



APRIL 1, 2015

Dear Water Customer:

**Welcome to the Northumberland Water Department's 2014 Drinking Water Quality Report.** This report summarizes the results of the water system tests conducted within our two water systems (Groveton and Lost Nation) during 2014.

We are pleased to report that the drinking water provided to you by the Northumberland Water Department met, or exceeded, all federal and state health safety requirements. We will continue to work in your behalf in order to provide you with drinking water of the finest quality.

Each day our state-certified water treatment plant operator monitors and maintains the quality of the water we produce. In addition, we conduct regular testing of the water utilizing the services of state-certified laboratories. The results of the tests conducted on our water between January 1, 2014 and December 2014, are summarized in this report. We are proud to say that we were successful in providing a safe and reliable supply of drinking water to our water customers. We do specific testing required by the state throughout the year.

The water system was upgraded in 2006, and can provide in excess of 500,000 gallons of water daily to over 1,000 customers. Most of our customers are homes, but we are also responsible to provide drinking water to numerous commercial and industrial concerns, and public facilities.

**WHERE YOUR DRINKING WATER COMES FROM:** Our municipal water supply draws groundwater from two gravel-packed wells that are located in close proximity to one another on Mayhew Road which is about a ½ mile down on the northern entrance of Brown Road in Groveton Village, as well as two bedrock wells located about 2 miles up on the Groveton entrance of Lost Nation Road.

#### **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).

#### **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).

**THE SAFE DRINKING WATER ACT:** The Safe Drinking Water Act directs the federal Environmental Protection Agency and the State of New Hampshire to establish and enforce limits on certain substances sometimes found in drinking water.

#### **TEST RESULTS FOR NORTHUMBERLAND WATER**

##### **Definitions:**

You may find some terms and abbreviations that you are not familiar with in the following material. To maximize understanding, we present some definitions for your review:

##### **Maximum Contaminant Level (MCL):**

The highest contaminant level that is allowed in drinking water.

Some people wonder why even a tiny amount of a contaminant is allowed in drinking water... the answer is simple: it's because MCLs are set at very stringent levels. If water were contaminated at the MCL level, an individual would have to drink two liters (2.12 quarts) of water everyday, for a lifetime, to have a one-in-one-million chance of experiencing the associated health risk

##### **Maximum Contaminant Level Goal (MCLG):**

The level of a contaminant in drinking water below which there is no known or expected risk to health

##### **Abbreviations:**

**PPM** – Parts per million

**PPB** – Parts per billion

**Radon:** Radon is a radioactive gas that you can't 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 EPA is reviewing a standard for radon in our water.

**Turbidity:** 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.

**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:

**ORGANIC CHEMICAL CONTAMINANTS:**

Undesirable organic chemicals come from a variety of sources, including motorized (two-stroke) engines operating on reservoirs, discharges from petroleum refineries and chemical factories, and leaching from gas storage tanks and landfills.

**MICROBIOLOGICAL CONTAMINANTS:**

Some water systems contain microorganisms, some of which are pathogens, which could make you sick. Pathogens may come from wildlife, livestock, or septic systems. To ensure the water we supply to you is safe to drink, we add sodium hypochlorite (a chlorine-based disinfectant) to the water to kill or inactivate pathogens. To prevent growth of bacteria and viruses in our water mains, we add a sufficient quantity of hypochlorite to reach the farthest ends of the distribution system. Each month, we test for the presence of total coliform, including E. coli bacteria. **During 2014, not a single microbiological colony was detected.**

**PESTICIDES AND HERBICIDES**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

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

**INORGANIC CONTAMINANTS:**

Inorganic contaminants, such as salts and metals, may be naturally occurring, while others may result from urban stormwater runoff, industrial or domestic wastewater discharge, oil and gas production, mining or farming. Arsenic, for example, is a naturally occurring mineral, but is known to cause cancer in humans when it exists in high concentration levels. Of the 25 contaminants we tested for, only 3 were detected in our drinking water... all at levels below the MCL:

Contaminant:	System: Groveton (G), Lost Nation	Violation?	Unit of Measurement:	Level Detected / Range of Detection:	MCLG:	MCL:	Likely Source of Contamination:
	Or both (B)						
Nitrate	B	N	mg/l	Groveton: 0.6 Lost Nation: <0.5	10	10	Erosion of natural deposits, runoff from fertilizer use, leaching from sewage or septic tanks
Radium	B	N	pCi/l	Groveton: 0.2+0.8 Lost Nation: 0.0+0.7		5	Erosion of natural deposits, runoff from fertilizer use, leaching from sewage / septic tanks

**LEAD AND COPPER TEST RULING: 2014**

As mandated by federal law, we tested the lead and copper content of the water at fifteen locations throughout the Town, ten in the Groveton water system and five in the Lost Nation water system.

**Lead:** The water we supply generally contains no detectable levels of lead. All fifteen locations sampled were below the MCL of 15 parts per billion (ppb); there was no detection of lead at any of these locations.

**Copper:** The water we supply generally conforms to the prescribed copper content levels. Of the fifteen locations sampled, not one showed copper at a level in excess of the MCL of 1.3 parts per million (ppm) At the fifteen locations, the range of detections at these locations was 0.031-0.048 (ppm) in the Groveton water system and <0.57 in the Lost Nation water system.

For persons who may be concerned about lead and / or copper levels in their drinking water, we suggest cooking with cold water, as opposed to hot water, as the content of lead and copper in cold water will be lower than in hot water.

**RADIOACTIVE CONTAMINANTS:**

Radioactive contaminants include Radon and other naturally occurring deposits, as well as some man-made deposits. Although the Environmental Protection Agency has not determined a standard for Radon at this time, the Town has been proactive in this regard and treats its water for Radon.

Contaminant:	System: Groveton (G), Lost Nation	Violation?	Unit of Measurement:	Level Detected / Range of Detection:	MCLG:	MCL:	Likely Source of Contamination:
	or both (B)						
Gross Alpha	B	N	pCi/l	Groveton:	0	15	Erosion of natural

				<b>0.5+1.6 Lost Nation: 0.3+2.6</b>			deposits
Uranium	B	N	pCi/l	<b>Groveton: 1.9 Lost Nation: 0.2</b>	15	15	Erosion of natural deposits

**HEALTH EFFECTS INFORMATION:**

This section of the report provides information concerning the potential health effects of the contaminants that have been detected in our water. The presence of contaminants does not necessarily indicate that your drinking water poses a health risk. In fact, all drinking water – *including bottled water* – may reasonably be expected to contain at least small amounts of some contaminants. These may include Organic Chemicals, Inorganic Chemicals and Microbiological contaminants, as well as Pesticides and Herbicides, and radioactive contaminants.

It is important to understand that some people may be more vulnerable to contaminants in the drinking water than the general population. Immuno-compromised persons – such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with HIV / AIDS or other immune disorders, some elderly persons and infants – can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider.

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. Children may get mottled teeth.

Infants below the age of six months who drink water containing nitrates or nitrites in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a short period of time may experience gastrointestinal distress, and over a period of many years could suffer liver or kidney damage. Also, people with Wilson’s disease should consult with their health care provider.

Radon gas that is inhaled has been linked to lung cancer; however, it is not clear that at what level radon in your drinking water contributes to this health effect.

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.

EPA / CDC guidelines on appropriate means for lessening risk of infection by Cryptosporidium and other microbiological contaminants, as well as information about contaminants and potential health effects are available by calling EPA’s “Safe Drinking Water Hotline” at (800) 426-4791.

**FOR MORE INFORMATION:**

If you have any questions about your water quality, the information in this report, or your water service in general, please feel free to call me at 636-1450. Let me know if you are having any problems with your water. Water quality information for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com). You may also obtain information from NHDES at 603-271-3503.

Ultimately, authority for Water Department policies and procedures rest with the Northumberland Board of Selectmen and Water Superintendent.

The Water Superintendent may be contacted at the Town Office. Town Office hours are M-W, 8:00 AM–4:00 PM, Thur. 8:00 AM to Noon, and Fri. 8:00 AM-4:00 PM. The telephone number is 636-1450. Water Department billing and payment records are also available at the Town Office during normal business hours. Selectmen’s meetings are every other Monday of the month at 6:00pm at the Town Office at 10 Station Square.

**Reginald Charron, Water Superintendent  
Town of Northumberland**