Freedom Hill Cooperative
2017 Consumer Confidence Report
(2016 data)

Introduction
Our mission is to deliver the best quality drinking water for your water system. 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, fights fires, supports businesses, 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?
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 6 has not been completed.

Note: This information is over 16 years old and 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/dwspp/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
As your water system operator, 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 this year:

- 2/1/2016: Located and marked all street valves, blow-offs, and curb valves prior to leak detection. Performed leak detection survey.
- 3/23/2016: Dug up valve and replaced. Could not find leak. Returned on 4/20/16 and installed new service line valve to hous.
- 7/18/2016: Repaired leak in service line just after curb valve at 74 Chestnut Circle.

There are no replacement projects planned at this time.

Violations and Other Information
The enclosed table contains information about any violations incurred by the water system during the 2016 sampling year.

How can I get involved?
For more information about your drinking water, please call 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 you may have.

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Violations

Freedom Hill did not have any violations in 2016.

Contaminants Detected (2016)

Microbiological Contaminants

Freedom Hill Cooperative is tested on a monthly basis. The presence of bacteria was not found in any sample in 2016.

Radioactive Contaminants

Contaminant (Units)	Level Detected	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Exceeded MCL?	Likely Source of Contamination	Health Effects of Contaminant
Compliance Gross Alpha (pCi/L)	2.40 pCi/L Average Range: 2.9 – 4.3 pCi/L	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 ug/l 5/10/2016	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)	.27 pCi/L Average Range: 0 - .08	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

Contaminant (Units)	Level Detected	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Exceeded MCL?	Likely Source of Contamination	Health Effects of Contaminant
Arsenic (ppb)	6 ppb Average Range: 2 – 11 ppb	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.
Chlorine (ppm)	0.33 mg/L Average Range: 0.10 – 0.75 mg/L	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)	8 ppb 5/10/2016	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.

Inorganic Contaminants, continued

Contaminant (Units)	Level Detected	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Exceeded MCL?	Likely Source of Contamination	Health Effects of Contaminant
Fluoride (ppm)	.970 mg/L 5/10/2016	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.
Sodium	8.400 mg/l 5/10/2016	None Established	N/A	N/A	Natural sources, runoff from use as salt on roadways; by-product of treatment process	Sodium in water contributes only a small fraction of a person's overall sodium intake (less than 10%). The FDA recommends individuals consume no more than 2,300 milligrams of sodium per day, and that certain groups limit intake to 1,500 milligrams per day. Sodium-sensitive individuals should consult their personal physician for further guidelines.

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.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or 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 the use of disinfectants to control microbial contaminants.

Abbreviations

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

This report was prepared by:

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