

2022 CONSUMER CONFIDENCE REPORT  
FOR THE MADAWASKA WATER DISTRICT  
PWSID: ME0090920

*Annual Consumer Confidence Report*

**INTRODUCTION**

We are pleased to present to you our **2022 Annual Consumer Confidence Report**. This report 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, the distribution system and protect our water resources. We are committed to ensuring the quantity and quality of your water.

As an insight to our treatment and distribution systems, we would like to share the following facts: We have approximately 1.88 miles of transmission mains and approximately 20.02 miles of distribution mains. We operate two treatment facilities consisting of three wells. We have a total of 136 fire hydrants for public fire protection, 1,366 service line connections, 1,089 active accounts, 11 private sprinkler system connections and 5 private hydrants.

In 2022 we pumped an average of 319,340 gallons of water per day. Our maximum day demand was 437,285 gallons on September 29. Our largest customer is Twin Rivers Paper Company which used about 32.9% of the water we produced in 2022.

If you have any questions about this report or concerning your water district, please contact us (728-3859) or at [customerservice@madwater.me](mailto:customerservice@madwater.me) or contact the Drinking Water Program (287-2070). We want our valued customers to be informed about their water district. If you want to learn more, please attend any of our Board of Trustees meetings. Notices will be posted at conspicuous locations in our community as to date and time.

**SOURCE WATER INFORMATION**

As of May of 2009, all of your drinking water is produced from wells. We have three wells to draw water from; two are gravel packed wells located in St. David and the other is a bedrock well located on 11<sup>th</sup> Avenue.

The Water District uses sodium hypochlorite for disinfection, sodium fluoride to fight against tooth decay and an ortho-phosphate blend for corrosion control. An aeration system is used at the St. David facility to increase the pH of the water.

**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.

**WATER TEST RESULTS**

We make sure that your water is safe through regular monitoring and testing of water quality. These tests are conducted daily by our own staff in our lab as well as other independent, state certified testing laboratories. Responsibility for maintaining water quality resides with our staff of certified water treatment and distribution operators who are licensed by the State of Maine Department of Health & Human Services.

The Madawaska Water District routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1 through December 31, 2022.

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

**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 LRAA 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 use of disinfectants to control microbial contaminants.

**Units:**

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

**pos** = positive samples    **MFL** = million fibers per liter

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

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

**Ug/L** = Microgram per Liter

The following table will show test results of contaminants that we tested for in 2022, or prior, that showed a measurable amount and what the detected level was as compared to a MCL. The State of Maine Drinking Water Program grants a waiver only upon determining, on a case by case basis, that "it will not result in an unreasonable health risk". For any water tests that are not waived, we are required to report contaminants that were detected in our water supply in this CCR.

**2022 TEST RESULTS (Madawaska Water District)**

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely source of contamination
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**Microbiological**

Total Coliform Bacteria (1) We take 3 samples per month.	<b>No</b>	0 positive		0 positive	1 pos/mo or 5%	Naturally present in the environment.
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**Inorganic Contaminants**

Chromium	<b>No</b>	Non-detect, TP2 well, on 5/2/2022 Non-detect, TP3 well, on 5/3/2022	PPB	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
Fluoride (3)	<b>No</b>	High of 0.80ppm on 1/5/2022 Range of 0.61ppm to 0.80ppm	PPM	4 ppm	4 ppm	Water additive that promotes strong teeth. Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Barium	<b>No</b>	0.26ppm, TP2 well, on 5/2/2022 0.0093ppm, TP3 well, on 5/3/2022	PPM	2.0 ppm	2.0 ppm	Erosion of natural deposits. Discharge of drilling wastes. Discharge from metal refineries.
Nitrate (5)	<b>No</b>	0.28ppm, TP2 well, on 5/2/2022 0.67ppm, TP3 well, on 5/3/2022	PPM	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.

**Synthetics**

Total PFAS (6 regulated) (10)	<b>No</b>	5.52ppt on 5/4/2022	PPT	0 ppt	20 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.
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**Lead/Copper**

Copper 90 <sup>th</sup> % value (4)	<b>No</b>	0.328ppm for 1/1/2020 - 12/31/2022	PPM	1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing systems.
Lead 90 <sup>th</sup> % value (4)	<b>No</b>	Non-detect for 1/1/2020 - 12/31/2022	Ug/L	0	AL = 15 Ug/L	Corrosion of household plumbing systems.

**Radionuclides**

Combined Radium (7) (-226 & -228)	<b>No</b>	3.4 pCi/L on 12/18/2019	pCi/L	0 pCi/l	5 pCi/l	Erosion of natural deposits.
Radium-226	<b>No</b>	0.2 pCi/L on 12/18/2019	pCi/L	0 pCi/l	5 pCi/l	Erosion of natural deposits.
Radium-228	<b>No</b>	3.2 pCi/L on 12/18/2019	pCi/L	0 pCi/l	5 pCi/l	Erosion of natural deposits.

<b>Disinfectants &amp; Disinfection Byproducts</b>						
Total Trihalomethanes (TTHM) (9)	No	LRAA(2022) 20.0 ppb on 8/16/2022	PPB	0 ppb	80 ppb	By-product of drinking water chlorination.
Total Haloacetic Acids (HAA5) (9)	No	LRAA(2022) < 1.0 ppb on 8/16/2022	PPB	0 ppb	60 ppb	By-product of drinking water chlorination

### Chlorine Residual

Our running annual average (RAA) chlorine residual in 2022 was 0.80ppm and the range was 0.63ppm to 1.11ppm. The MRDL is 4 ppm and the MRDLG is 4 ppm. The chlorine residual is a by-product of drinking water chlorination.

All other regulated drinking water contaminants were below detection levels.

**Secondary Contaminants: (TP2 represents the 11<sup>th</sup> Avenue Well and TP3 represents the St. David Wells)**

Nickel	0.00064ppm (TP2)	05/02/2022	0.0005ppm (TP3)	05/03/2022
Chloride	45ppm (TP2)	05/02/2022	24ppm (TP3)	05/03/2022
Sulfate	11ppm (TP2)	05/02/2022	8ppm (TP3)	05/03/2022
Sodium	28ppm (TP2)	05/02/2022	12ppm (TP3)	05/03/2022
Zinc	0.0037ppm (TP2)	05/02/2022	0.0032ppm (TP3)	05/03/2022
Magnesium	15ppm (TP2)	05/02/2022	3.1ppm (TP3)	05/03/2022
Iron	0.26ppm (TP2)	05/02/2022	0.098ppm (TP3)	05/03/2022

### **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: 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 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 a 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.

### Waiver Information

In 2020, 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): HERBICIDES, TOXAPHENE/CHLORDANE/PCB, CARBAMATE PESTICIDES. This waiver was granted due to the absence of these potential sources of contamination within a half mile radius of the water sources.

### **We had No Violations 2022**

The Madawaska Water District did not have any violations in 2022 and all other regulated drinking water contaminants were below detection levels.

The prior table as presented showed that all contaminants met all State and Federal safety standards.

### 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. The Madawaska 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>**

## **HIGHLIGHTS OF THE PAST YEAR AND UPCOMING YEAR**

2022 was again a busy year for your Water District.

Highlights of 2022 included the continuation of our hydrant painting project. The new Land Port of Entry added two hydrants to the system and two large service connections. We also created a new website, [www.madwaterdistrict.me](http://www.madwaterdistrict.me), to allow us to post timely updates/alerts and it also includes a payment portal for your convenience. A parcel of land on 3<sup>rd</sup> Avenue was purchased to further our goal of interconnecting 3<sup>rd</sup> and 4<sup>th</sup> Avenue to mitigate potential problems associated with main line breaks in that area. The design of a project on Main Street was completed by our engineers. Many smaller projects were tackled by our own staff.

The Water District thanks the Town of Madawaska and its' employees and the contractors involved in any of our construction projects for a very good working relationship. Your patience and understanding through all our construction projects is much appreciated.

2023 will continue to include the coordination needed involving the major construction projects of the new Land Port of Entry and the international bridge. The bidding phase for our Main Street project will be in early spring with the optimistic goal of going to construction in 2023. The supply chain issues facing most other construction projects throughout the country will likely be a deciding factor in that process. Many other projects will again be tackled by our own staff, all with the goal of continuing to provide a safe and dependable water supply for you.

## **OTHER IMPORTANT INFORMATION**

This report has only been a summary of activities during the past year. If you have any questions about your water quality or any information from this report, please call us at 207-728-3859 during normal business hours (Monday through Friday, 8am to 4pm).

If you would prefer to write to us the address is: Madawaska Water District, 66 Main Street, Madawaska, Maine 04756.

Our email address is [customerservice@madwater.me](mailto:customerservice@madwater.me)

Our fax# is 207-728-6311.

You may also direct any questions to the Maine Department of Health & Human Services, Drinking Water Program at 207-287-2070 or the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.