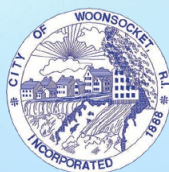
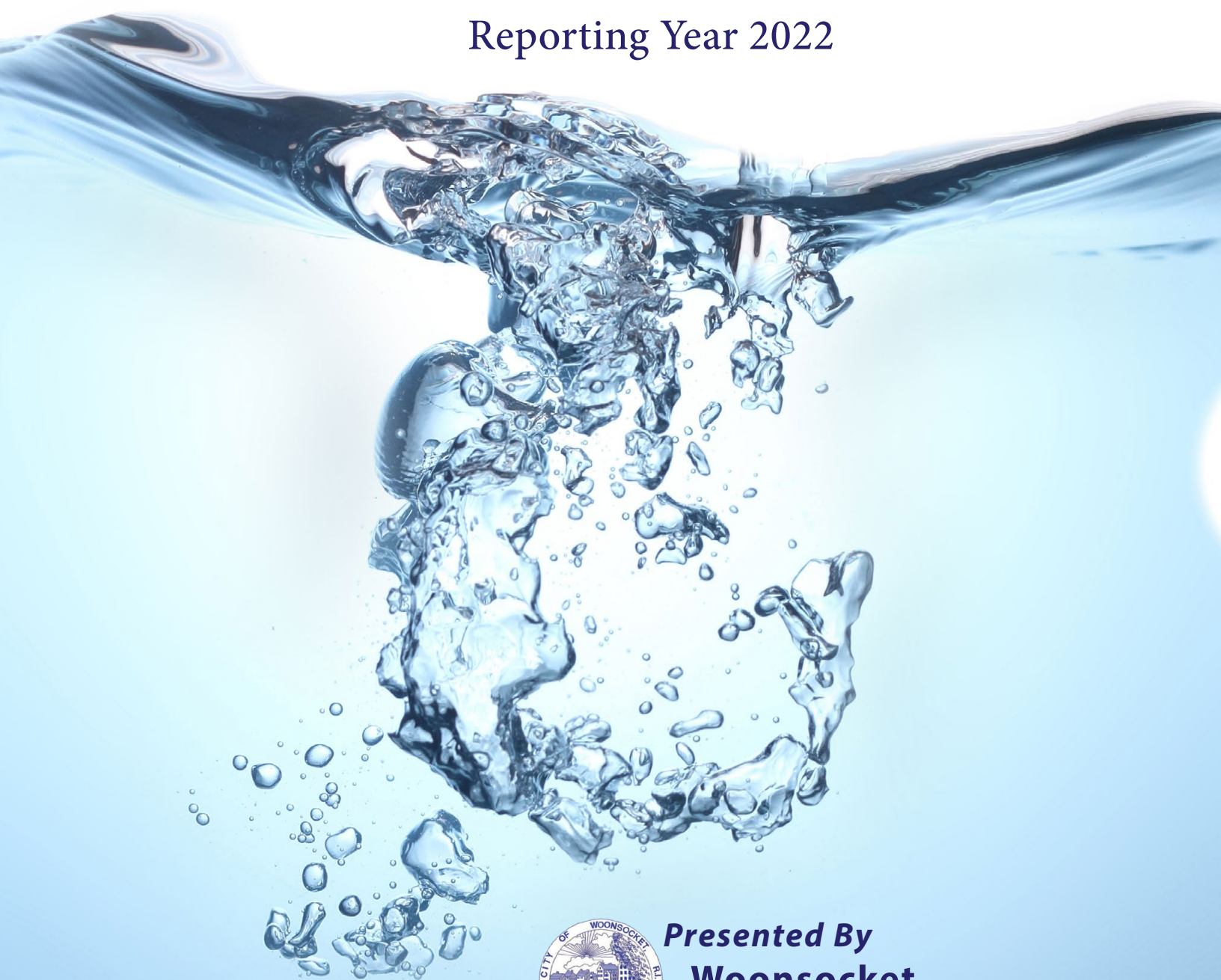


# ANNUAL WATER QUALITY REPORT

Reporting Year 2022



*Presented By*  
**Woonsocket  
Water Division**



## Our Mission Continues

We are once again pleased to present our annual water quality report 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. We continually strive to adopt new methods for delivering the best-quality drinking water to you. 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. Please remember that we are always available should you ever have any questions or concerns about your water.

## Source Water Assessment

The Rhode Island Department of Health, in cooperation with other state and federal agencies, has assessed the threats to Woonsocket's water sources. The assessment considered the intensity of development, the presence of businesses and facilities that use, store, or generate potential contaminants, the ease with which contaminants can move through the soils in the source water protection area, and the sampling history of the water.

Our monitoring program continues to ensure that the water delivered to your home is safe and wholesome. However, the assessment found that the water source is at moderate risk of contamination. This means that the water could one day become contaminated. Protection efforts are necessary to ensure continued water quality. The complete Source Water Assessment Report is available from Woonsocket Water Division at (401) 767-1411 or from HEALTH at (401) 222-6867.

“Thousands have lived without love, not one without water.”

—W.H. Auden

## Public Meetings

For public comment on an ongoing basis, customers can contact the office of Mayor Lisa Baldelli-Hunt or attend the Woonsocket City Council meetings. The council holds hearings on budget and other financial matters, approves contracts, and considers ordinances that create or amend local laws. Some of these matters affect the operation of the Woonsocket Water Division. The council meets on the first and third Monday of every month at 7:00 p.m. in Harris Hall, City Hall, 169 Main Street, Woonsocket. The meetings are televised live on Cox Cable Channel 17 and Verizon FIOS



Channel 22. Public comment is welcome.

## Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from our water source into the treatment plant. Chemicals are added to initiate the process of coagulation and flocculation, which combines unwanted substances with the added chemicals to create small particles. This is followed by clarification, where these small particles are floated to the top with dissolved air flotation and skimmed from the top of the basin. The clear supernatant is then filtered through a carbon filter that removes the smaller suspended particles. After filtration the water undergoes disinfection, fluoride addition (to prevent tooth decay), corrosion inhibitor addition, and pH adjustment before it is pumped out into the distribution system.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Marc Viggiani, Water Division Superintendent, at (401) 767-1411, or visit our website at [www.woonsocketri.org](http://www.woonsocketri.org).



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

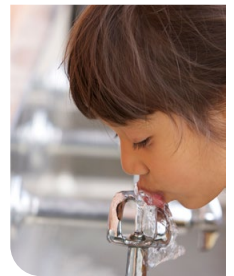
For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Where Does My Water Come From?

Woonsocket Water Division uses surface water from the Crookfall Brook and Harris Pond watersheds. The Crookfall Brook watershed extends over approximately 7.93 square miles. It is a protected, high-quality, primary source of supply for the Woonsocket Treatment Plant. Harris Pond has a watershed area of approximately 33.3 square miles. This source is used as a supplemental source as needed. Woonsocket Water maintains an active watershed protection program and closely monitors the watershed lands to protect water quality.

## Lead in Home Plumbing

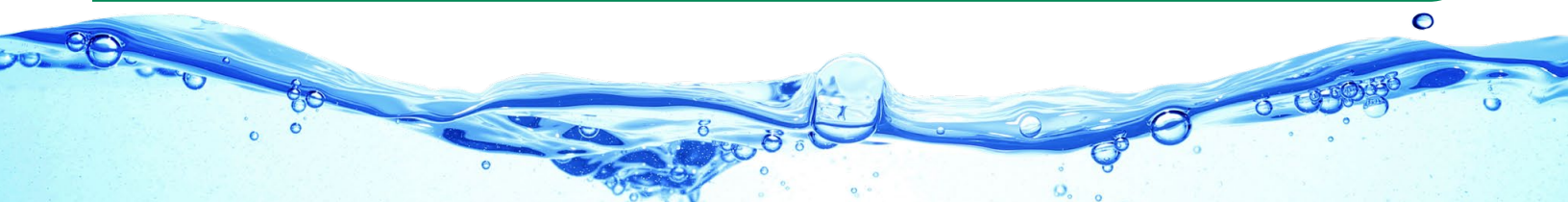
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## About Our Violation

Chlorine dioxide exceedance began and ended on March 25, 2022. One sample result was above the maximum residual disinfectant level (MRDL) of 800 parts per billion (ppb). The cause is unknown. On March 26, 2022, three first-customer samples were taken six hours apart. The highest level of chlorine dioxide detected was 600 ppb, which is below the MRDL of 800 ppb.

Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results, detected and nondetected, is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. Although *E. coli* was detected, the water system is not in violation of the *E. coli* maximum contaminant level.

The state recommends monitoring 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.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Barium</b> (ppm)	2022	2	2	0.034 <sup>1</sup>	0.011–0.034 <sup>1</sup>	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Benzo(a)pyrene [PAH]</b> (ppt)	2021	200	0	200 <sup>1</sup>	ND–200 <sup>1</sup>	No	Leaching from linings of water storage tanks and distribution lines
<b>Chlorine</b> (ppm)	2022	[4]	[4]	0.40	ND–1.39	No	Water additive used to control microbes
<b>Chlorine Dioxide</b> (ppb)	2022	[800]	[800]	1,190.0	20.0–1,190.0	Yes	Water additive used to control microbes
<b>Chlorite</b> (ppm)	2022	1	0.8	0.82	0.02–0.82	No	By-product of drinking water disinfection
<b>Chromium</b> (ppb)	2021	100	100	1.0 <sup>1</sup>	ND–1.0 <sup>1</sup>	No	Discharge from steel and pulp mills; Erosion of natural deposits
<b>Cyanide</b> (ppb)	2022	200	200	65 <sup>1</sup>	ND–65 <sup>1</sup>	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
<b><i>E. coli</i></b> (# positive samples)	2022	See footnote	0	1 <sup>2</sup>	NA	No	Human and animal fecal waste
<b>Fluoride</b> (ppm)	2022	4	4	0.84	0.08–0.84	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Haloacetic Acids [HAAs]–Stage 2</b> (ppb)	2022	60	NA	37.4	7.7–37.4	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2022	10	10	0.490 <sup>1</sup>	ND–0.490 <sup>1</sup>	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Total Coliform Bacteria</b> (positive samples)	2022	TT	NA	2	NA	No	Naturally present in the environment
<b>Total Organic Carbon</b> (removal ratio)	2022	TT <sup>3</sup>	NA	1.56	1.32–1.87	No	Naturally present in the environment
<b>TTHMs [total trihalomethanes]–Stage 2</b> (ppb)	2022	80	NA	93.0	25.4–93.0	No	By-product of drinking water disinfection
<b>Turbidity<sup>4</sup></b> (NTU)	2022	TT	NA	0.39	0.02–0.39	No	Soil runoff
<b>Turbidity</b> (lowest monthly percent of samples meeting limit)	2022	TT = 95% of samples meet the limit	NA	99.97	NA	No	Soil runoff

### Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2022	1.3	1.3	0.072	0/60	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Lead</b> (ppb)	2022	15	0	4.4	2/60	No	Corrosion of household plumbing systems; Erosion of natural deposits

## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Aluminum</b> (ppb)	2022	200	NA	102	ND–186	No	Erosion of natural deposits; Residual from some surface water treatment processes
<b>Manganese</b> (ppb)	2022	50	NA	23	ND–67	No	Leaching from natural deposits

## UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Perfluorohexanesulfonic Acid [PFHxS]</b> (ppt)	2019	1.51 <sup>1</sup>	ND–4.55 <sup>1</sup>	Foam for firefighting
<b>Perfluorooctanesulfonate Acid [PFOS]</b> <sup>5</sup> (ppt)	2019	4.80	ND–6.93	Industrial facility where PFAS were produced or used to manufacture foam used for firefighting
<b>Perfluorooctanoic Acid [PFOA]</b> <sup>5</sup> (ppt)	2019	3.75	ND–5.97	Industrial facility where PFAS were produced or used to manufacture foam used for firefighting
<b>Sodium</b> (ppm)	2022	54.13	44.9–60.1	Naturally occurring; Road deicing

## UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bromide</b> <sup>1</sup> (ppb)	2019	21.1	ND–32.5	Naturally occurring in environment; Discharge from fossil fuel power plants
<b>HAA5</b> (ppb)	2019	22.043	16.24–30.25	By-product of drinking water disinfection
<b>HAA6Br</b> (ppb)	2019	9.373	6.238–12.041	By-product of drinking water disinfection
<b>HAA9</b> (ppb)	2019	30.195	22.478–40.540	By-product of drinking water disinfection
<b>Manganese</b> <sup>1</sup> (ppb)	2019	77.2	33.7–109.0	Naturally occurring in environment
<b>Total Organic Carbon [TOC]</b> <sup>1</sup> (ppb)	2019	5290.0	3110.0–7150.0	Naturally present in the environment

<sup>1</sup> Raw, untreated surface water sampling.

<sup>2</sup> A raw water sample taken on September 14, 2022, was reported as a distribution sample, leading to a false positive reading by a third-party laboratory. Repeat, upstream, downstream, and high-service tank samples tested negative on September 16, 2022. A violation occurs when routine and repeat samples are total coliform-positive and are either *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample, or system fails to analyze total coliform-positive repeat sample for *E. coli*.

<sup>3</sup> The value reported under Amount Detected for TOC is the lowest ratio of percentage of TOC actually removed to percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

<sup>4</sup> Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>5</sup> Raw, untreated surface water sampling and first entry into the distribution system sampling.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

**removal ratio:** A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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