

2012 Consumer Confidence Report

Water System Name: Naval Auxiliary Landing Field (NALF), San Clemente Island Report Date: 28 June 2013

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2012 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Blend of multiple sources from Sweetwater Authority (SWA) and City of San Diego. A majority of the water for calendar year 2012 was from Sweetwater Authority.

Name & location of source(s): Sweetwater Authority, Chula Vista, CA, 91912-2328 and City of San Diego, 600 B Street, San Diego, CA 92101-4520

Drinking Water Source Assessment information: Completed in March 2002. The Sweetwater Authority sources are considered most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. A copy of the completed assessment is available at the NAVFAC Southwest Environmental office. You may also request a summary of the assessment by contacting Ms. Theresa Trost at (619) 532-3709

Time and place of regularly scheduled board meetings for public participation: The Navy conducts water quality briefings at the Combined Bachelor Housing main conference room on San Clemente Island during the first month of each quarter.

For more information, contact: Theresa Trost Phone: (619) 532-3709

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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 contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

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)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

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 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, that 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*, that 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria <i>(Data collected at SCI)</i>	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> <i>(Data collected at SCI)</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) <i>(Data collected at SCI)</i>	20	19.0	4	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) <i>(Data collected at SCI)</i>	20	0.235	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) [City] {SWA}	2012	[64.0-96.0] {99}	[49.8-108] {73-140}	none	none	Naturally present in the environment
Hardness (ppm) [City] {SWA}	2012	[157-225] {177}	[116-237] {87-347}	none	none	Naturally present in the environment

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (TTHMs) (ppb) <i>(Data collected at SCI)</i>	2012	40, 100, 110	37-200	80	NA	Byproduct of drinking water disinfection
Haloacetic Acids (ppb) <i>(Data collected at SCI)</i>	2012	32 ⁶	1-63	60	N/A	By-product of drinking water chlorination.
Gross Alpha (pCi/L) [City] {SWA}	2012	[ND-3.3] ^{1,2} {ND-5.4}	[ND] {ND-11.7}	15	(0)	Erosion of natural deposits
Gross Beta (pCi/L) [City] {SWA}	2012	[ND] {ND}	[ND] {ND-6.0}	50	(0)	Decay of natural and man-made deposits
Turbidity (Nephelometric Turbidity Units – NTU) [City] {SWA}	2012	[%≤0.3NTU] {0.29}	[100%] {100%}	TT	N/A ³	Soil runoff.
Combined Radium 226/228 (pCi/L) [City] {SWA}	2012	[NA] {ND}	[NA] {ND-2.9}	5	(0)	Erosion of natural deposits
Radium 228 (pCi/L) [City] {SWA}	2012	[NA] {ND}	[NA] {ND-2.9}	N/A	0.019	Erosion of natural deposits
Uranium (pCi/L) [City] {SWA}	2012	[1.0-1.9] {1.0–2.7}	[NA] {ND-5.8}	20	0.43	Erosion of natural deposits.
Barium (ppm) [City] {SWA}	2012	[ND] {ND}	[ND] {ND-0.05}	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits.
Chloramines (ppm) [City] {SWA}	2012	[2.0] {2.2}	[0.11-3.4] {0.1-3.0}	[MRDL = 4.0 (as Cl ₂)]	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment.
Chlorine (ppm) <i>(Data collected at SCI)</i>	2012	0.91	ND-2.14	[MRDL = 4.0 (as Cl ₂)]	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment
Chlorate (ppm) [City] {SWA}	2012	[174] {0.28}	[ND-264] {0.17-0.35}	NA	NL ⁴ =0.8	Byproduct of drinking water disinfection

¹ For all parameters denoted by [City] or {SWA}, concentrations given for various SWA or City water sources prior to treatment.

² ND – Not detected

³ NA – Not analyzed

⁴ Notification Level

TABLE 4 (CONTINUED) – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Chlorite (ppm) [City] {SWA}	2012	[0.32] {0.40}	[ND-0.46] {0.11-0.63}	1.0	0.05	Byproduct of drinking water disinfection
Chlorine Dioxide (ppb) [City] {SWA}	2012	[NA] {7}	[NA] {ND-240}	[MRDL = 800 (as ClO ₂)]	[MRDLG = 800 (as ClO ₂)]	Drinking water disinfectant added for treatment
Fluoride (ppm) [City] {SWA}	2012	[0.5-0.7] {ND-0.3}	[0.4-1.0] {0.1-0.4}	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride [City] (ppm) {SWA}	2012	[76-132] {158}	[65-149] {88-215}	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color (Color Units)	2012	[1-3] {1}	[ND-5] {1-1}	15	N/A	Naturally-occurring organic materials
Radon (pCi/L)	2012	[NA] {240-374}	[NA] {190-374}	N/A	N/A	Erosion of natural deposits
Odor (OU)	2012	[ND-1] {ND}	[ND-2] {ND}	3	N/A	Naturally - occurring organic materials
Specific Conductance (µS/cm)	2012	[617-867] {854}	[440-962] {680-1310}	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	[102-122] {83}	[57.6-155] {24-159}	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Organic Carbon (ppm) <i>(Data collected at SCI)</i>	2012	2.49	1.37 – 6.89	N/A	N/A	Various natural and man-made sources
Total Dissolved Solids (ppm)	2012	[380-537] {497}	[269-683] {355-784}	1000	N/A	Runoff/leaching from natural deposits

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppm) [City] {SWA}	2012	[101-130] {188}	[ND-137] {130-260}	1	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
N-nitroso-dimethylamine (NDMA) (ppt)	2012	[ND] {1.1}	[ND] {ND-5.8}	10	

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information on 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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. 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 Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. The US Navy 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 <http://www.epa.gov/safewater/lead>.

LEAD EXCEEDANCE: In March 2012, one building (60102) had detection of lead above the drinking water action level of 15 parts per billion. In October 2012, three buildings (60194, 60195, and 60081) had detections of lead above the drinking water action level of 15 parts per billion. No other buildings on San Clemente Island (SCI) had lead concentrations above the action level.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).

**Summary Information for Violation of a MCL, MRDL, AL, TT,
or Monitoring and Reporting Requirement**

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Lead Action Level exceeded	In March 2012, one building (60102) and in October 2012, three buildings (60194, 60195, and 60081) had detections of lead above the drinking water action level of 15 parts per billion.	The duration of the violation will continue until USN SCI is in compliance with the lead action level. Lead in the distribution system will be tested in June 2013 and compliance with the lead action level will be re-evaluated at that time	Public notification and education were conducted. SCI water system operators are also conducting a corrosion control study to assess the need to inject lead inhibitors in the water system.	Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791).
TTHM MCL Exceeded	Testing results we received in July and October 2012 show that our system exceeded the standard maximum contaminant level (MCL), for Total Trihalomethanes (TTHM) in Bldgs 60195 and 60224. The standard for total trihalomethanes is 80 parts per billion.	6 months	Public notification and education were conducted. We anticipate resolving the problem within the calendar year 2013. The water on SCI is purchased from the City of San Diego and Sweetwater Authority and is towed weekly by barge from Naval Base San Diego to SCI. To maintain potability at SCI the public works department maintains a disinfectant residual by monitoring and boosting chlorine levels in the water as necessary upon arrival to SCI. The water on SCI has a long holding time from the point of treatment in San Diego to the point of storage on SCI. The older the "water age", the longer the amount of time the chlorine in the water has to react with the background organics already in the water. We are closely working with our water suppliers, the City of San Diego and Sweetwater Authority, to receive water that is lower in TTHM forming constituents and reduce TTHMs in the drinking water.	The drinking water has disinfection byproducts from the chlorination of the drinking water. These byproducts include TTHMs. Drinking water containing these byproducts over a long period of time in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Failure to maintain disinfectant residual	Elevated Heterotrophic Plate counts (HPC), an indication of high bacteriological concentrations, were detected at the Commons and Power Plant areas of SCI on June 5, 2012.	One month	On June 13, water distribution lines in the affected areas were flushed with chlorinated water until disinfectant levels rose to above 70% of the chlorine levels in the Million Gallon water reservoir. All six repeat samples had low to non-detectable HPC levels and no coliform detections.	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.