

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 City's legal authority to own and operate the system is stated in the City Charter and was established through RIGL_46-13-12.1. The Newport Water Division (NWD) is a division within the City of Newport's Public Works Department and is responsible for the operation and maintenance of the system. The NWD operates as an enterprise fund and is independent of the overall City budget. The NWD 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 Pond, South 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 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 capacity of the plants is 13 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 the City of Newport, Town of Middletown and a portion of the Town 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 15,000 services, 166 miles of water main, 3,300 valves and 996 hydrants.

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

City of Newport

Department of Public Works

Water Division



2006

CONSUMER CONFIDENCE

REPORT



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

Newport Water Annual Water Quality Report

Newport Water is pleased to present this water quality report for 2006 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 last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to EPA standards. In 2006, Newport Water conducted 8800 analyses to monitor approximately 80 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 2006, our system had one violation for a contaminant above the allowable level. A Public Notification regarding the violation was mailed to all our customers October 27, 2006. For more information see inside this brochure. Please be advised that the employees of Newport Water are committed to providing you the safest and most reliable drinking water possible.

If you have any questions please contact:

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or visit us on the web at:
www.cityofnewport.com

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 limits on 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 Environmental Protection Agency'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 of 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

Most lead in the home comes from paint and non-water related exposure. Whatever lead is in the water comes from old fixtures, solders and antiquated piping.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. More information is available from the Safe Drinking Water Hotline (800-426-4791).

Additional information regarding drinking water regulations can be found on EPA's web site at www.epa.gov/safewater.

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, 2006. 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.

<u>Microbiological Contaminants</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Turbidity ①	2006	NTU	TT	n/a	0.51	96.47%	Soil runoff	No
Total Organic Carbon	2006	removal ratio	TT	n/a	1.20	0.68 - 1.66	Naturally present in environment	No
<u>Radioactive Contaminants</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Beta Photon Emitters *	2001	pCi/l	50	0	4.74	ND - 4.74	Decay of natural and man made products	No
Combined Radium *	2001	pCi/l	5	0	2.44	ND - 2.44	Erosion of natural deposits	No
<u>Inorganic Contaminants</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Copper ②	2004	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	2006	ppm	4	4	1.29	0.02 - 1.29	Water additive which promotes strong teeth	No
Lead ②	2004	ppb	AL=15	0	14	3	Corrosion of household plumbing systems; erosion of natural deposits.	No
Nitrate *	2006	ppm	10	10	1.48	0.33 - 1.48	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.	No
Cadmium *	2006	ppb	5	5	2.2	ND - 2.2	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.	No
Thallium	2006	ppb	2	0.5	0.9	ND - 0.9	Leaching from ore processing sites; discharge from electronics, glass, and drug factories. Naturally occurring metal that occurs ubiquitously in nature at low concentrations.	No
<u>Synthetic Organic Contaminants Including Pesticides and Herbicides</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Atrazine *	2006	ppb	3	3	0.11	ND - 0.11	Runoff from herebicide used on row crops.	No
Benzo(a)pyrene(PAH) *	2006	ppt	200	0	160	ND - 160	Leaching from linings of water storage tanks and distribution lines.	No
Simazine *	2006	ppb	4	4	0.14	ND - 0.14	Herbicide runoff	No
<u>Volatile Organic Contaminants</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Total Trihalomethanes (TTHM) ④	2006	ppb	80	n/a	81.97	41.90 - 113.80	By-product of drinking water chlorination	Yes
Haloacetic Acid 5	2006	ppb	60	n/a	23.64	10.50 - 43.00	By-product of drinking water chlorination	No
<u>Disinfection By-products</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Chlorite	2006	ppm	1	0.8	0.462	<0.05 - 0.652	By-product of drinking water disinfection	No
<u>Disinfectants</u>	<u>Period</u>	<u>Unit</u>	<u>MRDL</u>	<u>MRDLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Chlorine	2006	ppm	4	4	0.88	0.05 - 2.20	Water additive used to control microbes	No
Chlorine Dioxide	2006	ppb	800	800	690	10 - 690	Water additive used to control microbes	No
<u>Unregulated Contaminant Monitoring</u>	<u>Period</u>	<u>Unit</u>	<u>MCL</u>	<u>MCLG</u>	<u>Detected Level</u>	<u>Range</u>	<u>Major Sources</u>	<u>SDWA Violation</u>
Sodium	2006	ppm	n/a	n/a	39.9	16.50 - 39.90	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

Water Quality Table Footnotes:

① 0.51 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 96.47%.

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 Detected level is based on the highest four-quarter average.

* Sampled and monitored at raw water supply reservoirs prior to treatment.

Key to Table

AL	= Action Level
MCL	= Maximum Contaminant Level
MCLG	= Maximum Contaminant Level Goal
MRDL	= Maximum Residual Disinfectant Level
MRDLG	= Maximum Residual Disinfectant Level Goal
NTU	= Nephelometric Turbidity Units
pCi/L	= pico Curies 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)
ppt	= parts per trillion, or nanograms per liter
TT	= Treatment Technique
n/a	= Not applicable

Definitions

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water.

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.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers 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.

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

The University of Rhode Island, in cooperation with RI Department of Health and other state and federal agencies, has 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 results will be used to plan source protection efforts in the future.

Our monitoring program continues to assure that the water delivered to your home is safe and wholesome. However, the assessment found that our water sources on Aquidneck Island and in Little Compton and Tiverton are moderately susceptible to contamination. This average ranking for the entire system is based on land use and existing water quality. Because most land in source water areas is privately owned, the focus of the assessments has been on identifying threats from land use so local governments, residents and water suppliers can take action to protect valuable drinking water supplies. This means monitoring and protection efforts are especially important to assure continued water quality. The complete Source Water Assessment Report is available at our office or by calling the RI Department of Health, Office of Drinking Water Quality at (401) 222-6867. The assessments are also made available at the RI Department of Health and URI web site at www.healthri.gov or www.uri.edu/ce/wq/program/html/swap/reports.html.

Newport Water requests your help in protecting our drinking water supplies. Please do not litter on Water Division property. Also, please remember to pick up after dogs and dispose of in the proper receptacle.

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 of tests taken indicated that at the fourth quarter of 2006 Newport Water Division's four quarter average exceeded the standard. Newport Water Division's average level of TTHMs for the last four quarters (January 1, 2006 to December 31, 2006) was 81.96 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.

The NWD is proceeding with the engineering testing and design for improvements to the treatment processes at both water treatment plants. The improvements will address the regulatory requirements of the EPA's Stage 2 Disinfectants/Disinfection Byproduct Rule, primarily the levels of Total Trihalomethanes (TTHM). In addition, the current corrosion control for lead in the distribution system is being reviewed for optimization with any change in the treatment process. Any change to the treatment process is subject to review and approval by the RIDOH.