2018 DRINKING WATER CONSUMER CONFIDENCE REPORT
NSA Souda Bay

Is our water safe to drink?

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

DoD water systems in Europe must comply with country specific Environmental Final Governing Standards (FGS) and CNIC Instruction M-5090, which requires compliance with certain sections of the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Act (SDWA). The FGS were developed after a comprehensive review and comparison of the DoD Overseas Environmental Baseline Guidance Document (OEBGD), SDWA and Greek drinking water standards. When Greek and US standards are different, the most protective requirement was adopted into the FGS. This assures U.S. personnel and Greek employees receive drinking water which meets or is above the nation's requirements. A detailed list of constituents 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.

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

NSA Souda Bay purchases potable 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. Additional information about the source water is available from the Public Works Environmental Office at 266-1973.

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. 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 from the Safe Drinking Water website, www.epa.gov/safewater/sdwa. 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.

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.

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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. If the results are above regulatory limits, you will be notified by e-mail and Public Notification. You can learn more about contaminants and any potential health effects by visiting the EPA's Drinking Water Standards web site: http://permanent.access.gpo.gov/lps21800/www.epa.gov/safewater/standards.html

Source water assessment

In July 2017 the Naval Facilities Engineering Command (NAVFAC) together with the Navy and Marine Corps Public Health Center (NMCPHC) 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 is continually improving the drinking water system based on the recommendations in 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 MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

USEPA/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 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 PWD 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 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 Table

The table below lists all of the drinking water contaminants and relevant sampling data collected during the 2018 calendar year. Because previous years have consistently been below limits, some parameters are now tested every three years. For those parameters, the last result tested and the year tested is shown. Unless otherwise noted, the table below only lists the contaminants that were detected. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. All substances detected in NSA Souda Bay's drinking water are below allowed levels and meet EPA and FGS requirements.

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Parameter	FGS MCL	MCLG	Concen-tration	Sample Date	Violation	Typical Source
Arsenic (**ppb**)	10	0	0.2	2017	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.07	2017	No	Erosion of natural deposits.
Beryllium (**ppb**)	4	4	0.007	2017	No	Discharge from metal refineries and coal-burning factories; Discharge from industries
Cadmium (**ppb**)	5	5	0.016	2017	No	Corrosion of galvanized pipes; Erosion of natural deposits.
Calcium (ppm)	No limit	NA	37	2017	No	Erosion of natural deposits.
Chromium (**ppb**)	50	50	1.3	2017	No	Erosion of natural deposits
Copper (ppm)	2	NA	0.04	2017	No	Corrosion of plumbing systems.
Fluoride (ppm)	1.20	1.20	0.16	2017	No	Erosion of natural deposits
Lead **(ppb)**	10	NA	2.4	2017	No	Corrosion of plumbing systems.
Mercury **(ppb)**	1	1	0.065	2017	No	Erosion of natural deposits; discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nickel **(ppb)**	20	NA	3.6	2017	No	Erosion of natural deposits;
Selenium **(ppb)**	10	10	0.54	2017	No	Erosion of natural deposits; Discharge from mines
Sodium (ppm)	No limit	NA	7.7	2017	No	Erosion of natural deposits.
Thallium **(ppb)**	2	0.500	0.016	2017	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Total Nitrate/Nitrite (as Nitrogen) (ppm)	10	10	0.43	2018	No	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
TTHMs (total trihalomethanes) **(ppb)**	80	0	7.9	2018	No	By-product of drinking water disinfection.

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Parameter	FGS MCL	Recorded levels	Sample Date	Violation	Typical Source
Gross Alpha Activity (pCi/L)	15	0.1±1.2	2017	No	Naturally Occurring
Gross Beta Activity (pCi/L)	50	1.6±0.8	2017	No	Naturally Occurring
Combined Radium 226/228 (pCi/L)	5	0.92	2017	No	Naturally Occurring
Uranium **(ppb)**	30	0.65	2017	No	Naturally Occurring

Parameter	FGS AL	MCLG	90th percentile	Sample Date	Samples Exceeding AL	Violation	Typical Source
Copper – action level at consumer taps (ppm)	1.3	1.3	0.084	June 2017	0	No	Corrosion of household plumbing systems.
Lead – action level at consumer taps (ppm)	0.015	0	0.0024	June 2017	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)
NA	NA: not applicable

Important Drinking Water Definitions

Term	Definition
MCLG	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	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	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