

2011 Consumer Confidence Report

Water System Name: Naval Auxiliary Landing Field (NALF), San Clemente Island

Report Date: 06 June 2012

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, 2011.

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). In an emergency water from the City of San Diego will be used. All water for calendar year 2011 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 (ug/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 state 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 (Data collected at SCI)	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> (Data collected at SCI)	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	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	10	17.3	2	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper ¹ (ppm) (Data collected at SCI)	10	0.3	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

¹ Monitored Biennially in Distribution System on SCI.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
<i>(Unless noted, all data taken from the City of San Diego (Alvarado Plant) and Sweetwater Authority's 2011 CCR)</i>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) [City] {SWA}	Multiple Dates	[72.6] {99}	[59.0 – 87.2] {73-140}	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) [City] {SWA}	Multiple Dates	[184] {177}	[150 – 226] {87-347}	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*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
Gross Alpha (pCi/L) [City] {SWA}	Multiple Dates	[ND] {ND-5.4} ²	[ND] {ND-11.7} ³	15	(0)	Erosion of natural deposits
Turbidity (Nephelometric Turbidity Units – NTU)	Multiple Dates	[%<0.3NTU] {0.34}	[100%] {N/A}	TT	N/A ²	Soil runoff.
Combined Radium 226/228 (pCi/L)	Multiple Dates	[NA] {ND}	[NA] {ND-2.9} ³	5	(0)	Erosion of natural deposits
Radium 228 (pCi/L)	Multiple Dates	[NA] {ND}	[NA] {ND-2.9} ³	N/A	0.019	Erosion of natural deposits
Uranium (pCi/L)	Multiple Dates	[1.6] {1.0–2.7} ³	[1.6] {ND-5.8} ³	20	0.43	Erosion of natural deposits.
Arsenic (ppb)	Multiple Dates	[ND] {ND}	[ND] {ND}	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium (ppm)	Multiple Dates	[ND] {ND}	[ND] {ND-0.07}	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits.
Copper ⁴ (ppm) <i>(Data collected at SCI)</i>	7/11/2011 11/15/2011	0.302 ⁵	ND – 0.342	AL=1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	Multiple Dates	[0.2] {ND}	[0.14-0.25] {ND-0.7}	2.0	1	Erosion of natural deposits; water additive which promotes string teeth; discharge from fertilizer and aluminum factories.

² N/A - Not applicable. NA – Not analyzed, ND – Not detected

³ Concentrations at various SWA or City water sources prior to treatment.

⁴ Monitored Biennially in Distribution System on SCI.

⁵ 90th percentile level detected.

TABLE 4 (CONTINUED)– DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
<i>(Unless noted, all data taken from the City of San Diego (Alvarado Plant) and Sweetwater Authority's 2011 CCR)</i>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Perchlorate (ppb) <i>(Data collected at SCI)</i>	05/11/2011	ND	ND	6	6	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Lead ³ (ppb)* <i>(Data collected at SCI)</i>	7/11/2011 11/15/2011	17.3 ⁶	ND – 18.7	AL=15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
TTHMs (Total Trihalomethanes) (ppb) <i>(Data collected at SCI)</i>	1/12/2011 4/05/2011 7/06/2011 10/18/2011	49.1 ⁷	17-83	80	N/A	By-product of drinking water chlorination.
Haloacetic Acids (ppb) <i>(Data collected at SCI)</i>	1/12/2011 4/05/2011 7/06/2011 10/18/2011	18.4 ⁶	4.8-35	60	N/A	By-product of drinking water chlorination.
Chloramines (ppm)	Multiple Dates	[2.13] {2.2}	[0.1-8.3] {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>	Monthly	0.89	0.05-2.80	[MRDL = 4.0 (as Cl ₂)]	[MRDLG = 4 (as Cl ₂)]	Drinking water disinfectant added for treatment
Chlorate (ppm)	Multiple Dates	[N/A] ⁸ {0.28}	[N/A] {0.17-0.35}	NA	NL=0.8 ⁹	Byproduct of drinking water disinfection
Chlorite (ppm)	Multiple Dates	[N/A] {0.40}	[N/A] {0.11-0.63}	1.0	0.05	Byproduct of drinking water disinfection
Chlorine Dioxide (ppb)	Multiple Dates	[NA] {7}	[NA] {ND-240}	[MRDL = 800 (as ClO ₂)]	[MRDLG = 800 (as ClO ₂)]	Drinking water disinfectant added for treatment

⁶ 90th percentile level detected.

⁷ Running Annual Average for 2011.

⁸ NA - Not analyzed. N/A - Not applicable

⁹ Notification Level

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}	Multiple Dates	[87.4] {158}	[76.6-105] {88-215}	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color (Color Units)	Multiple Dates	[2] {1}	[1-3] {1-1}	15	N/A	Naturally-occurring organic materials
Radon (pCi/L)	Multiple Dates	[NA] {240-374} ²	[NA] {190-374} ²	N/A	N/A	Erosion of natural deposits
Odor (OU)	Multiple Dates	[ND] {ND}	[ND-1] {ND}	3	N/A	Naturally - occurring organic materials
Specific Conductance (µS/cm)	Multiple Dates	[684] {854}	[545-815] {680-1310}	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	Multiple Dates	[111] {83}	[77.2-146] {24-159}	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Organic Carbon (ppm)	Multiple Dates	[2.93] {5}	[1.91 – 3.99] {2.0-7.5}	N/A	N/A	Various natural and man-made sources
Total Dissolved Solids (ppm)	Multiple Dates	[418] {497} ²	[324-527] {355-784} ²	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 [City] (ppb) {SWA}	Multiple Dates	[105] {188}	[105-106] {130-260}	1000	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)	Multiple Dates	[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).

The source of drinking water for San Clemente Island (SCI) is Sweetwater Authority. In an emergency water from the City of San Diego is used. In 2011 no water from the City of San Diego was used. San Clemente Island is totally dependent on fresh water obtained from the Sweetwater Authority and City of San Diego through the distribution system of Naval Base San Diego and barged to SCI. Water delivered to Sweetwater Authority and City of San Diego consumers is obtained from a variety of sources. Approximately 70 percent of the Sweetwater Authority potable water is obtained from local water supplies, including the Sweetwater River, the Sweetwater Alluvium, and the San Diego Groundwater Formation. The remainder, about 30 percent, is obtained from imported water sources, the Metropolitan Water District of Southern California (MWD).

LEAD EXCEEDANCE: Two buildings (60195 & 60111) had detections of lead above the drinking water action level of 15 parts per billion in July 2011. 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 exceedance	Two buildings (60195 & 60111) had detections of lead above the drinking water action level of 15 parts per billion in July 2011. Successive sampling did not show lead detections above the action level.	Two weeks	Public notification and education were conducted.	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).