



2022 Consumer Confidence Report Water Quality

City of Lebanon Department of Public Works Water Filtration Facility

EPA Identification Number: 1321010

What is the quality of my drinking water?

The City of Lebanon Water Department is pleased to inform you that your drinking water met or exceeded all federal and state requirements, with no violations in 2021. We strive to deliver safe drinking water to our customers and to maintain a secure and protected facility. We are proud to deliver the 2022 annual water quality report which includes results of water analysis for the year 2021.

Lebanon's Water Source and Assessment

Lebanon Water Works processed **536** million gallons of water in 2021. Lebanon's source water comes from the Greater Mascoma River Watershed, which encompasses 195 square miles and includes Mascoma Lake, Goose Pond, and Crystal Lake.

Drought

One good thing that came out of 2021 was the rain that started in July and lasted the entire summer. This resulted in Mascoma Lake and the surrounding watershed getting back to much safer levels. In October 2021, we were officially considered out of drought. In 2022 the city is going to continue development of a backup water source that could serve the city's needs in the future.

The protection of our source water is a very important objective. The goals of our Source Water Protection Program are to protect public health by preventing episodes of drinking water contamination, and to maintain and improve water quality in order to reduce treatment costs. Components of the program include delineation and mapping of the watershed, inventory and inspection of potential contamination sources, educational activities, and mailings. The NH Department of Environmental Services has prepared a Source Assessment Report for the source serving this public water system, assessing the sources' vulnerability to contamination. The results of the assessment are as follows: for the Mascoma River, (4) susceptibility factors were rated as high, (4) were rated medium, and (4) were rated low. For more information, about the susceptibility factors contact NH-DES at (603) 271-3139 or go to NHDES website: [Publications | NH Department of Environmental Services](#) then go to the scroll down menu, select the appropriate town press enter to view. Or contact the Water Treatment Plant Superintendent at 448-2514. The complete assessment report is available for review at the City of Lebanon Water Plant, 65 Pumping Station Rd, Lebanon.

Water Treatment Plant

Lebanon treats your water with a conventional treatment process that utilizes coagulation, flocculation, sedimentation, filtration and disinfection to remove or reduce harmful contaminants that are or may be present in the source water. The facility provides a series of treatment steps; processes of coagulation, flocculation and sedimentation utilizes polyaluminum chloride and powdered activated carbon to remove naturally occurring contaminants that may include algae, which may affect taste and odor as well as reducing turbidity, bacteria and total organic carbon. Multi-media filtration, (sands and anthracite coal) is used to remove particles and microbes that escape the sedimentation process. Sodium hypochlorite (a liquid form of chlorine), is used to disinfect water. In addition, sodium carbonate (soda ash) is added to increase pH, calcium carbonate hardness, and alkalinity. Sodium bicarbonate is added to further raise alkalinity to increase buffer capacity for corrosion control. Sodium fluoride is added to promote dental health.

To further reduce lead levels in your drinking water, the Lebanon water dept. is preparing to add a new chemical, polyphosphate, to the treatment process beginning in early summer of 2022. This is aimed at forming a natural protective barrier between lead pipes and the water we consume. It will reduce or eliminate potential lead and copper leaching from household plumbing. This should ensure we meet the new revised lead and copper rule being enacted by the EPA. You should see no physical change in your water quality other than a slightly lower Ph. The “poly” part of this chemical should reduce/ eliminate iron and manganese staining also.

Water main construction & rehabilitation

2021 saw the completion of 21 years of construction to separate combined sewer/stormwater overflows (CSO), while also replacing approximately 14 miles of extremely old water mains and over 1,000 house service connections! This has been a major improvement in maintaining quality drinking water for our customers.

PFAS

By now everyone has heard the term PFAS and that there has been some contamination of drinking water in other parts of our state. Here in Lebanon, if PFAS were present, our treatment process should remove it. We tested our source water in 2019 & 2020 and found no trace of PFAS in our source water. With that good news, the NHDES has issued us a waiver for reduced monitoring for PFAS.

Where Can I get More Information?

For more information about your drinking water contact the Water Treatment Plant Superintendent at (603) 448-2514, or in writing to: Water Plant 65 Pumping Station Road, Lebanon, NH 03766. Also, you may visit our website at <https://lebanonnh.gov/390/Water-Plant> . Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

You are welcome and encouraged to attend Lebanon City Council meetings on the 1st and 3rd Wednesdays of each month. The meetings begin at 7:00 p.m. and are held in City Council Chambers unless otherwise announced. City Council Chambers are located in City Hall, 51 North Park Street, Lebanon, NH 03766. Visit <https://lebanonnh.gov> or call City manager's office at (603) 448-4220 for more information.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. 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 (1-800-426-4791).

Why are contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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

US Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Description of drinking water contaminants

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, 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 water 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 storm water runoff, and residential uses.

Organic chemical contaminants, including per- and polyfluoroalkyl substances, synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Cryptosporidium, is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. **In order to ensure that tap water is safe to drink,** EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Additional information on Lead

Lead: If present, elevated levels of lead may 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. This water system is responsible for high quality drinking water, but cannot control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and 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

<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

Water Quality Table

DETECTED WATER QUALITY RESULTS

Microbiological Contaminants								
Contaminant	Level Detected	Range	Unit	MCL	MCLG	Violation (yes/no)	Year Sampled	Likely Source of Contamination and Health Effects
Turbidity	0.225 NTU highest level recorded	0.036 to 0.225 NTU	NTU	TT <0.3 NTU 95% of operating time and never 1.0	N/A	NO	2021	Soil runoff. Turbidity has no direct health effect. However turbidity can interfere with disinfection and provide a medium for microbial growth. Therefore turbidity is highly regulated.
Total Organic Carbon (TOC)	2.2 PPM average	1.8 to 2.5 PPM	PPM	TT	N/A	NO	2021	Naturally present in the environment. TOC has no health effects. However TOC provides a medium for the formation of disinfection byproducts.

Inorganic Contaminants

Barium	0.013 PPM		PPM	2	2	NO	2021	Erosion of natural deposits, discharge from drilling wastes and metal refineries. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
**Fluoride	0.69 PPM average	0.65 to 0.82 PPM	PPM	4	4	NO	2021	Natural deposits. Water additive to promote dental health.
Chlorine	0.63 PPM average	0.23 to 1.17	PPM	4	4	NO	2021	Water disinfectant additive used to control microbes.
Additional testing UCMR4								
Methoxyethanol	.48 PPB	<0.40 PPB to 0 .48 PPB	PPB	None at this time		NO	2018	Used in a number of consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions.
Cryptosporidium	.09 Cysts/L	Level detected was in one of 24 samples collected over 2 years	(Oo) Cysts/L	TT	0	NO	2018	** See note above

Volatile Organic Contaminants								
Haloacetic Acids (HAA5's)	29 PPB average	18 to 40 PPB	PPB	60 PPB	N/A	NO	2021	Disinfection byproducts, a result of drinking water chlorination.
Total Trihalomethanes	57 PPB average	29 to 91 PPB	PPB	80 PPB	N/A	NO	2021	
Lead and copper								
Lead	2 PPB @ the 90 th percentile	<1 to 6 PPB	PPB	AL= 15 PPB @ 90 th percentile	0	NO	2020	Erosion of natural deposits. Corrosion of fittings and household plumbing systems. Lead & Copper sampling is required on 3 year intervals.
Copper	0.096 PPM @ the 90 th percentile	0.013 to .16 PPM	PPM	AL= 1.3 PPM @90 th percentile	1.3	NO	2020	Erosion of natural deposits. Corrosion of piping and household plumbing. Leaching from wood preservatives. Next round of analysis will be 2023.

Secondary Contaminants							
substance or parameter	level detected	range of detection	unit	SMCL	violation	year sampled	noticeable effects above SMCL
Sulfate	5.4		PPM	250	NO	2021	salty taste
Manganese	0.0088		PPM	0.05	NO	2021	black to brown staining, bitter taste
Chloride	39		PPM	250	NO	2021	salty taste
Zinc	0.0063		PPM	5.0	NO	2021	metallic taste
Sodium	31		PPM	100-250	NO	2021	salty taste

Abbreviations and definitions used in the Water Quality Table:

AL: Action Level, **MRDL:** Maximum Residual Disinfectant Level, **MRDLG:** Maximum Residual Disinfectant Level Goal, **NTU:** Nephelometric Turbidity Unit. Turbidity is a measure of water clarity. **PPM:** Parts Per Million, **PPB:** Parts Per Billion, **RAA:** Running Annual Average **TT:** Treatment Technique,

SMCLs, secondary maximum contaminant levels, EPA does not enforce these secondary maximum contaminant levels. They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations. These contaminants are not considered to present a risk to human health at the SMCL.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. They are set as close to the MCLG's as feasible using the best available treatment technology. **MCLG:** Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

****Federally Required Fluoride Statement:**

"Your public water supply is fluoridated. According to the Centers for Disease Control and Prevention, if your child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information."