



2008 Water Quality Report

The Quality of Your Drinking Water

The quality of your drinking water is excellent and your water is SAFE to drink. The East Smithfield Water District and all of its employees are committed to providing our customers with high quality drinking water that meets or exceeds all state and federal standards for quality and safety. To ensure delivery of a quality product, we have made significant investments in distribution piping, we maintain a close relationship with our primary water suppliers, the Providence Water Supply Board and the Town of Smithfield, and we test the water frequently to assure that it continues to meet all requirements.



This report informs you about the quality water and services that we delivered to you in 2007. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. After reviewing this report, if you would like to know more about the District's water system or if you have questions, please call the District office at (401) 231-0510. You are also invited to attend the Board's monthly meetings, which are held at the District's office on the first Wednesday of the month between September and June, starting at 7:00 PM. The District's office is located at 307 Waterman Avenue, Smithfield, Rhode Island. Office hours are 8:00 AM—4:00 PM during normal business days.

The Source of Your Drinking Water

The Providence Water Supply Board is the primary supplier of water to the District. The water is delivered through a transmission and distribution system that includes two (2) pressure boosting pumping stations, and approximately 30 miles of piping which includes valves for control of water flow. The water connections into each building include a connection to a main pipe, a valve on the connection pipe and a water meter to measure water use. Water is also available for fire fighting through direct connection to 158 public fire hydrants.

Providence Water Supply Board

All of the water from the Providence Water Supply Board comes from the Scituate Reservoir complex. This reservoir system is located in a basin area totaling 92.8 square miles of mostly rural, forested lands. Before delivery to the transmission and distribution system, all water from the reservoir system is treated at the Philip J. Holton Water Treatment Plant in accordance with state and federal requirements for drinking water.

Sourcewater Assessment

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to Providence Water's 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. The assessment found that Providence Water's sources are 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 Providence Water or the Department of Health at (401) 222-6867.

We're proud to announce that your drinking water meets or exceeds federal and state standards for quality and safety!

Additional Providence Water Supply Facts:

- ♦ The main source of water, the Scituate Reservoir, contains over 37 billion gallons of water, at full capacity, and covers an area of 3390 acres.
- ♦ In addition to the Scituate Reservoir, there are also five other secondary reservoirs that combined add another 4 billion gallons of water.

Providence Water Supply Board - Water Supply Division
Phone: (401) 521-6300

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.

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

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 material and components associated with service lines and home plumbing. East Smithfield is responsible for providing high quality drinking water, but cannot control the variety of material 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. 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>.

Understanding Our Water Quality Test Results

The table on page 3 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 2007 monitoring period. For those contaminants that are monitored less frequently, the most recent test results are listed.

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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.

2007 Test Results from The Providence Water Supply Board

Microbiological Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (TOC) (removal ratio)	N	1.30 Range: 1.16—1.54	ppm	N/A	TT	Naturally present in the environment
Turbidity**	N	0.19 Range: ND—0.19	NTU	N/A	TT	Soil runoff

*In order to comply with the PEA standard, the removal ratio must be greater than 1.0

**Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system, For 2007, 0.19 NTU was the highest single measurement recorded. The average turbidity measurement was <0.10 NTU. The lowest monthly percent of samples meeting the turbidity limit was 100%.

Radioactive Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Beta/Photon Emitters * (2003)	N	10.9	pCi/L	0	50	Decay of natural and man-made deposits

*The US EPA considers 50 pCi/L to be the level of concern for Beta/Photon Emitters

Inorganic Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Fluoride	N	1.20 Range: 0.90—1.20	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	0.06	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Distribution System Test Results from East Smithfield Water District

Inorganic Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper (2006)	N	0.06	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2006)	N	6	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Initial Distribution System Evaluation (IDSE) Data†

Volatile Organic Contaminants	Level Detected	Unit Measurement	Likely Source of Contamination
Haloacetic Acids (HAA)	Average: 14 Range: 10 –17	ppb	By-product of drinking water disinfection.
TTHM (Total Trihalomethanes)	Average: 49 Range: 41 – 59	ppb	By-product of drinking water chlorination

†In 2007, under the EPA Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR) our water system was required to conduct an Initial Distribution System Evaluation (IDSE). The IDSE is a one-time evaluation to determine the levels of disinfection by-products (TTHM & HAA) in the distribution system for future regulations. Disinfection byproducts are the result of the disinfection of your drinking water, they form when the disinfectants combine with naturally occurring organic matter in the water. The IDSE data was not used for compliance by the Rhode Island DOH-Office of Drinking Water Quality and test results were not required to meet the MCL of 60 ppb for HAA and 80 ppb for TTHMs.

Units & Definitions

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. A violation will occur only if the supplier fails to take corrective action

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.

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

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU's is just noticeable to the average person. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth.

East Smithfield Water District

307 Waterman Avenue
Smithfield, RI 02917

Phone: 401-231-0510
Fax: 401-231-7053

2008 Water Quality Report
Important Information:
**Your drinking water meets
or exceeds federal and
state standards for quality
and safety**

Recent System Improvements

During the past year, the District has improved the water system to better serve its customers by completing the following activities:

- Replaced 450 feet of aging six inch cast iron pipe with eight inch ductile iron pipe.
- Continued accelerated residential meter replacement program, replacing old meters with modern, radio read meters with leak detection capabilities.
- Joined Rhode Island's Water & Wastewater Agency Response Network, RIWARN, a Mutual Aid Agreement with utilities across the State.
- Instituted monthly or quarterly billing cycles for all of our major customers.
- Continued our ongoing training and certification of employees.

Please Remember to Conserve & Use Water Efficiently!

The East Smithfield Water District encourages water conservation and would be pleased to offer you assistance with:

- household water conservation tips and
- water saving plumbing retrofit devices

Outdoor Water Conservation Tips:

As a general rule, during the growing season most sustainable plants and grasses only need one inch of water per week. So, if it rains one inch or more – don't water for the week. Of course, newly established plants need to be watered more frequently. If rainfall isn't sufficient for your lawn and flower beds, pick one or two days for outdoor watering. Also, water in the early morning or early evening to minimize the water lost to evaporation. If possible, use soaker hoses to water flower beds and if sprinklers are used, take care to be sure they don't water walkways and buildings. Please remember, an outdoor water conservation plan helps to conserve public drinking water!

