CITY OF MARLBOROUGH
DEPARTMENT OF PUBLIC WORKS
Water & Sewer Division

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Public Water Supply
 # 2170000

CITY OF MARLBOROUGH WATER SYSTEM
Drinking Water Report

This is an annual report on the quality of water delivered by the City of Marlborough to its residents and businesses. It complies with the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its makeup and health risks associated with any contaminants. Safe water is vital to our community. Please read this report carefully and if you have any questions, call the numbers listed below.

The City of Marlborough's water supply comes from three sources: Massachusetts Water Resources Authority (MWRA), Lake Williams and Millham Reservoir. During calendar year 2015, the City of Marlborough Department of Public Works supplied 1.62 billion gallons of water for use by our customers.

Pursuant to the SDWA, the City of Marlborough is required to monitor its drinking water on a regular basis for specific man-made and naturally occurring contaminants. Results of regular monitoring are an indicator of whether or not our drinking water meets applicable health standards. Testing results for 2015, show the city in compliance with lead and copper limits. The city plans to continue its incentive program to encourage participation by residents in our sampling program, its program for removing lead service pipes as part of our street reconstruction projects, and treating its drinking water to keep the lead and copper limits below the maximum contaminant levels.

Water Quality Table

The Water Quality Table below provides information on the results of the city's testing program and is based upon samples taken during 2015. Terms used in the table are defined below or within the table itself.

Regulated Contaminants	Date(s) Collected	Result or Highest RAA*	Range	MCL	MCLG	Violation (Y/N)	Possible Sources
Inorganic Contaminants							
Nitrate (ppm)	4/16/15	0.4	--	10	10	N	Runoff from fertilizer use; erosion of natural deposits
Barium (ppm)	4/21/15	0.028	--	2	2	N	Erosion of natural deposits
Fluoride (ppm)	4/17/15	0.73	--	4**	4	N	Water additive that promotes strong teeth
Disinfectants and Disinfection Byproducts							
Haloacetic Acids (HAA5s) (ppb)	Quarterly In 2015	16.78*	9 - 31	60	--	N	By-products of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)		17.1*	11 - 53	80	--	N	
Total Chlorine (ppm)	42 Samples per Month	2.15*	0.16 – 3.6	4	4	N	Water additive used to control microbes

MARLBOROUGH DPW -- 2015 FINISHED WATER TEST RESULTS

* Highest RAA= highest running annual average over four consecutive quarters.
** Fluoride also has an SMCL of 2 ppm.

Lead and Copper	Date(s) Collected	90th Percentile*	Action Level	MCLG	# of sites sampled	# of sites above AL	Exceeds AL (Y/N)	Possible Sources
Lead (ppb)	**8/5/15**	**0.013**	0.015	**0**	**30**	**1** **0**	**N** **N**	**Corrosion of household plumbing**
Copper (ppm)	**8/5/15**	**0.057**	**1.3**	**1.3**	**30**	**0** **0**	**N** **N**	**Corrosion of household plumbing**

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

Unregulated and Secondary Contaminants	Date Collected	Result	SMCL	ORSG	Possible Sources
Nickel (ppm)	**4/12/15**	**0.0012**	**--**	**100**	**Natural sources**
Sodium (ppm)	**3/13/15**	**180**	**--**	**20***	**Natural sources; runoff from road salt**
Iron (ppb)	**9/29/15**	**ND**	**300**	**--**	**Natural sources; corrosion of cast iron pipes**
Manganese (ppb)	**4/17/15**	**0.016**	**50**	**300****	**Erosion of natural deposits**

***** Sodium-sensitive individuals, such as those experiencing hypertension, kidney failure or congestive heart failure should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled.
** US EPA and MassDEP have established health advisory levels for manganese to protect against concerns of potential neurologic effects.

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Turbidity	MCL	Lowest Monthly % of Samples < 0.3 NTU	Highest Detected Daily Value	Violation (Y/N)	Possible Source of Contamination
Turbidity (NTU)	1	-----	0.78	N	Soil runoff
Monthly Compliance*	At least 95% < 0.3 NTU	100	-----	N	

*Monthly turbidity compliance is related to a specific treatment technique (TT). This treatment facility filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.

Definitions
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.

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

ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (µg/l)
NTU = Nephelometric turbidity unit

Unregulated Contaminants = Unregulated contaminants are substances without MCLs for which EPA requires monitoring. For some of these substances, the Massachusetts Office of Research and Standards (ORS) have developed state guidelines or secondary MCLs.

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

ORSG = Office of Research and Standards Guideline. This is 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.

Although many tests were run on a number of contaminants, only those substances listed above were detected. The water was tested for *Giardia* and *Cryptosporidium* and were not found.

The state recommended per capita water use is 65 gallons per person per day. In order to achieve this value, we encourage all residents to use water more efficiently. Please visit the Marlborough Department of Public Works website for tips on water conservation at **www.marlborough-ma.gov.**

Reduction with Lead and Copper Sampling

The City of Marlborough passed the 2015 Annual sampling for lead and copper. Annual samples were collected in August, 2015

Water System Compliance

Marlborough passed the Annual round for Lead and Copper Sampling in the 3rd quarter of 2015.

All test results were well within state and federal testing standards.

The City was placed under an Administrative Consent Order (ACO) by Mass DEP in April, 2014 to bring the City's water system into compliance with federal Long Term 2 Enhanced Surface Water Treatment Rule ("LT2"). Construction of the UV system and other improvements to the treatment plant were completed by the end of December, 2015 per the ACO deadline.

Water Meter Replacement Program

The City accelerated the water meter replacement program where manual read water meters were replaced with new water meters with radio read technology. The meters being replaced had outside visual reading devices where the reading had to be collected by physically going to each property and manually recording the meter readings.

The new meters have a radio read device where the water meter reading can be collected on a computer lap top as the City vehicle drives by the area. This will reduced reading water meters to a fraction of the time. Once all the meters in the City have been changed the City will install a fixed network system that will transmit the readings directly to the Water Billing Office. The new meters have reduced the City's un-accounted for water in 2015 by 6%. The water meter replacement program will continue until all meters have been replaced.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

There is also a website for the City of Marlborough Source Water and Assessment Program (SWAP). This is a program established under the Safe Drinking Water Act. This program requires the City of Marlborough to inventory land uses within the recharge areas of all public water supply sources. The program also assesses the susceptibility of drinking water sources to contamination from these land uses and publicizes the results to provide support for improved protection. The Marlborough SWAP Report can be found on the website **http://www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2170000.pdf**

This notice is being sent to you by CCR. PWS ID# 2170000

For any questions or for further information, please visit the Marlborough DPW at www.marlborough-ma.gov or contact David R. Lavallee, Marlborough Water/Sewer Division General Foreman at 508-624-6910 ext. 33401 or email at dlavallee@marlborough-ma.gov.