

GREENVILLE WATER DISTRICT

TESTING YEAR 2016



ANNUAL DRINKING WATER QUALITY REPORT

We are pleased to present to you this year's Annual Quality Drinking Water Quality Report for the 2016 testing year:

The Greenville Water District is a Quasi-Municipal Corporation with an elected board of directors. The boards of directors meet on a monthly basis and hold elections on an annual basis. If you have any questions about this report or concerning your water utility, please contact David M. Powers, Jr., District Superintendent at (401) 231-1433. We want our valued customers to be informed about their water utility.

Here at the Greenville Water District, our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. Above all, we are committed to ensuring the quality of your water.

The Greenville Water District is a wholesale customer of the Providence Water Supply Board. Providence draws its water entirely from surface water sources located in Scituate, RI. The watershed and 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 Moswansicut Reservoir and the Regulating Reservoir. This reservoir system is located in a basin area totaling 92.8 sq. miles of mostly rural, forested lands of which Providence Water Supply controls approximately 28% through outright ownership or through past purchase of development rights.

Sources of drinking water include rivers, lakes, ponds and wells. As water travels over the surface of the land or through the ground, it naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. Contaminants that may be present in source water include:



As water
dissolves
pick up
of drinking
are naturally
source water

- ✓ 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 be the result of oil and gas production and mining activities.

The Greenville Water District routinely monitors for substances in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1st 2016 to December 31st, 2016. The contaminants fall into two categories: regulated, where enforceable standards or MCLs have been established, and unregulated, where only health advisory levels have been set. Some contaminants are tested for less frequently. The most recent results are reported along with the date the sample was taken. A table identifies those substances that were detected in Greenville Water District's water sources.



In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following 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 - 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 that, if exceeded, triggers treatment or other requirements that 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.

Unregulated Contaminant Monitoring – An unregulated contaminant tested for is the parasite *Cryptosporidium* which has caused outbreaks of intestinal disease in the United States. This bacterium has proven to be highly resistant to normal disinfection procedures such as chlorination. Providence Water began testing for *Cryptosporidium* in 1989 and to date has found no evidence of *Cryptosporidium*. Sodium is another unregulated contaminant that is present in your drinking water. The presence of sodium does not necessarily impose a health risk. More information about contaminants and potential health effects can be found by calling the EPA Safe Drinking Water Hotline (800) 426-4791.

The following tables are the results for the testing year 2016:

Unregulated Substances

<i>Substance</i>	<i>Testing Year</i>	<i>Amount Detected</i>	<i>Range / Low-High</i>	<i>Run-off from deicing operations; erosion of natural deposits</i>
<i>Sodium</i>	<i>2016</i>	<i>15.00</i>	<i>NA</i>	

Regulated Substances (substances with an MCL):

Substance (units)	Testing Year	MCL (MRDL)	MCLG (MRDL)	Amount Detected	Range Low-High	Unit Measurement	SDWA Violation	Likely Source of Contamination
Barium	2016	2	2	0.01	NA	ppm	No	Discharge of drilling wastes; of metal erosion natural deposits
*Fluoride (PWSB)	2016	4	4	0.77	0.05-0.77	ppm	No	Water additive which promotes strong teeth
Total Organic Carbon (ppm) (PWSB)	2016	TT	N/A	1.71	1.50-1.81	ppm	No	Naturally present in the environment
**Turbidity (PWSB)	2016	TT	N/A	0.50	0.02-0.50	NTU	No	Soil runoff

* Providence Water adds Fluoride to the water as an aid in dental cavity prevention.

** Turbidity is a measure of cloudiness in the water. It is monitored because it is considered a good indicator of water quality and the effectiveness of disinfectants.

DISTRIBUTION



Distribution System Testing

Substance	Testing Year	Level Detected	Range	Unit Measurement	MCLG	MCL	SDWA Violation	Likely Source of Contamination
Chlorine (GWD)	2016	.11	.06 - .11	ppm	MRDLG =4	MRDL =4	No	Water additive used to control microbes
Copper (GWD)	2015	<0.01	N/A	ppm	1.3	AL=1.3	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (GWD)	2015	.002	.001 – .002	ppb	0	AL=15	No	Corrosion of household plumbing systems, erosion of natural deposits
Total Coliforms (GWD)	2016	0	N/A	Maximum Monthly %	0%	5% of monthly samples	No	Naturally present in the environment
TTHM [Total Trihalomethanes] (GWD)	2016	49.2	31.4-71	ppb	NA	80	No	By-product of drinking water disinfection
Haloacetic Acids (GWD)	2016	14.3	11.1-20.8	ppb	NA	60	No	By-product of drinking water chlorination

Information on some compounds that were tested for in Greenville Water District's water system in 2016.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of disinfectant in the distribution system for a short period of time.

Lead: 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. If lead is present, elevated levels 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 Greenville 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>

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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. For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements.

As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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 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).

Source Water Assessment

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 water source has a **LOW RISK** of contamination. This does NOT mean that the water cannot become contaminated.

Protection efforts are necessary to assure continued water quality. A summary of the Source Water Assessment is available from the Greenville Water District, the Rhode Island Department of Health. A copy of the full report may be obtained from the Rhode Island Water Quality Program (www.uri.edu/ce/wq/program/html/SWAP/reports.html)

As part of our ongoing conservation effort, the Greenville Water District makes available a conservation kit to our customers at no charge. If you would like to receive one, please call our office at 231-1433.

We would also ask that you continue your conservation efforts each summer by adhering to our voluntary odd-even conservation system. You will see this advertised in the Observer and Smithfield Magazine each spring.

We at Greenville Water District work to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

* Environmental Protection Agency / Centers for Disease Control