



# **CONSUMER CONFIDENCE REPORT**

**NORTHFIELD, VERMONT  
WATER DEPARTMENT  
MAY 2018**



# NORTHFIELD WATER DEPT - VT0005275

## Consumer Confidence Report - 2017

This report is a snapshot of the quality of the water that we provided in 2017. 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. We are committed to providing you with information because informed customers are our best allies. 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 Northfield Select Board holds its regular meetings on the second and fourth Tuesday of each month at 7:00 p.m. in the Community Room located in the Brown Public Library (93 South Main Street).

In addition, the Water & Wastewater Commission meets the first Monday of each month at 6:30 p.m. in the Northfield Municipal Building (51 South Main Street).

The person who can answer questions about this report is:

Patrick DeMasi, Utility Superintendent  
Telephone: 802-595-5639  
Email: pdemasi@trans-video.net

## 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 if you are interested in reviewing the plan.

## Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the land's surface or through the ground, it dissolves naturally-occurring minerals. It also picks 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.

In order to ensure that your water is safe to drink, we test it 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 necessarily 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 (ug/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	0.519	0.270 - 0.890	mg/l	4	4	Water additive to control microbes

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Fluoride	03/23/2017	1.0	0 - 1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	04/05/2017	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	2017	9.3	9.3 - 9.3	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90th Percentile	Range	Unit	AL*	Sites Over AL	Typical Source
Copper	2017 to 2019	0.085	0.065 - 0.085	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	2017 to 2019	1.100	0 - 1.1	ppb	15.0	0	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 2017. 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
MONITORING, ROUTINE (DBP), MAJOR	Failure to Monitor	CHLORINE	01/01/2017 - 03/31/2017
MONITORING, ROUTINE, MINOR (RTCR)	Failure to Monitor	E. COLI	03/01/2017 - 03/31/2017
Consumer Confidence Report (CCR)	Failure to Report		01/01/2017 – 07/01/2017

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

Please see attached “Summary of Findings.”

## 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 home plumbing. NORTHFIELD WATER DEPT is responsible for providing high quality drinking water, but cannot control the variety of materials used in 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>.

## Distribution Information

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place and distributing copies by hand or mail.*



## MUNICIPAL OFFICES



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### **Northfield Water Department – Consumer Confidence Report – Summary of Findings**

Vermont Community Public Water System Operators are required to perform monthly testing of the water system in accordance with EPA and Vermont regulations to test for microbial contaminants (virus and bacteria), inorganic contaminants (salts, metals, and petroleum-based products), pesticides and herbicides, radioactive material and organic materials. The Northfield Water Department completed the required testing of the water system in 2017 and found no elevated or unsafe levels of contaminants.

During 2017, the State of Vermont identified two minor procedural violations of the Northfield Water Department: untimely reporting of water testing samples within the specified reporting period, and not distributing the Consumer Confidence report (CCR) as fully recommended in reporting guidelines. The State requires water system operators to take six samples of the water system each monthly reporting period and report the results within a specified 24-hour period. Northfield reported the test sample results eight hours early and within a month having less than 30 days, and as a result, the monthly reporting was not shown as reported. Fortunately, the State acknowledged receipt of the reports and found no elevated or unsafe levels of contaminants. Regarding the distribution of the CCR, the Water Department distributed the report to the water customers by locating copies of the report in various locations throughout the community and stating on the Department's web-site how to obtain a copy of the report; versus providing customers a direct web address to the CCR report on the State's web-site. In the future, the Water Department will provide customers a direct web address to the CCR and place a notice on the Department's web-site and Front Porch Forum identifying location to obtain the report. Also, the Department will locate copies of the report at public offices and other locations in Northfield.

The State of Vermont's Water Supply Division recently inspected Northfield's Water System and its three ground water wells on the well-field (which has the potential to produce a total combined yield of 1,600 gallons per minute) and found the system and pumps to be in very good working condition and free of any deficiencies.

This past year, the Northfield Water Department was successful in having the Vermont Agency of Transportation install approximately 700 feet of new guardrail along a section of Route 12A that directly abuts Northfield's well-field/water supply as a protective measure against truck and vehicle roll-overs into the well-field.

The Northfield Water Department has developed and implemented a water line replacement program to replace old water lines (lines over 100 years old) and has replaced 33,000 feet of water lines over the past 15 years. Also, Northfield has a plan to replace on average about 1,000 to 1,500 feet of water lines each year over the next five years.