

2008 CONSUMER CONFIDENCE REPORT

Smithfield Water Supply Board

Esmond, RI
PWS ID#1615616

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 2008. 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. There are no regularly scheduled meetings, therefore; if after reviewing this report you have any questions, or would like to know more about the Smithfield Water Supply Board water system, please call John Ratcliffe, Smithfield Public Works Deputy Director, at (401) 233-1034, Monday – Friday from 8:00 AM to 3:00 PM.

The Quality of Your Drinking Water

Our goal is to provide you with a safe and dependable supply of drinking water. However, in October 2008, we received a violation when we found Total Coliform Bacteria at a level higher than the EPA allows and therefore our water temporarily exceeded drinking water standards. Please see the *Water Quality Test Results* and *Violations* sections at the end of this report for additional information. We are committed to ensuring the quality of your water.

The Source of Your Drinking Water

We purchase all of our water from the Providence Water Supply Board. Providence draws its water entirely from surface water sources located in the Scituate watershed. The main source of supply for the Providence system is the Scituate Reservoir; which is the terminal reservoir in a network of six reservoirs. The five other secondary reservoirs are: Regulating Reservoir, Barden Reservoir, Ponaganset Reservoir, Westconnaug Reservoir, and Moswansicut Reservoir. This reservoir system is located in a basin area totaling 92.8 sq. miles of mostly rural, forested lands of which Providence Water controls approximately 28% through outright ownership or through past purchase of development rights.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to Smithfield Water Supply Board's 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.

Our monitoring program continues to assure that the water delivered to your home is safe to drink. However, 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 the Smithfield Water Supply Board or the Department of Health at (401) 222-6867.

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.

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 2008 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.

2008 TEST RESULTS FROM THE PROVIDENCE WATER SUPPLY BOARD						
Microbial Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (TOC) ¹	N	1.23 Range: 1.05 – 1.41	ppm	N/A	TT	Naturally present in the environment
Turbidity ²	N	0.14 Range: 0.05 – 0.14	NTU	N/A	TT	Soil runoff
Inorganic Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Barium	N	0.01	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
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

¹In order to comply with the EPA standard, the TOC removal ratio must be greater than 1.0 ppm.

²0.14 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100%. The average turbidity value was <0.10 NTU. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

DISTRIBUTION SYSTEM TEST RESULTS FROM THE SMITHFIELD WATER SUPPLY						
Microbial Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (October 2008)	Y	4 positive samples	Highest monthly # of positive samples	0	1 positive	Naturally present in the environment
Inorganic Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper (2006)	N	0.14	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead* (2006)	N	12	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

*There was one (1) site that exceeded the Lead Action Level.

Initial Distribution System Evaluation (IDSE) Data †

Volatile Organic Contaminants	Violation Y/N	Level Detected	Unit Measurement	Likely Source of Contamination
Haloacetic Acids (HAA)	N	Average 11 Range: 5 - 17	ppb	By-product of drinking water disinfection.
TTHM (Total Trihalomethanes)	N	Average 65 Range: 42 - 78	ppb	By-product of drinking water chlorination

† 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 byproducts (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. The average listed is the highest Locational Running Annual Average from samples taken in the 1st, 2nd and 3rd quarter of 2008.

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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

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. The Smithfield Water District 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. 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>.

Violations:

Total Coliform Bacteria MCL Violation: On October 7th, 2008 routine samples taken in the vicinity of the Log Road pump station tested positive for the presence of coliform bacteria. Follow-up samples taken on October 9th also tested positive, exceeding the EPA standard of one (1) sample per month. To correct the problem we overflowed the storage tank on Burlingame Road and flushed the water lines. All follow-up samples were negative for coliform bacteria. Attempts to determine the source of the contamination were inconclusive. A possible source could be water break or unauthorized use of a hydrant.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. Coliforms were found in more samples than allowed and this was a warning of potential problems.

We at the Smithfield Water Supply Board work 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.