

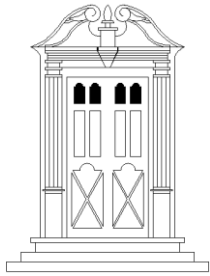


2022

Town of Longmeadow

WATER QUALITY REPORT





Incorporated 1783

Town of LONGMEADOW, MASSACHUSETTS

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DEPARTMENT OF PUBLIC WORKS



2022 Annual Water Quality Report PWS ID # 1159000

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2022. Over the past years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to your home and business. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Where Does My Water Come From?

The Town of Longmeadow purchases 100% of its water from the Springfield Water and Sewer Commission. Drinking water produced by Springfield originates from a surface water supply located in Blandford and Grandville, Massachusetts. Two water bodies make up the water supply: Cobble Mountain Reservoir, and Borden Brook Reservoir.

Water Treatment Process

The Cobble Mountain Reservoir water flows to the West Parish Filter Treatment Plant, located in Westfield Massachusetts, where it is filtered through slow sand and rapid sand filtration, treated to inhibit corrosion of home plumbing, adjusted for pH, and disinfected before it flows to the 42-million-gallon underground storage tanks at Provin Mountain Reservoir located in Agawam, Massachusetts.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing treatment, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. The U.S. 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 at (800) 426-4791

Source Water Assessment

A source Water Assessment Plan (SWAP) has been completed for the Springfield Water and Sewer Commission by the Massachusetts Department of Environmental Protection. A SWAP report identifies land uses within water supply protection areas that may be potential sources of contamination. This report is available at <https://www.mass.gov/docs/western-region-source-water-assessment-ptection-swap-program-reports/download>. Source water ID # 1281000-02S and 1281000-04S

Community Water Fluoridation

The safety and benefits of fluoride are well documented. For over 70 years, U.S. citizens have benefited from drinking water containing fluoride, leading to better dental health. Drinking fluoridated water keeps the teeth strong and has reduced tooth decay by approximately 25% in children and adults.

Over the past several decades, there have been major improvements in oral health. Still, tooth decay remains one of the most common chronic diseases of childhood. Community water fluoridation has been identified as the most cost-effective method of delivering fluoride to all members of the community, regardless of age, education attainment, or income level. The Town of Longmeadow Water Department has been providing fluoride treatment since 1989 at adjusted optimal levels averaging 0.7 ppm (parts per million).

Lead in Home Plumbing

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 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 are available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Educational Information

Drinking water, including commercially bottled water, may reasonably be expected to contain at least small amounts of some contamination. The presence of contaminations 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 human activity.

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

- *Microbial contaminants*: such as viruses and bacteria, 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*: These may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*: include synthetic and volatile chemicals, 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*: these may be naturally occurring or be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Our system violated a drinking water standard this year. Although this incident was not an emergency, as our customer you have the right to know what happened. We routinely monitor for the presence of drinking water contaminants. One of our four sites exceeded the locational running average (LRAA) for Haloacetic Acid (HAA5) Berkshire Bank. The standard for HAA5 is 60 ppb and the site was 73.0 ppb. We also exceeded the limits for Total trihalomethane (TTHM) at all four of our sites Berkshire Bank, Twin Hills C.C., LPD, and the old Council of Aging. The standard for TTHM is 80 ppb and our sites' LRAA ranged from 90.2 to 93.6 ppb

Water Quality Data

The following table lists all of the drinking water contaminants from Springfield and Longmeadow that were detected during the 2022 calendar year. *The presents of these contaminants in the water do not necessarily indicate that the water poses a health risk.* Unless otherwise noted, the data presented in this table is from finished water testing done from January 1 to December 31, 2022.

The state allows water systems to monitor for certain substances less than once a year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Regulated Substances				Longmeadow Water		Springfield Water		Violation Y/N	Typical Source
Contaminant (units)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High		
Barium (ppm)	2022	2	2	N/A	N/A	0.0064	N/A	N	Erosion of natural deposits, discharge from drilling waste or metal refineries
Chlorine (ppm)	2022	[4]	[4]	0.69	0.34-0.93	N/A	N/A	N	Water additive used to control microbes
Fluoride (ppm)	2022	4	4	0.70	0.40-0.80	N/A	N/A	N	Water additive to promote strong teeth
Haloacetic Acid (ppb)	2002	60	N/A	73.0	3.3-73.0	N/A	N/A	Y	By-products of drinking water Chlorination
Nitrate (ppm)	2022	10	10	N/A	N/A	0.0738	N/A	N	Runoff from fertilizer use, leaching from septic tanks, Sewage, erosion of natural deposits
Total Trihalomethanes (ppb)	2022	80	N/A	93.6	91.0-93.6	N/A	N/A	Y	By-products of drinking water Chlorination
Gross Alpha (pCi/l)	2020	15	0	N/A	N/A	0.262	N/A	N	Erosion of natural deposits
Radium 226/228 Combined (pCi/l)	2020	5	0	N/A	N/A	0.25	N/A	N	Erosion of natural deposits
Total Coliform Bacteria	2022	1 positive monthly sample	0	0	N/A	N/A	N/A	N	Naturally present in the environment
Turbidity-slow sand filtration (NTU) Monthly compliance	2022	TT: at least 95% of samples per month below 1.0	N/A	N/A	N/A	100%	N/A	N	Soil runoff
Turbidity-slow sand filtration (NTU) Daily compliance	2022	5	N/A	N/A	N/A	0.98	N/A	N	Soil runoff
Turbidity-rapid sand filtration (NTU) Monthly compliance	2022	TT: at least 95% of samples per month below 0.3	N/A	N/A	N/A	99%	N/A	N	Soil runoff
Turbidity-rapid sand filtration (NTU) Daily compliance	2022	1	N/A	N/A	N/A	0.641	N/A	N	Soil runoff

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

Tap water samples were collected for lead and copper analysis from sample sites throughout the community

Contaminant (units)	Year Sampled	Action Level (AL)	MCLG	Amount Detected (90 th percentile)	Sites Above AL/ Total Sites	Violation Y/N	Typical source
Copper (ppm)	2021	1.3	1.3	0.116	1/30	N	Corrosion of household plumbing systems, Erosion of Natural deposits
Lead (ppb)	2021	0.015	0	0.0018	2/30	N	Corrosion of household plumbing systems, Erosion of Natural deposits

Unregulated Substances- Springfield Water and Sewer Commission

Contaminants (Units)	Year Sampled	SMCL	MCLG	Amount Detected	Range Low-High	Violation Y/N	Typical Source
Bromodichloromethane (ppb)	2022	N/A	N/A	0.99	N/A	N	By-products of drinking water chlorination
Chloroform (ppb)	2022	70	N/A	9.33	N/A	N	By-products of drinking water chlorination
Manganese (ppm)	2022	50	N/A	7.56	N/A	N	Erosion of natural deposits
Sodium (ppm)	2022	20	N/A	13.5	N/A	N	Naturally occurring; treatment process

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

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment of other requirements that a water system must follow.

ALG (Action Level Goal): The level of a contaminant in drinking water below which there is no known or expected health risk. ALGs allow for a margin of safety.

LRAA (Locational Running Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. The amount detected values for TTHM and HAA5 are reported as LRAA.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG 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 health risk. MCLG allows 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 the addition of a disinfectant is necessary for the control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of drinking water disinfectant below which there is no known or expected health risk. MRDLG does not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

N/A: Not applicable

ND (Not detected): Indicates that the substance was not found by the laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurements of the clarity, or turbidity, of water. Turbidity above 5 NTU is just noticeable to the average person.

pCi/l (Picocuries per liter): A measure of radioactivity.

ppb (parts per billion): micrograms per liter or parts per billion, or one ounce in 7,350,000 gallons of water.

ppm (parts per million): milligrams per liter or parts per million, or one ounce in 7,350 gallons of water.

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.

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

Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water here are a few tips.

- Turn off the water when brushing your teeth
- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So load the dishwasher to capacity
- Check for leaks, in toilets your faucets
- Did you know your water meter has a leak detector on the dial? That little blue dial will spin when water is going through the meter. Make sure you have everything off and go check that blue dial.
- When watering your lawn with an automatic system, make sure your program is up to date and not set for multiple times a day.

What is a Cross Connection?

Cross-Connection that contaminates the drinking water distribution system is a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water system (backpressure). Contamination can also occur when the pressure in the drinking water system drops due to high demand, water main breaks, and fires, causing contaminants to be sucked out from the equipment and into the drinking water system (back-siphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. 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.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices are installed and maintained. We have surveyed commercial and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention contact the Safe Drinking Water Hotline at (800) 426-4791

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