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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.

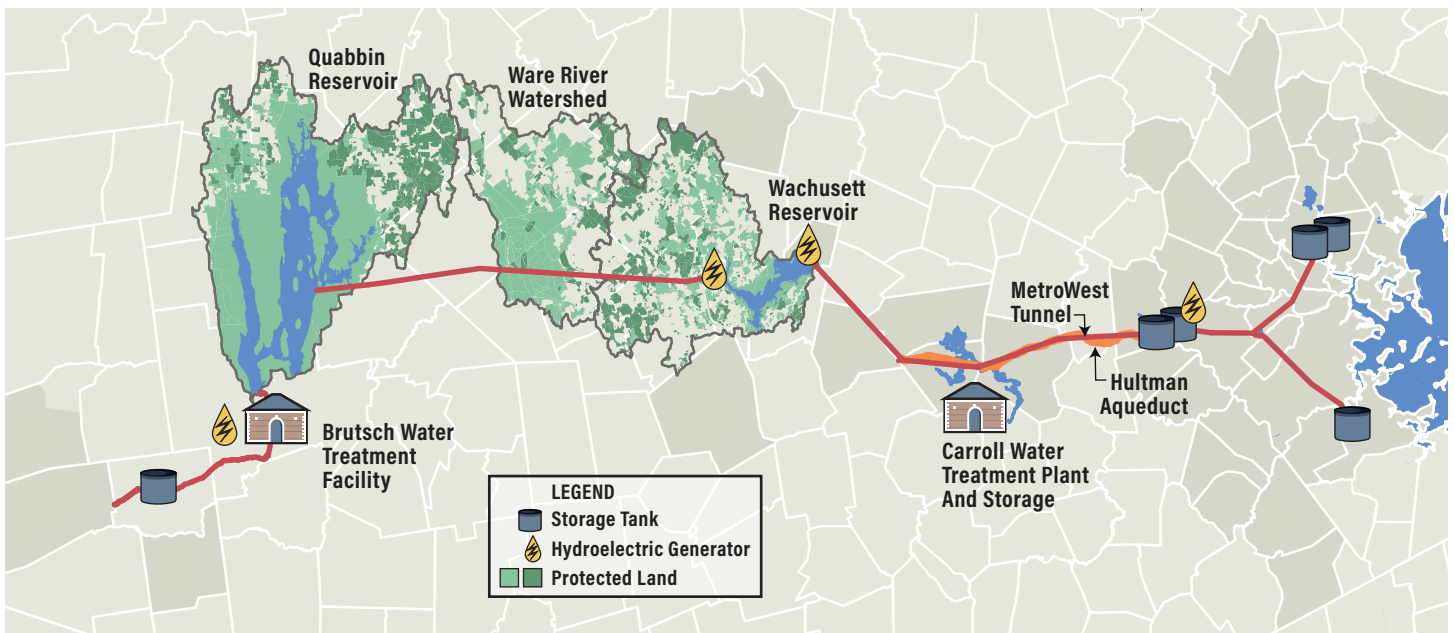
May 2020 also marked the 10th anniversary of the large water main break we had in Weston. Since that time, we have continued work on projects that allow us to re-route the water in the event of a break so that service will not be interrupted. We have begun the initial design phase for two new water tunnels 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.

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). 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 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 [^]	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 [^]=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).

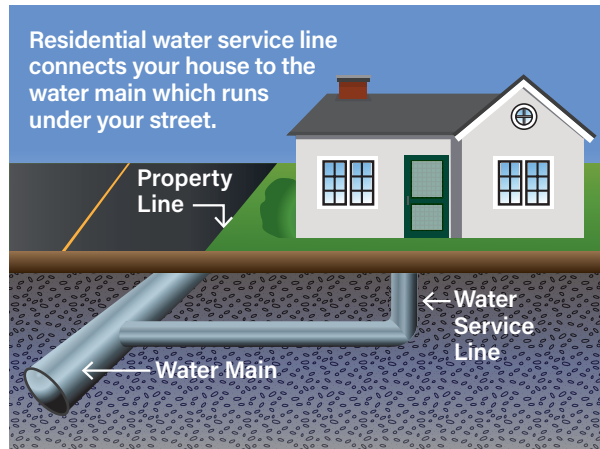


FIND OUT ABOUT

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.

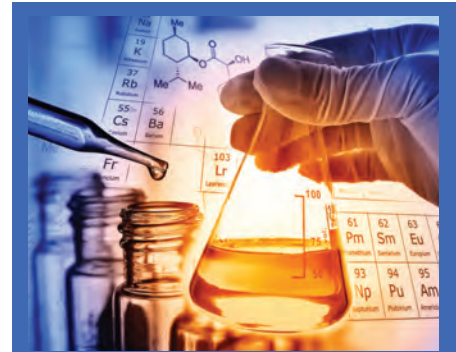
MWRA Meets Lead Standard in 2019

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.

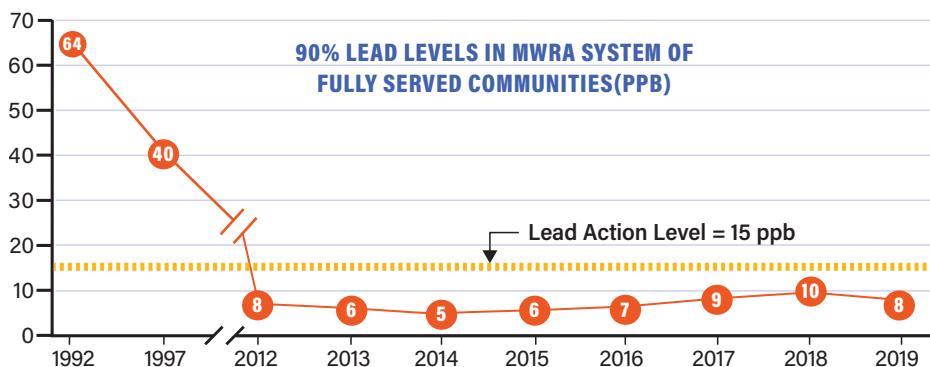


Important Information from EPA about Lead

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.

LEAD AND COPPER RESULTS-2019	90% Value	Target Action Level	Ideal Goal (MCLG)	#Homes Above AL / #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

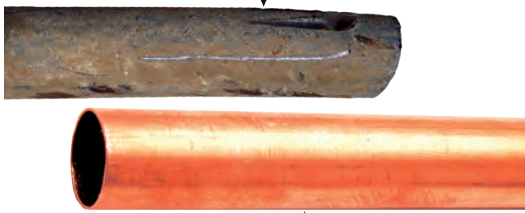


WHY IS LEAD IN DRINKING WATER IMPORTANT? Lead poisoning typically comes from exposure to lead paint dust or chips. But lead in drinking water also can contribute to total lead exposure. Depending on the kind of plumbing in your home, or the connection to the water main, lead levels in water can be elevated. 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.

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. 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. 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 (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.

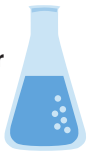
- Let the water run before using it: fresh water is better than stale. To save water, fill a pitcher with fresh water and place in the refrigerator for future use.
- Run each faucet used for drinking or cooking until after the water becomes cold anytime your water has not been used for more than six 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

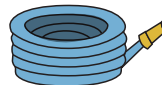
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling 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.



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.

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 BELMONT
Department of Public Works

Public Water Supply
#3026000

Highway • Recreation, Parks & Cemetery • Water

Jay Marcotte, MPA, Director
Michael A. Santoro, Assistant Director

The 2019 Drinking Water report provides information to residents of Belmont on their water supply. The Belmont DPW Water Division works in partnership with the MWRA to communicate where your water comes from, how it is treated, tested and how it gets to your tap.

The Water Division is engaged in an ambitious long-term Capital Improvement Program based on a comprehensive study of the water distribution system. The program, which began in 1995 and is known as the Water Main Replacement Program, is intended to replace 40% of the water mains in Belmont within a 30-year period and is segmented into yearly projects. To date, slightly more than 31 miles of aged, deteriorated and undersized water main have been replaced with new larger diameter ductile iron pipe. This work will improve both water quality and the hydraulic reliability of Belmont's drinking water system.

In 2019, the Water Main Replacement Program FY19 "Hough Road" project was completed with a total of 4,370 linear feet replaced. Fiscal 2020's Water Main Replacement Program will include the following streets; Lodge Road, Lambert Road, Hillcrest Road, Highland Road, Cedar Road, Becket Road and Fairmont Street. These streets will have new 8 inch water mains with new hydrants and valves. Lambert Road will have its 1½ inch water main replaced with a 6 inch water main with a new hydrant. The total for this project is 6,251 linear feet.

Our Smart Meter Replacement Program is nearing completion. With 11, 325 meters to replace, we have replaced all but 463 meters to date. We are on schedule for completion by July of 2020. Customers can monitor their daily consumption and will be able to set alerts for excessive water consumption and leaks.

The Water Division continues to provide high quality services to our customers. Billing for water and sewer will be monthly starting this spring of this year.

Other services include: 24-hour emergency response, water main and service repair, hydrant maintenance and replacement, and starting this year a valve exercising program. The Water Division is also inspecting, testing and growing its Cross Connection Control Program. This vital program prevents contamination from processes that use water for purposes other than for consumption and sanitary. Backflow and back-siphonage in the distribution system are prevented by devices that allow water to flow in only one direction. These devices are inspected and tested to ensure our water is of the highest and safest quality. These services and other improvements are being done to better the water distribution system.

The Water Advisory Board continues its function to advocate and advise the Town on policies, operational management and water and sewer billing disputes, financial practices and capital investments of the Water Division that will result in the sustained provision of high quality water service. The Water Advisory Board conducts public meetings periodically throughout the year. All public meetings are posted on the calendar of the Town of Belmont's web page; www.belmont-ma.gov, the Town Clerk's Office and Police Department.

Each year, the Water Division works with the MWRA to test for high lead and copper levels in homes. Belmont is concerned about lead in tap water. Therefore, we test fifteen (15) designated homes and two (2) public schools once a year and all results were below the 15 parts per billion (ppb) for lead and 1,300 parts per billion (ppb) for copper Action Level. The 90th percentile level for Belmont was 3.1 ppb for lead and 113 ppb for copper. Our records show that there is only one partial lead lined service in Belmont.

The Water Division collects 8 water samples each week (32 per month) to test for total coliform bacteria throughout the distribution system. This gives the Water Division an overview of the overall health of the distribution system. The EPA requires that no more than 5% of the samples in a month may be positive. The Water Division had no positive coliform results in 2019.

The Water Division works in cooperation with the MWRA, MA Department of Environmental Protection and the US Environmental Protection Agency to continue to provide Belmont's residents with a safe, reliable and adequate supply of drinking water. If you have any questions regarding this report, about town meetings, or any other water quality questions, you can contact Mark Mancuso, Water Division Manager at 617-993-2707.