



NAVAL SUPPORT ACTIVITY (NSA) SOUDA BAY 2023 DRINKING WATER CONSUMER CONFIDENCE REPORT



Is our water safe to drink?

Yes. Naval Support Activity (NSA) Souda Bay's drinking water system provides water that is safe and Fit For Human Consumption (FFHC, or potable) as initially determined by the Installation Commanding Officer's Record of Decision dated December 13, 2013, and as consistently confirmed by laboratory sampling results (received weekly, monthly, quarterly, and yearly).

Our drinking water complies with the Department of Defense's (DoD) Greece Environmental Final Governing Standards (FGS) which are derived from U.S. Environmental Protection Agency (EPA) and Greek drinking water standards. When Greek and U.S. standards are different, the *most protective* requirement is adopted into the FGS. This assures U.S. personnel and Greek employees receive drinking water that meets or is above both nation's requirements.

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

NSA Souda Bay purchases drinking water from the Chania Water Authority (DEYACH). The sources of the drinking water are deep wells and natural springs at the foot of the White Mountains. DEYACH chlorinates the water prior to distribution. NSA Souda Bay provides additional filtration, UV disinfection and boost chlorination before the water is distributed around the base.

Why are there contaminants in drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, since the sources of drinking water (both tap water and bottled water) are groundwater and natural springs. As water travels 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. It is important to note that 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. The sampling frequency is defined by the level of risk for each contaminant but also by how often and at what levels it has appeared in prior sampling events. If the results are above regulatory limits, you will be notified by e-mail and public notification. A detailed list of contaminants found in our drinking water is included in this report, along with a comparison to the maximum levels considered safe for the general public by these standards.

Although the drinking water is fit for human consumption, there is always the risk for contaminants to be present. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that 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 stormwater 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 stormwater runoff, and residential uses;
- **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 stormwater runoff, and septic systems; and



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- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained from the Safe Drinking Water website, www.epa.gov/safewater/sdwa and the EPA's Drinking Water Standards web site: <https://www.epa.gov/ground-water-and-drinking-water>.

Source water assessment

In March 2024, the Naval Facilities Engineering Command (NAVFAC), Commander, Navy Installations Command (CNIC), together with the Navy and Marine Corps Public Health Center (NMCPHC) and technical support staff, conducted a comprehensive sanitary survey of the NSA Souda Bay drinking water system. The final report was issued in June 2024. Sanitary surveys are performed every three years and provide an evaluation of the adequacy of the drinking water source, facilities, equipment, operation and maintenance for production and distribution of safe drinking water. Five significant findings were issued. NSA Souda Bay is working towards resolving these findings and is continuously improving the drinking water system based on the recommendations of the report.

Do I need to use special precautions?

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. Some people who drink trihalomethanes in excess of the Maximum Contaminant Level (MCL) over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lower the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking website, www.epa.gov/safewater/sdwa.

Additional Information for 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. NSA Souda Bay Public Works Department (PWD) is responsible for providing high quality drinking water on base, and ensures that materials used in plumbing components are lead free. At home, 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Water Quality Data Tables

During 2023 more than 260 tests were performed at NSA Souda Bay for over 70 contaminants. While some contaminants are tested for daily, others are completed weekly, quarterly, annually or triennially. Unless otherwise noted, the table below (Table 1) only lists the contaminants that were detected during calendar year



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2023. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Two pesticides (Dalapon and Diquat) were sampled, but exceeded the allowed temperature requirement. There was immediate resampling and the result was “none detected” for both these pesticides. As a result of this resampling the samples arrived 2 days after the quarter had ended. All contaminants detected in NSA Souda Bay drinking water are below the allowable FGS and EPA Maximum Contaminate Levels (MCL).

Table 1. Detected compounds under FGS and EPA rules.

<u>Parameter</u>	<u>FGS MCL</u>	<u>MCLG</u>	<u>Your Water</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
Chlorite (ppm)	1.000	0.8	0.02	2023	No	Byproduct of drinking water disinfection.
Bromate (ppm)	0.010	0	0.0058	2023	No	Byproduct of drinking water disinfection.
Barium (ppm)	2.000	2.000	0.085	2023	No	Erosion of natural deposits.
Nitrate (ppm)	10.000	10.000	2.100	2023	No	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	0.500	1.000	0.010	2023	No	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
TTHMs (total trihalomethanes) (ppb)	80	NA	15.1	2023	No	By-product of drinking water disinfection.
Total Haloacetic Acids (ppb)	60	NA	30	2023	No	By-product of drinking water disinfection.

<u>Parameter</u>	<u>FGS AL</u>	<u>MCLG</u>	<u>90th percentile</u>	<u>Sample Date</u>	<u>Samples Exceeding AL</u>	<u>Violation</u>	<u>Typical Source</u>
Copper – action level at consumer taps (ppm)	1.3	1.3	0.317	Sep 2023	0	No	Corrosion of household plumbing systems, erosion of natural deposits.
Lead – action level at consumer taps (ppm)	0.015	0	0.002	Sep 2023	0	No	Corrosion of household plumbing systems, erosion of natural deposits.

Limit of Quantification

During the 2023 samplings there were two contaminants that although were **not** detected during sampling, the Minimum Detection Level achieved by the lab was not as low as required by the FGS. These can be seen in the table below. NSA Souda Bay is working towards resolving these laboratory issues and is continuously working towards improving the drinking water monitoring quality.



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<u>Parameter</u>	<u>FGS MCL</u>	<u>MCLG</u>	<u>Your Water</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
Di (2-ethylhexyl) phthalate (ppm)	0.006	0	<0.010	2023	No	Discharge from rubber and chemical factories.
Ethylene Dibromide (ppm)	0.00005	0	<0.00010	2023	No	Discharge from petroleum refineries.

Per- and polyfluoroalkyl substances (PFAS)

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 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 (aqueous film-forming foam or AFFF) currently 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 they do not break down and they can accumulate over time.

Is there a regulation for PFAS in drinking water?

On April 10, 2024, the US EPA established MCLs for a subset of PFAS chemicals.

<u>Compound</u>	<u>Final MCLG</u>	<u>Typical Source</u>
PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index	1 (unitless) Hazard Index

EPA requires implementation of sampling in accordance with the new MCLs 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 because they had not been published. However, the DoD proactively promulgated policies to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every two years. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA health advisory (HA) level of 70 ppt, water systems must take immediate action to reduce exposure to PFOS or



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PFAS. For levels less than 70 ppt but above the 4 ppt level (draft at the time of policy publication), DoD committed to planning for implementation of the levels once EPA’s published MCLs take effect.

Has Naval Support Activity Souda Bay tested its water for PFAS in 2023?

Yes. In November 2023 samples were collected from Building 14 water sampling point to distribution.

We are pleased to report that 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. This means that PFAS were not detected in your water system. In accordance with DoD policy, the water system will be resampled every two years for your continued protection.

Unit Descriptions	
<u>Term</u>	<u>Definition</u>
ppm	Parts per million, or milligrams per liter (mg/L)
ppb	Parts per billion, or micrograms per liter (µg/L)
ppt	Parts per trillion, or nanograms per liter (ng/L)
pCi/L	picocuries per liter (a measure of radioactivity)
NA	NA: not applicable

Important Drinking Water Definitions	
<u>Term</u>	<u>Definition</u>
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

Points of Contact

For more information, please contact the Public Works Environmental Office, who are members of the Installation Water Quality Board, at DSN 314-266-1973, or commercial 28210-21973