NAVSTA ROTA DRINKING WATER

2024 CONSUMER CONFIDENCE REPORT

01 JULY 2025

What is a Consumer Confidence Report?

A Consumer Confidence Report (CCR) provides details about where your drinking water comes from, what it contains, and how it compares to standards set by regulatory agencies. It is required annually and includes general and mandatory information to educate everyone about our water source, water treatment processes, water quality requirements, and other details to help assure you Naval Station Rota water is safe to drink.

Is our water safe to drink?

YES. Sample analysis conducted in 2024 has verified that NAVSTA Rota drinking water is high quality and safe to drink. We are proud to support the Navy's commitment to provide safe and reliable drinking water to our service members and their families

NAVSTA Rota's drinking water system provides water that is safe to drink. In his role as the Chairman of the Installation Water Quality Board, the Installation Commanding Officer declared NAVSTA Rota's drinking water Fit for Human Consumption (FFHC) (i.e.: safe for drinking, cooking, bathing, showering, dishwashing and maintaining oral hygiene) in a Record of Decision dated 17 December 2013. Since that time, this declaration is confirmed through routine monthly, quarterly and annual laboratory testing results conducted on a suite of chemical and biological constituents.

Our drinking water fully complies with the Department of Defense's (DOD) Spain Final Governing Standards (FGS), which are derived from U.S. DoD Environmental Baseline Guidance Document (OEBGD), the U.S. Environmental Protection Agency (EPA) and the Spain drinking water standards. When Spain and U.S. standards differ, the *most protective* standard is adopted into the FGS. A detailed list of constituents that we test for in our drinking water is included in this report, along with a comparison to the maximum levels considered safe for the general public.

Where does our water come from and how is it treated?

NAVSTA Rota purchases finished, treated water from the *Agencia Andaluza del Agua*. This water comes from *Los Hurones* and *Guadalcacín* reservoirs and is treated at the *Cuartillo*s water treatment plant where contaminants and suspended solids are removed through sedimentation, sand filtration and disinfection with chlorine. The water then flows by gravity to the *San Cristóbal* ground storage facilities where it is later distributed to customers including NAVSTA Rota.

Water received from the *Agencia Andaluza del Agua* is measured continuously for turbidity at the point where it enters the installation. NAVSTA Rota drinking water storage is stored in reservoir tanks and distributed to throughout the installation through a network of piping and pump stations. Due to the size of the NAVSTA Rota storage and distribution system, booster chlorination is added to our drinking water to ensure that disinfection levels are maintained throughout the system. This additional chlorination can sometimes result in disinfection by

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products, and these are removed using granular activated carbon (GAC) filters located within the drinking water distribution system.

Source Water Assessment

In May 2025, Naval Facilities Engineering Command (NAVFAC) conducted a comprehensive sanitary survey of the NAVSTA Rota drinking water system. This survey provided an evaluation of the adequacy of the drinking water source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water. NAVSTA Rota is continually improving the drinking water system based on the recommendations in the report. A new sanitary survey will be conducted in 2028 to reevaluate drinking water system compliance.

Why are there contaminants in drinking water?

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. 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 contaminants.

Due to this, some substances may be present in source drinking water, such as:

- **Microbial contaminants**, such as viruses and bacteria, that may come from wildlife, sewage treatment plants, septic systems, and livestock;
- **Disinfection products,** such as chlorine and chloramine used to remove pathogens from the water and disinfection by-products such us Trihalomethanes;
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- **Inorganic contaminants**, naturally occurring 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;
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and
- **Radioactive contaminants**, which can be naturally occurring in surface rooks or brought to the surface as the result of oil and gas production or mining activities.

NAVSTA Rota's drinking water is from the *Agencia Andaluza del Agua*, which uses rivers, lakes and reservoirs for its source water. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, regulations limit the amount of certain contaminants in water provided by public water systems. Regular sampling is conducted to detect the level of contaminants in the water system.

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If the results of sampling conducted by NAVSTA Rota are above regulatory levels, you will be notified through the following:

- Coastline newspaper
- NAVSTA Rota Facebook: https://www.facebook.com/USNavalStationRota
- All-Hands¨ emails
- Email notifications from the Housing Office

You can learn more about contaminants and any potential health effects by visiting the United States Environmental Protection Agency (EPA) Drinking Water Requirements website at https://www.epa.gov/dwreginfo or by calling the EPA Safe Drinking Water Hotline at +01-800-426-4791.

What are per- and polyfluoroalkyl substances and where do they come from?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the U.S., since the 1940s. PFAS are found in many consumer products, as well as in industrial products, like certain firefighting agents called aqueous film forming foam (AFFF). PFAS is also found in essential use applications such as in microelectronics, batteries, and medical equipment. PFAS chemicals are persistent in the environment, and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

Is there a regulation for PFAS in drinking water?

On April 26, 2024, the United States Environmental Protection Agency (EPA) published a National Primary Drinking Water Regulation (NPDWR) final rule on drinking water standards for six PFAS under the Safe Drinking Water Act (SDWA). The rule establishes the following maximum contaminant levels (MCLs):

- perfluorooctane sulfonic acid (PFOS) = 4 ppt
- perfluorooctanoic acid (PFOA) = 4 ppt
- hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX) = 10 ppt
- perfluorononanoic acid (PFNA) = 10 ppt
- perfluorohexane sulfonic acid (PFHxS) = 10 ppt
- HI MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX = 1 (unitless).

Under the NPDWR, regulated public water systems (PWS) are required to complete initial monitoring by April 26, 2027. Beginning April 26, 2027, regulated PWSs will conduct ongoing compliance monitoring in accordance with the frequency dictated by the rule and as determined by the initial compliance monitoring results. Regulated PWSs must demonstrate compliance with the Maximum Contaminant Levels (MCLs) by April 26, 2029.

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In order to provide safe drinking water to all Department of Defense (DoD) personnel, OSD policy extends this requirement to all DoD systems which provide drinking water for human consumption, regardless of size of the drinking water system. In addition to the six regulated compounds, DoD-owned systems are required by DoD policy to monitor for all 25 compounds detected when using EPA Method 533.

Protecting the health of our personnel, their families, and the communities in which we serve is a priority for the Department. DoD is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoD installations.

Has NAVSTA Rota tested its water for PFAS in 2024?

No, initial sampling is planned for 2025.
In 2020, the DoD promulgated a policy to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every three years. In November 2020, samples were collected from the outlet of the Granular Activated Carbon (GAC) Plant, Building #3201, and no PFAS was detected in any of the samples. In July 2023, samples were collected from GAC OUT Bldg. #3201. Drinking water testing results were below the Method Reporting Limit (MRL) for all 29 PFAS compounds covered by the sampling method, including PFOA and PFOS. We are pleased to report that PFAS were not detected in your water system.

What is next?

NAVSTA Rota will continue to monitor for PFAS in accordance with the EPA regulation and DoD policy. Once required initial monitoring information is available, we will compare the sample results to the MCL and Hazard Index (HI) trigger levels. This will determine what our continuing monitoring requirements will be beginning in 2027, and if needed, we will plan operational or infrastructure changes to ensure our water complies with the PFAS MCLs and HI by April 2029 in accordance with the SDWA.

Some People Must Use Special Precautions

There are people who 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline: 1-800-426-4791.

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Water Quality Data Table

The table below lists all of the routine drinking water contaminants and relevant testing data collected during the 2024 calendar year. NAVSTA Rota tests for many more chemicals than are found in this table; only those contaminants detected in the water are presented in the table. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. All substances detected in NAVSTA Rota's drinking water are below allowable levels and meet OEBGD, EPA and FGS requirements.

Contaminant	MCL, TT, or MRDL	Your Water (Average)	Range		Sample Date	Violation	Typical Source
			Low	High			
Chlorine (as Cl2) (ppm)	4	**0.80**	0.21	1.41	2024	No	Water additive used to control microbes
TTHMs -Total Trihalomethanes (ppb) (2)	80	**31.4**	12.8	42.9	2024	No	By-product of drinking water disinfection
Total Coliform (positive samples/month)	0	**0**	N/A	N/A	2024	No	Naturally present in the environment. Used as an indicator that other, potentially-harmful, bacteria may be present
Dalapon (ppb)	200	**<1**	<1	<1	2024	No	Runoff from herbicide used on rights of way
Barium (ppb)	2000	**68**	62	74	2024	No	Discharge of drilling wastes; Erosion of natural deposits
Chlorides (ppm)	250	**42**	38	46	2024	No	Erosion of natural deposits; Discharge from fertilizer and pesticides
Fluoride (ppm)	4	**0.09**	0.08	0.1	2024	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Manganese (ppb)	50	**3**	2.3	3.7	2024	No	Erosion of natural deposits; Discharge from fertilizer
Aluminum (ppb)	200	**64**	63	65	2024	No	Natural in surface water; Used for water treatment
Sulfates (ppm)	250	**73**	48	98	2024	No	Erosion of natural deposits; Leaching
Nitrate [measured as Nitrogen] (ppb)	10000	**1125**	500	1934	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppb)	500	**<10**	<10	<10	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Gross Alpha (pCi/L)	2.7	**0.32**	0.0669	0.57	2024	No	Erosion of natural deposits

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Contaminant	MCL, TT, or MRDL	Your Water (Average)	Range		Sample Date	Violation	Typical Source
			Low	High			
Gross Beta (pCi/L)	27	**3**	2.1	3.9	2024	No	Decay of natural and man-made deposits.
Tritium (pCi/L)	2702	**7.28**	0.56	14	2024	No	Erosion of natural deposits
Iron (ppb)	50	**6.02**	<0.05	12	2024	No	Erosion of natural deposits. Industry.
Nickel (ppb)	20	**1.6**	1.2	2	2024	No	Erosion of natural deposits. Industry.
Sodium (ppm)	200	**21.5**	18	25	2024	No	Erosion of natural deposits.

(2) TTHM sampling for the last quarter of 2024 was postponed until January 2025 due to a delay in the laboratory contract.

The table below lists drinking water contaminants and relevant testing data that is collected on a non-annual basis. The most recent testing results are shown.

Contaminant	AL	Your Water	Range	Sample Date	# Samples Exceeding AL	Exceeds MCL	Typical Source
Copper - action level at consumer taps (ppm)	1.3	**0.15**(1)	0.0041-0.38	2022	0	**No**	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	10	**<1.0**(1)	<1 - 1.3	2022	0	**No**	Corrosion of household plumbing systems; Erosion of natural deposits
Radium 226+ Radium 228 (pCi/L)	5	**0.123**	0.014 - 0.233	2021	0	No	Erosion of natural deposits
Per- and Polyfluoroalkyl Substances (PFAS) ng/l (2)	1.8(3)	**<1.8**		2023	0	**No**	Man-made products including oil and water repellents, food packaging, cookware, and firefighting agents
Cryptosporidium oocysts/liter (4)	< 0.075	**0.036**		2020 - 2022	0	**No**	Animal waste

(1) 90th Percentile
(2) 18 individual PFAS substances were tested; Reporting Level (RL) are the same for each
(3) PFAS does not have an Action Level; this is the Reporting Level (RL)
(4) 24 Samples tested over a 24 month period

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Note: All other Synthetic Organic Compounds were not detected.

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
ng/l	ng/l: Nanogram/liter, or parts per trillion (ppt)
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	**Definition**
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
CCR	Consumer Confidence Report
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.
MRLor RL	Method Reporting Limit: The lowest quantifiable reporting limit that can be achieved when an analysis is performed under ordinary laboratory conditions.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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Additional Information for Lead

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. NAVSTA Rota Public Works is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.
The preliminary summary of NS Rota water system service line inventory (SLI) conducted in February 2025, showed the following findings:

- NO lead service lines were identified.
- Total service lines - potable (FFHC) & fire: 530
- Non-Lead: 453 (85.5 %)
- Galvanized: 49 (9.2 %)
- Lead Status Unknown (Unknown): 28 (5.3 %)

The ultimate long-term goal is to have a water system with 100% Non-Lead service lines.

If you are concerned about lead in your water and wish to have your water tested, contact NAVSTA Rota Public Affairs Office, LT Daniel Ehrlich, daniel.b.ehrlich2.mil@us.navy.mil
Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Additional Information for Cryptosporidium

Cryptosporidium is a protozoan parasite found in humans, other mammals, birds, fish, and reptiles. It is common in the environment and widely found in surface water supplies. The oocysts of Cryptosporidium are very resistant to adverse factors in the environment and can survive dormant for months in cool, dark conditions such as moist soil, or for up to a year in clean water. Cryptosporidium oocysts are not easily killed by commonly used disinfectants. They are relatively unaffected by chlorine and chloramines in the concentrations that are used for drinking water treatment.

When someone is infected with Cryptosporidium, they may contract cryptosporidiosis, a disease which can cause diarrhea, stomach cramps, nausea, loss of appetite, and a mild fever. Cryptosporidium has become recognized as one of the most common causes of waterborne disease (drinking and recreational) in humans in the United States.

Cryptosporidium is regulated under EPA's National Primary Drinking Water Regulations. The MCLG for Cryptosporidium is 0, or no detection. The MCL for Cryptosporidium is based on having required treatment

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techniques including filtration and disinfection. NAVSTA Rota drinking water has gone through both of these treatment steps. Treatment systems that test for 24 months and show a cumulative result of <0.075 oocytes/liter are not required to provide additional treatment.

Cryptosporidium testing was conducted in January 2022. Following DoD regulation, 24 samples were collected from the intlet of the Granular Activated Carbon Plant, Building #3201.
We are pleased to report that Cryptosporidium was not detected in your water system.

Points of Contact

If you have any questions regarding this report or about the drinking water processes, please contact one of the following:

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A copy of this CCR and previous year reports are available at:
https://cnreurafcent.cnic.navy.mil/Operations-and-Management/Water-Quality-Information/

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