DRINK TAP LOCAL

YOUR 2012 DRINKING WATER TEST RESULTS FROM THE MASSACHUSETTS WATER RESOURCES AUTHORITY

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, llamenos al telefono 617-788-1190.

La relazione contiene importanti informazioni sulla qualità dell'acqua della Comunità. Tra-durlo o parlarne con un amico che lo comprenda.

O relatório contém informações importantes sobre a qualidade da água da comunidade. Tra- duza-o ou peça a alguém que o ajude a entendê-lo melhor.

Sprawozdanie zawlera ważne informacje na temat jakości wody w Twojej miejscowści. Poproś kogoś o przellurnaczenie go lub porozmawiaj z osobą która je dobrze rozumie.

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

Η κατοθεν αναφορα παρουσιαζη σπουδαιες πληροφορειες για το ποσιμο νερο σας. Πρακακλω να το μεταφρασετε η να το σξολειασετε με καποιον που το καταλαβαινη απολητως.

Im Bericht steht wichtige Information über die Qualität des Wassers Ihrer Gemeinschaft. Der Bericht soll übersetzt werden, oder sprechen Sie mit einem Freund, der ihn gut aversteht.

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

इस रिपोर्ट में "पीने के पानी" के विषय पर बहुत जरुरी जानकारी दी गई है। कृपया इसका अनुवाद कीजिये, या किसी जानकार से इस बारे में पुछिये।

របាយការណ៍នេះមានពត៌មានសំខាន់អំពីទឹកបរិភោគ ។ សូមបកប្រែឬពិគ្រោះជាមួយអ្នកដែលចេះយល់របាយការណ៍នេះ ។

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.

Massachusetts Water Resources Authority
and Your Local Water Department

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

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
Department of Conservation and Recreation	www.mass.gov/dcr/watersupply.htm	617-626-1250
Massachusetts Dept. of Public Health (DPH)	www.mass.gov/dph	617-624-6000
US Centers for Disease Control & Prevention (CDC)	www.cdc.gov	800-232-4636
List of State Certified Water Quality Testing Labs	www.mwra.com/04water/html/testinglabs.html	617-242-5323
Source Water Assessment and Protection Reports	www.mwra.com/sourcewater.htm	617-242-5323
Information on Water Conservation	www.mwra.com/conservation.html	617-242-SAVE

Public Meetings

MWRA Board of Directors	www.mwra.com/02org/html/boardofdirectors.htm	617-788-1117
MWRA Advisory Board	www.mwraadvisoryboard.com	617-788-2050
Water Supply Citizens Advisory Committee	www.mwra.com/02org/html/wscac.htm	413-213-0454

For a large print version, call 617-242-5323.

Dear Customer,

I am pleased to share with you the results of our annual water quality testing. MWRA takes hundreds of thousands of tests each year, and for 2012, we again met every federal and state drinking water standard. System-wide, we have been below the Lead Action Level for the past nine years. Please read your community's letter on page 4 for more information on your local water system.

MWRA continues to work to make the water system even better. Construction of a new covered storage tank in Stoneham and improved ultraviolet disinfection facilities at the Carroll Treatment Plant in Marlborough are currently underway. And with the completion this spring of the rehabilitation of the Hultman Aqueduct, we now have full redundancy from the treatment plant into the distribution system for the first time. This is a vast improvement to the water system and will ensure the delivery of water in the event of a major break, like the one that occurred in May 2010.

This report describes where your water comes from, how it is treated and delivered, and the steps we take to ensure its quality. Please take a moment to read it so that you can share our confidence in your drinking water.

In 2012, MWRA again received the Drinking Water Excellence Award from the Massachusetts Department of Environmental Protection. Some of the best drinking water in the country is delivered straight to your home. When you have a choice, we hope you drink locally!

Sincerely,

Frederick A. Laskey
Executive Director

Your water also comes from local water supplies. Please see page 4 for more information.

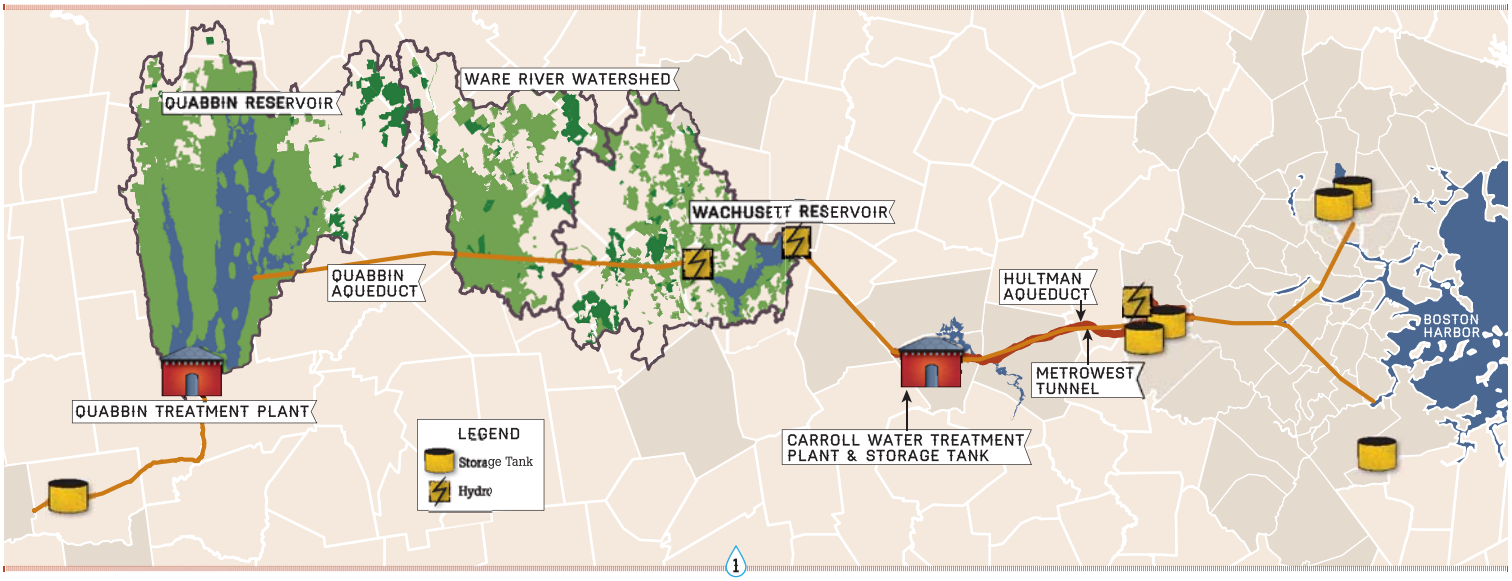
The Quabbin and Wachusett watersheds are naturally protected with over 85% of the watersheds covered in forest and wetlands. To ensure safety, the streams and reservoirs are tested often and patrolled daily by the Department of Conservation and Recreation (DCR).

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 clean the water, it can also dissolve and carry very small amounts of 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, viruses, and fertilizers - 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 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. Your water also comes from local water supplies.

Where Does Your Water Come From?

Your water comes from the Quabbin Reservoir, about 65 miles west of Boston, and the Wachusett Reservoir, about 35 miles west of Boston. These 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 2012.



Your Water System

From the Reservoir to Your Home

Your tap water is treated at the John J. Carroll Water Treatment Plant in Marlborough. The first treatment step is disinfection of reservoir water. MWRA's licensed treatment operators carefully add measured doses of ozone gas bubbles – produced from pure oxygen – to the water to kill any pathogens (germs) that may be present in the water. Fluoride is then added to promote dental health. Next, the water chemistry is adjusted to reduce corrosion of lead and copper from home plumbing. Last, we add mono- chloramine, a mild and long-lasting disinfectant combining chlorine and ammonia, which protects the water while it is in the local pipelines. Your local water supply may have different treatment. Please see page 4 for more information.

Improvements to Water Supply

Since 1985, MWRA and our community partners have made improvements to the entire water system - from the watersheds to the local pipelines. In 2012, MWRA continued construction of a new covered water storage tank in Stoneham and the addition of ultraviolet (UV) disinfection facilities at the treatment plant in Marlborough. Of note this year is the completion of the rehabilitation of the Hultman Aqueduct, ensuring full redundancy from the treatment plant into the distribution system.

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 the 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. MWRA met both of these standards. Typical levels at the Wachusett Reservoir are 0.4 NTU. In 2012, turbidity was always below both the 5.0 and 1.0 NTU standards, with the highest level at 0.7 NTU. MWRA also tests reservoir water for pathogens such as fecal coliform, bacteria, and the parasites *Cryptosporidum* and *Giardia*. They can enter the water from animal or human waste. All test results were well within state and federal testing and treatment standards.

Test Results – After Treatment

EPA and state regulations require many water quality tests after treatment to check the water you are drinking. MWRA conducts hundreds of thousands of tests per year on over 120 contaminants (a complete list is available on www.mwra.com). For results on your local water supply, please see page 4. Details about 2012 test results are in the table below. The bottom line is that the water quality is excellent.

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	0.008	0.008-0.009	2	No	Common mineral in nature
Mono-chloramine	ppm	4-MRDL	1.8	0.01-3.4	4-MRDLG	No	Water disinfectant
Fluoride	ppm	4	1.01	0.75-1.20	4	No	Additive for dental health
Nitrate^	ppm	10	0.113	0.034-0.113	10	No	Atmospheric deposition
Nitrite^	ppm	1	0.006	ND-0.006	1	No	Byproduct of water disinfection
Perchlorate	ppb	2	0.071	0.071	ns	No	Byproduct of water disinfection
Total Trihalomethanes	ppb	80	8.3	4.9-11.1	ns	No	Byproduct of water disinfection
Haloacetic Acids-5	ppb	60	10.2	0-14.7	ns	No	Byproduct of water disinfection
Total Coliform	%	5%	0.5% (Aug)	ND-0.5%	0	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 **^**As required by DEP, the maximum result is reported for nitrate and nitrite, not the average.

Community Pipes

IT'S THE LAW!

Drinking water regulations require water suppliers to mail this information to customers each year. MWRA makes every effort to keep costs down, and this report was produced, printed, and mailed for less than 21 cents apiece.

INFORMATION ABOUT CROSS CONNECTIONS

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.html.

Tests in Community Pipes

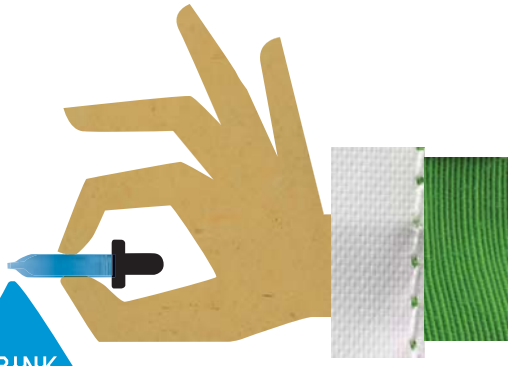
MWRA and local water departments test 300 to 500 water samples each week for total coliform bacteria. Total coliform bacteria can come from the intestines of warm-blooded animals, or can be found in soil, plants, or other places. Most of the time, they are not harmful. However, their presence could signal that harmful bacteria from fecal waste may be there as well. The EPA requires that no more than 5% of the samples in a month may be positive. If a water sample does test positive, we run more specific tests for *E.coli*, which is a bacteria found in human and animal fecal waste and may cause illness. If your community found any total coliform or *E.coli* in its local pipes, the results will be listed within the community letter on page 4.

Research for New Regulations

MWRA has been working with EPA and other researchers to define new national drinking water standards by testing for unregulated substances. To better understand the drinking water, MWRA has also voluntarily been testing for *Cryptosporidium* and *Giardia* prior to treatment.

Test	Measurement Units	Average
Cryptosporidium	oocysts per 100L	0.19
Giardia	cysts per 100L	0.3
Hexavalent Chromium	parts per billion	0.03^
NDMA	parts per trillion	0.54*

Key: *The result is from 2009. The DEP guidance value is 10 ppt.
^The result is from 2011.



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).

DRINK LOCAL AND BE GREEN!

Tap water is delivered straight to your home without trucking or plastic waste. Bottled water produces over 10,000 times the amount of greenhouse gases compared to tap water. One bottle of water is the equivalent of a month's supply of tap water. That is because our water is local, and because almost half of our energy needs are met with green power including hydro-energy, wind turbines, and solar panels.

Drink local! Drink tap water! Be green!

TAP WATER–THE SMART CHOICE!

Although tap water and bottled water have to meet the same standards, tap water must meet the more intensive EPA testing requirements. Yet, tap water costs less than a penny per gallon delivered straight to your home, while bottled water can cost between $1 to $8 a gallon.

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

Your Community

City of Woburn, Massachusetts
Department of Public Works
50 No. Warren Street, Woburn, MA 01801
Tel. (781) 897-5990 • Fax. (781) 897-5989

Public Water Supply
3347000

Jay Duran, *Superintendent*

Dear Water Customer:

The Woburn Department of Public Works, in conjunction with the Massachusetts Water Resources Authority (MWRA) supplies potable water to approximately 12,500 residential and commercial customers. This report provides information on the quality of water supplied through the municipal well field at Horn Pond. MWRA water quality information is contained elsewhere in this report. The following water quality data contains results based on annual testing performed in 2012.

In addition to above, the City obtains and tests samples from each Well for volatile and synthetic organic compounds, inorganic compounds and bacteria. Within the distribution system, twenty-one separate locations are tested weekly or quarterly for bacteria, trihalomethanes, haloacetic acids, iron, manganese, lead and copper. Other sites are tested periodically. All testing sites area scheduled and approved by the Massachusetts Department of Environmental Protection.

Compound	Average	Range	MCL	MCLG	Violation	Source
Barium (ppm)	0.012	0.011-0.013	2	2	No	Common mineral in nature
Chlorine (ppm)	1.11	0.01-3.5	4-MRDL	4-MRDLG	No	Water disinfection
Fluoride (ppm)	0.85	0.77-0.92	4	4	No	Water additive for stronger teeth
Nitrate (ppm)	0.36*	0.22-3.6	10	10	No	Atmospheric deposition
Selenium (ppb)	1.1	1.0-1.2	50	50	No	Erosion of natural deposits
Sodium (ppm)	97.5		NA	NA	No	Road runoff
Total Trihalomethanes (ppb)	32.7	2.9-66.9	80	ns	No	Byproduct of disinfection
Haloacetic Acids 5 (ppb)	8.5	0-13.6	60	ns	No	Byproduct of disinfection
Total Coliform (%)	1.7% (March)	ND-1.7%	5%	0	No	Naturally present in environment

Lead and Copper

	90% Value	(Target) Action Level	(Ideal Goal) MCLG	# of homes that failed AL / # of homes tested
Lead	8.7 ppb	15 ppb	0	0 of 35
Copper	0.12 ppm	1.3 ppm	0	0 of 35

Definitions of terms and abbreviations (e.g., MCL and MCLG, etc.) are found on the attached MWRA Annual Water Quality Report. The MWRA Report also includes other "required" U.S. EPA information for consumers.

Distribution

The Department of Public Works is continuing an aggressive policy of system maintenance and implementation of a major capital improvements program. These include the following programs, which are under design or being constructed.

- Continued intense City-wide valve maintenance and hydrant flushing program to remove sediments from the system and improve the operation of valves and hydrants.
- Proposed cleaning and relining of the following water mains: Main St. (from Fowle St. to Mishawum Rd.) and South St.

Source Management

In 2003, the DEP conducted a Source Water Assessment to assess the susceptibility of the water supply within the City of Woburn. The DEP susceptibility rating was high. The City conducts an extensive monitoring program in and around its drinking water sources. The complete SWAP report is available online at www.mass.gov/dep/water/drinking/swapreps.htm.

Meetings

Water committee meetings are held by City Council at City Hall. Public notice for these meetings can be found in the local newspapers, City Hall, and/or online at www.cityofwoburn.com.

The City of Woburn is committed to providing clean and safe water to its residents and will continue to implement improvements that will allow us to meet this goal now and in the future.

Facts About Lead

WHAT CAN I DO TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER?

- Run the tap until after the water feels cold. To save water, fill a pitcher with fresh water and place in the refrigerator for future use.
- Never use hot water from the faucet for drinking or cooking, especially when making baby formula or other food for infants.
- Ask your local water department if there are lead service lines leading to your home.
- Check your plumbing fixtures to see if they are lead-free. Read the labels closely.
- Test your tap water. Call the MWRA Drinking Water Hotline (617-242-5323) or visit our website for more tips and a list of DEP certified labs that can test your water.

- Be careful of places you may find lead in or near your home. Paint, soil, dust and some pottery may contain lead.
- Call the Department of Public Health at 1-800 -532-9571 or EPA at 1-800-424-LEAD for information.

FACTS ABOUT SODIUM

Sodium in water contributes only a small fraction of a person's overall sodium intake (less than 10%). MWRA tests for sodium monthly and the highest level found was 34.7 mg/L (about 9 mg per 8 oz. glass). This would be considered VERY LOW SODIUM by the Food and Drug Administration.

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, your lead service line, 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.

In 1996, MWRA began adding sodium carbonate and carbon dioxide to adjust the water's pH and buffering capacity. This change has made the water less corrosive, thereby reducing the leaching of lead into drinking water. Lead levels found in sample tests of tap water have dropped by almost 90 percent since this treatment change.

MWRA Meets Lead Standard in 2012

Under EPA rules, each year MWRA and your local water department must test tap water in a sample of homes that are likely to have high lead levels. These are usually homes with lead service lines or lead solder. 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 parts per billion (ppb).

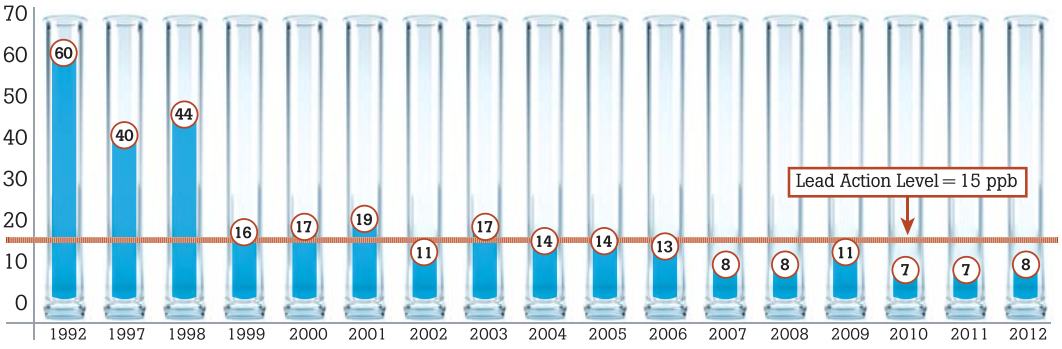
All 17 sampling rounds over the past nine years have been below the EPA standard. Results for the 450 samples taken in September 2012 are shown in the table. 9 out of 10 houses were below 7.7 ppb, which is below the Action Level of 15 ppb. For lead and copper results for your local water supply, see page 4.

SEPTEMBER 2012 LEAD AND COPPER RESULTS

	Range	90% Value	(Target) Action Level	(Ideal Goal) MCLG	% Homes Above AL/ # Homes Tested
Lead (ppb)	0.06-55.9	7.7	15	0	13/450
Copper (ppm)	0.007-0.6	0.1	1.3	0	0/450

KEY: AL= Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Definition of MCLG available on page 2.

90TH PERCENTILE LEAD LEVELS FOR MWRA COMMUNITIES 1992-2012 (PPB)



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.

Water Conservation

FOLLOW OUTDOOR WATER SAVING GROUND RULES

Water your lawn (and other landscaping) in early morning or evening to avoid evaporation.

Be sure sprinklers water only your lawn, not the pavement.

Never water on a windy day.

Never use the hose to clean debris from your driveway or sidewalk. Use a broom.

Apply mulch around plants to reduce evaporation, promote plant growth, and control weeds.

WASTING WATER CAN ADD UP QUICKLY.

On average, each person in the MWRA region uses about 60 gallons of water each day. More efficient water use can reduce the impact on the water supply and on your wallet. For ways to make your home and your habits more water efficient, contact the MWRA at 617-242-SAVE or visit www.mwra.com for tips on saving water indoors and in your backyard.

THE INCH RULE FOR WATER SAVING OUTDOORS Most lawns, shrubs, vegetables, and flowers need just one inch of water per week. If there has been an inch of rainfall during the week, you don't have to water at all.

Overwatering can actually weaken your lawn by encouraging shallow roots that are less tolerant of dry periods and more likely to be damaged by insects.

How to Find Leaks

Dripping, trickling, or leaking faucets, showerheads and toilets can waste up to several hundred gallons of water a week, depending on the size of the leaks. Worn-out washers are the main causes of leaks in faucets and showerheads.

That trickling sound you hear in the bathroom could be a leaky toilet, but sometimes toilets leak silently. TRY THIS: Crush a dye tablet and carefully empty the contents into the center of the toilet and and allow it to dissolve or use a few drops of food coloring. Wait about 10 minutes. Inspect the toilet bowl for signs of dye indicating a leak. If the dye has appeared in the bowl, your flapper or flush valve may need to be replaced. Parts are inexpensive and fairly easy to replace. If no dye has appeared after 10 minutes, you probably don't have a leak.

Install a Low-Flow Showerhead and Faucet Aerator

Some showerheads may still use over 5 gallons per minute. A low-flow showerhead can use up to 50% less and can save you over 20 gallons per 10 minute shower. In one year, that's over 7,000 gallons. Faucets can use 2 to 7 gallons per minute – a low-flow aerator can reduce the flow by about 25%.

PROMOTE TAP WATER? Let everyone know that you are drinking some of the best water in the world. Put a sticker on your reusable water bottle and fill it with tap water. Contact MWRA if you would like to receive a free sticker.

For more water saving ideas and devices, call 617-242-SAVE or go to www.mwra.com.

EPA WaterSense PARTNER