

2019 Annual Drinking Water Quality Report

# LISBON WATER DEPARTMENT

PWSID ME0090870

We're pleased to present to you our Annual Drinking Water Quality Report, also known as the Consumer Confidence Report. This report, a requirement of the 1996 amendments to the Safe Drinking Water Act, is designed to inform you about the quality water 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.

## **Source Water:**

We have four wells, gravel packed, from which we draw the Town's water. The 56-foot deep Bauer Well is located on the southwest side of route 196 on the easterly edge of the Lisbon village. The second and third wells, 70-feet and 88-feet, are located on the west side of Moody Source Water: Road, on the westerly side of the Lisbon village. The fourth well, 78-feet in depth, is located on the east side of Ann Street, in the middle of the Lisbon Falls village. The Moody Road raw water is injected with sodium hypochlorite to oxidize iron and arsenic<sup>1</sup> for removal during filtration. All wells are equipped with the means to chlorinate if needed, to protect against potential bacteriological contaminants.

## **Source Water Assessment:**

The sources of drinking water include rivers, lakes, ponds, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Assessment Program (SWAP). 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 town offices and public water systems.

If you have any questions about this report or concerning your water system, please contact Bill Alexander Jr. at telephone number 207-353-3020, fax number 207-353-3004, mailing address 639 Lisbon Street, Lisbon Falls, ME 04252. We want our valued customers to be informed about their water system. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of every month at 5:30pm, at the Water Department office located at 639 Lisbon Street, Lisbon Falls.

## **Water Quality:**

Lisbon Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. In 2017, our system was granted a 'Synthetic Organics Waiver.' This is a three year exemption from the monitoring/reporting requirements for the following industrial chemical(s): TOXAPHENE/CHLORDANE/PCB, HERBICIDES, CARBAMATE PESTICIDES, and 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(s).

## **Definitions:**

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

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

Running Annual Average (RAA): A 12 month rolling average of all monthly or quarterly samples at all locations. Calculation of the RAA may contain data from the previous year.

Locational Running Annual Average (LRAA): A 12 month rolling average of all monthly or quarterly samples at specific sampling locations. Calculation of the RAA may contain data from the previous year.

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

Maximum Residual Disinfectant Level (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 (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.

## **Units:**

ppm = parts per million or milligrams per liter (mg/L).

pCi/L = picocuries per liter (a measure of radioactivity).

ppb = parts per billion or micrograms per liter (µg/L).

pos = positive samples. MFL = million fibers per liter

**Lisbon Water Department had NO violations in 2019**

The following table shows any detection resulting from our monitoring for the period of January 1 to December 31, 2019.

<i>Contaminant</i>	<i>Date</i>	<i>Results</i>	<i>MCL</i>	<i>MCLG</i>	<i>Possible Sources of Contamination</i>
<b>Microbiological</b>					
COLIFORM (TCR) (1)	Oct 2019	<b>1 pos</b>	1 pos/mo or 5%	0 pos	Naturally present in the environment.
<b>Inorganics</b>					
ARSENIC (6)	1/18/2019	<b>3.0 ppb</b>	10 ppb	0 ppb	Erosion of natural deposits. Runoff from orchards, glass and electronics production wastes.
BARIUM	5/4/2017	<b>0.0148 ppm</b>	2 PPM	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
CHROMIUM	5/4/2017	<b>3.5 ppb</b>	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
FLUORIDE (3)	5/4/2017	<b>0.2 ppm</b>	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
NITRATE (5)	4/1/2019	<b>1.3 ppm</b>	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
<b>Radionuclides</b>					
COMBINED URANIUM	4/1/2019	<b>8.1 ppb</b>	30 ppb	0 ppb	Erosion of natural deposits.
GROSS ALPHA (7)	4/1/2019	<b>2.6 pCi/l</b>		15 pCi/l	0 ppb Erosion of natural deposits.
<b>Lead/Copper</b>					
COPPER	1/1/2015 - 12/31/2017	<b>0.488 ppm</b>	AL = 1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
90TH% VALUE (4)					
LEAD	1/1/2015 - 12/31/2017	<b>7.1 ppb</b>	AL = 15 ppb	0.0 ppb	Corrosion of household plumbing systems.
90TH% VALUE (4)					
<b>Disinfectants and Disinfection Byproducts</b>					
TOTAL HALOACETIC ACIDS LRAA (2019) (HAA5) (9)		<b>1ppb</b> <b>Range (1.1-1.1ppb)</b>	60 ppb	0.0 ppb	By-product of drinking water chlorination
TOTAL TRIHALOMETHANE LRAA (2019) (TTHM) (9)		<b>19 ppb</b> <b>Range (19-19 ppb)</b>	80ppb	0.0 ppb	By-product of drinking water chlorination
<b>Chlorine Residual</b>					
Chlorine Residual chlorination		Range (0.0-0.87ppm)	MRDL= 4ppm	MRDLG=4ppm	By product of drink water

### All other regulated drinking water contaminants were below detection levels

#### 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. LWD does NOT add fluoride.
- 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.

## Secondary Contaminants

Chloride	43 ppm	5/4/2017
Magnesium	6.5 ppm	5/4/2017
Manganese	0.0121 ppm	5/4/2017
Sodium	23.2 ppm	5/4/2017
Sulfate	24 ppm	5/4/2017
Zinc	0.0701 ppm	5/4/2017

## 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.

**Radioactive Contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 (1-800-426-4791) or at the following link:

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

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.

Lisbon 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 the following link:

<http://www.epa.gov/safewater/lead>

## Total Coliform Bacteria Level Assessments

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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

A Level One assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system. During the past year we triggered a Level One assessment that was escalated to a Level Two assessment (see below).

A Level Two assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions. During the past year we were required to conduct 1 Level Two assessment(s). We completed 1 Level Two assessment(s). We were not required to take any corrective actions.