



WESTFIELD WATER RESOURCES DEPARTMENT

January 1, 2012 through December 31, 2012

Water Quality Report

PWS ID# 1329000

Westfield Water Resources Department
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Board of Water Commissioners meets the first Tuesday of each month at 7:00 p.m. in City Hall, Room 201. These meetings are open to the public and everyone is encouraged to attend and participate.

The Westfield Water Resources Department is committed to supplying safe drinking water that meets or exceeds all state and federal standards. In order to ensure that your tap water is safe to drink, the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) prescribe regulations that limit the amounts of certain contaminants in water provided by public drinking water systems. We treat and test all of our water in accordance with these EPA and DEP regulations. Food and Drug Administration regulations and Massachusetts Department of Public Health establish limits for contaminants in bottled water that must provide the same level of protection for public health. This water quality report is intended to share with you how well we are doing in meeting our commitment.

EDUCATIONAL INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. The presence of contaminants does not necessarily indicate that water poses a health risk. 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 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 animals or from human activity.

SOURCE WATER PROTECTION

The Massachusetts Department of Environmental Protection has completed a Source Water Assessment for all Westfield Municipal drinking water sources. This report identifies land uses within water supply protection areas that may be potential sources of contamination. City groundwater sources were determined to be highly vulnerable to contamination due to the absence of hydrogeologic barriers that can prevent the contaminant migration from activities on the land surface. The overall ranking of susceptibility to contamination for Westfield's drinking water sources is high due to the presence of such high threat land uses as auto repair/body shops, airport, railroads, machine shops, transportation corridors and illegal dumping. Copies of this report are available at the Water Resources Department office located at 28 Sackett Street.

DRINKING WATER VIOLATIONS

The Westfield Water Resources Department (WWRD) violated two drinking water standards in 2012. The WWRD is required to monitor for specific contaminants on a regular basis. Results of regular monitoring are indicators of whether our drinking water meets health standards. The WWRD was required to monitor for Synthetic Organic Chemicals (SOCs) from all eight of its sources during the Third Quarter of 2012. The WWRD failed to monitor for SOCs in the Third Quarter 2012, therefore, we cannot be sure of the quality of our drinking water during that time. Instead, we monitored for SOCs in the Fourth Quarter 2012 and all samples had concentrations that were non-detect. In June 2012, coliform bacteria was detected in 15% of our samples. The standard is that no more than 5.0% of samples may contain coliform bacteria. The source of the bacteria was found to be our East Mountain Storage Tank. The tank was disinfected and follow-up testing showed that the problem was resolved. Total Coliform: coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms found in more samples than are allowed is a warning of potential problems. Follow up testing was done to see if other bacteria of greater concern such as E. Coli were present. These bacteria were not found and further testing showed that the problems had been resolved.

WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the 2012 calendar year. *The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.* Unless otherwise noted, the data presented in this table is from testing done January 1 to December 31, 2012. The state requires us to monitor certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

PARAMETER	AS SET BY EPA		WESTFIELD WATER				YEAR SAMPLED	MAJOR SOURCES
	HIGHEST LEVEL ALLOWED (MCL)	IDEAL GOAL (MCLG)	HIGHEST LEVEL DETECTED		RANGE OF DETECTION			
			AVERAGE	MIN	MAX			
<u>Organic Compounds</u>								
Total Trihalomethanes (PPB)	80	N/A	48.5	39.8	26.9	48.5	2012	By-product of water chlorination
Haloacetic Acids (HAA5) (PPB)	60	N/A	4.2	1.1	0	4.2	2012	By-product of disinfection
<u>Inorganic Contaminants</u>								
Nitrate (PPM)	10	10	3.5	0.97	0	3.5	2012	Run-off from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Fluoride (PPM)	4	4	0.14	0.04	0	0.2	2012	Erosion
Barium (PPM)	2	2	0.25	0.13	0.004	0.25	2012	Erosion of natural deposits
<u>Unregulated Contaminants**</u>								
Sodium (PPM)	None	None	18.9	9.3	5.0	18.9	2012	Erosion of natural deposits, road salt
Nickel (PPB)	N/A	NA	0.35	0.004	0	0.35	2012	Discharge from industrial sources
Sulfate (PPM)	N/A	N/A	12.5	8.3	3.1	12.5	2012	Erosion of natural deposits
Manganese* (PPB)	N/A	N/A	24	3.7	0	24	2012	Erosion of natural deposits

<u>Lead and Copper</u>	90 th Percentile	Action Level	MCLG	# of sites sampled	# of sites above the AL	Year Sampled	
Lead (ppb)	1.8	15	0	30	3	2010	Corrosion of household plumbing systems
Copper (ppm)	0.29	1.3	1.3	30	0	2010	Corrosion of household plumbing systems
Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation (Y/N)	Possible Source of Contamination		
Daily Compliance (NTU)	5	----	0.21	N	Soil runoff		
Monthly Compliance*	At least 95%	100%	----	N			
<u>Microbial Contaminants</u>							
	Highest % Positive In a Month	Total # Positive	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination	
Total Coliform	15	9	>5%	0	Y	Naturally present in the environment	
* Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.							
** Unregulated contaminants are 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 regulation is warranted.							
*EPA has established a lifetime health advisory (HA) of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.							
Turbidity is a measure of the cloudiness of the water. We monitored this because it is a good indicator of the effectiveness of our filtration system. 100% of the samples taken each month met the required Turbidity Limits.							

Terms & Abbreviations

Maximum Contamination 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.

Action Level (AL): the concentration of a contaminant which, when exceeded, triggers treatment and other requirements which a water system must follow.

Treatment Technique (TT): a required process intended to reduce the level of a contaminant in drinking water.

N/A: not applicable – not detectable at testing limit

ppb: parts per billion or micrograms per liter

ppm: parts per million or milligrams per liter

WESTFIELD'S DRINKING WATER SOURCES

Drinking water for those connected to the *Westfield* water distribution system comes from a number of different sources. The Granville Reservoir, a surface water source located in the Town of Granville, MA, contributes approximately 50% of the City's drinking water. All water from this source is treated and filtered at our treatment facility in Southwick, MA. The City also has eight (8) active groundwater wells which are located off East Mountain Road (Wells No. 7 & 8), Holyoke Road (Well No. 1), Union Street (Well No. 2),

Northwest Road (Wells No. 5 & 6) and Shaker Road (Wells 3 & 4). The water from all sources is treated to reduce its corrosivity. All water from City Wells 3 and 4 is treated to remove the fungicide Ethylene DiBromide (EDB). Periodically water may be purchased from the City of Springfield water system. This water comes from their Cobble Mountain Reservoir surface water source and is treated at their West Parish Filter facility in Westfield.

INTERCONNECTIONS TO OTHER WATER SYSTEMS

The *Westfield* water system is interconnected to the City of Springfield water system at three (3) locations: one at Southwick Road and two (2) connections on Shaker Road. One connection on Shaker Road is used to pump water directly from the Springfield water system to *Westfield's*. The other two (2) connections are only activated on low pressure conditions in *Westfield's* system.

VULNERABILITY

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. These people should seek advice 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**).

Lead: 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 Westfield Water Resources 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 unused 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>

Protect Your Drinking Water:

Improperly managed household hazardous waste, septic systems, lawn care and pet waste can all contribute to groundwater contamination. You can help protect your drinking water quality by having your septic tank pumped every two years, never dumping hazardous substances down sewer or storm drains, properly disposing of pet waste, and application of pesticides and fertilizers minimally and according to manufacturer's instructions.

Contaminants that may be present in source water before treatment include:

Microbial contaminants, such as; viruses and bacteria, which may come from septic systems, agricultural livestock operations and wildlife.

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

Pesticides and herbicides, which may come from a variety of sources such as agricultural and residential uses.

Radioactive contaminants, which may be naturally occurring.

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

If you are interested in knowing more about the Westfield water supply system and the Westfield Water Resources Department, please call our office at 572-6270 or visit our web page at www.cityofwestfield.org.



800-426-4791

Contact EPA's Safe Drinking Water Hotline for more information about contaminants and potential health effects and EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants.