

WEBSTER WATER DEPARTMENT

2014 CONSUMER CONFIDENCE REPORT

PUBLIC WATER SUPPLY ID # 2316000

We are pleased to present this year's Water Quality Report. The purpose of this report is to inform you about your drinking water and provide you with information on your drinking water quality, water system operation and important key information. This report is for the calendar year 2014. The information in this report contains the following: **Where your water comes from; How is your water is treated; Water quality test results; Cross Connection and Conservation Tips; What is being done to the system; and certain contaminant educational material. Please feel free to contact us if you have any questions or further information is needed.**



Steam Driven Pump - Memorial Beach Station 1 circa 1800s

The Town of Webster works hard to ensure that your tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) and Mass Department of Public Health (MassDPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Webster's Water System:

The Town receives its water from seven gravel-packed wells. Pump Station #1 on Memorial Beach Drive blends the water from five of those wells. Pump Station #2 is also on Memorial Beach Drive (off-line), and Pump Station #3 is on Bigelow Road. Each station is equipped with a sodium hypochlorite feed system for disinfection and our on-line stations each have a sodium hydroxide feed system for corrosion control. Once the water is treated, at each station, it goes directly to the distribution system. The distribution system consists of 70 miles of water main, one booster station and two water storage tanks. The Park Avenue elevated tank has a capacity of 1 million gallons, and the underground Rawson Road tank has a capacity of 1.65 million gallons. Together, these facilities provide an average of 1.3 million gallons of water per day to 5,144 customers. During the summer of 2014 the department upgraded the water line on Gore Road and Rawson Road to improve transmission capabilities and better withstand system pressures. An unfortunate side effect, while this project was ongoing, was substantial dirty water being experienced throughout town as a result of the Rawson Road Tank being taken off line. The department sincerely apologizes for any inconvenience experienced by this project. Once the tank was restored to service, the frequency of dirty water calls dropped dramatically.

Source Water Assessment and Protection (SWAP)

We are all concerned about the quality of water we drink. Drinking water wells may be threatened by many potential contaminant sources, including stormwater runoff, road salting and improper disposal of hazardous materials. Webster citizens and our local officials can work together to better protect our drinking water sources. The MassDEP has completed the Source Water Assessment and Protection (SWAP) report for the Webster Water Department. The complete report is available at the Webster Water Department or online at www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2316000.pdf. It contains important information on land uses and potential threats within the protected areas of our wells. Webster's susceptibility ranking was determined by MassDEP to be *high*, which means we need to be extra vigilant in monitoring or restricting activities that might contaminate our water supply. The SWAP report also includes recommendations related to residential land uses, transportation corridors, hazardous materials storage and use, oil or hazardous material contamination sites, wastewater treatment plants, and wellhead protection planning. The Webster Water Department has been commended by MassDEP for taking an active role in promoting source protection measures in our water supply protection areas. The SWAP information can be used to set priorities, target inspections, focus education efforts, and to develop a long-term drinking water source protection plan.

We can help protect these vital resources by continuing with public educational efforts with the schools, business community and general public. Citizens can also help protect our water supply by proper maintenance of septic systems. You can help by pumping out your septic system every two years and do not use septic system cleaners. Never dump hazardous substances down septic or storm drains. For additional information or to offer suggestions or ideas to generate public awareness, please call the Webster Water Department.

Water Quality Testing Results for 2014

The following tables and descriptions provide a complete summary of all contaminants detected in your water in 2014 or during the most recent monitoring period for each contaminant group. We have also provided a list of terms to help you understand these tables and results. Please note that the Webster Water Department monitors for numerous other contaminants. The results listed below are only for the contaminants we detected.

Lead and Copper

Lead and Copper	Dates Collected	90 th Percentile*	Action Level (AL)	MCLG	Exceeds AL (Y/N)	# of Sites Sampled	# of Sites above AL	Possible Source of Contamination
Lead (ppb)	9/10/14 – 9/25/14	5.3	15	0	N	62	7	Corrosion of household plumbing systems
Copper (ppm)	9/10/14 – 9/25/14	0.17	1.3	1.3	N	62	0	Corrosion of household plumbing systems

*Nine out of every 10 homes sampled were at or below this level. This number is compared to the action level for each contaminant.

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. The Webster Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap water 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.

To prevent the corrosion of household plumbing, the Town of Webster updated its Corrosion Control Facility in February 2014. The original control system had been on line since 2001. Water samples to monitor compliance with the federal Lead and Copper Law are taken from homes throughout the Town, and also at two schools. The results showed that the Town is well within the 90th percentile action level.

Coliform Bacteria

Coliform are bacteria that are naturally present in the environment and are not harmful themselves; however, their presence can be an indicator that other potentially harmful bacteria may be present. The Webster Water Department presently collects 18 coliform bacteria samples each month throughout the distribution system. The water entering our distribution system has been chlorinated, and the results represent the water we deliver to our customers.

Bacteria	Highest # Positive Samples in a Month	MCL	MCLG	Violation (Y/N)	Possible Sources
Total Coliform	3	1	0	Y	Naturally present in the environment

May 9, 2014 - The Water Department was notified by the laboratory that distribution sampling sites showed the presence of coliform bacteria. The Water Department flushed this section of the distribution system. Follow-up samples showed that the coliform bacteria no longer be present. As a result the Water Department received a violation for Total Coliform and performed public notice to all residents.

	Date(s) Collected	Highest Result or RAA*	Result or Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources
Inorganic Contaminants							
Nitrate (ppm)	5/27/14	1.7	0.39-1.7	10	10	N	Runoff from fertilizer use; leaching from septic tanks; natural deposits
Barium (ppm)	4/3/12	0.018	0.013-0.018	2	2	N	Erosion of natural deposits
Chromium (ppm)	5/19, 12/22	0.28	ND – 0.28	0.10	0.10	N	Discharge from pulp mills; erosion of natural deposits

	Date(s) Collected	Highest Result or RAA*	Result or Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources
Radioactive Contaminants							
Gross Alpha (pCi/L)	3/6/2012	1.6	0.6-1.6	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L)	3/6/2012	0.8	0.8	5	0	N	Decay of natural and manmade deposits
Disinfection Contaminants							
Haloacetic Acids (HAA5s) (ppb)	Quarterly in 2014	2.2	0-3.1	60	--	N	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	Quarterly in 2014	11.5	2.8-17	80	--	N	Byproduct of drinking water chlorination
Chlorine (ppm)	18 per Month	0.47	0.05-1.18	4	4	N	Water additive used to control microbes

*Highest RAA = highest running annual average of four consecutive quarters.

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average	SMCL	Health Advisory or ORSG	Possible Sources
Bromodichloromethane (ppb)	5/27/2014	0.82	0.82	--	--	Byproduct of drinking water chlorination
Chlorodibromomethane (ppb)	5/27/2014	1.6	1.6	--	--	Byproduct of drinking water chlorination
Bromoform (ppb)	5/27/2014	0.64	0.64	--	--	Byproduct of drinking water chlorination
Iron (ppm)	5/27, 8/12, 11/5	ND - 0.42	0.21	0.3	--	Naturally occurring; corrosion of cast iron pipes
Manganese (ppm)	5/27, 8/12, 11/5	0.014-0.190	0.102	0.05	0.3*	Erosion of natural deposits
Nickel (ppm)	4/3/2012	ND - 0.007	0.004	--	0.1	Discharge from industrial processes
Sodium (ppm)	4/3/2012	26 - 52	39	--	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Magnesium (ppm)	8/12/2014	2.7 - 3.7	3.2	-	--	Comes from soils and rocks containing magnesium minerals.
Potassium (ppm)	8/12/2014	2.9 - 3.4	3.2	-	--	Comes from soils and rocks containing potassium minerals
Chloride (pm)	8/12/2014	58 - 74	66	250	--	Formed when chlorine gains an electron while in contact with other compounds. Results in a salty taste.
Copper (ppm)	8/12/2014	0.007 - 0.22	0.11	1	--	Naturally occurring organic material
pH	8/12/2014	6.8 - 6.9	6.9	6.5 - 8.5	--	--
Sulfate (ppm)	8/12/2014	8 - 9.7	8.9	250	--	Comes from soils and rocks containing sulfate minerals.
Total Dissolved Solids (ppm)	8/12/2014	180	180	500	--	Erosion of natural deposits.
Zinc (ppm)	8/12/2014	0.005 - 0.020	0.013	5	--	Erosion of natural deposits, leaching from plumbing materials

The tables above contain several terms and abbreviations that may be unfamiliar to you. To help you better understand these terms we are providing the following definitions:

AL = Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL = Maximum Contaminant Level - 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.

MCLG = Maximum Contaminant Level Goal - 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.

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 expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ND = Not Detected

ORSG = Massachusetts Office of Research and Standards Guideline - The concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

ppb = parts per billion or micrograms per liter (µg/l)

ppm = parts per million or milligrams per liter (mg/l)

SMCL = Secondary Maximum Contaminant Level – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

TT = Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminants - Those for which 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 necessary.

UCMR 3 = Unregulated Contaminant Monitoring Rule 3 (UCMR 3) is a list of 30 contaminants that EPA requires community drinking water systems to monitor in 2014. A new list is issued every 5 years. Refer to <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/index.cfm>

UCMR3 Testing Compound	Dates Collected	Range Detected	Average	Possible Sources
Chlorate (ppb)	2/28, 5/20, 9/17, 12/23	85-290	164	Agricultural defoliant or desiccant; disinfection byproduct
Hexavalent Chromium (ppb)	2/28, 5/20, 9/17, 12/23	ND - 0.095	0.05	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Strontium (ppb)	2/28, 5/20, 9/17, 12/23	110-160	133	Naturally-occurring element; commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions

Educational Information

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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 (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground it dissolves naturally occurring minerals and in some cases radioactive material and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities.

***Manganese:** US EPA and Mass DEP have established public health advisory levels for manganese to protect against concerns of potential neurological effects. Manganese is a naturally occurring mineral found in rocks, soil and groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. www.epa.gov/safewater/ccl/pdfs/reg_determinel/support_cc1_magnese_dwreport.pdf and MassDEP Office of Research and Standards Guideline (ORSG) for Manganese www.mass.gov/eea/agencies/massdep/water/drinking/manganese-in-drinking-water.html

Sodium Information: Sodium is a naturally occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/l (20 ppm) for sodium represents a level in water that physicians and sodium-sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health, or MassDPH's Bureau of Environmental Health Assessment at 1-617-624-5757.

Immuno-Compromised Persons: 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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at: 1-800-426-4791.

Water Conservation:

A water use restriction bylaw was passed at the Annual Town Meeting in June 2012 and has been implemented this year between May 1st and September 30th. During declaration of a State of Water Supply Conservation, the Webster Water Department has the authority to limit or ban outdoor water usage. During such declaration, it is important to make sure that there is enough water available for indoor consumption and fire protection. There is a \$50.00 fine for the first violation and \$100.00 fine for each subsequent violation. The Water Department encourages efficient use of water to ensure an adequate supply for the future. Good practices including using water efficient fixtures and appliances (toilet & showerheads), repairing leaky faucets and toilets, and watering lawns early in the morning or late in the evening when evaporation rates are the lowest. Reducing water use will also serve to reduce your water and sewer bills. Another excellent way to save water is through the practice of using “low water use plants” and limiting lawn size. Copies of the water use restriction bylaw and information about water conservation are available at the Webster Water Department Office at 38 Hill Street, Webster, MA.

Water Conservation Tips

- The average American uses 80-100 gallons of water per day. Massachusetts strives for 65 gallons per person per day.
- One flush of an older toilet uses 5 gallons of water. A new toilet uses 1.6 gallons per flush.
- Take short showers instead of baths. A full bathtub requires about 37 gallons of water.
- You use about 5 gallons of water if you leave the water running while brushing your teeth.
- An automatic dishwasher uses 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.
- You can refill an 8-oz glass of water approximately 11,000 times for the same cost as a six-pack of soda pop.
- A leaky faucet or running toilet can waste 100 gallons of water a day.

Cross Connection Control Program:

A cross connection occurs when untreated or contaminated water mixes with the potable drinking water supply. One way a homeowner can prevent a possible cross connection from occurring is to attach hose bib vacuum breakers to outside faucets. Under certain conditions, contaminated water can be back siphoned through your garden hose when not in use. By attaching this vacuum breaker to your outside faucet, water being used outdoors cannot be back siphoned into your home or into the Town’s drinking water supply. It is an inexpensive way to help protect the drinking water in your home and the Town’s drinking water system. Another inexpensive way to protect the water supply is to have a dual residential check valve installed in your home on your side of the water meter. **Please note that all locations having in-ground irrigation systems, including residences, are required by Massachusetts DEP Regulations to have backflow prevention devices and these devices must be tested by a licensed tester, depending on device type either once or twice per year.** Residents with irrigation systems must submit the testing result form to the Webster Water Department at 38 Hill St., Webster MA 01570. If you should have any question about cross connection and devices, please contact the Webster Water Department at 1-508-949-3861 or visit the Webster Water Department Office at 38 Hill Street in Webster.

For more information regarding cross connections please visit the following web link:
www.webster-ma.gov/documents/dpw/water/Cross-Connection-Back-Flow.pdf

Compliance Section:

Notice of Non-Compliance

The Department received Notice of Non-compliances indicating that the first quarter Iron and Manganese samples were not taken and for misreporting chlorine during July. The Department took subsequent actions, including sampling and Public Notification to return to compliance. The Department also addressed a Total Coliform MCL violation in May 2014, which is detailed in this report.

Contact Us/ Opportunities to Participate

As a customer of the Webster Water Department you have the right to participate in decisions concerning your drinking water. The Board of Selectmen, as Water Commissioners, will schedule workshops or post agenda items as necessary. Any concerns can be addressed through the board or the Webster Water Department.

If you have any questions about this report or if you would like additional copies, please contact the Water Department at **1-508-949-3861**

The Webster Water Department office hours are 7 A.M. to 3 P.M. Monday through Friday. We are now located at 38 Hill Street in Webster. Please visit our web page <http://www.webster-ma.gov> for information and forms.

After hours if there is an emergency, please call the Webster Police Department at 1-508-943-1212.