



**2023 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 2024



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 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 most of its raw surface water supply from the San Diego County Water Authority¹. 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?

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 number 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 water 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.cnrc.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 Drinking Water 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 Lead 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 in 2023 identified nineteen (19) drinking water fixtures that were repaired in CY 2023, that requires additional testing – fifteen (15) from the NASNI CDC and four (4) fixtures from the NAB CDC. All nineteen (19) drinking water fixtures were sampled and tested below the Lead action level. Results from this sampling event will be made available upon request.

The routine 5-Year LIPA sampling will be conducted this year which will include all the NBC Child Youth Program Facilities mentioned above, as well as the newly added Coronado Crown CDC. This comprehensive baseline sampling is slated for September 2024. 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.cnicy.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/>

For CY2023 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 regulation for PFAS in drinking water?

On April 10, 2024, the US EPA established MCLs for a subset of PFAS chemicals.

Analyte	PFAS Compound	Final MCLG	Final MCL (enforceable levels)
Perfluorooctanoic Acid	PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
Perfluorooctane Sulfonic Acid	PFOS	Zero	4.0 ppt
Perfluorohexane Sulfonic Acid	PFHxS	10 ppt	10 ppt
Perfluorononanoic Acid	PFNA	10 ppt	10 ppt
Hexafluoropropylene Oxide Dimer Acid	HFPO – DA (GenX)	10 ppt	10 ppt
Mixtures of four PFAS: PFHxS, PFNA, HFPO-DA, and PFBS		1 (unitless) Hazard Index	1 (unitless) Hazard Index

EPA requires implementation of sampling in accordance with the new MCLs within three years of the publication date and implementation of any required treatment within five years.

These limits did not apply for the 2023 calendar year because they had not been published. However, the Department of Defense (DoD) proactively promulgated policies to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every two years. 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 health advisory (HA) level of 70 ppt, water systems must take immediate action to reduce exposure to PFOS or PFAS. For levels less than 70 ppt but above the 4 ppt level, which was in draft at the time of policy publication, DoD plans to implement the EPA's published MCLs one they take effect.

Has NASNI/NAB tested its water for PFAS?

Yes. In June 2021, samples were collected from sample locations at NBC North Island. This site at the time of sampling represented the drinking water quality provided by the City of San Diego from the Alvarado Water Treatment Plant.

PFAS Detected but below the new PFAS MCLs

We are informing you that 1 of the 18 PFAS compounds covered by sampling method 537.1 were detected above the method reporting limit (MRL). The results are provided in Table 1. EPA does not have a HA or MCL for all these compounds currently. PFOS, PFNA, PFHxS, PFBS, and Gen X were not detected. As the regulated chemicals were below the new MCLs, there is no immediate cause for concern, but we will continue to monitor the drinking water closely.

Table 1 PFAS Compound Detected – NBC: NASNI/NAB

Analyte	PFAS Compound	Site	Units	Result (ppt) 06/23/2021
Perfluorooctanoic Acid	PFOA	North Island - A	ng/L	2.6

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.

Variations 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 2023 is summarized in the following tables. Data shown in brackets [example] is obtained from the City of San Diego monitoring. Tables 2, 3, 4, 5, 6, 7 and 8 list all 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 2 – 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 <i>E. coli</i> (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 <i>E. coli</i> positive	0	Human and animal fecal waste
<i>E. coli</i> (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 3 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER^(b)

	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	27 Sep 2023	20	2.6	0	15	0.2	n/a	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	27 Sep 2023	20	0.73	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 4 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

	Sample Year	Level Detected (Average)	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2023	[77.5]	[63.6-96.2]	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2023	[214]	[169-270]	None	None	Generally naturally occurring magnesium and calcium

TABLE 5 –TURBIDITY

	Sample Year	Max Level Found (NTU)	% of Samples ≤ 0.3	MCL	Typical Source of Contaminant
Turbidity	2023	[0.15]	[100%]	TT = 1 NTU TT=95% of samples ≤ 0.3	Soil runoff

TABLE 6 – 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
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DISINFECTANT RESIDUAL AND DISINFECTANT BY-PRODUCTS AND PRECURSORS

Chlorine Residual (as Cl ₂ ; ppm)	2023	0.89	0.05 – 2.8	4.0	4.0	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM; ppb)	2023; quarterly	LRAA = 18.6	9.4 – 22.0	80	N/A	By-product of drinking water disinfectant

Haloacetic Acids (HAA; ppb)	2023; quarterly	LRAA = 9.5	4.4 – 13.0	60	N/A	By-product of drinking water disinfectant
Bromate (ppb)	2023	[ND]	[ND – 12.1]	10	0.1	By-product of drinking water disinfectant
Total Organic Carbon (TOC; ppm)	2023	[3.0]	[2.4 – 4.3]	TT	n/a	Various natural and manmade sources

CHEMICAL PARAMETERS

Aluminum (ppb) ^(c)	2023	[ND]	[ND]	1000	600	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (ppb)	2023	[ND]	[ND]	10	0.004	Erosion of natural deposits; glass and electronics production waste
Barium (ppm)	2023	[ND]	[ND]	1	2	Erosion of natural deposits; discharges of oil drilling
Fluoride (naturally-occurring; ppm)	2023	[0.3]	[0.2 – 0.4]	2	1	Erosion of natural deposits
Fluoride (treatment-related; ppm)	2023	[0.6]	[0.4 – 0.8]	2	1	Water additive that promotes strong teeth; erosion of natural deposits
Nitrate (as Nitrogen; ppm)	2023	[ND]	[ND – 2.4]	10	10	Runoff and leaching from fertilizer use; erosion of natural deposits

RADIOACTIVE PARAMETERS

Gross Alpha Particle Activity (pCi/L)	2023	[3.4]	[Single Sample]	15	0	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2023	[ND]	[Single Sample]	50 ^(d)	0	Decay of natural and manmade deposits
Uranium (pCi/L)	2023	[1.9]	[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 7 – 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)	2023	[ND]	[ND]	200	(50)	Erosion of natural deposits; residue from some water treatment processes
Chloride (ppm)	2023	[99.6]	[76.7 - 140]	500	0.5	Runoff/leaching from natural deposits; seawater influence
Color (CU)	2023	[1]	[ND – 4]	15	1	Naturally occurring organic materials
Odor-Threshold (OU)	2023	[ND]	[ND – 2]	3	(1)	Naturally occurring natural deposits
Specific Conductance (µS/cm)	2023	[740]	[453 – 962]	1,600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	[144]	[96.4 - 222]	500	(0.5)	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2023	[484]	[395 - 594]	1,000	10	Runoff/leaching from natural deposits

pH	2023	[8.05]	[7.50 – 8.58]	n/a	n/a	low pH: corrosion high pH: deposits
TABLE 8 – DETECTION OF UNREGULATED CONTAMINANTS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language	
Boron (ppm)	2023	[0.1]	[0.0-0.1]	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.	
Chromium, hexavalent (ppb)	2023	[0.09]	[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 2023.

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 logbook.

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) Water Compliance 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.

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