set as close to the MCLGs as feasible using the best available 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. ^The maximum result is reported for nitrate, not the average. 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 health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination. TTHMs and HAA5 are byproducts of disinfection. * - Annual average meets TTHM MCL ppm=parts per million. ppb=parts per billion.

# Working To Keep Lead Out Of Drinking Water

The water from MWRA's reservoirs is free of lead. Lead can be found, however, in your home piping system and in your business drinking water. Learn about the health impacts of lead and how to reduce exposure to this toxic metal.

Lead affects young children and may cause damage to the brain, slow growth and development, and create learning and behavior problems. Preventing lead exposure is particularly important if a pregnant woman or a child lives in your home or apartment. Lead can also impact the health of your entire family. While lead poisoning frequently comes from exposure to lead paint chips or dust, lead in drinking water can also contribute to total lead exposure.

## How Lead Enters Drinking Water

Lead in your home plumbing, or a lead service line, can contribute to elevated lead levels in the water you drink. MWRA's water is lead-free when it leaves our reservoirs. Water mains that provide water to your community are made mostly of iron, steel, or concrete, and do not add lead to the water. Lead can enter your tap water from your service line—the pipe connecting your home to the water main—if it is made of lead, lead solder used in plumbing, or from some older brass faucets.

**3 Ways to reduce lead in your water:**

- Remove your lead service line
- Run your water before using
- Use a filter certified to remove lead

Corrosion, or wearing away of lead-based materials, can add lead to tap water, especially if water sits in the pipes for a long time before it is used. Each community's licensed treatment operators adjust the water chemistry as described on page 7. This treatment makes water less corrosive and reduces leaching of lead into drinking water. Learn more about lead in drinking water at mwra.com.

## CVA Communities Meet Lead Standard

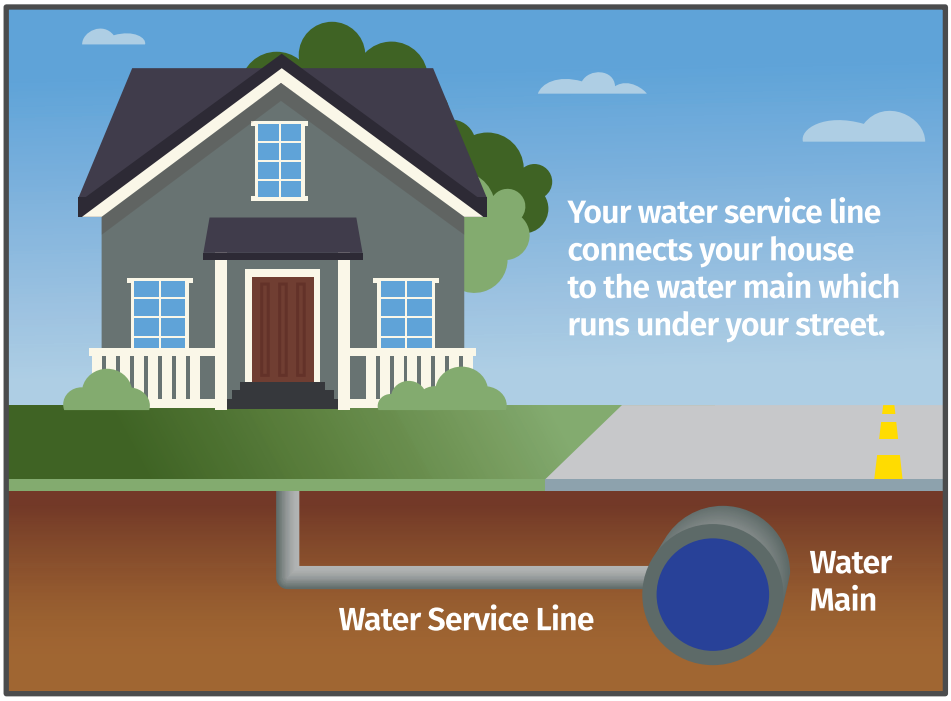
Under EPA and DEP rules, your local water department is required to test tap water in homes likely to be at risk for high lead levels, such as homes with lead solder, so the results do not reflect lead levels in every home. The EPA Lead and Copper Rule requires that 9 out of 10 homes tested (90%) must have lead levels below the Action Level of 15 parts per billion (ppb). This testing process can provide information on whether lead is corroding and mixing with the drinking water. It also provides communities and you with information on how to reduce lead in your drinking water. All three of the CVA communities meet the lead Action Level.

## Important EPA Information On Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. MWRA 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 Water Drinking Hotline at 1-800-426-4791 or www.epa.gov/safewater/lead.

**What Is An Action Level?**

**An Action Level is the amount of lead in water that requires action to reduce exposure. If your home or school drinking water is above the lead Action Level, additional steps to reduce lead may be required. If more than 10% of your community's samples were over the lead Action Level, your local water department would be taking action to address the problem.**




## Local Tests for Lead & Copper

| | Lead in ppb AL=15 ppb MCLG=0 | | Copper in ppb AL=1300 ppb MCLG=1300 | |
|---|---|---|---|---|
| | #Samples over AL | 90th Percentile Value | #Samples over AL | 90th Percentile Value |
| Chicopee* | 0 | 1.4 | 0 | 127 |
| South Hadley FD #1^ | 3 | 8.87 | 0 | 50 |
| Wilbraham* | 0 | 8.22 | 0 | 84.9 |

AL=Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. ppb=parts per billion. *Sampled in 2021 ^Sampled in 2022

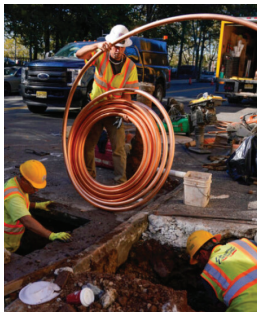
# Working To Reduce Lead Exposure

## Lead Service Lines

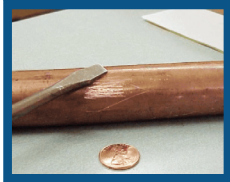
A service line is the pipe that connects your home or building to the water main in the street. If your service line is made of lead, it can be a main source of lead in your tap water. Older pipes that combined galvanized iron and lead connectors ("goosenecks") can also release lead. Lead service lines should be removed entirely to prevent lead in your drinking water.

## Working To Replace Lead Service Lines

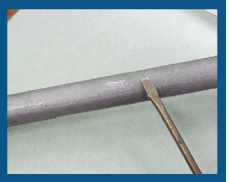
To help replace lead service lines, MWRA and its Advisory Board offer zero-interest loans to member communities. Each MWRA community can develop its own local plan, and many communities have already taken steps to remove lead service lines. Since 2016, MWRA has provided $41 million to 17 communities to replace lead service lines. Your local water department staff can help you find out if you have a lead service line, and provide help in replacing it. In some cases, an onsite check is necessary to determine the specific piping to your building.



### Water Service Lines



Copper

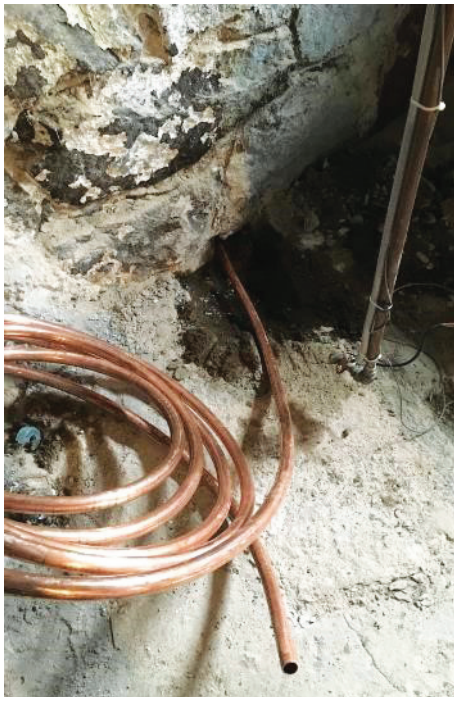


Galvanized

Lead With Bulb

Lead

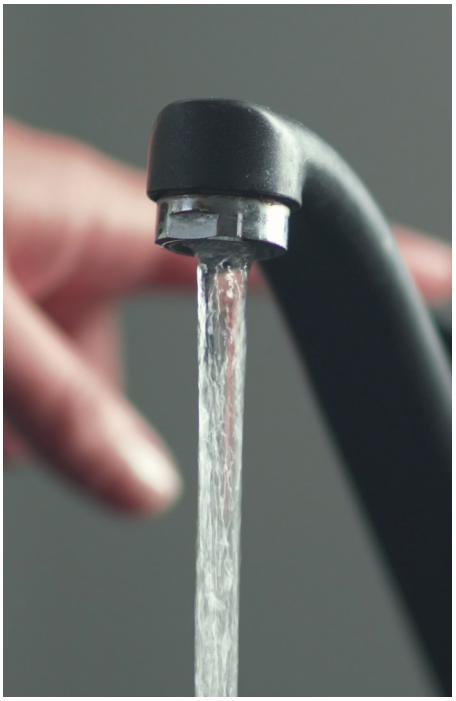
**Did you know?**
The word "plumbing" originally came from the latin word for lead-plumbum.



Many communities have on-line maps. You can also see if your service line is made of lead by scratching the pipe near your water meter with a key or other metal object. Lead pipes will show a dull grey color, while copper pipes will not. For a how-to guide, go to: www.epa.gov/pyt.

## Lead Testing In Schools And Childcares

Children can consume much of their drinking water at school or childcare. Plumbing there may contain lead and contribute to lead exposure. MWRA, in coordination with MassDEP, provides no-cost lab analysis and technical assistance for schools and childcare centers in MWRA communities. Since 2016, MWRA's laboratory staff have conducted over 40,000 tests for 576 schools and childcares in 44 communities. Results are available on the MassDEP website at: www.mass.gov/dep (search for "lead in schools"). Or contact your local school or water department.



## How To Test Your Drinking Water

If you are concerned about lead piping in your home, contact your local water department about testing for lead in your drinking water. MWRA also maintains a list of certified laboratories and sampling instructions at mwra.com. You may also talk to an MWRA expert at 617-242-5323.

## Steps To Reduce Lead In Your Home Or Office

- Find out if you have a lead service line, and get it replaced.
- Let water run before using it—fresh water is better than stale.
- Any time water has not been used for more than 6 hours, run the faucet used for drinking water or cooking for at least one minute or until after the water runs cold. To save water, fill a pitcher with fresh water and place it in the refrigerator.
- Never use hot water from the faucet for drinking or cooking, especially when making baby formula or other food for infants or young children.
- Remove loose lead solder and debris. Every few months, remove the aerator from each faucet and run water for 3 to 5 minutes.
- Be careful of places where you may find lead in or near you home. Paint, soil, dust and pottery may contain lead. Call the Massachusetts Department of Public Health at 1-800-532-9571 or 1-800-424-LEAD for information on lead and health impacts.

# Information We All Need

## EPA Information On Bottled Water And Tap Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or MWRA. In order to ensure that tap water is safe to drink, MassDEP and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) and the Massachusetts Department of Public Health (MDPH) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## Important Health Information: Drinking Water And 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 disorder, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1-800-426-4791).

## Important Research For New Regulations

MWRA works with EPA and health research organizations to help define new national drinking water standards by collecting data on water contaminants that are not yet regulated. Very few of these potential contaminants are found in MWRA water due to our source water protection efforts. Detailed information on testing for unregulated contaminants, as well as data on PFAS, disinfection by-products, *Giardia* and *Cryptosporidium*, and other contaminants can be found at mwra.com, search for UCMR.

MASSACHUSETTS LEADING BY EXAMPLE PROGRAM
PUBLIC LEADERSHIP. STEWARDSHIP. COMMITMENT

## Leading By Example On Climate Change

MWRA energy managers have helped reduce MWRA's energy use and produce more green energy. We have reduced our greenhouse gas emissions by over 40% and were awarded the Massachusetts Leading by Example Award in 2023.

## Prevent Cross-Connections

Your water department staff work to prevent cross-connections that may allow harmful organisms or other contaminants to contaminate your water if a backflow occurs.
Backflow sources could include:

- Garden hoses or swimming pools
- Boilers
- Irrigation systems or wells
- Residential fire protection systems

MassDEP recommends you install backflow prevention devices on inside and outside hose connections to protect the drinking water in your home and community. For more information, please call 617-242-5323, or visit mwra.com.

# Community Updates For 2023

## Chicopee Water Department

*PWS ID # 1061000*

The Chicopee Public Water System has been an MWRA community since the completion of the Chicopee Valley Aqueduct in 1950. Chicopee is grateful to receive high quality water from MWRA's Quabbin Reservoir

Chicopee provides additional treatment to MWRA water from the Brustch Water Treatment Plant. Chicopee now uses sodium hypochlorite (instead of chlorine gas) as a disinfectant. This change was made to increase safety for the treatment plant operators and residents.

The Chicopee Corrosion Control Facility provides excellent water quality by adjusting the water's pH and alkalinity with sodium carbonate and sodium bicarbonate (baking soda). A phosphate blend adds extra protection by reducing corrosion throughout the system. These treatments reduce levels of dissolved metals such as lead, copper, and iron in the city's water supply.

Under the Safe Drinking Water Act, water samples must be tested for lead and copper. The water's chemistry is adjusted to minimize corrosion well before it reaches home plumbing. Piping materials

# Community Updates For 2023

such as lead solder or lead service lines can add lead to household water. In 2021, 30 lead and copper samples were collected. The Environmental Protection Agency (EPA) has reduced the number of samples we must samples collect due to our successful maintenance of low to absent levels of lead and copper. Results were below both the lead and copper Action Levels. The next round of lead and copper samples will be collected in the summer of 2024.

Chicopee has made various water system upgrades and additions in 2023. Approximately 1800 feet of 12" ductile iron pipe, 3800 feet of 24" ductile iron pipe, and 12 new fire hydrants were installed on James Street, as well as 5 new fire hydrants and 14 new domestic services elsewhere in the city. These system upgrades have improved the flow capacity and fire protection, and improved redundancy in the system by eliminating aging infrastructure. Chicopee continued its modernization program for residential and commercial meters. In 2023, we repaired 20 leaking services and 6 large water main breaks. We continue to work through staffing shortages to deliver safe drinking water of the highest quality.

Chicopee has a back flow and cross connection program to enforce the MassDEP mandate to prevent contamination due to backpressure or backsiphonage. We surveyed commercial, industrial, municipal, and institutional facilities to identify and eliminate potential cross connections. When a possible cross connection is found or new plumbing is installed, devices such as a double check or "RPZ" (reduced pressure zone) valves are installed to eliminate the hazard. These devices are tested annually or more by certified testers. Among the 1100 back flow devices, 3 devices failed were repaired by owners within 14 days. Public education flyers are distributed in the water bill annually. If you have any questions, please contact the Cross Connection Department at (413) 594-1870. For more information on your drinking water, or to find out about public meetings, please go to our website at: www.chicopeema.gov or call us at (413) 594-3420.

## South Hadley Fire District #1

*PWS ID # 1275000*

South Hadley – Fire District No.1 joined Metropolitan District Commission (now the MWRA) system in 1951. We purchase 100% of our water from the MWRA, which performs all of our water quality testing and has an exceptional support staff for all aspects of water quality.

Our water is treated for bacteria utilizing ultraviolet (UV) light for primary disinfection and sodium hypochlorite for primary and secondary disinfection at MWRA's Brutsch Water Treatment Facility in Belchertown. Corrosion control and emergency chlorination are done at our treatment facility located on Fuller St. in Ludlow Sodium silicate is added for corrosion control, to reduce lead levels, and to comply with the federally mandated Lead and Copper Rule. We use booster chlorination at our Alvord St. Water Tank seasonally between June and November to maintain chlorine residuals within the distribution system.

*Quabbin Reservoir*

Our recent Lead and Copper Rule sampling round was in June 2022, which required testing from 30 residential homes and 2 schools. Our 90th percentile for lead was 8.87 ppb, below the lead Action Level of 15 ppb. No samples exceeded the Action Level for copper. Our next sampling round will be in June 2025 at 30 homes within the distribution system and schools and daycare facilities. We have not found any evidence of lead or galvanized service lines in our system.

We used approximately 360 million gallons of water in 2023. This amount was lower than 2022 due to the exceptionally wet seasons we experienced. We continue to update our water mains based on our replacement program. Replacements are prioritized by leak history, pipe type and the annual DPW street paving list. This collaboration results in reduced costs and extended pavement integrity. We intend to continue replacements as funding and time permit.

Within our water main replacement program, we replaced 1700 feet of 4" unlined cast iron main on Pittroff Avenue with 8" PVC pipe. In addition, we replaced 300 feet of 8"AC pipe on Graves St. with PVC and 300 ft of 8" AC pipe on Warner St. with 8" PVC. Graves and Warner St were upgraded using a grant the Town received for drainage, sidewalk and road improvements. These projects were possible through the coordination of many town departments for which we are grateful. All service connections and hydrants on both streets were also replaced. The new mains will provide reliability and improved fire protection.

The Water Department – Fire District No.1 has been operated very efficiently by providing the rate payers with quality drinking water at the lowest possible cost. Please view our website for information about our Department. Our capital improvement list was recently added outlining our future projects. Our Board meeting agendas and minutes are also available at www.shdistrict1.org. You can also call our office at 413-532-0666 or speak to Jeff Cyr, Water Superintendent at 413-533-4576 or email at jacyr@shdistrict1.org.

## Wilbraham

*PWS # 133900*

The Corrosion Control Facility on Miller Street in Ludlow continues to operate without issue, injecting sodium silicate into the drinking water in compliance with the federally mandated Lead and Copper Rule (LCR). Lead and copper sampling was performed by the Wilbraham Water Department during the summer of 2021 at twenty residential homes. Our 90th percentile for lead was 8.22 ppb, well below the Action Level of 15 ppb, and copper at 84.9 ppb, below the Action Level 1300 ppb. The next round will be this summer. Asbestos sampling was also performed with non-detectable (ND) results for two sites in the summer of 2022. The next round of asbestos sampling is in 2031.

The Water Department eliminated all communication instruments within a confined space pit at the 2.1 million gallon storage tank located on Bartlett Ave. The new location is an above ground, temperature controlled cabinet. Daily maintenance was performed at our Corrosion Control Facility in Ludlow including replacing gaskets and valve assemblies on the Pressure Reducing Valve (PRV), which helped with adequate operation and flow/pressure control.

The Department repaired several service leaks in the distribution system by pulling a new service or performing leak detection to locate and repair the leaks. Numerous new construction homes were built with new service connections; and one 6" water main break was repaired on Craigwood Terrace. We continued installing new water meters to ensure accurate consumption of each household and businesses along with installing remote electronic readers. The water usage for 2023 was 407 million gallons. This represents a 7.4% decrease compared to 2022.

If you would like to learn more about the Wilbraham Water distribution system, please visit our website for more information and for the schedule of our monthly Water Commissioners meeting at: www.wilbraham-ma.gov.