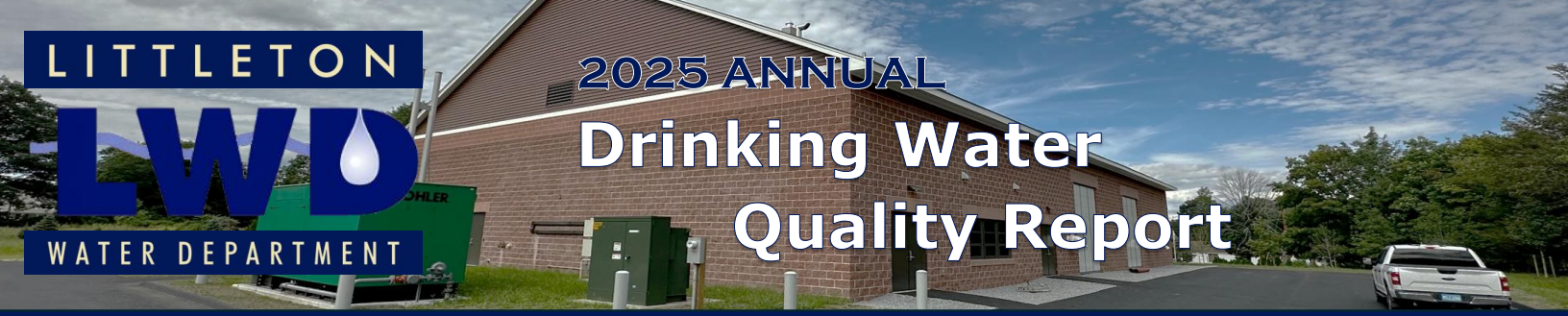


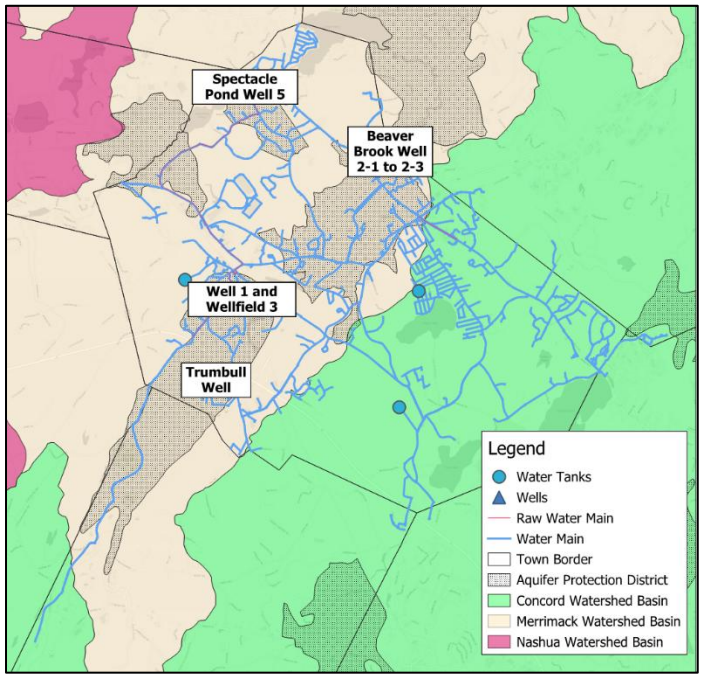
39 AYER ROAD, LITTLETON, MASSACHUSETTS WWW.LELWD.COM MASSDEP PWSID# 2158000

This report is a snapshot of the drinking water quality that the Littleton Electric Light and Water Departments (LELWD) provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to keeping you informed about the quality of your drinking water.

Water Quality Report Summary

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, Massachusetts certified operators oversee the routine operations of our water system. A summary for the highlights from 2025 is listed below:

- As part of our ongoing commitment to public health, LELWD completed and continued various improvements to the water system including:
    - Water main replacements on Foster Street and Taylor Street were completed, replacing over 5800 ft of old water main.
    - Work continued on the Trumbull Well Site, an important project to increase the town's water supply and build resiliency.
    - The Boxborough Expansion Project finished the water main installations and LELWD is readying customer connections ahead of the new well coming online.
- LELWD maintained superb water quality in 2025, with zero violations and a non-detectable 90th percentile lead testing result exemplifying our commitment to clean and safe drinking water. See **Page 5** for a detailed breakdown of results.
- The 238 King Street Water Resource Recovery Facility was opened and began treating wastewater flows from the Common to improve groundwater quality in the area and support local development.



Your Drinking Water Source

Where Does My Drinking Water Come From?

Your water is provided by the following sources listed below:

Source Name	MassDEP Source ID#	Source Type
Spectacle Pond Well	2158000-04G	Groundwater
Whitcomb Wells	2158000-02G, 08G	Groundwater
Beaver Brook Wells	2158000-05G, 06G, 07G	Groundwater

In case of emergencies, the LWD maintains interconnections with the Westford, Ayer, and Acton water utilities.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend one of our monthly Commissioners' Meetings, in the LELWD Operations Center at 39 Ayer Road. See the link below to find out when the next meeting is:

https://www.lelwd.com/board-of-commissioners/

Public Water System Information

Address: 39 Ayer Road, Littleton, Massachusetts
Contact: Carolynn Kennedy, Operations Coordinator, (978) 540-2286

Source Water Protection:

The Town of Littleton integrates land-use planning, environmental audits, and groundwater monitoring in an aggressive and comprehensive aquifer and watershed protection program. Begun in 1981, much of the success of the program is due to a cooperative relationship between community planners and industrial and commercial developments.

One important factor in the program's success has been the water department's effort to foster a cooperative partnership with the business community. Through communication, assistance, and non-adversarial monitoring, the program has become a close environmental partner and consultant to local industries and businesses.

Because of its effectiveness, the program has been recognized as a model for the development of wellhead protection strategies in many New England communities. As part of this program, more than 100 groundwater-monitoring stations are located at over 30 properties within the community and are maintained and sampled by the water department. All compliance - monitoring costs are borne by the regulated bodies.

In addition, LWD environmental personnel conduct environmental audits of regulated facilities to ensure compliance with Littleton's Aquifer and Water Resource Protection Bylaws and other state and federal regulations. This typically consists of a walk-through inspection to assess the environmental liability of products at the site, with recommendations offered for safe storage and handling procedures.

Residents can assist in protecting the groundwater by practicing good septic system maintenance, such as pumping out their septic tank every two years, and not using the septic system to dispose of solvents and paints. Limiting the use of pesticides, herbicides and fertilizers on lawns will also help. Participating in hazardous waste collection also helps reduce the potential improper disposal of hazardous materials.

Important Definitions:

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

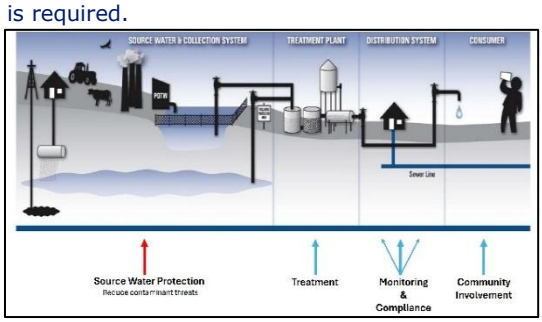
Contaminant: Any physical, chemical, biological, or radiological substance or matter in water.

Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- We add a disinfectant to protect you against microbial contaminants.
- We filter the water to remove small particles and organisms such as sediment, algae and bacteria.
- We chemically treat the water with phosphate corrosion inhibitors to reduce lead and copper concentrations.
- We chemically treat the water to reduce levels of iron and manganese.

The water quality of our system is constantly monitored by us and MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.



The use of chlorine in drinking water treatment has saved millions of American lives since it was first introduced in 1908 to combat waterborne diseases like cholera, typhoid fever, and dysentery. Today, the vast majority of public water systems in the United States use chlorine to ensure that their customers are protected from these and other waterborne diseases.

Here in Littleton, we add low doses of chlorine to the water at all of our well sites to ensure that the water delivered to your tap is free from bacteria and other potential disease-causing organisms.

In addition to its disinfection abilities, chlorine also oxidizes many contaminants from their dissolved to particulate, or solid, forms, making removal easier. For example, at our Beaver Brook Treatment Facility, we use chlorine to convert dissolved iron and manganese to their particulate forms, which can then be removed through a filtration process to further purify your water.

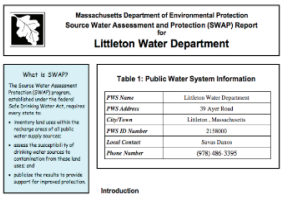
Corrosion control chemicals are a tools we use to limit lead exposure. Some plumbing fixtures from before 1986 could contain small traces of lead. This lead could leach off into drinking water under the right conditions (like changes in water acidity or temperature), so to prevent the leaching of lead, LELWD adds a phosphate corrosion inhibitor that coats the inside of pipes to prevent the lead from leaching off and reaching the consumer.

As part of a multi-barrier approach to ensuring safe drinking water, chlorine and corrosion control treatment are critical second lines of defense after our source water protection program that minimizes the potential for contamination in our finished water.

How Are These Sources Protected?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply sources serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

A susceptibility ranking of **high** was assigned to this system using the information collected during the assessment by MassDEP. Susceptibility is a measure of water supply's potential to become contaminated due to land uses and activities within its recharge area. The growth of industrial, commercial and residential development in Littleton is the main cause for this ranking. As stated in the sidebar, we have a comprehensive source water protection program and are continuously monitoring contaminant levels, disinfecting, filtering, or treating water to ensure LWD water sources meet safe drinking water standards.


Massachusetts Department of Environmental Protection
Source Water Assessment and Protection (SWAP) Report for
Littleton Water Department

What is SWAP?

Table 1: Public Water System Information

PWS Name	Littleton Water Department
PWS Address	39 Ayer Road
City/Town	Littleton , Massachusetts
PWS ID Number	2150000
Local Contact	Aaron Daiute
Phone Number	(978) 486-3395

Introduction

The complete SWAP report is available at the Littleton Water Department and online at:

https://www.mass.gov/doc/central-region-source-water-assessment-protection-swap-program-reports-0/download

For more information, call Joshua Walsh at (978) 540-2283.

Important Definitions (Cont.):

Health Advisory (HA) - Health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to states agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

Herbicide: Any chemical(s) used to control undesirable vegetation.

Maximum Contaminant Level (MCL) - 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.

Maximum Contaminant Level Goal (MCLG) - 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.

Maximum Residual Disinfectant Level (MRDL) - 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.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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 contamination.

Modified Reporting Limit (MRL) – The final reporting limit that applies to the sample once all sample preparation and/or dilution factor has been applied.

90th Percentile - Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the action level to determine lead and copper compliance.

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect aesthetic qualities of drinking water and are not health based.

Office of Research and Standards Guideline (ORSG) - 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.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

Substances Found In Tap

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 source water 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, 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, are byproducts 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) and MassDEP prescribe regulations that limit 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 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (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 (1-800-426-4791).

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and home plumbing. LWD is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures.

Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water, and wish to have your water tested, contact Carolynn Kennedy at (978) 540-2286. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

Important Definitions (Cont.)

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

ppm = parts per million or milligram per liter (mg/L)

ppb = parts per billion or micrograms per liter (ug/L)

ppt = parts per trillion or nanograms per liter (ng/L)

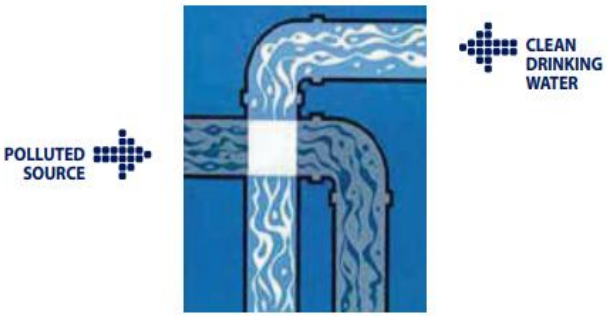
pCi/l = picocuries per liter (a measure of radioactivity)

mrem/year = millirems per year (a measure of radiation absorbed by the body)

N/A = Not Applicable

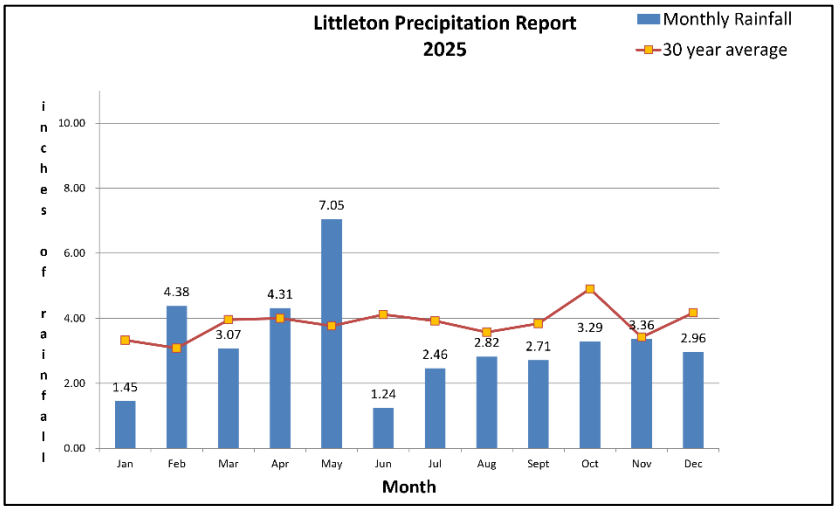
What Is A Cross Connection? What Can I Do About It?

A cross connection is an actual or potential connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, a lawn fertilizer sprayer connected to a hose can cause fertilizer to be pulled into the home's water pipes and into the water system if the pressure suddenly drops, which could happen with the use of a fire hydrant. Using a back-flow prevention device can prevent this problem.



LWD recommends the installation of back-flow prevention devices, such as a low-cost hose bib vacuum breaker, for all inside and outside hose connections. They are available at hardware or plumbing supply stores. 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 on the status of your water system's cross connection program, please contact Matt Silverman at (978) 540-2260.



Water Conservation

Drought conditions have fluctuated throughout 2025 but have generally worsened due to persistently dry weather patterns and below-average rainfall during the second half of the year. From June through December 2025, monthly rainfall averaged approximately 1.3 inches below the 30-year normal, resulting in reduced groundwater recharge. We ask that all residents conserve water as much as possible and follow required nonessential water use restrictions during drought declarations.

Please visit this link to view further details related to the outdoor watering ban: www.lelwd.com/water-ban-in-effect/

You can enroll in our Community Notification System at the link below to ensure you receive the latest information on water use restrictions, water main breaks, power outages, and other emergency situations.

https://public.coderedweb.com/CNE/en-US/458D14D27696

Please do your part by following outdoor water conservation tips:

- **Lawn Care –** Allow your grass to grow taller in hot, dry weather. Longer grass means less evaporation and will encourage roots to grow deeper leaving your lawn more drought tolerant.
- **Lawn Watering** – Daytime watering is costly and wasteful. Water in the early morning or evening when evaporation rates are lowest. One inch of water per week is all that is generally necessary to maintain your lawn. Avoid over-watering by using a rain gauge or coffee can to measure the volume of water being applied. As a general rule, lawns only need watering every five to seven days in the summer. A hearty rain eliminates the need for watering for as long as two weeks.
- **Car Washing** – Use a bucket to wash. Keep a nozzle on your hose. Do not let water run when not in use.
- **Pool** – Use a pool cover to keep water clean and reduce evaporation.
- **General Maintenance** – Use a broom instead of a water hose to clear debris from patios, driveways, and sidewalks.
- **Landscaping** – Plant trees to provide shade; decrease lawn area; use drought-resistant shrubs; increase areas of ground cover; spread mulch.
- **Valves and Hoses** – Check outdoor pipes, hoses, and faucets for leaks.

What Does This Data Represent?

The water quality information presented in the tables is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the tables. MassDEP has reduced the monitoring requirements for nitrites because the source is not at risk of contamination. The last sample collected for these contaminants was taken in 2022 and met all applicable EPA and MassDEP standards. Only the detected contaminants are shown.

Water Quality Testing Results

Regulated Contaminant	Dates Collected	90th Percentile	Action Level	MCLG	# of Sites Sampled	# of Sites Above Action Level	Possible Sources of Contamination
Lead (ppb)	2025	0.000	15	0	20	0	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm)	2025	0.312	1.3	1.3	20	0	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives.

Regulated Contaminant	Dates Collected	Highest Result or Running AVG detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources of Contamination
Inorganic Contaminants							
Arsenic (ppb)	2025	1.12	1.11-1.12	10	0	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Nitrate (ppm)	2025	1.15	0.71 – 1.15	10	10	N	Runoff from fertilizer use, leaching from septic tanks; sewage; erosion of natural deposits.
Perchlorate	2025	0.11	0.05 – 0.11	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents.
Volatile Organic Contaminants							
Tetrachloroethylene (ppb)	2025	0.47	0.21 – 0.47	5	0	N	Discharge from factories and dry cleaners and asbestos cement lined pipes.
Radioactive Contaminants							
Gross Alpha (pCi/L)	2024(1)	3.3	1.4 - 3.3	15	0	N	Erosion of natural deposits.
Radium 226 and 228 (pCi/L) (combined values)	2024(1)	0.5	0.4 - 0.5	5	0	N	Erosion of natural deposits.
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs) (ppb)	2025	22	N/A	80	N/A	N	Byproduct of drinking water chlorination.
Haloacetic Acids (HAA5) (ppb)	2025	1.5	N/A	60	N/A	N	Byproduct of drinking water chlorination.
Chlorine (ppm) (free)(2)	Monthly in 2025	0.32 (3)	0.00 to 0.84	4	4	N	Water additive used to control microbes.
Per- and Polyfluoroalkyl Substances							
PFAS6 (ppt) (4)	2025	6.66(5)	N/A	20	N/A	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil-resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.

(1) **Chlorine:** Part of these may be unregulated, part regulated.

(2) **Highest Running Annual Average (RAA)** = highest running average of four consecutive quarters of data.

(3) The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

(4) **PFAS6 (ppt):** This value represents the sum of the six PFAS compounds included in the Massachusetts Maximum Contaminant Level of 20 ppt. The MMCL includes Perfluorooctane Sulfonic Acid (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonic Acid (PFHxS), Perfluorononanoic Acid (PFNA), Perfluoroheptanoic Acid (PFHpA), and Perfluorodecanoic Acid (PFDA).

(5) Only values that exceed MRL (Modified Reporting Limit) are included in detection result or range. This does not include values with J-Qualifiers from lab reports as these values are estimated.

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

Unregulated and Secondary Contaminants	Dates Collected	Results or Range Detected	Average Detected	SMCL	ORSG	Possible Sources of Contamination
Per- and Poly Fluoroalkyl Substances						
Perfluorohexanoic Acid (PFHxA) (ppt)	2025	2.09-2.6(5)	2.28	N/A(7)	N/A(7)	Manmade chemical; breakdown product of stain- and grease-proof coatings on food packaging and household products
Inorganic Contaminants						
Sodium (ppm)(6)	2024(3)	47.6 - 54.0	50.8	N/A(7)	20	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water softening agents.
Other Organic Contaminants - When Detected at Treatment Plant as VOC residuals, Not TTHM Compliance						
Bromodichloromethane (ppb)	2025	1.7	1.7	N/A(7)	N/A(7)	Trihalomethane; byproduct of drinking water chlorination.
Bromoform (ppb)	2025	0.6	0.6	N/A(7)	N/A(7)	Trihalomethane; byproduct of drinking water chlorination.
Chlorodibromomethane (ppb)	2025	2.2	2.2	N/A(7)	N/A(7)	Trihalomethane; byproduct of drinking water chlorination.
Chloroform (ppb)	2025	0.7	0.7	N/A(7)	70	Trihalomethane; byproduct of drinking water chlorination.

(3) The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

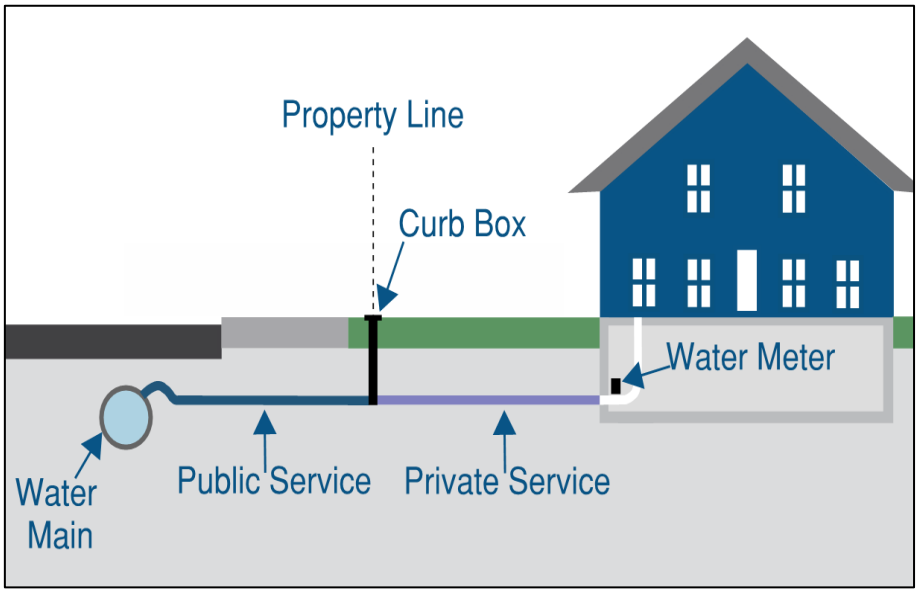
(5) Only values that exceed MRL (Modified Reporting Limit) are included in detection result or range. This does not include values with J-Qualifiers from lab reports as these values are estimated.

(6) Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

(7) There is no SMCL or ORS Guideline.

Understanding Lead and The Service Line Inventory:

With the implementation of the Lead and Copper Rule Improvements (LCRI), public water utilities around the country needed to create an inventory of all service materials by October 16th, 2024. This inventory needed to include materials for both the private side and public side of the water service (see picture to the right).



Through historical document review, resident provided surveys, and physical inspections, the Littleton Water Department completed its initial survey. The survey can be viewed upon request and will be continuously updated as more service lines are inspected.

In compliance with this regulation, LELWD will be inspecting a set number of public-side and private-side service lines per year to verify the absence of lead in the water system.

LELWD will also be participating in the DEP's Water-Smart Lead Testing Pilot Program in schools and early education and care facilities to increase monitoring in these facilities.

If you have any questions about your service line material or how to identify lead services, please see our website below for more details:

https://www.lelwd.com/leadsurvey/

Department Updates:

Developing Downtown: Paving the Way for Progress

In late 2025, construction was completed on the 238 King Street Water Resource Recovery Facility (WRRF), marking a significant milestone in the town's 2 yearlong ongoing effort to modernize and strengthen its wastewater infrastructure.

This state-of-the-art facility provides advanced biological treatment for up to 243,000 gallons per day. Since opening, the WRRF has treated wastewater from the Littleton Common, supporting continued growth, while helping protect groundwater by reducing pollution from septic leaching fields.

For those interested in the process, our website contains information about the different treatment technologies used. Please see the link below for more details:

- www.lelwd.com/sewer-division

Infrastructure Improvements : Main Replacements Underway

A large portion of the water distribution system in Littleton was built decades ago, and over time, those pipes have been aged by ground conditions and other external factors that weaken pipe integrity. Aged pipes increase the chances of main breaks and are slowly constricted overtime due to mineral buildup.

Littleton has been on a spree of replacing water mains in multiple areas of town to better the infrastructure of the water system over the past year including:

- Over 3800 ft of main on Foster Street from the intersection at Taylor Street to the intersection at Balsam Lane with new cement lined ductile iron piping replacing older and fragile asbestos concrete piping.
- On Taylor Street near Whitcomb Avenue, around 2000 ft of 110-year-old water mains have been replaced with larger capacity piping to move water between storage tanks easier.

Digging For Dependability: Trumbull Well Construction

The Trumbull Well Development Project continues to make steady progress and remains an important aspect of the town's long-term water supply strategy. In late 2025, construction crews successfully drilled and tested the new production well, which initially provided 250,000 gallons of water per day. This extra capacity will bolster our resilience against increased water demands especially if drought conditions increase in frequency and severity.

Construction activities have now advanced to pouring the concrete foundation around the well and constructing the wellhouse. The wellhouse will contain the wellhead and any infrastructure necessary for monitoring and operating the new well. Additional progress has been made on installing the concrete pads that will support the electrical infrastructure for the wellhouse.

Once finished, the Trumbull Well will help broaden our water sources, allow for more operational flexibility, and increase the overall capacity to meet the demand in town.

LITTLETON
LWD
WATER DEPARTMENT

39 Ayer Road • Littleton, MA, 01460

Postal Patron or Boxholder
Littleton, MA, 01460

2025 ANNUAL Drinking Water Quality Report