



tap water  
tap water  
tap water  
tap water  
tap water  
tap water  
hits  
the  
spot



Massachusetts Water Resources Authority 2001 Drinking Water Tests Results



Massachusetts Water Resources Authority  
 100 First Avenue, Boston, MA 02129 • Telephone: (617) 242-5323 • Fax: (617) 242-5324 • www.mwra.com

June 20, 2002

Dear Customer,

The Massachusetts Water Resources Authority is pleased to send you this annual report on your drinking water quality. MWRA takes many steps to provide you high quality tap water including an extensive water quality monitoring and testing program. This report includes test results for 2001 and other important information about your tap water. MWRA has great confidence in the water that is delivered to our over 2 million customers and we want you to have this same confidence.

I also want to assure you that we have increased security along the entire water system and we are well along in a major program to ensure reliability of the water supply system. That program begins with reservoir protection and also includes the construction of new pipes, storage tanks and treatment facilities to modernize the system. We are achieving these water quality and reliability improvements, while keeping the existing system up and running.

This is the largest investment made in the water system since our forefathers planned the massive system of pristine reservoirs, gravity-powered aqueducts and thousands of miles of pipes that have provided us with fresh water for over one hundred years. We now owe it to the coming generations to leave them with an even better water system to last through the next century.

I hope you will take a few minutes to read this important report. Please contact us if you have any questions or comments - not just about water quality, but about any of MWRA's programs.

Sincerely,

Frederick A. Laskey  
 MWRA Executive Director

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

## WHAT IS INSIDE?

To learn where your water comes from, see [page 3](#).

To learn more about how your water is treated and delivered to you, see [page 4](#).

To learn about what improvements MWRA is making to the water system, see [page 4](#).

MWRA follows, and even goes beyond, federal and state requirements for number of tests completed. We test for over 120 contaminants in your tap water, see [page 5](#) for the results.

Tests at the Quabbin and Wachusett reservoirs continue to show that the source waters are well protected. See [page 5](#) for further information.

Results of more than 20,000 tests for bacteria in community pipes are summarized on [page 6](#).

For a special EPA notice for immunocompromised people, see [page 7](#).

Lead levels in tap water have dropped dramatically over the last 10 years. For more information on lead and tips on how to reduce lead levels at your home, see [page 8 and 9](#).

For a list of resources for further information, see [page 10](#).

For more information on your community water department, see [page 11](#).

## SHARE YOUR THOUGHTS

Your comments on last year's report helped us improve it. Give us a call, send a letter or e-mail, and let us know what you think.

Massachusetts Water Resources Authority  
 100 First Avenue, Boston, MA 02129  
 (617) 242-5323, [www.mwra.com](http://www.mwra.com)





Quabbin Reservoir holds 412 billion gallons of high quality water

# 2001 report on your tap water

THE MASSACHUSETTS WATER RESOURCES AUTHORITY (MWRA) supplies wholesale water to local water departments in 39 cities and towns of greater Boston and MetroWest, and three in Western Massachusetts. In partnership with your local water department, we present you with our 2001 Report that describes how we treat, test, deliver, and report on the tap water that reaches your home. This yearly report is required under the Environmental Protection Agency's Safe Drinking Water Act.

We want to thank the local water and health departments who worked with us on this report. They are also ready to answer your questions. Please read your community's insert on page 11 for contact information.



## **Q&A** How would I know about a problem with the water supply?

MWRA and your local water department keep close watch on the water supply. The law requires that you be told if there is a problem with your water. You would get the news from radio, television and newspapers, from MWRA, your local water and health departments, and the state Departments of Public Health and Environmental Protection.

# Where does your water come from?



Your water comes from Quabbin Reservoir, about 65 miles west of Boston, and Wachusett Reservoir, about 35 miles west of Boston. Water from the Ware River, located between these two reservoirs, can also add to the supply at times. The reservoirs provide about 250 million gallons of high quality water each day.

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

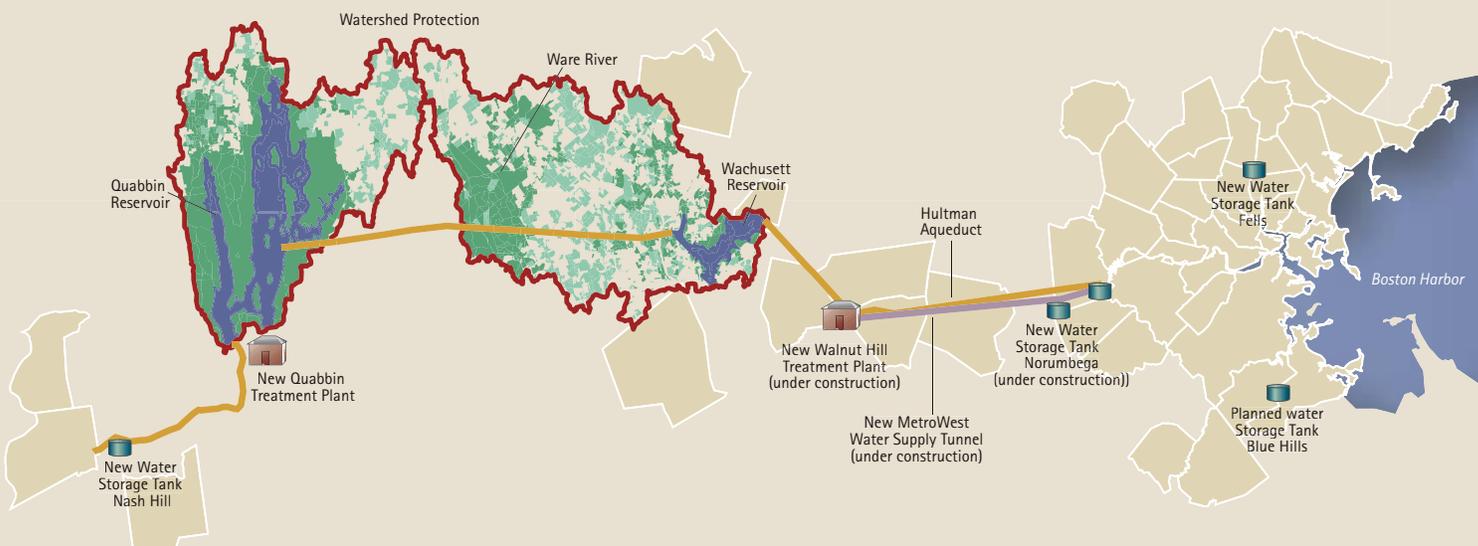
path to the reservoirs. While this process helps clean the water, it can also dissolve and carry very small amounts of material into the reservoir. Minerals from soil and rock, including low levels of natural radioactive materials, do not usually cause problems in the water. But water can also transport contaminants from human and animal activity. These can include bacteria, viruses, pesticides, and fertilizers--some of which can cause illness. The test data in this report show that these are not a problem in the reservoirs' watersheds.

Quabbin and Wachusett watersheds are protected naturally as over 85% of the watersheds are covered in forest and wetlands. About 75% of the total watershed land cannot be built on. The natural undeveloped watersheds help to keep MWRA water clean and clear. To ensure safety, the streams and the reservoirs are tested often by MWRA and patrolled daily by the Metropolitan District Commission (MDC).



## Q&A How is your water protected?

MDC rangers, in partnership with MWRA, patrol both the Quabbin and Wachusett Reservoirs' watersheds daily. Also, every day, the water is tested for many parameters, and many more are tested weekly and monthly. Licensed operators ensure that your community receives high quality water 24 hours a day, 365 days a year.



# Water Treatment



## Q&A I've read about arsenic in water. Should I be worried about my water?

No, you do not need to worry. Only very small amounts of arsenic were found in MWRA's surface water supplies, well below the current, future, and all proposed EPA standards. Arsenic is a mineral that is found in some water supplies and primarily in well supplies. It can enter into water through erosion of natural mineral deposits or through mining or industrial waste.

## How is our water treated?

MWRA's licensed treatment operators treat water at a number of places in the system. The first treatment step is the primary disinfection of reservoir water. The operators carefully add measured doses of chlorine to the water to kill any pathogens (often called "germs") that may be present in the water.

Next we adjust the water chemistry to reduce corrosion of lead and copper from home plumbing (for more information see page 8 and 9). Fluoride is then added to reduce cavities. Last, we add chloramine, a mild and long lasting disinfectant combining chlorine and ammonia, which protects the water while it is in the local pipelines.



## Future treatment

MWRA is building a new water treatment plant at Walnut Hill in Marlborough that will begin operating in 2004. It will consolidate all treatment steps into one plant and will use ozone rather than chlorine for primary disinfection. It will provide stronger

disinfection for pathogens, such as *Cryptosporidium*, and will reduce levels of disinfection byproducts. Chloramines will continue to be used as residual disinfection to protect water while in the pipelines.

## Major improvements underway

MWRA's Integrated Water Supply Improvement Program is a 10-year, \$1.7 billion series of projects to protect watersheds, and build new water treatment and transmission facilities. It is more than halfway along and scheduled to be complete and on-line by 2004. The major components are:

**MetroWest Water Supply Tunnel** We are about 95 percent done with a 17-mile-long tunnel to connect Walnut Hill to the greater Boston area. This will provide back-up to the aging Hultman Aqueduct, constructed in 1941. The tunnel is fully bored and the cement lining is almost complete.

**Water Storage Tanks** We have been building covered storage tanks to replace small open reservoirs near cities and towns. This lessens the risk that contaminants will get into your tap water, and is required by the State Department of Environmental Protection's (DEP) rules. Tanks in Stoneham, Ludlow, and Weston are complete. Construction of another in Weston, to replace the last open reservoir still in service, will be finished in 2004.

**Pipeline Rehabilitation** MWRA and local water departments are working to replace, clean, and reline both MWRA and locally owned older pipes.

# Water test results

## Before Treatment

Your water is tested each step of the way – from the reservoir to the tap. Test results show few contaminants are found in our reservoir water. Those few that are found are present in very small amounts, well below EPA’s standards. Turbidity (or cloudiness of water) is one measure of overall water quality. Quabbin and Wachusett reservoir waters are below both EPA’s standard of 5.0 NTU (Nephelometric Turbidity Units) and the stricter Massachusetts’ standard of 1.0 NTU. Typical levels are 0.3 NTU and the highest level found was 0.997 NTU.

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. All test results were well within state and federal standards. Neither *Cryptosporidium* nor *Giardia* was found in weekly samples of water. No viruses were found in monthly samples of water.

## After Treatment

EPA and DEP regulations also require many water quality tests after treatment. MWRA follows, and even goes beyond, these tests. This allows us to better monitor your water.



**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 25.6 mg/L (about 6 mg per glass).

**WHAT DOES THIS TABLE TELL ME?** EPA requires that we test for over 120 contaminants. MWRA found only the 10 listed here as well as those listed on the next pages.

**WHAT IS THE BOTTOM LINE?** All of these levels are lower than EPA’s Maximum Contaminant Levels (MCLs).

RESERVOIR WATER TEST RESULTS – AFTER TREATMENT

Compound	Units	(MCL) Highest Level Allowed	(We found) Detected Level	Range of Detections	(MCLG) Ideal Goal	Violation	How it Gets in the Water
Arsenic	ppb	50	1.18	0.91-1.18	ns	NO	Erosion of natural mineral deposits
Barium	ppm	2	0.015	0.005-0.015	2	NO	Common mineral in nature
Cadmium	ppb	5	0.56	0.56	5	NO	Erosion of natural mineral deposits
Chromium	ppb	100	2.17	0.73-2.17	100	NO	Erosion of natural mineral deposits
Fluoride	ppm	4	1.3	0.84-1.3	4	NO	Additive for dental health
Nitrate	ppm	10	0.49	0.016-0.49	10	NO	Natural deposits, stormwater/fertilizer runoff
Alpha Emitters	piC/l	15	0.87	0.87	0	NO	Erosion of natural mineral deposits
Combined Radium	piC/l	5	0.57	0.5-0.57	0	NO	Erosion of natural mineral deposits
Total Trihalomethanes	ppb	Avg=80	Avg=67	37-98	0	NO	Byproducts of water disinfection
Haloacetic Acids - 5	ppb	Avg=60	Avg=38	3-56	0	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. ns= no standard ppm= parts per million - about one drop in one 55 gallon barrel of water ppb = parts per billion - about one drop in 1000 barrels of water piC/l = picoCuries per liter Avg = Average



## Q&A Should I worry about byproducts from disinfecting the water?

The use of disinfectants, such as chlorine, to kill germs creates byproducts as the chlorine reacts with natural matter in the water. EPA’s new standards require that the average of all samples be below 80 ppb for trihalomethanes and below 60 ppb for haloacetic acids. Your water meets these stricter standards. Also, MWRA will replace chlorine with ozone as the main disinfectant in our new treatment plant in 2004, a step that will reduce these substances to even lower levels.

# Results for treated water in community pipelines



## Q&A My water is cloudy or discolored once in a while. Can I drink it?

Water is piped under pressure throughout the system. Sometimes air can become trapped in the water causing cloudiness. This is only temporary and the water clears up in a short time.

Rust from old iron pipes can cause a red, brown, or yellow color in water. Changes in water speed or direction in your local pipes cause rust to be carried along with it. This can happen when the valves are being repaired, the system is being flushed or tested, or fire hydrants are in use. Wait until the water is clear before doing laundry to avoid staining clothes.

You can safely drink, cook with, or bathe in this water.



Mary Bezek examines bacteria samples

MWRA and local water departments work together to test water all the way to the tap. We test 300 to 500 samples of water in the city and town systems each week for total coliform bacteria. Total coliform bacteria can come from the intestines of warm-blooded animals, and they also can be found in soil, on plants, and other places. Most of the time, these bacteria are not harmful to humans. However, their presence could signal that harmful bacteria from fecal waste may be there as well. The EPA requires that no more than 5 percent of the samples in a given month may be positive for total coliform. If a water sample tests positive for total coliform, we run more specific tests for *E. coli*. *E. coli* is a pathogen (germ) found in human and animal fecal waste that can cause illness.

## New EPA Regulations

MWRA has been working with EPA to define new national drinking water rules by testing for compounds which are not regulated. Our results will be used with those of other water suppliers to help EPA set regulations for these compounds if they are necessary.

## How did we do in 2001?

The table reports test results from 39 communities. Small amounts of total coliform were found in 11 communities. Only three of these communities exceeded the EPA standard. In over 115 follow-up tests, no *E. coli* was found. For further information on total coliform results, please read your community's letter.

### TOTAL COLIFORM RESULTS

Community	Highest % of positive samples and month	Violations of EPA's 5% limit
Boston	0.4% (April and Nov.)	No
Cambridge	2.5% (July)	No
Framingham	3.7% (January)	No
Marlborough	2.0% (January)	No
Northborough	25.0% (July)	Yes*
Somerville	1.2% (July)	No
Southborough	1 of 16 (August)	No**
Wakefield	4.0% (September)	No
Wellesley	2.4% (June)	No
Weston	8.3% (July)	Yes*
Winthrop	10.0% (July)	Yes*

\* See community letter for further information on actions taken to address 5% Coliform Rule exceedance  
 \*\* No notification required if only 1 positive in less than 40 samples

### ONGOING RESEARCH FOR NEW REGULATIONS

Test	Measurement Units	1998-1999 Average
Chloropicrin	ppm	0.0007
Chloral Hydrate	ppm	0.0017
Cyanogen Chloride	ppm	0.0010
Haloacetonitriles	ppm	0.001
Haloketones	ppm	0.0016
Total Organic Halides	mg Cl/l	0.210

ppm = parts per million  
 mg Cl/l = milligrams of chloride per liter

# 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 is 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 disorder, 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 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 contamination. 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, Massachusetts DEP and EPA prescribe regulations that 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 that must provide the same protection for public health.

## Note on testing

In the first quarter of 2001, MWRA sampled for 45 synthetic organic compounds. Though the lab we used for testing was certified for these compounds in other states, the lab turned out not to be certified in Massachusetts for two of them, Atrazine and Simazine. The test results, and all testing before and after using certified labs, showed no trace of these compounds. However, DEP's rules required that they issue MWRA a notice of non-compliance.

## Notice on Norumbega Reservoir

Until the new covered storage tank is completed, the Massachusetts DEP requires that MWRA publish the following non-compliance notice: "A small percentage of water leaving Norumbega Reservoir is not adequately disinfected to kill disease causing organisms in conformance with federal and state drinking water regulations.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches."



**Q&A** My water sometimes has a "strange" taste or odor. Can I drink it?

Sometimes algae can cause a "fishy" or "grassy" odor. You can safely drink, cook with, or bathe in this water. Algae are normal, harmless plants that appear in the reservoirs at certain times of the year. MWRA treats the reservoirs to control algae. If you have a concern, call the MWRA or your local water department.



Chris Wu checking samples at Deer Island

# Lead in drinking water



## Q&A What can I do to reduce exposure to lead in drinking water?

- Run the tap water until the water feels cold. Then fill a jug with water and place in 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.
- Be aware 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's Lead Exposure Office at 617-284-8400 if you have questions.

## Lead is everywhere

Whether you live in an apartment or single family home, in an old or new neighborhood, lead is in your environment. It can be found in lead-based paint, soil, household dust, food, and certain types of pottery, porcelain, and pewter. Lead may



also be found in tap water. Lead can pose a risk to your health if too much of it enters the body.

Most cases of lead poisoning are from contact with peeling lead paint and lead paint dust. Although lead in tap water is rarely the single cause of lead poisoning, it can increase a person's total lead exposure, particularly in infants who drink baby formula or concentrated juices that are mixed with water. The Environmental Protection Agency (EPA) estimates that water can make up to 20% of a person's total exposure to lead.

## 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 the 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 use.

## What is being done to reduce lead in tap water?

MWRA and your local water department are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes may have higher levels.

MWRA is taking steps to make its water less corrosive, thereby reducing the leaching of lead into drinking water. In 1996, MWRA began operating a new facility in Marlborough to adjust the water's pH and buffering capacity. This change has made the water less likely to leach lead from the pipes. Lead levels found in sample tests of tap water have dropped significantly since this treatment change. Also, local water departments are working to decrease lead corrosion by replacing existing lead service lines.



Under EPA rules, each year MWRA and your local water department must test tap water in 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 these sampled homes must have lead levels below the Action Level of 15 parts per billion (ppb).

## Good news on lead

Lead levels in sampled worst case homes have dropped since 1992. Results for 2001 are shown in the table, with an overall test score of 88.5%, just missing the passing grade of 90%. Nine of 10 houses were below 18.8 ppb.

### Should I buy a water filtration system?

Some water filtration systems do not remove lead. Before you purchase a filter, you should verify the manufacturer's claims. A good resource is the National Sanitation Foundation ([www.nsf.org](http://www.nsf.org) or 1-877-867-3435). Simply running the tap for 30 seconds is usually a cheaper but effective alternative.

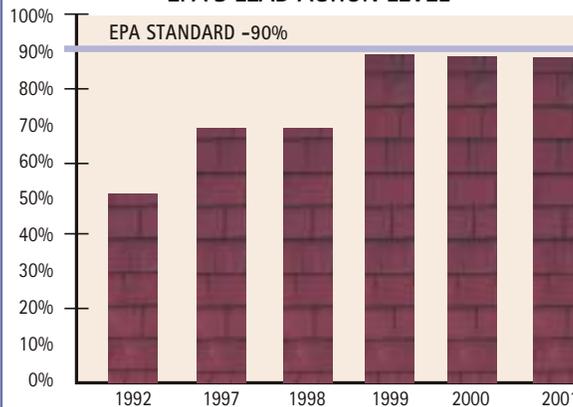


#### LEAD AND COPPER RESULTS FOR 2001

	90% value	Range	Action Level	MCLG	# homes that exceeded AL/ # homes tested
LEAD	18.8 ppb	0 -62 ppb	15 ppb	0	52 of 442
COPPER	0.0125 ppm	0 -1.1 ppm	1.3 ppm	0	0 of 442

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.  
**Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

#### PERCENTAGE OF HOMES THAT MET EPA'S LEAD ACTION LEVEL



## Important information from EPA about lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kid-

ney problems or high blood pressure. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.



### Additional Steps

- Clean the faucet aerator. Every few months remove the faucet aerator from each faucet in your home, and flush the pipes for three to five minutes to remove any loose lead solder or debris.
- Have an electrician check your wiring. Wires from electrical systems grounded to a lead service pipe can add lead to tap water.
- Should I buy bottled water? If your water has elevated levels of lead after flushing, bottled water is an option, but it may cost as much as 1000 times more than tap water.



## WHERE TO GO FOR FURTHER INFORMATION

Health Issues	Websites	Phone
Massachusetts Department of Public Health (DPH)	<a href="http://www.state.ma.us/dph">www.state.ma.us/dph</a>	(617) 624-6000
Massachusetts DPH Lead Exposure Office	<a href="http://www.state.ma.us/dph">www.state.ma.us/dph</a>	(617) 284-8400
US Centers for Disease Control and Prevention (CDC)	<a href="http://www.cdc.gov">www.cdc.gov</a>	(800) 311-3435
<b>Water System and Regulations</b>		
Massachusetts Water Resources Authority (MWRA)	<a href="http://www.mwra.com">www.mwra.com</a>	(617) 242-5323
Massachusetts Department of Environmental Protection	<a href="http://www.state.ma.us/dep">www.state.ma.us/dep</a>	(617) 292-5770
Metropolitan District Commission-Division of Watershed Management	<a href="http://www.state.ma.us/mdc/water.htm">www.state.ma.us/mdc/water.htm</a>	(617) 727-5274
US Environmental Protection Agency (EPA)/ EPA Safe Drinking Water Hotline	<a href="http://www.epa.gov">www.epa.gov</a>	(800) 426-4791
<b>Public Meetings</b>		
MWRA Board of Directors	<a href="http://www.mwra.com/org/html/gov.htm">www.mwra.com/org/html/gov.htm</a>	(617) 788-1117
MWRA Advisory Board	<a href="http://www.mwra.com/advbd/html/hpadbd.htm">www.mwra.com/advbd/html/hpadbd.htm</a>	(617) 742-7561
Water Supply Citizens Advisory Committee	<a href="http://www.mwra.com/org/html/wscac.htm">www.mwra.com/org/html/wscac.htm</a>	(413) 586-8861
<b>Additional Information</b>		
List of State Certified Water Quality Testing Labs	<a href="http://www.mwra.com/water/html.qual6.htm">www.mwra.com/water/html.qual6.htm</a>	(617) 242-5323
Information on Water Filters-National Sanitation Foundation	<a href="http://www.nsf.org">www.nsf.org</a>	(877) 867-3435

Thank you for reading this report. Please call us with any questions or comments at (617) 242-5323.



### Q&A Is my water hard or soft?

Your tap water is considered "soft" and it is good for laundry and shampooing. Water is measured by the "hardness"- which is the amount of dissolved minerals in it. MWRA water has a hardness of about 12 mg/l (or less than 1 grain/gallon by older measures). For comparison, "hard" water would have greater than 75 mg/l hardness. Therefore, you do not need to add softeners to your dishwater or for laundry. If you have specific questions on the character of your water, feel free to contact us.

# Water conservation

Wasting water can add up quickly. On average, a family of four uses 90,000 gallons of water each year, or each person uses about 60 gallons of water each day. Consumers are discovering that more efficient water use can reduce the impact on the water supply and their wallets. Here are some ways to make your home and your habits more water efficient.

## Fix Leaks

A leaky faucet is easy to see. But hidden leaks in the toilet, under the sink, or behind a washing machine can waste large amounts of water and also damage floors or ceilings. Take a reading of your water meter. Wait an hour, making sure no one uses any water in your home. Check it again. If the reading has changed, you've got at least one leak. Investigate!

## Install a Low-Flush Toilet

Toilets account for over a third of the water used in most homes. Installing a new ultra low flush toilet will save thousands of gallons each year and can reduce your bathroom water use by more than half.

### How much does installing a 1.6 gallon toilet save?



## 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 or less and can save you over 20 gallons per 10-minute shower. In one year, that's over 7000 gallons. Faucets can use 2 to 7 gallons of water per minute - a low-flow aerator can reduce the flow by about 25%.



## Outdoor Water Savings Tips

Summer is an especially important time to save water. Water consumption can increase up to 50% in the summer months due to outdoor water use.

### TIPS TO SAVE WATER OUTDOORS

- Water your lawn (and other landscaping) in the early morning or evening to avoid evaporation.
- Be sure sprinklers water only your lawn, not the 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.
- Apply mulch around flowers to reduce evaporation, promote plant growth, and control weeds.

### THE INCH RULE

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 need 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.

## Further Information

For further information on any of the above tips or for more water saving tips, please call 617-242-SAVE or visit [www.mwra.com](http://www.mwra.com).

# City of Boston

Boston Water and Sewer Commission



Public Water Supply ID#: 3035000

980 Harrison Avenue  
Boston, MA 02119

June, 2002

## Dear Water Consumer:

This Drinking Water Report is an annual update on the quality of drinking water supplied by the Boston Water and Sewer Commission (BWSC) in partnership with the Massachusetts Water Resources Authority (MWRA). This report for 2001 provides detailed information on the water delivered to Boston consumers as determined through federal and state testing guidelines.

## Continuous Improvements

Boston's water distribution system consists of an extensive network of water mains, valves and hydrants that are inspected and maintained by BWSC to provide the highest quality water to your home or business. To ensure the uninterrupted supply of high quality, potable water at adequate pressure for consumption and fire protection, Boston is continuing to upgrade its infrastructure. On an annual basis, BWSC assesses the water distribution system and develops a three-year plan for improvements. Approximately 17 miles of water main are rehabilitated or replaced each year.

## Water Quality Testing

BWSC routinely tests water samples to assure consumers that they are receiving water of the highest quality. In compliance with the Safe Drinking Water Act, 56 sites across the city are tested on a weekly basis for levels of coliform. Coliform is an indicator of elevated bacteria in drinking water, and in 2001 Boston's water supply did not violate the legal limit set in the Total Coliform Rule.

Under regulations established by the Environmental Protection Agency (EPA), BWSC tests water in homes that are likely to have high lead levels – usually homes with lead service lines or lead solder. The EPA's 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). The Fall 2001 results show 92% of sampled homes in Boston met the standard, with 9 out of 10 homes below 13.4 ppb. Please see page 8 of this report for further information about lead in MWRA's system.

## Use Water Wisely!

BWSC is committed to protecting our water supply as well as the water system. BWSC offers free water conservation kits for its residential property owners. Each kit contains a low-flow showerhead, faucet aerator and toilet tank dam. Reducing the amount of water we use on a daily basis could add up to significant savings on water and sewer bills and ensure an adequate water supply for future generations. Please contact the BWSC's Communications and Community Services Department at (617) 989-7000 for your free kit. For additional information, please visit our website at [www.bwsc.org](http://www.bwsc.org).

Any questions regarding the information of this insert may be directed to BWSC's Communications and Community Services Department at (617) 989-7000. Questions regarding water quality information in the drinking water report may be directed to the MWRA at (617) 242-5323.