

NORTHEFIELD

**CONSUMER
CONFIDENCE
REPORT**

JUNE 2023

WATER DEPARTMENT

NORTHFIELD WATER DEPARTMENT

How to Check For a Water Leak

Finding water leaks can save you money in water and sewer bills. These basic steps can be done by the customer before calling in a professional.

1. Turn off all fixtures so that no water is being used. This includes inside and outside appliances and faucets.
2. Check the water meter for water flow activity. There is typically a red needle and a red triangular arrow that turn when water is flowing through the meter. If either of these is moving, then you have a leak somewhere in the house beyond the meter.
3. If the needle and flow arrow are not moving, make a light mark on each and recheck the meter in an hour. If neither has moved then it is unlikely there is a leak. However, if either one has moved, you then can suspect there is a leak.
4. If a leak is suspected, check all faucets, hoses and fixtures for any obvious leaks.
5. Toilets are the leading cause of leaks and high bills in homes. Customers can check for toilet leaks by dropping a few drops of food coloring into the tank. If the food coloring shows up in the bowl after 15-30 minutes, the toilet is leaking. A flapper valve repair kit can be purchased from a local hardware store.
6. Sometimes the toilet can be heard filling when no one is around. These "ghost flushes" are a good sign of a faulty flapper valve that might not show up during a meter inspection. Often the only way to determine if you are experiencing "ghost flushes" is to mark the needle and arrow on the meter, after the last person uses water at night, and recheck the meter before anyone uses water in the morning. If the needle or arrow have moved, and no one has used water then a leaking toilet might be the problem.

Water Leak Table

A small hole or leak in your water line or fixture can result in excessive leakage and high bills. The table below shows some common flow rates (in gallons) at a line pressure of 60 PSI.

Hole Size	Loss Per Day	Loss Per Quarter
1/64"	49.5 gallons	4,450 gallons
1/16"	792 gallons	71,280 gallons
1/8"	3,168 gallons	285,120 gallons
1/4"	12,720 gallons	1,144,800 gallons

NORTHFIELD WATER DEPT - VT0005275

Consumer Confidence Report - 2022

This report is a snapshot of the quality of the water that we provided in 2022. 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 Water and Wastewater Commission meets on 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 Town Manager Jeff Schulz.
Telephone: 802-485-9822 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 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 million (ppm) or Milligrams per liter (mg/l): (one penny in ten thousand dollars)

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

Parts per trillion (ppt) or Nanograms per liter (ng/l): (one penny in ten billion 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).

Per- and polyfluoroalkyl substances (PFAS): a group of over 4,000 human-made chemicals (they do not occur naturally) that have been used in industry and consumer products worldwide and includes:

(PFNA): Perfluorononanoic Acid

(PFOA): Perfluorooctanoic Acid

(PFOS): Perfluorooctane Sulfonic Acid

(PFHpA): Perfluoroheptanoic Acid

(PFHxS): Perfluorohexane Sulfonic Acid

(11Cl-PF3OUdS): 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid

(9Cl-PF3ONS): 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic Acid

(DONA): 4,8-Dioxa-3H-perfluorononanoic Acid

(HFPO-DA): Hexafluoropropylene Oxide Dimer Acid

(NEtFOSAA): N-ethyl perfluorooctanesulfonamidoacetic Acid

(NMeFOSAA): N-methyl perfluorooctanesulfonamidoacetic Acid

(PFBS): Perfluorobutane Sulfonic Acid

(PFDA): Perfluorodecanoic Acid

(PFDoA): Perfluorododecanoic Acid

(PFHxA): Perfluorohexanoic Acid

(PFTA): Perfluorotetradecanoic Acid

(PFTrDA): Perfluorotridecanoic Acid

(PFUnA): Perfluoroundecanoic Acid

Detected Contaminants NORTHFIELD WATER DEPT

Disinfection Residual	RAA	RANGE	Unit	MRDL	MRDLG	Typical Source
Chlorine	0.494	0.300 - 0.890	mg/l	4	4	Water additive to control microbes

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Fluoride	10/31/2022	1	0.5 - 1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	04/06/2022	0.69	0.69 - 0.69	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection ByProducts	Collection Year	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
Total Trihalomethanes	2022	9	9 - 9	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Collection Year	90th Percentile	Range	Unit	AL*	Sites Over AL	Typical Source
Lead	2022	0	0 - 1.1	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	2022	0.085	0 - 0.16	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

*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 2022. 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
CCR REPORT	Failure to Report	CONSUMER CONFIDENCE RULE	07/01/2022 - 07/05/2022

To be Completed by the Water System. List any steps taken to correct the violations listed above:

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>.