

DEPARTMENT OF THE NAVY  
ENVIRONMENTAL OFFICE  
1 SIMONPIETRI DRIVE  
NEWPORT, RI 02841  
FOR OFFICIAL BUSINESS



# NAVAL STATION NEWPORT DRINKING WATER CONSUMER CONFIDENCE REPORT

Water Quality Report for Calendar Year 2016

For our customers in the towns of Portsmouth, Middletown and Newport

Prepared by the Naval Station  
Newport Environmental Office

The preparation and distribution of this report to our customers is required by the United States Environmental Protection Agency (EPA). Naval Station (NAVSTA) Newport is committed to providing our customers with high quality drinking water. We work closely with the City of Newport's Water Division, which is our water supplier. We have also made investments in water monitoring facilities, water quality monitoring, and improvements to the distribution systems in order to deliver a quality product to our customers. We are pleased to report this information along with the results of our 2016 water quality testing directly to you, so **you will know about your drinking water first hand.**

## In this issue

- Your Drinking Water Source
- Facts About Your Water
- Source Water Assessment
- 2016 Water Quality Report
- Definitions & Notes
- Additional Health Information

## Your Drinking Water Source

Here are some simple facts you should know about the water you drink. Aquidneck Island contains seven fresh water ponds that serve as drinking water resources. These include Easton North Pond, Easton South Pond, Lawton Valley Reservoir, Gardiner Pond, Saint Mary's Pond, Paradise Pond and Sisson Pond. There are also two additional drinking water resources located off of Aquidneck Island: Nonquit Pond in Tiverton and Watson Reservoir in Little Compton. These ponds and reservoirs are interconnected through a complex network of pipelines and pumping stations. They are located in a basin area totaling 18.625 square miles or 11,920 acres of rural, forested and some developed land.

The Navy purchases tap water from the City of Newport and the Portsmouth Water and Fire District. The water is treated at either of Newport's two treatment plants before being distributed to Naval Station Newport and Fort Adams. A majority of the base receives water from the City of Newport's Lawton Valley Treatment Plant. The new Lawton Valley Treatment Plant, located in Portsmouth, came online September 17, 2014. The remaining portion of the water comes from the Station 1 Newport Treatment Plant in Newport. This plant is the primary supplier for Coasters Harbor Island, the Naval Health Clinic New England and the Fort Adams public water system. Station 1 was built in 1991 and upgraded in 2013-2014. The final upgrade to the Station 1 Treatment Plant went online the end of July 2014. The treatment plants have a combined capacity of 16 million gallons per day and service over 1,100 Navy connections through a distribution system of more than 62 miles of piping.

Naval Station Newport conducts daily, weekly, monthly, quarterly and annual testing to ensure you receive safe, high quality, drinking water. The Utilities Branch of Public Works is responsible for operating our water system. Operation and maintenance of the water distribution system includes routine flushing of the water lines and the management of 785 fire hydrants, 5 pump houses with several pumps and motors, and over 1500 distribution valves. In total, more than \$250,000 was spent on maintenance and water quality testing to ensure the safe and effective operation of the water system. The Navy also completed modeling of the water system and used this information to develop a 5 Phase Rehabilitation Plan. The plan consists of capital improvements to our water distribution system with construction beginning in 2015 and extending through 2019. Phases 1 and 2 have already been completed, which included replacement of waterlines at Defense Highway and Naval Undersea Warfare Center (NUWC). Phase 3 is currently underway which includes the replacement of waterlines at Fort Adams, Coddington Cove, and Coasters Harbor Island. Future phases will include improvements to Coddington Point and several housing areas.

## Facts About Your Water

Drinking water, including bottled water, may be reasonably expected to contain at least some small amounts of certain substances, which the EPA calls "contaminants." The presence of these substances does not necessarily indicate that the water poses a health risk. More information about the substances found in your water and their potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

Additionally, the NAVSTA Water Program Manager, can be reached at (401) 841-6376 or by email at [pamela.crump@navy.mil](mailto:pamela.crump@navy.mil) to answer any questions. This 2016 report as well as previous annual reports can be found online at

## Source Water Assessment

The University of Rhode Island (URI), in cooperation with the Rhode Island Department of Health (RIDOH) and other state and federal agencies, has assessed the threats to water supply sources. The assessment considered the intensity of development; the presence of businesses that use, store or generate potential contaminants; how easily contaminants may move through the water-sheds; and the sampling history of the water. The assessment results are being used to plan source protection efforts in the future.

The assessment found the water sources on Aquidneck Island, Little Compton and Tiverton are moderately susceptible to contamination. The average ranking for the entire system is based on land use and existing water quality. Because most land in source water areas are 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 from the Newport Water Division or by calling the Rhode Island Department of Health, Office of Drinking Water Quality at (401) 222-6867.

# 2016 Water Quality Report

This table shows the results of the combined water quality analyses for both Naval Station Newport and Fort Adams for the period January 1, 2016 to December 31, 2016. Not all substances were detected in every system or required to be tested in every system.

Substance	Highest Allowed by Law (MCL)	Ideal Goals (MCLG)	Highest Levels		SDWA Violation	Detected Range	Major Sources in Drinking Water
			Naval Station Newport	Fort Adams			
<b>Inorganic Compounds</b>							
Copper (ppm) (a)	AL=1.3	1.3	0.12	0.04	No	n/a	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb) (a)	AL = 15	0	10	2	No	n/a	Corrosion of household plumbing systems; Erosion of natural deposits.
<b>Disinfectants (MRDL) (MRDLG)</b>							
Chlorine (ppm)	4	4	1.76		No	0.07-1.76	Water additive used to control microbes.
Chlorine (ppm)	4	4		0.75	No	0.08-0.75	Water additive used to control microbes.
<b>Disinfection Byproducts (MCL) (MCLG)</b>							
Total Trihalomethanes (ppb)	80	N/A	100.2 (b)		No	32.4-100.2	By-product of drinking water chlorination.
Total Trihalomethanes (ppb)	80	N/A		103.8 (b)	No	36.3-103.8	By-product of drinking water chlorination.
Haloacetic Acids (ppb)	60	N/A	23.5		No	6.9-23.5	By-product of drinking water chlorination.
Haloacetic Acids (ppb)	60	N/A		14.7	No	9.4-14.7	By-product of drinking water chlorination.
<b>Microbiology (MCL) (MCLG)</b>							
Total Coliform Bacteria (% of positive samples)	5%	0%	4.26%	20% (c)	No	n/a	Naturally present in the environment

## Definitions & Notes

**MCLG (Maximum Contaminant Level Goal)** 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.

**MCL (Maximum Contaminant Level)** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal)** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

**ppm (parts per million)** equivalent of 1 penny in \$10,000 or 1 milligram per liter (mg/L)

**ppb (parts per billion)** equivalent of 1 penny in \$10,000,000 or 1 microgram per liter (ug/L)

**AL (Action Level)** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**n/a** Not applicable

(a) Detected level indicates the 90th percentile value of 23 samples at Naval Station Newport and 7 samples at Fort Adams. No sites exceeded the lead or copper action level at Fort Adams. Two sites exceeded the lead action level at Naval Station Newport; no sites exceeded the copper action level at Naval Station Newport.

(b) Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Note that although the highest levels exceeded the MCL (80 ppb), compliance is determined using the locational running annual average (LRAA) and operational evaluation level (OEL) which were both below the MCL.

(c) In July 2016, one out of two samples was positive for total coliform. Therefore, three additional samples were collected in July as required and further sampling was conducted in August. All follow-up samples showed total coliform to be absent.

Consumers may review the City of Newport's Consumer Confidence Report on the web at:

<http://www.cityofnewport.com/ccr16>

Consumers may review the Portsmouth Water and Fire District's Consumer Confidence Report on the web at:

<https://portsmouthwater.files.wordpress.com/2017/04/consumer-confidence-report-2016.pdf>



## Additional Health Information

The sources of drinking water, both tap and bottled, 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Other contaminants, including volatile organic chemicals, which are by-products of industrial processes, can come from gas stations or urban storm water runoff. We have included the health effects information for any contaminant near the Maximum Contaminant Levels (MCL) and any unusual contaminants.

Contaminants that may be present in the source water include:

- 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 storm water 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 storm water runoff and septic systems.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order 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 supply systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Lead:** 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. Naval Station Newport 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 two 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](http://www.epa.gov/safewater/lead).

**Total Trihalomethanes:** Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

**General Health Effects Note:** 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/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 / Center for Disease Control 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).

**Treatment Note:** Customers of Newport Water, which includes all Navy customers, may at times receive water with a yellow to brown color. This is occasionally due to the level of naturally occurring mineral "manganese" in the reservoirs and ponds. This mineral does not respond to treatment. The EPA has established secondary drinking water regulations for contaminants such as manganese which are recommended goals. These contaminants primarily affect aesthetic qualities (taste, color, and odor) of drinking water. Newport Water balances the treatment processes to meet both the enforceable levels of the primary drinking water regulations with the goals of the secondary drinking water regulations. Newport Water and the Navy regret the inconvenience of the discolored water and we work diligently to avoid these situations.