

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.

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

City of Newport

Department of Utilities

Water Division



2014

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 Annual Water Quality Report

Newport Water is pleased to present this water quality report for 2014 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 2014. Included are details about where your water comes from, what it contains, and how it compares to EPA standards. In 2014, Newport Water conducted 15,402 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. The table also includes detected levels of the 2014 Unregulated Contaminant Monitoring Rule 3 (UCMR3) contaminants. For the year 2014 the Newport System had no violations of the Safe Water Drinking Act standards. 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. 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

Newport Department of Utilities
www.cityofnewport.com/departments/utilities

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 at the Pell Elementary School, 35 Dexter St, 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.

2014 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, 2014. 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>SMCL</u> | <u>MCLG</u> | <u>Detected Level</u> | <u>Range</u> | <u>Major Sources</u> | <u>SDWA Violation</u> |
|---|---------------|---------------|-------------|-------------|--------------|-----------------------|----------------|---|-----------------------|
| Turbidity (1) | 2014 | NTU | TT | | n/a | 0.30 | 100% | Soil runoff | No |
| Total Organic Carbon | 2014 | removal ratio | TT | | n/a | 1.07 | 0.93 - 1.91 | Naturally present in environment | 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> |
| Arsenic (5) | 2014 | ppb | 10 | | 0 | 1 | ND - 1 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes. | No |
| Barium (5) | 2014 | ppm | 2.0 | | 2.0 | 0.010 | 0.004 - 0.010 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits | No |
| Chromium (5) | 2014 | ppb | 100 | | 100 | 1 | ND - 1 | Discharge from steel and pulp mills; Erosion of natural deposits | No |
| Copper (2) | 2013 | ppm | AL=1.3 | | 1.3 | 0.055 | 0 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. | No |
| Fluoride (3) | 2014 | ppm | 4.0 | 2.0 | 4.0 | 0.94 | 0.04 - 0.94 | Water additive which promotes strong teeth | No |
| Lead (2) | 2013 | ppb | AL=15 | | 0 | 6 | 0 | Corrosion of household plumbing systems; erosion of natural deposits. | No |
| Nitrite (5) | 2014 | ppm | 1 | | 1 | 0.02 | ND - 0.02 | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits. | No |
| Nitrate (5) | 2014 | ppm | 10 | | 10 | 0.58 | 0.06 - 0.58 | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits. | 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> |
| Alachlor (5) | 2014 | ppb | 2 | | 0 | 0.10 | ND - 0.10 | Runoff from herbicide used on row crops | No |
| Benzo(A)Pyrene (5) | 2014 | ppt | 200 | | 0 | 100 | ND - 100 | Leaching from linings of water storage tanks and distribution lines | No |
| Di(2-ethylhexyl)phthalate (5) | 2014 | ppb | 6 | | 0 | 2 | ND - 2 | Discharge from rubber and chemical factories | No |
| Simazine (5) | 2014 | ppb | 4 | | 4 | 0.10 | ND - 0.10 | Herbicide runoff | 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> |
| Total Trihalomethanes (TTHM) (4) | 2014 | ppb | 80 | | n/a | 72.0 | 19.4 - 127.7 | By-product of drinking water chlorination | No |
| Haloacetic Acids (HAA5) | 2014 | ppb | 60 | | n/a | 19.4 | 2.3 - 32.1 | By-product of drinking water chlorination | No |
| Chlorite | 2014 | ppm | 1.0 | | 0.800 | 0.603 | <0.010 - 0.970 | 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 | 2014 | ppm | 4.0 | | 4.0 | 1.98 RAA = 0.93 | 0.05 - 1.98 | Water additive used to control microbes | No |
| Chlorine Dioxide | 2014 | ppb | 800 | | 800 | 690 | ND - 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 | 2014 | ppm | n/a | | n/a | 61.6 | 24.7 - 61.6 | 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) | 2014 | ppb | n/a | | n/a | 0.20 | ND - 0.20 | Used as an herbicide for weed control on agricultural crops | n/a |
| <u>UCMR 3 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 chromium (7) | 2014 | ppb | n/a | | n/a | 0.29 | ND - 0.29 | Occurs naturally in the environment and is present in water from the erosion of chromium deposits found in rock and soil. | n/a |
| Strontium (7) | 2014 | ppb | n/a | | n/a | 80 | 52 - 80 | Strontium is a metal which occurs naturally in the environment | n/a |
| Vanadium (7) | 2014 | ppb | n/a | | n/a | 0.49 | ND - 0.49 | Vanadium is a metal that naturally occurs in many different minerals and in fossil fuels | n/a |
| Chlorate (7) | 2014 | ppb | n/a | | n/a | 650 | 98 - 650 | A by-product from the production of chlorine dioxide | n/a |
| Chromium-6 (Hexavalent chromium) (7) | 2014 | ppb | n/a | | n/a | 0.11 | ND - 0.11 | Occurs naturally in the environment and is present in water from the erosion of chromium deposits found in rock and soil. | n/a |

Water Quality Table Footnotes:

- (1) 0.30 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100%. 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 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 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) 2014 UCMR 3 Monitoring for unregulated contaminants at entry points (plant effluents) and distribution points. Newport was required to sample and analyze for Assessment List 1.

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.

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.

RIDOH Special Monitoring Project

In 2013, RIDOH selected Newport Water System to be part of a special monitoring project. Samples were collected in April, October and December 2013 and March 2014. The monitoring program included 8 surface reservoirs, 4 sites in the distribution system and 2 plant effluents. The parameters tested were 1,4-dioxane, hexavalent chromium and perchlorate. For 2014, all samples were negative. The sampling and analysis was performed by RIDOH.

RIDOH Voluntary Monitoring

The Rhode Island Department of Health selected the Newport Water Supply System to participate in a special monitoring project for cyanotoxins during the summer of 2014. Beginning in June 2014, four samples were collected weekly for the next 18 weeks, for a total of 72 samples. Each set included two raw water intakes and two plant effluents from Station #1 and Lawton Valley Treatment Plants. The following is a summary of the results:

| Parameter | Period | Unit | Detected Level | Range | Major Sources |
|--------------------|--------|------|----------------|----------|--|
| Total Microcystins | 2014 | ppb | 1.7 | ND - 1.7 | a class of toxins produced by certain freshwater cyanobacteria |

This parameter was only detected in the Watson Reservoir raw water on 7/23/2014 and 7/28/2014 prior to treatment. All other raw water samples and plant effluent samples were negative.

RIDEM Voluntary Monitoring

The Rhode Island Department of Environmental Management selected the Newport Water Supply system to participate in a special monitoring program analyzing our nine surface water reservoirs and sediment sampling for background copper data. These samples were taken the first week of May 2014. The Rhode Island Department of Health and ESS laboratory analyzed these samples. The following table is a summary of the total copper results:

| Parameter | Period | Unit | Detected Level | Range | Major Sources |
|--------------|--------|------|----------------|-------------------|---|
| Total copper | 2014 | ppm | 0.0254 | 0.000951 - 0.0254 | Copper is a naturally occurring metal in the aquatic environment and is released into the environment by algaeicides. |

Improvements to the Water Treatment Plants

On January 25, 2012 the Newport 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. Construction at both sites began September 2012. The improvements at both sites included incorporating Advanced Water Treatment processes to further assure future compliance with drinking water standards. The improvements to the Station 1 Plant and the construction of the new Lawton Valley Plant were completed in 2014. The new Station 1 Plant began distributing treated water into the City's distribution system in July 2014 and the new Lawton Valley Plant began operations in September 2014.