

NORTHFIELD

**CONSUMER
CONFIDENCE
REPORT**

JUNE 2017

WATER DEPARTMENT

NORTHFIELD WATER DEPT – VT0005275

Consumer Confidence Report – 2016

This report is a snapshot of the quality of the water that the Northfield Water Department provided in 2016. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. This report is designed to inform you about the quality water and services we deliver to you every day. To learn more, please attend any of our regularly scheduled meetings which are held:

The first Monday of the month at 6:30 PM at the Northfield Municipal Office, 51 South Main Street.

The person who can answer questions about this report is: (print) Jeff Schulz, Town Manager

Telephone: 802-434-4540 and/ or Email jschulz@northfield.vt.us

Water Source Information

Your water comes from

Source Name	Source Water Type
WELL 1	Groundwater
WELL 2	Groundwater
WELL 3	Groundwater

The State of Vermont Water Supply Rule requires Public Community Water Systems to develop a Source Protection Plan. This plan delineates a source protection area for our system and identifies potential and actual sources of contamination. Please contact us to review the plan.

Drinking Water Testing

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). Northfield's water system is an underground system with high quality water requiring minimal treatment. As water travels over the land's surface or through the ground, it dissolves naturally-occurring minerals. It can also pick up substances resulting from the presence of animals and human activity. Some "contaminants" may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if any are present.

To ensure that the water is safe, Northfield tests the water regularly according to regulations established by the U.S. Environmental Protection Agency and the State of Vermont. These regulations limit the amount of various contaminants:

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, may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the past year. It also includes the date and results of any contaminants that we detected within the past five years if tested less than once a year. The presence of these contaminants in the water does not show that the water poses a health risk.

Terms and abbreviations - In this table you may find terms you might not be familiar with. To help you better understand these terms we have provided the following definitions:

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

Level 1 Assessment: A level 1 Assessment is 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 2 Assessment: A Level 2 Assessment is 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.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during four consecutive calendar quarters.

Maximum Contamination Level (MCL): The “Maximum Allowed” MCL is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

Maximum Contamination Level Goal (MCLG): The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG’s allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition a disinfectant may help control microbial contaminants.

Maximum Residual Disinfectant Level Goal (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 disinfectants in controlling microbial contaminants.

Nephelometric Turbidity Unit (NTU): NTU is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per billion (ppb) or Micrograms per liter (µg/l): (one penny in ten million dollars)

Parts per million (ppm) or Milligrams per liter (mg/l): (one penny in ten thousand dollars)

Picocuries per liter (pCi/L): a measure of radioactivity in water

Running Annual Average (RAA): The average of 4 consecutive quarters (when on quarterly monitoring); values in table represent the highest RAA for the year.

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

90th Percentile: Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).

Detected Contaminants NORTHFIELD WATER DEPT

Disinfection Residual	RAA	Range	Unit	MRDL	MRDLG	Typical Source
Chlorine	0.571	0.020 - 1.050	mg/l	4.0	4.0	Water additive to control microbes

Microbiological	Result	MCL *	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2016				

*As of April 1, 2016, there is no MCL for total coliform. Instead more than 1 positive monthly sample requires a treatment technique.

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Fluoride	11/03/2016	1.1	0 - 1.1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	04/13/2016	0.6	0.6 - 0.6	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Combined Radium	03/06/2013	0.564	0.564 - 0.564	pCi/L	5	0	Erosion of natural deposits
Radium-226	03/06/2013	0.365	0.365 - 0.365	pCi/L	5	0	Erosion of natural deposits
Radium-228	03/06/2013	0.199	0.199 - 0.199	pCi/L	5	0	Erosion of natural deposits

Disinfection ByProducts	Monitoring Period	LRAA	Range	Unit	MCL	MCLG	Typical Source
Total Trihalomethanes	2016	9.4	9.4 - 9.4	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Date	90 th Percentile	Range	Unit	AL*	Sites Over AL	Typical Source
Copper	2016	0.26	0.038 - 0.62	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	2016	15	0 - 37	ppb	15	2	Corrosion of household plumbing systems; Erosion of natural deposits

* The lead and copper AL (Action Level) exceedance is based on the 90th percentile concentration, not the highest detected result.

Violation(s) that occurred during the year

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. The below table lists any drinking water violations we incurred during 2016. A failure to perform required monitoring means we cannot be sure of the quality of our water during that time.

Type	Category	Analyte	Compliance Period
No violations occurred in Calendar Year 2016. In March, 2017, two of the required six monthly tests were performed six hours early. The two tests were taken on February 28 versus March 1. However, no coliform bacteria were detected in the eight samples taken in February or the four samples taken in March.			

Revised Total Coliform Rule (RTCR) TT Violation(s)

No RTCR TT Violations (Two of the required six tests were performed six hours early, however, all required tests for the month were completed).

Additional information (including steps taken to correct any violations listed above)

Level 1 Assessment(s)

No Level 1 Assessment was required.

Level 2 Assessment(s)

No Level 2 Assessment was required.

Health information regarding drinking water

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 microbiological contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline.

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 household plumbing. **No elevated levels of lead were found in Northfield's system.** The Northfield Water Department provides high quality drinking water, but cannot control the variety of materials used in household plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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>.

Public Notice - Uncorrected Significant Deficiencies: The system is required to inform the public of any significant deficiencies identified during a sanitary survey conducted by the Drinking Water and Groundwater Protection Division that have not yet been corrected. For more information please refer to the schedule for compliance in the system's Operating Permit.

Date Identified	Deficiency	Facility
No Significant Deficiencies		