



# GET TO KNOW YOUR DRINKING WATER



Massachusetts Water Resources Authority  
2019 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-durla o parlarne con un amico che lo comprenda.

O relatório contém informações importantes sobre a qualidade da água da comunidade. Traduza-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 przeliumaczenie go lub porozmawiaj z osobą która je dobrze rozumie.

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

Η κατανόηση αναφέρει παραστατική στοιχεία πληροφορίες για το ποσάτο νερό σας. Παρακαλώ να το μεταφράσετε ή να το εξηγήσετε με κάποιον που το καταλαβαίνει απλά.

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 versteht.

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 करें, या किसी जानकार से इस बारे में पूछें।

របាយការណ៍នេះមានព័ត៌មានសំខាន់ៗស្តីពីគុណភាពទឹកផ្តល់ប្រើប្រាស់នៅក្នុងតំបន់របស់អ្នក។ ប្រសិនបើអ្នកមិនយល់ព័ន្ធនឹងភាសានេះទេ ។

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 et Demander à ue un de traduire ces informations pour vous ou discuter avec une personne qui comprend ces informations.



Massachusetts Water Resources Authority And Your Local Water Department

## Where To Go For Further Information

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

## Public Meetings

|  |  |              |
|--|--|--------------|
| MWRA Board of Directors                  | <a href="http://www.mwra.com/boardofdirectors.html">www.mwra.com/boardofdirectors.html</a> | 617-788-1117 |
| MWRA Advisory Board                      | <a href="http://www.mwraadvisoryboard.com">www.mwraadvisoryboard.com</a>                   | 617-788-2050 |
| Water Supply Citizens Advisory Committee | <a href="http://www.mwra.com/wscac.html">www.mwra.com/wscac.html</a>                       | 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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For more information on MWRA and its Board of Directors, visit [www.mwra.com](http://www.mwra.com).

Dear Customer,

I am pleased to share with you the results of our water quality testing for 2019. The hundreds of thousands of tests we take every year ensure your water is safe and of the highest quality, and every federal and state drinking water standard was met.

Of course, the coronavirus is first and foremost in everyone's mind this year. While this report looks back on water quality results from 2019, I want to assure you that your drinking water does not contain or carry the virus and that your water quality remains excellent. The dedicated women and men who run this critical water system have been hard at work throughout the pandemic – protecting the watersheds, running the treatment plants, taking samples every day and performing maintenance.

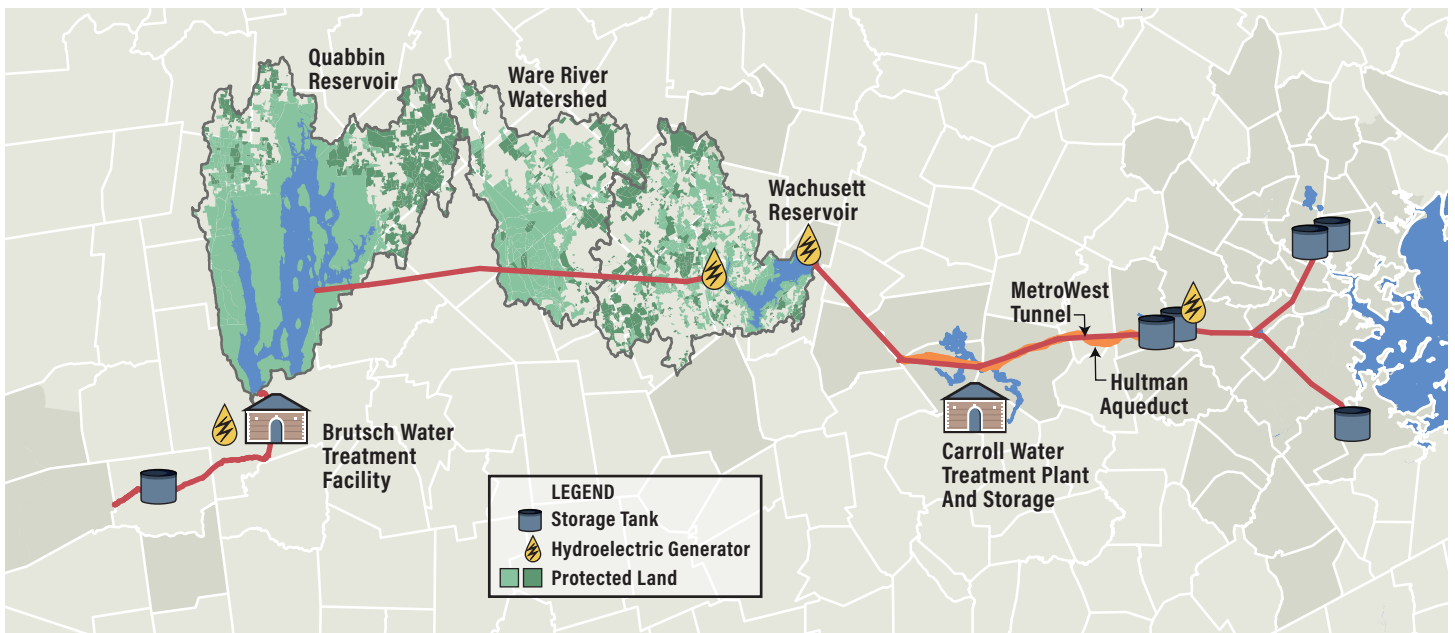
Lead in drinking water also remains an important issue and we continue to make progress on reducing the risk by treating the water to make it less corrosive, and working with our member communities to identify and remove lead service lines. More information can be found on pages 4 and 5 of this report.

May 2020 also marked the 10th anniversary of the large water main break we had in Weston. Since that time, we have continued work on projects that allow us to re-route the water in the event of a break so that service will not be interrupted. We have begun the initial design phase for two new water tunnels that will allow us to inspect and make repairs to the existing tunnel system, although construction of this project is still several years away.

I hope you will take a few moments to read through this important report and get to know your water. We have great confidence in the water we deliver to your home and we want you to share that confidence. Please contact us if you have any questions about this report or any of MWRA's programs.

Sincerely,

Frederick A. Laskey  
Executive Director







# FIND OUT ABOUT

# YOUR DRINKING WATER

## Why Your Water Tastes Great-High Quality Source Water

Your water comes from the Quabbin Reservoir, about 65 miles west of Boston, and the Wachusett Reservoir, about 35 miles west of Boston. Water from the Ware River can also add to the supply at times. These pristine reservoirs supply wholesale water to local water departments in 51 communities. The two reservoirs combined supplied about 200 million gallons a day of high quality water to consumers in 2019.

Rain and snow falling on the watersheds - protected land around the reservoirs - turn into 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. While this process helps to



The Quabbin and Wachusett watersheds are naturally protected with over 85% of the watersheds covered in forest and wetlands. To ensure safety, the streams and reservoirs are tested often and patrolled daily by the Department of Conservation and Recreation (DCR).

clean the water, it can also dissolve and carry very small amounts of material, including radioactive material, into the reservoir. Minerals from soil and rock do not typically cause problems in the water. But water can also transport contaminants from human and animal activity. These can include bacteria and pathogens - some of which can cause illness. The test data in this report show that these contaminants are not a problem in your reservoirs' watersheds.

The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program report for the Quabbin and Wachusett Reservoirs. The DEP report commends DCR and MWRA on the existing source water protection plans, and states that our "watershed protection programs are very successful and greatly reduce the actual risk of contamination." MWRA follows the report recommendations to maintain the pristine watershed areas.

## Testing Our Water - From Forest to Faucet

MWRA analyzes your drinking water continuously, from the source in a protected natural watershed, to the pipes in your community. MWRA works with towns and cities, and the Department of Environmental Protection, EPA, and the Massachusetts Department of Public Health (MDPH) to ensure the safety of the water at your tap. Test results show few contaminants are found in the reservoir water. The few that are detected are in very small amounts that are well below EPA's standards.

Turbidity (or cloudiness of the water) is one measure of overall water quality. All water must

**DID YOU KNOW?** MWRA won the best tasting water in New England again in 2019. We're proud of our great tasting water.



be below 5 NTU (Nephelometric Turbidity Units) and water can only be above 1 NTU if it does not interfere with effective disinfection. In 2019, typical levels in the Wachusett Reservoir were 0.34 NTU, with the highest level of turbidity at 0.78 NTU, well below the standard.

MWRA also tests reservoir water for pathogens such as fecal coliform, bacteria and the parasites *Cryptosporidium* and *Giardia* that can enter the water from animal or human waste. All test results were well within state and federal testing and treatment standards. For more information, please visit [www.mwra.com/ucmr/2019.html](http://www.mwra.com/ucmr/2019.html).

## Learn About Your Water Quality

MWRA tests your water after as well as before treatment to check 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](http://www.mwra.com)). Details on 2019 test results are in the table below. The bottom line is that water quality is excellent.

**KNOW ABOUT PFAS** PFAS compounds, used for everything from stain and water proofing to firefighting, were in the news a lot in 2019. MWRA water testing showed only very low levels, well below proposed state standards. See [mwra.com](http://mwra.com) for more details.

| TEST RESULTS AFTER TREATMENT |       | (MCL) Highest Level Allowed | (We Found) Detected Level-Average | Range Of Detections | (MCLG) Ideal Goal | Violation | How It Gets In The Water         |
|------------------------------|-------|-----------------------------|-----------------------------------|---------------------|-------------------|-----------|----------------------------------|
| Compound                     | Units |                             |                                   |                     |                   |           |                                  |
| Barium                       | ppm   | 2                           | 0.010                             | 0.01-0.011          | 2                 | No        | Common mineral in nature         |
| Mono-Chloramine              | ppm   | 4-MRDL                      | 2.08                              | 0-3.8               | 4-MRDLG           | No        | Water disinfectant               |
| Fluoride                     | ppm   | 4                           | 0.69                              | 0.1-0.83            | 4                 | No        | Additive for dental health       |
| Nitrate <sup>^</sup>         | ppm   | 10                          | 0.145                             | 0.04-0.145          | 10                | No        | Atmospheric deposition           |
| Total Trihalomethanes        | ppb   | 80                          | 27.6                              | 8.49-25.6           | NS                | No        | Byproduct of water disinfection  |
| Haloacetic Acids-5           | ppb   | 60                          | 18.6                              | 4.9-19.8            | NS                | No        | Byproduct of water disinfection  |
| Total Coliform               | %     | 5%                          | 1.4% (Sept)                       | ND-1.4%             | NS                | No        | Naturally present in environment |

**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 ND=non-detect <sup>^</sup>=As required by DEP, the maximum result is reported for nitrate, not the average.



# FIND OUT ABOUT

# HOW WE PROVIDE SAFE DRINKING WATER

## COVID CONCERNS

Your water does not contain the coronavirus. Our well-protected watersheds and effective disinfection mean that you don't need to buy bottled water. Despite the emergency, we continue to run the system and monitor water quality.



Quabbin Reservoir Forest

**DID YOU KNOW?** Your water is monitored by a state-of-the-art system in real time —24 hours a day, seven days a week, before and after treatment —to make sure it is free of contaminants. This allows MWRA to rapidly respond to any changes in water quality.

MWRA maintains state-of-the-art treatment procedures to make sure your water is safe, fresh, and tastes great. Part of the reason that the water tastes so good is MWRA's advanced water treatment at the John J. Carroll Water Treatment Plant in Marlborough. First, your water is treated with ozone—produced by pure oxygen. Ozone disinfects the water, killing bacteria, viruses and other organisms. It also improves water clarity and makes the water taste better. Next, we use ultraviolet light (UV) disinfection, further improving the quality of the water. UV light is essentially a more powerful form of the natural disinfection from sunlight, and further ensures that any pathogens in the water from our reservoirs are rendered harmless.



Ozone generator in Carroll Water Treatment Plant

In addition, fluoride is added to promote dental health, and the water chemistry is adjusted to reduce corrosion of home plumbing. Last, we add mono-chloramine (combining chlorine and ammonia), a mild and long-lasting disinfectant to provide continuing protection of the water as it travels through miles of pipelines to your home.

### Providing Reliable Service

MWRA is committed to providing a reliable supply of safe water to our customer communities. We plan for emergencies, train our staff on how to respond, and regularly drill to be sure we are prepared. During the coronavirus pandemic, MWRA activated its long-standing pandemic response plan to focus our staff resources on essential work, and protect the health of our staff so that we could continue to provide you water meeting all drinking water safety standards.

### Ensuring Redundancy

Redundant pipelines and tunnels allow inspection and maintenance of key facilities while ensuring uninterrupted service. We recently completed a second pipe to the north in Stoneham, Reading and Woburn, providing service to six communities, as well as the Wachusett Aqueduct Pumping Station in Marlborough, which now provides a second way to get water to the treatment

plant. We are also nearing completion of a redundant pipeline south of Boston. Design is underway to repair and improve the Weston Aqueduct Supply Main 3 in Weston, Waltham, Belmont, Arlington and Medford. And planning for two new tunnels north and south of Boston that will provide redundancy for the entire region is now well underway.

### On-going Pipeline Rehabilitation

MWRA continues to rehabilitate and replace pipelines throughout the distribution system to improve both reliability and water quality. MWRA also provides zero-interest loans to customer communities for local pipeline projects. In 2019, \$26.7 million was loaned to communities for 21 projects for the replacement or rehabilitation of older unlined pipes or replacement of lead service lines.

### FACTS ABOUT SODIUM

Sodium in water contributes only a small fraction of a person's overall sodium intake (less than 5%). MWRA tests for sodium monthly and the highest level found was 40.7 mg/L (about 10 mg per 8 oz. glass). This would be considered Very Low Sodium by the Food and Drug Administration (FDA).



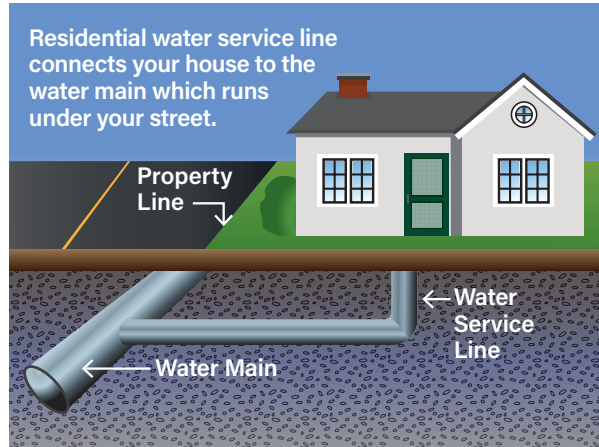


# FIND OUT ABOUT

# LEAD IN YOUR DRINKING WATER

## News on Lead in Tap Water

Lead in tap water continues to be in the news and you may have some concerns about the safety of your tap water. MWRA's water system has been below the Lead Action Level for 15 years. Of over 2,700 samples taken in the last 6 years, 98% were below this 15 ppb level.



## What You Need to Know—Lead in Your Tap Water

MWRA water is lead-free when it leaves our reservoirs. And MWRA and local pipes that carry the water to your community are made mostly of iron and steel, and don't add lead to the water. Lead can enter your tap water through pipes in your home, 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

brass fixtures. 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 corrosion control program 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 change makes the water less corrosive and reduces leaching of lead into drinking water. Lead levels found in sample tests of tap water have dropped by about 90% since this treatment change. Learn more about lead in drinking water at [www.mwra.com](http://www.mwra.com).

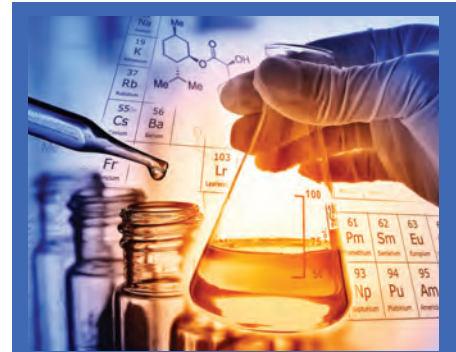
## MWRA Meets Lead Standard in 2019

Under EPA rules, MWRA and your local water department must test tap water each year in a sample of homes likely to have

high lead levels—those with lead solder or lead service lines. The EPA rule requires that 9 out of 10, or 90% of the sampled homes must have lead levels below the Action Level of 15 ppb in their drinking water.

All sampling rounds over the past 15 years have been below the EPA Action Level. Results for the 451 samples taken in September 2019 are shown in the table. Nine out of ten homes were below 8 ppb—well below the Action Level of 15 ppb.

**Five communities, Arlington, Medford, Quincy, Somerville and Winthrop, were above the Action Level in 2019. Your community letter on page 7 will provide you with the local results and more information.**

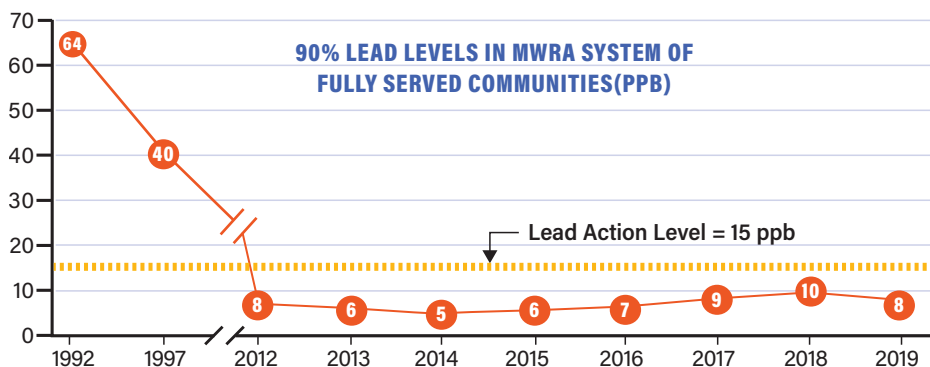


## Important Information from EPA about Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. 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](http://www.epa.gov/safewater/lead).

| LEAD AND COPPER RESULTS-2019 | 90% Value | Target Action Level | Ideal Goal (MCLG) | #Homes Above AL<br>#Homes Tested |
|------------------------------|-----------|---------------------|-------------------|----------------------------------|
| Lead (ppb)                   | 7.97      | 15                  | 0                 | 16/451                           |
| Copper (ppm)                 | 0.116     | 1.3                 | 1.3               | 0/451                            |

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



## WHAT IS AN ACTION LEVEL?

An Action Level is the amount of lead that requires actions to reduce exposure. If your drinking water sample is above the Lead Action Level, you might need to take additional steps. If more than 10% of your community's samples were over the Lead Action Level, your water department is taking action. See page 7.



# FIND OUT ABOUT

# REDUCING YOUR LEAD RISK

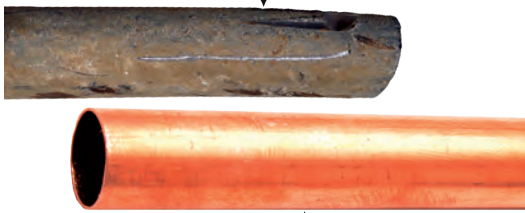


**WHY IS LEAD IN DRINKING WATER IMPORTANT?** Lead poisoning typically comes from exposure to lead paint dust or chips. But lead in drinking water also can contribute to total lead exposure. Depending on the kind of plumbing in your home, or the connection to the water main, lead levels in water can be elevated. To lower your family's risk for lead exposure, review the steps on this page.

## Remove Your Lead Pipe - Reduce Lead in Your Water

Lead can come from many sources in the home. A service line connects your building's plumbing to the water main in your street. In some older buildings, it is made of lead and can add significant amounts of lead to your drinking water. Removing and replacing it completely can eliminate the main source of lead in your drinking water. Preventing lead exposure is particularly important if a pregnant woman or child lives in the home or apartment.

**Water Service Lines - Old And New**  
You can identify lead service line by carefully scratching with a key.



New Copper Service Line

## Do I Have a Lead Service Line?

Identifying and removing a lead service line can significantly reduce any lead in your drinking water.

One way to find out if you have a lead service line: Scratch the pipe near your water meter with a key. Lead pipes will show a dull grey or silver color, while copper pipes will not. To find out more about your service line contact your local water department. For more information go to [www.mwra.com](http://www.mwra.com).

## MWRA Program to Replace Lead Service Lines

MWRA and its Advisory Board approved \$100 million in zero-interest loans to member communities to fully replace lead service lines. Each community can develop its own local plan, and many communities have already moved forward. To find out more, please read your community letter on page 7 or contact your local water department.

## How Do I Test My Tap Water for Lead?

Go to the list of certified laboratories and sampling instructions available on the lead testing page at [www.mwra.com](http://www.mwra.com). You may also call MWRA at 617-242-5323 for additional information. Some communities have testing services available for their residents.

## Free Lead Testing For Schools

The plumbing in some schools can contain lead. To help communities identify problems with lead in school drinking water, MWRA provides free testing for schools and childcare centers. Water samples are tested at our laboratory and the results are provided to the local school, health and water departments. For more information, go to [www.mwra.com](http://www.mwra.com). We have completed over 38,000 tests from 478 schools across 44 communities. Most of the results are available on the DEP website at [www.mass.gov/dep](http://www.mass.gov/dep) (search for lead in schools). Results may also be available from your local school department.



## Reduce Exposure to Lead in Your Home

Lead can enter your drinking water through pipes in your home, or your lead service line (that connects your home to the water main). Take these steps to reduce lead in your drinking water.

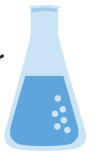
- Let the water run before using it: fresh water is better than stale. To save water, fill a pitcher with fresh water and place in the refrigerator for future use.
- Run each faucet used for drinking or cooking until after the water becomes cold anytime your water has not been used for more than six hours.
- Never use hot water from the faucet for drinking or cooking, especially when making baby formula or other food for infants or young children.
- Check your plumbing fixtures to make sure they are lead-free. Read the labels closely.
- Contact your local water department to find out if you have a lead service line—and find out how to replace it.
- Remove loose lead solder and debris. Every few months remove the aerator from each faucet in your home 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 health and lead.



# FIND OUT ABOUT

# MWRA'S WATER QUALITY PROGRAM

**WATER TESTING ACROSS THE ENTIRE SYSTEM** MWRA's Water Quality Program, in partnership with your community, conducts hundreds of thousands of tests every year for over 120 possible contaminants. The data show our water quality to be excellent. MWRA works continuously with water departments in the cities and towns we serve to ensure the safety and quality of your drinking water.



Quabbin Reservoir

## Partners in Testing Your Local Drinking Water

MWRA collaborates with water departments to test 300 to 500 water samples from local pipes each week for total coliform bacteria. Most of the time these bacteria are not harmful. However, their presence in the water may signal that bacteria from fecal waste, which could cause disease, may be there as well. If a water sample tests positive, we run more specific tests for *E.coli*, a bacteria found in human and animal fecal waste, which may cause illness. If total coliform is detected in more than 5% of the samples taken in a month, the local water system is required to investigate the possible source and to fix any identified problems.

**If your community found any total coliform or *E.coli* in your drinking water, it will be listed in the community letter on page 7.**

## Contaminants in Bottled Water and Tap Water

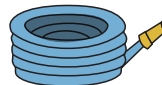
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling 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 EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. 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.

## Learn About New Regulations and Research

MWRA works with EPA and health research organizations to help define new national drinking water standards by collecting data

**CROSS CONNECTION INFORMATION** 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/crosscon](http://www.mwra.com/crosscon).



**Help Us Know About Your Drinking Water**

MWRA takes customer concerns seriously. 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 any questions or concerns, contact your local water department, or call MWRA at (617) 242-5323.

on contaminants that are not yet regulated. Information on this testing, as well as other water quality data, including information on PFAS compounds, *Giardia* and *Cryptosporidium*, and more detailed data on lead can be found at [www.mwra.com/UCMR/2019](http://www.mwra.com/UCMR/2019).

## 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).





**Town of Reading**  
**DEPARTMENT OF PUBLIC WORKS**

Public Water Supply  
# 3246000

The Reading Department of Public Works (DPW) and MWRA are pleased to provide you your **2019 Drinking Water Consumer Confidence Report**. In 2019, 555 MG (million gallons) of water was purchased from the MWRA; average daily use was 1.52 MG. The highest single day use was 2.55 MG on July 29th. The average daily use by each individual was 42.17 gallons per day; 35% below the MassDEP regulation of 65 gallons per day.

The DPW Water Conservation Program continued with great success, providing water saving devices at no cost to Reading residents. We awarded 36 rebates for energy efficient washing machines, 6 rebates for water saving toilets, provided 1 irrigation rain sensor and sold 44 rain barrels, totaling \$9,045 in rebates. For further information, please call 781-942-9077 or visit [www.readingma.gov/water-division/pages/water-conservation](http://www.readingma.gov/water-division/pages/water-conservation).

On November 1st, we were notified that a single sample from our routine weekly water samples was positive for E. coli bacteria (EC+). E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. EC+ in a water sample indicates the need to look for potential problems in water treatment or distribution. Promptly, 2nd round samples were taken at the problem site, and at two adjacent sites to investigate any possible issue or risk that may be present in the water system. From the 2nd round samples, a positive result for total coliform (TC+) was found at the original location, but both adjacent site samples tested clear of all bacteria. TC+ Coliforms are a less aggressive 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 might exist through which site contamination may enter the drinking water system. With the finding of the 2nd round result of TC+ at the same location as the original EC+, MassDEP required that we issue a system wide "Boil Water Order" until all potential health risks were eliminated by identifying then mitigating any source of bacterial contamination along with multiple additional rounds of system wide routine water testing. Investigations soon revealed that it was indeed an isolated, site-specific issue at the original location and that it did not extend into the Town's water system. All plumbing systems at commercial buildings are kept isolated from the Town's water system through our required, Town inspected, cross-connection backflow prevention devices. Further investigation & testing proved beyond a doubt that the problem was isolated within the plumbing at the original site. On November 4th, based on consecutive clear follow up system-wide sample results and full remediation at the site, MassDEP determined that the drinking water in the Town's system and at the incident location no longer posed any threat to the public health, thus the "Boil Water Order" was lifted. We were required by MassDEP to complete a Level 2 Assessment follow up report, which is a detailed study of the water system, operations & protocols to identify any potential problems and determine why an E. coli MCL violation occurred and why total coliform bacteria were found in our water system. We made some proactive changes to our water system protocols and most importantly, the concerns at the sample site were fully identified, then completely remediated. The business was entirely cooperative; they ceased all food and beverage offering, as requested, until all defective plumbing and equipment was repaired or replaced, then the store was fully sanitized prior to restoring food or beverage operations.

In 2017, as part of our MassDEP Triennial Lead & Copper Rule Monitoring Plan, we sampled the water at residences all over Town. Reading's water continued to meet all lead and copper standards. In 2019, the Water Department continued to spearhead the team between Reading Facilities, School and Water Departments that manages the testing of lead and copper in schools and public buildings. This team effort continues to yield success as we test, monitor and proactively address lead in drinking water. All of Reading's Water Quality Results and Lead testing program info can be found at: [www.readingma.gov/water-division/pages/water-quality-supply](http://www.readingma.gov/water-division/pages/water-quality-supply).

The Reading Water Department always goes far beyond compliance by its dedication to improving all aspects of water operations, water quality and for the required and proactive testing of many secondary contaminants and matters that some systems choose not to address. Reading shows exemplary efforts to attain such an excellent record and our system is seen as a model for its thorough, efficient, progressive water management. If you have any questions regarding your water quality, testing programs, our MWRA water supply, or your water service connection, feel free to contact Erik Mysliwy our Town's Water Quality & DPW Safety Administrator at 781-942-9092 x1215 or [emysliwy@ci.reading.ma.us](mailto:emysliwy@ci.reading.ma.us).

| Compound                   | Units          | Highest Level Found | Range of Detections      | MCL                    | MCLG (Ideal Goals) | Violation | How it gets in the water   |
|----------------------------|----------------|---------------------|--------------------------|------------------------|--------------------|-----------|--|
| Mono-chloramine            | ppm            | 2.03                | 0.02-2.90 <sup>1</sup>   | 4 MRDL                 | 4-MRDLG            | No        | Water disinfectant   |
| Lead (2017)                | ppb            | 8.3 <sup>2</sup>    | 0.07 - 15.10             | (AL) 15 <sup>2</sup>   | 0 MCLG             | No        | Corrosion of household plumbing  |
| Copper (2017)              | ppb            | 98.7 <sup>2</sup>   | 12.9 - 119               | (AL) 1300 <sup>2</sup> | 0 MCLG             | No        | Corrosion of household plumbing  |
| Nitrite (NO <sub>2</sub> ) | mg/L           | 0.11                | 0.112-0.110              | 1                      | 1 MCLG             | No        | Water disinfectant   |
| Nitrate (NO <sub>3</sub> ) | mg/L           | 0.31                | 0.131-0.309              | 10                     | 10 MCLG            | No        | Atmospheric deposition   |
| E.coli Bacteria            | Pos. or Absent | 1 Pos. Sample       | 10/31/2019               | 0                      | 0 MCLG             | Yes       | Human or animal fecal waste  |
| Total Coliform Bacteria    | Pos. or Absent | 2 Pos. Samples      | 10/31/2019<br>10/31/2019 | NS                     | NS                 | No        | Naturally present in the environment and present in human & animal waste |

Footnotes: 1. The range and results are based on over 550 individual samples analyzed weekly in 2019 from the water system distribution points within the Town of Reading. 2. Lead and Copper Action Level based on 90th Percentile Result.

Abbreviations: ppm=parts per million; ppb=parts per billion; MCL=Maximum Contaminant Level; MCLG=Maximum Contaminant Level Goal; MRDL=Maximum Residual Disinfectant Level; MRDLG=Maximum Residual Disinfectant Level Goal; (AL)=Action Level