



# Yarmouth Water District

ESTABLISHED, 1895. INCORPORATED, 1923.

## 2022 Consumer Confidence Report Public Water System ID ME0091670

### INTRODUCTION

We are once again proud to present our Consumer Confidence Report (CCR) covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Thank you for allowing us to continue providing you and your family with high-quality drinking water.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

### WATER SYSTEM DATA

The Yarmouth Water District (YWD) was established in 1895. YWD presently serves the municipalities of Yarmouth, North Yarmouth, and a very small portion of Cumberland. The YWD uses groundwater supplies from four gravel-packed wells. These supplies are all located in the Town of North Yarmouth. The District also maintains a connection with the Portland Water District, which primarily serves as the source of supply for the Wyman Power Station on Cousins Island in Yarmouth. In the last 12 months, we have produced and delivered more than 295,251,000 gallons of water to the distribution system. This is approximately 561 gallons per minute throughout the entire year! Overall production decreased by 0.4% compared to 2021 and a decrease of 7.9% compared to 2020. The YWD actively chlorinates at the sources to provide a chlorine residual in the distribution system to prevent bacteria from forming in the distribution system.

Our water supply and distribution system includes just over 80 miles of water main and 3,200 active services connections. The Yarmouth Water District has 3 storage tanks; one is in North Yarmouth (200,000 gallons), and two storage tanks located in Yarmouth (500,000 gallons and 1,000,000 gallons). The system serves approximately 8,800 residents and provides fire protection service through 420 hydrants. The District added 26 new water services, 1,471 feet of new water main, and 1 new hydrant in 2022.

### WATER SUPPLY / SOURCE INFORMATION

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. Water quality testing and limited development in our protection area produce a lower risk ranking. The YWD land ownership and wellhead management planning indicate a Low risk for future bacterial contamination and Moderate risk for chronic contaminants. Land use controls exist that can be used to manage development around the source. The District will work to make sure that these controls are effective in protecting water quality. For a detailed copy of the Source Water Assessment, please contact our district office or the Maine Drinking Water Program at 1-207-287-2070.



The original Hayes Spring water supply on Sweetser Road in North Yarmouth

## WATER QUALITY

The YWD ensures that your water is safe through regular testing of both its source and treated water. All water quality testing is conducted by independent, state-certified laboratories. The YWD uses the Maine Drinking Water Program's Health and Environmental Testing Laboratory, Katahdin Analytical Laboratory, and A & L Laboratory for the majority of the testing. This CCR is a comprehensive summary of the laboratory test results. The YWD staff consists of distribution and water treatment operators, licensed by the State of Maine Department of Health and Human Services.

The Safe Drinking Water Act directs the state, along with the Environmental Protection Agency (EPA), to establish and enforce minimum drinking water standards. These standards set limits on certain biological, radioactive, organic, and inorganic substances sometimes found in drinking water. Two types of standards have been established. Primary drinking water standards set achievable levels of drinking water quality to protect your health. Secondary drinking water standards provide guidelines regarding the taste, odor, color, and other aesthetic aspects of drinking water, which do not present a health risk. During the past year, we have taken numerous water samples to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

## VIOLATIONS

YWD did have a testing violation in 2022. Violation Period: 1/1/22-12/31/22. Violation Type: 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 2022, we did not test for, or failed to collect all necessary tests for Total Trihalomethanes (TTHM) and/or Haloacetic Acids (HAA5), OR our results were not reported to the DWP on time (indicated as a Reporting violation above). **Sampling for these tests is required to be taken between 6/1/22 and 9/30/22 and we failed to sample them until 11/15/2022 and all levels sampled at that time were passing.**

## 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): 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).

### Primary Drinking Water Standards

| Contaminant                   | Maximum Contaminant Level | Maximum Contaminant Level Goal | YWD Test Results                               | Sample Date       |
|-------------------------------|---------------------------|--------------------------------|--|-------------------|
| Coliform bacteria (1)         | 1 per month               | 0                              | <b>0</b>                                       | 1/1/22 - 12/31/22 |
| Barium                        | 2 ppm                     | 2 ppm                          | <b>0.0049 ppm</b>                              | 5/6/20            |
| Chromium                      | 100 ppb                   | 100 ppb                        | <b>0.66 ppb</b>                                | 5/6/20            |
| Copper 90 <sup>th</sup> % (2) | 1.3 ppm                   | 1.3 ppm                        | <b>0.365 ppm</b>                               | 1/1/20 – 12/31/22 |
| Lead 90 <sup>th</sup> % (2)   | 15 ppb                    | 0 ppb                          | <b>6.29 ppb</b>                                | 1/1/20 – 12/31/22 |
| Nitrate (3)                   | 10 ppm                    | 10 ppm                         | <b>1.3 ppm</b>                                 | 4/26/22           |
| Combined Radium               | 5 pCi/L                   | 0 pCi/L                        | <b>1.347 pCi/L</b>                             | 12/17/18          |
| Combined Uranium              | 30 ppb                    | 0 ppb                          | <b>2.9 ppb</b>                                 | 5/6/20            |
| Gross Alpha Screen (4)        | 15 pCi/L                  | 0 pCi/L                        | <b>8.42 pCi/L</b>                              | 3/23/20           |
| Radium – 226                  | 5 pCi/L                   | 0 pCi/L                        | <b>0.774 pCi/L</b>                             | 12/17/18          |
| Radium – 228                  | 5 pCi/L                   | 0 pCi/L                        | <b>0.573 pCi/L</b>                             | 12/17/18          |
| Total Trihalomethane (11)     | 80 ppb                    | 0 ppb                          | <b>2.3 ppb</b>                                 | 11/15/22          |
| Chlorine Residual             | MRDL: 4 ppm               | MRDLG: 4 ppm                   | <b>Range: 0.33-0.61 ppm;<br/>RAA: 0.48 ppm</b> | 1/1/22 – 12/31/22 |
| Total PFAS 6 Regulated        | 20 ppt                    | 0 ppt                          | <b>8.03 ppt</b>                                | 7/26/2022         |

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

### Secondary Drinking Water Standards

Non-regulated Aesthetic Standards for Finished Water.

This sample was taken from a representative point in the distribution system which more accurately depicts the water at the customer's tap compared to individual source samples.

| Substance<br>(Representative Distribution System<br>Sample Collected on 8/25/2020) | Secondary<br>Maximum<br>Contaminant Level | YWD Test<br>Results | Noticeable Effects above Secondary<br>MCL  |
|--|---|---------------------|--|
| Chloride   | 250 ppm                                   | <b>26 ppm</b>       | Salty taste  |
| Color  | 15 PCU                                    | <b>&lt;5 PCU</b>    | Visible tint   |
| Iron   | 0.30 ppm                                  | <b>0.15 ppm</b>     | Rusty color, metallic taste, reddish or orange staining                                  |
| Manganese  | 0.05 ppm                                  | <b>0.00077 ppm</b>  | Black to brown color, bitter metallic taste  |
| pH   | 6.5-8.5                                   | <b>7.0</b>          | Low pH: bitter metallic taste, corrosion<br>High pH: slippery feel, soda taste, deposits |
| Sodium (5)   | 20 ppm                                    | <b>12 ppm</b>       |  |
| Sulfate  | 250 ppm                                   | <b>9 ppm</b>        | Salty taste  |

|                    |             |                                 |                |
|--------------------|-------------|---------------------------------|----------------|
| Zinc               | 2.0 ppm     | <b>0.017 ppm</b>                | Metallic taste |
| Calcium            | No Standard | <b>22 ppm</b>                   |                |
| Magnesium          | No Standard | <b>4.8 ppm</b>                  |                |
| Total Hardness (6) | No Standard | <b>75 ppm or<br/>4.4 grains</b> |                |

## DEFINITIONS

- Maximum Contaminant Level (MCL): Highest level of a contaminant allowed in drinking water.
- Maximum Contaminant Level Goal (MCLG): Level of a contaminant in drinking water below which there is no known or expected health risk.
- Secondary Maximum Contaminant Levels (SMCL): Target for aesthetic quality without posing risk to human health.
- Running Annual Average (RAA): The average of all monthly or quarterly samples for the last year at all sample locations.
- 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): Concentration of a contaminant that, if exceeded, triggers treatment or other requirements which 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 the 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.
- ppm = parts per million or milligrams per liter (mg/L) one part per million corresponds to one minute in two years or a single penny in \$10,000
- ppb = parts per billion or micrograms per liter (ug/L) one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- ppt = parts per trillion or nanogram per liter (ng/L) one part per trillion corresponds to one second of time in approximately 31,700 years.
- pCi/L = picocuries per liter (a measure of radioactivity)
- pos = positive sample
- MFL = million fibers per liter
- NTU = nephelometric turbidity units
- BDL= Below Detection Limit

## 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) Lead/Copper: Action levels (AL) are measured at the consumer's tap. 90% of the tests must be equal to or below the action level.
- 3) 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 because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health provider.
- 4) 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.

- 5) Sodium: Current drinking water standard for sodium is 20 milligrams per liter. Individuals on a low sodium diet due to high blood pressure, or other health problems, should consult their physician about drinking water daily which exceeds that level. Most Americans consume as much as ten times more salt than the body requires. Excess sodium from salt in the diet increases the risk of high blood pressure and cardiovascular disease. For most healthy people, a sodium level of 100 milligrams per liter of water will not substantially increase risk.
- 6) Total Hardness: Hardness is caused by minerals, primarily calcium and magnesium, which are picked up by water passing through underground mineral deposits. Hard water is not considered contaminated, but it does hinder the cleaning action of soap and forms a scale on cooking utensils, hot water pipes, and heaters. This build-up may eventually reduce pipe capacity and water pressure. Hardness is the total concentration of calcium and magnesium in water. The U.S. Geological Survey general guidelines for classification of waters are: 0-60 ppm is classified as soft; 61-120 ppm as moderately hard; 121-180 ppm as hard; and greater than 180 ppm as very hard. There is no standard for hardness. Hard water is not harmful to health. Calcium and magnesium are essential body elements. Studies suggest that hard water is better for cardiovascular health than soft water, though the reasons for this are not yet known.
- 7) 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.
- 8) 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.
- 9) 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.
- 10) 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.
- 11) 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.
- 12) 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. 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. The District will be posting a notification and action plan regarding PFAS within the next few months to it's Facebook page and website.

## 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>

## LEAD IN HOME PLUMBING

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. Yarmouth 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>

## WE ARE HERE FOR YOU

If you have any questions about this report, your water quality, your water service, please contact the Yarmouth Water District's office at (207-846-5821) during normal business hours (Monday through Thursday between 7:00 am and 5:00 pm). We frequently provide additional information at our website:

[www.YarmouthWaterDistrict.org](http://www.YarmouthWaterDistrict.org) and feel free to email Superintendent Eric Gagnon at [egagnon@yarmouthwaterdistrict.org](mailto:egagnon@yarmouthwaterdistrict.org)

The Yarmouth Water District Board of Trustees generally meets the second Wednesday of every month at 6:00 PM at the Yarmouth Water District office on 181 Sligo Road, Yarmouth. Meeting notices are posted on our website, listed in *The Forecaster*, and are open to the public.

Board of Trustees:

Thomas Brennan. - *Yarmouth*

Irving Felker Jr. (Chair) - *Yarmouth*

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Andrew Walsh - *North Yarmouth*

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