

2021 CONSUMER CONFIDENCE REPORT

FREEDOM HILL COOPERATIVE (PWS ID# 1403030)

Provided by Gilford Well Company



Introduction

As your water system operator, our mission is to deliver the best quality drinking water for your homes. In addition to compliance with EPA drinking water rules, we also provide service and repairs to your system equipment to keep it running at an optimal and efficient level. Aging infrastructure presents challenges to drinking water safety and continuous improvement is needed to maintain the quality of life we desire for today and the future. Many factors can contribute to a loss of water quality, which is why we closely monitor your water system during regular system checks. This helps us deliver the best quality of water possible. When considering the high value we place on water, it is truly a bargain to have water service that protects public health, supports businesses and the economy, and provides us with the high-quality of life we enjoy.

What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

Source of Drinking Water

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 in Drinking Water

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

What is the source of my drinking water?

Your drinking water is provided by a blend of three bedrock wells: Bedrock Well 003 is located 156' southeast of the pump house; Bedrock Well 004 is located 145' northwest of the pump house; and Well #6 (completed March 2015) replaced Well #5. Chlorine is added to the water through a mixing tank, which then runs through an iron and manganese reducing filter and an arsenic removal filter.

Source Water Assessment Summary

DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on August 10, 2000 are noted below.

- Bedrock Well 003 susceptibility factors were rated (1) high, (0) medium, (11) low.
- Bedrock Well 004 susceptibility factors were rated (1) high, (0) medium, (11) low.
- A Source Assessment Report for Well 006 has not been completed.

Note: This includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data. The complete Assessment Report is available for review at Gilford Well Company. For more information, call Gilford Well Company at (603) 524-6343 or visit the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwssp/dwsap.htm>

Why are contaminants in my drinking water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 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. 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 microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Repairs & Replacement Projects

Gilford Well Company performs regular maintenance and system checks to identify any issues and to ensure the equipment is functioning as it should. The following repairs were completed in 2020:

- 1/3/20: Replaced radon bubble up blowers under warranty.
- 1/21/20: Repaired damaged wires between pull boxes going to the well.
- 3/20/20: Installed new pump in Well 003.
- 4/16/20: Repaired leak at 93 Pine Ridge.
- 7/24/20: Installed new arsenic filtration media in five filters.
- 10/6/20: Replaced leaking curb valve and box.
- 11/2/20: Repaired leak at 117 Redwood.

How can I get involved?

For more information about your drinking water, please call Freedom Hill owner, Janet Verville-Clough at (603) 219-6666 or the primary operator, Gilford Well Company at (603) 524-6343. Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions.

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 from 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://water.epa.gov/drink/info/lead/index.cfm>

BULK WATER DELIVERIES

Bulk Water Source	Dates of Delivery	Gallons Delivered	Reason for Delivery
City of Manchester, NH - Fortin	1/20/2020	6000	Low water in atmospheric tank, well 6 out
City of Manchester, NH - Fortin	1/21/2020	6000	Low water in atmospheric tank, well 6 out

How to Interpret Data in this Section

- ◆ All detections are reported, even if they do not exceed the maximum contaminant level (MCL) or action level (AL).
- ◆ Your water system may not be required to sample specific contaminants every year. You may see older dates listed in the Detected Contaminants table, which identify the last time the contaminant was sampled.
- ◆ If lab results indicated a zero or non-detect (ND), it is not listed in the table.

Definitions

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

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: 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.

Abbreviations

mg/L: milligrams per Liter	N/A: Not Applicable	RAA: Running Annual Average	pCi/L: picoCurie per Liter
ppb: parts per billion	ppm: parts per million	TTHM: Total Trihalomethanes	ug/L: micrograms per Liter

LEAD AND COPPER

Contaminant (Units)	Action Level	90 th percentile sample value	Date	# of sites Above AL	Violation Yes/No	Likely Source of Contamination
Copper (ppm)	1.3	0.006	1/1/2020	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Health Effects of Copper

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.

Lead (ppb)	15	1	1/1/2020	0	No	Corrosion of household plumbing systems, erosion of natural deposits
------------	----	---	----------	---	----	--

Health Effects of Lead

(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.

Detected Contaminants

DETECTED WATER QUALITY RESULTS						
Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Radioactive Contaminants – Last tested 1/6/2017						
Compliance Gross Alpha (pCi/L)	1.5	15	0	No	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation know 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.
Uranium (ug/L)	2	30	0	No	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	1.3	5	0	No	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic Contaminants – Last tested 1/2/2019 (except where noted)						
Arsenic (ppb)	6.75 RAA Range: 0 – 15 Last tested 10/2/20	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(5 ppb through 10 ppb) While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (above 10 ppm) Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Barium (ppm)	0.004	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Detected Contaminants

Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Chlorine (ppm)	0.5 RAA Tested monthly in 2020	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.
Chromium (ppb)	5	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Fluoride (ppm)	1.1	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.

Volatile Organic Contaminants – Last tested 7/2/2019

Total Trihalomethanes (TTHM) (ppb)	4.7	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.
------------------------------------	-----	----	-----	----	---	--

SECONDARY CONTAMINANTS

Secondary MCLs (SMCL)	Level Detected	Date	Treatment technique (if any)	SMCL	Specific contaminant criteria and reason for monitoring
Chloride(ppm)	14	1/2/2019	N/A	250	Wastewater, road salt, water softeners, corrosion
Fluoride (ppm)	1.1	1/2/2019	N/A	2	At low levels, fluoride can help prevent cavities, but children drinking water with more than 2 ppm of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis).
Iron (ppm)	0.040	1/2/2019	N/A	0.3	Geological
pH	7.17	1/2/2019	N/A	6.5-8.5	Precipitation and geology
Sodium (ppm)	8.8	1/2/2019	N/A	250	We are required to regularly sample for sodium
Sulfate (ppm)	7.9	1/2/2019	N/A	250	Naturally occurring



This report was prepared by:
GILFORD WELL COMPANY, INC.
 1440 Lake Shore Road ♦ Gilford, NH 03249
 (603) 524-6343 ♦ www.gilfordwell.com