



## **Auburn Water and Sewerage Districts**

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# **2023 Consumer Confidence Report**

We are pleased to present this year's Annual Water Quality Report. This report will provide you with information about the quality of your water for the year 2023. It is our goal to continuously produce adequate supplies of safe and affordable drinking water. We strive to apply the best available treatment systems and are committed to protecting our only water resource, Lake Auburn. Please take time to read this report. If you have any questions or concerns, feel free to contact us at 207-784-6469.

The Auburn Water District (AWD) monitors your drinking water according to the requirements of Federal and State rules and regulations. The information provided here shows the results of our monitoring from the period January 1, 2023, through December 31, 2023. Some substances will be reported with earlier dates if they were not tested for in 2023.

In 2023 the Auburn Water District produced and treated approximately 867 million gallons of safe drinking water to more than 17,000 customers. 7,068 service connections.

### **WHERE DOES MY WATER COME FROM?**

Your drinking water comes from Lake Auburn. The source of Lewiston and Auburn's public drinking water since 1875, Lake Auburn is fed by a mostly forested watershed including Buckfield, Turner, Hebron, Minot, and East Auburn. Due to the high quality of Lake Auburn's water the EPA has exempted the Auburn Water District and Lewiston Water Division from the requirement to filter the water prior to disinfection. This exemption reduces treatment costs while providing excellent, safe water to our consumers. To assure long-term protection of the water source, in 1993 the two Districts formed the Lake Auburn Watershed Protection Commission empowered to protect the lake and surrounding watershed. The most effective, safest, and least expensive method for keeping Lake Auburn clean is to assure that water entering the lake is protected through a well-managed watershed. For more information about watershed protection and how you can do your part visit: [www.lakeauburnwater.org](http://www.lakeauburnwater.org) or call 207-784-6469.

### **DESCRIPTION OF WATER TREATMENT PROCESS:**

Water from Lake Auburn enters the treatment process through an intake pipe. The water flows through a coarse screen and drum strainer. This is followed by Ultraviolet Light Treatment inactivating targeted viruses that may be present in the water. Chlorine is added for disinfection, the alkalinity is increased, and pH is adjusted. Fluoride is added for dental health benefits. A corrosion inhibitor, Orthophosphate is added to prevent customer owned lead and copper plumbing materials from leaching into their drinking water. The chlorine is converted to chloramines by adding ammonia sulfate and finished water is delivered to the distribution system.

### **WE ALWAYS AIM TO DELIVER SAFE DRINKING WATER TO YOUR TAP!**

State Licensed operators run your water system. The drinking water quality is monitored 24 hours a day and analyzed 7 days a week. We conduct thousands of water samples each year to monitor water quality. In addition, we closely monitor the lake and contributing waters. Technology enables safety systems to ensure that treatment continues to operate correctly.

### **SOURCE WATER ASSESSMENT:**

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, public water suppliers, and the DWP. For more information about the SWAP, please contact the DWP at 207-287-2070.

### **ARE THERE CONTAMINANTS IN MY DRINKING WATER?**

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. The presence of contaminants does not necessarily indicate that the 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.

### **PFAS TESTING INFORMATION**

PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals, and they are found in many different consumer, commercial, and industrial products. This makes it challenging to study and assess the potential human health and environmental risks. The Auburn Water District sampled for PFAS through the UCMR3 (Unregulated Contaminant Rule) in 2013-2014. We found no detections of the 6 PFAS compounds tested for. In 2022 the Maine State Legislature enacted S.P. 64 (Resolve, To Protect Consumers of Public Drinking Water by Establishing Maximum Contaminant Levels for Certain Substances and Contaminants). Through this program and subsequent required testing, the Auburn Water District found no detections of the 25 required PFAS compounds. All samples were analyzed by an independent certified lab. No detections of PFAS compounds in the drinking water source for Auburn is a result of watershed protections that prevented common practices that are known to spread these compounds, such as land application of wastewater sludge and use of certain firefighting foams, around Lake Auburn.

For more information about PFAS in Public Water Systems:

<https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/pws/pfas.shtml#highlights>

Or call the Maine Drinking Water Program general number at 207-287-2070.

### **UNREGULATED CONTAMINANTS MONITORING**

Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2023 we participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). We had no detections of any of the contaminants in this round of testing.

### **2023 EVENTS**

AWD replaced over a mile of water main in 2023. Work was completed on Vernon, Grove, Second Street, and several other small segments throughout the City of Auburn. AWD began work to comply with the EPA, Lead and Copper Rule Revision (LCRR). The revised rules require AWD to complete an inventory of all water services, this includes both the public and private portions of the services. AWD was awarded a grant from the Maine Drinking Water Program to purchase equipment to complete investigations of services with incomplete records. More information about Auburn's compliance efforts may be found online at <https://awsd.org/leadcopperrule>.

### **PLANS FOR 2024**

AWD is budgeted to replace water mains on Fourth, Marian and Dunn Streets. We are ramping up our efforts to complete our inventory for LCRR compliance. AWD was awarded an MPI project (Municipal Partnership Initiative) with Maine DOT to replace the Townsend Brook culvert on Lakeshore Drive. AWD will work with partners at the City of Lewiston and the Lake Auburn Watershed Protection Commission to complete this work.

## WHAT'S IN YOUR WATER?

This table provides Auburn Water District's 2023 Water Quality sampling test results for the public water supply.

Parameter	Date	Results	MCL	MCLG	Possible Sources of Contamination
<b>MICROBIOLOGICAL</b>					
COLIFORM (TCR) (1)	2023	0 pos	1 pos/mo or 5%	0 pos	Naturally present in the environment.
<b>INORGANIC COMPOUNDS</b>					
BARIUM	3/22/2023	0.0016 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
FLUORIDE (3)	1/5/2023	0.8 ppm	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
<b>RADIONUCLIDES</b>					
COMBINED RADIUM (-226&228)	5/13/2020	1.4 pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits.
RADIUM-228	5/13/2020	1.3 pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits.
<b>LEAD AND COPPER</b>					
COPPER 90TH% VALUE (4)	1/1/2021 - 12/31/2023	0.2 ppm Range (0.0372-0.233 ppm)	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
LEAD 90TH% VALUE (4)	1/1/2021 - 12/31/2023	6.2 ppb Range (0-151 ppb)	AL=115 ppb	0 ppb	Corrosion of household plumbing systems.
<b>DISINFECTION AND DISINFECTION BYPRODUCTS</b>					
<b>TOTAL HALOACETIC ACIDS (HAA5)(9)</b>					
AVCOG (SITE#9)	LRAA (2023)	25 ppb Range (19-36 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
AWD EP (SITE#36)	LRAA (2023)	25 ppb Range (19-34 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
POLAND SPRING (SITE #32)	LRAA (2023)	27 ppb Range (19-36 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
RIVERSIDE SS (SITE#12)	LRAA (2023)	24 ppb Range (20-33 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
<b>TOTAL TRIHALOMETHANE (TTHM)(9)</b>					
AVCOG (SITE#9)	LRAA (2023)	30 ppb Range (17-49 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
AWD EP (SITE#36)	LRAA (2023)	28 ppb Range (16-45 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
POLAND SPRING (SITE #32)	LRAA (2023)	33 ppb Range (24-42 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
RIVERSIDE SS (SITE#12)	LRAA (2023)	40 ppb Range (23-47 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.
<b>CHLORINE RESIDUAL</b>					
		RANGE 2.76-3.28 PPM		MRDL=4 PPM	By-product of drinking water chlorination.
<b>TURBIDITY HIGHEST MONTHLY READING 2023</b>					
TURBIDITY	12/13/2023	2.32 NTU	5 NTU	N/A	Soil runoff.
<b>SECONDARY CONTAMINANTS (ASTHETIC STANDARDS)</b>					
IRON	3/22/2023	0.012 ppm			
SULFATE	3/22/2023	6 ppm			
SODIUM	3/22/2023	16.5 ppm			
MANGANESE	3/22/2023	0.0019 ppm			
CHLORIDE	3/22/2023	16 ppm			

### Violations

No Violations in 2023

## TABLE DEFINITIONS

In this table you will find terms and abbreviations you may not be familiar with. The following definitions are provided to help you understand the terms.

**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

### 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. Value is the highest locational average of four different locations in the distribution system and the range of individual values at all four locations. Compliance is based on location running annual average.
- 10) PFAS: The degree of risk depends on the level of chemicals and duration of exposure. Laboratory studies of animals exposed to high doses of PFAS have shown numerous negative effects such as issues with reproduction, growth and development, thyroid function, immune system, neurology, as well as injury to the liver. Research is still relatively new, and more needs to be done to fully assess exposure effects on the human body.
- 11) Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

## 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.

Immunocompromised 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. The Auburn Water District 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>**

## UPCOMING REGULARLY SCHEDULED MEETING(S):

The regularly scheduled Water District Trustee meetings are held the Wednesday following the third Tuesday every month at 4:00 PM, 268 Court Street in Auburn.