

# WEBSTER WATER DEPARTMENT

## 2017 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 2017. The information in this report contains the following: **Where your water comes from; How 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 5,236 customers. In calendar year 2017, the Water Department produced 344.3 Million Gallons and averaged 0.95 MGD. The department continued to upgrade the distribution system by repairing or replacing numerous inoperable or leaking fire hydrants and replacing faulty or malfunctioning valves.

The Department solicited competitive bids for the construction of a green-sand water filtration system and awarded the project to Robert B. Our Contractors. The green treatment plant will remove iron and manganese from the raw water of both Memorial Beach Stations 1 & 2. Construction began in April, 2018 and fully operational by June, 2019. The Department is also upgrading the water main on Thompson Road between Memorial Beach Drive and Park Road in order to effectively transmit the water from the treatment plant to the Park Road storage tank.

### *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 storm water 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](http://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 2017*

The following tables and descriptions provide a complete summary of all contaminants detected in your water in 2017 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 that were detected.

### **Lead and Copper**

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](http://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 90<sup>th</sup> percentile action level.

<b>Lead and Copper</b>	Dates Collected	90 <sup>th</sup> Percentile*	Action Level (AL)	MCLG	Exceeds AL (Y/N)	# of Sites Sampled	# of Sites above AL	Possible Source of Contamination
Lead (ppb)	9/12/17 – 9/26/17	3.30	15.0	0	N	60	3	Corrosion of household plumbing systems
Copper (ppb)	9/12/17 – 9/26/17	0.107	1.3	1.3	N	60	0	Corrosion of household plumbing systems

*The Massachusetts Department of Environmental Protection has reduced the monitoring requirements for Lead and Copper because the source is not at risk of contamination. The last sample collected for these contaminants was taken on September 12-26, 2017 and was found to meet all applicable EPA and MassDEP standards. A reduced sampling waiver was approved for the Town and the next round of Lead and Copper sampling will take place in the fall of 2020.*

### **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	0	1	0	N	Naturally present in the environment
E.Coli	0	*	0	N	Human and animal fecal waste

\* Compliance with the Fecal Coliform / *E. coli* MCL is determined upon additional repeat testing.

	Date(s) Collected	Highest Result or RAA*	Result or Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources
<b>Inorganic Contaminants</b>							
Nitrate (ppm)	5/16/17	1.35	0-1.35	10	10	N	Runoff from fertilizer use; leaching from septic tanks; natural deposits
<b>Disinfection Contaminants</b>							
Haloacetic Acids (HAA5s) (ppb)	8/8, 8/22	3.57	1.13-3.57	60	--	N	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	8/8, 8/22	24.7	6.61-24.7	80	--	N	Byproduct of drinking water chlorination
Chlorine (ppb)	18 per Month	1.09	0.24-1.19	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
Xylene (ppm)	5/10/16	5.7-7.9	--	10	--	Byproduct of polyester/plastic manufacturing field
Iron (ppb)	2/7, 5/2, 8/1, 8/22, 11/20	0-11,400	5,500	300	--	Naturally occurring; corrosion of cast iron pipes
Manganese (ppb)	2/7, 5/2, 8/1, 8/22, 11/20	20-773	272	50	300*	Erosion of natural deposits
Magnesium (ppb)	8/22/17	7.6-783	--	--	--	Discharge from industrial processes
Sodium (ppm)	5/16/17	145-186	--	--	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Potassium (ppm)	8/22/17	1.86-4.35	--	-	--	Comes from soils and rocks containing potassium minerals
Chloride (ppm)	8/22/17	3-400	--	250	--	Formed when chlorine gains an electron while in contact with other compounds. Results in a salty taste.
Copper (ppb)	8/22/17	0-38	--	1,000	--	Naturally occurring organic material
pH	36 times/month	7.10-8.09		6.5-8.5	--	--
Sulfate (ppm)	8/22/17	0-25	--	250	--	Comes from soils and rocks containing sulfate minerals.
Total Dissolved Solids (ppm)	8/22/17	100-780	--	--	--	Erosion of natural deposits.
Zinc (ppb)	8/22/17	14-90	--	5,000	--	Erosion of natural deposits, leaching from plumbing materials

\*USEPA and MassDEP have established public health advisory levels for manganese to protect against concerns of potential neurological effects.

Radionuclides	Date(s) Collected	Highest Result or RAA*	Result or Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources
Gross Alpha (pCi/l)	5/10/16	1.39	1.39	15	15	N	Present in soil
Radium (pCi/l)	5/10/16	0.767	0.662-0.767	5	5	N	Present in soil

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.

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

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

**ppt = parts per trillion or nanograms per liter (ng/l)**

**pCi/L = Picocuries per liter**

**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. No sampling was required under the UCMR3 program in 2015. A new list is issued every 5 years. Refer to <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/index.cfm>

## ***Educational Information***

In order to ensure that tap water is safe to drink, the 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 EPA regulates public drinking water sources and the Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulates bottled water as a food and cannot require certified lab testing or violation reporting. Furthermore, FDA does not require bottled water companies to disclose to consumers where the water came from, how it has been treated or what contaminants it contains. 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.

**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 Mass DPH'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.

## **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: <http://ma-webster.civicplus.com/770/Cross-Connection-Control>

## **Compliance Section:**

### **Notice of Non-Compliance**

The Webster Water Department has received no Notices of Non-compliance from the MassDEP during the year 2017.

## ***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 of Selectmen or the Webster Water Department.

If you have any questions about this report or if you would like additional copies please contact Greg Woods, Webster Water Department Superintendent, at 1-508-949-3861.

The Webster Water Department office hours are 7:00 A.M. to 3:00 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.