

2005 Water Quality Report

Important information about your drinking water

SHARON, MA 02067
POSTAL PATRON



Help to Protect Our Water Supply!

The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program (SWAP) Report for our water supply sources. The SWAP report assesses the susceptibility of public water supplies. A copy of the SWAP report is available at the Department of Public Works office. Our SWAP report has indicated that our groundwater is highly susceptible to contamination from residential activities adjacent to the wells; residential land uses; accidental spills from local roadways, Route 95 and the railroad; hazardous materials storage; existing contamination sites; and agricultural activities.

As a consumer, you have an impact on the quality of our water supply sources, and therefore, the quality of the water you drink. The land around our groundwater wells is mainly forested and residential with lesser amounts zoned as commercial. When rain falls or snow melts, the seemingly small amounts of chemicals and other pollutants around your property may be transferred by groundwater or overland flows to the wells.

Outside irrigation systems should be properly maintained to prevent wasting water and to ensure the purity of the public water supply. The following are recommended ways to maintain your outside irrigation system.

- Install quality sprinkler heads and keep them in good operating condition. Broken sprinkler heads that waste water should be replaced immediately.
- Position sprinklers so that the spray is directed on the lawn or garden, not on pavement or in areas where it is not needed.
- Avoid sprinklers that spray a fine mist, which increases evaporation. Avoid watering when it is windy. Wind causes water to evaporate quickly and blows water onto areas where it is not needed.
- Install a rain shut off-device or soil moisture sensor on automatic sprinklers to eliminate unneeded applications.
- Irrigation systems should be inspected annually in the spring prior to charging the system to ensure that they are operating properly without any leaks. Repair leaking pipes immediately.
- For any irrigation system, an approved backflow prevention device must be installed to prevent the backflow of contaminants into the potable water system.

OFFICIAL NOTICE
Department of Public Works
Town of Sharon

Town of Sharon
2005 Water Quality Report

The Quality of Your Drinking Water

The Sharon Department of Public Works (PWS ID - 4266000) is committed to providing our customers with high quality drinking water that meets or surpasses state and federal standards for quality and safety. To ensure delivery of a quality product, we have made significant investments in treatment facilities, water quality monitoring, and the distribution system. We are pleased to report the results of our 2005 water testing to inform you about your drinking water. Each year, we will be mailing you a report with information about annual water quality.

Sharon’s Water System Our water system includes six groundwater supply wells and pumping stations, four water storage tanks, and approximately 115 miles of water main. Our groundwater sources are of good quality and require minimal treatment. Our water is disinfected and treated for corrosion control to reduce the amounts of lead and copper in our water. Fluoride is added to our water to promote strong teeth.

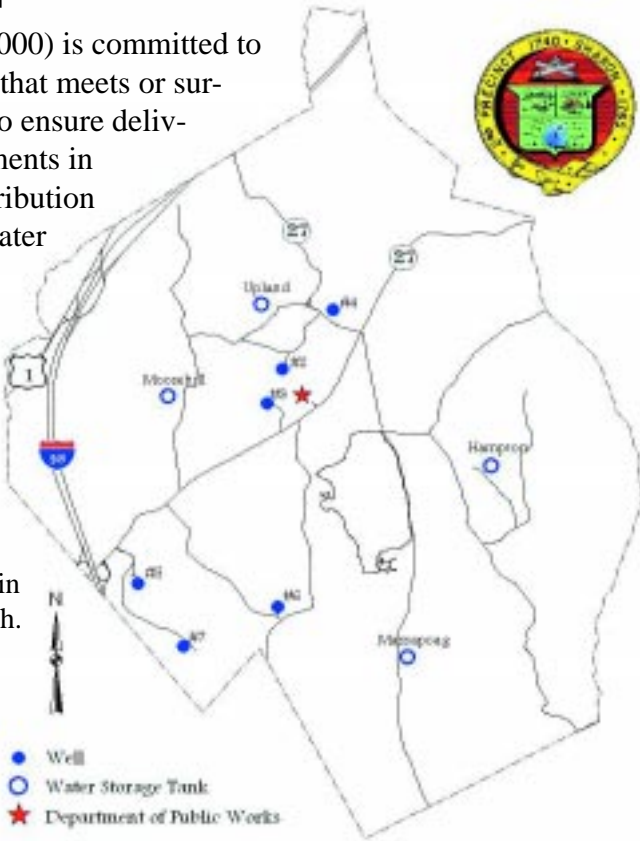
Water Use Efficient water use helps to conserve our water supplies. Find out about your own water usage. Divide the number of gallons you consumed on your water bill by the number of days since your prior bill. Then divide by the number of people liviing in your home. Your gallons per capita daily (gpcd) water use should not exceed 65 gpcd. Lower use means lower water bills.

Any Questions? Want to know more about the Sharon water supply system or interested in participating in the decision-making process? Please call Eric Hooper at the Sharon Department of Public Works at 781-784-1525 with any questions, comments, or concerns. Our offices are located at 217R South Main Street.

Want to Save Money on Your Water Bill? The Sharon DPW continues to offer an abatement on your water bill for up to \$200 for the purchase of a low-flow washing machine. In addition, we now offer up to a \$150 rebate for the purchase of an ultra low flow toilet. Please call the Sharon DPW at 781-784-1525 for further information.

Modernizing Our System Over the past several years, we have been engaged in an ambitious program to update our water system. The following summarizes our current goals:

- We are continuing to aggressively replace asbestos-cement and aging cast iron water mains in the distribution system.
- We are investigating different treatment options for water from Well No. 6. Treatment will improve the water quality from the well by removing manganese and iron.
- We are continuing to look for additional sources of water including new groundwater sources within Sharon, and permanent and emergency connections with MWRA, Bluestone-Aquaria and adjacent communities.



Water Quality Summary

Listed below are the 17 contaminants detected in Sharon’s drinking water in 2005. Not listed are over 100 other contaminants for which we tested but were not detected. The complete list of contaminants that we test for is available at the Department of Public Works office and at the Sharon Public Library.

Samples Collected from Our Water Supply						
Substance (Contaminant)	Units	Highest Level Detected	Range of Detection	Highest Level Allowed <small>(EPA's MCLs)</small>	Ideal Goals <small>(EPA's MCLGs)</small>	Sources of Contaminant
I N O R G A N I C C H E M I C A L S						
Asbestos ¹	mfl	0.57	–	7	7	Decay of asbestos cement in water mains, erosion of natural deposits
Fluoride	ppm	1.85	0.19 - 1.85	4	4	Water additive which promotes strong teeth Erosion of natural deposits
Nitrate	ppm	4.69	ND - 4.69	10	10	Runoff from fertilizer use; Leaching from Septic Tanks
Sodium ^{1,2,3}	ppm	28.2	10.8 - 28.2	NR	NR	Naturally present in the environment
Sulfate ^{2,4}	ppm	14.5	ND - 14.5	NR	NR	Naturally present in the environment
O R G A N I C C H E M I C A L S						
Bromodichloromethane ²	ppb	1.1	ND - 1.1	NR	NR	By-product of drinking water chlorination
Chloroform ²	ppb	1.3	ND - 1.3	NR	NR	By-product of drinking water chlorination
Chlorodibromomethane ²	ppb	1.3	ND - 1.3	NR	NR	By-product of drinking water chlorination
Perchlorate ^{1,2}	ppb	0.3	ND - 0.3	NR	NR	Oxygen additive in solid fuel propellent for rockets, missiles, and fireworks
M I C R O B I O L O G Y						
Turbidity ^{2,5}	NTU	1.2	ND - 1.2	NR	NR	Soil runoff; suspended material in water
R A D I O N U C L I D E S						
Alpha Emitters ¹	pCi/L	0.2	–	15	0	Erosion of natural deposits
Combined Radium ¹	pCi/L	0.7	0.1 - 0.7	5	0	Erosion of natural deposits

Samples Collected from Your Faucets						
Substance (Contaminant)	Units	Running Annual Average	Range of Detection	Highest Level Allowed <small>(EPA's MCLs)</small>	Ideal Goals <small>(EPA's MCLGs)</small>	Sources of Contaminant
O R G A N I C C H E M I C A L S						
Total Trihalomethanes	ppb	9.3	0.6 - 40.1	80	0	By-product of drinking water chlorination
Haloacetic Acids	ppb	1.1	ND - 6.1	60	0	By-product of drinking water chlorination
Substance (Contaminant)	Units	90th Percentile	Range of Detection	Action Level <small>(EPA's MCLs)</small>	Ideal Goals <small>(EPA's MCLGs)</small>	Sources of Contaminant
I N O R G A N I C C H E M I C A L S						
Copper (2 samples exceeded the action level)	ppm	0.77	0.070 - 1.93	1.3	1.3	Corrosion of household plumbing systems
Lead (1 sample exceeded the action level)	ppb	7.0	ND - 16	15	0	Corrosion of household plumbing systems

Samples Collected from Your Faucets (Cont.)						
Substance (Contaminant)	Units	Highest Level Detected	Range of Detection	Highest Level Allowed <small>(EPA's MCLs)</small>	Ideal Goals <small>(EPA's MCLGs)</small>	Sources of Contaminant
D I S I N F E C T A N T						
Chlorine	ppm	0.60	ND - 0.60	4 (MRDL)	4 (MRDL)	Water additiive used to control microbes

Definitions

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.
Maximum contaminant level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Residual Disinfection Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectants is necessary for control of microbial contaminants (ex. chlorine, chloramines, chlorine dioxide).
Maximum Residual Disinfection Level Goal (MRDLG) – The level of drinking water disinfectant below which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial cantaminants.

Action Level – The concentration of a contaminant, which, if exceeded, triggers a treatment or other requirements that a water system must follow. The action level for lead and copper is the 90th percentile of all samples taken at one time.
ppm – One part per million; one part per million is equivalent to \$1 in \$1,000,000.
ppb – One part per billion; one part per billion is equivalent to \$1 in \$1,000,000,000.
ND – Substance not detected in the sample.
NR – Not regulated.

Notes:
¹ The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. Samples for sodium were collected in March 2000. Alpha emitters and combined radium samples were last collected in May 2003. Samples for perchlorate and asbestos were collected in 2004.
² Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulations are warranted.
³ The Massachusetts Office of Research and Standards has set a guideline concentration of 20 ppm for sodium.
⁴ Massachusetts has set a secondary maximum contaminant level of 250 ppm for sulfate. This level was established to protect the aesthetic quality of drinking water and is not health based.
⁵ Turbidity is a measure of cloudiness of the water. We monitor it because it is a good indicator of water quality.

The Substances Found in Your Tap Water

In nature, all water contains some impurities. As water flows in streams, sits in lakes, and filters through layers of soil and rock in the ground, it dissolves or absorbs the substances that it touches. Substances that might be expected in untreated water include microbial contaminants such as viruses and bacteria, inorganic contaminants such as salts and metals, pesticides and herbicides, organic chemicals from industrial uses and naturally occurring radioactive materials.

Some of these substances are harmless. In fact, some people prefer mineral water precisely because minerals give the water an appealing taste. However, at certain levels, minerals, just like man-made chemicals, are considered contaminants that can make water unpalatable or even unsafe. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain con- taminants in water provided by public water systems.

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 Environmental Protection Agency’s Safe Drinking Water Hotline (800-426-4791).

Is Our Water Safe for Everyone?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person 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 Safe Drinking Water Hotline (800-426-4791).