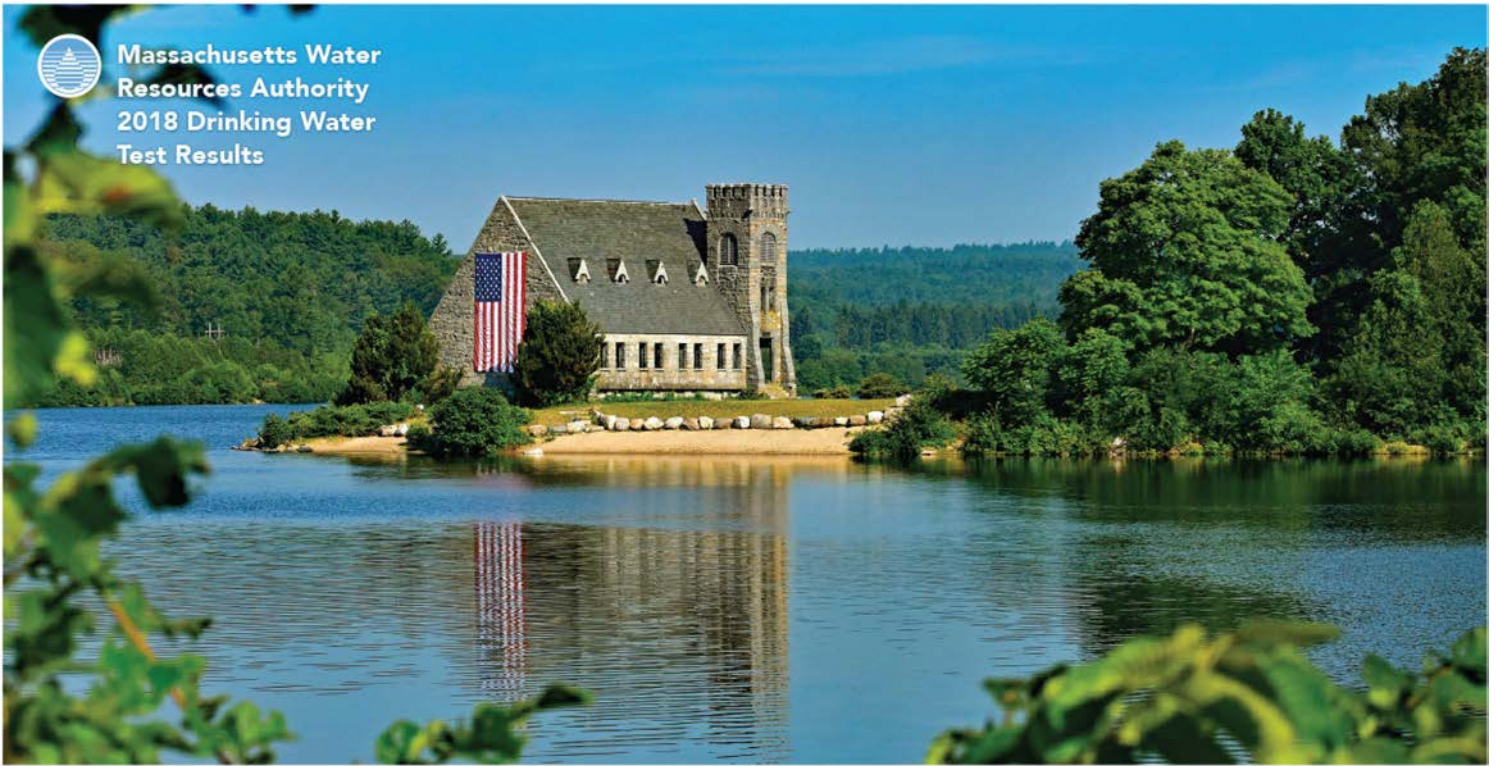




**Massachusetts Water Resources Authority
2018 Drinking Water Test Results**



Your Drinking Water

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-tu-rio o parlarne con un amico che lo comprende.

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 przełumaczenie 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 الشخص مع سديق لك يفهم هذه المعلومات جيداً.

Η κατάσταση αναφοράς παραμένει σταθερή. Η ποιότητα του νερού σας παραμένει καλή. Το μεταφορέμα ή να το εξυγιανώστε με κλασσικόν ποσο το καταναλώσασιν ασφαλήτως.

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 "पेने से पानी" के विषय पर बहुत जरूरी जानकारी दी गई है। कृपया इसका अनुवाद करें। या किसी जानकार से इस बारे में पूछें।

ရေထုတ်ကုန်ခြင်းစနစ်ကောင်းမွန်စွာ ဖန်တီးထားပြီး နေရာဒေသများတွင် ဖွံ့ဖြိုးတိုးတက်မှုများကို ရေထုတ်ကုန်ခြင်း ဖြစ်သည်။

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

Bên báo cáo có ghi những chỉ 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.



MASSACHUSETTS WATER RESOURCES AUTHORITY AND THE CHICOPEE WATER DEPT., SOUTH HADLEY F.D.#1 AND WILBRAHAM WATER DIVISION

Residential Customer

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ECRWSS

Where To Go For Further Information

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

Public Meetings

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

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

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





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For more information
on MWRA and its
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visit www.mwra.com.

Dear Customer,

I am pleased to share with you the annual results of our water quality testing. Each year, MWRA takes hundreds of thousands of tests to ensure your water is safe and of the highest quality. In 2018, we again met every federal and state drinking water standard.

Lead in drinking water is an important issue and all three Chicopee Valley Aqueduct (CVA) communities continue to successfully treat the water they deliver to make is less corrosive. All three CVA communities were below the EPA Lead Action Level. More information can be found on pages 4 and 5 of this report.

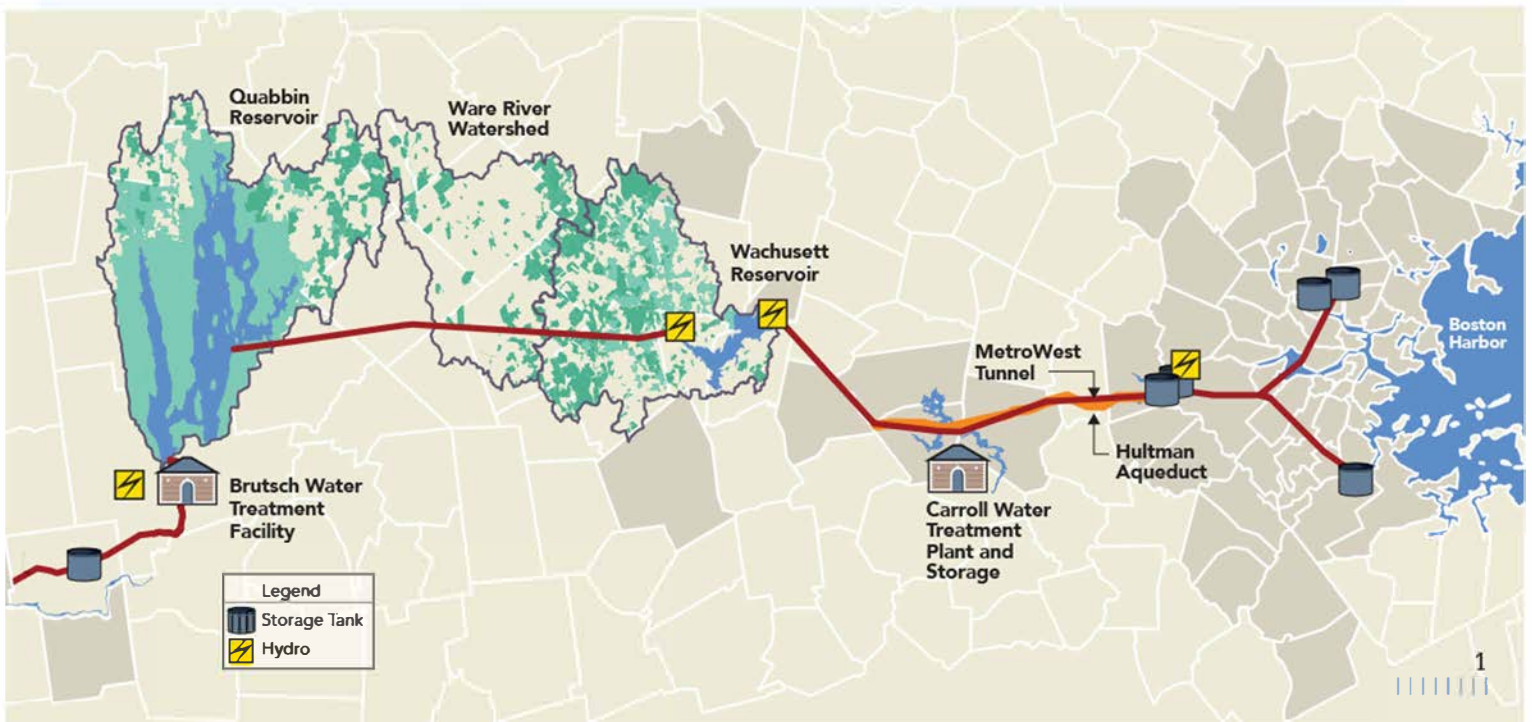
Your water system is well protected – from the source reservoirs to the treatment plants to the storage tanks – and real-time water quality monitoring allows us to check the water every step of the way. We have recently enhanced our security measures at the Quabbin Reservoir. We also have emergency plans for all of our facilities so we can quickly respond to any issue any time of day or night.

I hope you will take a few moments to read through this important report and learn more about your water system. 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

Cover photo: Old Stone Church, Wachusett Reservoir





MWRA Takes Customer Concerns Seriously.

Every call is investigated to ensure that there are no problems with the water supply. Most complaints are related to discolored water, which is usually related to local construction or hydrant use. If you have a question or concern, please call your local water department or MWRA at 617-242-5323.



Where Does Your Water Come From?

MWRA supplies about 10 million gallons of high quality water each day to three Chicopee Valley Aqueduct communities: Chicopee, Wilbraham, and South Hadley Fire District #1 (FD#1). MWRA also serves 48 cities and towns in greater Boston and MetroWest. Your water comes from Quabbin Reservoir. Water from the Ware River can add to the supply at times.

Rain and snow falling on the watersheds - protected land around the reservoirs - turn into streams that flow to the reservoirs. Water comes in contact with soil, rock, plants, and other material as it follows nature's path to the reservoir. While this process helps clean the water, it can also dissolve and carry very small amounts of material into the reservoir. Minerals from soil and rock do not usually cause problems in the water. But water can also transport contaminants from human and animal activity. These can include bacteria and viruses - some of which can cause illness. The test results in this report show that these are not a problem in Quabbin Reservoir's watershed.

Quabbin watershed is protected naturally as over 90% of the watershed is covered in forest and wetlands. About 83% of the total watershed land cannot be developed. The natural undeveloped watershed helps to keep MWRA water clean and clear. Also, to ensure safety, the streams and the reservoir are tested often and patrolled daily by the Department of Conservation and Recreation (DCR).

The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program Report for the Quabbin Reservoir. The DEP report commends DCR and MWRA on the existing source protection plans, and states that our "watershed protection programs are very successful and greatly reduce the actual risk of contamination." The report recommends that DCR and MWRA maintain present watershed plans and continue to work with the residents, farmers, and other interested parties to maintain the pristine watershed areas.

Water Treatment – From The Reservoir To Community Pipelines

Your water is treated at the Brutsch Water Treatment Facility before it enters the Chicopee Valley Aqueduct. The first treatment step is disinfection of reservoir water. MWRA's licensed treatment operators carefully add measured doses of chlorine, and then further treat the water with ultraviolet light (UV). Both disinfection processes are designed to kill pathogens (germs) that may be present in the water. Licensed operators in Chicopee perform additional booster disinfection at the point where the local pipes take water from the Aqueduct. Each community also treats the water to reduce leaching of lead from home plumbing.

Testing Your Water – Every Step Of The Way

Test results show few contaminants are found in the reservoir water. The few that are found are in very small amounts, well below EPA's standards. Turbidity (or cloudiness of water) is one measure of overall water quality. There are two standards for turbidity: all water must be below 5 NTU (Nephelometric Turbidity Units), and only can be above 1 NTU if it does not interfere with effective disinfection. Typical levels at the Quabbin Reservoir are 0.28 NTU and were below the 1 NTU over 99% of the time. The highest level was 4.9 NTU, which was caused by a weather event and did not interfere with effective disinfection.

MWRA also tests reservoir water for pathogens - such as fecal coliform, bacteria, viruses, and the parasites *Cryptosporidium* and *Giardia*. They can enter the water from animal or human waste. In 2018, no *Cryptosporidium* and *Giardia* were detected.

Test Results – After Treatment

EPA and state regulations require many water quality tests after treatment to check the water you are drinking. MWRA conducts tens of thousands of tests per year on over 120 contaminants (a complete list is available on www.mwra.com). Details about 2018 test results are in the table below, and on page 5.

Test Results After Treatment

Compound	Units	(MCL) Highest Level Allowed	(We Found) Detected Level-Average	Range Of Detections	(MCLG) Ideal Goal	Violation	How It Gets In The Water
Barium	ppm	2	0.006	0.006-0.007	2	No	Common mineral in nature
Nitrate^	ppm	10	0.011	0.007-0.011	10	No	Atmospheric deposition

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. ppm=parts per million ^=As required by DEP, the maximum result is reported for nitrate, not the average.



Monitoring Water Quality In Real Time

Your water is monitored by a state-of-the-art system in real time—24 hours a day, seven days a week—to make sure it is free of contaminants. This allows MWRA to respond to changes in water quality almost immediately.



What Can I Do To Save Water? Always Use Water Wisely

We know that conservation works. Customers in the MWRA service area have reduced their average daily demand from 340 million gallons per day in 1980 to about 200 million gallons today. It is important that these conservation efforts continue—especially during dry periods.

Tests In Community Pipes

MWRA and local water departments work together to test water all the way to the tap. We test samples of water in the city and town systems each week for total coliform and *E.coli* 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, these bacteria are not harmful. However, their presence could signal that harmful bacteria from fecal waste may be there as well. The EPA requires that no more than 5% of the samples in a given month may be positive for total coliform. *E.coli* is a pathogen found in human and animal fecal waste that can cause illness. No *E.coli* was found in any CVA community in 2018. If your town had any positive coliform results, more information is available on page 4.

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).

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. Food and Drug Administration (FDA) and the Massa-

chusetts Department of Public Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How Would I Know About A Problem With My Water Supply?

MWRA and your local water department keep close watch on the water supply. If there is a problem with your water, you would get the news by radio, television, newspapers, state and local government, health officials, and from MWRA.

Research For New Regulations

MWRA has been working with EPA and other researchers to define new national drinking water standards by testing for unregulated contaminants. To read more about these regulations, and to see a listing of what was found in MWRA water, please visit www.mwra.com/CVA/UCMR/2018.



Emergency Preparedness Information

To confidently deliver the high quality water you expect requires that the MWRA prepare for all situations. MWRA and DCR staff are out in the watersheds walking the land, monitoring activities, and protecting the source every day. We continuously monitor the reservoir with buoys and underwater sampling stations at multiple locations and depths. If there were an accident in the reservoir, a pipeline, or in one of our communities, we are ready to respond with mobile disinfection units and pumps, a mobile laboratory and staff who have trained and drilled. Water systems rely on computers and specialized control systems to operate efficiently. We've invested in cyber-security systems to prevent disruption, and have back-up operation centers in case the regular control center is non-operational or inaccessible.



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 mwra.com/crosscon.

YOUR COMMUNITY INFORMATION

Each community has specific treatment and improvements that are described below.

CHICOPEE

Phone: 413-594-3420

PWS ID# 1061000

The Chicopee Water Department's Corrosion Control Facility continues to provide excellent water quality by adjusting the water's pH and alkalinity levels. Sodium Carbonate and Sodium Bicarbonate (baking soda) are used to make this adjustment. A phosphate blend also adds an extra level of protection by further reducing corrosion throughout the system. The benefits of these treatment processes are evident in the reduced level of dissolved metals such as lead, copper, and iron in the city's water supply.

Under the Safe Drinking Water Act, water samples must be collected specifically for the analysis of lead and copper. Household plumbing is the main contributor of these metals in our drinking water and the water's chemistry is adjusted to minimize corrosion well before it reaches the homes of Chicopee's residents.

Quabbin Reservoir



In 2018, there were 30 samples collected for the analysis of lead and copper in Chicopee's drinking water. The Environmental Protection Agency (EPA) has reduced the number of samples that must be collected by the Chicopee Water Department due to its successful maintenance of low to absent levels of lead and copper in the water system. The next round of lead and copper samples will be collected in the spring of 2021.

WILBRAHAM

Phone: 413-596-2807

PWS ID# 1339000

The Corrosion Control Facility on Miller Street in Ludlow continues to inject Sodium Silicate into the drinking water in compliance with the federally mandated Lead and Copper Rule. MA DEP required lead and copper sampling of 20 homes and 2 schools in 2018. All 20 homes in addition to 2 schools were below the Action Level for both lead and copper. Our next sampling round will be in 2021.

The Wilbraham Water Department took 10 (ten) samples for coliform bacteria during the month of September 2018. Two of those samples showed the presence of coliform bacteria limited to the Town's Sewer Treatment Plant & the Water Department headquarters. Retesting of these locations showed no presence of coliform, however, the Wilbraham Water Department did not follow proper procedure of sampling up stream and down stream of the Sewer Treatment Plant & Water Department. The Water Dept. was issued a violation notice.

Within the last year, the Wilbraham Water Department performed the following: Brookmont Pump station was completely rebuilt with an above ground structure converted from a confined space entry, along with tree removal around the pump station for the new generator. Routine maintenance has been done to our 3 other pump stations, our 2.1 million gallon storage tank and the Corrosion Control Facility; the Water Dept. repaired 2 major water main breaks and 7 service leaks within our distribution system; 10 new services were installed and in excess of 50 main line gate valves were cleaned and checked for operation. The Water Department has been busy installing new water meters and installing our new Auto Readers through out the distribution system as well.

The water usage for 2018 was 403,852,000 gallons. This represents a 3.5% increase over 2017.

SOUTH HADLEY FIRE DISTRICT #1

Phone: 413-532-0666

PWS ID# 1275000

Our Treatment Facility located on Fuller St. in Ludlow continues to add sodium silicate for corrosion control. This is necessary in order to comply with the Lead and Copper Rule. Our last sampling round was in 2016 and our 90th percentile for Lead was 4.6 ppb and for Copper was 0.3 ppm. We will be sampling again in June of 2019. We were required to perform a Level 1 Assessment for total coliform positives in September (14.3%). Appropriate actions were taken, and there no other positives in 2018.

We continue to improve our system by updating water mains. Within the past year, our crew has repaired five water main breaks and three service leaks. In addition to the repair work, four new services have been connected to the system. We continue to update our water mains with our replacement program. Water main replacements are prioritized by leak history, pipe type and the annual street paving list provided by the DPW. This collaboration results in reduced costs and extending pavement integrity. This program will continue as funding and time permit.

In 2018, we replaced 6000 feet of mains along Newton St. (Rte. 116.) All fire hydrants and water services were replaced as well. The Board would like to thank the efforts of our staff by performing the inspection of the project in-house resulting in significant cost savings. We would also like to thank the MWRA for providing us with a 0% loan as part of their local pipeline assistance program and also MA DOT for holding off on paving of Newton St.

We feel strongly that the Water Department has been operated very efficiently by providing the rate payers with what they expect from a municipal department at the lowest possible cost. We would also like to extend our thanks to the Fire and Police Departments, Fire District No. 2 and the Town for their cooperation. Please take a moment to view our website with historical and frequently updated information at www.shdistrict1.org.



Lead In Tap Water Continues To Be In The News and you may have some concerns about the safety of your tap water. All three CVA communities are on reduced sampling due to successful treatment and consistently being well below the Lead and Copper Action Levels.

What You Need To Know About Lead In Tap Water

MWRA water is lead-free when it leaves the reservoirs. MWRA and local pipes that carry the water to your community are made mostly of iron and steel and do not add lead to the water. However, lead can get into tap water through pipes in your home, lead solder used in plumbing, and 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. Lead levels found in tap water in sampled homes have dropped significantly since the CVA communities improved treatment to make water less corrosive. This means the water is less likely to absorb lead from pipes and other fixtures.

CVA Communities Meet Lead Standard In 2018

Under Environmental Protection Agency regulations, your local water department must test tap water in a sample of homes that are likely to have high lead levels. These are usually older homes with lead service lines or lead solder. The EPA rule requires that 9 out of 10, or 90%, of these sampled homes must have lead levels below the Action Level of 15 parts per billion (ppb). All three CVA communities were below the lead Action Level in 2018.

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.



WHAT CAN I DO to reduce my exposure to lead in drinking water?

- Be careful of places you may find lead in or near your home. Paint, soil, dust and some pottery may contain lead.
- Let the water run before using: fresh water is better than stale! To save water, fill a pitcher with fresh water and place in the refrigerator for future use.
- Any time water has gone unused for more than 6 hours, run each faucet used for drinking or cooking until after the water becomes cold.
- Never use hot water from the faucet for drinking or cooking, especially when making baby formula or other food for infants.
- Check your plumbing fixtures to see if they are lead-free. Read the labels closely.
- Remove loose lead solder and debris. Every few months remove the aerator from each faucet in your home and flush the pipes for 3-5 minutes.
- Call the Department of Public Health at 800-532-9571 or EPA at 800-424-LEAD for health information.



Did You Know?

Most cases of lead poisoning are from contact with peeling lead paint and lead paint dust. But drinking water exposed to lead can increase a person's total lead exposure. This is particularly a concern for infants or pregnant women.

Most Recent Results	Total Trihalomethanes in ppb MCL=80 ppb (Avg) MCLG=0		Haloacetic Acids in ppb MCL=60 ppb (Avg) MCLG=0		Chlorine in ppm MRDL=4 ppm (Avg) MRDLG=4 ppm		Lead in ppb AL=15 ppb MCLG=0		Copper in ppm AL=1.3 ppm MCLG=1.3 ppm		Sodium in ppm
	Annual Average	Range	Annual Average	Range	Annual Average	Range	# Samples over AL	90% Value	# Samples over AL	90% Value	
Chicopee	51.7	26.7-65.8	42.1	19.8-59.5	0.9	0.1-1.52	0 of 30	0	0 of 30	0.14	15.5 [^]
South Hadley FD #1	58.2	26.6-92.7	29.4	14.2-48.6	0.7	0.02-1.47	0 of 30	4.6*	0 of 30	0.03*	8.29
Wilbraham	62.2	36.3-69.4	30.4	2.6-51.7	0.7	0.1-0.9	1 of 20	9.3	0 of 20	0.09	7.65 [^]

KEY: The definitions for MCL and MCLG are on page 2. **AL**=Action Level-The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. [^]=Results from 2019. * =Results from 2016. Next sampling round in 2019. **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.

