

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 2018

For our customers located in Newport, Middletown and Portsmouth



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 2018 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
- 2018 Water Quality Report
- Definitions & Notes
- Additional Health Information
- Water System Locations

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.¹ 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 Lawton Valley Treatment Plant, located in Portsmouth, began operation in September 2014. The remaining portion of the water comes from the Station 1 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 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 800 fire hydrants, 5 pump houses with several pumps and motors, and over 1600 distribution valves. In total, more than \$250,000 was spent in 2018 on maintenance and water quality testing to ensure the safe and effective operation of the water system. The Navy developed a comprehensive rehabilitation plan consisting of capital improvements to our water distribution system with construction beginning in 2015. Completed phases consist of replacement of water lines at Defense Highway, Melville, Coddington Cove, Naval Undersea Warfare Center (NUWC), Coddington Point, Coasters Harbor Island, Greene Lane and Fort Adams. Future work will include additional improvements to Greene Lane Housing and Coddington Point.

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 to answer any questions. This 2018 report as well as previous annual reports and other information can be found online at

http://www.cnic.navy.mil/regions/cnrma/installations/ns_newport/om/environmental_support/drinking_water.html

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.

Consumers may review the City of Newport's Consumer Confidence Report on the web at <http://www.cityofnewport.com/ccr18>

Consumers may review the Portsmouth Water and Fire District Consumer Confidence Report at <https://portsmouthwater.org/reports/>

¹ The Portsmouth Water and Fire District also provides tap water to the Navy as needed for emergency events or as a back-up water source.

2018 Water Quality Report

This table shows the results of the combined water quality analyses for Naval Station Newport, Fort Adams, the City of Newport and the Portsmouth Water and Fire District's Public Water Systems for the period January 1, 2018 to December 31, 2018. Not all substances were detected in every system or required to be tested in every system.

Substance	Highest Allowed by Law	Ideal Goals	Detected Levels				SDWA Violation	Detected Range	Major Sources in Drinking Water
			Naval Station Newport	Fort Adams	City of Newport	Portsmouth Water and Fire District			
Inorganic Compounds	MCL	MCLG							
Arsenic (ppb) (1)	10	0	NS	NS	2.0	NS	No	ND - 2.0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm) (1)	2.0	2.0	NS	NS	0.012	NS	No	0.007-0.012	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm) (2)	AL = 1.3	1.3	0.13	0.06	0.05	0.048	No	n/a	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Fluoride (ppm) (3)	4.0	4.0	NS	NS	1.05	NS	No	0.04-1.05	Water additive which promotes strong teeth
Lead (ppb) (2)	AL = 15	0	14.2	1.0	8.3	11.3	No	n/a	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (ppm) (1)	10	10	NS	NS	1.00	NS	No	0.16-1.00	Runoff from fertilizer use: leaching from septic tanks; sewage; erosion of natural deposits
Disinfectants	MRDL	MRDLG							
Chlorine (ppm) (4)	4	4	0.86	0.38	0.92	1.22	No	0.02-2.14	Water additive used to control microbes.
Chlorine dioxide (ppb)	800	800	NS	NS	600	NS	No	10-600	Water additive to control microbes
Disinfection Byproducts	MCL	MCLG							
Total Trihalomethanes (ppb) (5)	80	N/A	54.3	66.1	71.0	62.7	No	6.9-97.6	By-product of drinking water chlorination.
Haloacetic Acids (ppb)	60	N/A	15.4	15.8	16.6	21.9	No	7.8-37.9	By-product of drinking water chlorination.
Chlorite (ppm)	1.0	0.800	NS	NS	0.121	NS	No	<0.010-0.200	By-product of drinking water disinfection
Microbiology	MCL	MCLG							
Total Coliform Bacteria (% of positive samples)	5%	0%	0%	0%	0%	0%	No	n/a	Naturally present in the environment
Turbidity (NTU) (6)	TT	n/a	NS	NS	0.39	NS	No	n/a	Soil runoff
Turbidity (lowest monthly % of samples meeting limit) (6)	TT	n/a	NS	NS	99.73%	NS	No	n/a	Soil runoff
Total Organic Carbon (removal ratio)	TT	n/a	NS	NS	1.37	NS	No	1.20-1.86	Naturally present in environment
Synthetic Organic Contaminants Including Pesticides and Herbicides	MCL	MCLG							
Benzo(a)pyrene (ppt) (1)	200	0	NS	NS	200	NS	No	ND-200	Coal tar and wood burning
Di(2-ethylhexyl)phthalate (ppb) (1)	6	0	NS	NS	2.0	NS	No	ND-2.0	Discharge from rubber and chemical factories
Unregulated Contaminants	MCL	MCLG							
Sodium (ppm)	n/a	n/a	NS	NS	64.5	NS	No	23.4-64.5	Naturally occurring; road runoff; contained in water treatment chemicals
Metolachlor (ppb) (1) (7)	n/a	n/a	NS	NS	0.20	NS	n/a	ND-0.20	Used as an herbicide for weed control on agricultural crops
Chlorate (ppb)	n/a	n/a	330	330	400	150	n/a	93-400	By-product of drinking water chlorination

Definitions & Notes

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.

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.

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.

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.

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

TT (Treatment Technique) A required process intended to reduce the level of a contaminant in drinking water.

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)

ppt (parts per trillion) equivalent to 1 penny in \$10,000,000,000 or 1 nanogram per liter (ng/L)

NTU Nephelometric Turbidity Units

n/a Not applicable **NS** Not sampled **ND** No detect

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

(2) Detected level indicates the 90th percentile value of 42 samples at Naval Station Newport, 6 samples at Fort Adams, 30 samples for the City of Newport and 33 samples for the Portsmouth Water and Fire District.

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

(4) Detected level is the running annual average (RAA).

(5) 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. Detected level indicates the Stage 2 Disinfection Byproducts Rule (DBPR) highest locational running annual average (LRAA).

(6) 0.39 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 99.73%.

(7) The EPA requires reporting of this contaminant which is on the Contaminant Candidate List 4.

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 (800-426-4791) or at www.epa.gov/safewater/lead.

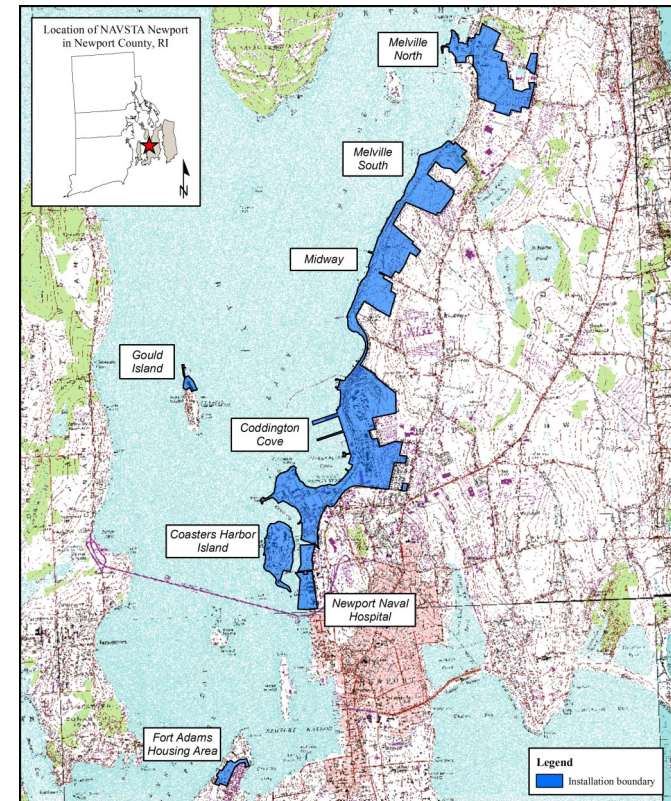
Total Trihalomethanes: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

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.

Water System Locations: NAVSTA Newport and Fort Adams



The Naval Station Newport Public Water System (PWS No. 1000016) includes the following areas: Melville North, Melville South, Midway (Greene Lane area), Coddington Cove (including NUWC), Coddington Point, Coasters Harbor Island and Naval Health Clinic New England. Naval Station Newport also operates a small water system at Fort Adams (PWS No. 1900046) which provides drinking water to the Fort Adams Housing Area and State Park.

PUBLIC NOTICE
IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Elevated Fluoride Levels Detected
PWS# 1000016
NAVAL STATION NEWPORT

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by our drinking water supplier, the City of Newport, had a fluoride concentration exceeding 2.0 mg/l on May 4, 2019, between 4 pm and 6:30 pm. The maximum fluoride level during this time period reached 2.16 mg/l. The elevated fluoride levels occurred in drinking water provided by the City of Newport's Station 1 Water Treatment Plant, which is the primary source for Coasters Harbor Island, Naval Health Clinic New England, and the Fort Adams public water system.

Dental fluorosis in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem. Water supplied to Naval Station Newport from the Lawton Valley Water Treatment Plant was not affected by elevated fluoride levels.

What Should I Do?

There are no actions you need to take at this time. You do not need to use an alternative (i.e. bottled) water supply. You do not need to boil your water or take other corrective action.

What is Being Done?

Corrective actions were immediately implemented at the Station 1 Water Treatment Plant on May 4, 2019 to bring the fluoride levels below 2.0 mg/l. Increased distribution monitoring began at the onset of this event and continued until the entire system returned to the EPA recommended fluoride standard of 0.7 mg/l. Additionally, the City of Newport is reviewing all Standard Operating Procedures (SOP) for the application of all chemicals, including but not limited to fluoride, with all plant staff.

For more information, please call Pamela Crump of Naval Station Newport Environmental at (401) 841-6376. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Date distributed: June 27, 2019

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UNITED STATES NAVY – FORT ADAMS

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