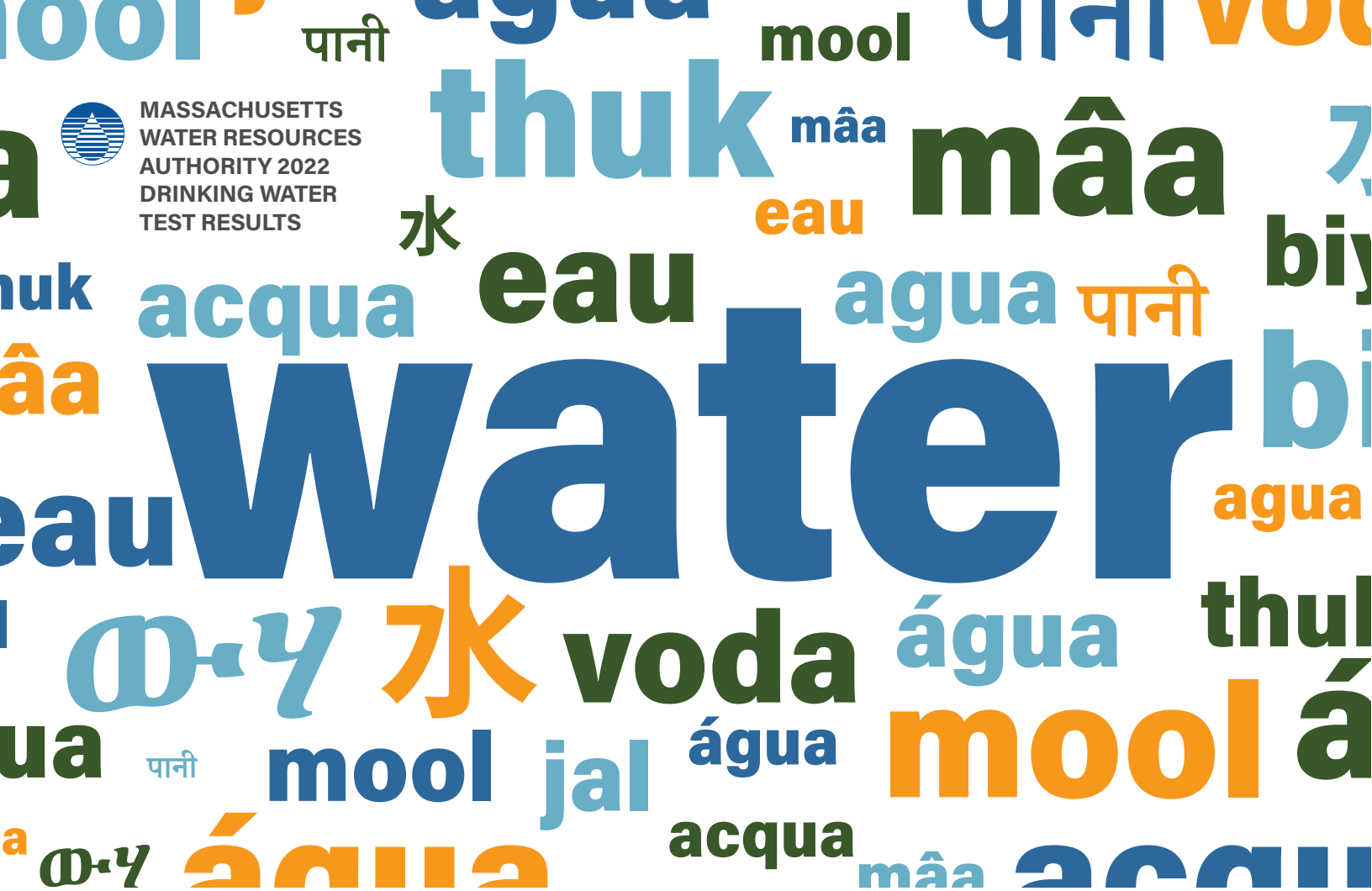


This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

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 miejscowości. 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. Πρακαλω να το μεταφρασετε η να το σξολειασετε με καποιον που το κατανλαβαινη 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।

អត្ថបទរាយការណ៍នេះមានតម្លៃមានសំខាន់អំពីទឹកបរិភោគ។ សូមបកប្រែឬពិគ្រោះជាមួយអ្នកដែលយល់អត្ថបទរាយការណ៍នេះ។

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 Peabody Department of Public Works**

## 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 | https://bit.ly/3Hoh2ST | 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

## MWRA BOARD OF DIRECTORS

Rebecca Tepper, Chair

Andrew Pappastergion, Vice Chair

Brian Peña, Secretary

Paul E. Flanagan

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Louis M. Taverna

Henry F. Vitale

John J. Walsh

Patrick J. Walsh

Rev. Mariama White-Hammond

Jennifer L. Wolowicz

Dear Customer,

No matter how you say it, water is essential. And you can be sure that the safety of your drinking water is the top priority for the women and men of the MWRA.

This report provides you with the results of our annual drinking water testing for 2022. We take hundreds of thousands of tests each year to ensure that your water is safe and our state-of-the-art surveillance system monitors your water every step of the way. Once again, every federal and state standard was met 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, our water meets the current state, and recently proposed federal standards with levels so low they cannot be quantified.

We also continue to take actions to reduce the risk of lead in drinking water. System-wide, we remain below the Lead Action Level. Since 2016, we have provided $34 million in zero-interest loans to 14 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.

Last summer, our region experienced a significant drought. Thanks to all of our customers' efforts to use water wisely, MWRA's reservoirs remained at normal operating levels. It is important that we always conserve water wherever possible. As stewards of these reservoirs, we know how precious a resource we have and we cannot afford to waste it.

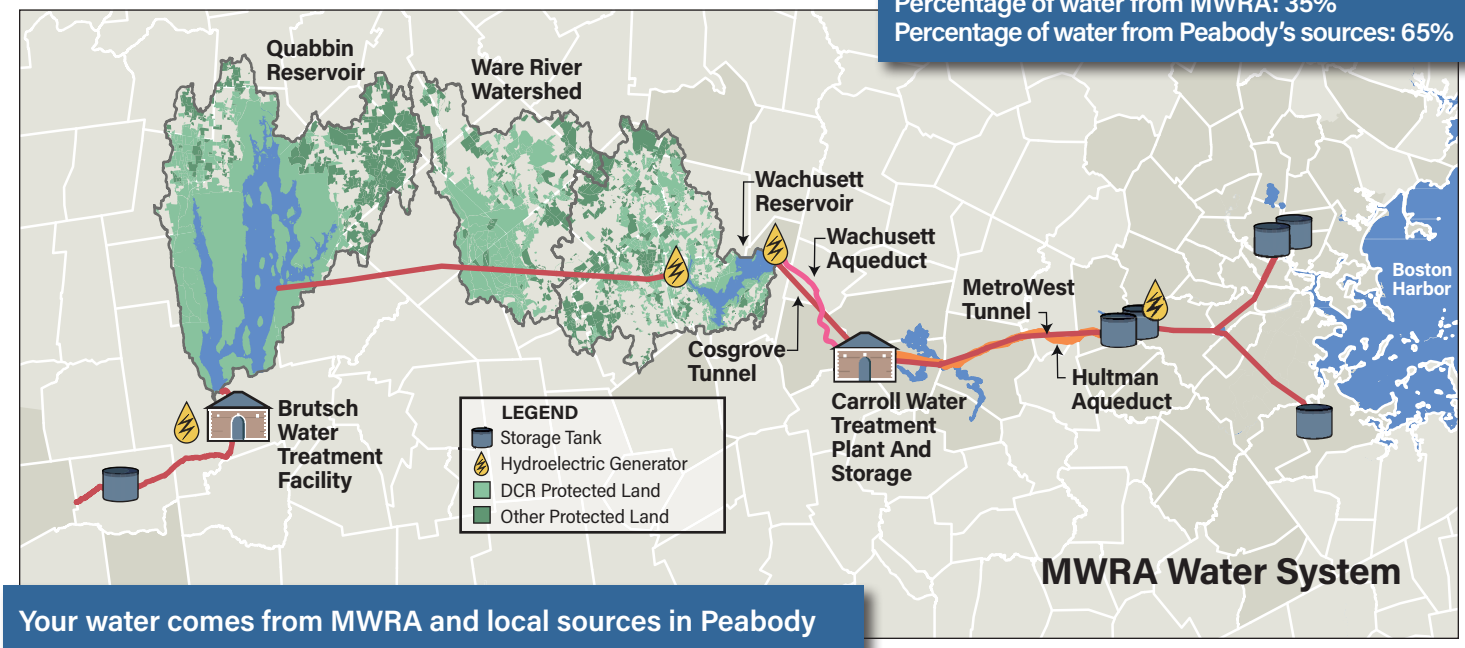
I hope you will take a moment to read this report. We want you to have the same confidence in the water we deliver to your homes and businesses as we do. Please contact us if you have any questions or comments about your water quality, or any of MWRA's programs.

Sincerely,

Frederick A. Laskey
Executive Director

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

**Percentage of water from MWRA: 35%**
**Percentage of water from Peabody's sources: 65%**




**Your water comes from MWRA and local sources in Peabody**

# All The Way From Quabbin, To All Of Us

Massachusetts experienced a significant drought during 2022, with about 30 percent less precipitation than normal. Thanks to our customer's wise use of water during the drought and the long-term reduction in water use, MWRA's reservoirs stayed well within normal operating range throughout the year, and no mandatory restrictions were needed. This annual water quality report illustrates MWRA's ongoing efforts to provide you with safe water under all conditions.

MWRA works with your community, the Department of Conservation and Recreation (DCR), and state and federal regulators to provide and protect your drinking water. From the reservoirs surrounded by forests and wetlands, through treatment and miles of pipelines, to your drinking water faucet, MWRA's laboratories conduct hundreds of thousands of tests on your water every year.

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 to 53 communities. The Ware River provides additional water when needed. **Your water also comes from local sources. Please see page 7 for more information.**

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 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 standards.

MWRA and DCR 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**. **Your water also comes from local supplies that have a separate report.**

## Water: Tested From the Source

MWRA analyzes, treats and protects the quality of your water, starting with the watershed streams, to the billions of gallons of water in the reservoirs, to hundreds of miles of MWRA pipes and thousands of miles of local pipes, all the way to your home.

A key, initial test for reservoir water quality 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 2022, typical levels in the Wachusett Reservoir were 0.30 NTU, and even at its highest level of 1.07 NTU for one hour during a December storm, disinfection met all requirements.

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 for the reservoir water were well within state and federal testing and treatment standards. Learn more about MWRA test results for waterborne contaminants and their potential health impacts at: **www.mwra.com**.

**Your Annual Water Quality Report**
This report provides consumers of MWRA water with important information on water quality. MWRA also has monthly water quality reports, information on specific potential contaminants, water system updates, and more at **www.mwra.com**. We welcome your questions at **617-242-5323** or **Ask.MWRA@mwra.com**.

## MWRA Water Test Results 2022 *(Local Results On Page 7)*

EPA requires that MWRA test for over 120 contaminants that may be in drinking water.
MWRA found only those listed here. All of these levels were below EPA's Maximum Contaminant Levels (MCL).

| 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 | 0.008–0.010 | 2 | No | Common mineral in nature |
| Monochloramine | ppm | 4-MRDL | 2.00 | 0.05–3.50 | 4-MRDLG | No | Water disinfectant |
| Fluoride | ppm | 4 | 0.679 | 0.385–0.828 | 4 | No | Additive for dental health |
| Nitrate^ | ppm | 10 | 0.55 | 0.032–0.55 | 10 | No | Atmospheric deposition |
| Nitrite^ | ppm | 1 | 0.007 | ND–0.007 | 1 | No | Byproduct of water disinfection |
| Total Trihalomethanes | ppb | 80 | 19.8 | 9.08–20.7 | NS | No | Byproduct of water disinfection |
| Haloacetic Acids-5 | ppb | 60 | 19.9 | 4.4–24.4 | NS | No | Byproduct of water disinfection |

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 NS=no standard ^=As required by DEP, the maximum result is reported, not the average.

# Great Water From Forest To Faucet


## Treatment Plant Namesake Passes On

John J. Carroll served on the MWRA Board of Directors as its Vice Chair from the Authority's inception in 1985 until his death in February 2023. In 2005, the MWRA Board honored his many contributions to the MWRA mission by naming the new water treatment plant after him.

## Treating 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.

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

## Water Monitoring After Treatment

EPA and state regulations require regular monitoring of water quality to evaluate the water you drink. MWRA conducts hundreds of thousands of tests per year on over 120 contaminants. A complete list is available on www.mwra.com. The results of MWRA's water quality tests in 2022 are shown in the table on page 2. They confirm the quality and safety of the water your community and you receive from MWRA. **Information on how your community's local sources are tracked and local test results are on page 7.**

## Building Redundancy for Reliability

Planning and environmental review for two new tunnels north and south of Boston to provide reliable service to the entire region is underway. 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. 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. See www.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 2022, we loaned $29 million to 15 communities for pipeline projects.

## Your Water Wins Awards

The MWRA received an award from Mass DEP for outstanding performance in 2022.

## Sodium and Drinking Water

MWRA tests for sodium monthly, and the highest level was 38.1 mg/L (about 10 mg per 8 oz. glass). This level would be considered to be Very Low Sodium by the Food and Drug Administration (FDA). Sodium in drinking water contributes only a small fraction of a person's overall sodium intake (less than 5%).

## Fun Fact

Did you know Quabbin means "great waters"? While the Nipmuc Native American name could be understood to mean that or "place of many waters," we know it means great tasting water.

## Conservation, Climate Change, and Your Reservoirs

To be sure that we can supply all the water you need in both wet and dry years, now and in the future, MWRA works with the communities we serve to promote water conservation. Efficient and wise use of our water keeps it available for the future. For information on water use, reservoir levels and conservation, go to www.**mwra.com**.

# What We All Need To Know About Lead

While there is no lead in your source water, lead can be found in your home, including from your plumbing. Learn about the health impacts of lead, and how to reduce exposure to this toxic metal.

## How Lead Affects Health and Development

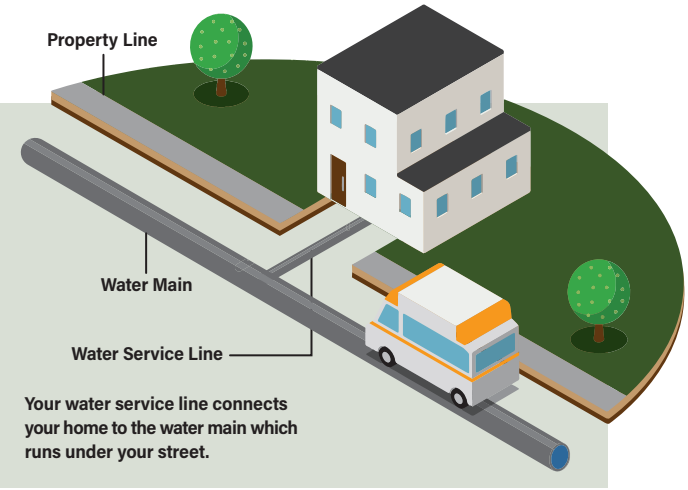
Lead affects young children, and may cause damage to the brain, slow growth and development, and learning and behavior problems. Preventing lead exposure is particularly important if a pregnant woman or a child lives in your home or apartment. Lead can also impact the health of your entire family. While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

## Important Lead Information From EPA

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. If your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or www.epa.gov/safewater/lead.

## How Lead Can Enter Your 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 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 line that connects your home to the water main) if it is made of lead, lead solder used in plumbing, or from some older brass faucets.




Corrosion, or wearing away of lead-based materials, can add lead to tap water, especially if water sits for a long time in the pipes before it is used. MWRA's water treatment helps limit the amount of lead in your water. In 1996, MWRA began adding sodium carbonate and carbon dioxide to adjust the water's pH and buffering capacity. This treatment makes the water less corrosive and reduces leaching of lead into drinking water. Lead levels found in tap water samples have dropped by nearly 90% since this treatment change. Learn more about lead in drinking water at www.mwra.com.

## MWRA Meets Lead Standard in 2022

Under EPA and MassDEP rules, MWRA and your local water department are required to test tap water each year. Because we collect samples from homes with lead service lines or lead solder, the results do not reflect lead levels in all homes. The EPA 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.

Nine out of 10 homes tested in the MWRA service area were below 7.3 ppb—well below the Action Level. All sampling rounds over the past 19 years have been below the EPA Action Level.

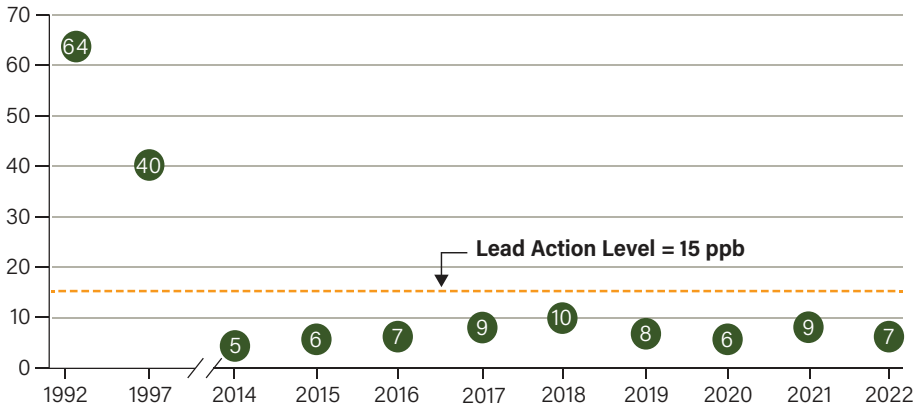
**Your community letter on Page 7 will provide you with local results and more information.**

### Lead & Copper Results, September 2022

| | Range | 90% Value | AL | Ideal Goal (MCLG) | #Homes Above AL/ #Homes Tested |
|---|---|---|---|---|---|
| Lead (ppb) | ND–121 | 7.3 | 15 | 0 | 18/595 |
| Copper (ppb) | 3.2–258 | 88.5 | 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.

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




### What is An Action Level?

An Action Level is the amount of lead that requires action to reduce exposure. If your home or school's 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.

# What We All Can Do To Reduce Lead

## Lead Service Lines

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

*Replacing Lead Service Lines*

Your local water department can help find out if you have a lead service line, and provide help in replacing it. In some cases, an onsite check may be needed.

You can also check 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 an online how-to guide, go to www.epa.gov/pyt.

*MWRA Funding to Replace Lead Service Lines*

MWRA and its Advisory Board offer zero-interest loans to customer communities for full lead service line replacement projects. 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 $34 million to 14 communities to fully replace lead service lines. To find out more, contact your local water department.

## Reduce Your Exposure to Lead

*Remove Lead Piping*

- Find out if you have a lead service line. Learn about replacement options from your local water department.

*Other Measures for Lead Reduction*

- Any time water has not been used for more than 6 hours, run the faucet used for drinking water or cooking until after the water becomes cold.
- Let water run before using it—fresh water is better than stale. To save water, fill a pitcher with fresh water and place it in the refrigerator for future use.
- 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 flush the pipes for 3 to 5 minutes.
- Be careful of places where you may find lead in or near your 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.

## How to Test Your Drinking Water

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

## Lead Testing in Schools

Children can consume most of their drinking water at school or daycare. The plumbing inside some schools and childcare facilities can contain lead and contribute to lead exposure. MWRA, in coordination with MassDEP, provides no-cost lab analysis and technical assistance for schools and day care centers in MWRA communities. This service has been offered since 2016, and nearly all MWRA communities have participated. To date, more than 40,000 tests have been completed in more than 560 schools. Results are available on the MassDEP website at: www.mass.gov/dep (search for "lead in schools"). You may also contact your local school or water department for results.

### Water Service Lines — Lead and Copper

You can identify lead service line by carefully scratching with a key.

New copper service line.

**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

# Information We All Need

## Testing in Local Pipes

MWRA works with local water departments 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 any water sample does test positive, we run a more specific test for *E. coli*, which is a bacteria found in human and animal fecal waste and may cause illness. If total coliform is detected in more than 5% of samples in a month, the water system is required to investigate the possible source and fix any identified problems. **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.**


**We listen to you!**
You can help provide information about local water quality. Every call is investigated. Most complaints are related to discolored water (usually related to local construction or hydrant use), or conditions in a building's plumbing. If you have a concern, contact your local water department, or call MWRA at **(617) 242-5323**.

## 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 www.mwra.com.

## MWRA Monitoring for PFAS

PFAS compounds, used since the 1940s for many purposes, from stain and waterproofing to firefighting, continue to be a concern. Tests of MWRA water show only trace amounts of these compounds, too small to be quantified, and well below the state standard of 20 parts per trillion. MWRA results are also well below recently proposed EPA standards. See www.mwra.com for full details and all results.

## 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 disorders, 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).

## Cross-Connection Information

A cross-connection is any temporary or permanent connection between a potable (drinking) water source and a non-potable source. Non-potable water or other sources can contaminate your drinking water if backflow occurs.

***Sources could include:***

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

Massachusetts DEP recommends the installation of backflow prevention devices for inside and outside hose connections to help protect the water in your home as well as the drinking water system in your town. For more information on cross-connections, please call 617-242-5323 or visit www.mwra.com.

## 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, the Massachusetts DEP 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.

**Continue to Conserve**
MWRA water use has dropped by over a third since the 1980s. It's up to all of us to continue to use water wisely. Every drop is valuable. Our website has many tips on how to save water indoors and outside.

Dear Customer,

Peabody's drinking water is mainly supplied by the Bob Walsh and Winona Water Treatment Plants. MWRA provided 35% of supplemental drinking water during high water demand months. There are four water storage tanks in the distribution system that provide storage, pressure, and fire protection. A voluntary water restriction continues to be in effect, and we ask our customers to practice conservation measures. For further information on Peabody's water quality, or to learn about public meetings, contact the Peabody Public Services Department at (978) 536-0060 or go to: www.peabody-ma.gov/public%20services.html.

**Water Treatment:** Walsh and Winona WTPs implement the following treatment steps: 1) Coagulation and sedimentation, which removes particles from the water through flocculation, then settling and filtration, which removes the remaining particles out of the water 2) Primary disinfection, which uses free chlorine to kill the harmful microbes, and secondary disinfection, which uses monochloramine to control biological activity in the distribution system, and; 3) Fluoride is added to our drinking water for dental health. Additionally, Walsh pretreats iron and manganese in source water using oxidation by free chlorine, which will be changed to potassium permanganate in 2023. Winona WTP project is completed, and Aeration, DAF, GAC filtration, and sodium permanganate pretreatment have been added.

**Source of Water:** Winona water (42% of total) is pumped from Winona Pond. Walsh water is pumped from Suntaug Lake (32% of total) and Spring Pond (26% of total). The source for Suntaug Lake and Winona Pond is the Ipswich River. Under MassDEP's Water Management Act Regulations, withdrawing water from the Ipswich River is only allowed during winter and spring months. The DEP has characterized our surface water source susceptibility as moderate to high. For more information, please visit: www.mass.gov/service-details/the-source-water-assessment-protection-swap-program. Peabody has initiated a **Clean and Sustainable Water Future Use Plan**. We continue to use Solitude Lake Management for the prevention of seasonal algal growth that can cause taste and odor issues.

**Lead and Copper:** Peabody's water was tested for lead and copper in August 2022 at 30 homes and 2 schools. The 90th percentile for all lead samples results was 2.64 parts per billion (ppb) below the lead Action Level of 15 ppb. The 90th for Copper levels were 92.6 ppb, below the copper action level of 1300 ppb. The City has also removed 48 lead goosenecks as part of the **Lead Service Line Replacement Program**. Sample results are below.

| Date | | Range | 90th Percertile Value | Action Level | MCLG | Samples Over Action Level |
|---|---|---|---|---|---|---|
| 2/10/22 | Lead (ppb) | 0.0–1.81 | 1.19 | 15 | 0 | 0 |
| 2/10/22 | Copper (ppb) | 6.91–106 | 81.3 | 1300 | 1300 | 0 |
| 8/24/22 | Lead (ppb) | 0.1– 4.61 | 2.64 | 15 | 0 | 0 |
| 8/24/22 | Copper (ppb) | 3.1–182 | 92.6 | 1300 | 1300 | 0 |

Results from sampling at our two treatment plants and distribution system are below.

| | | | Walsh Results | | Winona Results | | | |
|---|---|---|---|---|---|---|---|---|
| Contaminant | MCL | MCLG | Range of Detects | Average | Range of Detects | Average | Violation | Possible Sources |
| Barium (ppm) | 2 | 2 | 0.018 | 0.018 | 0.024 | 0.024 | NO | Common mineral in nature |
| Fluoride (ppm) | 4 | 4 | 0 – 0.36 | 0.14 | 0.11 – 0.5 | 0.34 | NO | Additive for dental health |
| PFAS6 (ppt) [1] | 20 | N/A | 6.03–15.2 | 9.7 | 0 – 9.7 | 5.5 | NO | Industrial sources, Fire fighting |
| Arsenic (ppb) | 1000 | 10 | 0.4 | 0.4 | 0.65 | 0.4 | NO | Erosion of natural deposits |
| Sodium (ppm) | N/A | N/A | 69 | 69 | 67 | 67 | NO | Naturally present in environment |
| Turbidity | TT=.3NTU | N/A | 0.02 – 0.29 | 0.09 | 0.02 – 0.29 | 0.11 | NO | Soil runoff |
| | % TT< 1.0 NTU | | 100% | 100% | 100% | 100% | NO | |

| Unregulated or Secondary Contaminant | Date Collected | Range Detected | Average Detected | SMCL | ORSG | Possible Sources |
|---|---|---|---|---|---|---|
| Manganese (ppb) | 3/1/22 | 3.0 – 154 | 38.1 | 50 | 300 | Erosion of natural deposits |

**Samples from the Distribution System**

| Contaminant | MCL | MCLG | Average | Range of Detects | Violation | Possible Sources |
|---|---|---|---|---|---|---|
| Total Chlorine (ppm) | 4 | 4 | 1.98 | 0.46 – 2.97 | NO | Water disinfectant |
| Nitrate (ppm) [2] | 10 | 10 | 0.45 | 0.008 – 0.45 | NO | Erosion of natural deposits |
| Nitrite (ppm) [2] | 1 | 1 | 0.32 | 0 – 0.32 | NO | Erosion of natural deposit |
| Haloacetic acids - 5 (ppb) | 60 | N/A | 29.16 | 23.45 – 37.54 | NO | By-Product of disinfection |
| Total Trihalomethanes (ppb) | 80 | N/A | 36.4 | 23.19 – 53.11 | NO | By-Product of disinfection |

1 - for more information: www.mass.gov/info-details/per--and-polyfluoroalkyl-substances-pfas 2 - Highest level reported as required