

HERE'S TO WATER!

YOUR 2009 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.

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.

Si usted desea obtener una copia de este reporte en español, llámenos al teléfono 617-788-1190.

本報告書は重要な飲料水の品質に関する情報を提供しています。この報告書は、お知り合いの方に翻訳していただくか、お電話でご相談ください。

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

この資料では、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、親類をよんでください。

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.

এই প্রতিবেদনটি গুরুত্বপূর্ণ তথ্য প্রদান করে যা আপনার পানীয় জলের গুণমান সম্পর্কে। এটি ভালভাবে বুঝতে বা অন্য কারো সাহায্য নিয়ে বুঝতে পারুন।

Sprawozdanie zawiera ważne informacje na temat jakości wody w Twojej miejscowości. Poproś kogoś o przetłumaczenie go lub porozmawiaj z osobą która go dobrze rozumie.

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يحتوي هذا التقرير على معلومات هامة عن نوعية مياه الشرب في منطقتنا. يرجى ترجمته، أو البحث لتفسيره مع صديق لك يفهم هذه المعلومات جيداً.

Αυτό το έγγραφο περιέχει σημαντικές πληροφορίες σχετικά με την ποιότητα του νερού που πίνετε στην κοινότητά μας. Παρακαλούμε να το μεταφράσετε ή να το εξηγήσετε σε κάποιον που το κατανοεί καλά.

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Đảm bảo rằng có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông thạo, hoặc hỏi một người bạn biết rõ về vấn đề này.



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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)	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	617-742-7561
Water Supply Citizens Advisory Committee	www.mwra.com/02org/html/wscac.htm	413-586-8861



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



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DEAR CUSTOMER,

This report contains the 2009 test results on your drinking water. Hundreds of thousands of tests have confirmed that your water quality is excellent.

Over the last 25 years, MWRA has made major improvements to the water system that will ensure the delivery of great water to your tap for decades to come. One of the next areas of concern is invasive species in the reservoirs - controlling those that have already taken root, and guarding against new invaders, such as zebra mussels.

Please take a moment to read this important information. We want you to share our confidence in your drinking water.

Sincerely,

Frederick A. Laskey
Executive Director

Where does your water come from?

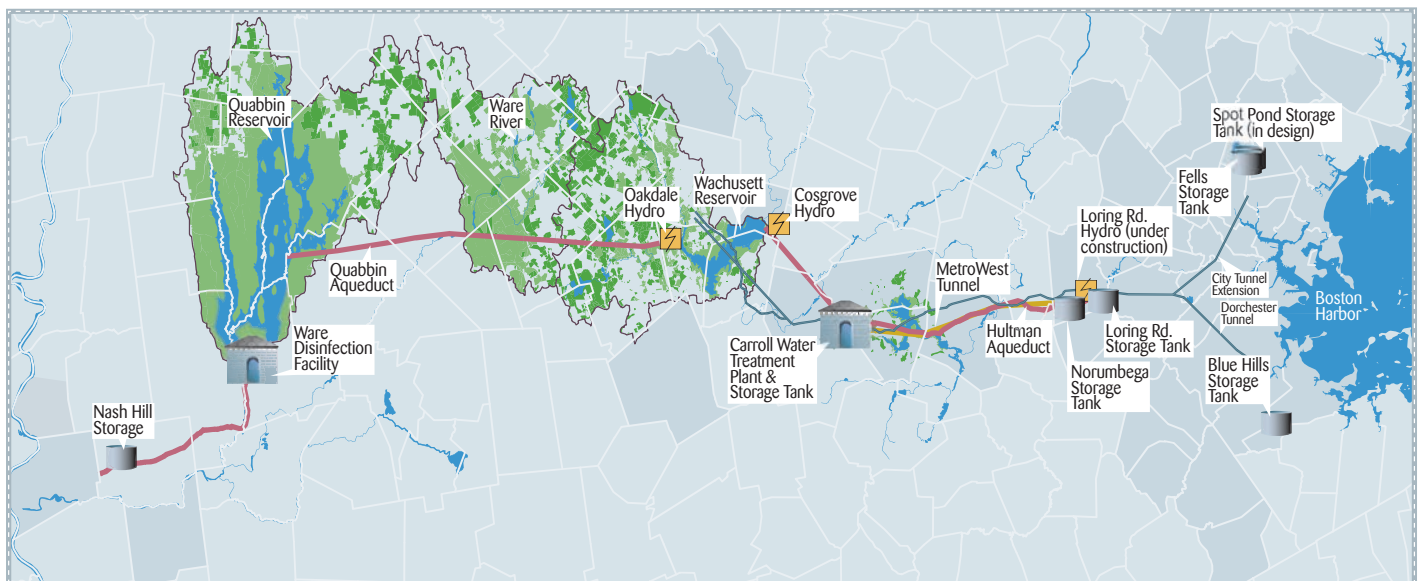
MWRA supplies about 10 million gallons of high quality water each day to three Chicopee Valley communities: Chicopee, Wilbraham, and South Hadley Fire District #1 (FD#1). MWRA also serves 48 cities and towns in greater Boston and MetroWest. Your water comes from Quabbin Reservoir. Water from the Ware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

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 – FROM THE RESERVOIR TO COMMUNITY PIPELINES

Your water is treated at the Ware Disinfection facility before it enters the Chicopee Valley Aqueduct. The first treatment step is the primary disinfection where MWRA's licensed operators carefully add measured doses of chlorine to water to kill pathogens that may be present. 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.

Water must travel through the 15-mile Chicopee Valley Aqueduct and through some of the hundreds of miles of local distribution pipes under your streets before it reaches your tap. To continue providing high quality water, each part of the water system needs routine maintenance and, when necessary, improvements or new facilities.

MWRA has begun design to add ultraviolet light (UV) disinfection to the water treatment plant to meet new EPA standards.



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 Quabbin Reservoir are 0.4 NTU. In 2009, turbidity was always below EPA's standard of 5.0 NTU. It was below the stricter Massachusetts standard of 1.0 NTU over 99.99% of the time, with the highest level at 4.92 NTU. This 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. All test results were well within state and federal testing and treatment standards.

Test Results - After Treatment

EPA and State regulations also 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 ones we find are listed below, and all levels met EPA's limits.

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	0.007	0.007-0.008	2	No	Common mineral in nature
FLUORIDE	ppm	4	0.02	0-0.05	4	No	Natural deposits
NITRATE ^A	ppm	10	0.017*	0.015-0.017	10	No	Natural deposits

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 ^AAs required by DEP, the maximum result is reported for nitrate, not the average.

Information About Cross Connections



Massachusetts DEP recommends the installation of back-flow 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 visit www.mwra.com/crosscon.html or call 617-242-5323

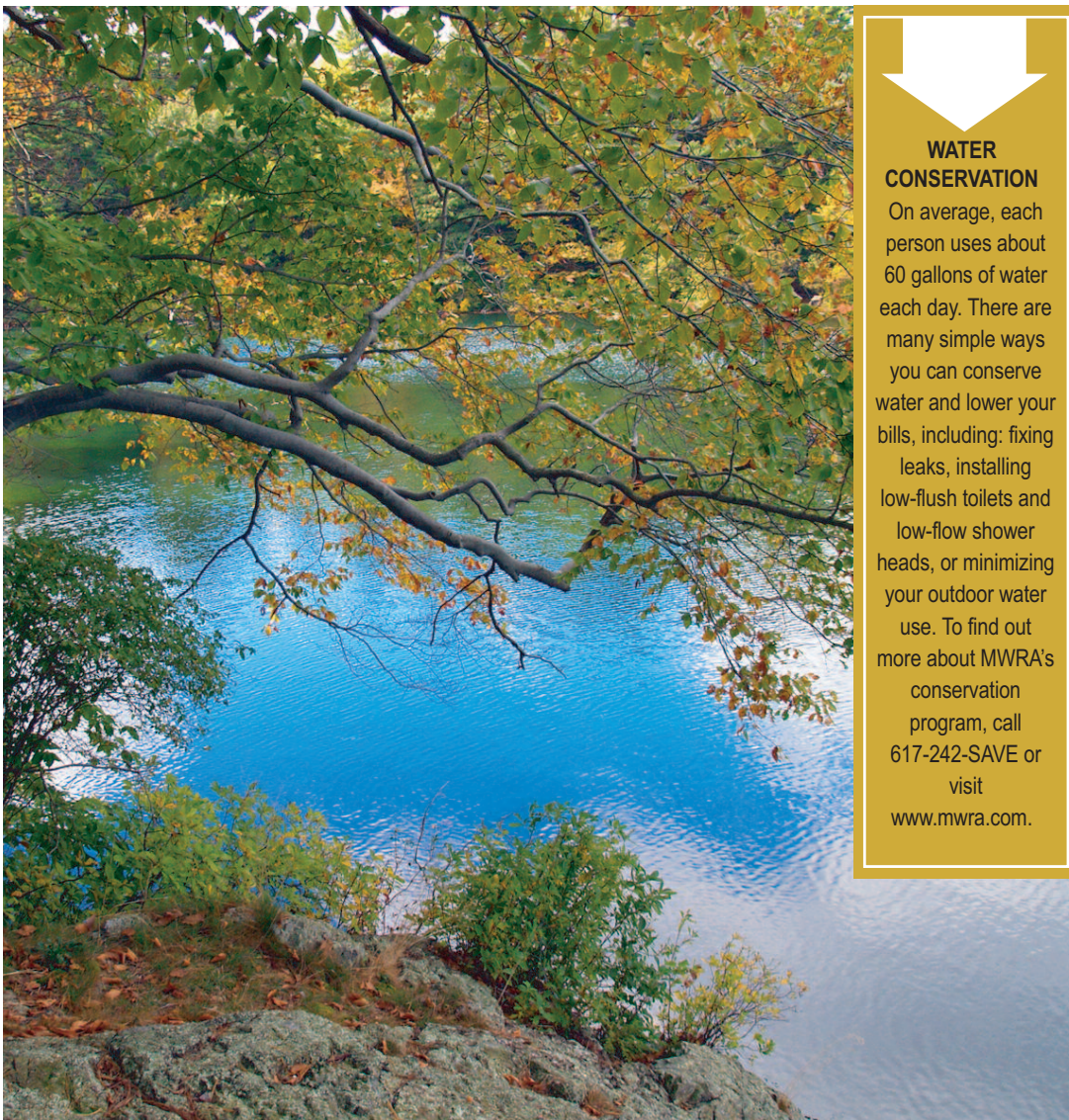
Are There Drugs In My Drinking Water?

You may have heard news reports about pharmaceuticals found in drinking water supplies in some parts of the country. Test results have shown no traces of drugs in MWRA's water supply. Pharmaceuticals in drinking water are more of a concern with wastewater discharges into them, but since MWRA's water sources are well protected, this is not a concern.



Bottle vs. Tap – The Smart Choice

Even though tap and bottled water must meet the same standards, bottled water costs hundreds of times more - a penny for tap compared to \$1 to \$8 a gallon for bottled. Tap water must meet more intensive Environmental Protection Agency (EPA) testing requirements than bottled water, which is regulated by the Food and Drug Administration (FDA).



WATER CONSERVATION

On average, each person uses about 60 gallons of water each day. There are many simple ways you can conserve water and lower your bills, including: fixing leaks, installing low-flush toilets and low-flow shower heads, or minimizing your outdoor water use. To find out more about MWRA's conservation program, call 617-242-SAVE or visit www.mwra.com.

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. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

▶ 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.

Results for Treated Water-In Community Pipelines



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 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. If a water sample tests positive for total coliform, we run more specific tests for E.coli. 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 2009. *Please see page 4 for more information.

How Did We Do In 2009?

Community	Highest % of positive samples and month	Violation of EPA's 5% limit
South Hadley FD #1	40.4% (October)	Yes*

▶ 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



All three CVA communities met EPA standards for 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 ARE WE DOING ABOUT LEAD?

Your local water department tests tap water at a number of homes in the communities. But not just any homes. Under Environmental Protection Agency regulations, homes that are likely to have high lead levels - usually older homes likely to have lead service lines or lead solder - must be tested. 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).

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. All three CVA communities were below the lead Action Level in 2009.



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 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 (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 or at www.epa.gov/safewater/lead.



Local Test Results for 2009

Your City or Town	Total Trihalomethanes (TTHMs) in ppb MCL=80 ppb (Avg) MCLG=0		Haloacetic Acids (HAA5) in ppb MCL=60 ppb (Avg) MCLG=0		Lead in ppb Action Level (AL) of 15 ppb MCLG=0		Copper in ppm Action Level (AL) of 1.3 ppm MCLG=1.3		Chlorine in ppm MRDL=4 ppm (Avg) MRDLG=4 ppm		Sodium in ppm
	Annual Average	Range	Annual Average	Range	#Samples over AL	90% value	#Samples over AL	90% value	Annual Average	Range	
Chicopee	35.2	23.4-57.6	30.2	17.6-37.9	0 of 30	1.8	0 of 30	0.15	1.0	0.15-1.44	14.9
South Hadley FD #1	41.8	16.7-52.7	17.1	10.8-24.9	2 of 30	7.8	0 of 30	0.03	0.46	0.03-0.79	7.3
Wilbraham	39.5	12.6-48.6	15.9	0.0-25.2	0 of 20	7.1	0 of 20	0.44	0.4	0.2-0.7	6.1
Westover-Air Force Base	34.2	22.9-45.4	23.5	16.6-31.0	0 of 10	4.5	0 of 10	0.29	0.88	0.35-1.29	NA

KEY: Definitions for MCL and MCLG are on page 2. **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. **AL**=Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **ppb**=parts per billion **ppm**=parts per million **NA**=not available



Your Community Information

Each community has specific treatment and improvements that are listed 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 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. In 2009, there were 30 samples collected for the analysis of lead and copper in Chicopee's drinking water. DEP 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 2012.

The Chicopee Water Department has also continued upgrading its SCADA (Supervisory Control and Data Acquisition) computer system by adding many new alarms and better overall control of its treatment processes.



➤ **Wilbraham**
 Phone: 413-596-2807
 PWS ID# 1339000

During 2009, the Water Division completed yearly lead and copper sampling at 20 homes and 2 schools in the distribution system. The results of the sampling were excellent; indicating our Corrosion Control Program (injecting Sodium Silicate) continues to work flawlessly as it has since its beginning in 1997. The Water Department has now been put on a once every three year cycle of lead and copper sampling. Our next scheduled residential sampling is set for 2012. Due to an MWRA oversight, Wilbraham failed to submit disinfection by-product results to DEP in the appropriate time frame. This resulted in a Notice of Non-Compliance (NON) in 2009. As soon as Wilbraham learned of the error, the data was submitted to DEP.

A new permanent Corrosion Control Facility is nearly complete. The new facility should be on-line and operational by the end of 2010. Upon start-up of the facility, DEP will perform a comprehensive inspection of its operation and safety features. As part of this project, alarms and sensors were upgraded at several locations across the water system. The Old Orchard Water Booster station had a major renovation with new suction and discharge headers installed. The work was completed during July 2009. The original six inch steel pipe headers had been a source of multiple failures over the last few years.

➤ **South Hadley FD #1**
 Phone: 413-532-0666
 PWS ID# 1275000

The District continues the successful use of Sodium Silicate for corrosion control in order to comply with the Lead and Copper Rule. This process has been effective for the past thirteen years. Sodium Silicate increases the pH of the water and also provides a coating on the inside of the residential plumbing systems to prevent any possible lead leaching into the water. We would like to thank the 30 residents and two schools that successfully performed the first draw samples of our last sampling round in June of 2009. The 90th percentile level for was 7.8 ppb, which is below the Action Level of 15 ppb. Our next sample round will be June of 2010. Back in October of 2009, the District received a Total Coliform Rule violation on one round of our routine bacteria samples. We suspect stagnant water in our Alvard St. water tank was the cause of the bacteria issue. Fortunately the issue was isolated to the northwestern section of the Distribution system. This resulted in the Department of Environmental Protection issuing the District a Notice of Non-Compliance (NON).

Locally, our crew has repaired four water main breaks throughout the Distribution system. In addition we have repaired three service leaks. These leaks had resulted in a significant loss of water. As part of our persistent commitment to improving the distribution system, our staff has replaced a total of 2500 ft. of water mains in the past year. In addition, we have begun the replacement of 2700 ft. of water main on Canal St. between West Summit and West Main Streets. We would like to thank the Community Development Advisory Committee and the Pioneer Valley Planning Committee for their efforts in securing the funds for the project. The project was started in the fall of 2009 and will be completed in 2010.