

WINTHROP UTILITIES DISTRICT

www.winutil.org

2023 Consumer Confidence Report

**General Information**

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

Upcoming Regularly Scheduled Meeting(s): 4th Tuesday of Each Month At 6:00 pm, call to confirm

**Source Water Information**

Description of Water Source: Surface Water Intakes: 1 (Upper Narrows Pond)

The Winthrop Utilities District is fortunate to have Upper Narrows Pond as its water source. Upper Narrows Pond and its extensive watershed offer an abundant supply of good quality water for the Town of Winthrop. The direct watershed encompasses over 2743 acres of land area, and the Entire Watershed encompasses 4349 acres.

Protecting Upper Narrows Pond is an important focus of the District. Source water protection is the first line of defense against waterborne contaminants. Although activities throughout the watershed that feeds into the Pond cannot be easily controlled; the regulation of activities in and around Upper Narrows Pond through local ordinances is essential to minimize the risk of contaminants entering the water supply. **As a customer and a resident be assured that the District will continue to work hard to protect the water quality of Upper Narrow Pond through Ordinances and Watershed Management.**

**Water Treatment & Filtration Information:**

In July 1993, the District began operation of a new, Slow Sand Filtration Facility on Route 202. The facility is fully automated and monitors water quality continuously through the treatment process. Regular sampling and testing in our on-site laboratory confirms the plant performance. The filters were enhanced in 2005 with a layer of carbon to remove color from of the water as well as organics that make it through the filter.

Chemicals used in the treatment process include Chlorine for disinfection and Ammonia to create Chloramines in the distribution system to carry the Chlorine to the ends of the system. Sodium Hydroxide is added for pH control and Zinc Orthophosphate is added to decrease the rate of Lead corrosion. At the end of the process we add Sodium Fluoride for dental health.

**Water System Data**

Your water supply and distribution system includes approx. twenty miles of water main and 1040 individual services. The system serves 1040 customers and provides fire protection service through hydrants. In the last twelve months, we have produced and delivered approximately 96 million gallons of water. That's an average of 262,982 gallons each day. The system also maintains over 825,000 gallons in 2 storage tanks. This storage allows us to meet peak system demand periods and maintain an adequate supply during firefighting activities.

**HIGHLIGHTS OF THE PAST YEAR**

The District sold the Monmouth Water Association approximately 18.4 million gallons of water last year which helped to offset some operational costs of the District.

**Future Plans:**

The District will continue to analyze new proposed regulations to try to stay ahead of the new requirements. The new Lead and Copper Rule will create a new expense to the District we will try to minimize the impact. In 2024 we will be replacing the carbon in one of the three filters to maintain water quality. We are currently working on planning water pipe replacement for next year.

**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**

<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)	2023	0 pos	1 pos/mo or 5%	0 pos	Naturally present in the environment.
<b>Inorganics</b>					
BARIUM	4/19/2023	0.0035 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
FLUORIDE (3)	2/13/2023	0.87 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)	3/10/2022	1.1 pCi/l	5pCi/l	0 pCi/l	Erosion of Natural Deposits
RADIUM-228	3/10/2022	1.1 pCi/l	5pCi/l	0 pCi/l	Erosion of Natural Deposits

## Lead/Copper

COPPER 90TH% VALUE (4)	1/1/2021 - 12/31/2023	0.229 ppb Range (0.047-0.336 ppb)	AL = 1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
LEAD 90TH% VALUE (4)	1/1/2021 - 12/31/2023	1.7 ppb Range (0-2.5 ppb)	AL = 15 ppb	0 ppb	Corrosion of household plumbing systems.

## Disinfectants and Disinfection Byproducts

### DISTRIBUTION SYSTEM

TOTAL HALOACETIC ACIDS (HAA5) (9)	LRAA (2023)	36 ppb Range (29-54 ppb)	60 ppb	0 ppb	By-product of drinking water chlorination.
TOTAL TRIHALOMETHANE (TTHM) (9)	LRAA (2023)	35 ppb Range (23-52 ppb)	80 ppb	0 ppb	By-product of drinking water chlorination.

## Chlorine Residual (Add chlorine residual information)

CHLORINE RESIDUAL	Range (1.22-2.43 ppm)	MRDL=4 ppm	MRDLG= 4 ppm	By-product of drinking water chlorination.
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## Turbidity (Add turbidity information, highest monthly reading in 2023)

TURBIDITY	9/19/2023	0.372 NTU	5 ntu	N/A	Soil runoff.
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### 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.)**

MANGANESE	0.0012 ppm	4/19/2023
CHLORIDE	34 ppm	4/19/2023
IRON	0.017 ppm	4/19/2023
MAGNESIUM	1.2 ppm	4/19/2023
ZINC	0.102 ppm	4/19/2023
SODIUM	27.5 ppm	4/19/2023
SULFATE	5 ppm	4/19/2023

## 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. Winthrop Utilities 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).