

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 (培生中指述多基於信息 as attribution de del el audanta il la copia de este reporte en españnol, llamenos al telefono 617-788-1190. 場にも行策されおり的別会は

La relazione contiene importanti この資料では、あなたの飲料水 informazioni sulla qualità dell'acqua della Comunità. Tra-durlo o parlarne con un amico che lo comprenda.

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、日本語に概訳して読む か説明を受けてください

12117 -

Im Bericht steht wichtige Information

über die Qualität des Wassers Ihrer

Gemeinschaft. Der Bericht soll überset

werden, oder sprechen Sie mit einem Freund, der ihn gut aversteht.

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

gar truite a romit ik grint de . विषय मा बर्न तरम जनकरा है। गर्ड है। वृषया उनका अनुवाह गर्गारचे. या किया जानागर में हम को स प्रक्रिकेत

Sprawozcanie zawlera ważne informacje na femal jakości wody w Twoje, miejscowsci. Poproś kogoś o przel umaczenie go lub porozmawiaj z osobą która e dobrze rozumie.

កោយការណ៍នេ មានកត់មានសភា ន់ពត់នឹកមរិសាក ។ សាពករដ្ឋា ឬកំណុក សាមចម្បកដែលជាណាចារាំ เพาะสากที่สะ เ

لشوي هذا التقرير عثى معلومات فنامنة عنزان توعيبة مناءاتك .. سطفتاد يرجي ترجمت، أو الحث للتشرير منع منديق لك يشهم هذ

Η κατοινέν αγνόσρις περουσιείζη σποιδείες πλημοσορείες για το πέστμο νέβο σκες Πρικτισκά ντε το μεταορασείε η να το σέρλεισσείτε με κατοιών που το

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong công đồng quý vị. Hậy nhới người thông cịch, hoạt họi một người bạn biệt rõ về và để này







Massachusetts Water Resources Authority and Your Local Water Department

This report is required under the Federal Safe Drinking Water Act Public Law 104-182, Section 1414(c)(4) MWRA PWS ID# 6000000

#### WHERE TO GO FOR FURTHER INFORMATION

Massachusetts Water Resources Authority (MWRA) Massachusetts Dept. of Environmental Protection Department of Conservation and Recreation Massachusetts Dept. of Public Health (DPH) US Centers for Disease Control & Prevention (CDC) List of State Certified Water Quality Testing Labs Source Water Assessment and Protection Reports Information on Water Conservation

617-242-5323 www.mwra.com 617-292-5500 www.mass.gov/dep www.mass.gov/dcr/watersupply.htm 617-626-1250 www.mass.gov/dph 617-624-6000 www.cdc.gov 800-232-4636 617-242-5323 www.mwra.com/04water/html/testinglabs.html www.mwra.com/sourcewater.htm 617-242-5323 www.mwra.com/conservation.html 617-242-SAVE

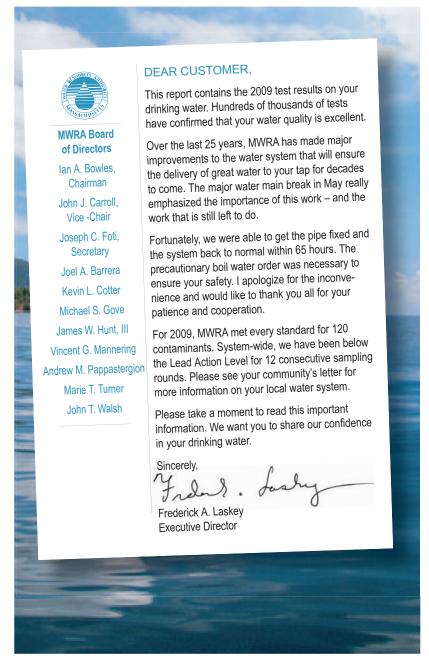
#### **PUBLIC MEETINGS**

**MWRA Board of Directors MWRA Advisory Board** Water Supply Citizens Advisory Committee

www.mwra.com/02org/html/boardofdirectors.htm 617-788-1117 www.mwraadvisoryboard.com 617-742-7561 www.mwra.com/02org/html/wscac.htm 413-586-8861

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





## Where does your water come from?

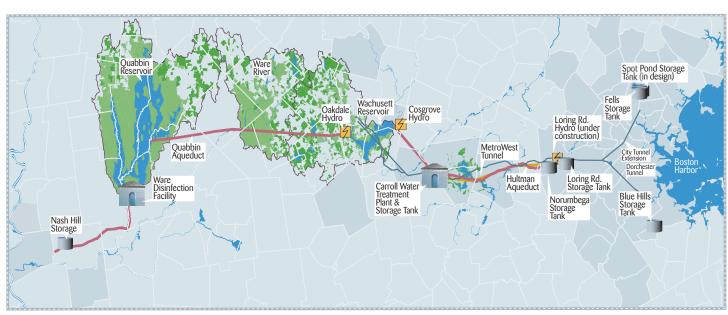
Your water comes from the Quabbin Reservoir, about 65 miles west of Boston, and the Wachusett Reservoir, about 35 miles west of Boston. These reservoirs supply wholesale water to local water departments in 51 communities. The two reservoirs combined supplied about 194 million gallons a day of high quality water to consumers in 2009.

Quabbin and Wachusett watersheds are protected naturally with over 85% of the watersheds covered in forest and wetlands. To ensure safety, the streams and the 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 reservoir's 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. In the report recommends that we maintain present watershed plans and continue to work with the residents, farmers, and other interested parties to maintain the pristine watershed areas.

As water travels eastward through tunnels from the Quabbin and Wachusett Reservoirs, clean hydroelectric energy is produced. The electricity generated is used to reduce MWRA's energy demands.





### From the Reservoir to Your Home

#### WATER TREATMENT

Your water is treated at the John J. Carroll Water Treatment Plant in Marlborough. The first treatment step is disinfection of reservoir water with ozone to kill any pathogens (germs) that may be present in the water. Fluoride is then added to reduce cavities. 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 which protects the water while it is in the local pipelines.

#### **MWRA'S IMPROVEMENTS TO WATER SUPPLY**

2010 marks the 25th anniversary of the MWRA. In that time, MWRA and our community partners have made improvements to the entire water system: from the the watersheds, to the aqueducts and tunnels, to treatment plants and MWRA and local pipelines. These are the largest investments in the water system since the 1930s. MWRA and our community partners continue to make the necessary investments to maintain and upgrade our facilities. For instance in 2009, MWRA completed the Blue Hills covered storage tank in Quincy.

#### 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. It should never be over 5 NTU (Nephelometric Turbidity Units) and can be over 1 NTU only if we can demonstrate that disinfection is not affected. Typical levels at Wachusett Reservoir are 0.35 NTU. In 2009, turbidity was



#### **♦** What is Ozone?

Ozone consists of three atoms of oxygen. It is created by applying an electrical current to pure oxygen in a specially designed chamber. Ozone provides better disinfection than chlorine alone, especially against *Cryptosporidium* and other hard to kill germs. It also reduces the amount of potentially harmful chlorine byproducts.

#### Information About Cross Connections



Massachusetts
DEP recommends the
installation of
backflow
prevention
devices for inside
and outside hose
connections. For

more information on cross connections and how to help protect the water in your home as well as the drinking water system in your town, please call 617-242-5323 or visit www.mwra.com/crosscon.html.

## 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 37.4 mg/L (about 9 mg per 8 oz. glass). This would be considered VERY LOW SODIUM by the Food and Drug Administration (FDA).

#### Test Results - After Treatment

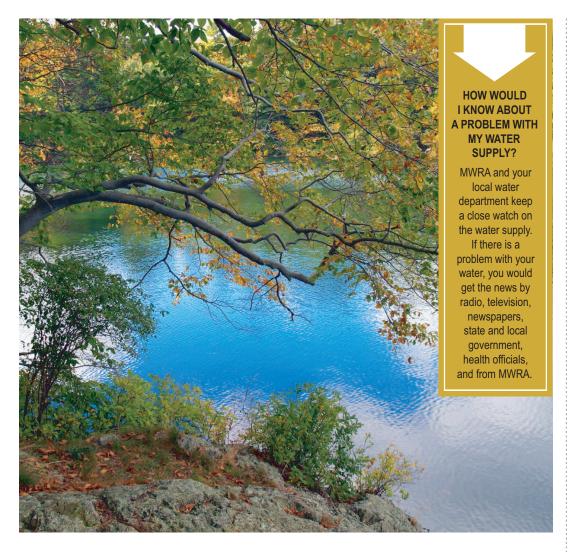
EPA and State regulations require many water quality tests after treatment to check the water you are drinking. MWRA conducts tens of thousands of tests per year on over 120 contaminants (a complete list is at www.mwra.com).

The only contaminants found are listed below, and all levels met EPA's standards. 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	0.01	0.009-0.011	2	No	Common mineral in nature
MONO-CHLORAMINE	ppm	4-MRDL	1.9	0-3.6	4-MRDLG	No	Water disinfectant
FLUORIDE	ppm	4	1.02	0.36-1.2	4	No	Additive for dental health
NITRATE^	ppm	10	0.14	0.06-0.14	10	No	Atmospheric deposition
TOTAL TRIHALOMETHANES	ppb	80	12.2	1.0-35.4	ns	No	Byproducts of water disinfection
HALOACETIC ACIDS-5	ppb	60	12.4	0-35.4	ns	No	Byproducts of water disinfection

**KEY:** MCL=Maximum Contaminant Level. The highest level of a contaminant allowed in water. MCLs are set as close to the MCLGs as feasible using the best available technology. MCLG=Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. MRDL=Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. MRDLG=Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination. ppm=parts per million ppb=parts per billion ns=no standard ^As required by DEP, the maximum result is reported for nitrate, not the average.



### Tests in Community Pipes

MWRA and local water departments test 300 to 500 water samples each week for total coliform bacteria. These 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 total coliform samples in a month can 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 waste and can cause illness.

#### 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. In order to better understand the water supply and treated water, MWRA has voluntarily been testing for *Cryptosporidium* and *Giardia*.

Ongoing Reasearch For New Regulations				
Test	Measurement Units 2009 Average			
Cryptosporidium	oocysts per 100L	0.01^		
Giardia	cysts per 100L	0.17		
NDMA	ng/L	0.54*		

**KEY:** ng/L=nanograms per liter (parts per trillion) ^Proposed treatment threshold is 1 oocyst per 100 liters. \*The DEP "guidance value" is 10 ng/L

#### **Total Coliform Results**

Community	Highest % of positive samples and month	Violation of EPA's 5% limit
Boston	0.4% (May)	No
Chelsea	2.3% (April)	No
Everett	2.3% (April)	No
Framingham	1.3% (Nov)	No
Newton	1.0% (Feb)	No
Somerville	9.4% (Oct)	Yes*
Southborough	1 of 14 (Sept)	No
Waltham	1.2% (Sept)	No
Winthrop	3.7% (April)	No
MWRA	0.7% (Sept)	No

How Did We Do In 2009?
The table reports test results from 30 communities that receive all of their water from MWRA. Total coliforms were

found in nine communities. No *E.coli* was found in any MWRA community in 2009.

\* Residents of Somerville should read their community letter for more information.

# Important Information from EPA and DEP

#### Drinking Water and People with Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 particulary 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 microbial contaminants are available from the 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 Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.



## 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 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.

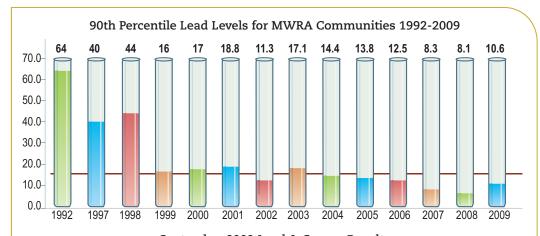
In 1996, MWRA began adding sodium carbonate and carbon dioxide to adjust the water's pH and buffering capacity. This change has made the water less corrosive, thereby reducing the leaching of lead into drinking water. Lead levels found in sample tests of tap water have dropped by over 80 percent since this treatment change.

#### **MWRA MEETS LEAD STANDARD IN 2009**

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 12 sampling rounds over the past six years have been below the EPA standard. Results for 453 samples taken in September 2009 are shown in the table. 9 of 10 houses were below 10.6 ppb, which is below the Action Level of 15 ppb. Some individual communities had more than one home test above the Action Level for lead. If you live in one of these communities, your town letter will provide you with more information.



#### September 2009 Lead & Copper Results

	Range	90% Value	(Target) Action Level	(Ideal Goal) MCLG	# Homes Above AL/ # Homes Tested
Lead	1.2-78.8 ppb	10.6 ppb	15 ppb	0	23/453
Copper	0.003-0.93 ppm	0.14 ppm	1.3 ppm	0	0/453

**KEY:** AL=Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Definition for MCLG available on page 4.

#### 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 pipes leading to your home.

Check your plumbing fixtures to see if they are lead-free. Read the labels closely.

Test your tap water. Contact MWRA at 617-242-5323 or www.mwra.com for more tips and a list of certified labs.



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 health 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 at www.epa.gov/safewater/lead.







## **Water Conservation**

Wasting water can add up quickly. On average, each person uses about 65 gallons of water each day. More efficient water use can reduce the impact on the water supply and on your wallet. Here are some ways to make your home and your habits more water efficient

#### The Inch Rule for Saving Water Outdoors

Most lawn, 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.



#### **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 pavement.

• Never water on a windy, rainy, or hot day.

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



#### How to Find and Fix 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 cause of leaks in faucets and showerheads. A new washer generally costs about 25 cents.



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 tank and allow it to dissolve. Wait about 8 to 9 minutes. Inspect the toilet bowl for signs of dye indicating a leak.

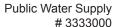
If the dye has appeared in the bowl, your flapper or flush valve may need to be replaced. Parts are inexpensive and fairly easy to replace. If no dye has appeared in the 8 to 9 minutes, you probably don't have a leak.

#### Install a Low-Flow Showerhead and Faucet Aerator

Some showerheads may still use over 5 gallons per minute. A low-flow showerhead uses 2.5 gallons 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 of water per minute – a low-flow aerator can reduce the flow by about 25%.

For more water saving ideas or devices, call 617-242-SAVE or go to <a href="https://www.mwra.com">www.mwra.com</a>.







## TOWN OF WESTON DEPARTMENT OF PUBLIC WORKS

190 Boston Post Road By-Pass, Weston, MA 02493 Telephone: 781-893-1263 Fax: 781-899-5690

Water Division: 781-893-2363

The Town of Weston's Department of Public Works is pleased to provide this annual water quality report to our customers in accordance with state and federal regulations. This report also reminds you of the great effort the MWRA and Weston Water Division undertake to provide potable water that meets or exceeds every applicable federal, state or local standard.

WESTON'S WATER SYSTEM: The Weston Water Division maintains 105 miles of distribution mains, 946 fire hydrants and 3,642 water service connections. The Wellesley Street Pumping Station supplies an average of 1.345 million gallons of water per day to Weston consumers. Four water storage tanks with a total capacity of 2.7 million gallons provide ample gradient pressure and emergency water supply for the Town. Your drinking water is purchased from the Massachusetts Water Resources Authority.

LEAK DETECTION: The Town of Weston undergoes an annual leak detection survey to find leaks in the water distribution system. This year's survey found 1 water main leak and 6 leaking fire hydrants that were promptly repaired.

BACKFLOW PREVENTION: The Town of Weston continues to enforce the DEP mandated cross connection control and prevention program to prevent contamination of the public water distribution system. The Town conducted 409 backflow prevention device tests on 165 facilities in 2009.

HYDRANT FLUSHING PROGRAM: The Water Division completed the annual comprehensive flushing program expending over 2.1 million gallons of water in order to remove naturally occurring sediments, which if left in the water mains over time could cause taste, odor and turbidity problems to consumers.

WATER SYSTEM MAINTENANCE: In 2009 the Water Division repaired 5 main breaks, 8 service line leaks and 3 leaking hydrants while replacing 12 fire hydrants. The Wellesley Street Pump Station underwent rehabilitation during the past year, including the installation of a computerized SCADA system, computer programmers and energy efficient pumps, controllers and lighting. Water main replacements occurred on Shady Hill Road (645 feet of 8 inch main) and Webster Road (650 feet of 8 inch main).

NOTICE OF NONCOMPLIANCE: Due to a clerical error on the Water Division's 2009 Annual Statistical Report, the Massachusetts DEP issued a notice of noncompliance for the Town's cross connection device testing program. The DEP was provided documentation that all backflows devices in Weston were tested according to regulations. However, the DEP refused to rescind the issuance of the notice.

LEAD IN YOUR WATER: The Town of Weston is concerned about lead in drinking water. Although the water we supply your home does not contain lead, the Weston Water Division tests water annually in homes that may contain lead bearing service lines, plumbing or fixtures. The Town tests fifteen homes for evidence of lead twice per year. The 90th percentile for Weston was 3.23 ppb (parts per billion), which is below the Action Level of 15 ppb. Please see page 5 of this report for more information.

The Town of Weston's Department of Public Works is committed to providing the safest and highest quality water possible to our customers. For more information please contact the Water Division at 781-893-2363.

Robert L. Hoffman DPW Director of Operations

Russell J. Ferrelli Water Superintendent