

# Water Quality Report – 2011



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The purpose of the Consumer Confidence Report is to inform our customers as to the quality of our drinking water and the importance of source water protection. This report also characterizes any risks from exposure to contaminants in the drinking water in an accurate and understandable manner for the year ending 2010.

## What is the source of my drinking water?

Our primary drinking water source is surface water from the North Branch of the Gale River and when needed is supplemented by groundwater taken from a bedrock artisan well located on the Brickyard Road.

## How can I get involved?

Attend a regular commissioner's meeting that is held on the first and third Mondays of each month at the Littleton Water and Light Department (LWL) conference room. Also, check out the information contained on our web site at [www.littletonwaterandlight.org](http://www.littletonwaterandlight.org). Our point of contact for system information is Tom Considine who can be reached at the number above.

## 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).

## Violations and other information:

Our water quality is in compliance with all the Federal, State and Local drinking water regulations.

## Do I need to take special precautions?

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 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).

## Abbreviations:

**ppm**: parts per million    **ppb**: parts per billion    **ppt**: parts per trillion    **ppq**: parts per quadrillion    **pCi/L**: pico curies per liter  
**NTU**: Nephelometric Turbidity Unit    **NA** – Not applicable    **nd**: not detectable at testing limits    **AL**: Action Level  
**TT**: Treatment Technique

**Definitions:**

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

**MCL:** Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. They are set as close to the MCLGs 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. MCLGs allow for a margin of safety.

**MRDL:** Maximum Residual Disinfectant Level or the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants (for water systems that use chlorine).

**MRDLG:** Maximum residual disinfectant level goal or the level of a drinking water disinfectant below, which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants (for water systems that use chlorine).

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

**Sample Dates:** The results for detected contaminants listed below are from the most recent monitoring done in compliance with regulations ending with the year 2010 will include the date the sample was taken. The State of New Hampshire allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Thus some of the data present, though representative, may be more than one year old.

**Turbidity:** is a measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants.

**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)	0.247  Nov 2010	TT	N/A	NO	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: NONE DETECTED**

Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
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Inorganic Contaminants						
Copper (ppm)	0.280  2010	AL=1.3	1.3	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.
Fluoride (ppm)	0.12	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.
Lead (ppb)	9  Number of samples above the AL of 15 ppb were  0  2010	AL=15	0	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.
Nitrate (as Nitrogen) (ppm)	0.20	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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Nitrite (as Nitrogen) (ppm)	0.30	1	1	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill, and if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
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Synthetic Organic Contaminants including Pesticides and Herbicides: Monitoring Waiver Granted.

#### Volatile Organic Contaminants

Chlorine (ppm)	0.38	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.
Haloacetic Acids (HAA) (ppb)	29.7	60	N/A	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 Dibromomethane Chloroform) (ppb)	51.5	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.

#### 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 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 United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

**Radon:** Radon is a radioactive gas that you cannot see, taste or smell. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. It is a known human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer. Presently the EPA is reviewing a standard for radon in water.

**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 thru 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://www.epa.gov/safewater/lead>.

#### **Source Water Assessment Summary:**

The NH Department of Environmental Services (NHDES) has prepared a Source Assessment Report for the community's water system, assessing the source's vulnerability to potential contamination.

#### **Other information -**

The LWL assessment was prepared by the NHDES on May 2002 for both our sources.

**North Branch Gale River** received zero (0) high, zero (0) medium, and eleven (11) low susceptibility factor ratings.

**Brickyard Road Well** received two (2) high, four (4) medium, and six (6) low susceptibility factor ratings.

The complete Assessment Report with definition of what the susceptibility factor reference is available for inspection at **Littleton Water & Light Department, 65 Lafayette Ave, Littleton, NH 03561**. For more information, call **603-444-2915** or visit NHDES Drinking Water Source Assessment Program web site at [www.des.state.nh.us/dwspp](http://www.des.state.nh.us/dwspp).