

Where Does Our Water Come From?

Your water comes from a series of surface water reservoirs located in the northwest portion of Rhode Island. The main source of supply is the Scituate Reservoir, which when at full capacity, contains over 37 billion gallons of water and covers a surface area of 3,390 acres. In addition to the Scituate Reservoir, there are five secondary reservoirs: Regulating Reservoir, Moswansicut Reservoir, Ponaganset Reservoir, Barden Reservoir, and Westconaug Reservoir. These five additional reservoirs combined add another 4 billion gallons of water for a total water storage capacity of 41 billion gallons! The entire reservoir system is contained within a watershed area which totals 92.8 sq. miles of primarily rural, forested land. Providence Water controls over 28% of the most critical areas of the watershed through outright ownership or through the purchase of the development rights.

In 2003, the Rhode Island Department of Health, in cooperation with other state and federal agencies, assessed the contamination threats to the Scituate Reservoir. 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.

This assessment found that the Scituate Reservoir has a low risk of contamination. This does not mean that the water cannot become contaminated. Protection efforts are necessary to ensure continued water quality. A summary of the Source Water Assessment is available from the Providence Water Supply Board, the Rhode Island Department of Health, or on the PWSB website at www.provwater.com. A copy of the full report may be obtained from the Rhode Island Water Quality Program at www.uri.edu/ce/wq/program/html/SWAP/reports.html.

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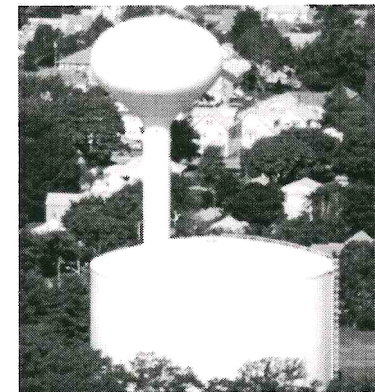
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Water Utilities Division

Water Quality Report 2010



Kent Heights Water Tanks



Portuguese IMPORTANTE! O relatório contém informações importantes sobre a qualidade da água da comunidade. Traduza-o ou peça ajuda de uma pessoa amiga para ajudá-lo a entender melhor.

DETECTED CONTAMINANTS TABLES

INORGANIC

SUBSTANCE (UNITS)	Period/ Water Source	MCL	MCLG	Detected Level	Range	Major Sources	SDWA Violation
Copper ① (ppm)	2010/ EP	AL-1.3	1.3	0.04	< .02- .04	Corrosion of household plumbing systems. Erosion of natural deposits.	NONE
Lead ① (ppm)	2010/ EP	AL = .015	0	< .005	< .005 .0144	Corrosion of household plumbing systems. Erosion of natural deposits.	NONE
Fluoride (ppm)	2010/ PWSB	4	4	1.98	0.78- 1.98	Erosion of natural deposits. Water additive which promotes strong teeth.	NONE
Turbidity ③ (ntu)	2010/PWSB	TT	N.A.	0.30	0.05- 0.30	Soil runoff	NONE
Chlorine (ppm) As Cl ₂ Free residual	2010/ EP	MRDL = 4.0	MRDLG = 4.0	0.5	0.02 - 1.11	Water additive used to control microbes	NONE
Barium	2010/PWSB	2	2	0.01	N.A.	Erosion of natural deposits	NONE
Nitrate as N	2010/PWSB	10	10	0.06	N.A.	Runoff from fertilizer, use leachate from septic tanks, erosion of natural deposits.	NONE

This table shows the results of the 2010 water quality analyses performed by the City (EP) and the Providence Water Supply Board (PWSB). We feel it is important that you know exactly what was detected and how much was detected and how much of the substance was present in the water. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here along with the highest levels allowed by regulation (MCL), the ideal goals for public health (MCLG), the amounts detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement.

ORGANIC

SUBSTANCE (UNITS)	Period/ Water Source	MCL	MCLG	Detected Level	Range	Major Sources	SDWA Violation
Total Coliform Bacteria ② (Monthly Max. %)	2010/ EP	> 5% positive samples	0%	0.5%	0-0.5%	Naturally present in the environment	NONE
Total Organic Carbon (TOC) ③ (ppm) (Removal Ratio)	2010/ PWSB	TT	NA	1.21	0.9 - 1.59	Naturally present in the environment	NONE

VOLITILE ORGANIC COMPOUNDS

SUBSTANCE (UNITS)	Period/ Water Source	MCL	MCLG	Detected Level	Range	Major Sources	SDWA Violation
Haloacetic Acids (HAAS) (ppb)	2010/ EP	60	0	23.2	17.3 - 27.9	By-product of drinking water chlorination	NONE
Total Trihalomethanes (TTHM) (ppb)	2010/ EP	80	0	76.0	46.6 - 115.0	By-product of drinking water chlorination	NONE

KEY to TABLE

AL= Action Level
MCL= Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MFL= Million fibers per liter
NTU = Nephelometric Turbidity Units
MRDL= Maximum Residual Disinfectant level
MRDLG = Maximum Residual Disinfectant level goal.
pCi/L = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion or micrograms per liter (ug/l)
TT = Treatment Technique
ND = Not Detected
NA = Not Applicable
TT = Treatment Technique

① Sampling conducted in accordance with the lead/copper rule of the SDWA. The above data represents the most recent results. No Samples were above the action level for copper, no samples exceeded the action level for lead.

② This value refers to the highest monthly percentage of positive samples detected during the year. In 2010 East Providence water collected 2225 samples for total coliform rule compliance monitoring. No samples were total coliform positive. None were positive for E.coli bacteria.

③ 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.

④ In order to comply with the EPA Standard, the removal ratio must be greater than 1. Detected level is the lowest ratio per quarter. Range is the lowest and highest ratios per month.

Definitions

Maximum Contaminant Level or MCL: 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 or MCLG: 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, trigger a treatment or other requirement that a water system must follow.

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

Variations and Exemptions: State or EPA permission not to meet a MCL or a treatment under certain conditions.

Parts per billion (ppb): One part per billion (microgram per liter) is the equivalent to one penny in \$10,000,000.00.

Parts per million (ppm): One part per million (milligram per liter) is the equivalent to one penny in \$10,000.00.

Picocuries per liter (pCi/L): A measurement of natural rate of disintegration.

The data presented in this report is from the most recent testing done in accordance with regulations.

Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations established limits for contaminants in bottled 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 EPA's Safe Drinking Water Hotline 1(800)426-4791 or the EPA website at www.epa.gov/watrhome.

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 radioactive material and can pick up substances resulting from the presence of animals or from human activity. 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 storm 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, storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining

activities. In order to ensure the tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

SPECIAL HEALTH INFORMATION

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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the following:

Safe Drinking Water
Hotline 1(800) 426-4791 or EPA website at www.epa.gov/watrhome.

Source Water Assessment

A Source Water Assessment was conducted in 2003 by the University of Rhode Island, Department of Health (RIDOH) and the Providence Water Supply Board (PWSB). The water supply was found to be at low risk. A four page summary of the assessment is available from the PWSB or the RIDOH

Information on Cryptosporidium, Radon and other Contaminants

In 2010 the Providence Water Supply Board did not monitor for cryptosporidium, giardia or radon.

Variations and Exceptions

There were no variations or exemptions granted to East Providence Water or the PWSB by the State in 2010.

natural deposits and runoff from road de-icing operations.

For further information on this project, you can go to the City's web site: www.eastprovidenceri.net.

How is our water quality measured?

State and federal regulations require all water suppliers to test for microbes and chemicals a specified number of times each year. The test for microbes is done most frequently, based on the size of the population served by the water supplier. The regulations require that these water quality tests be conducted in certified laboratories using federally approved testing methods. Last year the City of East Providence tested over 2225 samples in compliance with the state and federal regulations. The PWSB also conducts extensive testing before, during, and after the water treatment process. The results of those tests are detailed in this report

Lead Informational Statement

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 East Providence Water Utilities Division 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>.

Unregulated Contaminant

Sodium is an unregulated contaminant. The PWSB sampled for sodium in 2010 and detected a level of 9.8 mg/l. The major sources of sodium found in water supplies are from erosion of

Water Main Cleaning and Lining Project

In the past year, the City initiated a major capital improvement program that will enable the water system to deliver high quality water to its customers well into the future. A number of the water mains in our system were older, unlined iron pipes which allowed mineral buildup on the inside wall of the pipe. This buildup, called "tuberculation", would sometimes loosen and cause dirty water problems in some neighborhoods. The most efficient way to combat that problem is to take the water main out of service, clean the interior, and then coat it with a smooth mortar lining.

The City Engineering office, working with the Water Division, developed all the plans and specifications in-house at a significant savings. Using \$6,000,000 of federal stimulus money, the City was able to contract W. Walsh Construction of Attleboro, Massachusetts to make significant improvements to many of our older mains. Work to date was completed in the area north of City Hall, in the vicinity of Waterman Avenue, and the project then moved into the Riverside area west of Bullocks Point Avenue during the summer and fall months, with completion slated for fall 2011

There will be some minor inconveniences while the work is taking place, but the end result is worth it. We ask that you be patient when the work is being done and thank you for your cooperation. Should you have any questions about this project, please call the contact numbers provided on this report.

?? Questions ??

For additional information please contact:

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RI Department of Health, Drinking Water Quality
(401) 222-6867 www.health.ri.gov

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhme) and the Centers for Disease Control and Prevention (www.cdc.gov) websites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Providence Water Supply Board has a website (www.provwater.com) that provides complete and current information on our drinking water

The Department of Public Works has prepared and provided to you this annual water quality report in accordance with the requirements of the Safe Drinking Water Act (SDWA). The report includes information on the city's source of water and quality of the water and the water distribution system.