

# *Annual Drinking Water Quality Report for 2001*

## **Block Island Water Company**

**New Shoreham, RI**

**PWSID RI1858430**

We are pleased to present to you this year's Annual Water Quality Report. This report informs you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your water.

### **Treatment:**

The Water Company utilizes state-of-the-art Reverse Osmosis (RO) technology to treat all of the water that ends up at your tap. RO technology has proved to be one of the leaders in the manufacture and distribution of pure and safe water in the world today. The RO system has allowed the water company to implement a level quality assurance and quality control that exceeds drinking water standards required on both the state and federal level.

### **Water Sources:**

We are capable of treating water from both surface and groundwater sources. Our sources are as follows:

**Wells 5 and 6:** These wells are our primary sources of water. Each well is located within a crustaceous aquifer 200 feet below the surface.

**Wells 1, 2, and 3:** RI Dept of Health approved wells, which can be used in the ROs if they are needed. Those 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.

By 2003, we will have a source water assessment completed for our system. This will identify potential threats to our water source, and outline a protection plan. We can all work to protect our drinking water by disposing of waste properly, not using excessive lawn or garden fertilizers or pesticides, properly storing household hazardous waste such as paints, solvents and pool supplies, and by supporting the efforts of your water supplier and town government. Education is the best protection for our drinking water. For more information, contact Clay Commons at HEALTH (401) 222-7769.

Block Island Water Company routinely monitors for constituents in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2001. The contaminants fall into two categories: regulated, where enforceable standards or MCLs have been established, and unregulated, where only health advisory levels have been set. Some contaminants are tested for less frequently. The most recent results are reported along with the date the sample was taken. A table of "Testing Results" identifies those constituents that were detected in Block Island Water Company's water sources.

The sources of drinking water include rivers, lakes, ponds and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. Contaminants 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, 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 be the result of oil and gas production and mining activities.

Testing Results										
Regulated Constituents (constituents with an MCL):										
Contaminant	Violati on Y/N	Level Detected					Unit Measurement	MCLG	MCL	Likely Source of Contamination
		Wells #1,2,3	Well #5	Well # 6	Fresh Pond	Sands Pond				
<b>Radioactive Contaminants</b>										
Alpha emitters (7/9/01)	N	ND	ND	ND	0.08	0.63	pCi/l	0	15	Erosion of natural deposits
Beta/photon emitters (7/9/01)	N	ND	ND	ND	4.52	4.28	pCi/l	0	50*	Decay of natural and man-made deposits
Combined radium (7/9/01)	N	ND	ND	ND	2.63	0.12	pCi/l	0	5	Erosion of natural deposits
<b>Inorganic Contaminants</b>										
Nitrate (5/2/01)	N	0.35	0.26	ND	0.07	ND	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Volatile Organic Contaminants</b>										
TTHM Total trihalomethanes	N	1661 Inn	Fish Head	Corn Neck	Martin House	ppb	0	100	By-product of drinking water chlorination	
		2.5 Range 1.1-4.4	3.33 Range 1.8-4.8	2.3 Range 2-4.9	3.75 Range 2-5.5					
<b>Distribution System Testing</b>										
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination				
Copper	N	0.25	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives				
Lead	N	0.011	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits				
TTHM [Total trihalomethanes] (11/7/01)	N	1.47 Range: 1.2-1.8	ppb	0	100	By-product of drinking water chlorination				

**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** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Pico curies per liter (pCi/L)** - Pico curies per liter are a measure of the radioactivity in water.

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

**Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**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.

The State of Rhode Island requires testing for other compounds not regulated by the US EPA. The following compounds were detected in Block Island Water Company's well water prior to treatment.

**Sodium:** Sodium was detected at a level of 27.4 mg/L in wells # 1,2 & 3, at a level of 55.2 and in well #5 on 4/11/01. It was detected at 91.3mg/l in well #6 on 4/11/01, at a level 13.9 in Fresh Pond, and at a level of 16.6 in Sand Pond on 3/27/01. If sodium is detected at 20 mg/L, the RI Department of Health notifies physicians in the area. If sodium is detected at 100 mg/L, your system is required to notify its customers through a public notice. This is done for the benefit of those who, on advice of a physician, are on a low sodium diet. Since the implementation of reverse osmosis, the sodium concentrations in the drinking water are less than 1 mg/l.

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

risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at Block Island Water Company work to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. If you have any questions about this report or concerning your water utility, please contact the Asst. Superintendent to the Water Company at (401) 466-3232. Also, there are regularly scheduled meetings are on the second Tuesday of every month at the Wastewater treatment plant.