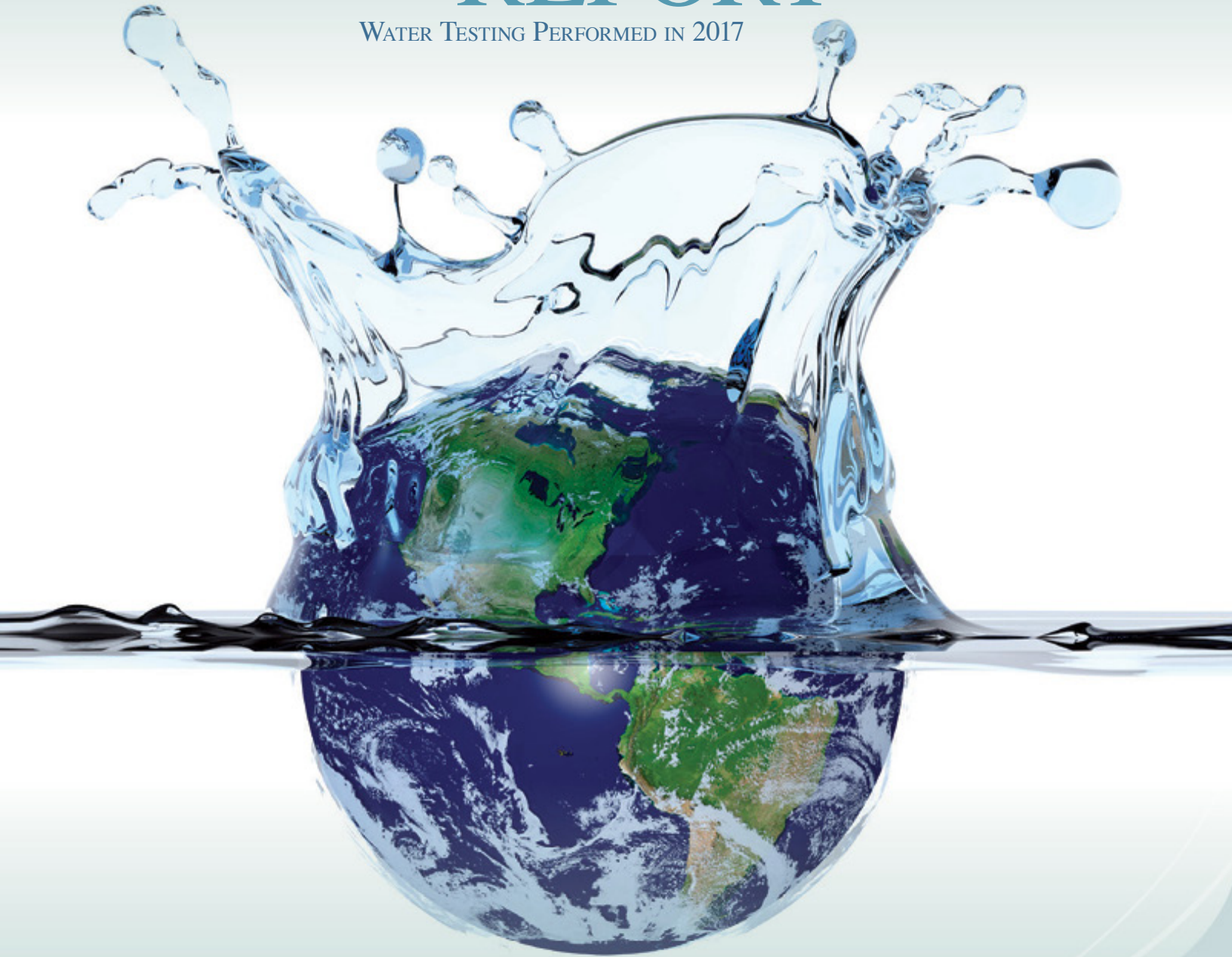


# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2017



*Presented By*

**Woonsocket  
Water Division**



## Quality First

Once again we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education, while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Water treatment is a complex, time-consuming process.

## Source Water Assessment

The RI 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.

## Community Water Fluoridation

The safety and benefits of fluoride are well documented. For over 70 years, U.S. citizens have benefited from drinking water containing fluoride, leading to better dental health. Drinking fluoridated water keeps the teeth strong and has reduced tooth decay by approximately 25% in children and adults.

Over the past several decades, there have been major improvements in oral health. Still, tooth decay remains one of the most common chronic diseases of childhood. Community water fluoridation has been identified as the most cost-effective method of delivering fluoride to all members of the community, regardless of age, educational attainment, or income level.

Nearly all water contains some fluoride, but usually not enough to help prevent tooth decay or cavities. Public water systems can add the right amount of fluoride to the local drinking water to prevent tooth decay.

Community water fluoridation is recommended by nearly all public health, medical, and dental organizations in the U.S. Because of its contribution to the dramatic decline in tooth decay, the Centers for Disease Control and Prevention (CDC) named community water fluoridation one of the greatest public health achievements of the 20th century. (Courtesy of CDC: [cdc.gov/fluoridation](http://cdc.gov/fluoridation))

## Information on the Internet

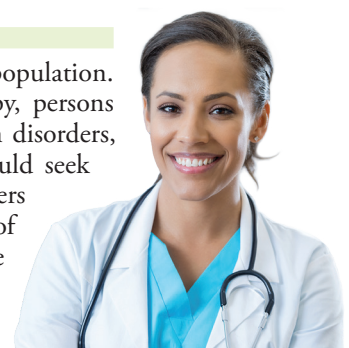
The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Rhode Island Department of Health has a Web site (<https://goo.gl/kKReYd>) that provides complete and current information on water issues in Rhode Island, including valuable information about our watershed.

## 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. 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.

## 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>.



## 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 Mondays of every month at 7:00 p.m. in Harris Hall in City Hall, 169 Main Street, Woonsocket, RI. The meetings are also televised live on Cox Cable Channel 17 and Verizon FIOS Channel 22. Public comment is welcome.

## 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 or at [www.epa.gov/lead](http://www.epa.gov/lead).

## About our Violations

The Woonsocket Water Division failed to collect the required Sodium sample, which is one sample per two weeks between the dates of 2/1/2017 to 2/28/2017. The number of samples taken was two samples within the same week. Procedures have been reviewed so this violation will not be repeated. The correct sampling procedure was preformed 3/1/2017 to 3/31/2017 of one sample per two weeks.

The Woonsocket Water Division failed to report the annual certification for Acrylamide & Epichlorohydrin for the compliance period 1/1/2017 to 12/31/2017 by the year's end. The certification was submitted as required on the notice of violation before 1/31/2018. Internal procedures have been reviewed to mitigate this violation occurring in the future.

## 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.

## 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 to adhere to one another (called floc), 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.





## BY THE NUMBERS

The number of gallons of water produced daily by public water systems in the U.S.

**34**  
BILLION

**1**  
MILLION

The number of miles of drinking water distribution mains in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

**135**  
BILLION

**300**  
MILLION

The number of Americans who receive water from a public water system.

The age in years of the world's oldest water found in a mine at a depth of nearly two miles.

**2**  
BILLION

**151**  
THOUSAND

The number of active public water systems in the U.S.

The number of highly trained and licensed water professionals serving in the U.S.

**199**  
THOUSAND

**93** The number of federally regulated contaminants tested for in drinking water.

## 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).

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. 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 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. As our customers, you have a right to know that these data are available, including detected and nondetected test results. If you are interested in examining the results or want more information on UCMR3, please contact Marc Viggiani at (401) 767-1411, or by mail to PO Box B, Woonsocket, RI 02895.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2017	2	2	0.055	0.015–0.055	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2017	[4]	[4]	0.38	ND–1.14	No	Water additive used to control microbes
Chromium (ppb)	2016	100	100	1.0	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Di(2-ethylhexyl) Phthalate (ppb)	2017	6	0	1.0	ND–1.0	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2017	4	4	0.94	0.03–0.94	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2017	60	NA	19.8	5.9–34.9	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	0.61	0.23–0.61	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2013	1	1	0.02	ND–0.02	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2017	80	NA	57.0	35.2–71.8	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2017	TT	NA	1.7	1.0–2.0	No	Naturally present in the environment
Turbidity <sup>1</sup> (NTU)	2017	TT	NA	0.520	0.048–0.520	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2017	TT = 95% of samples meet the limit	NA	99.18	NA	No	Soil runoff
Tap Water Samples Collected for Lead and Copper Analyses from Sample Sites throughout the Community							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	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)	2017	200	NA	216	0–814	No	Erosion of natural deposits; Residual from some surface water treatment processes
Fluoride <sup>2</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)	2017	99.6	66.0–146.0	Naturally found in plants and soil, and sodium compounds used for deicing roads

## UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)<sup>3</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorate (ppb)	2013	17.61	ND–83.74	Disinfecting by-product; Ions formed during the slow decomposition of sodium hypochlorite solution
Hexavalent Chromium (ppb)	2013	0.025	ND–0.06	Erosion of natural deposits; Produced by industrial processes
Strontium (ppb)	2014	59.75	58.848–60.642	Occurs naturally in the environment
Vanadium (ppb)	2014	0.701	0.586–0.816	Metal used as an alloying addition to iron and steel

<sup>1</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>2</sup> Raw, untreated surface water sample.

<sup>3</sup> Contains additional RIDOH testing of unregulated contaminants.

## Definitions

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

**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):** SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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