BRISTOL COUNTY WATER AUTHORITY

2013 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, Warren and Rehoboth, 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 contem informações importantes sobre a qualidade da agua da comunicade. Pergunta a quem saiba para traduzir ou fala com algeum que compreeda o que está escrito.

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

Where Does My Drinking Water Come From?

Your drinking water comes entirely from surface water reservoirs located in a 92.8-square-mile, mostly rural, forested watershed basin in Scituate.

The main source of this water supply is the Scituate Reservoir, which is the terminal reservoir in a network of six interconnected reservoirs: The Scituate Reservoir, Regulating Reservoir, Barden Reservoir, Ponaganset Reservoir, Westconnaug Reservoir and Moswansicut Reservoir.

In 2003, the RI Department of Health, in cooperation with other state and federal agencies, formally assessed the threats to the Scituate Reservoir. The assessment considered the intensity of the following: 1) rate of land development; 2) the presence of businesses and facilities that use, store or generate potential contaminants; 3) how easily contaminants may move through the soils in the Source Water Protection Area (SWPA); and 4) the sampling history of the water.

The assessment confirmed that the Scituate Reservoir system is at LOW RISK of contamination. This does NOT mean that the water cannot become contaminated. Protection efforts are always necessary to assure continued water quality.

The DOH summary of the Source Water Assessment is available on the Providence Water website at http://www.provwater.com/scituate2.pdf.

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 Crytptosporidium 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 and no violations have been issued. 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 2013 water testing to inform you about your drinking water.

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

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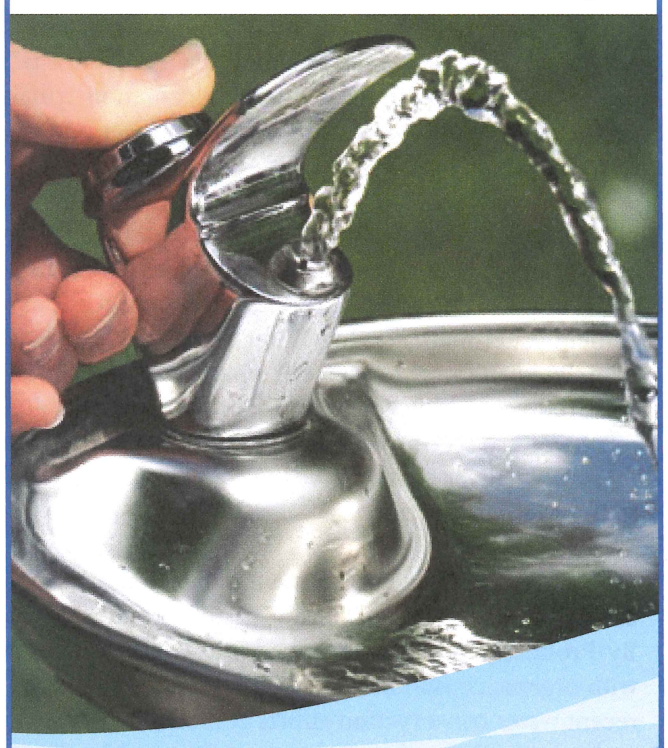
Postal Customer

Bristol County Water Authority



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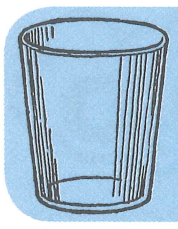

What's in My Water?
Providence Water and Bristol County Water Authority conducts thousands of laboratory tests throughout each year to ensure the safety of your water. We have compiled a list in the table below that shows you what substances were detected. Each and every substance on the list was found 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.

2013 BRISTOL COUNTY WATER AUTHORITY • WATER QUALITY DATA

Bristol County receives all of its water from Providence though 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 2013 SOURCE	MCL* (MRDL)	MCLG* (MRDLG)	HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	PWSB	2	2	0.008	NA	No	Erosion of natural deposits
Chlorine[1] (ppm)	BCWA	(4)	(4)	0.39	0.01-1.15	No	Water additive used to control microbes
Fluoride (ppm)	PWSB	4	4	0.82	0.55-0.82	No	Erosion of natural deposits; water additive that promotes strong teeth
Haloacetic Acids (HAA5)[2] (ppb)	BCWA	60	NA	23.3	13.0-34.0	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes)[2] (ppb) (TOC)	BCWA	80	NA	79.7	31.1-102.0	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	1.36	1.26-1.58	No	Naturally present in environment
Turbidity[5] (NTU)	PWSB	TT* =<1 NTU	NA	0.18	0.02-0.18	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	PWSB	TT* = 95% of samples <0.3 NTU	NA	100	NA	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	0.033	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	BCWA	15	0	0.0091	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

42 tap water samples were collected for lead and copper analyses from sample sites throughout the community.

UNREGULATED SUBSTANCES Substance (Unit of Measure)	SOURCE	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hexavalent Chromium (ppb)	PWSB	0.13	0-0.13	Erosion of natural deposits.
Sodium (ppm)	PWSB	11.0	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	0.24	0-0.24	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 2013, the Bristol County Water Authority collected 765 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. 0.18 NTU was the highest single measurement recorded. The average turbidity value for 2013 was <0.10 NTU (Nephelometric Turbidity Unit).

Water Quality Improvements

The Bristol County Water Authority continues to focus its efforts on improving the quality of water delivered to its customers. The BCWA capital and maintenance programs are designed to specifically address distribution system "water age" issues.

As demand has decreased due to conservation efforts, 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, cleaning and lining or replacement of water mains, adding additional treatment and monitoring programs have been successful in improving water quality.

In the past year we were able to partner with the Rhode Island Department of Transportation on a project in Barrington which enabled us to replace more than a thousand feet of water main at a much reduced cost. The main was also extended to connect dead end sections and improve water quality. A large section of the old asbestos cement water main serving Water Street in Warren was removed and replaced with new ductile iron pipe. We also completed the first phase of Poppasquash Road water main project which involved the replacement of the one hundred year old water main that serviced the Colt Park/Poppasquash Road, improving the water quality to the northwestern section of Bristol. Upon completion of the second phase, which is currently under way, the new water main will deliver much improved water quality and volume that will meet or exceed the required fire flow standards to the southern section.

A major accomplishment completed this past year was the installation of a Trihalomethene removal system at our Bay View Water Tank in Bristol. Trihalomethanes (THM's) are one of the compounds know as Disinfection By-Products, commonly referred to as DBPs. The DBPs form when chlorine that is used to disinfect the water, reacts with organic compounds that are present in the water. The potential for DBP formation increases with water age so recent water conservation efforts combined with the loss of major water users has resulted in increased THM levels and compliance problems for many Rhode Island water systems. In order to maintain compliance with regulatory limits the BCWA staff designed and constructed a THM removal system at our Bay View tank in Bristol. The system constantly mixes and aerates the water to remove the DBPs. The majority of the work was done in house by skilled BCWA operations staff, saving an estimated $75.000 as opposed to having all the work done by an outside contractor.

Maintaining ongoing compliance with the THM standard will require constant work. We are planning to install a similar THM removal system in the Fountain Avenue water tank in Barrington later this fall.

Pamela M. Marchand, P.E.
Executive Director and Chief Engineer

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).

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

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