

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 14,700 services, 170 miles of water main, 3,300 valves and 1,000 hydrants.

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CITY OF NEWPORT
WATER DIVISION
70 Halsey Street
Newport, RI 02840

City of Newport

Department of Utilities

Water Division



2012

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.

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, 2012. 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>SMCL</i>	<i>MCLG</i>	<i>Detected Level</i>	<i>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Total Coliform ⑦	2012	monthly % positive	5%		0.00%	1.75%	ND - 1.75%	Naturally present in environment	No
Turbidity ①	2012	NTU	TT		n/a	0.36	98.25%	Soil runoff	No
Total Organic Carbon	2012	removal ratio	TT		n/a	1.06	0.91 - 1.42	Naturally present in environment	No
<i>Radioactive 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>
Combined Radium ⑤	2008	pCi/l	5.0		0.0	2.0	ND - 2.00	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>Range</i>	<i>Major Sources</i>	<i>SDWA Violation</i>
Arsenic ⑤	2012	ppb	10.0		0.0	2.0	ND - 2.0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.	No
Barium ⑤	2011	ppm	2.0		2.0	0.010	0.003 - 0.010	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Copper ②	2010	ppm	AL=1.3		1.3	0.05	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	No
Fluoride ③	2012	ppm	4.0	2.0	4.0	1.25	0.06 - 1.25	Water additive which promotes strong teeth	No
Lead ②	2010	ppb	AL=15		0.0	5.0	0	Corrosion of household plumbing systems; erosion of natural deposits.	No
Nitrate ⑤	2012	ppm	10.0		10.0	1.37	ND - 1.37	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.	No
Nitrite ⑤	2012	ppm	1.0		1.0	0.03	ND - 0.03	Runoff from fertilizer use; leaching from septic tanks; sewage; 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>
Di(2-ethylhexyl)adipate ⑤	2012	ppb	6.0		0.0	1.0	ND - 1.0	Discharge from chemical factories	No
Simazine ⑤	2010	ppb	4.0		4.0	0.30	ND - 0.30	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	2012	ppb	80		n/a	80.78	30.30 - 151.00	By-product of drinking water chlorination	Yes
Haloacetic Acid 5	2012	ppb	60		n/a	27.04	8.50 - 40.20	By-product of drinking water chlorination	No
Chlorite	2012	ppm	1.0		0.800	0.770	0.170 - 0.940	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	2012	ppm	4.0		4.0	2.30	0.04 - 2.30 RAA = 0.94	Water additive used to control microbes	No
Chlorine Dioxide	2012	ppb	800		800	720	10 - 720	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	2012	ppm	n/a		n/a	49.50	25.00 - 49.50	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 ⑤⑥	2012	ppb	n/a		n/a	0.20	ND - 0.20	Used as an herbicide for weed control on agricultural crops	n/a

Water Quality Table Footnotes:

- ① 0.36 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 98.25%. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration.
- ② Detected level indicates the 90th percentile value of the 30 samples taken. The Range indicates the number of samples above the action level.
- 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 based on the highest four-quarter 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 1.75% refers to the highest monthly percentage of positive total coliform samples detected during the year. For 2012, Newport Water collected 651 samples for compliance monitoring. One sample was positive in February 2012.

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)
ppt	= parts per trillion, or nanograms per liter
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.

Source Water Assessments

In 2003, the University of Rhode Island, in cooperation with RIDOH and other state and federal agencies, assessed the threats to Newport Water'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 watersheds, and the sampling history of the water.

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.

Source Water Monitoring

In 2011, at the direction of the RIDOH and RIDEM, Newport Water began a two year source water monitoring program for the nine surface water reservoirs. The purpose of the monitoring is to improve how these water resources are monitored and managed. The data collected is being used to assess water quality of the reservoirs as it relates to both drinking water sources and aquatic life designated uses.

During 2012, the program included bi-weekly monitoring of the nine surface reservoirs during months when the water is typically warmest (May through October). The results of the 2012 monitoring indicate that:

- Blue-green algae, also referred to as cyanobacteria, were detected during monitoring in the ponds at different points of the year. Cyanobacteria have the potential to form the naturally occurring algal toxins, Microcystin and Anatoxin. These toxins were also monitored in the treated water and were never detected; and
- Each of the nine reservoirs exhibit elevated concentrations of phosphorous, algae, and bacteria.

Newport Water will be working with the state agencies and the communities in which the watersheds are located to identify land uses that may be contributing to the impairments. Through source water monitoring, identifying pollution impairments and the appropriate combination of treatment techniques, we can develop plans to mitigate sources of pollution and optimize finished water quality.

About Our Total Trihalomethane Violation

The Newport Water Division routinely tests at various sites within the distribution system for disinfectant by products (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water, including total trihalomethanes (TTHMs). The EPA standard for TTHMs is 80 parts per billion (ppb) for an annual running average. Compliance for TTHM is based on a running arithmetic average, computed quarterly, of quarterly averages of the eight samples that Newport Water analyzes. The results indicate that the Newport Water Division's four quarter average for the 3rd quarter of 2012 (October 1, 2011 to September 30, 2012) exceeded the standard with a level of 80.78 ppb. Many water systems treat water with a chemical disinfectant, such as chlorine, in order to inactivate pathogens that cause disease. While disinfectants are effective in controlling many harmful microorganisms, they react with organic and inorganic matter in the water to form DBPs, some of which pose health risks at certain levels. Some people who drink water-containing TTHMs 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 getting cancer. The public health benefits of chlorine disinfection practices are significant and well recognized. Consequently, one of the most complex questions facing water supply professionals is how to reduce risks from disinfectants and DBPs while providing increased protection against microbial contaminants.

Improvements to the Water Treatment Plants

On January 25, 2012 the City Council awarded a Design Build Contract valued at \$67 million for a new Lawton Valley Plant and improvements to the Station 1 Plant to AECOM/CH Nickerson Joint Venture. The final design and permitting was completed in 2012 such construction at both sites began in September 2012. The improvements at both sites include incorporating Advanced Water Treatment Processes to further assure future compliance with drinking water standards. Both plants are on schedule to be completed and fully operational by December 2014.

Newport Water Annual Water Quality Report

Newport Water is pleased to present this water quality report for 2012 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 2012. Included are details about where your water comes from, what it contains, and how it compares to EPA standards. In 2012, Newport Water conducted 10,318 analyses to monitor approximately 84 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 2012, our system violated the standard for Total Trihalomethanes in the 3rd quarter of 2012. A Public Notification was mailed to all our customers in August 2012. For further information, see inside this brochure. 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. Fogue, 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

Newport Department of Utilities
[www.cityofnewport.com/departments/utilities/
home.cfm](http://www.cityofnewport.com/departments/utilities/home.cfm)

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.

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 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 www.epa.gov/safewater/lead.

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.