East Smithfield Water District

2011 Water Quality Report for Monitoring Year 2010

THE QUALITY OF YOUR DRINKING WATER

This report informs you about the quality of water and services that we delivered to you in 2010. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

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, which also purchases its water from the Providence Water Supply Board. We test the water frequently to assure that it continues to meet all requirements.

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 6:30 PM.

The East Smithfield Water District
307 Waterman Avenue
Smithfield, RI
Tel. 401-231-0510

www.eastsmithfieldwater.com

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 137 public fire hydrants.

All of the water from the Providence Water Supply Board 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. 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.

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.

WHY ARE THERE CONTAMINANTS IN DRINKING WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants in the water 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 EPA's Safe Drinking Water Hotline (1-800-426-4791). In order to ensure that tap water is safe to drink, the 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.

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 (1-800-426-4791).

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

MICROBIAL - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

INORGANIC - 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 & HERBICIDES - which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

ORGANIC CHEMICAL - 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 - which can be naturally occurring or the result of oil and gas production and mining activities.

IMPORTANT INFORMATION ABOUT LEAD

Testing showed the amount of lead in our drinking water is below the EPA allowed level (see test result table at right). If present in elevated levels 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.

The East Smithfield Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential 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.

2010 Test Results from the Providence Water Supply Board

Contaminant	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Barium	N	0.01	ppm	2	2	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Chlorine (free residual)	N	0.34 Range 0-1.6	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
[1] Fluoride	N	1.98 Range 0.78-1.98	ppm	4	4	Erosion of natural deposits. Water additive which promotes strong teeth
Nitrate	N	0.06	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
[2] Haloacetic Acids (HAA)	N	Average 23 Range 7-36	ppb	0	60	By-product of water chlorination
[3] Total Coliform Bacteria	N	0.5% Range: 0 - 0.5%	% of positive samples per month	0	5% of monthly samples	Naturally present in the environment
[2] Total Trihalomethanes (TTHM)	N	Average 60 Range 34-99	ppb	0	80	By-product of water chlorination
[4] Total Organic Carbon (TOC) (removal ratio)	N	1.21 Range: 0.90-1.59	ppm	N/A	TT	Naturally present in the environment
[5] Turbidity	N	0.30 Range: 0.05-0.30	NTU	N/A	TT	Soil runoff

[1] The highest single fluoride measurement was 1.98 mg/l. The second highest single fluoride measurement was 1.15 mg/l. The average fluoride concentration for the year was 0.96 mg/l.
[2] The averages presented are the highest running annual average (RAA) and the range is based upon lowest and highest individual measurement.
[3] This value refers to the highest monthly percentage of positive samples detected during the year. For 2010, Providence Water collected 2316 samples for Total Coliform Rule compliance monitoring. One of these samples were positive for total coliform bacteria. None were positive for E. coli bacteria.
[4] In order to comply with the EPA standard, the removal ratio must be greater than 1. Detected level is the lowest removal ratio per quarter. Range is the lowest and highest removal ratios per month.
[5] 0.30 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100 %. The average turbidity value for 2010 was < 0.10 NTU.

2010 Distribution System Test Results from The East Smithfield Water District

Contaminant	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform	N	1 positive sample September	# of positive samples per month	0	1 positive sample	Naturally present in the environment
Chlorine	N	RAA 0.13 Range 0.10-0.20	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
Copper (90th Percentile)	N	0.07	ppm	1.30	AL=1.30	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead* (90th Percentile)	N	14	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

*There were 3 sites that exceeded the Lead Action Level. **LEAD:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficiencies in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

UNITS & DEFINITIONS:

Not Detected (ND) - Laboratory analysis determined that the contaminant was not present.
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.
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.
Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water.
Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
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.

UNDERSTANDING OUR WATER QUALITY TEST RESULTS

The table to the left lists all of the drinking water contaminants that were detected through our water quality monitoring and testing. Unless otherwise noted, the data presented in this table is from the January – December 2010 monitoring period. For those contaminants that are monitored less frequently, the most recent test results are listed.

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.

The East Smithfield Water District
307 Waterman Avenue
Smithfield, RI 02917
www.eastsmithfieldwater.com

Annual Water Quality Report

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.

The Rhode Island Water Resources Board Drought Steering Committee reviews state and local current conditions (meteorological-agricultural and hydrological) and makes advisory recommendations on the current drought level (*Normal, Advisory, Watch, Warning or Emergency)* based on presented information.

Under normal or advisory conditions, the East Smithfield Water District recommends once weekly outdoor water use. In accordance with RI Water Resources Board requirements, the District may impose increasingly severe mandatory limits on water use if the drought condition is moved to a more serious phase by the Steering Committee.

PLEASE VISIT OUR WEBPAGE TO LEARN MORE ABOUT THE EAST SMITHFIELD WATER DISTRICT

WWW.EASTSMITHFIELDWATER.COM

We have improved our web site to accommodate the increasing number of customers who are utilizing the site's on-line bill paying feature.

RADIO READ METERS

During 2010, we completed the installation of 2,100 radio-read water meters that were purchased with a combination of ARRA funding ($93,000) and a Rhode Island Clean Water Finance Agency loan.

The radio-read system has allowed us to convert to quarterly billing based on actual meter readings, both improving cash flow for the District and making budgeting easier for our customers.

The new meters' leak detection capability allows us to notify customers of possible leaks much earlier than in the past, preventing many "high usage" water bills caused by undetected leaks.