

***Annual Consumer Confidence Report (CCR)***  
**Year 2021**

**Howland Water Department**  
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**INTRODUCTION:**

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. This report includes all testing of your drinking water completed from January through December 2021. We are pleased to report that our drinking water is safe and meets all federal and state requirements.

The Lincoln Water District supplies our water. The water supply is a ground water Aquifer that currently supplies all of the Municipal water needs of the Town of Lincoln and Howland. The location of the Esker Aquifer is in South Lincoln and is part of a major glacial stream deposit (an Esker) that extends in a N-S direction through the most southern part of the Town of Lincoln. The Lincoln Water District operates and maintains 4 gravel packed wells in the Aquifer. This water source has been in use since the fall of 1961, and feeds 27 miles of water distribution mains, supplying 129 public fire hydrants, 28 private fire services and 1500 water service connections (customers). The Howland Water Department serves 6.9 miles of transmission main, 8.4 miles of water mains, 59 public fire hydrants and 450 water service connections. In the event of a power failure, water pressure and flow would be maintained from one 500,000 gallon standpipe (above ground tank) located on Cemetery Hill in Howland. The water source from the gravel packed wells is pumped directly into the distribution system with no filtration or chemicals added. The quality of the water is very high, therefore disinfection of the source water at the wells is not a requirement.

The sources of drinking water include rivers, lakes, ponds and wells. As water flows, either on the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can also accumulate substances resulting from human and animal activity. The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Protection Program. The assessments included geology, hydrology, land uses, water testing information, and the extent of land ownership or protection by local ordinance to see how likely our drinking water source is to being contaminated by human activities in the future. Assessment results are available at public water suppliers, town offices, and the DWP. For more information in the SWAP, you may contact the DWP at telephone (207)287-2070. The Lincoln Water District has a source water protection plan available at their office located at 3 Taylor Street, Lincoln, Maine, that provides more information.

If you have any questions about this report, or concerns about your water department, please contact David Lloyd, Town Manager, at 732-3513. We want our valued customers to be informed about their water department. *The Howland Water Department Office is located in the Town Hall at 8 Main Street.* If you want to learn more, please attend any of our regularly scheduled selectmen meetings. They are held the 1<sup>st</sup> and the 3<sup>rd</sup> Monday of each month at the Town Office Building, 8 Main Street at 6:00 P.M. Dates and times of meetings are posted on the door of the Town Office.

The Howland Water Department and the Lincoln Water District routinely monitor for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31, 2021. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose 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.

#### **Customer Alert:**

**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.**

**The Howland 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 Hot Line or at <http://www.epa.gov/safewater/lead>.**

#### **Definitions:**

In the following table, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

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

**Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

**Maximum Contamination Level (MCL):** The highest level of a contaminant that is allowed in drinking water.

**Maximum Contamination Level Goal (MCLG)** The level of a contaminant in drinking water below which there is no known or expected risk to health.

**Waiver:** State or U.S. EPA permission not to meet an MCL, testing requirement, or a treatment technique under certain conditions (e.g. waiver to synthetic organic testing).

**Units:**

**pCi/l:** picocuries per liter, a measure of radioactivity.

**ppb:** Parts per billion.

**ppm:** Parts per million.

**Notes:**

- 1) **Total Coliform Bacteria:** Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
- 2) **E. Coli:** E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
- 3) **Fluoride:** For those systems that fluoridate, fluoride levels must be maintained between 0.5 to 1.2 ppm. The optimum level is 0.7 ppm.
- 4) **Lead/Copper:** Action levels (AL) are measured at consumer's tap. 90% of the tests must be equal to or below the action level.
- 5) **Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health provider.
- 6) **Arsenic:** While your drinking water may meet EPA's standard for Arsenic, if it contains between 5 to 10 ppb you should know that the standard balances the current understanding of arsenic's possible health effects against the costs of removing it 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. Quarterly compliance is based on running annual average.
- 7) **Gross Alpha:** Action level over 5 pCi/L requires testing for Radium 226 and 228. Action level over 15 pCi/L requires testing for Uranium. Compliance is based on Gross Alpha results minus Uranium results = Net Gross Alpha.
- 8) **Radon:** The State of Maine adopted a Maximum Exposure Guideline (MEG) for Radon in drinking water at 4000 pCi/L, effective 1/1/07. If Radon exceeds the MEG in water, treatment is recommended. It is also advisable to test indoor air for Radon.
- 9) **TTHM/HAA5:** Total Trihalomethanes and Haloacetic Acids (TTHM and HAA5) are formed as a by-product of drinking water chlorination. This chemical reaction occurs when chlorine combines with naturally occurring organic matter in water. Compliance is based on running annual average.

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HOWLAND WATER DEPT  
2021 Consumer Confidence Report  
Water Test Results**

Contaminant	Date	Results	MCL	MCLG	Source
<b>Microbiological</b>					
TOTAL COLIFORM	2021	0 pos	1 pos/month or 5%	0 pos	Naturally present in the environment.
<b>Inorganics</b>					
ARSENIC	4/15/20	1.5 ppb	10 ppb	0 ppb	Erosion of natural deposits. Runoff from orchards, glass and electronics production wastes.
BARIUM	4/15/20	0.0009 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Dishcharge from metal refineries. Erosion of natural deposits.
CHROMIUM	4/15/20	1.2 ppb	100 ppb	100 ppb	Discharge from steel and pulp mills Erosion of natural deposits.
COPPER 90 <sup>th</sup> % VALUE (4)	1/1/19-12/31/21	0.245 ppm	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
FLUORIDE (3)	4/15/20	0.1 ppm	4ppm	4 ppm	Erosion of natural deposit. Water additive which promotes strong teeth.
LEAD 90 <sup>th</sup> % VALUE (3)	1/1/19 – 12/31/21	1.4 ppb	L=15 ppb	0 ppb	Corrosion of household plumbing systems.
NITRATE NITROGEN	09/02/2021	0.51 ppm	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
<b>Disinfectants and Disinfection Byproducts</b>					
<b>DISTRIBUTION SYSTEM</b>					
TOTAL TRIHALOMETHANE (TTHM) (9)	LRAA (2019)	8.7 ppb Range (8.7-8.7ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
<b>Chlorine Residual (Add chlorine residual information)</b>					
CHLORINE RESIDUAL	Range (0.19-0.25)		MRDL=4ppm	MRDL=4 ppm	By-product of drinking water chlorination.

**Waivers**

The Lincoln Water District was granted a “Synthetic Organics Waiver” in 2017. This is a three-year exemption from the testing/monitoring requirements for the following industrial chemicals: TOXAPHENE/CHLORDANE/PCB, HERBICIDES, CARBAMATE PESTICIDES, SEMIVOLATILE ORGANICS. This waiver was granted due to the absence of these potential sources of contamination within a half-mile radius of the water source.

**All other regulated drinking water contaminants were below detection levels.**

**Health Information**

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. 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 stormwater 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 stormwater runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban runoff, and septic systems. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune 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 the Safe Drinking Water Hotline (800-426-4791) or at the following link:

<https://www.epa.gov/ccr/forms/contact-us-about-consumer-confidence-reports>

**Violations**

<b>Violation Period</b>	<b>Violation Type</b>
1/1/2021 – 12/31/2021	27 Violation- MONITORING, ROUTINE (DBP), MAJOR TTHM/HAAC-STAGE 2 DIST SYS

We are required to monitor our drinking water for specific contaminants on a regular basis. Results of regular monitoring indicate whether or not our drinking water meets health standards. During 2021, we did not test for, or failed to collect all necessary tests for Total Trihalomethanes (TTHM) and/or Haloacetic Acids (HAA5), OR our test results were not reported to the DWP on time (indicated as a Reporting violation above).

We at the Howland Water Department, in conjunction with the Lincoln Water District, Jeffrey Day, Superintendent, work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.