

DISTRIBUTION SYSTEM WATER QUALITY

This report summarizes only those items detected during sampling - not all contaminants that are monitored. Well #1 was not sampled because it was offline all year. Iron, Manganese, Nitrite, Synthetic Organic Compounds (SOC), and Volatile Organic Compounds (VOC) taken on 5/7/18 were all non-detections.

| <i>Microbial Results</i> | Highest# Positive in a Month | Total # Positive | MCL | MCLG | Violation | Possible Source of Contamination     |
|--------------------------|------------------------------|------------------|-----|------|-----------|--------------------------------------|
| Total Coliform           | 0                            | 0                | 1   | 0    | No        | Naturally present in the environment |
| E. Coli                  | N/A                          | 0                | *   | 0    | No        | Human and animal fecal waste         |

\*Compliance with Fecal Coliform / E. Coli MCL is determined upon additional repeat testing.

**Total Coliforms** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

| <i>Lead &amp; Copper</i> | Date(s) Collected | 90 <sup>th</sup> Percentile of Sample | Action Level | MCLG | # of Sites sampled | # of Sites Above Action Level | Exceeds Action Level? | Possible Source of Contamination        |
|--------------------------|-------------------|---------------------------------------|--------------|------|--------------------|-------------------------------|-----------------------|---|
| Lead (ppb)               | 2018              | 3                                     | 15           | 0    | 10                 | 0                             | No                    | Corrosion of household plumbing systems |
| Copper (ppm)             |                   | 0.28                                  | 1.3          | 1.3  |                    |                               | No                    | Corrosion of household plumbing systems |

TESTING FOR 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. **Dunstable Water Department** 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 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>.

| Key to Tables | SOURCE WATER CHARACTERISTICS  |   |
|---------------|---|---|
|               | <p>The sources of drinking water in the United States (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.</p> <p>Contaminants that may be present in source water include:</p> <ul style="list-style-type: none"><li>Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</li><li>Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from</li></ul> | <p>urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.</p> <ul style="list-style-type: none"><li>Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.</li><li>Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. These contaminants can also come from gasoline storage, urban storm water runoff, and septic systems.</li><li>Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.</li></ul> |

SUMMARY OF FINISHED WATER CHARACTERISTICS

| <u>Regulated Contaminants</u>             | Date(s) Collected | Highest Detect Value | Range Detected | MCL  | MCLG                    | Violation  | Possible Source of Contamination  |
|---|-------------------|----------------------|----------------|------|-------------------------|--|---|
| Inorganic Contaminants                    |                   |                      |                |      |                         |  |   |
| Nitrate (ppm)                             | 5/7/2018          | 3.04                 | n/a            | 10   | 10                      | No   | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Perchlorate (ppb)                         | 5/7/2018          | 0.29                 | n/a            | 2    | n/a                     | No   | Rocket propellants, fireworks, munitions, flares, blasting agents                           |
| Radioactive Contaminants                  |                   |                      |                |      |                         |  |   |
| Gross Alpha Emitters (pCi/L)              | 5/30/17           | 0.2                  | n/a            | 15   | 0                       | No   | Erosion of natural deposits   |
| Radium 226 & 228 (combined values)(pCi/L) | 2017              | 0.6                  | 0.1-0.6        | 5    | 0                       | No   | Erosion of natural deposits   |
| <u>Unregulated</u>                        | Date(s) Collected | Result or Range      | Average        | SMCL | ORSG or Health Advisory | Possible Source of Contamination   |   |
| Inorganic Contaminants                    |                   |                      |                |      |                         |  |   |
| Sulfate (ppm)                             | 2/27/15           | 9.5-10.6             | 10.05          | 250  | -                       | Natural sources  |   |
| Sodium (ppm)                              | 5/7/2018          | 36                   | n/a            | -    | 20                      | Natural sources; runoff from use as salt on roadways; by-product of treatment process. |   |

**Sodium** is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the New Hampshire Department of Environmental Services at (603) 271-3503.

SOME TERMS DEFINED

- Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement 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 the water system.
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety
- Maximum Contaminant Level (MCL):** 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.
- Secondary Maximum Contaminant Level (SMCL):** These standards are developed to protect the aesthetic qualities of drinking water and are not health based.
- Massachusetts Office of Research and Standards Guideline (ORSG):** This is the concentration of a chemical in drinking water, at or below which, adverse, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.
- Total Coliform:** A bacteria that indicates other potentially harmful bacteria may be present.
- Unregulated Contaminants:** Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.
- 90th Percentile:** Out of every 10 homes, 9 were at or below this level.



Typical Hose Bibb Vacuum Breaker

Cross Connection Control and Backflow Protection in your water system

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. The Dunstable Water Department recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. MassDEP and the Dunstable Water Department require the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact Eric Burkett, Cross Connection Coordinator, WWI at 888-377-7678.