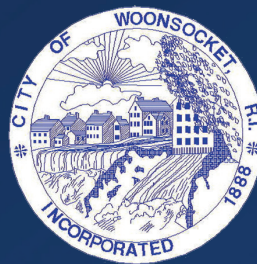
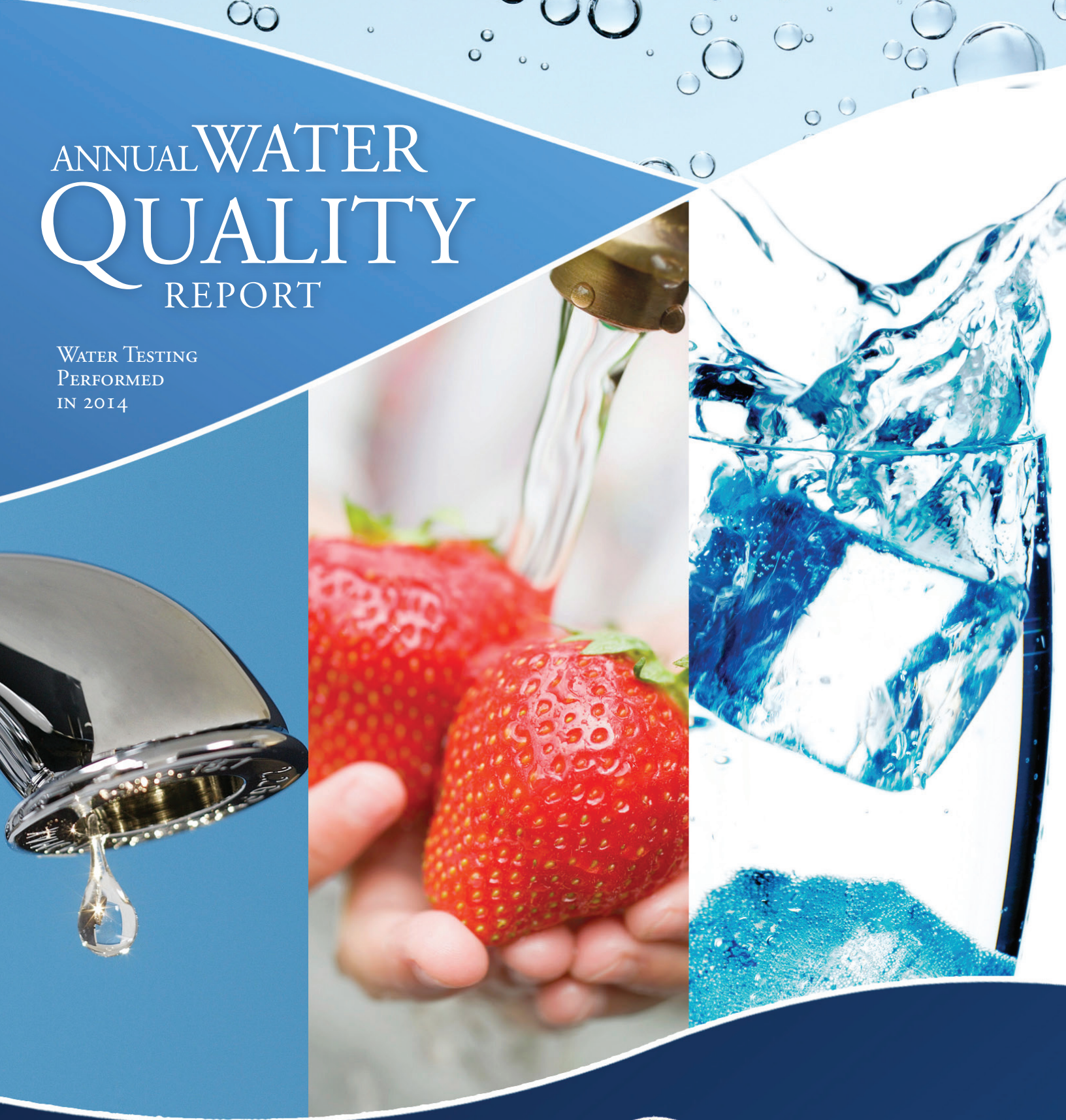


ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED
IN 2014



***Presented By
Woonsocket
Water Division***

PWS ID#: RI1559518

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if 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 Mondays of every month at 7:00 pm in Harris Hall in City Hall, 169 Main Street, Woonsocket, RI. 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>.



Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (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 (www.health.ri.gov/water/about/yourwater) that provides complete and current information on water issues in Rhode Island, including valuable information about our watershed.

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.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the 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, 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.

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/safewater/lead.

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.ci.woonsocket.ri.us.

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.



When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

How much water do we use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. (During medieval times, a person used only 5 gallons per day.) It takes 2 gallons to brush your teeth, 2 to 7 gallons to flush a toilet, and 25 to 50 gallons to take a shower.

When was chlorine first used in the U.S.?

In 1908, Jersey City, New Jersey, and Chicago, Illinois, were the first water supplies to be chlorinated in the U.S.

Seventy-one percent of Earth is covered in water: how much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the Earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

How much water is in our atmosphere?

Forty trillion gallons of water are carried in the atmosphere across the U.S. each day.

How much water is in our bodies?

Water makes up almost two-thirds of the human body and 70 percent of the brain. Four hundred gallons of water are recycled through our kidneys each day.

How long can a person go without water?

Although a person can live without food for more than a month, a person can live without water for only approximately one week.

Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And water has no sugar or caffeine.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (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. Contact us for more information on this program.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2014	2	2	0.030	0.014–0.042	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2014	[4]	[4]	0.33	ND- 1.27	No	Water additive used to control microbes
Fluoride (ppm)	2014	4	4	0.68	0.04–0.99	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 (ppb)	2014	60	NA	15.0	ND–27.2	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	0.52	NA	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]–Stage 2 (ppb)	2014	80	NA	51.7	14.1–58.5	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2014	5% of monthly samples are positive	0	1.4	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2014	TT	NA	1.7	0.8–2.2	No	Naturally present in the environment
Turbidity ¹ (NTU)	2014	TT	NA	0.213	0.013–0.213	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples < 0.3 NTU	NA	100	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%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	1.3	0.05	0/32	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2014	15	0	3	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)	2014	200	NA	164	ND–699	No	Erosion of natural deposits; Residual from some surface water treatment processes
Fluoride (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)	2014	65.96	51.8–89.3	Naturally found in plants, soil; sodium compounds used for deicing roads

UNREGULATED CONTAMINANT MONITORING REGULATION (UCMR3)²

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

¹Turbidity 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.

²Contains 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.

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).

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

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like taste, odor, and color.