



2014 Water Quality Report

Important Information About Your Drinking Water

Any Questions?

Want to know more about the Bristol County Water Authority? Please call or write to Pamela M. Marchand, P.E., Executive Director, with any questions, comments or concerns.

Our office is located at 450 Child Street, Warren, RI 02885. We hold monthly meetings, the time/location of our meetings is posted at Town Halls of Barrington, Bristol, and Warren, at sos.ri.gov, and BCWA Bulletin Boards, or contact our office or visit our website at www.bcwari.com.

Our Emergency Phone Number is 401-245-5071

Portuguese

IMPORTANTE!

Este relatório contém informações importantes sobre a qualidade da água da comunidade. Pergunta a quem saiba para traduzir ou fala com alguém que compreenda o que está escrito.

Bristol County Water Authority
450 Child Street
P.O. Box 447
Warren, Rhode Island 02885
401-245-2033

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 storm water 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 storm water 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Drinking Water Come From?

Providence Water obtains its water supply from a series of surface water reservoirs located in the northwest portion of the State of Rhode Island. The main source of supply is the Scituate Reservoir, which when at full capacity, contains over 37 billion gallons of water and covers an area of 3,390 acres. In addition to the Scituate Reservoir, there are also five other tributary reservoirs; Regulating Reservoir, Moswansicut Reservoir, Ponaganset Reservoir, Barden Reservoir, and Westconnaug Reservoir. These five additional reservoirs combined add another 4 billion gallons of water for a total water storage capacity of 41 billion gallons. The entire reservoir system is contained within a watershed areas which totals 92.8 sq. miles of primarily rural, forested land. Providence Water controls over 28% of the most critical areas of the watershed through outright ownership or through the purchase of the development rights.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general public. 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, and some elderly and infants can be particularly at risk of infections. If you are one of these people, you should seek advice from your health care provider. 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>.

Bristol County Water Authority System



The Bristol County Water Authority provides water to residents of Barrington, Bristol, and Warren. In June of 2011 the Child Street WTP was removed from service. **The Scituate Reservoir is now our sole source of supply and is distributed to all customers.** The WTP is being maintained and could be utilized under emergency conditions. Also, management of the BCWA reservoir water sources continues, until an alternate supply is in service.

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 caused primarily from lead materials and components associated with your home's water service connection and your home's interior plumbing.

Bristol County Water Authority is responsible for providing high quality drinking water to your service connection, but cannot control the variety of materials used in your home's plumbing components. **You can minimize the potential for lead exposure by flushing your cold water for 3-5 minutes before 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 <http://www.epa.gov/safewater/lead>.

The Quality of your Drinking Water

The Bristol County Water Authority (BCWA) is committed to providing its customers with high quality drinking water that meets or surpasses state and federal standards for quality and safety. The BCWA did not exceed any water quality regulation. To ensure delivery of a quality product, we have made significant investments in treatment facilities, water quality monitoring and the distribution system. We are pleased to report the results of our Year 2014 water testing to inform you about your drinking water.

Bristol County Water Authority

Water Quality Report

BRISTOL COUNTY WATER AUTHORITY
450 Child Street
P.O. Box 447
Warren, Rhode Island 02885-0447



What's in My Water?

Providence Water and Bristol County Water Authority conducts thousands of laboratory tests throughout each year to ensure the safety of your water. We have compiled a list in the table below that shows you what substances were detected. Each and every substance on the list was found to be below the Maximum Contaminant Level (MCL) as set by the U.S. EPA. We want you to know exactly what was detected during these tests and how much of each substance was present in your drinking water. The RI Department of Health allows 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.

2014 BRISTOL COUNTY WATER AUTHORITY • WATER QUALITY DATA

Bristol County receives all of its water from Providence Water through the East Bay Pipeline.

The table below represents the results of the testing performed by the Bristol County Water Authority (BCWA) and by the Providence Water Supply Board (PWSB).

REGULATED SUBSTANCES SUBSTANCE (Unit of Measure)	PERIOD OF TESTING - YEAR 2014 SOURCE	MCL*		HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
		(MRDL)	(MRDLG)				
Barium (ppm)	PWSB	2	2	0.007	NA	No	Erosion of natural deposits
Chlorine ¹ (ppm)	BCWA	(4)	(4)	0.41	0.01-1.31	No	Water additive used to control microbes
Fluoride (ppm)	PWSB	4	4	3.45	0.55-3.45	No	Erosion of natural deposits; water additive that promotes strong teeth
Nitrate-N (ppm)	PWSB	10	10	0.06	NA	No	Runoff from fertilizer use; leaching from septic tank; erosion from natural deposits
Haloacetic Acids (HAA5) ² (ppb)	BCWA	60	NA	27.5	5.7-32.4	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes) ² (ppb) (TOC)	BCWA	80	NA	**80.0	51.3-95.9	No	By-product of drinking water disinfection
Total Coliform Bacteria ³ (%Positive Samples)	BCWA	0% Positive	0	0	NA	No	Naturally present in the environment
Total Organic Carbon ⁴ (ppm)	PWSB	TT*	NA	1.26	1.18-1.31	No	Naturally present in environment
Turbidity ⁵ (NTU)	PWSB	TT* =<1 NTU	NA	0.40	0.02-0.40	No	Soil runoff

Substance (Unit of Measure)	SOURCE	AL	MCLG	Amount Detected 90th% TILE	Sites above AL/total sites	Exceedance	TYPICAL SOURCE
Copper (ppm)	BCWA	1.3	1.3	<0.020	0	Yes *	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	BCWA	15	0	3.1	0	Yes *	Corrosion of household plumbing systems; Erosion of natural deposits

* The Bristol County Water Authority is required to monitor your drinking water for specific contaminants on a regular basis. Result of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of June 1, 2014 to September 30, 2014, we did not monitor for lead and copper and therefore cannot be sure of the quality of our drinking water during that time.

The Lead/Copper sampling program required that we obtain 30 samples from eligible sample sites. We were only able to obtain 25 during the specified time period and did not meet the requirements of the program. As a result, we were in violation and are required to obtain an additional 5 samples, for a total of 35, during the current 2015 monitoring period.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

UNREGULATED SUBSTANCES

Substance (Unit of Measure)	SOURCE	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
4-androstene-3, 17-dione (ppb)	PWSB	0.00052	0-0.00052	Erosion of natural deposits.
Sodium (ppm)	PWSB	12.0	NA	Erosion of natural deposits; Runoff from road de-icing operations
Strontium (ppb)	PWSB	28.0	26-28	Erosion of natural deposits
Vanadium (ppb)	PWSB	0.42	0.28-0.42	Erosion of natural deposits; Combustion of fossil fuels

• See included list of definitions

1. Compliance is based upon the highest quarterly running annual average, and the range is based upon the lowest and highest individual measurements.
2. Compliance is based upon the highest locational quarterly running annual average, and the range is based upon the lowest and highest individual measurements.
3. For 2014, the Bristol County Water Authority collected 758 samples for Total Coliform Rule compliance monitoring; there were no positive samples for bacteria.
4. In order to comply with the EPA's TOC Standard, the removal ratio between the source and finished water must be greater than 1.0. The detected level is the lowest removal ratio per quarter. Range is the lowest and highest removal ratios per month.
5. Turbidity is a measurement of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. 0.40 NTU was the highest single measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100%. The average turbidity value for 2014 was <0.10 NTU. (Nephelometric Turbidity Unit).

Water Quality Improvement Program

The customers of the Bristol County Water Authority receive all of their water from the Scituate reservoir, one of the highest quality water sources in the nation.

The Bristol County Water Authority focuses its efforts on preserving the high quality of the water delivered through the 233 miles of water mains to our customers. The BCWA capital and maintenance programs are designed to specifically address distribution system "water age" issues that can degrade water quality.

As demand has decreased due to conservation efforts and loss of industrial users, the length of time water stays in contact with the pipes has increased, resulting in discolored water from cast iron water mains, increased use of chlorine for disinfection, and increases in the by-products of chlorination - trihalomethanes (THMs). Flushing the system, the cleaning and lining or replacement of water mains, and adding additional treatment and monitoring programs have been successful in improving delivered water quality.

In the past year we cleaned and cement lined cast iron water mains on several streets in Barrington, and replaced 4000 feet of old cast iron main in Bristol. We also tried a new technology to structurally line asbestos concrete mains, one each in Bristol and Barrington. The technology proved successful and cost effective. These projects improved the quality of the water and the fire flows in the areas. Increased availability of water for fire flows can result in lower fire insurance rates, as well as providing additional security.

The BCWA is continuing our installation of a computerized SCADA (Supervisory Control and Data Acquisition) system to control and monitor water quality, flows and pressures in the distribution system. A new computerized work order, asset management and customer service program has already provided increased information and efficiencies in the management and operation of the water system.

And, this year the BCWA has continued with an aggressive distribution program to replace water mains in all three towns and eliminate a number of dead ends to improve water flow, pressure, and water quality. We are also installing a THM treatment system in the Barrington water storage tank this fall.

The operations staff of the BCWA is dedicated to providing the best quality drinking water to all of our customers, 24 hours a day, 7 days a week.

If you have any questions, please call me at 245-2022, ext. 18.

Pamela M. Marchand, P.E.

Executive Director

*Definitions

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

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.

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.

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.

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

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

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).

****TTHM's (Total Trihalomethanes) are reported as Annual running average Per site.**

NA: Not applicable.