



*City of Newport*  
*Department of Utilities*  
*Water Division*



**2016**  
**CONSUMER CONFIDENCE**  
**REPORT**

This report contains important information about your drinking water. We recommend all our customers review the information or, if necessary, have someone translate it for you.

*Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.*

*Este relatório contém informação importante sobre a qualidade da água na sua comunidade. Pergunta a quem saiba traduzir ou fala com alguém que compreenda o que está escrito.*

Newport Water is pleased to present this water quality report for 2016 to our customers. In accordance with the Safe Drinking Water Act, all water utilities are required to issue an annual Consumer Confidence report to promote customer awareness of the quality of their drinking water. This brochure is a snapshot of the water quality from January through December 2016. Included are details about where your water comes from, what it contains, and how it compares to EPA standards. In 2016, Newport Water conducted 49,449 analyses to monitor 76 regulated drinking water contaminants and 87 unregulated drinking water contaminants. The following table indicates only the contaminants that were detected, even if the detected level was below the maximum level set by the EPA. For the year 2016 the Newport System had no violations of the Safe Water Drinking Act standards. Please know that the employees of Newport Water are committed to providing you water that meets all EPA and state drinking water standards.

***If you have any questions please contact:***

Julia A. Forgue, Dir. of Utilities (401) 845-5600

US EPA Hotline (800) 426-4791

RI Department of Health, Drinking  
Water Quality (401) 222-6867

***Also, information is available on the Internet:***

Environmental Protection Agency  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

***How can you be involved?***

Meetings of the Newport City Council begin at  
6:30 PM on the second and fourth Wednesday of each  
month in the Council Chambers, City Hall  
43 Broadway, Newport, RI

### **About Newport Water...**

The original water works in Newport was started in 1876. The Newport Water Works Company was incorporated in 1881, and was succeeded by the Newport Water Corporation in 1929. Since 1936, the City of Newport has owned and operated the system. The Newport Water Division is a division within the City of Newport's Utilities Department and is responsible for the operation and maintenance of the system. Newport Water operates as an enterprise fund and is independent of the overall City budget. Newport Water is licensed by the RI Department of Health as a Public Water Supplier No. 1592010. Newport Water is regulated by the Rhode Island Public Utilities Commission.

### **Newport's Water Supply**

Newport Water draws its raw water supply from a system of nine surface reservoirs: North and South Easton Pond, Paradise Pond, Gardiner Pond, St. Mary's Pond, Sisson Pond, Lawton Valley Reservoir, Nonquit Pond, and Watson Reservoir. These reservoir systems are located in a basin area totaling 18.625 square miles or 11,920 acres of rural, forested and some developed lands. The reservoirs located in Newport, Middletown, Portsmouth, Tiverton, and Little Compton are interconnected through a complex network of pipelines and pumping stations. Newport Water has purchased 350 acres of conservation easements to protect raw water quality of the reservoirs.

The water is treated at either Station 1 Plant in Newport or the Lawton Valley Plant in Portsmouth. The combined design capacity of the plants is 16 million gallons of treated water per day.

### **Newport's Distribution System**

Newport Water's distribution system consists of water mains of various size, material and age which carry water throughout Newport, Middletown and a portion of Portsmouth to each individual customer. In addition, Newport Water provides water wholesale to the Portsmouth Water and Fire District and the U.S. Navy for distribution within their systems. Newport Water maintains within our system approximately 14,500 services, 170 miles of water main, 3,300 valves and 1,000 hydrants.

### **Source Water Assessments**

In 2003, the University of Rhode Island, in cooperation with RIDOH and other state and federal agencies, assessed the threats within the watersheds of Newport Water's water supply sources. The assessment found that our water sources on Aquidneck Island and in Little Compton and Tiverton are moderately susceptible to contamination. Monitoring and protection efforts are especially important to assure continued water quality. Newport Water updated the 2003 Assessment in 2010. The complete Source Water Assessment Report is available at our office at 70 Halsey Street.

### **Cross-Connection Control Plan**

Cross-connections between public water supplies and non-potable sources of contamination can represent one of the most significant threats to health in the water supply industry. A cross connection control program protects the public water supply from the possibility of contamination or pollution through backflow or back-siphonage into the public water system from a building's internal plumbing system. The Federal Safe Drinking Water Act requires that the water supplier has the primary responsibility for preventing water from unapproved sources from entering the public potable water system. Newport Water adopted a Cross-Connection Control Plan in March 2010.

### **Additional Health Information**

To ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 risk and effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

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 human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from septic systems, agricultural livestock operations and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff; oil and gas production, mining or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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, persons who have 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### **Concerning Lead in Our Water**

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 Newport Water 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 until the water is as cold as it will get before using 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 [www.cityofnewport.com/departments/utilities/lead](http://www.cityofnewport.com/departments/utilities/lead).

## 2016 Detected Contaminants Table

This table shows the results of our combined water-quality analyses for both Station 1 - Newport and Lawton Valley - Portsmouth systems from Jan. 1, through Dec. 31, 2016. 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, the amounts detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement.

<i>Microbiological Contaminants</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Total Coliform (7)	2016	monthly % positive	5%	0%	3.3% <sup>7</sup>	n/a	Naturally present in the environment	No
Turbidity (1)	2016	NTU	TT	n/a	0.44 <sup>1</sup>	n/a	Soil runoff	No
Turbidity (1)	2016	lowest monthly % of samples meeting limit	TT	n/a	99.72% <sup>1</sup>	n/a	Soil runoff	No
Total Organic Carbon	2016	removal ratio	TT	n/a	1.49	1.23 - 1.78	Naturally present in environment	No
<i>Inorganic Contaminants</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Arsenic (5)	2016	ppb	10	0	2	ND - 2	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.	No
Barium (5)	2016	ppm	2.0	2.0	0.014	0.005 - 0.014	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride (3)	2016	ppm	4.0	4.0	0.80	0.05 - 0.80	Water additive which promotes strong teeth	No
Nitrate (5)	2016	ppm	10	10	1.22	0.20 - 1.22	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.	No
<i>Inorganic Contaminants</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i># Of Sites &gt; AL</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Copper (2)	2016	ppm	AL=1.3	1.3	0.05 <sup>2</sup>	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	No
Lead (2)	2016	ppb	AL=15	0	8.3 <sup>2</sup>	0	Corrosion of household plumbing systems; erosion of natural deposits.	No
<i>Synthetic Organic Contaminants Including Pesticides and Herbicides</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Benzo(A)Pyrene (5)	2016	ppt	200	0	200	ND - 200	Coal tar and wood burning	No
Simazine (5)	2016	ppb	4	0	0.20	ND - 0.20	Herbicide runoff	No
<i>Disinfection By-products</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Total Trihalomethanes (TTHM) (4)	2016	ppb	80	n/a	67.3	34.3 - 101.0	By-product of drinking water chlorination	No
Haloacetic Acid 5	2016	ppb	60	n/a	17.4	8.4 - 19.5	By-product of drinking water chlorination	No
Chlorite	2016	ppm	1.0	0.800	0.225	<0.010 - 0.350	By-product of drinking water disinfection	No
<i>Disinfectants</i>	<i>Period</i>	<i>Unit</i>	<i>MRDL</i>	<i>MRDLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Chlorine	2016	ppm	4.0	4.0	RAA = 0.83	0.04 - 1.97	Water additive used to control microbes	No
Chlorine Dioxide	2016	ppb	800	800	610	30 - 610	Water additive used to control microbes	No
<i>Unregulated Contaminant Monitoring</i>	<i>Period</i>	<i>Unit</i>	<i>MCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Sodium	2016	ppm	n/a	n/a	63.6	22.9 - 63.6	Naturally occurring; road runoff; contained in water treatment chemicals; EPA regulations require us to monitor this contaminant while EPA considers setting a limit on it.	No
Metolachlor (5) (6)	2016	ppb	n/a	n/a	0.20	ND - 0.20	Used as an herbicide for weed control on agricultural crops	n/a
Chlorate (8)	2016	ppb	n/a	n/a	520	78 - 520	By-product of drinking water chlorination	n/a

### **Water Quality Table Footnotes:**

(1) 0.44 NTU was the highest single turbidity measurement recorded. The Detected Level is the lowest monthly percentage of samples meeting the turbidity limit of 0.30 NTU. In 2016 the Detected Level was 99.72%.

(2) The Detected Level indicates the 90<sup>th</sup> percentile value of the 30 samples taken. The number of sites greater than the Action Level was zero for Lead and Copper in 2016.

(3) Newport Water adds fluoride to its treated water as an aid in dental cavity prevention in young children.

(4) Some people who drink water containing TTHM's in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system and may have an increased risk of contracting cancer. Detected level is Stage 2 DBPR highest locational running annual average.

(5) Sampled and monitored at raw water supply reservoirs prior to treatment.

(6) The EPA requires us to report this contaminant which is on the Contaminant Candidate List 3.

(7) The detected level of 3.3% refers to the highest monthly percentage of positive total coliform samples detected during the year 2016. Newport Water Laboratory collected 657 samples for compliance monitoring.

Two samples were positive in July 2016 and one sample was positive in September 2016.

(8) Sampled and monitored at the entry points and distribution system. Chlorate is an unregulated by-product of drinking water disinfection.

### **Definitions and Key to Table**

**MCL - Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**MCLG - Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

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

**MRDLG - Maximum Residual Disinfectant Level Goal:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

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

RAA = Running Annual Average

NTU = Nephelometric Turbidity Units

ppm = parts per million, or milligrams per liter  
(mg/l)

ppb = parts per billion, or micrograms per liter  
(ug/l)

n/a = Not applicable

ND = No Detect

The data presented in this report is from the most recent testing done in accordance with regulations. The RI Department of Health (RIDOH) allows Newport Water to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

**Newport Water System Special Monitoring**

In 2016, Newport Water System monitored Station 1 and Lawton Valley Treatment Plants for two algae toxins at the raw water intake and total plant effluent. Samples were collected from July 2016 through November 2016. Twenty eight samples were collected and tested for *Microcystin* and *Cylindrospermopsin*. All tests were negative.

<b>Sample Site</b>	<b><i>Microcystin (ppb)</i></b>	<b><i>Cylindrospermopsin (ppb)</i></b>
Station 1 Intake	Not detected	Not detected
Station 1 TPE	Not detected	Not detected
Lawton Valley Intake	Not detected	Not detected
Lawton Valley Clearwell	Not detected	Not detected

**Newport Water System Special Monitoring by RIDEM**

In 2016, Newport Water surface water reservoirs were monitored by RIDEM for the following algae toxins; Microcystin, Cylindrospermopsin, Anatoxin, and Nodularin. Samples were collected from July 2016 through December 2016. The total number of samples tested was 33.

<b>Sample Site</b>	<b><i>Microcystin (ppb)</i></b>	<b><i>Cylindrospermopsin (ppb)</i></b>	<b><i>Anatoxin (ppb)</i></b>	<b><i>Nodularin (ppb)</i></b>
North Pond	ND	ND	ND	ND
South Pond	ND	ND	ND	ND
Lawton Valley	ND - 20	ND	ND	ND
St. Mary's Pond	ND	ND	ND	ND
Paradise Pond	ND - 1.0	ND	ND	ND
Gardiner's Pond	ND	ND	ND	ND
Sisson's Pond	ND	ND	ND	ND
Nonquit Pond	ND	ND	ND	ND
Watson Res.	ND - 5.3	ND	ND	ND

### Long Term 2 Enhanced Surface Water Treatment Rule

The EPA adopted the Long term 2 Enhanced Surface Water Treatment Rule on January 5, 2006 to control microbial contaminants. Newport Water System is required to monitor our source raw water for 24 months, beginning in October 2016, for *Cryptosporidium*, *Escherichia coli*, and turbidity. The data presented in this report represent the source water entering into Station #1 Treatment Plant and Lawton Valley Treatment Plant. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

The purpose of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) is to reduce illness linked to the contaminant *Cryptosporidium* and other pathogenic microorganisms. *Cryptosporidium* is a significant concern in drinking water because it contaminates most surface waters used as drinking water sources, it is resistant to chlorine and other disinfectants, and it has caused waterborne disease outbreaks in the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100% removal. Consuming water with *Cryptosporidium* may cause *cryptosporidiosis*, an abdominal infection with symptoms including nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease in a few weeks. However, immunocompromised people are at a greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Date	Source	Treatment Plant	Cryptosporidium oocysts/10 Liters	E. coli MPN/100 ml	Turbidity NTU
10/3/16	SOUTH	STATION 1	0	4.2	8.72
10/3/16	WATSON	LAWTON VALLEY	1	6.4	2.87
11/7/16	NORTH	STATION 1	1	4.1	9.67
11/7/16	WATSON	LAWTON VALLEY	0	1.0	1.95
12/5/16	SOUTH	STATION 1	0	6.2	8.40
12/5/16	LAWTON VALLEY	LAWTON VALLEY	0	2.0	3.86