



## *City of East Providence*

### **Department of Public Works**

Water Utilities Division

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**PWSID #RI1615610**

## **WATER QUALITY REPORT 2019**

**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 ou um tradutor será fornecido.

### ***Water Utilities Division Mission Statement***

The mission of the East Providence Water Utilities Division is to provide its customers with the highest quality drinking water at the flow and pressure necessary to protect the public health and welfare and support economic development within the city of East Providence.

### ***Where Does My Drinking Water Come From?***

Your drinking water comes entirely from surface water reservoirs located in a 93-square mile, mostly rural, forested watershed basin located primarily in Scituate, RI. The main source of this water supply is the Scituate Reservoir, which is the terminal reservoir in a network of six interconnected reservoirs: the Scituate Reservoir, Regulating Reservoir, Barden Reservoir, Moswansicut Reservoir, Ponaganset Reservoir, and Westconnaug Reservoir.

In 2017, Providence Water Supply Board (PWSB) formally assessed the threats to the Scituate Reservoir. The assessment considered land use, pollution sources, and overall reservoir condition.

The assessment confirmed that the Scituate Reservoir system is at medium risk of contamination. PWSB is continuing with protection efforts necessary to ensure continued water quality.

The 2017 Source Water Assessment Plan is available on the Providence Water website at [www.provwater.com/swap](http://www.provwater.com/swap).

### ***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 3000 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 2019 and detected a level of 15.0 mg/l. The major sources of sodium found in water supplies are from erosion of natural deposits and runoff from road de-icing operations.

## **Capital Improvements**

In April 2019, the City completed installation of a TTHM removal system for approximately \$2 million to reduce disinfection by-products in the water system. At this time, the system is meeting all desired expectations.

Capital projects planned for the near future include:

- Water distribution piping rehabilitation on Indian Road (construction beginning in Summer 2020)
- Water distribution piping replacement on North Hull Street (construction beginning in Summer 2020)
- Emergency generator replacement for the Kent Heights water storage and pumping facility
- Metered interconnections with the City of Pawtucket for emergency use

## **Water Main Flushing**

The Water Utilities Division will resume flushing water mains in neighborhoods in Fall 2020. Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, you may notice some short-term increases in the color and iron level in your cold water. Although harmless to health, you should avoid using your tap water for household purposes during this period as it may cause minor staining of fixtures and laundry. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water to prevent sediment accumulation in your hot water tank.

## **Exceedances:**

There were no water quality exceedances in 2019. Water quality met all applicable state and federal drinking water standards.

## **Variations and Exceptions**

There were no variations or exemptions granted to East Providence Water or the PWSB by the State in 2019.

## **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 [www.epa.gov](http://www.epa.gov).

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.

## **Additional Important 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](http://www.epa.gov).**

## **Information on the Internet**

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

The Water Utilities Division has prepared and provided to you this annual water quality report in accordance with the requirements of the Safe Drinking Water Act (SDWA). This report contains information on the City's water source and water quality provided to our customers.

The table shown below displays the results of the 2019 water quality analysis performed by the City (EP) and the 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

### **Key to Table**

AL = Action Level	ND = None Detected
MCL = Maximum Contaminant Level	NTU = Nephelometric Turbidity Units
MCLG = Maximum Contaminant Level Goal	pCi/L = Picocuries per Liter (a measure of radioactivity)
MRDL = Maximum Residual Disinfectant Level	ppb = Parts per billion or micrograms per liter ( $\mu\text{g/L}$ )
MRDLG = Maximum Residual Disinfectant Level Goal	ppm = Parts per million or milligrams per liter ( $\text{mg/L}$ )
NA = Not Applicable	TT = Treatment Technique

### **Definitions**

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

**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.

**Maximum Residual Disinfectant Level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal or MRDLG:** The level of 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.

**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.

**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.

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

## Regulated Substances

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPELED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2019	2	2	0.009	NA	No	Erosion of natural deposits
Chlorine (ppm)	2019	[4]	[4]	0.47	0.12-0.84	No	Water additive to control microbes
Fluoride (ppm)	2019	4	4	0.80	0.58-0.80	No	Water additive for whitening teeth
Haloacetic Acids [HAAs] <sup>1</sup> (ppb)	2019	60	NA	26.3	11.6-27.0	No	By-product of drinking water chlorination
Nitrate <sup>2</sup> (ppm)	2019	10	10	0.06	ND-0.06	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes [TTHMs] <sup>1</sup> (ppb)	2019	80	NA	69	30.9-69.1	No	By-product of drinking water chlorination
Total Coliform Bacteria <sup>3</sup> (% positive samples)	2019	TT	NA	<1	NA	No	Naturally present in the environment
Total Organic Carbon <sup>4</sup> (removal ratio)	2019	TT	NA	1.77	1.62-1.87	No	Naturally present in the environment
Turbidity <sup>5</sup> (NTU)	2019	TT	NA	0.88	0.02-0.88	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2019	TT= 95% of samples meet limit	NA	100	NA	No	Soil runoff

## Lead and Copper

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPELED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH PERCENTILE)	SITES ABOVE AL/TOTAL SITES	EXCEEDANCE	TYPICAL SOURCE
Copper <sup>6</sup> (ppm)	2019	1.3	1.3	0.017	0/32	No	Corrosion of household plumbing; erosion of natural deposits
Lead <sup>6</sup> (ppb)	2019	15	0	1.70	1/32	Yes	Corrosion of household plumbing; erosion of natural deposits

## Unregulated Substances

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPELED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2019	15.0	NA	Runoff from road deicing; erosion of natural deposits

## Unregulated Contaminant Monitoring Rule Part 4 (UCMR 4)

Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. In 2018, the City of East Providence sampled for 30 different contaminants as required by the EPA and found low levels of four compounds present in our drinking water. The contaminants and their concentration are listed below. For more information, contact the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPELED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromochloroacetic Acid (ppb)	2018	2.47	1.69-3.71	By-product of drinking water chlorination
Manganese (ppm)	2018	0.00092	0.0006-0.0014	Erosion of natural deposits

<sup>1</sup>Compliance is based upon the highest locational running annual average (LRAA), and the range is based upon the lowest and highest individual measurement.

<sup>2</sup>Nitrate was detected in a single source of water.

<sup>3</sup>This value refers to the highest monthly percentage of positive samples detected during the year. In 2019, East Providence Water collected 2289 samples for the total coliform rule compliance monitoring. Zero samples collected were coliform positive.

<sup>4</sup>The value reported under Amount Detected for TOC is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. 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.

<sup>5</sup>0.88 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 2019 was <0.10 NTU.

<sup>6</sup>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, and one was above the action level for lead in 2019. The one sample above the action level for lead was retested for both lead and copper and both results were found to be under the respective action levels.

## **?? Questions ??**

For additional information please contact:

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- Emerson J. Marvel, Water Superintendent, East Providence Water Utilities Division (401) 435-7741; [waterdept@eastprovidenceri.gov](mailto:waterdept@eastprovidenceri.gov)
- Rhode Island Department of Health, Drinking Water Quality (401) 222-6867; [www.health.ri.gov](http://www.health.ri.gov)