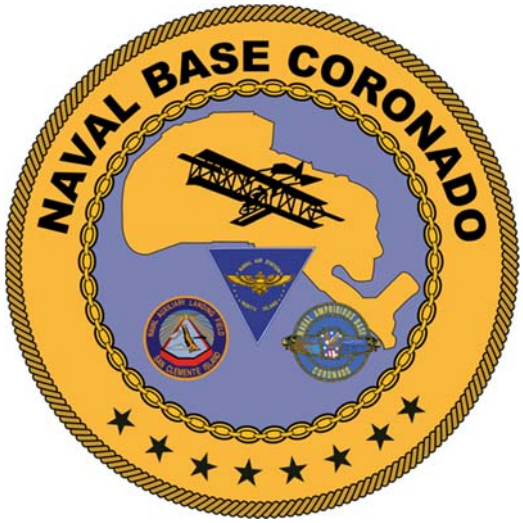

2018 Consumer Confidence Report

DRINKING WATER

Water System Name:
San Clemente Island

#3710707

Report Date:
01 July 2019

Photo courtesy of
https://www.processindustryforum.com/wp-content/uploads/2014/04/Clean-water-supply.jpg accessed on 17May2019

OUR COMMITMENT TO PROVIDING SAFE DRINKING WATER

Naval Base Coronado (NBC) is pleased to present our Water Quality Report, also referred to as the Consumer Confidence Report (CCR). The CCR is an annual report containing data from water-quality testing collected during the past year and may include earlier monitoring data for some constituents.

Water system operators, utility managers, contractors, laboratory personnel, and the Navy command work with state regulatory agencies to continuously monitor, sample, and disinfect the water to make sure, with a high level of confidence, that the drinking water system is safe. We test the water quality for many constituents as required by state and federal regulations.

Last year, the water delivered to you met all USEPA and State Board drinking water health standards. Details within provide information to find out where we get our water, what is in your water, and how it compares to state standards that are considered safe for the public.

We are aware there are concerns of lead in the drinking water at San Clemente Island. Many buildings located on San Clemente Island were built in a time-period where it was conventional to use lead containing materials. Lead enters drinking water primarily as a result of the corrosion, or wearing-away of materials containing lead in the water distribution system and plumbing. We are striving to identify and eliminate lead sources. Last year, we completed sampling at over 80 locations for lead ahead of our 2022 schedule. Our team is continuing to sample around the island to identify and implement corrective actions for locations which may pose a health risk.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse San Clemente Island Water System #3710707 a anh.ngo@navy.mil para asistirlo en español.

Where do we get our water from?

The Navy purchases water from the City of San Diego (CITYSD) and Sweetwater Authority (SWA) that is filled on a barge at Naval Base San Diego and transported to San Clemente Island. The majority of water for the calendar year comes from SWA.

The water from Sweetwater Authority is primarily from four sources: The Sweetwater River which is drawn at the Sweetwater Reservoir in Spring Valley, deep freshwater wells located in National City, brackish water wells in Chula Vista, and the region's imported water supply is from the Colorado River and/or the State Water Project.

The water from the City of San Diego, depending on how the system is running, can be distributed from either the Otay Treatment Plant or the Alvarado Treatment Plant. The City of San Diego imports a majority of its raw surface water supply from the San Diego County Water Authority. The Water Authority is a blend from the Colorado River and/or the State Water Project.

The Navy continuously monitors for water quality parameters at the barge, holding tanks, storage tanks, and boosts with disinfectants to maintain drinking quality standards, as well as treatment methods to reduce total trihalomethanes.

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 byproducts 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.

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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

How do I know it's safe?

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

The City of San Diego and Sweetwater Authority conduct compliance sampling and monitoring of the water they supply. Naval Facilities Engineering Command (NAVFAC) Southwest Utilities conducts compliance sampling of the water delivered to San Clemente Island and in its distribution system. There are routine stations around the island where we monitor water quality parameters as well as at our distribution points and/or storage locations.

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. U.S. EPA/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).

What about Lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead that may be found in drinking water is primarily from materials and components associated with service lines and plumbing. Naval Base Coronado is responsible for providing high quality drinking water; however, there may be an unknown variety of materials used in plumbing components installed historically. The Reduction of Lead in Drinking Water Act went into effect on January 4, 2014. The Act has reduced the lead content allowed in water system and plumbing products by changing the definition of lead-free in Section 1417 of the Safe Drinking Water Act (SDWA) from not more than 8% lead content, to not more than a weighted average of 0.25% lead with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and plumbing fixtures. The SDWA prohibits the use of these products in the installation or repair of any public water system or facility providing water for human consumption if they do not meet the lead-free requirement.

Is lead-free certification required for products? As of March 2015, there is no mandatory federal requirement for lead-free product testing or third-party certification under the Safe Drinking Water Act (SDWA).

Our Efforts to Minimize Your Exposure to Lead.

- **Health and Safety Code (HSC) Section 116885.** The Navy compiled an inventory of known materials for user service lines in the distribution system. No known lead user service lines have been identified. We are continuing to identify the material of any unknown service lines and anticipate to complete this inventory within a year.
- **Lead and Copper Rule Monitoring Program:** In addition to the Priority Lead Sampling Program, the Navy is compliant with the lead and copper rule and conducts standard tap monitoring every 6-months at approved sample sites.
- **Priority Lead Sampling Program.** The Navy has a lead and copper sampling program in order to find locations which may have lead sources in the plumbing system and to implement corrective actions by replacement. To do so, an inventory of cold water taps was conducted in 2017 and locations were categorized in groups based on building age, likely to be used for consumption, and whether testing was ever conducted. Priorities 0-5 were set, with Priority 0 being defined as: building is newer than 1990 and all fixtures that have been tested were below action levels and Priority 5 being defined as: building is older than 1990, fixtures is more likely to be used for consumption, and no fixtures in the building have been tested. The Navy began sampling at Priority 5 locations in August 2017 and in September 2018 completed sampling of all Priority 3, 4, and 5 locations. Out of the 81 locations sampled, 9 locations exceeded the action level for lead. At each location with an exceedance, an investigation is conducted to find the source and projects are scoped to initiate and implement replacement. After corrective actions are conducted, water samples are taken to ensure the lead result is below action level. We thank you for your patience as some locations are pending corrective actions; however, please remember there are steps you can do to minimize your exposure to lead (see section below). The Navy will initiate sampling for Priority 1 locations Summer 2019. After further review by the Navy and with the Division of Drinking Water, it has been determined that Priority 2 and 0 locations will not be sampled.

Priority	Sample Location Criteria
5	Building is older than 1990, fixture is more likely used for consumption (i.e. kitchen sink, fountain, or bottle fill), no fixtures in the building have been tested for lead and copper
4	Building is older than 1990, fixture is more likely used for consumption (i.e. kitchen sink, fountain, or bottle fill), some fixtures in the building have been tested for lead and copper
3	Building is older than 1990, fixture is less likely to be used for consumption (i.e. bathroom sink), no fixtures in the building have been tested for lead and copper
2	Building is older than 1990, fixture is less likely to be used for consumption _(i.e. bathroom sink), some fixtures in the building have been tested for lead and copper
1	Building is newer than 1990 and no fixtures in the building have been tested for lead and copper
0	Building is newer than 1990 and all fixtures that have been tested for lead and copper were below the action level

What can I do to minimize exposure to lead?

- Flush. It is always a good idea to flush your faucet at work and/or at home, especially when water has been sitting for several hours (i.e. overnight or over a weekend). You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes prior to utilizing for consumption.
- Use Cold Water. Hot water dissolves lead more quickly than cold water, so use cold water to prepare food and drinks.
- Clean Your Aerator. Metal debris can be trapped on the aerator screens on water outlets, especially if construction or plumbing work may have occurred in your area. Simply twist off the aerator (may need a wrench and vinegar if there is build-up), carefully tap and clean any debris which may be caught on the filtration screen, and reinstall.
- Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead.

Where can I get more information on drinking water?

City of San Diego and Sweetwater Authority produces annual reports detailing the sources of our water, where its purchased from, and how it is treated and delivered. These reports are available online at https://www.sandiego.gov/public-utilities/water-quality/water-quality-reports. and at https://www.sweetwater.org/wqreport. For more information on the sampling and monitoring that we conduct on base, please contact the Naval Base Coronado (NBC) Drinking Water Program Manager at 619-545-2724 or alternate 619-545-2706, or email anh.ngo@navy.mil.

TERMS USED IN THIS REPORT

CSD MDL (City of San Diego Water Quality Lab method detection limit): lowest quantifiable concentration of a measured analyte detectable by the lab

DLR: detection limit for reporting

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 (U.S. EPA).

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.

Nephelometric Turbidity Unit (NTU): Unit of measure for the turbidity of water.

ND: not detectable at testing limit

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.

LRAA: Locational running annual average, the highest 2018 LRAA detected from all the monitoring locations

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

Variances and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

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 water quality data for 2018 is summarized in the following tables. Data shown in brackets [CITYSDALV] is obtained from the City of San Diego Alvarado Treatment Plant. Data shown in parenthesis (CITYSDOTAY) is obtained from the City of San Diego Otay Treatment Plant. Data shown in braces {SWA} is obtained from the Sweetwater Authority treated-water monitoring. Data with no brackets/parenthesis indicate the monitoring was conducted at Naval Base Coronado. 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 State Board 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. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

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 (state Total Coliform Rule)	0 (In a month)	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	0 (In the year)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive	0	Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	0 (In the year)	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

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)	**Sample Date**	**No. of Samples Collected**	**90th Percentile Level Detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**No. of Schools Requesting Lead Sampling**	**Typical Source of Contaminant**
Lead (ppb)	Nov 2018	10	2.79*	1	15	0.2	n/a	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	Nov 2018	10	0.161	0	1.3	0.3	n/a	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

*Although 1 out of 10 locations sampled under the lead and copper monitoring rule exceeded the action level (AL), drinking water health standards are met when the 90th percentile level detected is below the AL.

TABLE 3 – SAMPLING RESULTS FOR SODIUM, HARDNESS, AND TURBIDITY

Chemical or Constituent (and reporting units)	**Sample Year**	**Level Detected (Average)**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2018	[81.5] (106) {102}	[58.9 – 95.1] (80.3 – 126) {78 – 150}	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2018	[224] (236) {178}	[151 – 292] (209 – 264) {65 – 310}	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Turbidity (NTU)	2018	[Max Level Found = 0.26] (Max Level Found = 0.13) {Max Level Found = 0.3}	[100% of samples ≤ 0.3] (100% of samples ≤ 0.3) {100% of samples ≤ 0.3}	TT=95% of samples ≤ 0.3	n/a	Soil runoff

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Year**	**Level Detected (Average)**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
DISINFECTANT RESIDUAL AND DISINFECTANT BY-PRODUCTS AND PRECURSORS						
Chlorine Residual (ppm)	2018	0.965	0.2 – 1.93	[4.0] As Cl2	[4.0] As Cl2	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM; ppb)	2018; quarterly	LRAA = 67	2.0 – 80	80	N/A	By-product of drinking water disinfectant
Haloacetic Acids (HAA; ppb)	2018; quarterly	LRAA = 34	1.0 – 31	60	N/A	By-product of drinking water disinfectant
Bromate (ppb)	2018	[ND] (n/a)	[ND – 9.5] (n/a)	10	0.1	By-product of drinking water disinfectant
Total Organic Carbon (TOC; ppm)	2018	[2.2] (3.8) {7.0}	[1.8 – 3.0] (1.8 – 6.6) {1.8 – 10.0}	TT	n/a	Various natural and manmade sources
CHEMICAL PARAMETERS						
Aluminum (ppb)*	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – ND}	1000	600	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (ppb)	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – ND}	10	0.004	Erosion of natural deposits; glass and electronics production waste
Barium (ppm)	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – 0.1}	1	2	Erosion of natural deposits; discharges of oil drilling
Fluoride (naturally-occurring; ppm)	2018	[0.2] (0.4)	[0.1 – 0.3] (0.2 – 0.5)	2	1	Erosion of natural deposits
Fluoride (treatment-related; ppm)	2018	[0.5] (0.4) {0.7}	[0.2 – 0.7] (0.2 – 0.6) {0.5 – 0.8}	2	1	Water additive that promotes strong teeth; erosion of natural deposits
Nitrate (as N; ppm)	2018	[ND] (ND)	[ND – ND] (ND – 0.4)	10	10	Runoff and leaching from fertilizer use; erosion of natural deposits
Nickel (ppb)	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – ND}	100	12	Runoff and leaching from fertilizer use; erosion of natural deposits
Selenium (ppb)	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – ND}	50	30	Erosion of natural deposits; refineries, mines, and chemical water discharge
RADIOACTIVE PARAMETERS						
Gross Alpha Particle Activity (pCi/L)	2018	[3.6] (6.0) {n/a}	n/a	15	0	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2018	[ND] (4.1) {n/a}	n/a	50**	0	Decay of natural and manmade deposits
Uranium (pCi/L)	2018	[2.1] (ND) {n/a}	n/a	20	0.43	Erosion of natural deposits

*Aluminum has primary and secondary drinking water standards. **Division of Drinking Water considers 50 pCi/L to be the level of concern for beta particles

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**CA SMCL**	**CSD MDL (DLR)**	**Typical Source of Contaminant**
Aluminum (ppb)	2018	[ND] (ND) {ND}	[ND – ND] (ND – ND) {ND – ND}	200	(50)	Erosion of natural deposits; residue from some water treatment processes
Chloride (ppm)	2018	[91.9] (139) {152}	[71.1 – 106] (93.9 – 176) {97 – 210}	500	0.5	Runoff/leaching from natural deposits; seawater influence
Color (CU)	2018	[ND] (1) {2}	[ND – 1] (ND – 4) {1 – 5}	15	1	Naturally-occurring organic materials
Manganese (ppb)	2018	[ND] (ND) {ND}	[ND – ND] (ND – 41) {ND – 20}	50	(20)	Leaching from natural deposits
Odor-Threshold (OU)	2018	[ND] (1) {ND}	[ND – 1] (1 – 1) {ND – 1}	3	(1)	Naturally-occurring natural deposits
Specific Conductance (µS/cm)	2018	[795] (936)	[578 – 909] (788 – 1070)	1,600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018	[153] (139) {88}	[73.0 – 216] (107 – 181) {22 – 172}	500	(0.5)	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2018	[480] (556) {495}	[332 – 588] (477 – 609) {330 – 760}	1,000	10	Runoff/leaching from natural deposits
pH	2018	[7.95] (8.03) {8.5}	[7.23 – 8.43] (7.09 – 8.41) {8.1 – 8.9}	n/a	n/a	low pH: corrosion high pH: 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)	2018	[0.1] (0.1) {0.18}	[0.1 – 0.1] (ND – 0.2) {0.12 – 0.23}	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Chromium, hexavalent (ppb)*	2018	[0.05] (0.07)	Single Sample	--	Studies show that Cr6 in drinking water may cause an increased risk of stomach cancer and reproductive harm.

*The DLR of 1 ppb and the MCL of 10 ppb for Chromium VI were repealed in 2017. The PHG for Cr6 is 0.02ppb.