



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

*Bruce Fenney*, Superintendent

*bruce.fenney@eastlongmeadowma.gov*  
(413) 525-5400 ext. 1200

## 2018 Water Quality Report PWS ID # 1085000

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 2018, the East Longmeadow Department of Public Works (Department) supplied a total of 658 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. For an in depth report on the SWSC Source Water Assessment and Protection Report (SWAP), please visit [www.mass.gov/eea/agencies/massdep/water/drinking/source-water-protection-for-drinking-water-supplies.html#7](http://www.mass.gov/eea/agencies/massdep/water/drinking/source-water-protection-for-drinking-water-supplies.html#7)

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 Water 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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We are committed to providing you with the best water quality available. However some contaminants that were tested in 2018 did not meet all applicable health standards regulated by the state and federal government. Due to contaminant violations for Haloacetic acids (HAA5), which are disinfection byproducts, during the period January 1, 2018 – December 31, 2018 at the entry point to the distribution system (EPTDS) at Harkness Avenue. It is important to note that, as the water travels through the water distribution system, the HAA5's dissipate and concentrations decrease significantly with time.

Our system took the following corrective actions: We mailed a public notification and also published an ad in the Springfield Republican newspaper. The Town has also added an informational video to the Town's website showcasing a college professor from UMASS and a representative from the Springfield Water and Sewer Commission (SWSC) speaking about HAA5's. We strongly encourage residents to view this video at [www.connectingpoint.wgby.org/springfield-drinking-water-safety/](http://www.connectingpoint.wgby.org/springfield-drinking-water-safety/). This video answers many of the questions and concerns residents may have.

### How to Read the Water Quality Table

This report is based upon tests conducted by the Department and the Springfield Water & Sewer Commission (SWSC). The following table shows what substances were detected in our drinking water during 2018 or during the most recent sampling period. 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 90<sup>th</sup> 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.

**MRL = Minimum Reporting Level**

**N/A = Not applicable**

**N/D = None Detected**

**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.



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**Ug/L** = microgram per liter

**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	85.4	58-96	By-product of drinking water chlorination	NO
HAA5s [Total Haloacetic Acids]	ppb	60	N/A	71.5	47-129	By-product of drinking water chlorination	YES

The results show that the 4<sup>th</sup> 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 92 ppb. This exceedance is an MCL violation; the Department evaluated the possible cause of the exceedances and took the necessary corrective action(s) in an attempt to correct the issue.

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 Mass DEP.

TTHM (ppb)*	Date	Range	OEL	LRAA	MCL	Source	Violation
Denslow P.S.	Quarterly	46.0-90.4	81.1	70	80	By-product of drinking water chlorination	NO
Meadowbrook School	Quarterly	53.0-93.8	83.4	73.2	80	By-product of drinking water chlorination	NO
Harkness P.S.	Quarterly	38.0-87.0	76.5	64.3	80	By-product of drinking water chlorination	NO
35 Ainslie	Quarterly	58.0-96.0	85.4	75.9	80	By-product of drinking water chlorination	NO

HAA (ppb)**	Date	Range	OEL	LRAA	MCL	Source	Violation
Denslow P.S.	Quarterly	30.6-66.0	53.0	44.7	60	By-product of drinking water chlorination	NO
Meadowbrook School	Quarterly	29.8-46.7	40.4	37.2	60	By-product of drinking water chlorination	NO
Harkness P.S.	Quarterly	47.0-129.0	92.0	71.5***	60	By-product of drinking water chlorination	*** YES (MCL)
35 Ainslie	Quarterly	19.5-27.8	23.9	22.2	60	By-product of drinking water chlorination	NO

\*Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

\*\*Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

\*\*\* The Town is working closely with the SWSC to determine the cause and solution to this exceedance. As a corrective action the Town has lowered its dose of chloramines at the Chestnut Pumping Station and the SWSC has lowered its chlorine dosage at the treatment facility.

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	0.22	0.01 – 0.76	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



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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.

Unregulated contaminants*	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	37.5	0 – 37.5	Byproduct of treatment process	NO
Manganese	ppb	None	50	6.6	N/A	Erosion of natural deposits	NO
Chloroform	ppb	None	70	3.98	N/A	Byproduct of drinking water chlorination	NO
Bromodichloromethane	ppb	None	None	0.53	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.

Substance (Inorganic)	Unit	MCL	MCLG	Highest Level Detected	Range Detected at Individual Sites	Major Sources in Drinking Water	Violation
Nitrate	ppm	10	10	0.0516	N/A	Natural deposits, stormwater, fertilizer run-off	NO
Barium	ppm	2	2	0.0083	N/A	Erosion of natural deposits	NO

Substance (Inorganic)	90 <sup>th</sup> 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 <sup>1</sup>	TT	N/A	0.206	100%	Soil run-off	NO
Turbidity (NTU) Slow Sand Filtration <sup>2</sup>	TT	N/A	0.61	100%	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.

<sup>1</sup>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.

<sup>2</sup>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 contaminant (UCMR4)*	Result	MRL	Units	MCL	Major Sources in Drinking Water	Violation
Manganese	3.5	0.40	ppb	NONE	Erosion of natural deposits	NO

(UCMR4)*	HAA-5	HAA-6
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	Result	Result	HAA-9 Result	Units	Major Sources in Drinking Water
Meadowbrook School	43.3	43.63	45.23	Ug/L	Byproduct of drinking water chlorination
35 Ainslie	7.6	7.6	7.6	Ug/L	Byproduct of drinking water chlorination
Denslow P.S.	55.6	55.97	58.17	Ug/L	Byproduct of drinking water chlorination
Harkness P.S.	87.3	88.9	91.5	Ug/L	Byproduct of drinking water chlorination

\*Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA with determining their occurrence in drinking water and whether future regulation is required.

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 (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,



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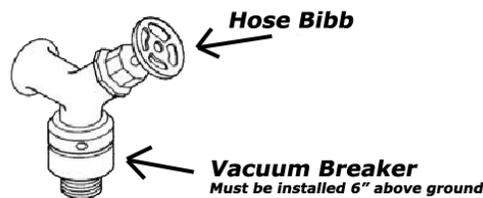
*bruce.fenney@eastlongmeadowma.gov*  
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but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds 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).

### 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 contact the Department of Public Works Cross Connection Control Inspector at 525-5400 ext. 1255.



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.