

2018 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 administrative office is located at 450 Child Street, Warren, RI 02885. We hold monthly Board meetings at our Administrative Office. The date and time of our meetings are posted at the Town Halls of Barrington, Bristol, Warren, at the Secretary of State's website (sos.ri.gov), and BCWA Bulletin Boards. Information can be found by contacting our office, at 401-245-2022, or by visiting our website at www.bcwari.com.

Our Emergency phone number is 401-245-5071

Portuguese

IMPORTANTE!

Portuguese IMPORTANTE! O relatório contém informações importantes sobre a qualidade da água da comunidade. Traduza-o ou peça ajuda de uma pessoa amiga para ajudá-lo a entender melhor ou um tradutor será fornecido (401) 245-2022.

Bristol County Water Authority
450 Child Street
P.O. Box 447
Warren, Rhode Island 02885
401-245-2022

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

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 St. WTP was removed from service. The Scituate Reservoir is now our sole source of supply and is distributed to all customers.



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 area 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.

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 2018 water testing to inform you about your drinking water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 from 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>.

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 tap for 3-5 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 <http://www.epa.gov/safewa>

The BCWA has undertaken a major renovation of the water system infrastructure and operation processes. In 2017, the New England Water Works Association awarded the BCWA "Utility of the Year" for making significant improvements to water system infrastructure, customer service, staff training and operations.

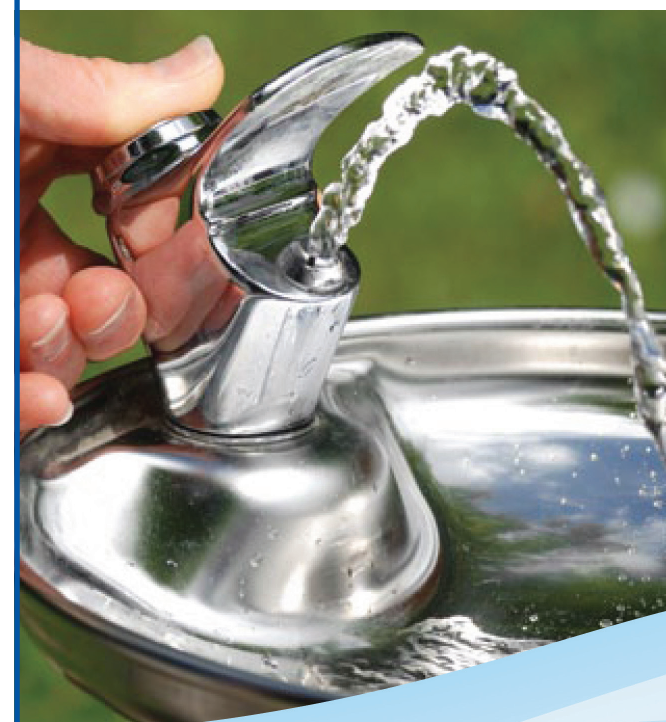
Major Projects Completed in 2018

- Child Street pipeline under bridge
- Ferry Road main replacement (with Town of Bristol)
- Metacom Pump Station
- Progress of meter replacement project
- Updated hydraulic model and linked to GIS
- Water Distribution System Improvements
- Water Main Replacement

Major Projects Begun in 2018

- Design of 2019 Distribution System Improvements
- Design of Pawtucket Pipeline - Phase 1
- Design of Hope Street Pump Station

Bristol County Water Authority



2018 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		PERIOD OF TESTING - YEAR 2018		HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Substance (Unit of Measure)	SOURCE	MCL* (MRDL)	MCLG* (MRDLG)				
Barium (ppm)	PWSB	2	2	0.01	NA	No	Erosion of natural deposits
Chlorine ¹ (ppm)	BCWA	(4)	(4)	0.55	.02-1.39	No	Water additive used to control microbes
Fluoride (ppm)	PWSB	4	4	0.83	0.50-.83	No	Erosion of natural deposits; water additive which promotes strong teeth
Haloacetic Acids (HAA5) ¹ (ppb)	BCWA	60	NA	21.8	9.8-31.0	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes) ¹ (ppb)	BCWA	80	NA	77.6	50.6-89.2	No	By-product of drinking water disinfection
Total Coliform Bacteria ² (% Positive Samples per month)	BCWA	Presence of coliform bacteria in >5% monthly samples	0	1.52%	NA	No	Naturally present in the environment
Total Organic Carbon ³ (TOC) (Removal ratio)	PWSB	TT*	NA	1.62	1.20-1.84	No	Naturally present in environment
Turbidity ⁴ (NTU)	PW/SB	TT*=<1 NTU	NA	0.16	0.02-0.16	No	Soil runoff.
Di (2-ethylhexyl)phthalate ⁶ (ppb)	PWSB	6	0	1.0	0-1.0	No	Discharge from rubber and chemical factories
Substance (Unit of Measure)	SOURCE	Action Level	MCLG	Amount Detected 90th% TILE	Sites above AL/total sites	Exceedance	TYPICAL SOURCE
Copper ⁵ (ppm)	BCWA	1.3	1.3	0.027	0	No	Corrosion of household plumbing systems; Erosion of natural deposits. 0 sites out of 30 were above 1.3 ppm.
Lead ⁵ (ppb)	BCWA	15	0	5.6	2	No	Corrosion of household plumbing systems; Erosion of natural deposits. 2 sites out of 30 were above 15 ppb.
Copper ⁵ (ppm)	PWSB	1.3	1.3	0.019	0	No	Corrosion of household plumbing systems; Erosion of natural deposits. 0 sites out of 362 were above 1.3 ppm
Lead ⁵ (ppb)	PWSB	15	0	22.3	50	Yes	Corrosion of household plumbing systems; Erosion of natural deposits. 50 sites out of 303 were above 15 ppb.
UNREGULATED SUBSTANCES		AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE			
Substance (Unit of Measure)	SOURCE						
Sodium (ppm)	PWSB	16.7	NA	Erosion of natural deposits; Runoff from road de-icing operations			
<i>Fourth Unregulated Contaminant Monitoring Rule (UCMR⁷)</i>							
Manganese (ppm)							
Bromochloroacetic Acid (BCAA) (ppb)							
Dibromoacetic Acid (DBAA) (ppb)							
Dichloroacetic Acid (DCAA) (ppb)							
Monobromoacetic Acid (MBAA) (ppb)							
Monochloroacetic Acid (MCAA) (ppb)							

* See included list of definitions

1. Compliance is based upon the highest locational quarterly running annual average, and the range is based upon the lowest and highest individual measurements.
2. For 2018, the Bristol County Water Authority collected 760 samples for Total Coliform Rule compliance monitoring; there were 1 positive sample for total coliform bacteria. None were positive for E.Coli.
3. 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.
4. 0.16 NTU (Nephelometric Turbidity Unit) was the Highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100.0 %. The average turbidity value for 2018 was < 0.10 NTU
5. Data reflects sampling performed in 2018.
6. DEHP was detected in a single sample of source water.
7. Unregulated contaminants are those that don't yet have a primary drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help USEPA develop regulatory decisions for these contaminants.

Water Quality Improvement Program

In the past year, the BCWA made significant advances in one of the most important projects the authority has ever faced after the construction of the East Bay pipeline supply from Providence Water: the Pawtucket Pipeline, which will provide a reliable high-quality alternative source of water for BCWA customers.

Unfortunately, the year also provided us with a challenging example of why the Pawtucket Pipeline is absolutely essential: a leak in the East Bay pipeline (discovered on April 10 of 2019) forced us to shut down our water supply from Providence Water, and to obtain water from our emergency connection to the City of East Providence (also Providence Water). This connection can supply only 3.5 million gallons of water per day (BCWA's average daily use), so water restrictions had to be implemented for all BCWA customers. At the time of this report's printing (June 2019) we have determined that the leak is located 160 feet below the Providence River and not repairable. It is likely that we will be installing a new pipe inside of the 24" water main. As this may take 2-3 months to order materials and provide for the installation, we were concerned about low pressure in the distribution system affecting fire flows due to higher summer demand. Therefore, we have placed the East Bay Pipeline back in service, for as long as the leak remains constant. We hope to complete the repair and resume normal operations by the end of September.

Progress on the Pawtucket Pipeline and work on the East Bay pipeline leak may be our most visible efforts over the past 12 months, but they are not the year's only accomplishments in maintaining high quality water. We stayed on track with system upgrades and maintenance throughout the utility. We cleaned and lined pipes, replaced mains, flushed the system, and tied in dead ends. We completed construction of the Metacom Ave pump station and began designing the new Hope Street pump station. We continued the digital modernization of distribution and service with smart meters and completed many other projects.

Of course, as we saw with the East Bay pipeline leak, problems can occur despite our best maintenance efforts. No matter what challenges arise, BCWA responds to and repairs all issues as quickly (and with as little inconvenience to our customers) as possible. I want to assure all of our customers that the BCWA utility remains fully reliable and that the quality of our water remains excellent. We are fully committed to serving your needs, and we appreciate your patience and support.

For more information, please go to bcwari.com or call me at 401-245-2022.

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).

NA: Not applicable.

ND: None detected.