Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water, which 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 these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife.
- Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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, urban stormwater runoff, and residential uses.
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive Contaminants, which can be naturally occurring or may 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.

Source Water Assessment

A Source Water Assessment Plan (SWAP) has been completed for the Springfield Water Supply by the Massachusetts Department of Environmental Protection and is available at http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1281000.pdf

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Department of Environmental Protection
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413-784-1100

Safe Drinking Water Hotline
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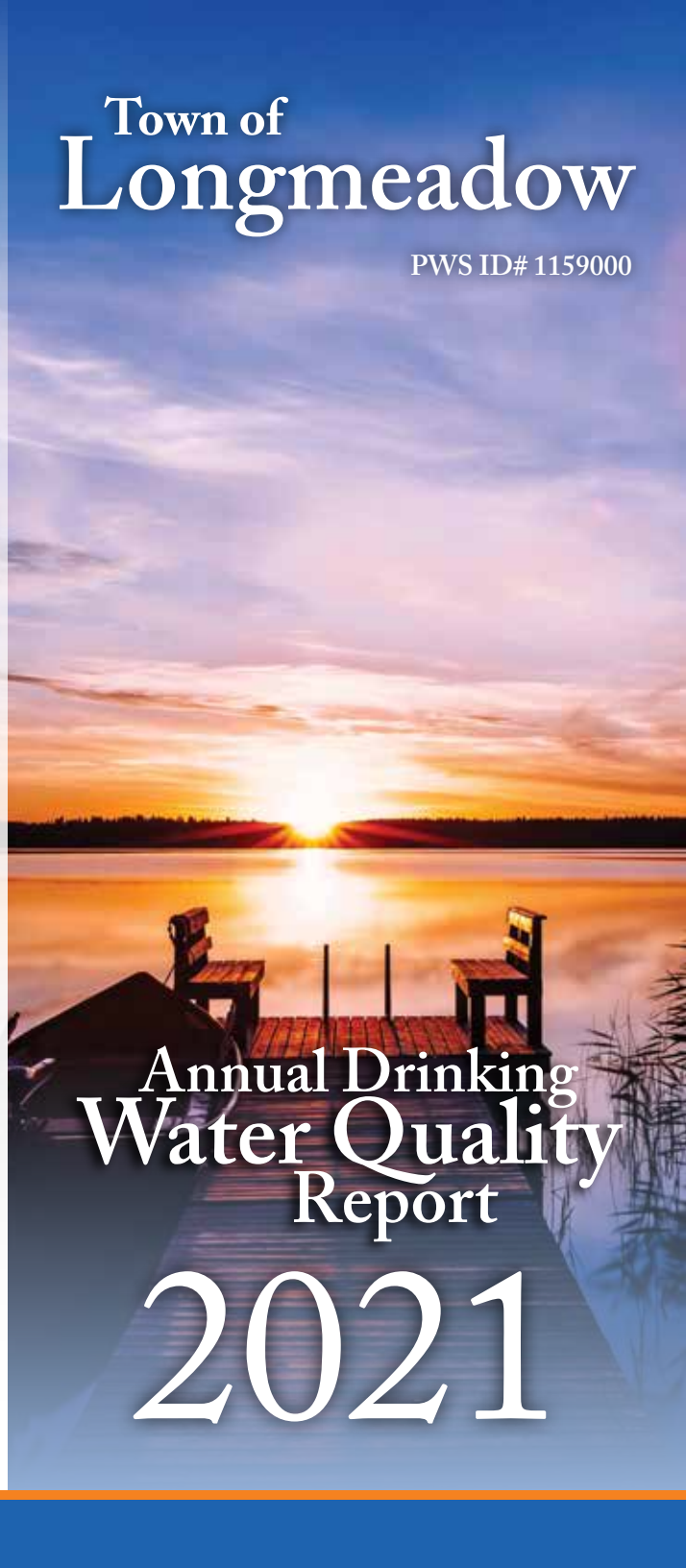
Town of Longmeadow

PWS ID# 1159000



Annual Drinking Water Quality Report

2021

2021 Annual Drinking Water Quality Report

PWS ID# 1159000

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2021. Over the 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 homes and businesses. 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 of our water users.

Please remember that we are always available to assist you, should you ever have any questions or concerns about your water.

For more information about this report, or for any questions relating to your drinking water, please call Michael Spear, Water Department Supervisor, at (413) 567-3400.

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 the Springfield Water and Sewer Commission originates from a surface water supply located in Blandford and Granville, Massachusetts. Two water bodies make up the water supply: Cobble Mountain Reservoir and Borden Brook Reservoir.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or http://water.epa.gov/drink/hotline.

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. We are 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 www.epa.gov/safewater/lead.

Community Water Fluoridation

The safety and benefits of fluoride are well documented. For over 70 years, U.S. citizens have benefitted 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.

Nearly all water contains some fluoride, but usually not enough to help prevent tooth decay or cavities. Public water systems can add the right amount of fluoride to the local drinking water to prevent tooth decay.

Community water fluoridation is recommended by nearly all public health, medical, and dental organizations in the U.S. Because of its contribution to the dramatic decline in tooth decay, the Centers for Disease Control and Prevention (CDC) name community water fluoridation one of the greatest public health achievements of the 20th century. (Courtesy of the CDC: cdc.gov/fluoridation)

What's a Cross-connection?

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 (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 line (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 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. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, 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.

Water Treatment Process

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 and 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.

Sampling Results

PWS ID# 1159000

The Springfield Commission's state certified laboratory analyzed water quality samples daily. In addition, Springfield and Longmeadow use private certified laboratories to ensure the water supply is potable and meets all government standards. The water is monitored at the reservoir, the treatment plant, the storage reservoir, and throughout the distribution system.

The state allows water systems to monitor for certain substances less than once per 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.

				Longmeadow Water Department		Springfield Water and Sewer Commission			
Regulated Substances									
Contaminant (Units)	**Year Sampled**	**MCL** [MRDL]	**MCLG** [MRDLG]	**Amount Detected**	**Range Low-High**	**Amount Detected**	**Range Low-High**	**Violation (Y/N)**	**Typical Source**
Barium (ppm)	2021	2	2	NA	NA	0.0060	NA	N	Discharge of drilling wastes, metal refineries; erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	0.62	0.30-1.01	NA	NA	N	Water additive used to control microbes
Fluoride (ppm)	2021	4	4	0.70	0.5-0.9	NA	NA	N	Water additive that promotes strong teeth
Haloacetic Acids (HAA5) (ppb)	2021	60	NA	59.1	3.1-59.1	NA	NA	Y	By-products of drinking water chlorination
Nitrate (ppm)	2021	10	10	NA	NA	0.0595	NA	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes (TTHM) (ppb)	2021	80	NA	69.6	57.1-69.6	NA	NA	N	By-products of drinking water chlorination
Gross Alpha (pCi/l) (pCi/l)	2020	15	0	NA	NA	0.262	NA	N	Erosion of natural deposits
Radium 226/228 Combined (pCi/l)	2020	5	0	NA	NA	0.25	NA	N	Erosion of natural deposits
Total Coliform Bacteria (# positive samples)	2021	1 positive monthly sample	0	0	NA	NA	NA	N	Naturally present in the environment
Turbidity-Slow Sand Filtration (NTU)	2021	5	NA	NA	NA	0.18	100%	N	Soil runoff
Turbidity-Rapid Sand Filtration [1] (NTU)	2021	1	NA	NA	NA	0.23	100%	N	Soil runoff

Tap water samples were collected for lead and copper analysus from sample sites througout the community							
Contaminant (Units)	**Year Sampled**	**Action Level (AL)**	**MCLG**	**Amount Detected (90th 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 [2]							
Contaminant (Units)	**Year Sampled**	**SMCL**	**MCLG**	**Amount Detected**	**Range Low-High**	**Violation (Y/N)**	**Typical Source**
Aluminum (ppb)	2019	200	NA	61.9	0-61.9	N	Erosion of natural deposits; Residual from some surface water treatment processes
Bromodichloromethane (ppb)	2021	NA	NA	0.73	NA	N	By-products of drinking water chlorination
Chloroform (ppb)	2021	70	NA	5.61	NA	N	By-products of drinking water chlorination
Manganese (ppm)	2021	50	NA	5.5	NA	N	Erosion of natural deposits
Sodium (ppm)	2021	20	NA	11.4	NA	N	Naturally occurring; treatment process

[1] 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.

[2] 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 occurence in drinking water and whether future regulation is warranted.

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have the right to know what happened.

We routinely monitor for the presence of drinking water contaminants. One of our four testing sites exceeded the locational running average (LRAA) for total Haloacetic Acids (HAA5s). The standard for HAA5 is 0.060 (mg/L) and the site LRAA was 0.062.

What should I do?	What does this mean?	What is being done?
• At this time, no alternative source of water is necessary. However, if you have any health concerns, consult your doctor.	• This is not an emergency. If it had been, the Longmeadow Water Department would have provided notification to customer's immediately. HAA5s are five Haloacetic acid compounds which form when disinfectants react with natural organic matter in water. Some people who drink water containing HAA5s and TTHMs in excess of the MCL over many years may have an increased risk of getting cancer.	• The Longmeadow Water Department is working with the Springfield Water and Sewer Commission on its water treatment methods which will help to reduce the disinfection byproducts.

Definitions

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

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do 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 laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 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.

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

The Benefits of Fluoridation

Fluoride is a naturally occurring element in many water supplies in trace amounts. In our system the fluoride level is adjusted to an optimal level averaging one part per million (ppm) to improve oral health in children. At this level it is safe, odorless, colorless, and tasteless. Our water system has been providing this treatment since 1989. There are more than 3.9 million people in 140 Massachusetts water systems and 184 million people in the U.S. who receive the health and economic benefits of fluoridation.