NAVAL SUPPORT ACTIVITY (NSA) SOUDA BAY 2022 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 monthly, quarterly, and yearly).

Our drinking water fully 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 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

- **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 May 2021, 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. 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 producing and distributing safe drinking water. NSA Souda Bay has closed three out of four significant findings from the 2021 report 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 2022 more than 240 tests were performed at NSA Souda Bay for over 60 contaminants. While some contaminates 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 2022. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

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All contaminants detected in NSA Souda Bay drinking water are below the MCL allowed by FGS and EPA applicable requirements.

Table 1. Detected compounds under FGS and EPA rules.

Parameter	FGS MCL	MCLG	Your Water	Sample Date	Violation	Typical Source
Arsenic (ppb)	10	0	0.50	2022	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste.
Antimony (ppb)	5	0	0.50	2022	No	Discharge from fire retardants, electronics, solder.
Barium (ppm)	2	2	0.779	2022	No	Erosion of natural deposits.
Beryllium (ppb)	4	0	0.5	2022	No	Erosion of natural deposits.
Mercury (ppb)	1	0	0.2	2022	No	Erosion of natural deposits; point source discharge; atmospheric deposition.
Cadmium (ppb)	5	0	0.1	2022	No	Erosion of natural deposits.
Chromium (ppb)	50	50	0.6	2022	No	Erosion of natural deposits.
Copper (ppm)	2	NA	0.0072	2022	No	Corrosion of plumbing systems.
Lead (ppb)	10	NA	0.7	2022	No	Corrosion of plumbing systems.
Nickel (ppb)	20	NA	3.1	2022	No	Erosion of natural deposits.
Selenium (ppb)	10	NA	1	2022	No	Erosion of natural deposits.
Sodium (ppm)	No limit	NA	9.3	2022	No	Erosion of natural deposits.
Thallium (ppb)	2	NA	0.5	2022	No	Erosion of natural deposits.
Total Nitrate/Nitrite (as Nitrogen) (ppm)	10	10	0.032	2022	No	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
TTHMs (total trihalomethanes) (ppb)	80	NA	14.6	2022	No	By-product of drinking water disinfection.
Total Haloacetic Acids (ppb)	60	NA	30	2022	No	By-product of drinking water disinfection.
1, 2-Dichloroethane (ppb)	2	NA	0.3	2022	No	Point source discharge.
Tetrachloroethylene (ppb)	5	NA	1	2022	No	Point source discharge.
Trichloroethylene (ppb)	5	NA	1	2022	No	Point source discharge.
Vinyl Chloride (ppb)	0.5	NA	0.1	2022	No	Landfill leaching; Point source discharge.
cis-1,2-Dichloroethylene (ppb)	70	NA	1	2022	No	Point source discharge.
1,1-Dichloroethylene (ppb)	7	NA	1	2022	No	Point source discharge.
trans-Dichloroethylene (ppb)	100	NA	1	2022	No	Point source discharge.
Dichloromethane (ppb)	5	NA	1	2022	No	Point source discharge.
Tetrachloromethane (ppb)	5	NA	1	2022	No	Point source discharge.

1,2-Dichloropropane (ppb)	5	NA	1	2022	No	Point source discharge; Runoff from pesticide use;
1,1,2-Trichloroethane (ppb)	5	NA	1	2022	No	Point source discharge.
1,1,1-Trichloroethane (ppb)	200	NA	1	2022	No	Point source discharge.
Chlorobenzene (ppb)	100	NA	0.5	2022	No	Point source discharge.
1,2-Dichlorobenzene (ppm)	0.6	NA	0.0001	2022	No	Point source discharge.
1,4-Dichlorobenzene (ppb)	75	NA	0.1	2022	No	Point source discharge.
Benzene (ppb)	1	NA	0.2	2022	No	Point source discharge; landfill runoff.
Toluene (ppm)	1	NA	0.001	2022	No	Point source discharge; landfill runoff.
Ethylbenzene (ppm)	0.7	NA	0.001	2022	No	Point source discharge;
Sum of Xylenes (ppm)	10	NA	0.002	2022	No	Point source discharge;
Styrene (ppm)	0.1	NA	0.001	2022	No	Point source discharge;

Parameter	**FGS AL**	**MC LG**	**90th percentile**	**Sample Date**	**Samples Exceeding AL**	**Violation**	**Typical Source**
Copper – action level at consumer taps (ppm)	1.3	1.3	0.269	Sep 2020	0	No	Corrosion of household plumbing systems.
Lead – action level at consumer taps (**ppb**)	15	0	8.3	Sep 2020	0	No	Corrosion of household plumbing systems.

Unit Descriptions	
Term	**Definition**
ppm	Parts per million, or milligrams per liter (mg/L)
ppb	Parts per billion, or micrograms per liter (µg/L)
pCi/L	picocuries per liter (a measure of radioactivity)
ng/L	Nanogram per Liter
NA	NA: not applicable

Important Drinking Water Definitions	
Term	**Definition**
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