



TOWN OF EAST LONGMEADOW
DEPARTMENT OF PUBLIC WORKS
60 CENTER SQUARE
EAST LONGMEADOW, MA 01028

Bruce Fenney, Superintendent

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(413) 525-5400 ext. 1200

2017 Water Quality Report

Dear Customer: We are pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing is designed to prevent. East Longmeadow is committed to providing you with a safe and reliable water supply. Informed customers are our best allies in maintaining safe drinking water.

Please call Bruce Fenney at 413-525-5400, ext. 1200 for information about the next opportunity for public participation in decisions about our drinking water. The Board of Public Works serves as water commissioners. Meeting schedules are posted at Town Hall.

Water Source

In 2017, the East Longmeadow Department of Public Works (Department) supplied a total of 654 million gallons of water. The Town purchases its water from the Springfield Water and Sewer Commission. The drinking water produced by the Springfield Water and Sewer Commission (Commission) originates from a surface water supply located in Blandford and Granville, MA. Two waterbodies, the Cobble Mountain Reservoir (Source Water ID# 1281000-02S) and Borden Brook Reservoir (Source Water ID# 1281000-04S), a smaller surface water supply that feeds into Cobble Mountain Reservoir, contribute to the system's combined water supply capacity of 25 billion gallons.

The reservoirs and the land surrounding the reservoirs are collectively called the watershed. Approximately 47% of the land in the Little River Watershed, which feeds Cobble Mountain and Borden Brook Reservoirs, is owned by the Commission for water supply protection purposes. An additional 10% is protected by public and non-profit land conservation organizations. The Commission has an active land acquisition program as part of its Source Water Protection Plan, as land protection is the best approach to reducing the susceptibility of water supplies to contamination. 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 to remove particles and impurities from the water. Then pH is adjusted and corrosion inhibitors are added to protect against lead and copper in home plumbing. Chlorine is then added for disinfection purposes before it flows to the 42-million-gallon underground storage tanks at Provin Mountain Reservoir located in Agawam, Massachusetts. Clean drinking water is supplied, at an annual average rate of approximately 37 million gallons per day to Springfield as well as the surrounding communities of Agawam, East Longmeadow, Longmeadow, Ludlow, Wilbraham, West Springfield, and a part of Chicopee through the 595-mile piping network of large sized transmission mains and smaller sized distribution mains.

The Town of East Longmeadow has four connections to the Commission's water supply system: Elm Street, Harkness Avenue, North Main Street and Dwight Road, with the Department responsible for the maintenance of more than 115 miles of water mains. The northwest quadrant of Town is serviced directly by these four connections.

The southern and eastern sides of the Town are serviced by what is referred to as a high-service system. Water delivered through the City of Springfield is pumped at the Chestnut Street Pump Station into the high-service system. This water can go into our water storage tanks on Prospect Street or directly to a home or business for consumption. Since this water may be stored in the tanks or pipelines for an undetermined amount of time, the Town of East Longmeadow Department of Public Works adds chlorine and ammonia at the Chestnut Street Pump Station as it pumps the water. This booster chloramination, as it is commonly referred to, helps to ensure that there are no bacteria in the system.



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How to Read the Water Quality Table

This report is based upon tests conducted by the Department and the Springfield Water & Sewer Commission. The following table shows what substances were detected in our drinking water during 2017 or during the most recent sampling period. Although all of these that are listed are under the Maximum Contaminant Level (MCL) set by U.S. EPA, and therefore not expected to cause any health risks, we feel it is important that you know what was detected and how much of the substance was present in the water. Terms used in the *Water Quality Table* and in other parts of this report are defined here.

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

Lead & Copper 90th Percentile: Nine out of every 10 homes sampled were at or below this level.

LRAA = Locational Running Annual Average: The average of analytical results for samples at a particular monitoring location during the previous four calendar quarters.

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 (ex. chlorine, chloramines, chlorine dioxide).

MRDLG = Maximum Residual Disinfectant Level Goal: The level of 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 = Not applicable

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

OEL = Operational Evaluation Levels: the sum of the two previous quarters' TTHM results plus twice the current quarter's TTHM result, divided by 4 to determine an average; or the sum of the two previous quarters' HAA5 results plus twice the current quarter's HAA5 result, divided by 4 to determine an average.

ORSG = Massachusetts 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.

ppb = parts per billion

ppm = parts per million

pCi/L = picocuries per liter, a measure of radioactivity.

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.

Water Quality Table

Substance (Volatile Organic)	Unit	MCL (LRAA)	MCLG	Highest Locational Running Annual Average (LRAA)	Range	Major Sources in Drinking Water	Violation
TTHMs [Total Trihalomethanes]	ppb	80	N/A	60.5	57 - 68	By-product of drinking water chlorination	NO
HAA5s [Total Haloacetic Acids]	ppb	60	N/A	58.5	42 - 72	By-product of drinking water chlorination	NO

The results show that the 4th quarter OEL for HAA5 (ppb) was exceeded at one of four sampling locations (Harkness Pump Station). The December HAA5 result at this location resulted in an HAA5 OEL of 61 ppb. While the exceedance is not an MCL violation, the Department evaluated the possible cause of the exceedance to take the necessary corrective action(s) in an attempt to avoid an MCL exceedance. In accordance with the Stage 2 Disinfection By-Products Rule (310 CMR 22.07F(13)), the Department has completed and submitted the Operational Evaluation Reporting Form to the MassDEP.



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Substance (Inorganic)	MRDL	MRDLG	Annual Average	Range Detected at Individual Sampling Sites	Major Sources in Drinking Water	Violation
Residual Chlorine (ppm)	4.0	4.0	0.28	0.00 – 1.93	Water additive used to control microbes	NO

Chloramination - Once water has been filtered or disinfected, steps must be taken to guard against harmful organisms that may be present in the pipes that distribute water to local homes and businesses. For this reason, the East Longmeadow Department of Public Works adds ammonia to the water as it enters the distribution system. Ammonia reacts with previously added chlorine to create a long-lasting disinfectant known as chloramine. This helps to prevent bacterial regrowth throughout the entire distribution system. It also minimizes the formation of trihalomethanes, which have been found to cause cancer in laboratory animals and are formed when chlorine reacts with organics that occur naturally in water.

Substance*	Unit	MCL	ORSG/SMCL	Highest Single Measurement Detected	Range Detected at Individual Sites	Major Sources in Drinking Water	Violation
Sodium	ppm	None	20	15.5	N/A	Natural sources, runoff from use as salt on roadways, byproduct of treatment process	NO
Aluminum	ppb	None	200	35	10 - 35	Byproduct of treatment process	NO
Manganese	ppb	None	50	6.4	N/A	Erosion of natural deposits	NO
Chloroform	ppb	None	70	4.93	N/A	Byproduct of drinking water chlorination	NO
Bromodichloromethane	ppb	None	None	0.58	N/A	Byproduct of drinking water chlorination	NO

* 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 necessary. Unregulated Contaminant Monitoring Rule 3 (UCMR 3) is a list of 30 contaminants that the EPA required drinking water systems to monitor in 2013. A new list is issued once every 5 years.

Substance (Inorganic)	Unit	MCL	MCLG	Highest Level Detected	Range Detected at Individual Sites	Major Sources in Drinking Water	Violation
Nitrate	ppm	10	10	0.124	N/A	Natural deposits, stormwater, fertilizer run-off	NO
Barium	ppm	2	2	0.009	N/A	Erosion of natural deposits	NO

Substance (Inorganic)	90 th Percentile	# of Sites Exceeded	# of Sites Sampled	Action Level	MCLG	Major Sources in Drinking Water	Violation
Copper (ppm)	0.059	0	30	1.3	1.3	Corrosion of household plumbing systems	NO
Lead (ppb)	1.5	0	30	15.0	0	Corrosion of household plumbing systems	NO

Substance (Turbidity)	MCL	MCLG	Highest Single Measurement Detected	Lowest Monthly Percent	Major Sources In Drinking Water	Violation
Turbidity (NTU) Rapid Sand Filtration ¹	TT	N/A	0.21	100%	Soil run-off	NO
Turbidity (NTU) Slow Sand Filtration ²	TT	N/A	1.27	99.94%	Soil run-off	NO

-Turbidity is a measure of the cloudiness of the water. Springfield Water and Sewer Commission monitors it because it is a good indicator of the effectiveness of the Commission's filtration system.

¹Rapid 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.

²Slow 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.



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Substance (Radionuclides)	MCL	MCLG	Highest Level Detected	Range Detected at Individual Sites	Major Sources in Drinking Water	Violation
Gross Alpha (pCi/L)	15	0	0.262	N/A	Erosion of natural deposits	NO
Radium-226 & Radium-228 Combined (pCi/l)	5	0	0.25	N/A	Erosion of natural deposits	NO

Substance Jan-Apr 15, 2017 (Microbiological)	MCL	MCLG	Highest Monthly Measurement	Lowest Monthly Percent	Major Sources In Drinking Water	Violation
Total Coliform	>5% of monthly samples	0	0	0%	Human and Animal Fecal Waste	NO

Additional Health Information

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 throughout the ground, it dissolves naturally occurring minerals and 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, 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 storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which 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 result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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 Safe Drinking Water Hotline at (800-426-4791).

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 East Longmeadow Department of Public Works 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>.

Some people may be more vulnerable to contaminants in drinking water than in 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, elderly, and 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 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).



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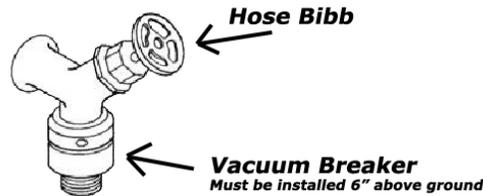
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Cross Connection Information

A cross connection is a connection between a drinking water pipe and a polluted or contaminated source. This can occur right in your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in town or a water main break) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your homes hose bibs called a backflow prevention device can help

prevent this problem. The East Longmeadow DPW Water Division recommends the installation of low cost hose bib vacuum breakers, for all inside and outside hose connections. You can purchase them at a hardware or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your town. For additional information on cross connections and the status of our water systems cross connection program, please the Department of Public Works at 413-525-5400.



We'll be happy to answer any questions about the Water Division [PWS ID# 1085000] and our water quality. For more information, please contact Bruce Fenney, Superintendent, at 413-525-5400 ext. 1200 or at 60 Center Square, East Longmeadow, MA 01028.



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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring and Reporting Requirements not Met for East Longmeadow DPW Water Department

The East Longmeadow DPW Water Department (East Longmeadow) violated a drinking water standard in December 2017. Although this was not an emergency, as our customers, you have the right to know what happened, what you should do, and what we are doing to correct this situation.

What Happened?

We routinely monitor for the presence of drinking water contaminants and are required to monitor drinking water for Haloacetic Acid (HAA5s) levels on a quarterly basis at four approved locations. Results of regular monitoring are indicators of whether our drinking water meets health standards. The Massachusetts Department of Environmental Protection (MassDEP) did not receive valid monitoring results in December 2017 for HAA5s monitoring at our Harkness Avenue Pump Station. Although a sample was collected, it was invalidated due to a laboratory error. East Longmeadow was not informed by the laboratory in time to collect a replacement the sample.

What are HAA5s?

HAA5s are a group of disinfection by-products that form when chlorine compounds that are used to disinfect water react with other naturally-occurring chemicals in the water. There are five significant HAAs potentially found in disinfected drinking water and their combined concentration is referred to as *total HAA5s*. Levels of HAA5s can be affected by seasonal changes in source water quality or by changing amounts of disinfection added. Water systems often can experience temporary increases in HAA5s due to short-term increases in chlorine disinfection. Chlorine disinfection increases can occur when there is a water main break, when water systems are under repair, or when there is a potential microbial problem or threat. All water systems that use chlorine to disinfect the water are required by federal and state law to sample for HAA5s on a regular basis (quarterly, or once every three months).

Why is chlorine added to the water?

Chlorine is used to disinfect drinking water. Disinfection of water supplies is necessary to prevent illness and is a federal and state requirement. Disinfection of the water first kills any microorganisms that it may contain. Then, a small amount of disinfectant is needed in the water as it travels through the pipes in the distribution system. This prevents regrowth of microorganisms, or contamination from an outside source, such as during a water main break.

What Should I do?

There is nothing you need to do. This was not an immediate risk. If it had been an emergency, you would have been notified within 24 hours.

What steps are being taken to return to compliance?

Based on the situation which occurred, East Longmeadow plans to contact to the laboratory conducting the HAA5s analysis within 15 business days from when the quarterly HAA5s samples are taken, to determine if all samples



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have been analyzed and validated. If a laboratory error occurs in the future, East Longmeadow will re-sample the location from which the invalidated sample was collected within 48 hours following consultation with MassDEP.

Who can I contact if I have additional questions about this Notice?

East Longmeadow is committed to providing you with a safe and reliable water supply. Informed customers are our best allies in maintaining safe drinking water. We'll be happy to answer any questions about the Water Division [PWS ID# 1085000] and this monitoring and reporting violation. For more information, please contact Bruce Fenney, Superintendent, at 413-525-5400 ext. 1200 or at 60 Center Square, East Longmeadow, MA 01028.

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.

This notice is being sent to you by:

PWS ID #:

Date distributed:

East Longmeadow Water Department

1085000

June 15, 2018
