

2017 Consumer Confidence Report

(Water Quality)

For the

Littleton Water and Light

In

Littleton, NH

Public Water System ID 1381010

Introduction:

Like any responsible public water system our mission is to deliver superior product to our customers in a manner that protects public health, preserves our environment, and supports economic growth and well-being of the community all at a reasonable cost.

Our aging infrastructure presents challenges in managing the quality of our water and the operational integrity of our system. Capital improvements are ongoing and made to optimize system performance so that we can achieve our mission.

This past year was focused on making water quality and capacity improvement. Several water loop feeds were improved that affects both water quality and fire suppression capacity throughout the system. Capital construction improvement projects like these and other operational enhancements insure that the integrity (safety) and water quality of our water system remains uncompromised.

These types of investments in our system, along with on-going operational and preventative maintenance programs, come at a cost that is exclusively supported by our water rate payers. Our total water rate and fee structure remains among the lowest in the state at about \$4.08 per 1,000 gallons. When considering the high value we place on (clean drinking) water and its many and varied uses it is truly a bargain.

Our drinking water is often taken for granted; we have come to expect that it will always be there when you open a faucet.

We have come to rely on this high quality, safe and readily available water supply for all our personal needs, to protect public health and provide our fire suppression when needed.

We would like to thank you, our customers, for your continued support of our potable (drinking) water system.

What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) or Water Quality report details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters as sampled in the preceding year (2016) and compares them to their respective federal standard(s)

known as Maximum Contaminant Levels (MCLs).

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.

Synthetic Organic Compounds, pesticides and herbicides, 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 can also, come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What is the source of my drinking water?

Our primary drinking water source comes from the Gale River and is economically supplied to the majority of our customers by gravity. Located within the White Mountain National Forest this protected water supply can be supplemented, as needed, by a bedrock artesian well located in Littleton. Fortunately both these water sources are of the highest quality and require only minimal treatment and disinfection to comply with the Safe Water Drinking Act.

Why are contaminants in my water?

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

NOW IT COMES WITH A LIST OF INGREDIENTS.



Do I need to take special precautions?

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/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 1-800-426-4791.

Source Water Assessment Summary:

NHDES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on May 2002 are noted below.

1. Gale River, Surface Water, received a zero (0) susceptibility factors that were rated high, zero (0) were rated medium and eleven (11) were rated low.
2. Well, Groundwater, received two (2) susceptibility factors that were rated high, four (4) were rated medium, and six (6) were rated low.

Note: This information is about 14 years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data. DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water The complete Assessment Report

is available for review at the Littleton Water and Light, located at 65 Lafayette Avenue in Littleton, NH. For more information, call 603-444-2915 or by going to the DES Drinking Website at: <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

How can I get involved?

For more information about your drinking water, please call the **Littleton Water and Light (LWL) at 603-444-2915 or visit us on the web at www.littletonwaterandlight.org**.

The Board of Commissioners meet on the first and third Mondays of each month and this regular business meeting is open to the public for general comment and discussion. To participate or to address a specific concern in greater detail please feel free to contact us and we can place you on our agenda.

Violations and Other information:

The LWL was not cited for any violations in 2016.

Definitions: (For additional information see the key at the back of this report)

Ambient Groundwater Quality Standard or AGQS: The maximum concentration levels for contaminants in groundwater that are established under RSA 485-C, the Groundwater Protection Act.

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

Level I Assessment: A study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level II Assessment: A very detailed study of the water system to identify potential problems and determine, if possible, why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or 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 or 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 or 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 or 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 contaminants.

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

Drinking Water Contaminants:

Lead: 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. This water system is responsible for high quality drinking water, but can not 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 <http://water.epa.gov/drink/info/lead/index.cfm>

System Name: LITTLETON **PWS ID:** 1381010

2017 Report (2016 water sample results data)

ADDITIONAL TESTING

Additional Tests & Secondary MCLs (SMCL)	Results	Date	Treatment technique (if any)	AL (Action Level), SMCL or AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
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Unregulated Contaminant Monitoring Regulation – Round 3 (UCMR 3) – Emerging Contaminants

Chlorate (ppb)	110	2014	N/A	None	Contaminants tested under UCMR3 are mostly man-made chemicals used in the manufacturing and health industries. Sampling these emerging contaminants is necessary to know whether these contaminants pose a health risk, but it is often incomplete for unregulated contaminants. Some of these contaminants maybe harmful at low levels, others may be harmful only at much higher levels. UCMR examines these emerging contaminants in the drinking water, but additional health information is needed to know whether these contaminants pose a health risk.
Chromium (ppb)	0.2	2014	N/A	None	
Chromium 6 (ppb)	0.16	2014	N/A	None	
Strontium (ppb)	0.018	2014	N/A	None	

Other Contaminants

Sodium (ppm)	3.75	2016	Desalination	100-250	Salts and metals can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. We are required to regularly sample for sodium.
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BULK WATER DELIVERIES - NONE

VIOLATIONS - NONE

ASSESSMENTS COMPLETED

During the past year we were required to conduct Assessment(s)	Number of assessments required in the reporting year	Number of assessments completed in the reporting year	Number of corrective actions required	Number of corrective actions completed	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs we are required to conduct an operator’s assessment (internal review of procedures) to identify and correct any problems that were found during the assessment.
Level I	1	1	1	1	

ASSESSMENTS NOT COMPLETED - NONE

LEAD AND COPPER

Contaminant (Units)	Action Level	90 th percentile sample value *	Date	# of sites above AL	Violation Yes/No	Likely Source of Contamination	Health Effects of Contaminant
Copper (ppm)	1.3	0.52	Aug2016	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	15	10	Aug2016	1	No	Corrosion of household plumbing systems, erosion of natural deposits	(15 ppb in more than 5%) Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791). (above 15 ppb) Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

DETECTED WATER QUALITY RESULTS

Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
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Microbiological Contaminants

Turbidity (NTU)	0.031 Annual average 0.035 Max. month - Aug 0.092 Max. Day - July 7	TT	N/A	No	Soil runoff – Change in weather, especially heavy rain events can significantly affect the raw water quality of the system.	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
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DETECTED WATER QUALITY RESULTS

Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
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Radioactive Contaminants

Compliance Gross Alpha (pCi/L)	0.567 Gale River 2016	15	0	No	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (ug/L)	1.88 Brickyard Well 2016	30	0	No	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	0.894 Gale River 2016	5	0	No	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants

Barium (ppm)	0.022	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Chlorine (ppm)	0.31	MRDL = 4	MRDLG = 4	No	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Nitrate (as Nitrogen) (ppm)	0.30 Brickyard Well	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	(5 ppm through 10ppm) Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. (Above 10 ppm) Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
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Synthetic Organic contaminants - including pesticides and herbicides: Chemical Monitoring Waiver grant September 2016

Volatile Organic Contaminants

Haloacetic Acids (HAA) (ppb)	Low: 17.0 High: 37.6 LRAA: 31.8	60	NA	No	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes (TTHM) (Bromodichloro-methane Bromoform Dibromomethane Chloroform) (ppb)	Low: 20.9 High: 54.5 LRAA: 40.6	100/80	N/A	No	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Key:

AL: Action Level	ppm: parts per million, or milligrams per liter (mg/l)
MCL: Maximum Contaminant Level	ppb: parts per billion, or micrograms per liter (µg/l)
MCLG: Maximum Contaminant Level Goal	ppt: parts per trillion, or nanograms per liter
MFL: million fibers per liter	ppq: parts per quadrillion, or picograms per liter
MRDL: Maximum Residual Disinfectant Level	RAA: Running Annual Average
MRDLG: Maximum Residual Disinfectant Level Goal	LRAA: Location Running Annual Average
mrem/year: millirems per year (a measure of radiation absorbed by the body)	TT: Treatment Technique
N/A: Not Applicable	
NTU: Nephelometric Turbidity Units (a measure of water clarity)	
pCi/l: picocuries per liter (a measure of radioactivity)	