



NAVAL SUBMARINE BASE NEW LONDON 2013 CONSUMER CONFIDENCE REPORT (2013 Water Quality Data)

Where does my water come from?

Naval Submarine Base (SUBASE) New London purchases water from the City of Groton, Groton Utilities. (See <http://www.grotonutilities.com>.) Groton Utilities' water is supplied by surface water from a series of five reservoirs covering a watershed of 15.6 square miles and includes three deep wells. Four reservoirs (Morgan, Ledyard, Poheganut, and Smith Lake) flow into the Groton Utilities terminal reservoir, Poquonnock Reservoir. Groton Utilities pumps water from Poquonnock Reservoir to the water treatment plant, using the other four reservoirs to maintain an appropriate level in Poquonnock Reservoir. When full, all five reservoirs have a combined capacity of approximately 2.5 billion gallons. Because Groton Utilities treats almost 4 billion gallons of water per year, its reservoirs turn over twice annually. Groton Utilities has an excess capacity of over 4 million gallons per day. Groton Utilities takes its job of stewardship very seriously, and, to that end, it has a spill response trailer and a trained team that responds to any threat of contamination that could impact its watershed.

Is my water safe?

SUBASE New London works with Groton Utilities to ensure that your tap water meets all U.S. Environmental Protection Agency (USEPA) and State of Connecticut Department of Public Health (CTDPH) drinking water health standards.

The Groton Utilities 2013 Consumer Confidence Report may be viewed on-line at:

<http://www.grotonutilities.com/documents/water/2013.pdf>

Groton Utilities conducts tests at SUBASE New London to screen for bacteriological and physical characteristics of the drinking water. At specific locations, the water is also tested for certain byproducts that result from disinfecting the water, such as Total Trihalomethanes (TTHM) and haloacetic acids. The Groton Utilities water quality sampling data has been used to report the quality of the drinking water at SUBASE New London. Groton Utilities uses its own certified lab to test its water for most test parameters but uses an independent certified lab for other specific parameters.

The SUBASE New London Public Works Environmental Division is committed to providing consumers with up-to-date information to ensure that all consumers can make informed decisions with regard to drinking water use. A summary of the results of the water testing done by Groton Utilities at SUBASE New London is provided in the table that follows.

Why are there contaminants in my drinking water?

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in 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 residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which occur naturally or as the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All 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 effects can be obtained by calling the **USEPA Safe Drinking Water Hotline (800-426-4791)**.



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At SUBASE New London, contaminants would most likely come from corrosion of piping (mostly inside buildings) as the water makes its way from the Groton Utilities treatment plant to our taps. Although tests show that most areas on base are within USEPA action levels for lead and copper, some areas show more susceptibility to lead and copper contamination. For this reason, SUBASE has taken steps to improve the plumbing systems in those buildings (either by replacing piping or flushing water lines).

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Fetuses, infants, and young children are typically more vulnerable to lead in drinking water than the general population. Immuno-compromised persons (such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, and persons with HIV/AIDS or other immune system disorders), and some elderly persons can be particularly at risk for adverse health effects. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control (CDC) guidelines are available from the **USEPA Safe Drinking Water Hotline (800-426-4791)** regarding appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants.

Important information on lead in drinking water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is caused primarily by materials and components associated with service lines and home plumbing. Groton Utilities 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 **USEPA Safe Drinking Water Hotline (800-426-4791)** or at: <http://www.epa.gov/safewater/lead>.

How can I get involved?

For information regarding the drinking water available to Navy Housing, please call **Balfour Betty Military Housing, at 860-446-5938 or 860-446-5913**. For information regarding drinking water analysis or drinking water sampling results, please call **Rich Massad**, at the SUBASE New London Public Works Environmental Division (**860-694-5140**).

Water Source Assessment

In 2003, the CTDPH performed an assessment of Groton Utilities drinking water sources. The assessment found that Groton Utilities drinking water sources have a low susceptibility to potential sources of contamination. The completed assessment report can be accessed at:

<http://www.dir.ct.gov/dph/Water/SWAP/Community/CT0590011.pdf>

Additional source water assessment information can be obtained from USEPA at:

<http://www.epa.gov/safewater/drinklink.html>.

Flushing of SUBASE New London Water System

The SUBASE New London Public Works Utilities Division flushes hydrants on lower base annually and a contractor flushes hydrants on upper base and in the housing areas every other year. Flushing is generally done in the spring and summer. Flushing prevents the build-up of rust and sediment in the water distribution system. If you notice any discoloration in the water after flushing has occurred, simply run your faucets until the water runs clear. For questions or concerns that arise during the hydrant flushing season, please call the **NAVFAC MIDLANT Service Center, Facilities Work Reception, at 866-477-7206, Option 1**.

Major Changes to SUBASE New London Water System

The SUBASE New London Public Works Utilities Division continued to perform work on the SUBASE New London water distribution system, as part of an overall maintenance and repair program. Some additions, deletions, and modifications to the water piping system took place in **2013**, most related to ongoing facility renovation projects on base. The most notable change was the installation of a new water main, on base, in conjunction with the construction of the new Commissary.



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Testing Performed by Groton Utilities: Procedures and Results

<i>Parameter</i>	<i>Major Source</i>	<i>Range</i>	<i>Highest Detected Level</i>	<i>MCL</i>	<i>MCLG</i>	<i>Units</i>	<i>Violation</i>
Chlorine Residual, Free	Added to control microbes	0.13 - 1.54	1.54	N/A	N/A	mg/L	No
Total Coliforms	Naturally present in the environment	Absent	Absent	>0	0	col/100 mL	No
E. Coli	Naturally present in the environment	Absent	Absent	>0	0	N/A	No
Color	N/A	0 -20	20*	15	N/A	Color Units	YES*
Odor	N/A	0 - 1	2	2	N/A	TON	No
pH	N/A	7.2 - 9.7	9.7	10	N/A	pH units	No
Turbidity	Soil runoff and pipe sedimentation	0.10 - 0.89	0.89	5	N/A	NTU	No
Monochloroacetic Acid	By-product of water disinfection	0.0007 - 0.0009	0.0009	N/A	N/A	mg/L	No
Dichloroacetic Acid	By-product of water disinfection	0.0089 - 0.0134	0.0134	N/A	N/A	mg/L	No
Trichloroacetic Acid	By-product of water disinfection	0.0063 - 0.0146	0.0146	N/A	N/A	mg/L	No
Monobromoacetic Acid	By-product of water disinfection	<0.0005 - <0.0005	<0.0005	N/A	N/A	mg/L	No
Dibromoacetic Acid	By-product of water disinfection	0.0005 - 0.0015	0.0015	N/A	N/A	mg/L	No
Total Haloacetic Acid	By-product of water disinfection	0.0181 - 0.0294	0.0294	N/A	N/A	mg/L	No
Bromodichloro-methane	By-product of water disinfection	0.0097 - 0.0150	0.0150	N/A	N/A	mg/L	No
Bromoform	By-product of water disinfection	<0.0005 - 0.0008	0.0008	N/A	N/A	mg/L	No
Chlorodibromo-methane	By-product of water disinfection	0.0028 - 0.0075	0.0075	N/A	N/A	mg/L	No
Chloroform	By-product of water disinfection	0.0315 - 0.0398	0.0398	N/A	N/A	mg/L	No
Total Trihalomethane	By-product of water disinfection	0.0440 - 0.0631	0.0631	N/A	N/A	mg/L	No

*Sample taken at B-164 Dealey Center in the summer time and believed to have been influenced by problems reported at the Groton Utilities Water Treatment Plant which caused discoloration in the water throughout their system. As Groton Utilities made adjustments at their plant, discoloration ceased over time.

Key to Abbreviations:
col/100mL = coliforms per 100 milliliters
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
mg/L = milligrams per liter
N/A = Not Applicable
ND = Not Detected
NTU = Nephelometric Turbidity Units
TON - Threshold Odor Number
< = less than
> = greater than



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Site-Specific Water Testing Range of Results

<i>Parameter</i>	<i>Test Result for New Commissary Water Main (1/23/2013)</i>	<i>Test Result for New Commissary Water Main. (2/21/2013)</i>	<i>Units</i>
BACTERIA:			
Coliform (total)	Absent	Absent	col/100mL
E. Coli (fecal)	Absent	Absent	N/A
PHYSICAL PARAMETERS:			
Residual Chlorine	<0.05	<0.05	ppm
pH	7.3	7.4	SU
Turbidity	0.2	0.3	NTU
Color	5	6	Color Units
Odor	2	1	TON
CHEMICALS:			
Chloride	29.0	30.0	mg/L
Nitrite Nitrogen	<0.01	<0.01	mg/L
Nitrate Nitrogen	0.3	0.4	mg/L
Sulfate	12	12	mg/L
Hardness	38	36	mg/L
Sodium	11.5	14	mg/L
Iron	<0.01	0.08	mg/L
Manganese	<0.01	<0.01	mg/L

Note: This results table (above) is for samples taken after installation of a new water line, installed in conjunction with the construction of the new Commissary on-base.

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Site-Specific Water Testing Range of Results

<i>Parameter</i>	<i>Test Results for B-429 Navy Gateway Inn & Suites Bathroom (10/30/2013)</i>	<i>Test Result for B-429 Navy Gateway Inn & Suites Room 202 West Wing (10/30/2013)</i>	<i>Test Result for B-429 Navy Gateway Inn & Suites Chief's Mess East Wing (10/30/2013)</i>	<i>Units</i>
BACTERIA:				
Coliform (total)	Absent	Absent	Absent	col/100mL
E. Coli (fecal)	Absent	Absent	Absent	N/A
PHYSICAL PARAMETERS:				
Residual Chlorine (Free)	0.89	0.70	0.33	mg/L
pH	8.3	8.5	8.5	SU
Turbidity	0.46	0.50	0.52	NTU
Color	6	2	1	Color Units
Odor	1	1	0	TON

Note: This results table (above) is for samples taken as part of an investigation of the drinking water quality at B-429 (Navy Gateway Inn and Suites), on base, done in conjunction with Groton Utilities.

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<i>Parameter</i>	<i>Test Results for Navy Housing 71 Georgia St. (10/15/2013)</i>	<i>Test Result for Navy Housing 1 Shark Blvd. (10/29/2013)</i>	<i>Units</i>
BACTERIA:			
Coliform (total)	Absent	Absent	col/100mL
PHYSICAL PARAMETERS:			
Residual Chlorine (Free)	1.40	0.12	mg/L
pH	7.4	7.6	SU
Turbidity	0.14	0.08	NTU
Color	0	3	Color Units
Odor	0	0	TON

Note: This results table (above) is for samples taken in Navy Housing (Trident Park and on base) done in conjunction with Groton Utilities and in response to questions from housing residents.

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col/100mL = coliforms per 100 milliliters
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
mg/L = milligrams per liter
N/A = Not Applicable
ND = Not Detected
NTU = Nephelometric Turbidity Units
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Priority Area Sampling – In accordance with the Chief of Naval Operations' policy regarding the sampling and testing of lead in drinking water in priority areas (identified as primary and secondary schools, Child Development Centers {CDCs}, Navy-operated 24/7 Group Homes, and youth centers), an extensive sampling initiative was conducted, at the off-base CDC, in October and November of 2013. After sampling over 80 kitchen, classroom, and bathroom sinks; water coolers; and exterior hose bibs at the CDC complex, only four of the sample sites showed lead levels above the EPA standard. All of these sites were located at the oldest wing of the CDC complex, and immediate corrective action was taken at these sites to ensure continued compliance the EPA standards. The sampling initiative was conducted in complete coordination with CDC staff and environmental, medical, public affairs, and facilities management personnel at SUBASENLON. All results and corrective actions were presented to the parents of the children using the CDC facility, by the SUBASENLON Commanding Officer, in accordance with the CNO policy. Priority area sampling at SUBASENLON is expected to continue in 2014, with attention shifting to the off-base Youth Center. Further information on the sampling performed at the CDC in 2013 or for sample results, please contact Rich Massad at the SUBASE New London Public Works Environmental Division at (860)694-5140.