



NAVAL SUBMARINE BASE NEW LONDON, CONNECTICUT (SUBASENLON, CT)



TO
YOUR
HEALTH

WATER QUALITY REPORT – YEAR 2023

MESSAGE

COMMANDING OFFICER

Naval Submarine Base New London (SUBASENLON)



This SUBASENLON Consumer Confidence Report (CCR) is a snapshot of the quality of your drinking water in 2023. The purpose of this annual report is to advise consumers of where their water comes from, provide water quality data, and provide greater understanding of drinking water that is delivered to SUBASENLON residents and staff.

Dear SUBASENLON drinking water consumers,

SUBASE is committed to being a proponent of safe and healthy drinking water; a good steward of the environment; and a dedicated administrator of the water system and services that maintain and serve public health and provide fire protection. The men and women of the SUBASE Public Works Department (PWD) Utilities Branch and Environmental Division take great pride in delivering safe, seamless, and satisfying water services, so you can focus on your family, work, and community. Our Environmental Division staff lead our efforts overseeing the delivery of clean water to the personnel, residents, and guests of the Main Base and all associated public-private venture housing areas. They also ensure water quality meets all federal, state, Navy regulatory requirements. Skilled scientists at state-certified contract laboratories support them in maintaining this level of excellence. Please know, if there ever is an issue with your water, we will ensure you are made fully aware of the situation and of any actions you could take to mitigate any concerns. I have confidence in our team and those who support them, and I have confidence in our water. We never take for granted the importance of what we do, and we thank you for the opportunity to help provide the one essential that we cannot live without.

Sincerely,
Captain Kenneth M. Curtin Jr.
Commanding Officer



Important **HEALTH** Information from the United States Environmental Protection Agency (EPA)

Drinking water, including bottled water, may contain small amounts of some contaminants; however, this doesn't necessarily mean the water poses a health risk.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons (e.g., persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with human immunodeficiency virus/acquired immunodeficiency syndrome or other immune system disorders, some elderly, infants) can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. US Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia*, and other microbial contaminants are available from the [EPA's Safe Drinking Water Hotline at \(800\) 426-4791](https://www.epa.gov/ground-water-and-drinking-water) or at <https://www.epa.gov/ground-water-and-drinking-water>.

LEARN MORE ABOUT YOUR DRINKING WATER



For information regarding **DRINKING WATER** analysis or **DRINKING WATER** sampling results, please contact Richard Massad, SUBASENLON PWD Environmental Division Drinking Water Program Manager at (860) 694-5140 or richard.a.massad.civ@us.navy.mil.



For information regarding the **DRINKING WATER** provided to Beacon Point Homes, please contact their management office at (860) 446-5913 or maintenance team at (860) 446-5934.



For information regarding **DRINKING WATER** source and/or treatment, please contact Groton Utilities (GU) at (860) 446-4000 or visit <https://grotonutilities.com/195/Water-Operations>.



DOES MY DRINKING WATER MEET STANDARDS? SUBASENLON water systems are tested to assess for compliance with standards regarding bacteriological contaminants, disinfectant levels, disinfection byproducts, and metals. Test results for 2023 are inconclusive regarding compliance with these standards. Please refer to the water quality monitoring tables provided toward the end of this report for details.

WHAT TESTING HAS BEEN DONE ON MY DRINKING WATER? SUBASENLON works with GU to ensure that your tap water meets all EPA and CT Department of Public Health (CTDPH) drinking water health standards. The GU 2023 CCR is available online at <https://grotonutilities.com/195/Water-Operations>. The GU report and this Navy report show the results of testing performed at the GU water treatment plant (WTP) and in the SUBASENLON distribution system. The SUBASENLON PWD Environmental Division is committed to providing drinking water consumers with up-to-date information to ensure that all can make informed decisions regarding **DRINKING WATER** use.



EPA-REQUIRED INFORMATIONAL COMPONENTS

SUBASENLON WATER SYSTEM

Water is conveyed to the Main Base and most of the SUBASENLON housing areas (Nautilus Park, Conning Towers, Trident Park, and Polaris Park) by Navy-owned distribution system lines that receive water from the GU system. The SUBASENLON PWD Utilities Branch continues to perform work on the SUBASENLON distribution system as part of an overall maintenance and repair program. There were no major physical changes to the system in 2023.

WHERE MY WATER COMES FROM

SUBASENLON purchases water from GU. The GU water source is surface water from a series of five interconnected reservoirs covering a watershed of 15.6 square miles. Four reservoirs (Morgan Pond, Ledyard, Poheganut, and Smith Lake) flow into the GU terminal reservoir, Poquonnock. GU pumps water from the Poquonnock Reservoir to its WTP while the other four reservoirs are used to maintain an appropriate water level in the Poquonnock Reservoir. GU also has three deep wells that are used to supplement these reservoirs. GU takes its job of stewardship very seriously and, to that end, has a spill response trailer and a trained team that responds to any threat of contamination that could impact its watershed. GU constructed a new WTP, which was put in service in November 2020. The plant is designed to remove contaminants from the source water in the reservoirs via coagulation, flocculation, dissolved air flotation, filtration through deep-bed granular activated carbon filter media. Manganese contactors were added as one last stage of treatment in 2022. GU also treats the water entering its distribution system via caustic soda and phosphate (inhibit corrosion of plumbing), chlorine (disinfection), and fluoride (reduce the formation of cavities as required by CTDPH regulations).



WATER SOURCE ASSESSMENT



GROTON UTILITIES

The CTDPH performed a one-time assessment of the GU water source reservoir system in 2003. This assessment found that the GU system has a low overall susceptibility to potential sources of contamination. The complete assessment report can be accessed at:

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

Additional source water assessment information can be obtained from the following websites:

<https://www.epa.gov/sourcewaterprotection>
<https://portal.ct.gov/dph/drinking-water/dws/source-water-assessment-and-protection>
<https://grotonutilities.com/205/Water-Source-Protection-Measures>

All CCRs/water quality assessment reports are available for public review on the Commander, Navy Region Mid-Atlantic (<https://cnrma.cnrc.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/>) and GU (<https://grotonutilities.com/195/Water-Operations>) websites.

EPA INFORMATION ON LEAD IN DRINKING WATER

Infants and children who drink water containing lead in excess of the action level (AL) could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. **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. GU is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When water has been sitting for several hours, the potential for lead exposure can be minimized by flushing the tap for 30 to 60 seconds and placing a hand into the running water until feeling a change in water temperature before using that 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 **EPA's Safe Drinking Water Hotline at (800) 426-4791** or at the following website:



<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>



EPA INFORMATION ON **COPPER** IN DRINKING WATER

Copper is an essential nutrient, but some people who drink water containing copper in excess of the AL over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the AL over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor to determine if copper levels in drinking water could present a health risk.

ARE THERE ANY CONTAMINANTS IN MY DRINKING WATER SOURCE?

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 human activity. The following contaminants **may be present** in source water:



Microbial Contaminants	Examples include viruses, bacteria, and protozoa; may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
Inorganic Contaminants	Examples include salts and metals; can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
Pesticides and Herbicides	May come from a variety of sources, including agriculture, urban stormwater runoff, and residential uses
Organic Chemical Contaminants	Examples include synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production; can also come from gas stations, urban stormwater runoff, and septic systems
Radioactive Contaminants	Occur naturally or as the result of oil and gas production and mining activities

WATER IS TREATED TO EPA STANDARDS

To ensure that tap water is safe to drink, the EPA prescribes regulations limiting the number of certain contaminants in water provided by public water systems (PWSs). US 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 **EPA's Safe Drinking Water Hotline at (800) 426-4791**.



2023 GROTON UTILITIES WATER QUALITY TEST RESULTS



The following are drinking water quality data published in the GU 2023 annual water quality report (also known as the CCR). The data reflect water samples taken at the GU WTP (finished water) and in the GU distribution system for contaminants that may be present in their distribution network. Only detected contaminants are listed in these tables. Analyses were performed in 2023 unless otherwise noted. These tables represent the water quality that is provided to the SUBASENLON systems. Safe Drinking Water Act (SDWA) standards and goals, as well as major sources of each parameter, are provided. The last column notes whether the results for each parameter violated or met the associated SDWA standard.

GROTON UTILITIES WATER QUALITY - YEAR 2023

PARAMETER	UNITS	MCL	MCLG	TEST RESULTS		MAJOR SOURCES	MET STANDARD?
				HIGHEST DETECTED LEVEL	RANGE		
Barium	ppm	2	2	0.01	N/A ⁽¹⁾	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	YES
Chloride	ppm	250	N/A	52	29 - 52	Stormwater runoff containing road salt; erosion of natural deposits	YES
Fluoride	ppm	4	4	0.72	0.53 - 0.72	Erosion of natural deposits; water additive that promotes strong teeth	YES
Nitrite	ppm	1	1	0.07	ND (<0.05) - 0.07	Runoff from fertilizer use; leachate from septic tanks; sewage; erosion of natural deposits	YES
PARAMETER	UNITS	TT	MCLG	TEST RESULTS		MAJOR SOURCE	MET STANDARD?
				LOWEST RAA	RANGE		
TOC	N/A	Removal Ratio Must Be ≥ 1.00	N/A	1.6	1.2 - 1.8	Naturally present in the environment	YES
PARAMETER	UNITS	TT	MCLG	TEST RESULTS		MAJOR SOURCE	MET STANDARD?
				HIGHEST DETECTED LEVEL	LOWEST % OF SAMPLES MEETING LIMIT		
Turbidity ⁽²⁾	NTU	95% of Monthly Samples Must Be ≤ 0.3	N/A	0.20	100%	Soil runoff	YES

The following table lists unregulated contaminants⁽³⁾.

PARAMETER	UNITS	MCL	MCLG	TEST RESULTS		MAJOR SOURCE(S)	MET STANDARD?
				AVERAGE	RANGE		
Sodium ⁽⁴⁾	ppm	Notification Level = 100	N/A	25	19 - 28	Stormwater runoff containing road salt; erosion of natural deposits	N/A
Sulfate	ppm	N/A	N/A	5	4 - 6	Naturally occurring	N/A

Notes:

⁽¹⁾ Barium was measured only once in 2023; therefore, a range of test results is not presented.

⁽²⁾ Turbidity is a measure of the cloudiness of water and is a good indicator of the effectiveness of GU's filtration system. Turbidity samples are not allowed to exceed 1 NTU.

⁽³⁾ The EPA has not established drinking water standards for unregulated contaminants. GU is required to monitor for them to assist the EPA in determining their occurrence and whether future regulation is warranted.

⁽⁴⁾ When the sodium level in tap water exceeds 100 ppm, customers must be notified either by direct mail or billing statements; however, this is **not** an MCL violation.

Key to Abbreviations:

%	Percent	N/A	Not Applicable
<	Less Than	ND	Not Detected
=	Equals	NTU	Nephelometric Turbidity Units
\leq	Less Than or Equal to	ppm	parts per million (equal to milligrams per liter)
\geq	Greater Than or Equal to	RAA	Running Annual Average
MCL	Maximum Contaminant Level	TOC	Total Organic Carbon
MCLG	Maximum Contaminant Level Goal	TT	Treatment Technique



2023 SUBASENLON WATER QUALITY MONITORING PROGRAM

Federal and state regulatory agencies consider the Navy-owned water distribution systems serving the SUBASENLON community to be extensions of the system operated by GU, not a separate regulated PWS; however, Navy policy requires SUBASENLON to monitor each of its five water distribution systems for contaminants that could be contributed by the water distribution system downstream of its connections to the GU system. The pipelines providing water to the residents at the Dolphin Gardens and Nautilus Park 3 housing areas north of Gungywamp Road are owned and operated by GU; therefore, GU is responsible for monitoring these distribution systems, not the Navy.

The SUBASENLON Water Monitoring Program includes the following parameters:

1. Bacteriological:

Total coliform monitoring is performed to ensure that water remains free of bacteria as it travels through the distribution system and disinfectant residuals decline. Total coliforms are not pathogenic, but their presence could indicate the potential for pathogenic bacteria. If total coliforms are detected, monitoring for *Escherichia coli* (*E. coli*) is required to determine whether these pathogenic bacteria are present.

2. Disinfectants and Disinfection Byproducts:

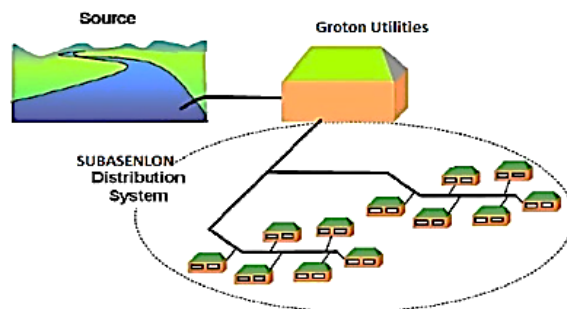
Total residual chlorine (TRC) monitoring is performed to ensure that disinfectant levels are not too high, as higher levels would lead to a higher potential for disinfection byproduct formation. An added benefit of disinfectant monitoring is that if disinfectant levels are too low, flushing can be performed to maintain an adequate disinfectant residual for the prevention of bacteriological contamination. Monitoring for total trihalomethanes (TTHM) and five haloacetic acids (HAA5) is performed to ensure that elevated levels of these disinfection byproducts do not form as water travels through the distribution system.

3. Lead and Copper:

Lead and copper monitoring is performed to ensure that levels of these metals do not increase above standards as water travels through the distribution system and building plumbing systems. Lead and copper have the potential to leach from plumbing materials into drinking water.

The **2023 MONITORING PROGRAM** consists of **FIVE (5)** separate water distribution systems:

1. Main Base
2. Nautilus Park
(areas south of Gungywamp Road)
3. Trident Park
4. Conning Towers
5. Polaris Park



INFORMATION ON SUBASENLON DRINKING WATER ACTIVITIES

At SUBASENLON, contaminants could come from the corrosion of distribution system piping and interior building plumbing as the water makes its way from the GU water points of entry through the SUBASENLON distribution systems to customer taps. Some areas of these systems may be more susceptible to lead and copper contamination than others. For this reason, SUBASENLON has taken steps to improve the water quality in these areas (either by flushing water lines and/or replacing piping and/or fixtures). SUBASENLON also flushes in areas where disinfection byproducts are elevated.

The SUBASENLON PWD Utilities Branch flushes hydrants on the Main Base while GU flushes hydrants in the housing areas. This is to prevent the buildup of rust (which contains iron and possibly manganese) and sediment in the distribution system. If you notice any discoloration in your water after flushing has occurred, simply run your faucets until the water runs clear. Clean faucet aerators after flushing. For questions or concerns surrounding hydrant flushing, please contact the **Naval Facilities Engineering Systems Command Mid-Atlantic Centralized Work Reception Service Desk, via the Emergency Trouble Desk, at (866) 477-7206**, or have your building manager or local housing management/maintenance team contact the SUBASENLON PWD Facilities Management Division to discuss the issue.

The SUBASENLON PWD Environmental Division is committed to providing consumers with up-to-date information to ensure that all consumers can make informed decisions regarding drinking water use.



SUBASENLON PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) WATER QUALITY ANALYSES

What are PFAS, and where do they come from?

PFAS are a group of thousands of man-made chemicals. They have been used in a variety of industrial and consumer products around the globe, including in the US, since the 1940s. They have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (e.g., aqueous film-forming foam [AFFF]) used for fighting petroleum fires at airfields and in industrial fire suppression processes. PFAS chemicals are persistent in the environment, and some are persistent in the human body, meaning that they do not break down and can accumulate over time.

Is there regulation for PFAS in drinking water?

On 10 April 2024, the EPA established regulations for the following subset of PFAS chemicals:

2024 EPA National Primary Drinking Water Regulation for PFAS			
PARAMETER	UNITS	MCL	MCLG
Perfluorooctanoic Acid (PFOA)	ng/L ⁽¹⁾	4.0	0
Perfluorooctane Sulfonic Acid (PFOS)	ng/L ⁽¹⁾	4.0	0
Perfluorohexanesulfonic Acid (PFHxS)	ng/L ⁽¹⁾	10	10
Perfluorononanoic Acid (PFNA)	ng/L ⁽¹⁾	10	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) (i.e., GenX chemicals)	ng/L ⁽¹⁾	10	10
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and Perfluorobutanesulfonic Acid (PFBS)	N/A (Hazard Index [HI]) ⁽²⁾	1	1

Note:

⁽¹⁾ ng/L - Nanograms per liter (equal to parts per trillion [ppt])

⁽²⁾ The EPA HI is made up of a sum of fractions, each comparing the level of each PFAS measured in the water to the highest level determined not to have risk of health effects.

The EPA requires implementation of sampling in accordance with the new regulations within three years of the publication date and implementation of any required treatment within five years. These limits did not apply for the 2023 calendar year (i.e., the dates covered by this report), because they had not been published.

In CT, there is currently no PFAS drinking water regulation.

The DoD must meet these standards if it produces its own drinking water. Since SUBASENLON does not produce its own drinking water, the EPA standards only apply to GU as the water provider.

Has SUBASENLON tested its water for PFAS?

Yes. In November 2021, samples were collected from Building 135 (PWD). We are pleased to report that drinking water testing results were below the Method Reporting Limit (MRL) for all 18 PFAS compounds covered by the sampling method, including PFOA and PFOS. This means that PFAS were not detected in your water system.

SUBASENLON WATER QUALITY DATA – YEAR 2023



The following [water quality](#) test results are provided by SUBASENLON. They present data from the most recent testing (2023 unless otherwise noted) done in accordance with Navy regulations. Tables of all drinking water monitoring results obtained under the water monitoring program for each of the five separate SUBASENLON systems are provided below.

SUBASENLON WATER QUALITY DATA – YEAR 2023

MAIN BASE

SUBASENLON MAIN BASE – DETECTED REGULATED CONTAMINANTS								
BACTERIOLOGICAL								
PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER	
Total Coliforms	P/A	Present in routine sample at 4 locations (absent in repeat samples and all 116 other routine samples)		N/A	0	NO ^(3a)	Naturally present in the environment	
<i>E. coli</i>	P/A	Absent		See note ⁽⁴⁾	0	YES ^(3a)	Human and animal fecal waste	
DISINFECTANTS AND DISINFECTION BYPRODUCTS								
PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾ OR MRDL ⁽⁷⁾	MCLG ⁽²⁾ OR MRDLG ⁽⁸⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER	
		HIGHEST LRAA OR RAA ⁽⁵⁾	RANGE ⁽⁶⁾					
TTHM	µg/L	82.2	54.5 - 114.2	80	N/A	NO ^(3b)	Byproduct of drinking water chlorination	
HAA5	µg/L	27.8	19.4 - 43.0	60	N/A	YES	Byproduct of drinking water chlorination	
TRC	mg/L	0.89	ND (<0.02) - 1.66	4	4	YES	Drinking water disinfectant	
LEAD AND COPPER								
PARAMETER	UNITS	DETECTION LEVEL			AL ⁽⁹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		90th PERCENTILE	SITES ABOVE AL	RANGE ⁽⁶⁾				
Copper (2021)	mg/L	0.125	0	0.0185 - 0.683	1.3	1.3	YES	Corrosion of pipes; erosion of natural deposits
Lead (2021)	µg/L	2.9	0	ND (<1.0) - 3.3	15	0	YES	Corrosion of household plumbing systems; erosion of natural deposits

Notes:

⁽¹⁾ Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water

⁽²⁾ Maximum Contaminant Level Goal, a non-enforceable standard

⁽³⁾ Indicates whether the drinking water monitoring results meet the associated SDWA water quality standards

^(a) Samples collected at Building 38 (Naval Submarine Support Facility Carpenter Shop) on 21 February 2023, Building 461 (PWD Supply Warehouse and Distribution Center) on 25 July 2023, Building 86 (Ramage Hall) on 26 July 2023, and Building 460 (PWD Transportation) on 24 October 2023 tested positive for total coliforms (*E. coli* was absent in these samples). Follow-up resamples at these locations and upstream samples (collected on 23 February 2023, 27 and 28 July 2023, and 26 October 2023, respectively) tested absent for total coliforms. Adequate follow-up downstream samples for all four sites and an adequate follow-up upstream sample for Building 461 were not collected. For the remaining 116 samples, none were positive for total coliforms. During the past year, SUBASENLON failed to conduct all of the required assessments.

^(b) The monitoring program requires collection of one TTHM sample per quarter. The TTHM MCL was exceeded during the 4th quarter of 2023. Initial response included public notification. Subsequently, flushing in the impacted area was conducted from 1 to 9 February 2024. The system was back in compliance during the 1st quarter of 2024 (verified by monitoring results).

⁽⁴⁾ Effective 1 April 2016, the Revised Total Coliform Rule (RTCR) established *E. coli* MCL violations for the following sample result combinations: (i) a total coliform-positive (TC+) repeat sample following an *E. coli*-positive (EC+) routine sample, (ii) any missing repeat samples following an EC+ routine sample, (iii) an EC+ repeat sample following an EC+ routine sample, (iv) an EC+ repeat sample following a TC+ routine sample, or (v) a TC+ repeat sample with no *E. coli* analysis following a TC+ routine sample.

⁽⁵⁾ The values indicated for TTHM and HAA5 were the highest quarterly locational RAA (LRAA) values calculated at each of the sample sites in 2023. The highest level indicated for TRC was based on the RAA calculated for each of the 4 quarters in 2023. The LRAA and RAA are the values that are compared against the MCLs for compliance.

⁽⁶⁾ The highest and the lowest values found in the individual samples

⁽⁷⁾ Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water (for TRC)

⁽⁸⁾ Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk (for TRC)

⁽⁹⁾ Action Level, the highest level at which a violation occurs when exceeded by the 90th percentile result



SUBASENLON WATER QUALITY DATA – YEAR 2023

NAUTILUS PARK

SUBASENLON NAUTILUS PARK – DETECTED REGULATED CONTAMINANTS

BACTERIOLOGICAL

PARAMETER	UNITS	DETECTION LEVEL	MCL ⁽¹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
Total Coliforms	P/A	Present in routine sample at 1 location (absent in repeat samples and all 35 other routine samples)	N/A	0	NO ^(3a)	Naturally present in the environment
<i>E. coli</i>	P/A	Absent	See note ⁽⁴⁾	0	YES ^(3a)	Human and animal fecal waste

DISINFECTANTS AND DISINFECTION BYPRODUCTS

PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾ OR MRDL ⁽⁷⁾	MCLG ⁽²⁾ OR MRDLG ⁽⁸⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		HIGHEST LRAA OR RAA ⁽⁵⁾	RANGE ⁽⁶⁾				
TTHM	µg/L	79.4	45.4 – 110.4	80	N/A	YES	Byproduct of drinking water chlorination
HAA5	µg/L	38.8	18.7 - 63.9	60	N/A	YES	Byproduct of drinking water chlorination
TRC	mg/L	1.02	ND (<0.02) - 1.84	4	4	YES	Drinking water disinfectant

LEAD AND COPPER

PARAMETER	UNITS	DETECTION LEVEL			AL ⁽⁹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		90th PERCENTILE	SITES ABOVE AL	RANGE ⁽⁶⁾				
Copper	mg/L	No data	No data	No data	1.3	1.3	UNKNOWN (see note ^(3b))	Corrosion of pipes; erosion of natural deposits
Lead	µg/L	No data	No data	No data	15	0	UNKNOWN (see note ^(3b))	Corrosion of household plumbing systems; erosion of natural deposits

Notes:

⁽¹⁾ Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water

⁽²⁾ Maximum Contaminant Level Goal, a non-enforceable standard

⁽³⁾ Indicates whether the drinking water monitoring results meet the associated SDWA water quality standards

^(3a) A sample collected at 36 Raintree Circle on 23 February 2023 tested positive for total coliforms (*E. coli* was absent in this sample). A follow-up resample at this location and an upstream sample (collected 1 March 2023) tested absent for total coliforms. An adequate follow-up downstream sample was not collected. For the remaining 35 samples, none were positive for total coliforms. During the past year, SUBASENLON failed to conduct the required assessment.

^(3b) The monitoring program requires at least 10 lead and copper samples annually, and these samples are to be collected from June to September. No samples were collected in 2023.

⁽⁴⁾ Effective 1 April 2016, the RTRC established *E. coli* MCL violations for the following sample result combinations: (i) a TC+ repeat sample following an EC+ routine sample, (ii) any missing repeat samples following an EC+ routine sample, (iii) an EC+ repeat sample following an EC+ routine sample, (iv) an EC+ repeat sample following a TC+ routine sample, or (v) a TC+ repeat sample with no *E. coli* analysis following a TC+ routine sample.

⁽⁵⁾ The highest levels indicated for TTHM and HAA5 were the LRAA found at each of the sample sites for each of the four quarters in 2023. The highest level found for TRC was based on the RAA calculated for each of the four quarters in 2023. The LRAA and RAA are the values that are compared against the MCLs for compliance.

⁽⁶⁾ The highest and the lowest values found in the individual samples

⁽⁷⁾ Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water (for TRC)

⁽⁸⁾ Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk (for TRC)

⁽⁹⁾ Action Level, the highest level at which a violation occurs when exceeded by the 90th percentile result



TRIDENT PARK

SUBASENLON WATER QUALITY DATA – YEAR 2023

SUBASENLON TRIDENT PARK – DETECTED REGULATED CONTAMINANTS

BACTERIOLOGICAL

PARAMETER	UNITS	DETECTION LEVEL	MCL ⁽¹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
Total Coliforms	P/A	Absent	N/A	0	YES	Naturally present in the environment
<i>E. coli</i>	P/A	N/A ⁽⁴⁾	See note ⁽⁵⁾	0	YES	Human and animal fecal waste

DISINFECTANTS AND DISINFECTION BYPRODUCTS

PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾ OR MRDL ⁽⁸⁾	MCLG ⁽²⁾ OR MRDLG ⁽⁹⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		HIGHEST LRAA OR RAA ⁽⁶⁾	RANGE ⁽⁷⁾				
TTHM	µg/L	56.2	38.1 - 75.2	80	N/A	See note ^(3a)	Byproduct of drinking water chlorination
HAA5	µg/L	27.0	18.8 - 44.0	60	N/A	See note ^(3a)	Byproduct of drinking water chlorination
TRC	mg/L	1.19	0.81 - 1.31	4	4	YES	Drinking water disinfectant

LEAD AND COPPER

PARAMETER	UNITS	DETECTION LEVEL			AL ⁽¹⁰⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		90th PERCENTILE	SITES ABOVE AL	RANGE ⁽⁷⁾				
Copper	mg/L	Insufficient data	0	0.0090 - 0.0360	1.3	1.3	UNKNOWN (see note ^(3b))	Corrosion of pipes; erosion of natural deposits
Lead	µg/L	Insufficient data	0	ND (<1.0)	15	0	UNKNOWN (see note ^(3b))	Corrosion of household plumbing systems; erosion of natural deposits

Notes:

⁽¹⁾ Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water

⁽²⁾ Maximum Contaminant Level Goal, a non-enforceable standard

⁽³⁾ Indicates whether the drinking water monitoring results meet the associated SDWA water quality standards

^(a) The monitoring program requires quarterly TTHM and HAA5 samples. During initial sampling for the 1st quarter of 2023 (22 March 2023), samples were incorrectly switched between the sampling sites for TTHM (54 Michigan Drive) and HAA5 (14 Florida Street). The results of these samples taken at incorrect locations were 32.7 µg/L TTHM and 16.2 µg/L HAA5 and are not reported in this table. Follow-up samples at the correct location were not collected until the 2nd quarter of 2023 (26 April 2023) in addition to the routine samples collected for that quarter. These impacted quarterly LRAA calculations for 2023.

^(b) The monitoring program requires at least 20 lead and copper samples semiannually (periods of January to June and July to December). No samples were collected in 2023 except for 7 samples collected in February and March (documented in the table).

⁽⁴⁾ Testing for *E. coli* is only required after a TC+ routine sample.

⁽⁵⁾ Effective 1 April 2016, the RTRC established *E. coli* MCL violations for the following sample result combinations: (i) a TC+ repeat sample following an EC+ routine sample, (ii) any missing repeat samples following an EC+ routine sample, (iii) an EC+ repeat sample following an EC+ routine sample, (iv) an EC+ repeat sample following a TC+ routine sample, or (v) a TC+ repeat sample with no *E. coli* analysis following a TC+ routine sample.

⁽⁶⁾ The highest levels indicated for TTHM and HAA5 were the LRAA found at each of the sample sites for each of the four quarters in 2023. The highest level found for TRC was based on the RAA calculated for each of the four quarters in 2023. The LRAA and RAA are the values that are compared against the MCLs for compliance.

⁽⁷⁾ The highest and the lowest values found in the individual samples

⁽⁸⁾ Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water (for TRC)

⁽⁹⁾ Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk (for TRC)

⁽¹⁰⁾ Action Level, the highest level at which a violation occurs when exceeded by the 90th percentile result



CONNING TOWERS

SUBASENLON WATER QUALITY DATA – YEAR 2023

SUBASENLON CONNING TOWERS – DETECTED REGULATED CONTAMINANTS

BACTERIOLOGICAL

PARAMETER	UNITS	DETECTION LEVEL	MCL ⁽¹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
Total Coliforms	P/A	Present in routine sample at 1 location (absent in repeat samples and all 11 other routine samples)	N/A	0	NO ^(3a)	Naturally present in the environment
<i>E. coli</i>	P/A	Present in same routine sample as above	See note ⁽⁴⁾	0	NO ^(3a)	Human and animal fecal waste

DISINFECTANTS AND DISINFECTION BYPRODUCTS

PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾ OR MRDL ⁽⁷⁾	MCLG ⁽²⁾ OR MRDLG ⁽⁸⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		ANNUAL RESULT OR HIGHEST RAA ⁽⁵⁾	RANGE ⁽⁶⁾				
TTHM	µg/L	60.0	60.0	80	N/A	See note ^(3b)	Byproduct of drinking water chlorination
HAA5	µg/L	31.5	31.5	60	N/A	See note ^(3c)	Byproduct of drinking water chlorination
TRC	mg/L	1.05	0.68 - 1.41	4	4	YES	Drinking water disinfectant

LEAD AND COPPER

PARAMETER	UNITS	DETECTION LEVEL			AL ⁽⁹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		90th PERCENTILE	SITES ABOVE AL	RANGE ⁽⁶⁾				
Copper	mg/L	Insufficient data	0	0.0250	1.3	1.3	UNKNOWN (see note ^(3d))	Corrosion of pipes; erosion of natural deposits
Lead	µg/L	Insufficient data	0	ND (<1.0)	15	0	UNKNOWN (see note ^(3d))	Corrosion of household plumbing systems; erosion of natural deposits

Notes:

⁽¹⁾ Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water

⁽²⁾ Maximum Contaminant Level Goal, a non-enforceable standard

⁽³⁾ Indicates whether the drinking water monitoring results meet the associated SDWA water quality standards

^(a) A sample collected at 13 Bushnell Street on 13 December 2023 tested positive for total coliforms and *E. coli*. Follow-up resamples at this location (collected 14 and 28 December 2023) and an upstream sample (collected 14 December 2023) tested absent for total coliforms. An adequate follow-up downstream sample was not collected, triggering an *E. coli* MCL violation. For the remaining 11 samples, none were positive for total coliforms. SUBASENLON failed to take all required repeat samples following the EC+ routine sample and conduct the required assessment.

^(b) The monitoring plan requires one annual TTHM sample to be collected during the month of warmest temperature (July); however, the sample was collected on 20 June 2023.

^(c) The monitoring plan requires one annual HAA5 sample to be collected during the month of warmest temperature (July); however, the sample was collected on 20 June 2023.

^(d) The monitoring program requires at least 5 lead and copper samples annually, and these samples are to be collected from June to September. No samples were collected in 2023 except for 1 sample collected in February (documented in the table).

⁽⁴⁾ Effective 1 April 2016, the RTCR established *E. coli* MCL violations for the following sample result combinations: (i) a TC+ repeat sample following an EC+ routine sample, (ii) any missing repeat samples following an EC+ routine sample, (iii) an EC+ repeat sample following an EC+ routine sample, (iv) an EC+ repeat sample following a TC+ routine sample, or (v) a TC+ repeat sample with no *E. coli* analysis following a TC+ routine sample.

⁽⁵⁾ The levels listed for TTHM and HAA5 were annual results from a single sample as required by Navy regulation. The highest level found for TRC was based on the RAA calculated for each of the four quarters in 2023. These are the values that are compared against the MCLs for compliance.

⁽⁶⁾ The highest and the lowest values found in the individual samples

⁽⁷⁾ Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water (for TRC)

⁽⁸⁾ Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk (for TRC)

⁽⁹⁾ Action Level, the highest level at which a violation occurs when exceeded by the 90th percentile result



POLARIS PARK

SUBASENLON WATER QUALITY DATA – YEAR 2023

SUBASENLON POLARIS PARK – DETECTED REGULATED CONTAMINANTS

BACTERIOLOGICAL

PARAMETER	UNITS	DETECTION LEVEL	MCL ⁽¹⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
Total Coliforms	P/A	Absent	N/A	0	YES	Naturally present in the environment
<i>E. coli</i>	P/A	N/A ⁽⁴⁾	See note ⁽⁵⁾	0	YES	Human and animal fecal waste

DISINFECTANTS AND DISINFECTION BYPRODUCTS

PARAMETER	UNITS	DETECTION LEVEL		MCL ⁽¹⁾ OR MRDL ⁽⁸⁾	MCLG ⁽²⁾ OR MRDLG ⁽⁹⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		ANNUAL RESULT OR HIGHEST RAA ⁽⁶⁾	RANGE ⁽⁷⁾				
TTHM	µg/L	97.4	97.4	80	N/A	NO ^(3a) (3b)	Byproduct of drinking water chlorination
HAA5	µg/L	53.9	53.9	60	N/A	See note ^(3c)	Byproduct of drinking water chlorination
TRC	mg/L	0.93	0.39 - 1.40	4	4	YES	Drinking water disinfectant

LEAD AND COPPER

PARAMETER	UNITS	DETECTION LEVEL			AL ⁽¹⁰⁾	MCLG ⁽²⁾	MET STANDARD? ⁽³⁾	MAJOR SOURCE IN DRINKING WATER
		90th PERCENTILE	SITES ABOVE AL	RANGE ⁽⁶⁾				
Copper	mg/L	Insufficient data	0	0.0380 - 0.0900	1.3	1.3	UNKNOWN (see note ^(3d))	Corrosion of pipes; erosion of natural deposits
Lead	µg/L	Insufficient data	0	ND (<1.0)	15	0	UNKNOWN (see note ^(3d))	Corrosion of household plumbing systems; erosion of natural deposits

Notes:

⁽¹⁾ Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water

⁽²⁾ Maximum Contaminant Level Goal, a non-enforceable standard

⁽³⁾ Indicates whether the drinking water monitoring results meet the associated SDWA water quality standards

^(a) For 2023, the sampling site for TTHM was switched to the Leno Vescovi Fire Station (1 Lafayette Drive, Building 1). This alternate location was not identified in the system monitoring plan and is inappropriate for TTHM sampling due to its proximity to a GU connection point (i.e., not a location of long residence time).

^(b) The monitoring plan requires one annual TTHM sample to be collected during the month of warmest temperature (July); however, the sample was collected on 28 June 2023. The TTHM MCL was exceeded.

^(c) The monitoring plan requires one annual HAA5 sample to be collected during the month of warmest temperature (July); however, the sample was collected on 29 June 2023.

^(d) The monitoring program requires at least 10 lead and copper samples semiannually (periods of January to June and July to December). No samples were collected in 2023 except for 4 samples collected in January to March (documented in the table).

⁽⁴⁾ Testing for *E. coli* is only required after a TC+ routine sample.

⁽⁵⁾ Effective 1 April 2016, the RTRC established *E. coli* MCL violations for the following sample result combinations: (i) a TC+ repeat sample following an EC+ routine sample, (ii) any missing repeat samples following an EC+ routine sample, (iii) an EC+ repeat sample following an EC+ routine sample, (iv) an EC+ repeat sample following a TC+ routine sample, or (v) a TC+ repeat sample with no *E. coli* analysis following a TC+ routine sample.

⁽⁶⁾ The levels listed for TTHM and HAA5 were annual results from a single sample as required by Navy regulation. The highest level found for TRC was based on the RAA calculated for each of the four quarters in 2023. These are the values that are compared against the MCLs for compliance.

⁽⁷⁾ The highest and the lowest values found in the individual samples

⁽⁸⁾ Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water (for TRC)

⁽⁹⁾ Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected health risk (for TRC).

⁽¹⁰⁾ Action Level, the highest level at which a violation occurs when exceeded by the 90th percentile result

Table of Definitions

< - Less Than

µg/L - Micrograms per Liter - Equal to parts per billion - A measurement of the amount of contaminant per unit of water

AL - Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow (applicable for the 90th percentile of lead and copper sampling).

HAA5 - Five Haloacetic Acids - A group of disinfection byproducts formed from the reaction of chlorine compounds used to disinfect water with other naturally occurring chemicals in the water - HAA5 includes bromoacetic acid, chloroacetic acid, dibromoacetic acid, dichloroacetic acid, and trichloroacetic acid.

LRAA - Locational Running Annual Average - The average of analytical results for samples taken at a particular monitoring location during the previous four calendar quarters

MCL - Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water - MCLs are set as close to 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.

mg/L - Milligrams per Liter - Equal to parts per million - A measurement of the amount of contaminant per unit of water

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 contamination.

N/A - Not Applicable

ND - Not Detected - Laboratory analysis indicates that the parameter is not present

P/A - Present or Absent - A testing method for total coliform bacteria and *E. coli* bacteria that indicates the presence or absence of the bacteria in drinking water

RAA - Running Annual Average - The average of analytical results for samples taken during the previous twelve months

TRC - Total Residual Chlorine - The total amount of free and combined chlorine remaining in water after chlorination disinfection has been applied

TTHM - Total Trihalomethanes - A group of disinfection byproducts formed from the reaction of chlorine compounds used to disinfect water with other naturally occurring chemicals in the water - TTHMs include bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (e.g., 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.

YOU ARE IMPORTANT TO US!!



LEAD IN PRIORITY AREAS (LIPA)

For sensitive areas (e.g., Child Development Center and Youth Center), the LIPA program requires additional sampling at each water outlet. SUBASENLON completed its most recent LIPA sampling in December 2018 and corrected 4 identified trouble areas out of 113 outlets. The next sampling event was scheduled to occur in 2023; however, LIPA sampling was not performed in 2023 as preparatory actions required under Navy policy and in advance of sampling could not be executed in time. All test results must be maintained for 12 years and be made available to the local preventative medicine service/medical treatment facility and all facilities where testing was conducted. Results for SUBASENLON can be found at the following website:

<https://cnrma.cnmc.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/SUBASE-New-London/>

Naval Submarine Base New London, NAVSUBASE NL, Box 00, Groton, CT 06349-5000

