

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2018



*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, 2018. 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.

## 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 pm in Harris Hall in 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>.



## 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 supply 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 (SWPA), 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.

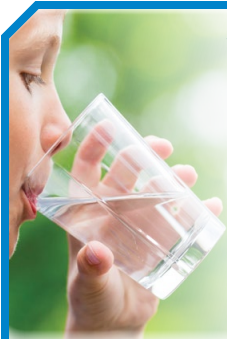
## How Is My Water Treated and Purified?

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 next process, called flocculation. The addition of these substances causes small particles (called floc) to adhere to one another, making them heavy enough to settle to the bottom, from which sediment is removed. This process is called clarification, or sedimentation. The clear supernatant is then filtered through a deep-bed 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 Superintendent, at (401) 767-1411 or visit our website at [www.woonsocketri.org](http://www.woonsocketri.org).



## 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, and primary source of supply for the Woonsocket Treatment Plant. Harris Pond has a watershed area of approximately 33.3 square miles. It 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.

## 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.

“ We remain vigilant in delivering the best-quality drinking water ”

## 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 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Level 1 Assessment Update

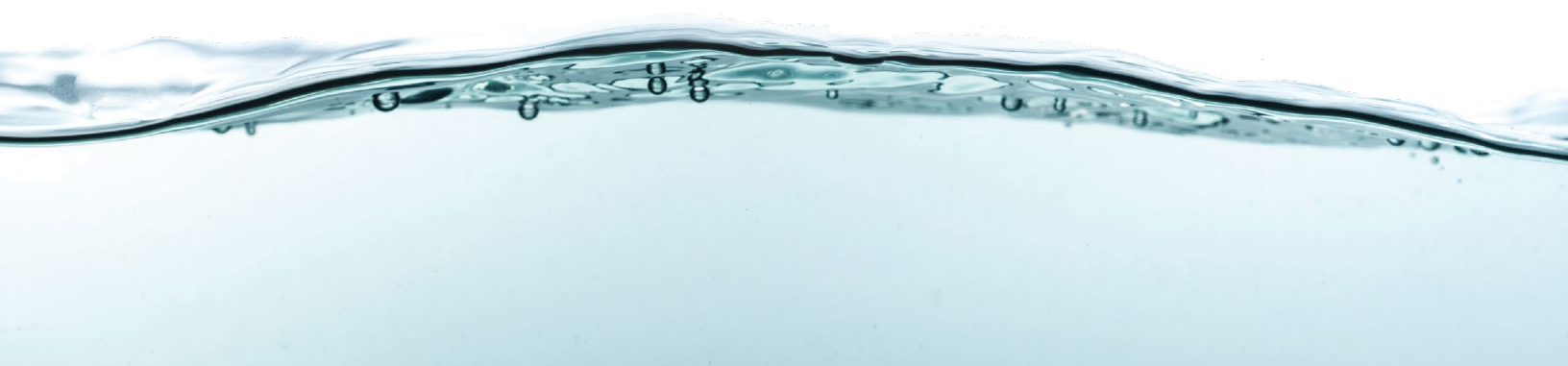
Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment to identify and correct any problems that were found during these assessments.

During the past year, we were required to conduct one Level 1 assessment, which was completed. In addition, we were required to take one corrective action, and that was completed as well.

## Cryptosporidium in Drinking Water

*Cryptosporidium* is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100-percent removal. Monitoring of source water and/or finished water indicates the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

*Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water. Woonsocket Water Division's testing of 25 monthly samples of raw water resulted in 24 negative samples and one positive sample with test results 1 oocyst/count or 0.100 oocyst/L. Bin Classification - 1; requires no additional treatment. We are pleased to report that your drinking water meets or exceeds all federal and state requirements.



## 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 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. We are pleased to report that your drinking water meets or exceeds all federal and state requirements.

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.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data for detected and nondetected substances are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium <sup>1</sup> (ppm)	2018	2	2	0.032	0.005–0.049	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2018	[4]	[4]	0.38	0.02–1.11	No	Water additive used to control microbes
Chromium <sup>1</sup> (ppb)	2016	100	100	1.0	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Di(2-ethylhexyl) Phthalate <sup>1</sup> (ppb)	2018	6	0	1.0	ND–1.0	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2018	4	4	1.02	ND–1.02	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2018	60	NA	13.7	7.6–20.8	No	By-product of drinking water disinfection
Nitrate <sup>1</sup> (ppm)	2018	10	10	0.55	0.18–0.55	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	50.6	25.7–66.6	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2018	TT	NA	1.31 <sup>2</sup>	1.31–1.80	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2018	TT	NA	0.410	0.033–0.410	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2018	TT = 95% of samples meet the limit	NA	99.91	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
Copper (ppm)	2017	1.3	1.3	0.032	0/32	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	2	0/32	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
Aluminum (ppb)	2018	200	NA	145	ND–145	No	Erosion of natural deposits; Residual from some surface water treatment processes
Fluoride <sup>1</sup> (ppm)	2014	2.0	NA	0.32	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

## UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2018	71.3	55.1–99.4	Naturally found in plants, soil, and compounds used for deicing roads

## UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Strontium <sup>1</sup> (ppb)	2014	59.75	58.848–60.642	Naturally occurring in environment
Vanadium <sup>1</sup> (ppb)	2014	0.701	0.586–0.816	Metal used as an alloying addition to iron and steel

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromide <sup>1</sup> (ppb)	2018	68.7	NA	Naturally occurring in environment; Discharge from fossil fuel power plants
HAA5 (ppb)	2018	25.792	12.73–25.792	By-product of drinking water disinfection
HAA6Br (ppb)	2018	11.142	8.482–11.142	By-product of drinking water disinfection
HAA9 (ppb)	2018	36.432	20.852–36.432	By-product of drinking water disinfection
Manganese <sup>1</sup> (ppb)	2018	134	NA	Naturally occurring in environment
Total Organic Carbon [TOC] <sup>1</sup> (ppb)	2018	8,040	NA	Naturally occurring in environment

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

<sup>2</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>3</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.

## 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.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

**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).

**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.