# 2022 Consumer Confidence Report
## FREEDOM HILL COOPERATIVE
### PROVIDED BY GILFORD WELL COMPANY

**Introduction**
As your water system operator, 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, 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). This report includes water quality data from 2021 and any data up to five years prior if the contaminant is not tested for every year.

**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 per- and polyfluoroalkyl substances, 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 006 is located 1200' west of the pump house. The water is treated to reduce/remove iron, manganese, arsenic, and radon.

| Bulk Water Deliveries | | | |
|---|---|---|---|
| **Bulk Water Source** | **Date Delivered** | **Gallons Delivered** | **Reason for delivery** |
| Fortin - Manchester Water Works | 3/6/2021 | 12,000 | Well 6 had kicked out. |

**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 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.

**Violations and Other Information**

| VIOLATIONS | | | | | |
|---|---|---|---|---|---|
| **VIOLATION** | **Date of violation** | **Explain violation** | **Length of violation** | **Action taken to resolve** | **Health Effects (Env-Dw 804-810)** |
| MCL | 11/18/2021 Q4 2021 | Arsenic exceeded new MCL level | Resolved, just waiting for RAA to drop below 5 ppb. | Filtration media was changed 11/15/21 | Arsenic could cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. |

**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 last year:

- 1/15/2021: Repaired leak in 4" PVC main line at 77 Pine Ridge.
- March 2021: Reset Well 6; Repaired leak at 117 Redwood; Repaired booster pump.
- April-September 2021: Installed new curb valves at - 19 Chestnut Circle, 8 Dogwood Terrace, 95 Redwood Road, and 159 Pine Ridge.
- 10/12/2021: Repaired leak on Well #4 offset line.

AND the following project is planned for 2022: Clean and inspect atmospheric storage tank.

| SIGNIFICANT DEFICIENCY | | | | |
|---|---|---|---|---|
| **Significant deficiency description. Date of sanitary survey 11/3/21** | **Source of *E.coli*** | **Date deficiency was addressed or corrected** | **Approved plan and timeframe for correction** | **Health Effects (Env-Dw 811.21)** |
| Record Drawing Required | N/A | | 10/31/2022 | N/A |

**How can I get involved?**

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

**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

# DETECTED CONTAMINANTS

| 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).<br>♦ 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.<br>♦ 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 | ND: Not Detectable at testing limits | pCi/L: picoCurie per Liter |
| ppm: parts per million | ppb: parts per billion | RAA: Running Annual Average | ug/L: micrograms per Liter |
| | | TTHM: Total Trihalomethanes | |

**LEAD AND COPPER**

| Contaminant (Units) | Action Level | 90th percentile sample value | Date | # of sites Above AL | Violation Yes/No | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| **Copper** (ppm) | 1.3 | 0.006 | 1/9/2020 | 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 | 1/9/2020 | 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 unless otherwise noted** | | | | | | |
| Arsenic (ppb) | 8 RAA<br><br>Range: 2-7 ppb 1/6/21 & 4/2/21 | 10<br><br>Prior to 7/1/21 | 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. |

# DETECTED CONTAMINANTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Arsenic (ppb) | 8 RAA<br><br>Range: 9-12.3 ppb 7/6/21 & 10/14/21 | 5<br><br>After 7/1/21 | 0 | Yes | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes | (2.5 ppb through 5 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 5 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. |
| Chlorine (ppm) | 0.5 RAA<br><br>Tested monthly in 2021 | 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. |

# DETECTED CONTAMINANTS

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|---|---|---|---|---|---|---|
| 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 1/6/2021** | | | | | | |
| Total Trihalomethanes (TTHM) (ppb) | 2.8 | 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)** | **AL (Action Level), SMCL or AGQS (Ambient groundwater quality standard)** | **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 (ppm) | 7.17 | 1/2/2019 | N/A | 6.5-8.5 | Precipitation and geology |
| Sodium (ppm) | 8.8 | 1/2/2019 | N/A | 100-250 | 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:*
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ENVIRONMENTAL Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WD-DWGB-26-19 2019

# Home Water Efficiency: Kitchen and Laundry

Practicing mindfulness is said to be good for you, so why not try it out in the kitchen? Each time you turn on the faucet, bring your thoughts to the present moment and challenge yourself to focus on how you are using water and where you may be able to cut out waste. Are you rinsing dishes under a constant stream of water before putting them into the dishwasher? If so, there are better ways to go about cleaning your dishes that save money, water and energy. Does your sink faucet blast instead of efficiently flow? A simple twist could be the fix. Is your dishwasher or washing machine in need of replacement? Don't wait until it's an emergency. Start looking for a machine that has been tested for performance and efficiency and feel good about making a smart purchase that will pay off in savings and in protection of the natural resources we all share. Being wasteful is unnecessary and just feels bad, so be the change you wish to see and take a few simple steps to protect New Hampshire's water resources and your bank account.

**Out with the old and in with the new.**

- ✓ Replace kitchen faucets or faucet aerators with WaterSense-labeled products. WaterSense, sponsored by the U.S. Environmental Protection Agency (EPA), certifies water-efficient products that have been independently tested to ensure water savings without sacrificing performance or quality. Look for the label on product packaging at your local retailer or go to the EPA WaterSense website to learn more.

Source: EPA

- ✓ Check the aerator on your kitchen and bathroom sinks (this is the nozzle with the screen on it). Printed on the side of the aerator, there should be a flow rate in gallons per minute (gpm). If the aerator is labeled as higher than 1.5 gpm, replace it with either a 1 gpm or 1.5 gpm aerator, which will save water and still provide enough power for filling pots and washing dishes.

- ✓ If you own a dishwasher older than 1994, then you are wasting $40 a year on utility bills. Choose an EPA ENERGY STAR®-labeled dishwasher and start saving. To learn more, go to the Energy Star website.

**Your laundry will be clean and green.**

Outside of toilet flushing, washing clothes is the largest water use in the home. The following water efficiency practices can help you save water while doing laundry:

- ✓ Wash full loads only. If unable to wash a full load, set your washer to the appropriate water level setting.

- ✓ If your washing machine was built before 2003, replace your machine with a new energy- and water-efficient machine. These washers rotate clothes rather than agitate them and use much less water. An efficient machine uses 13 gallons per load compared to a conventional model, which uses 23 gallons per

load, or an older model, which may use up to 40 gallons per load. To learn more, go to the Energy Star website.

**How low can you flow?**

- ✓ Turn off the kitchen faucet when not in use, such as while washing hands or doing dishes.
- ✓ New dishwashers don't require dishes to be pre-rinsed. If you have an older model, pre-rinse dishes in a basin with cold water as opposed to under a running tap or instead, use a dish squeegee or scraper.
- ✓ Operate dishwashers with full loads only. Use the water-save cycle if your dishwasher is equipped with one.
- ✓ If washing dishes by hand, rinse them in a basin rather than under running water. If you have two basins, fill one with sudsy water for washing and the other with fresh water for rinsing.
- ✓ Store drinking water in the refrigerator rather than running the tap for cold water.
- ✓ Compost food scraps rather than using a garbage disposal. Not only do disposal units waste water, the fine particles they produce can clog a septic system.
- ✓ Do not run water to melt ice or thaw frozen foods. Defrost food in a microwave or in the refrigerator overnight.
- ✓ Rinse vegetables in a bowl of water rather than under running water. Use the remaining water to water plants.
- ✓ Check for and repair leaks. Old and worn faucet washers and gaskets frequently cause leaks in faucets. To learn more about identifying and repairing leaks yourself, check out the NHDES fact sheet WD-DWGB-26-23, "Home Water Efficiency: Fixing Leaks Indoors and Out."

**For More Information**

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov.

**References and Resources**

U.S. EPA WaterSense
Water—Use It Wisely (WUIW)

Note: This fact sheet is accurate as of August 2019. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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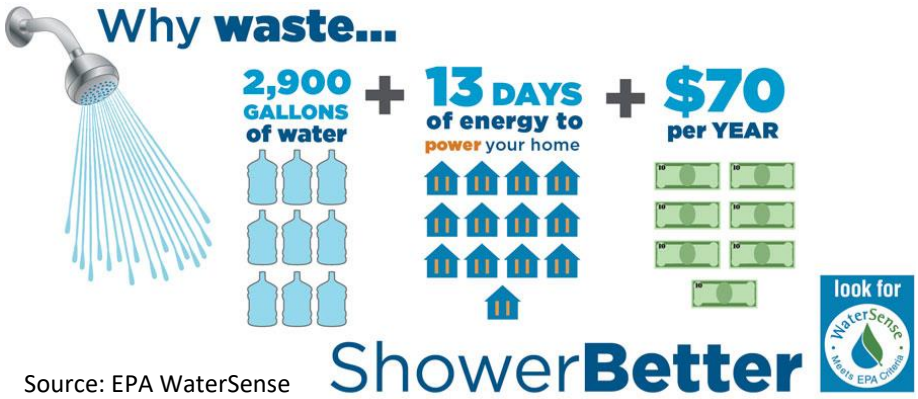
WD-DWGB-26-18 2019

# Home Water Efficiency: Bathrooms

Of the 63 gallons of water we each use indoors every day, approximately half is used in the bathroom for bathing and flushing. A lot of that water and the energy used to pump, treat and heat that water could be needlessly washed down the drain due to inefficient fixtures, leaks, and wasteful habits. By replacing water-using fixtures in the home with low-flow fixtures, you can cut your indoor water use by 35%. Just by replacing a showerhead with a water-efficient showerhead, your family could save up to $70 a year in water and energy costs and save enough electricity to power your home for 13 days! Imagine how much more you could save by retrofitting your entire bathroom with water-efficient fixtures, fixing leaks, and improving wasteful habits.




Source: EPA WaterSense

**Need a change? Go retro.**

- ✓ Retrofit your bathroom with WaterSense certified showerheads, faucets, and toilets. WaterSense, sponsored by the U.S. Environmental Protection Agency (EPA), certifies water-efficient products that have been independently tested to ensure water savings without sacrificing performance or quality. WaterSense certified products include many brands and styles and are available at a variety of price levels. Look for the WaterSense label at your local retailer or go to www.epa.gov/watersense to learn more.

- ✓ By installing a water-efficient showerhead that uses no more than 2 gallons per minute, your family will save approximately 28,000 gallons of water per year. There is no need to worry about the performance of low-flow showerheads. Just look for the WaterSense label. WaterSense certified showerheads are designed to use less water and still provide the same invigorating spray as their water-wasting counterparts.

- ✓ Install water-efficient toilets that use a maximum of 1.28 gal/flush (4.8 L/flush) or dual-flush toilets, which offer a choice between a 1.6-gallon flush for solid wastes and a 1.0-gallon flush for liquids only. A family of four could save up to $90 on its yearly water bill by installing a more water-efficient toilet.

- ✓ Install water-efficient bathroom faucets that use no more than 1.5 gallons per minute or instead, for only a couple of dollars, install low-flow faucet aerators. These devices are readily available at most hardware and building supply stores.

**Give your bathroom a tune-up.**

- ✓ For tips and tricks for detecting and repairing leaks in the bathroom, check out the NHDES fact sheet WD-DWGB-26-23, "Home Water Efficiency: Fixing Leaks Indoors and Out," which is available on the NHDES website at www.des.nh.gov.

**How low can you flow?**

- ✓ Shut off water when not in use, such as when you brush your teeth or shave, and save up to 300 gallons per month.

- ✓ Avoid unnecessary toilet flushing by disposing of tissues and other items in the trash.

- ✓ Avoid using automatic bowl cleaners in your toilet tank. These chemicals rapidly degrade flapper valves and other tank components, causing the toilet to leak.

- ✓ Fill bathtubs no more than half full or take a shower instead. A full bath can require up to 70 gallons of water, whereas a 5-minute shower uses only 10 to 15 gallons.

**For More Information**

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov.

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