

# Town of Longmeadow

The Longmeadow Water Department is pleased to present this Consumer Confidence Report to all Customers in the water supply service area. This report is part of the 1996 Safe Drinking Water Act Amendments and is required by the United States, Environmental Protection Agency and the Commonwealth of Massachusetts, Department of Environmental Protection. The information that follows will describe the extensive testing between the Springfield and Longmeadow Water Departments that is completed to ensure the residents of Longmeadow will enjoy a source of water that is pure, clean and tastes good.

## **WHERE DOES MY WATER COME FROM?**

The Town of Longmeadow purchases 100% of its water from the City of Springfield Water Department. Drinking water produced by the Springfield Water and Sewer Commission originates from a surface supply, the Cobble Mountain Reservoir, located in Western Massachusetts. The Bordon Brook Reservoir, a smaller surface water supply that feeds into Cobble Mountain Reservoir, contributes to the system's combined water supply capacity of 25 billion gallons.

The reservoir and the land surrounding the reservoirs are collectively called the watershed. Watershed protection is the Commission's first defense in maintaining a pure water source. Approximately 13,000 acres of reservoir and land is owned by the Commission within the Cobble Mountain watershed area. Inside the watershed boundaries, there is no commercial industry, the population density is low and only limited farming and grazing is practiced. To further protect the water supply, boating, swimming, hunting and fishing is forbidden in and around the reservoir areas and watershed lands.

The reservoir water flows to the West Parish Filters Treatment Plant, located in Westfield, Massachusetts, where it is filtered through slow and rapid sand filtration, treated to inhibit corrosion of home plumbing, adjusted for pH, and disinfected before it flows to the 60 million gallon underground storage tanks at Provin Mountain Reservoir located in Agawam, Massachusetts. Clean drinking water is supplied at an annual average of 35 million gallons per day to Springfield and the surrounding communities, Agawam, East Longmeadow, Longmeadow and Ludlow, through the 617 mile piping network of large sized transmission mains and smaller sized distribution mains.

The Longmeadow Water system begins at a water pumping station located on Forest Glen Road in Longmeadow. This pumping station is supplied by two 16-inch transmission water mains running from a 36-inch water main on Longhill Street in Springfield through Forest Park to our Pumping Station on Forest Glen Road. From this pumping station, the Town of Longmeadow is serviced by approximately 99 miles of water distribution mains ranging in size from 4-inch to 16-inch pipes. These water mains deliver water to the towns 5,671 metered water accounts and supply 15,049 residents. The Town of Longmeadow purchased 732 million gallons of water in 2012 from the Springfield Water Department at the present rate of \$1,100.00 per million gallons. The Water Department also has an active program of flushing all water mains in the Town. At this time, records are kept noting low pressure areas and hydrants in need of repairs or replacement. All deficiencies are corrected as soon as possible once flushing is completed. The department also maintains a one million gallon water storage tank located on Academy Drive, which is used to improve pressure to the easterly area of the Town.

**2012  
Annual Drinking  
Water Quality  
Report**

## Contamination from Cross-Connections

Cross-Connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (irrigation systems, air conditioning systems, fire sprinkler systems) or water sources of questionable quality. Cross-connection can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water

demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at homes. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. One way to prevent this is to use a backflow prevention

device called a "Hose Bid Vacuum Breaker". This low cost device should be installed on all inside and outside hose connections and can easily be purchased at any hardware or plumbing store. This is a great way for you to help protect the water in your homes as well as the drinking water in your town!

For more information, review the Cross-connection Control Manual from the U.S. EPA's Web site at [www.epa.gov/safewater/crossconnection.html](http://www.epa.gov/safewater/crossconnection.html).

## Contaminants in drinking water

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 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. Contaminants that may be present in the source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban runoff, industrial, or domestic wastewater discharges, oil and gas production, mining and farming.
- Pesticides and Herbicides may come from a variety of sources such as agriculture, urban storm water runoff and septic systems.
- Organic and Herbicides may come from synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum products, and can also come from gas stations, urban storm water runoff and septic tanks.
- Radioactive contaminants can be naturally-occurring or be the result of oil and gas production and mining activities.

A LIST OF MICROBIOLOGICAL, ORGANIC, INORGANIC, & OTHER DRINKING WATER CONTAMINANTS AND HEALTH EFFECT LANGUAGE IS AVAILABLE FROM THE LONGMEADOW WATER DEPARTMENT.

## Sanitary Survey Results

In March 2012 the Mass DEP conducted a sanitary survey of our public water system. A sanitary survey is an on-site review of the water sources, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the system's ability to distribute safe drinking water. The following items are corrective actions taken by the Water Department as a result of the survey. The Water Department's Emergency Response Plan was updated to incorporate appropriate procedures for the emergency water interconnection to the Enfield CT. water system on Shaker Road. The fluoride feed equipment was upgraded.

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## What is water conservation?

Water conservation is any beneficial reduction in water loss, use or waste as well as the preservation of water quality.

## What can I do to conserve water?

There are many things you can do to conserve water. Running your clothes washer and dishwasher only when they are full can save up to 1,000 gallons a month. Watering your lawn and garden in the morning or evening when temperatures are cooler will help minimize evaporation. Shortening your shower by a minute or two can save up to 150 gallons per month. Turning off the water while you are brushing your teeth can save up to 25 gallons per month. Also, take time to review your water bill on a regular basis as this can help you quickly realize if there are leaks in your system.

## Tap vs. Bottled, Rethinking What You Are Drinking

When choosing the water you want to drink, it is often easy to be convinced that bottled water is healthier for you than tap water, but in truth is it? The answer, thanks to a study by the Natural Resources Defense Council (NRDC) is not always. First, approximately 25 percent of bottled water is – in reality – bottled tap water. Additionally, the Food and Drug Administration (FDA) regulates bottled water; however, their testing standards are not as rigorous as the ones required by the US Environmental Protection Agency (EPA) for tap water. Moreover, FDA oversight does not apply to water that is packaged and sold within the same state. According to the NRDC's report, this leaves approximately 60-70 percent of bottled water, including the contents of watercooler jugs, free of FDA regulation.

It is estimated that people spend almost 5,000 times more per gallon of bottled water than they would for tap water. For those who get their recommended eight glasses of water a day, you could be saving over \$1,000 annually if you switched to tap water!

# Springfield Water and Sewer Commission and Longmeadow Water Quality Table – Calendar Year 2012

Disinfectants and Disinfection By-Products						
Contaminant (Unit)	MCLG	MCL	Annual Running Avg	Range Detected	Violation	Major Sources in Drinking Water
Total Trihalomethanes [TTHM] (ppb)	NA	80 (annual running average)	77.7	46.6-106.1	No	By-product of drinking water chlorination
IDSE – TTHMs (ppb)	NA	NA	N/A	31-83	No	
Total Haloacetic Acids [HAA5] (ppb)	NA	60 (annual running average)	20.5	1-72	No	
IDSE – HAA5s (ppb)	NA	NA	N/A	1.9-92	No	

Disinfectants and Disinfection By-Products								
Contaminant (Unit)	Dates Collected	MRDLG	MRDL	Highest Detected	Highest Average	Range Detected	Violation	Major Sources in Drinking Water
Chlorine (ppb)	Twice a month	4.0	4.0	0.57	0.10	0.03-0.57	No	Water additive used to control microbes

Lead and Copper (Tap samples)						
Contaminant (Unit)	MCLG	AL	90th Percentile	Sampling Sites Exceeding the Action Level	Violation	Major Sources in Drinking Water
Copper (ppm)	1.3	1.3	0.110	0 out of 30	No	Corrosion of household plumbing systems
Lead (ppb)	0	15.0	1.5	1 out of 30	No	

Inorganic Contaminants					
Contaminant (Unit)	MCLG	MCL	Highest Level Detected	Violation	Major Sources in Drinking Water
Barium (ppm)	2	2	0.007	No	Common mineral in nature
Nitrate (ppm)	10	10	0.14	No	Natural deposits, stormwater, fertilizer run-off

Microbiological Contaminants						
Contaminant (Unit)	MCLG	MCL	Highest Level Detected	Lowest Monthly Percent	Violation	Major Sources in Drinking Water
Turbidity (NTU) Rapid Sand Filtration*	NA	TT	0.24	96%	No	Soil run-off
Turbidity (NTU) Slow Sand Filtration**	NA	TT	0.23	100%	No	Soil run-off

Coliform Bacteria					
Contaminant	MCLG	MCL	Highest # Positive in a Month	Violation	Possible Source of Contamination
Total Coliform	0	0	0	No	Naturally present in the environment

Unregulated Contaminants				
Contaminant (Unit)	ORSG	Highest Single Measurement Detected	Violation	Major Sources in Drinking Water
Sodium (ppm)	20	12.0	No	Natural deposits
Napthalene (ppb)	140	1.8	No	Discharge from use in mothballs and other domestic products

Unregulated Contaminants				
Contaminant (Unit)	SMCL	Highest Single Measurement Detected	Violation	Major Sources in Drinking Water
Sulfate (ppm)	250	5	No	Natural deposits
Aluminum (ppb)	250	24	No	Byproduct of treatment process

## Fluoridation

Fluoride is a naturally occurring element found in many water supplies in trace amounts. The Longmeadow Water Department has been providing fluoride treatment since 1989 at adjusted optimal levels averaging one part per million (ppm or mg/l). At this level, it is safe, odorless, colorless, and tasteless and helps to improve oral health in children by preventing tooth decay. There are over 3.9 million people in 140 Massachusetts water systems and 184 million people in the United States who receive the health and economic benefits of fluoridation.

Regulated Contaminant	Date(s) Collected	Highest Detected	Range Detected	MRDL	MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Fluoride (ppm)	Daily 365 Days	1.2	0.0 – 1.2	4.0	4.0	N	Water additive which promotes strong teeth

## Key to Table

Note: Contaminants in **BOLD** are the water quality testing responsibilities of the Longmeadow Water Department.

Turbidity is a measure of the cloudiness of the water. It is a good indicator of the effectiveness of the filtration system.

\* **Rapid Sand Filtration:** The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 1.0 NTU in any single measurement.

\*\* **Slow Sand Filtration:** The turbidity level of the filtered water shall be less than or equal to 1.0 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 5.0 NTU in any single measurement.

\*\*\* **Unregulated:** contaminants which the EPA has not established drinking water standards for but will help assist them with determining their occurrence in drinking water and whether future regulations are required.

In accordance with the Long Term 2 Enhanced Surface water Treatment Rule the Springfield Water Commission began monitoring for Cryptosporidium in 2006. The results indicate no further treatment is required, other than the treatment already provided, which includes filtration.

TEST DATES	RESULTS
07/10/07	0.1 oocysts/liter
08/14/07	0.1 oocysts/liter

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Springfield's monitoring indicates the presence of these organisms in their reservoir water. Current test methods do not allow them to determine if the organisms are dead or if they are capable of causing health problems. Most healthy individuals are able to overcome health problems associated with Cryptosporidium within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to prevent infection. Cryptosporidium must be ingested for it to cause health problems, and may be passed through other means than drinking water. Symptoms of infection include nausea, diarrhea and abdominal cramps.

*If you have any questions or comments please contact the Springfield Water and Sewer Commission at 787-6256 ext.111.*

## Lead and Drinking Water

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

## Definitions

**AL = Action Level:** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

**IDSE = Initial Distribution System Evaluation:** A study conducted by water systems to monitor trihalomethanes (THMs) and haloacetic acids (HAA5). Water systems will use results from the IDSE to select compliance monitoring locations for the Stage 2 Disinfection By-Products Rule.

**MCL = Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLG's 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 of health. MCLG's 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**N/A = Non Applicable**

**NTU = Nephelometric Turbidity Units:** A numerical value indicating the cloudiness of the water.

**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 (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

**ppb = Parts Per Billion**

**ppm = Parts Per Million**

**SMCL = Secondary Maximum Contaminant:** Standards 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.

**90th Percentile:** Out of every 10 homes sampled, 9 were at or below this level.

## Important Health Information

In order to insure that tap water is safe to drink, the MassDEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. As the Town's supplier of water, the Springfield Water Commission is responsible for the majority of water quality testing. The attached report describes some of their testing. The Longmeadow Water Department, as a consecutive water system, is also responsible for testing some of these contaminants which are listed on this report. The Food and Drug Administration (FDA) and the Mass Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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. 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 infants can be particularly at risk from infections. These people should seek advice from their health care providers.