

PWSID ME0090610
GARDINER WATER DISTRICT
2023 Consumer Confidence Report

General Information

Water System Contact Name: Zachary Lovely

Address: P.O. Box 536

City, State, Zip Code: Gardiner, Maine, 04345

Telephone #: (207)582-5500 **Fax#:** (207)582-3093 **Email:** zlovelygwd@yahoo.com

Report Covering Calendar Year: Jan 1 - Dec 31, 2023

Upcoming Regularly Scheduled Meeting(s): Second Wednesday of the Month @ 4:00pm

Source Water Information

Description of Water Source:

Water source is from 3- Gravel packed wells and an interconnection with Hallowell Water District

Water Treatment & Filtration Information:

Greensand Filtration, Sodium Hypochlorite, fluoride, Orthpolyphosphate

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.

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.

Secondart Maximum Contaminant Level (SMCL)

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.

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

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

Water Test Results

Contaminant	Date	Results	MCL	MCLG Possible Sources of Contamination
Microbiological				
COLIFORM (TCR) (1)	2023	0 pos	1 pos/mo or 5%	0 pos Naturally present in the environment.
Inorganics				
ARSENIC (6)	6/27/2023	1.1 ppb	10 ppb	0 ppb Erosion of natural deposits. Runoff from orchards, glass and electronics production wastes.
BARIUM	6/27/2023	0.0055 ppm	2 ppm	2 ppm Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
FLUORIDE (3)	2/14/2023	0.83 ppm	4 ppm	4 ppm Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
NITRATE (5)	6/27/2023	1.2 ppm	10 ppm	10 ppm Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Synthetics				
TOTAL PFAS (6 regulated) (10)	10/11/2023	5.49 ppt	20 ppt	0 ppt Man-made chemicals in a wide variety of consumer products and industrial applications. Stain- and water-resistant fabrics, carpeting, non-stick cookware, cleaning products and paints, Class B Firefighting foam (AFFF) foam and industrial processes.

Radionuclides

COMBINED URANIUM	6/27/2023	3 ppb	30 ppb	0 ppb Erosion of natural deposits.
------------------	-----------	-------	--------	------------------------------------

Disinfectants and Disinfection ByProducts

TOTAL HALOACETIC ACIDS (HAA5) (9)	9/6/2023	12 ppb	60 ppb	0 ppb By-product of drinking water chlorination.
TOTAL TRIHALOMETHANE (TTHM) (9)	9/6/2023	18 ppb	80 ppb	0 ppb By-product of drinking water chlorination.

Lead/Copper

COPPER 90TH% VALUE (4)	1/1/2023 - 12/31/2023	0.158 ppb Range (0.0336-0.647 ppb)	AL = 1.3 ppm	1.3 ppm Corrosion of household plumbing systems.
LEAD 90TH% VALUE (4)	1/1/2023 - 12/31/2023	0 ppb Range (0-4.91 ppb)	AL = 15 ppb	0 ppb Corrosion of household plumbing systems.

Chlorine Residual (Add chlorine residual information)

CHLORINE RESIDUAL	Range (<u>0.8</u> - <u>1.2</u> ppm)	MRDL=4 ppm	MRDLG= By-product of drinking water chlorination. 4 ppm
-------------------	--------------------------------------	------------	--

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.

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.

All other regulated drinking water contaminants were below detection levels.

Secondary Contaminants (You are not required to list detects for secondary contaminants, but this information, particularly sodium levels, might be useful to your customers. The decision to supply this information in your CCR is up to you.)

MAGNESIUM	4.1 ppm	6/27/2023
ZINC	0.0016 ppm	6/27/2023
CHLORIDE	24 ppm	6/27/2023
SULFATE	13 ppm	6/27/2023
IRON	0.11 ppm	6/27/2023
SODIUM	16 ppm	6/27/2023
MANGANESE	0.00057 ppm	6/27/2023

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 the following detections for contaminants in this round of testing:

Contaminant	Sample Year	Avg Level Found	Range of Detections
Lithium (ppb)	2023	9.56	
PFHxA (ppt)	2023	4.1	
PFHxS (ppt)	2023	4.2	

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. Gardiner 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>

Violations

No Violations in 2023

Waiver Information (to be included in the CCR for systems that were granted a waiver)

In 2023, 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, 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).