

ANNUAL CONSUMER CONFIDENCE REPORT Monitoring Period January-December 2017

Block Island Water Company
www.blockislandwater.org
New Shoreham, RI
PWS ID#1858430



We are very pleased to provide you with this year's Consumer Confidence Report. This report provides you with information on the water and services that we delivered to you in 2017. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

We want our valued customers to be informed about their water utility. If after reviewing this report you have any questions, or would like to know more about the Block Island Water Company water system, please contact the Superintendent of the Water Company at (401) 466-3232 or visit our website www.blockislandwater.org. You are also invited to attend our regularly scheduled meetings that are held on the third Monday of every month at the Town Hall. Current schedules, agendas, and minutes of all of our meetings are also available online.

The Quality of Your Drinking Water

Our goal is to provide you with a safe and dependable supply of drinking water. We're proud to inform you that your drinking water continues to meet all Federal and State requirements. We are committed to ensuring the quality of your water.

The Source of Your Drinking Water

The Block Island Water Company continues to utilize state-of-the-art Reverse Osmosis (RO) technology to treat all of the water that ends up at your tap. RO technology is a proven leader in the manufacture of safe drinking water.

The RO system has allowed the Block Island Water Company to implement a level of quality assurance and quality control that exceeds both State and Federal drinking water standards.

Our sources of water are as follows:

- § **Wells 4A, 5A & 6:** These wells are our primary sources of water. Each well is located within an aquifer 200 feet below the surface. Well #5 reached the end of its life and was replaced with Well #5A, which went online July 2017.
- § **Wells 1, 2 & 3:** These wells are RI Department of Health (RI DOH) approved wells, which can be used in the ROs if they are needed. The wells are located within a shallower aquifer and are capable of producing approximately 70-80 GPM, respectively.
- § **Sands Pond:** Sands Pond is currently on stand-by as a back-up supply of water. Due to the high levels of organics within that source we are unable to treat that water within the ROs. If needed, we can treat the water within the old water production system on site.
- § **Fresh Pond:** Fresh Pond is a RI DOH approved alternative source of water. The Block Island Water Company (BIWC) does not utilize this source unless all others fail in the event of an emergency. As with Sands Pond, the high levels of organics within Fresh Pond do not allow its treatment within RO technology. However, we can treat the water within the old water production system on site if needed.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to Block Island Water Company water supply sources. The assessment considered the intensity of development, the presence of businesses and facilities that use, store, or generate potential contaminants, how easily contaminants may move through the soils in the Source Water Protection Area (SWPA), and the sampling history of the water. For a copy of the SWPA for Block Island Water Company visit www.blockislandwater.org.

Our monitoring program continues to assure that the water delivered to your home is safe to drink. The assessment found that the water source is at LOW RISK of contamination. This does NOT mean that the water cannot become contaminated. Protection efforts are necessary to assure continued water quality. The complete Source Water Assessment Report is available from Block Island Water

Why Are There Contaminants in My Drinking Water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity:

- § **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- § **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or 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 can also come from gas stations, urban stormwater runoff, and septic systems.
- § **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

Volatile Organics Monitoring/Reporting Violation

During the compliance period of October 1 to December 31, 2017, our water system failed to properly test and analyze Volatile Organic Contaminants results from Well #5A to Rhode Island Department of, Center for Drinking Water Quality. Proper testing will resume Health in 2018 and results will be made available in future reports. *BIWC performed the proper sampling; the laboratory analyzed the samples with the wrong method and failed to report the results in time.*

Synthetic Organics Monitoring/Reporting Violation

During the compliance period of October 1 to December 31, 2017, our water system failed to report Synthetic Organic Contaminants results from Well #5 to the Rhode Island Department of Health, Center for Drinking Water Quality. Proper testing will resume in 2018 and results will be made available in future reports. *BIWC performed the proper sampling; the laboratory failed to report the results on time.*

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Water Quality Test Results

The table below lists all of the drinking water contaminants that were detected through our water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from the January – December 2017 monitoring period. For those contaminants that are monitored less frequently the most recent test results are listed

2017 Test Results											
Radioactive Contaminants	Violation Y/N	Level Detected (Range: single samples)						Unit Measurement	MCLG	MCL	Likely Source of Contamination
		Well #1,2,3	Well #4A	Well #5A	Well #6	Fresh Pond	Sands Pond				
Gross Alpha (2017)	N	ND	4.58 (2015)	3.51	2.67 (2014)	ND	ND	pCi/L	0	15	Erosion of natural deposits
Combined Radium (2017)	N	ND	2.96 (2015)	3.35	1.57 (2015)	ND	1.27 (2015)	pCi/L	0	5	Erosion of natural deposits
Gross Beta Particles (2015)	N	ND	10.74	3.04	ND	ND	ND	pCi/L	0	50	Decay of natural and man-made deposits
Inorganic Contaminants	Violation Y/N	Level Detected (Range: single samples)						Unit Measurement	MCLG	MCL	Likely Source of Contamination
		Well #1,2,3	Well #4A	Well #5A	Well #6	Fresh Pond	Sands Pond				
Antimony (2017)	N	ND (2016)	ND	ND	ND	0.3	0.2	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (2017)	N	ND (2016)	2.2	2.1	2.8 (2015)	3.0	0.4	ppb	0	10	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (2017)	N	0.048 (2015)	0.148	0.091	0.131 (2015)	0.012	0.011	ppm	2	2	Erosion of natural deposits
Beryllium (2017)	N	ND (2016)	0.2	0.1	ND	MD	ND	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cyanide (2016)	N	0.007 (2015)	0.012 (2014)	0.012 (2015)*	0.016 (2015)	0.012	ND	ppm	0.2	0.2	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (2017)	N	0.084 (2015)	0.139	0.144	0.099 (2015)	0.026 (2016)	0.028	ppm	4	4	Erosion of natural deposits, water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (2017)	N	0.263 (2017)	ND	ND	ND	0.208	0.12	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite [as Nitrogen] (2017)	N	ND	0.007	ND	ND	ND	ND	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (2017)	N	BD	5.0	ND	ND	ND	ND	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Maximum Contaminant Levels (MCL's) are set at very stringent levels. The Maximum Contaminant Level Goal (MCLG) is set at a level where no health effects would be expected, and the MCL is set as close to that as possible, considering available technology and cost of treatment. A person would have to drink 2 liters of water every day, as recommended by health professionals, at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants. However, 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, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

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. Block Island Water Company is 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.

Cross-Connection Control Program
Cross-Connections between public water supplies and non-potable sources of contamination can represent one of the most significant threats to health in the water supply industry. A cross connection control program protects the public water supply from the possibility of contamination or pollution through backflow or back-siphonage into the public water system from a building's internal plumbing system. The Federal Safe Drinking Water Act requires that the water supplier has the primary responsibility for preventing water from unapproved sources from entering the public potable water system. This intent is further clarified in the Rhode Island General Law Section 46-13-22 (Cross-Connection Control) enacted on June 27, 2007, and The Rhode Island Department of Health Rules and Regulations Pertaining to Drinking Water, Section 9.4 (Cross-Connection Control) adopted May, 2010. Block Island Water Company has adopted a Cross Connection Control Plan in 2010 that is in compliance with the rules and regulations.

Distribution System Results

Microbiological Contaminants	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (2016)	N	Absent	Highest monthly # of positive samples	0 positive	1 positive	Naturally present in the environment
Inorganic Contaminants	Violation Y/N	Level Detected (90 th percentile)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper (2017)	N	0.016	ppm	1.3	AL=1.3	Corrosion of household plumbing system, natural deposit erosion, leaching from wood preservation
Lead (2017)	N	0.08	ppb	0	AL=15	Corrosion of household plumbing system
Disinfectant	Violation Y/N	Level Detected (Range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine (2017)	N	RAA: 0.28 Range: 0.19 – 0.36	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

Maximum Contaminant Level (MCL) - The MCL is 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.

Maximum Contaminant Level Goal (MCLG) - The MCLG is 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.

Maximum Residual Disinfection Level Goal (MRDLG) - 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

Maximum Residual Disinfectant Level (MRDL) - The highest level of disinfectant allowed in drinking water.

ND - Not Detected

*Result from Well #5, was not active during 2017.

The State of Rhode Island requires testing for other contaminants not regulated by the US EPA. The following contaminant was detected in our well water:

Alkalinity, Total: In 2017, Total Alkalinity was detected in Well #5A at 32ppm.

Calcium: In 2017, Calcium was detected in Well #3 at 7.68 ppm.

Iron: In 2017, Iron was detected in Well #5A at 10.2 ppm.

Sodium: In 2017, Sodium was detected in Well 1,2,3 at 24.5 ppm, Well #4A at 196 ppm, Well #5A at 23 ppm, Well #6 at 100 ppm, Fresh Pond at 14.6 ppm, and Sands Pond at 16.6 ppm.

Sulfate: In 2017, Sulfate was detected in Well #5A at 22.2 ppm.

Sodium Notification

The reason for this notification is so that consumers on low or restricted sodium diets may take into account their sodium intake from the drinking water. If you have been placed on a sodium restricted diet, please inform your physician that your water contained elevated concentrations of sodium in some of the wells in as a result of testing completed in 2017.

The Block Island Water Company works hard to provide top quality water to every tap. We encourage all of our customers to conserve and use water efficiently and remind you to help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please do not hesitate to call our office with any questions.