2022 Consumer Confidence Report

DRINKING WATER

Water System Name:

Naval Air Station North Island (NASNI)

&

Naval Amphibious Base (NAB) Coronado

Public Water System ID #3710750

Report Date:

01 July 2023

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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 performed during the past year and may include earlier monitoring data for some constituents.

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

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Naval Air Station North Island (NASNI) & Naval Amphibious Base (NAB) Coronado System #3710750 a kevin.b.dixon.civ@us.navy.mil para asistirlo en español.

Where do we get our water from?

NBC purchases water for NASNI and NAB from the City of San Diego, which is treated at the Alvarado Treatment Plant. Water flows through a Navy-owned pipeline that supplies water to the distribution systems at NASNI and NAB. We continuously monitor for water quality parameters at our storage tanks and boost with disinfectants to maintain drinking quality standards.

The City of San Diego imports a majority of its raw surface water supply from the San Diego County Water Authority[1]. The Water Authority is a blend from the Colorado River and the State Water Project. Raw water sources can include rivers, lake, streams, ponds, reservoirs, springs, and wells.

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, which 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 storm water 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 storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.

- *Radioactive contaminants*, which 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. Environmental Protection Agency (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 (FDA) 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 conducts compliance sampling at the Alvarado Treatment Plant and Naval Facilities Engineering Systems Command Southwest (NAVFAC SW) Utilities personnel conducts compliance sampling within the NBC water distribution system for NASNI and NAB. There are 48 dedicated water sampling stations where water quality parameters are monitored. Monitoring also occurs at water storage facilities located on both installations.

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 (RLDWA) went into effect on January 4, 2014. The RLDWA has reduced the lead content allowed in water system and plumbing products by changing the definition of lead-free in Section 1417 of the 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. Installation utility personnel have implemented a lead service line inventory requirement and have not yet found any lead service lines as part of the investigation.

How can I 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. You may need to flush longer if your building has recently been shut down or experienced reduced occupancy. Contact your Facility Manager or Assistant Public Works Officer for flushing guidance.
- Use cold water. Hot dissolves lead more quickly than cold water, so use cold water to prepare food and drinks.
- Clean your aerator. Debris can be trapped on the aerator screens on water outlets containing metals, especially if construction or plumbing work may have occurred in your area. Simply twist off the aerator, tap and clean any debris which may be caught on the filtration screen, and reinstall.
- For more information regarding the Navy's Lead and Copper Rule Sampling Program, please visit https://cnrsw.cnic.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/Lead-and-Copper-Rule-Sampling-program/.
- 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.

What about at the Child Development Centers (CDC) and Youth Centers (YC)?

In the U.S., the EPA recommends, but does not require, testing for lead in drinking water in schools and child care centers. However, Navy policy, OPNAV M-5090.1 requires the Lead in Priority Areas (LIPA) testing program in the best

interest of all the children, parents, and staff served by the distribution system. This routine sampling is conducted every five years at all drinking water fixtures. NBC personnel conducted routine sampling in 2019 at four of our Child Youth Program Facilities: NASNI CDC, NASNI 24/7 Facility, NAB CDC, and Silver Strand YC. All drinking water fixtures sampled in 2019 tested below the action level of 15 parts per billion (ppb).

In 2021, changes to OPNAV M-5090.1 now requires installations to conduct an annual audit of all their CDCs and YCs to identify any newly installed or repaired drinking water fixtures during the calendar year (CY). Any newly installed or repaired fixture identified during the audit must be sampled and tested for lead to ensure lead-free products were used. The LIPA Audit conducted this year identified eighteen (19) drinking water fixtures that were repaired in CY 2022, that requires additional testing – fourteen (14) from the NASNI CDC and five (5) fixtures from the NAB CDC. All nineteen (19) drinking water fixtures are scheduled to be sampled and tested sometime in June 2023. Results from this sampling event will be made available upon request once results are released.

Routine test results are available from the Commander Navy Region Southwest website at: https://cnrsw.cnic.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/

For CY2022 LIPA Audit test results, please contact the NBC Drinking Water Program Manager at (619) 545-1127.

Per- and Polyfluoroalkyl substances (PFAS)

What are per- and polyfluoroalkyl substances and where do they come from?
Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the U.S. since the 1940s. PFAS have been used in making coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous film-forming foam or AFFF) used for firefighting petroleum fires at airfields and in industrial fire suppression processes because they rapidly extinguish fires, saving lives and protecting property. PFAS chemicals are persistent in the environment and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

Is there a federal or California regulation for PFAS in drinking water?
There is currently no federal drinking water standard for any PFAS compounds. In May 2016, the U.S. Environmental Protection Agency (EPA) established a lifetime drinking water health advisory (HA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both chemicals are types of PFAS.

In California, there is not a PFAS drinking water regulation.

The Department of Defense (DoD) issued a policy in 2020 to monitor drinking water for PFAS at all DoD owned and operated consecutive water systems. A consecutive system is a public water system that buys or otherwise receives some or all of its finished water from a wholesale system. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA HA level of 70 ppt, water systems will request the Purveyor take immediate action to decrease the PFAS levels to below 70 ppt.

What about the EPA's 2022 interim Health Advisories or proposed regulations?
EPA issued interim Health Advisories for PFOS and PFOA in 2022. However these newer levels are below quantifiable limits (i.e., below detection levels). EPA is expected to issue a proposed regulation on PFAS drinking water standards for public comment in the next few months. DoD looks forward to the clarity that a nationwide regulatory standard for PFOS and PFOA in drinking water will provide.

In addition, EPA issued interim Health Advisories for PFOS and PFOA in 2022. However, these newer levels are below quantifiable limits (i.e., below detection levels).

In anticipation of this EPA drinking water regulation and to account for emerging science that shows potential health effects of PFOS and PFOA at levels lower than 70 ppt, DoD is evaluating its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard, such as reviewing our current data and collecting additional sampling where necessary. DoD remains committed to communicating and engaging with our communities throughout this process.

Has NASNI/NAB tested its water for PFAS?
Yes. In June 2021, samples were collected from sample locations at North Island, NOLF, and Naval Base Point Loma's (NBPL) Balboa Ave. These three sites at the time of sampling represented the drinking water quality provided by the City of San Diego to all DoD Metropolitan San Diego locations. The three sample sites represent water quality from all three of the City of San Diego's water treatment plants: Alvarado Water Treatment Plant (North Island), Otay Water Treatment Plant (NOLF), and Miramar Water Treatment Plant (Balboa). Navy will continue to share updated PFAS sampling results from the purveyor as available.

We are informing you that PFOA was detected at all three locations, but substantially below the 2016 EPA HA. Other PFAS compounds covered by the sampling method were not detected above the method reporting limit (MRL), and the EPA does not have a HA for these compounds at this time. The detected results are provided in Tables 1, 2, and 3.

Table 1. PFAS Compound Detected - NASNI

Analyte	PFAS Compound	Units	Result (ppt) 06/23/2021
Perfluoro Octanoic Acid	PFOA	ng/L	2.6

Table 2. PFAS Compound Detected – NBC: NOLF

Analyte	PFAS Compound	Units	Result (ppt) 06/16/2021
Perfluoro Octanoic Acid	PFOA	ng/L	3.3

Table 3. PFAS Compound Detected – NBPL: Balboa Avenue

Analyte	PFAS Compound	Units	Result (ppt) 06/21/2021
Perfluoro Octanoic Acid	PFOA	ng/L	2.2

Water Complaints

Does the filter on your fountain or faucet need to be changed? Please coordinate with your building monitor or facility manager. Make sure filters are marked with the date they were changed out and keep a log book.

Does your water have an odd taste, color, odor, suspended solids, or do you suspect a water-related illness? Please call the Utilities Duty Desk at 619-556-7349 with details (i.e. building number, concern, complaint POC).

Where can I get more information on drinking water?

City of San Diego produces an annual report detailing the sources of our water, where it is purchased from, and how it is treated and delivered. This report is available online at https://www.sandiego.gov/public-utilities/water-quality/water-quality-reports.

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 619-545-1127 or email the NBC Public Affairs Officer at kevin.b.dixon.civ@us.navy.mil if you would like additional information on sampling and monitoring efforts at NASNI/NAB.

TERMS USED IN THIS REPORT

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

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

CA Secondary Maximum Contaminant Level (CA SMCL): MCL for secondary contaminants under CA regulations.

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 detected at testing limit

NL: Notification Level

PFAS: per- and poly-fluorinated alkyl substances

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

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 and are not enforceable.

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

LRAA: Locational running annual average is a four-quarter average at an individual sample location. The LRAA for each location must be less than the MCL. The highest LRAA of the year detected from all the monitoring locations is indicated on this report and compared to the MCL.

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 2022 is summarized in the following tables. Data shown in brackets [example] is obtained from the City of San Diego monitoring. Tables 4, 5, 6, 7, 8, and 9 list all of the drinking water contaminants that were detected during the most recent sampling in treated drinking water. 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.

TABLE 4 – 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)	1 (In a month)	0	≥5% of samples are total coliform positive	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 5 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER[(b)]								
	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)	Aug/Sep 2020	20	2.65	0	15	0.2	n/a	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	Aug/Sep 2020	20	0.823	0	1.3	0.3	n/a	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
(b) Per the Lead and Copper Rule, triannual monitoring is allowed for systems whose monitoring for three consecutive years indicates that lead levels are below the AL.								

TABLE 6 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
	Sample Year	**Level Detected (Average)**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2022	[96.1]	[75.4-116]	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2022	[256]	[207-275]	None	None	Generally naturally occurring magnesium and calcium

TABLE 4 –TURBIDITY					
	Sample Year	**Max Level Found (NTU)**	**% of Samples ≤ 0.3**	**MCL**	**Typical Source of Contaminant**
Turbidity	2022	[0.11]	[100%]	TT = 1 NTU TT=95% of samples ≤ 0.3	Soil runoff

TABLE 7 – 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 (as Cl2; ppm)	2022	1.07	0.06 – 3.2	4.0	4.0	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM; ppb)	2022; quarterly	LRAA = 19	14.0 – 26.0	80	N/A	By-product of drinking water disinfectant
Haloacetic Acids (HAA; ppb)	2022; quarterly	LRAA = 6	4.2 – 9.0	60	N/A	By-product of drinking water disinfectant
Bromate (ppb)	2022	[ND]	[ND – 5.6]	10	0.1	By-product of drinking water disinfectant
Total Organic Carbon (TOC; ppm)	2022	[2.8]	[2.2 – 3.2]	TT	n/a	Various natural and manmade sources
CHEMICAL PARAMETERS						
Aluminum (ppb)[(c)]	2022	[ND]	[ND]	1000	600	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (ppb)	2022	[ND]	[ND]	10	0.004	Erosion of natural deposits; glass and electronics production waste
Barium (ppm)	2022	[ND]	[ND-0.1]	1	2	Erosion of natural deposits; discharges of oil drilling
Fluoride (naturally-occurring; ppm)	2022	[0.3]	[0.3 – 0.4]	2	1	Erosion of natural deposits
Fluoride (treatment-related; ppm)	2022	[0.6]	[0.3 – 0.7]	2	1	Water additive that promotes strong teeth; erosion of natural deposits
Nitrate (as Nitrogen; ppm)	2022	[ND]	[ND – ND]	10	10	Runoff and leaching from fertilizer use; erosion of natural deposits
Selenium (ppb)	2022	[ND]	[ND – ND]	50	30	Erosion of natural deposits; refineries, mines, and chemical water discharge

RADIOACTIVE PARAMETERS						
Gross Alpha Particle Activity (pCi/L)	2022	[ND]	[Single Sample]	15	0	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2022	[7]	[Single Sample]	50[(d)]	0	Decay of natural and manmade deposits
Uranium (pCi/L)	2022	[3]	[Single Sample]	20	0.43	Erosion of natural deposits

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

TABLE 8 – 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)	2022	[ND]	[ND]	200	(50)	Erosion of natural deposits; residue from some water treatment processes
Chloride (ppm)	2022	[111]	[104-121]	500	0.5	Runoff/leaching from natural deposits; seawater influence
Color (CU)	2022	[ND]	[ND – 1]	15	1	Naturally-occurring organic materials
Manganese (ppb)	2022	[2.2]	[ND – 8.2]	50	(20)	Leaching from natural deposits
Odor-Threshold (OU)	2022	[ND]	[ND – 1]	3	(1)	Naturally-occurring natural deposits
Specific Conductance (µS/cm)	2022	[927]	[823 – 1000]	1,600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2022	[195]	[174-211]	500	(0.5)	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2022	[586]	[553-620]	1,000	10	Runoff/leaching from natural deposits
pH	2022	[8.06]	[7.50 – 8.35]	n/a	n/a	low pH: corrosion high pH: deposits

TABLE 9 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Health Effects Language**
Boron (ppm)	2022	[0.1]	[0.1-0.1]	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Chromium, hexavalent (ppb)	2022	[0.06]	[Single Sample]	(e)	Studies show that Cr6 in drinking water may cause an increased risk of stomach cancer and reproductive harm.

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

Summary Information for Violation of a MCL, MRDL, AL, NL, or TT

There were no violations for this system in 2022.

To access this report electronically, please visit the Commander, Navy Region Southwest website at: https://cnrsw.cnic.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/.