2019 Consumer Confidence Report

(Water Quality Report)

For the

Littleton Water and Light

In

Littleton, NH

Public Water Supply ID 1381010

Introduction

Like any responsible public water system our mission is to **"maintain a staff of professional service – orientated employees dedicated to providing and delivering a safe product to our customers".** This is accomplished in a manner that protects public health, preserves our environment, and supports the economic growth and well-being of the community and all at a "reasonable cost" (about 0.41 cents per 100 gallon). Our aging infrastructure combined with geopolitical pressures and rising operational costs and declining water use/sales presents challenges in managing and accomplishing this goal.

Capital improvements and routine maintenance to the system is ongoing and made to optimize system performance in an effort to preserve the reliability and the operational integrity of our potable (drinking) water system.

This past year was focused on making water quality and capacity improvements to several sections of the water system. New loop feeds were added or replaced that will improve both water quality and fire suppression capacity throughout the system. Capital construction improvement and betterment types of projects like these and other operational enhancements insure system reliability. Maintaining the integrity, safety, and that the quality of our drinking water remains uncompromised is our primary objective.

System investments (capital projects) along with routine operating and maintenance expenses are supported only by the rate payers (the users) of the water system. When considering the high value we place on our drinking water and all that it is used for it is truly a **bargain at $4.08 per 1,000 gallons**. Often taken for granted (out of sight out of mind) we have come to **depend on** our drinking water to support the high-quality of life that we enjoy in our community.

What is a Consumer Confidence Report?

This report details the quality of your potable (drinking) water source and water sample test results for the previous year. This annual report summarized all **detected** primary and secondary drinking water contaminants found in our drinking water for 2018. These results are then compared to their federally established standards 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.
- **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 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.

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 basin 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 pristine 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.

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 factor that were rated high, four (4) were rated medium, and six (6) were rated low.

Note: This information is over 15 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.

The complete Assessment Report is available for review at the Littleton Water & Light located at 65 Lafayette Avenue.

For more information, please call 603-444-2915 or visit the NHDES Drinking Water Source Assessment website 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.

For more information about your drinking water, please contact the owner representative Tom Considine or the primary water system operator Kevin Sorrell at 603-444-2915 Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions you may have.

Violations and Other information:

- The LWL was not cited for any violations in 2018

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 **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: http://water.epa.gov/drink/info/lead/index.cfm.

The following table contains the results of the drinking water samples taken in 2018 that were present in our drinking water. The full lavatory analysis and results for each sample is available to the public at the NHDES Onestop website at: https://www4.des.state.nh.us/DESOnestop/BasicSearch.aspx

System Name: LITTLETON WATER & LIGHT PWS ID: 1381010

2019 Report (2018 Reporting year 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
Sodium (ppm)	**2.5**	2018	Desalination	100-250	**We are required to regularly sample for sodium**. Sodium is an essential nutrient and is needed to maintain body fluid volume and blood pressure. The estimated minimum daily requirement for healthy adults and children 10 years and older is 500 mg/day. Because sodium is a common constituent of food and water, diseases of sodium deficiency in humans are very rare. The Dietary Guidelines for Americans (USDA 2000) recommend 2.4 g/day as an achievable and reasonable goal that will minimize the risk for sodium-linked hypertension and one that is supported by other recommendations on dietary sodium intake (AHA 2000, NIH 1993, NRC 1989a).

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	
Perfluoroalkyl Substances (PFASs) PFOA & PFOS, (ppt)	**Below Minimum Reporting Level**	2014	Reverse Osmosis	70 Health Advisory Limit	EPA Drinking Water Health Advisory Limit established in 2016. Chemicals that have been used to make carpets, clothing , fabric for furniture, paper packaging for food and other materials (Non-stick cookware) and industrial processes (fire-fighting forms) that are resistant to water, grease and or stains.

BULK WATER DELIVERIES - NONE

VIOLATIONS - NONE

ASSESSMENTS - NONE

ASSESSMENTS NOT COMPLETED - NONE

SIGNIFICANT DEFICIENCY - NONE

Significant deficiency description and date of sanitary survey	Source of *E.coli*	Date deficiency was addressed or corrected	Approved plan and timeframe for correction	Health Effects (Env-Dw 811.21)
Sanitary survey completed on 12/6/2016	None	None Found	Not Applicable	In compliance with EPA Safe Water Drinking Act

LEAD AND COPPER – Next sample round summer 2019

Contaminant (Units)	Action Level	90th 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**	Aug 2016	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**	Aug 2016	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**
Microbiological Contaminants						
Turbidity (NTU)	**0.145 Max. Day April 27th** **0.031 Hi Month July** **0.029 Annual Average**	TT	N/A	No 100% of samples were below limit	Soil runoff	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.
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 know 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						
Chlorine (ppm)	**0.58 Annual Average** **0.72 Max. Month August 2018**	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.
Fluoride (ppm)	**0.17**	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

DETECTED WATER QUALITY RESULTS - continued						
Contaminant (Units)	**Level** Detected*	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Nitrate (as Nitrogen) (ppm)	**0.3**	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.
Synthetic Organic Contaminants including Pesticides and Herbicides – None Detected - Chemical Waiver Granted –Next sample round 2019						
Volatile Organic Contaminants:						
Haloacetic Acids (HAA) (ppb)	**Low: 17.0 High: 50.6 LRAA: 32.8**	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) (Bromodichloromethane Bromoform Dibromochloromethane Chloroform) (ppb)	**Low: 18.3 High: 65.6 LRAA: 51.2**	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.

Common Definitions

- **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.
- **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.
- **EPA Drinking Water Health Advisory Limit:**

  To provide Americans especially the most sensitive population with a margin of protection from a life-time exposure to PFOA and PFOS from drinking water.
- **Treatment Technique** or **TT:** A required process intended to reduce the level of a contaminant in drinking water.

Common abbreviations:

BDL: Below Detection Limit
mg/L: milligrams per Liter
NA: Not Applicable
ND: Not Detectable at testing limits
NTU: Nephelometric Turbidity Unit
pCi/L: picoCurie per Liter
ppb: parts per billion
ppm: parts per million
PFOA: Perfluorooctanoic Acid
PFOS: Perfluorooctane Sulfante
PFAS: Perfluoroalkyl Substance
RAA: Running Annual Average
TTHM: Total Trihalomethanes
UCMR: Unregulated Contaminant Monitoring Rule (ug/L: micrograms per Liter)
US EPA: US Environmental Protection Agency