


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 zawiera ważne informacje na temat jakości wody w Twojej miejscowści. Poproś kogoś o przellumaczenie 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 جيدا.

Η κατοίθεν αναφορα παρουσιαζη σπουδαιες πληροφορειες για το ποσιμο νερο σας. Πρακτεκλεο να το μεταφρασετε η να το σξολειασετε με καπουον που το καταλαβαινη απολητως.

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।

របាយការណ៍នេះមានព័ត៌មានសំខាន់អំពីទឹកបរិភោគ។ សូមបកប្រែ ឬពិគ្រោះជាមួយអ្នកដែលចេះយល់ របាយការណ៍នេះ។

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.

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Massachusetts Water Resources Authority
And Your Local Water Department

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.

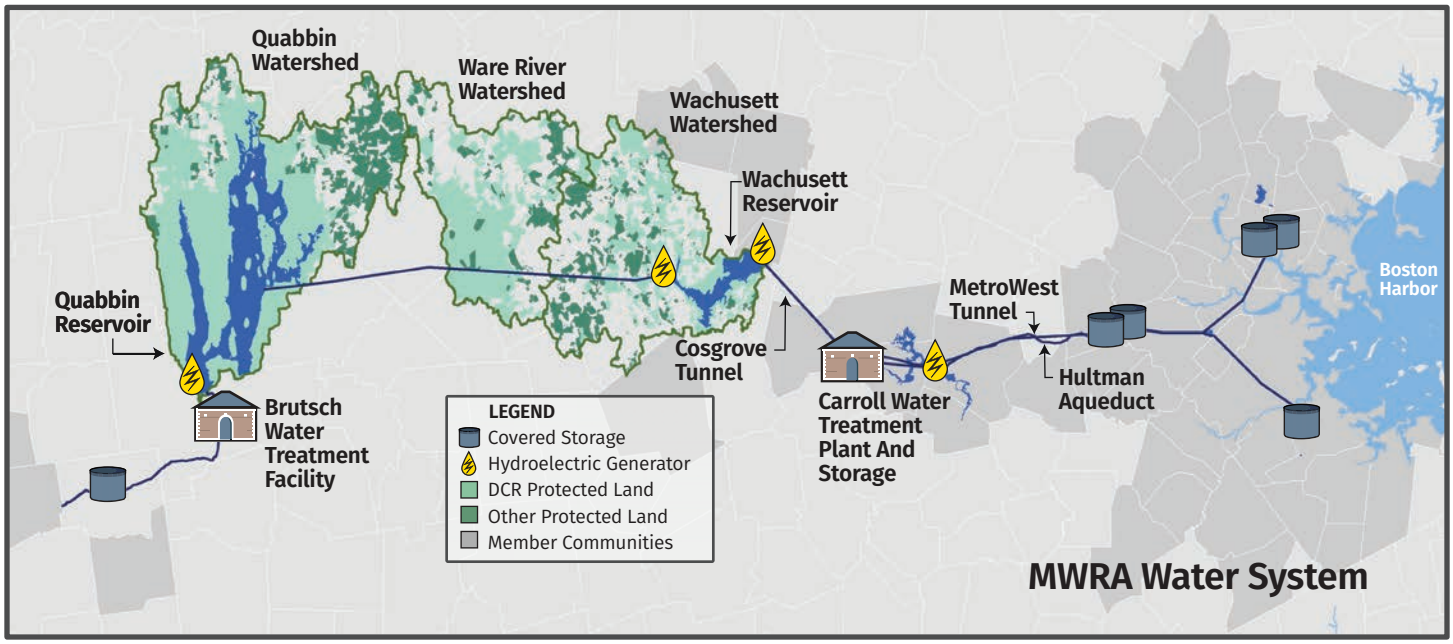
While 2023 was a wet year, as stewards of these reservoirs, we know how precious a resource we have and we cannot afford to waste it. It is an exciting time to be working at MWRA as we continue to maintain and modernize the regional system begun over 175 years ago, while providing a vital service every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



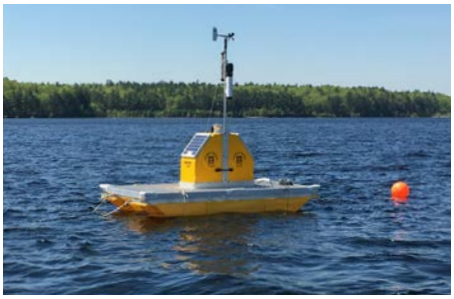
Providing Safe Drinking Water, From Watershed To Workplace

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 water to your community.

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 your community and to you.

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. Keeping the water safe is a continuous process, 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 our two pristine reservoirs in central Massachusetts — the Quabbin Reservoir, 65 miles from Boston, and the Wachusett Reservoir, 35 miles from Boston. Combined, these two reservoirs provide an average of 200 million gallons of pure, highly protected, high quality water each day. The Ware River provides additional water when needed.

The Quabbin and Wachusett watersheds—areas that drain water to the reservoirs—are 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 or radioactive material, 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.

Water: Tested From The Source

DCR biologists and environmental scientists sample the streams that feed the reservoirs to identify and resolve potential pollution sources, and to monitor water quality trends. MWRA and DCR scientists sample and analyze water in the reservoirs, and use specialized monitoring buoys to remotely and continuously monitor the reservoirs. Based on this information, MWRA operators can make key decisions on how to manage the Wachusett and Quabbin reservoirs. 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 0.27 NTU, and highest level was only 0.49 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.

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.

How We Treat Your Water

MWRA's John J. Carroll Water Treatment Plant in Marlborough provides state-of-the-art treatment and monitoring of your water. Our well-trained and licensed operators add measured doses of treatment chemicals, and continuously monitor dozens of parameters. Treatment steps include:

- Ozone, made from pure oxygen, disinfects the water, killing bacteria, viruses and other organisms, and improves water clarity and taste.
- Ultraviolet light (UV), a similar but more powerful form of natural disinfection than sunlight, renders pathogens non-infectious.
- Fluoride protects dental health.
- The water chemistry is adjusted to reduce corrosion of lead from home plumbing (see page 4).
- Monochloramine (a compound of chlorine and ammonia), provides a mild and long-lasting disinfectant to protect the water as it travels through miles of pipelines to your home.

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. They confirm the quality and safety of the water your community receives from MWRA.

Building Redundancy For Reliability

Maintaining the system and adding redundancy allows us to continue uninterrupted water delivery to your community, even if sections of our system need inspection, repair or rehabilitation.

MWRA's engineers and geologists have completed environmental review and continue to work on design for two new tunnels north and south of Boston to provide reliable service to the entire region, as well as interim improvements to add resilience to the system. We also have major projects underway to rehabilitate the Weston Aqueduct Supply Main 3, a 60-inch pipe in Weston, Waltham, Belmont, Arlington and Medford, as well as a 48-inch pipe in Stoneham and Woburn. See mwra.com for more information.

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.

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.

Your Water Wins Awards

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

MWRA Water Test Results 2023

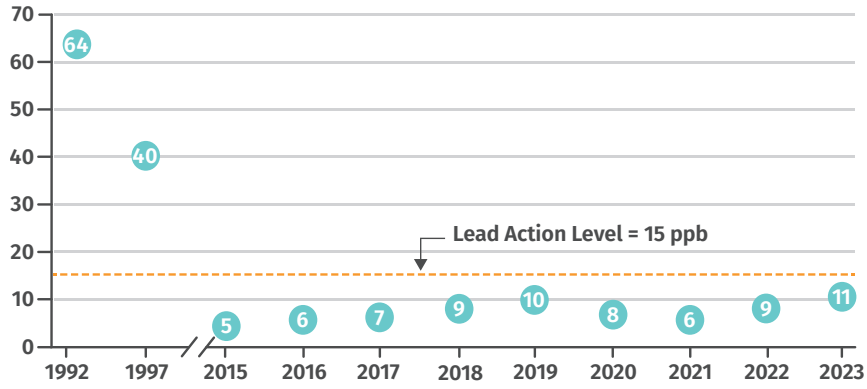
MWRA found only the contaminants listed here or discussed in this report. All are below EPA's Maximum Contaminant Levels (MCLs).

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	0.009	0.007–0.01	2	No	Common mineral in nature
Fluoride	ppm	4	0.633	ND–0.8	4	No	Additive for dental health
Nitrate^	ppm	10	0.62	ND–0.62	10	No	Byproduct of disinfection
Total Trihalomethanes	ppb	80	24.2	5.95–37.6	NS	No	Byproduct of water disinfection
Haloacetic Acids-5	ppb	60	20.5	4.8–34.9	NS	No	Byproduct of water disinfection
Monochloramine	ppm	4-MRDL	1.98	0.04–3.7	4-MRDLG	No	Water disinfectant
Radium-226	pCi/L	5	0.82	0.82	0	No	Erosion of natural deposits

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 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 health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination. ppm=parts per million ppb=parts per billion pCi/L=picocuries per liter ND=Not detected NS=no standard ^=As required by DEP, the maximum result is reported, not the average.

Working To Keep Lead Out Of Drinking Water

90% Lead Levels in MWRA System of Fully Served Communities (ppb)



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 is taking action to address the problem. **See page 7.**

The water from MWRA's reservoirs is free of lead. Lead can be found, however, in your home piping system—and in your home or 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. MWRA's licensed treatment operators adjust the water's pH and buffering capacity by adding sodium carbonate and carbon dioxide to the water. This treatment makes water less corrosive and reduces leaching of lead into drinking water. Lead levels found in tests of tap water have dropped by nearly 90% since we made this treatment change in 1996. Learn more about lead in drinking water at mwra.com.

Lead & Copper Results, September 2023

	Range	90% Value	AL	Ideal Goal (MCLG)	#Homes Above AL/ #Homes Tested
Lead (ppb)	0.08–965	10.8	15	0	36/595
Copper (ppb)	ND–292	140	1300	1300	0/595

Key: AL=Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements, which a water system must follow.

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.

MWRA Meets Lead Standard In 2023

Under EPA and DEP rules, MWRA and your local water department are required to test local tap water each year. We collect samples from homes with lead service lines or lead solder. The EPA rule requires that 9 of 10 homes tested 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 homeowners with information on how to reduce lead in their drinking water. The results do not reflect lead levels in all homes.

All sampling rounds over the past 21 years have been below the EPA Action Level. Nine out of ten homes were below 10.8 ppb—below the 15 ppb Action Level. See page 7 for your local results.

Six communities—Boston, Medford, Melrose, Revere, Quincy and Winthrop—exceeded the Action Level in September/October 2023. See page 7 for local results and more information.

Sodium and Drinking Water

MWRA tests for sodium monthly, and the highest level was 35.1 mg/L (about 8.3 mg per 8 oz. glass). This level would be considered Very Low Sodium by the Food and Drug Administration (FDA). Sodium in drinking water contributes only a small fraction of a person's overall intake (less than 5%).

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.

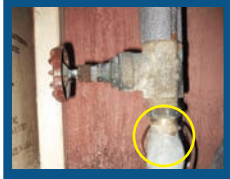
Working To Replace Lead Service Lines

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

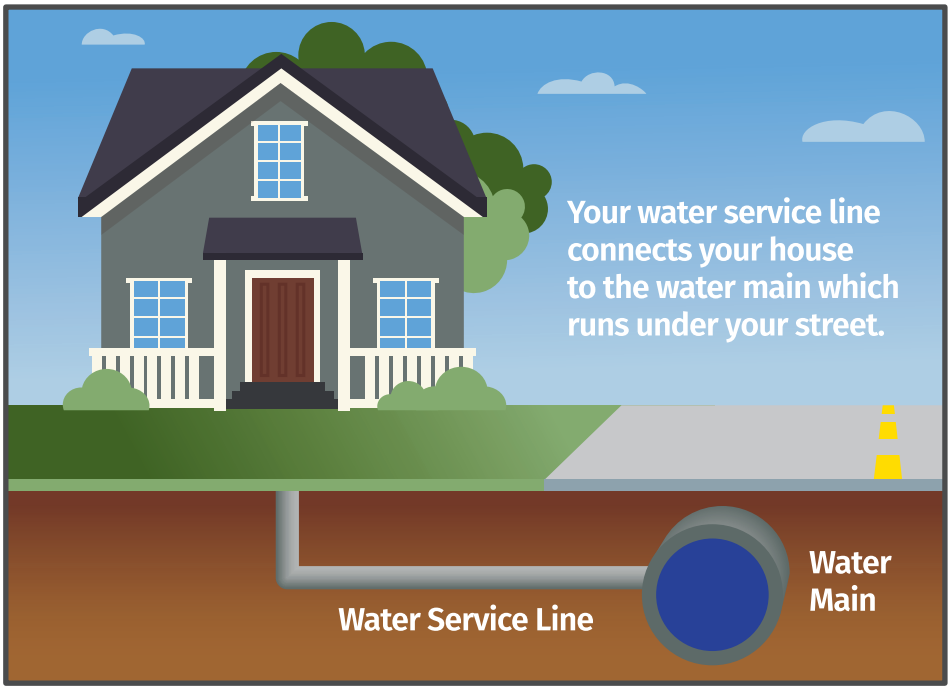
Galvanized



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.

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 national 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.

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).

Working With Your Community To Test Your Water

MWRA works with local water department staff to sample and test 300-500 water samples 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. If a water sample does test positive, our laboratory staff run a more specific test for *E. coli*, which is a bacteria found in human and animal fecal waste and may cause illness. If your community was required to do an investigation, or found *E. coli*, it will be in the letter from your community on page 7.

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.

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.

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.

THE CITY OF REVERE, MASSACHUSETTS

WATER, SEWER, DRAIN DEPARTMENT
281 Broadway, Revere, MA 02151
Office: (781) 286-8145
Fax: (781) 286-8146

Public Water Supply
3248000

The Revere Department of Public Works continues to issue an annual newsletter to inform users about the water distribution system, as part of the Massachusetts Water Resources Authority's annual water quality report to consumers.

THE DISTRIBUTION SYSTEM: Revere purchases all our water directly from the MWRA. The water is delivered through five MWRA master meters into the city's distribution system. This system consists of a network of pipes, valves, hydrants, and service lines, providing drinking water and fire protection. The Revere system is comprised of approximately 107 miles of water mains, ranging from four to sixteen inches in diameter. There are 850 hydrants that are owned and maintained by the City. Over one thousand gate valves allow isolation of portions of the system for repairs and maintenance.

SYSTEM UPGRADES: In 2023, Revere replaced 3,330 feet of water main, including 30 hydrants and 48 valves, through both our water department and improvement projects. These projects have looped four previously dead-ended water lines to improve overall water quality to all of our residents. In 2024 Revere will replace 15,450 feet of water main, including 35 hydrants, 121 valves, and services to the curb stop. These projects will also include looping four dead ended water mains. This year's major projects will include the Library St. and Sewall St. Area System Improvements and North Shore Rd. Water Main Replacement Project.

LEAD WATER SERVICES: The City of Revere is concerned and proactive about lead and copper in the water. Lead can cause adverse health effects to all age groups. Infants and children who drink water containing lead, in excess of the action level, could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. For these reasons the city tests twenty homes and two schools each year, as representative of all areas of the city. The 90th percentile level for lead in Revere was 31.9 ppb in September of 2023, which is above the action level of 15 ppb. The copper level in Revere was 99.7 ppb in September 2023, below the action level of 1300 ppb. Revere strives to continue to remove lead services and has removed 105 lead services this year with our lead out program. Revere is also in the process of completing a comprehensive Lead Service Inventory to track down and remove the remaining lead services in the city. Contact us if you want to find out if you have a lead service.

	Range	90th Percentile Value	Action Level	MCLG	Samples Over Action Level
Lead	0.08–965 ppb	31.9 ppb	15 ppb	0 ppb	4 of 20
Copper	3.8–135 ppb	99.7 ppb	1300 ppb	1300 ppb	0 of 20

TOTAL COLIFORM TESTS: We take a minimum of 60 bacteriological or coliform samples each month to ensure the quality of the drinking water. The Environmental Protection Agency requires that no more than 5% of these samples test positive in a month. 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 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 assessments to identify problems and correct any problems that were found during these assessments. During the past year we were required to conduct and completed one Level 1 and one Level 2 Assessment. The assessments determined that additional flushing and testing was needed to ensure required disinfectant levels in the system. We conducted the required flushing to address chlorine levels in the pipes and testing to ensure the treatment was effective.

Revere received a Notice of Noncompliance from MassDEP related to lead and copper sampling. 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. Revere's 2020-2022 Lead and Copper Sampling Plans listed sampling sites that did not meet the requirements of 310 CMR 22.06B (7)(a)3. Since our sampling plans were not updated, from 2020 through 2022, we failed to collect the required number of Tier 1 samples from sampling locations meeting the requirements of 310 CMR 22.06B(7)(a)3. Under 310 CMR 22.16A (4)(i)6, our annual water quality report should have provided the number of sampling sites exceeding the lead action level. Our 2021 report, published in June 2022 did not state the number of sampling sites exceeding the action level as required (1 location – 29.7 ppb). We have updated our sampling plan, and instituted procedures to ensure that future sampling and reporting meets all requirements.

If you want more information about your drinking water or about water related public meetings, please contact Chris Ciaramella, Assistant WSD Superintendent at 781-286-8100 Ext: 20517 or email us at **waterquality@revere.org**

Water Conservation

Indoor Water Saving Tips

Check for leaky pipes, faucets, or toilets. On average, household leaks can waste 10,000 gallons every year! To see if your toilet has a leak, add a dye tablet or food coloring to your toilet's water tank. If any color or dye appears in the bowl within 15 minutes, you have a leak. The flush valve or flapper can be easily cleaned or replaced.

Low-flush toilets could cut your water use by 20-60%! Old inefficient toilets can use over 6 gallons per flush. The current federal standard requires all new toilets use no more than 1.6 gallons per flush. Newer models use 1.3 gallons or less per flush.

Replace dripping faucets and showerheads. Installing new fixtures are an easy and cost-effective way to reduce unnecessary water use. A low-flow faucet aerator can reduce the flow from 2.2 gallons to 1.5 gallons per minute

Showering for 5 minutes uses only 10-25 gallons while a full bathtub uses up to 70 gallons. Try conserving water by taking shorter showers or filling the tub only halfway.

"Never let the water run" in the bathroom or kitchen.

- Try turning off the tap while you brush your teeth or shave.
- Fill a bowl of water when you wash the dishes, fruits or vegetables, rinsing only when needed.

Reduce your water use by only washing full loads of dishes or clothes.

Look for the **Energy Star** or **WaterSense ®** label for the most efficient household products and appliances.

Outdoor Water Saving

Avoid Evaporation: Water your lawn in the early mornings, between 6 & 10 AM, while temperatures are cooler and the wind is calmer. If you have a pool, cover it when not in use.

Never water on a windy day.

Use a broom to clean debris from your driveway or sidewalk. No need to use the hose.

Grow native and low-water using plants! Regionally appropriate and established plants are accustomed to the climate and soil conditions. Planting drought resistant and native plants will require less maintenance, water, and fertilizer.

The Inch Rule: If there has been an inch of rainfall during the week, you more than likely don't need to water at all.

Lawn irrigation can account for as much as 30% of water consumption. **Be sure sprinklers are not damaged and aimed correctly.** Water only your lawn, not your pavement.

Consider installing a **Water-Sense® labeled weather-based irrigation controller** to automate your watering system.

Healthy soils hold more water. **Apply mulch** around plants to reduce evaporation, promote plant growth, and control weeds.

MWRA is an EPA Water Sense Partner!

MWRA has teamed up with the EPA's WaterSense Program to help consumers save water for future generations and reduce costs on their utility bills. For more information on WaterSense, and for a full list of labeled products and WaterSense irrigation partners, visit: <www.epa.gov/watersense>.

Protect Boston Harbor And Our Rivers

Only flush toilet paper—most "flushable wipes" can clog pipes and cause overflows.

Fat, oil and grease go in the trash, not the drain.

Sump pumps and roof drains should connect to a storm drain or a dry well, not the sanitary sewer. Too much clean water can overload the sewer system.

For more information, go to mwra.com.

Why Save Water?

- Saving water can save you money by lowering your monthly water bill.
- Water is a shared resource. Wildlife, rivers and crops all need water too.
- Reducing water use reduces energy costs by decreasing the
- energy needed to clean, pump, and heat water.

More information on water conservation and efficiency can be found at:

www.mwra.com/comsupport/waterconservationmain.htm

Request free MWRA water conservation kits at:

wc.mwra.com/home