

TOWN OF WILLIAMSTOWN

2014 Water Quality Report

- Turn the water off when you are brushing your teeth or washing your hands
- Use a bucket of suds to wash a car or bicycle. Then rinse quickly with a hose.
- Wash laundry or do dishes in full loads.
- Water the garden in the morning or evening to avoid excessive evaporation.
- Use bark mulch around shrubs, trees, or plantings as it retains moisture much better than just soil.
- Fix leaks as toilets and faucets can attribute up to as much as 3,000 gallons of waste per year.

We are pleased to report that Williamstown's water meets all water quality standards for drinking water set forth by the United States Environmental Protection Agency and the Massachusetts Department of Environmental Protection.

Williamstown's water comes from three sources; all three are ground water wells, in a confined aquifer. They are also artesian in their flow characteristics, this means they are under pressure and will come to the top of the ground without the use of a pump. The pumps are only installed to create enough force to fill the underground storage tank (2.75 million gallons), located between the end of South Street and the end of Stone Hill Rd. Two of the wells are located on Stetson Road adjacent the Cal Ripken field, and the other located off Main St. behind the Town's tennis courts. Williamstown still maintains the surface supplies of Sherman Springs Reservoir and Rattlesnake Reservoir as backups for emergency supply. These two sources account for an approximate 10 million gallon safety net.

Measurements

In the following report, one part per million (ppm) means that one pound of substance can be detected in a million pounds of water or one milligram of substance can be found in a liter of water (mg/l). To put this into perspective, one part per million is approximately one drop per 10 gallons of water.

Drinking water including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants in drinking water does not necessarily indicate that the drinking water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by contacting the EPA Safe Drinking Water Hotline at 1-800-426-4791/ EPA website at <http://www.epa.gov/safewater> or the Massachusetts Department of Environmental Protection Agency Western Region Office at 1-413-755-1100. Their website can be viewed at www.state.ma.us/dep.

Williamstown treats the water with Sodium Hypochlorite (NaCl) chlorine; as a disinfectant and a Poly-orthophosphate (PO₄)³⁻ as a sequestering agent for calcium, iron, manganese. The product name for our poly-orthophosphate is AQUAMAG.

Maximum Contaminant Level

Maximum Contaminant Level or MCL : The maximum permissible level of a contaminant in a water, which is delivered to any user of a public water system. Maximum contaminant levels are enforceable standards. The margins of safety in MCLG's ensure that exceeding the MCL slightly does not pose significant risk to public health.

Maximum Contaminant Level Goal

Maximum Contaminant Level Goal or MCLG :The maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health effect of persons would occur, and which allows for an adequate margin of safety. MCLGs are non-enforceable public health goals.

Definitions

- (i) The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the 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 human or animal activity.
- (ii) Contaminants that may be present in source water include:
 - (A) *Microbiological contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
 - (B) *Inorganic contaminants*, such as salts and metals, which can be naturally occurring or result from urban storm water run-off, industrial and domestic wastewater discharges, oil and gas production, mining, or farming.
 - (C) *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban storm water run-off, and residential uses.
 - (D) *Organic chemical contaminants*, including synthetic or volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also, come from gas stations, urban storm water run-off, and septic systems.
 - (E) *Radioactive contaminants*, which can be naturally occurring or be the result of oil and gas production and mining activities.
- (iii) In order to ensure that tap water is safe to drink, the E.P.A. prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. F.D.A. regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

LEAD AND COPPER SAMPLING 2012

Contaminant (Units)	Action Level	MCLG	Level Detected	Number of sites sampled	Number of sites found above Action Level	Possible source of contamination	Violation (Yes/No)
Lead (ppm)	15 ug/L	0	ND-3.8 ug/L	24	0	Corrosion of household plumbing	No
Copper (ppm)	1.3 ppm	1.3	.026 mg/L- .39 mg/L	24	0	Corrosion of household plumbing	No

Williamstown's 90th percentiles were Lead = 1.1 p.p.b. , copper = .32 p.p.m.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Williamstown 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 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 <http://www.epa.gov/safewater/lead>

CONTAMINANT	HIGHEST DETECT VALUE ¹	MCL 2	MCLG 3	VIOLATION 4	POSSIBLE SOURCES OF CONTAMINATION	Standard Health Effects Language
Barium	Well 3 .010 p.p.m.	2 p.p.m.	2 p.p.m.	No	Discharge of drilling wastes, Discharge from metal refineries. Erosion of natural deposits.	Some people whom drink water with Barium in excess of the MCL could experience an increase in blood pressure.
Flouride	All 3 wells .09 p.p.m.	4 p.p.m.	4 p.p.m.	No	Erosion of natural deposits, water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	Some people whom drink Flouride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get molled teeth
Sodium	2.4-2.7 p.p.m.	20p.p.m.	N/A	No	Naturally present in the environment; may also be due to salt runoff from deicing practices.	

Perchlorate	1.25 p.p.b	2.0 p.p.b.	2.0 p.p.b	No		Rocket propellants, fireworks, munitions, flares, blasting agents	Perchlorate interferes with the normal function of the thyroid gland and thus has the potential to affect growth and development, causing brain damage and other adverse effects, particularly in fetuses and infants. Pregnant women, the fetus, infants, children up to the age of 12, and people with a hypothyroid condition are particularly susceptible to perchlorate toxicity
Total Coliform	0	0	0	N	N	Naturally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
Nickel	.0018 p.p.m.	None*			N		
Nitrate (MG/L)	.053 p.p.m.	10	10	N	N	Runoff from fertilizer use; leaching from septic tanks, sewage; and erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Unregulated or Secondary Contaminant	Date Collected	Result or Range Detected	Average Detected	SMCL	ORSG or Health Advisory
Manganese (ppb)	2014	5.9-160	107	50	300*

Source Water Assessment Program (SWAP)

Significant sources of potential contamination in Williamstown's Zone II recharge are inclusive of but not limited to the following;

Non- conforming Zone I

Residential Land Uses

Transportation Corridors

Hazardous Materials Storage and use

Confirmed Oil or hazardous material contamination sites

Comprehensive wellhead protection planning with the City of North Adams

Agricultural Activities

Rights of way owned by other Natural gas, National Grid (Electric high tension lines), HQWD (wastewater interceptor mains), Railroad lines.

Williamstown has high susceptibility to potential sources of contamination due to the vast area of recharge for its Zone II. Sources of potential contamination are controlled through zoning regulations, and best management practices to limit the aquifer's exposure from the above mentioned threats. Through continuous monitoring of land uses public, residential, commercial and agricultural, it is our mission to keep the public drinking water aquifer safe and potable for the general public. The SWAP report is available for public viewing at 675 Simonds Rd Williamstown at the Public Works Building or on the web at <http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1341000.pdf>

Please make sure fire hydrants are not hidden or masked by any foliage, plantings or fencing, as it is designed so that your property is adequately protected in the event of a fire!!!!

Copies of this report are also available at the Town Garage, 675 Simonds Road and Town Hall, 31 North Street. It is also available on the web www.williamstown.net

This report is submitted by **Edward J. Rondeau**, your Water and Sewer Superintendent. If you wish to get a hard copy of this report or if you have any questions or comments please call me at **(413) 458-3383**.