

CONSUMER CONFIDENCE REPORT



DIEGO GARCIA WATER QUALITY REPORT 2023



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Consumer Confidence Report 2023

FOREWORD

It is with great pride and dedication that I present to you the U.S. Naval Support Facility (NAVSUPFAC) Diego Garcia (DG) Consumer Confidence Report 2023, also known as the Water Quality Report. This report highlights the source of our drinking water, the levels of contaminants found, and our compliance with drinking water standards based on quality monitoring conducted in 2023.

At NAVSUPFAC DG, ensuring the safety and quality of our drinking water is an utmost priority. With meticulous testing and stringent compliance protocols, we assure you that the water flowing from your taps meet and exceed regulatory standards, ensuring your peace of mind and well-being.

I urge you to view this report not just as a document, but also as a testament to the collective effort and dedication of our team. Together, we strive to enhance our water infrastructure and maintain the trust you place in us. Despite the challenges, we have experienced along the way, our determination remains firm in delivering superior water service to you.

Let us continue to work together to ensure that clean and safe water remains a cornerstone of our island's health and vitality. Take part in safeguarding our water sources through responsible practices. Your actions today will have a positive impact to uphold the health and well-being of our residents ensuring a sustainable supply of safe and quality drinking water for all.

Transparency and trust are at the core of our relationship with you. Your support is invaluable as we continue to improve our water system. Thank you for placing your trust in us to provide you with safe and reliable water.



P. J. HATCHER
Captain U.S. Navy
Commanding Officer
Naval Support Facility
Diego Garcia



Diego Garcia Overview

Diego Garcia is an isolated low-lying coral atoll located approximately 7 degrees south of the equator in the center of the Indian Ocean. It is the largest of over 50 coralline islands that compromise the Chagos Archipelago. The main exposed island mass of Diego Garcia is approximately 40-mile long narrow strip, shaped like a hollow footprint (Figure 1) and surrounded by a fringing reef with three small islets delineating the northern boundary of the atolls.



Diego Garcia Final Governing Standards (DGFGS)

The Diego Garcia Final Governing Standards (DGFGS) provides the environmental compliance criteria and management practices used by the U.S. Department of Defense installations and activities on Diego Garcia.

These compliance criteria were developed by comparing and adopting the protective criteria of DoD Manual 4715.05-G (Overseas Environment Baseline Guidance Document), applicable environmental laws, regulations and ordinances, and international agreements that collectively constitute the Bilateral Agreements on the use of Diego Garcia by both United Kingdom (host nation) and the United States.

Overseas installations are required to continue to meet site-specific Final Governing Standards (FGS) and other applicable requirements, in-theater commander directives, Department of Defense (DoD) and service policies as applicable.

Navy Overseas Drinking Water Program Ashore

Navy policy requires that all U.S. Navy overseas installations operate, maintain, and manage their drinking water systems to protect public health and safety. All U.S. Navy installations are required to meet or exceed U.S. National Primary Drinking Water Regulations (NPDWR) under the Safe Drinking Water Act of 1974, to ensure overseas drinking water systems meet the same water quality as required in the United States. In this regard, Commander, Navy Installations Command (CNIC), as the Navy Executive Agent (EA) for Drinking Water Ashore, issued CNIC Instruction 5090.1B as a Navy policy guidance for drinking water quality compliance. The most recent version, CNIC Manual 5090.1A (Navy Overseas Drinking Water Program Ashore), is dated on 15 Mar 2021.

CNIC Manual 5090.1A discusses the requirements, delineates responsibilities, and issues site-specific policy guidance on the management of drinking water quality at U.S. Navy installations outside the jurisdiction of the U.S. Environmental protection Agency (USEPA). These include a triennial Sanitary Survey (audit) of the drinking water systems to verify compliance.

Diego Garcia ODW Program Organization and Oversight

Per Navy policy, NAVSUPFAC Diego Garcia established the Installation Water Quality Board (IWQB) under the chair of its Commanding Officer (not delegable) in April 2014. IWQB manages the Diego Garcia ODW Program and reports all ODW matters to the Regional Water Quality Board (RWQB) and Water Quality Oversight Council (WQOC). This includes implementing and ensuring the ODW program compliance and communicating to stakeholders.

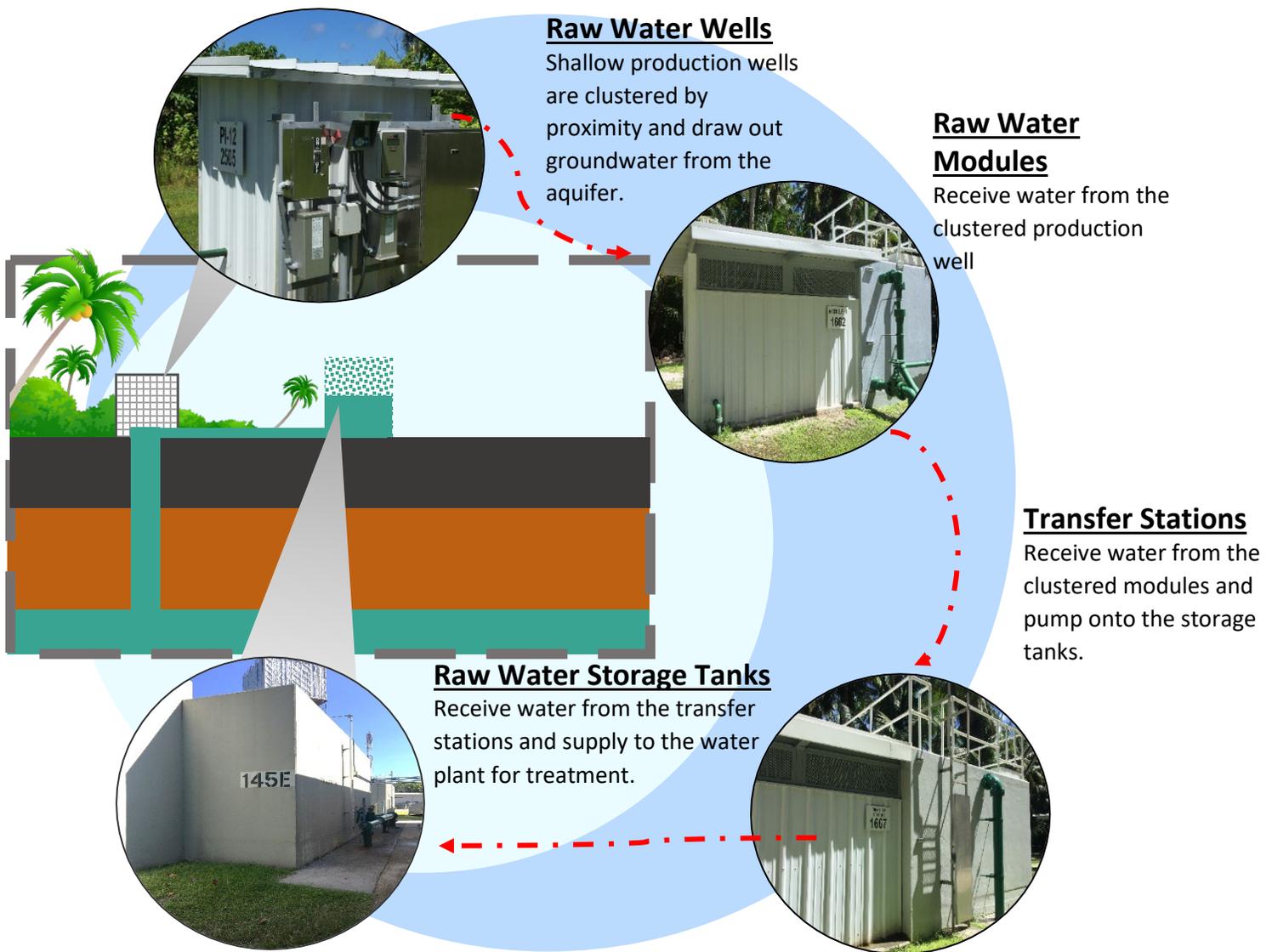


Navy Region Japan RWQB oversees Diego Garcia's ODW program and ensures compliance and consistency but does not have program primacy.

The RWQB reports to the WQOC. The Navy WQOC is the overall governing body and reports on a regular basis to the Navy EA for ODW program ashore. CNIC, as the Navy EA for Drinking Water Ashore, provides overall ODW program authorities.

Source of Water

The Diego Garcia Water Systems' source of water is a combination of **surface water** and **groundwater under the direct influence of surface water (GWUDISW)**. This is due to the aquifers' shallow nature and susceptibility to contamination from surface runoff percolating through the ground. Shallow vertical and horizontal production wells pump water from the groundwater located at Air Ops and Cantonment areas. A series of well modules (1,000-gallon capacity reinforced concrete transfer tanks) receives water from the wells and transports the water to one of two transfer stations, then to the raw water storage tanks of the main water treatment plants situated at Cantonment and Air Ops. It is paramount we protect our aquifers because of the limited alternatives for water resources on the island. Through site surveys and source water assessments, potential sources of contaminations have been identified and characterized. Additionally, recommended measures have been outlined to minimize or eliminate contamination from surface activities. The Public Works Department Environmental Division, Navy Support Facility Diego Garcia is responsible for maintaining the assessment reports for recordkeeping.



Fact:

Diego Garcia's main source water is rainwater percolating into the ground.

Diego Garcia Water Distribution Systems



On 28 February 2018 and 16 October 2018, Diego Garcia's water systems were declared "fit for human consumption" (FFHC). The Navy ODW program uses the term FFHC vice "potable" as a matter of water quality policy.

NAVSUPFAC Diego Garcia received a Conditional Certificate to Operate (CTO) for its water systems in February 2018 pursuant to its Sanitary Survey in 2017. The RWQB grants a full CTO when an installation water system has zero significant deficiencies identified during its latest Sanitary Survey, or when the installation corrects all identified significant deficiencies prior to its next triennial Sanitary Survey.

Main Water System

The Main Water Treatment Plant (WTP) is located at the downtown area. It began operation in Dec 2016 and utilizes pressure filtration and nanofiltration to remove organics, corrosion control, and chlorination and ultraviolet disinfection. The plant treats water extracted from the Cantonment and Air Ops water wells and produces and supplies FFHC water to the Cantonment-Air Ops distribution system from the Cantonment area to Thunder Cove. It also refills the water trucks that deliver to remote sites' storage tanks for distribution.

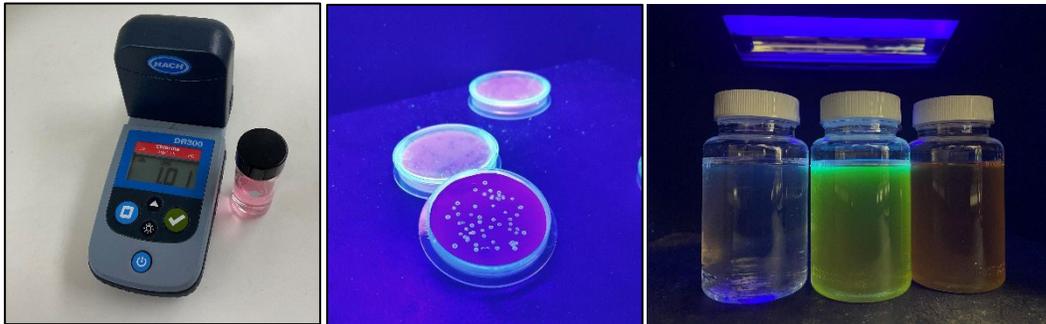
Nanofiltration Hauled Water System (Cantonment and Air Ops) and Sub Site System

Previously, the Nanofiltration Hauled Water System produced FFHC water, which was used to refill 5-gallon water bottles, while the Sub Site system supplied FFHC water to the Sub Site distribution system at the wharf. However, these small water systems were taken offline in 2022 and officially decommissioned in December 2023, per Record of Decision Memorandum 5090 Ser N4/35, due to non-compliance with the Surface Water Treatment Rule (SWTR),

All FFHC storage tanks have been interconnected to the DG Main Water System. Additionally, we now deliver 5-gallon bottled water to offices using hauled water from this system.

Water Quality Data

Laboratory Testing



Both DGFGS and CNIC M-5090.1A require testing of drinking water for contaminants on a regular basis to protect the consumer's public health and safety. The BOS contractor performs water sampling and quality monitoring. These includes services for water quality testing for bacteria and residual disinfectant (chlorine) in the FFHC water distribution system. Maintaining a disinfectant residual in the water ensures protection against any microbial contamination.

Additionally, the BOS contractor collects and ships off water samples to the U.S.-accredited Regional Public Health Center (PHC) Laboratories at U.S. Army Base in Camp Zama, Japan for additional required testing analyses to determine the presence of other potential contaminants. The Regional PHC Laboratories received accreditation from the American National Standard Institute American Association for Laboratory Accreditation (A2LA) for ISO/IEC 17025: General requirements for competence of testing and calibration laboratories. Other potential contaminants include inorganic and organic chemical (volatile organics and synthetic organics), radionuclide, disinfection byproduct (DBP), lead and copper.

The Navy Public Works Environmental and Production (Utilities) Divisions assess the test results received from both laboratories in accordance with applicable DGFGS criteria and Navy policy; also, routinely upload the data to the CNIC ODW Repository for easy access and further evaluation and reporting of both the RWQB and WQOC.

Furthermore, the Preventive Medicine Department of the U.S. Navy Medicine Readiness and Training Unit (NRMTU) Diego Garcia conducts regular health and sanitation inspections of the DG Water systems and facilities, along with monthly independent medical surveillance testing for bacterial and halogen presence. Any discrepancies discovered are promptly reported to PWD for immediate investigation, and corrective or preventive actions.

In 2023, over 38,000 tests were conducted to monitor Diego Garcia's water quality. Appendix A (Water Quality Data) presents a comprehensive summary of the water quality monitoring results for detected contaminants. Contaminants that were tested for, but not detected are not included in this report.



What Should You Know About Certain Contaminants?



As water travels over the surface of the land or percolates through the ground, it dissolves naturally-occurring minerals. It can also pick up other substances resulting from the presence of animals or human activity. Diego Garcia water systems may reasonably produce water containing at least trace amounts of some contaminants. However, the presence of these contaminants does not necessarily indicate that water poses a health risk.

Contaminants in Source Water

 **Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

 **Pesticides and Herbicides**, which may come from various sources such as agriculture, urban stormwater runoff, and residential uses.

 **Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

 **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

 **Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Contaminants in Drinking Water

 **Lead.** 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. 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

 the 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 www.epa.gov/safewater/lead.

 **Copper.** Copper levels are found naturally in groundwater and surface water. Copper levels in water are generally very low; approximately 4 micrograms of

copper in one liter. However, drinking water may contain higher levels of a dissolved form of copper. Increased levels of copper can occur when corrosive water comes in contact with copper plumbing in the water supply system. Cases of copper poisoning have led to anemia and to the disruption of liver and kidney functions. Immediate effects from drinking water extremely elevated levels of copper include vomiting, diarrhea, stomach cramps and nausea.

 **Coliforms.** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present in drinking water. It is a warning of potential problems if coliforms are found in more water samples than allowed. The presence of bacteria does not mean the water is unsafe to drink. Only disease-causing bacteria, known as pathogens, lead to disease. Total coliform bacteria (without the presence of *E. coli*) are generally not considered harmful, but their presence indicates a potential pathway for contamination to enter drinking water. Fecal coliforms or *E. Coli* are a particular type of coliform bacteria. Their presence in drinking water is more serious than other coliform bacteria because they are disease-causing and also indicate that drinking water has been contaminated by sewage or animal wastes that contain other disease-causing microorganisms. This type of contamination can cause severe diarrhea, cramps, and nausea.

Inorganic Contaminants

 **Barium.** Barium is a divalent cation and alkaline earth metal that can be found in naturally occurring mineral deposits. The health effects of the different barium compounds depend on how well the compound dissolves in water. Barium compounds that do not dissolve well in water are not generally harmful and are often used by doctors for medical purposes. Those barium compounds that dissolve well in water may cause harmful health effect in people. Ingesting high levels of dissolved barium compounds over the short term has resulted in difficulties in breathing, increased blood pressure, changes in heart rhythm, stomach irritation, brain swelling, muscle weakness, and damage to the liver, kidney, heart, and spleen.

Fluoride. Fluoride is an inorganic ion naturally found in drinking water because of its presence in the earth's crust or from human activities that release fluoride to the environment. Exposure over many years to drinking water with fluoride levels above 4 mg/L may result in cases of crippling skeletal fluorosis, which is serious bone disorder resembling osteoporosis and characterized by extreme density and hardness and abnormal fragility of the bones (sometimes called "marble bones").



Sodium. Sodium is an essential element required for normal body function including nerve impulse transmission, fluid regulation, and muscle contraction and relaxation. However, in excess amounts, sodium increases individual risk of hypertension, heart disease, and stroke. One of the chief sources of sodium is the consumption of salt; therefore, salt restrictions are often recommended as a first-line treatment for individuals suffering from these conditions.



Nitrites and Nitrates. Nitrites and nitrates are nitrogen-oxygen chemical units which combines with various organic and inorganic compounds. Once taken into the body, nitrates are converted into nitrites. Once ingested, conversion of nitrate to nitrite takes place into the saliva of people of all ages, and in gastrointestinal tract of infants. Nitrites and nitrates have the potential to cause the following effects from a lifetime exposure at levels above the MCL: diuresis, increased starchy deposits and hemorrhaging of the spleen.

Disinfection Byproducts (DBP)



Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). TTHM and HAA5 are groups of chemicals formed when the naturally occurring organic materials in raw water reacts with the chlorine which is added as disinfectant. The highest level allowed (Environmental Protection Agency's maximum contaminant level) for TTHM and HAA5 are 80 and 60 micrograms per liter and parts per billion, respectively. The source of organic materials in raw water is thought to be rainwater percolating through decaying vegetation in the wellfields. Potential health effects from exposure to TTHM and HAA5 depend on various factors, including concentration of the chemicals and duration and frequency of exposure. According to the U.S. Environmental Protection Agency (EPA) (<https://www.epa.gov/your-drinking-water/table-regulated-drinking-water-contaminants#Byproducts>), some people who drink water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems and increased risk of cancer.



Per- and Polyfluoroalkyl Substances (PFAS)

What are PFAS 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 1940. PFAS have been used to make 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 fighting petroleum fires at airfields and in industrial fire suppression processes. 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.

Compound	MCLs in parts per trillion (ppt)
PFOA	4 ppt
PFOS	4 ppt
GenX	10 ppt
PFNA	10 ppt
PFHxS	10 ppt
HI MCL for PFHxS, PFNA, PFBS, and GenX	1 (unitless)

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 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 (draft at the time of policy publication), DoD committed to planning for implementation of the levels once EPA's published MCLs take effect.

**Additional
Information About
Your Water**

Does your Drinking Water Taste or Smell Bad?

A change in your water's taste, color, or smell is not necessarily a health concern. These effects are caused when some naturally occurring constituents occur at concentrations high enough to be a nuisance. Most nuisance constituents occur naturally. They result from the reaction of groundwater with aquifer rocks and sediments as the water moves underground. However, sometimes a change of smell or taste can be a sign of problems. If you notice a change in your water, call **Water Plant** at **370-2755** to request investigation.

Small amounts of Contaminants in Drinking Water

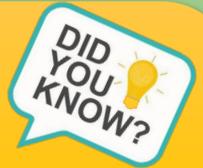
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or visit their website: <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>

For Customers with Special Health Concerns

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the **Safe Drinking Water Hotline** at **1-800-426-4791**.

A "cross-connection" is any connection between a public drinking water system and a separate source of questionable quality.

For example, an ordinary garden hose submerged in a bucket of water, car radiator, or swimming pool can result in backflow contamination. To protect our water supply, all outdoor faucets with a potential for a garden hose connection must each have a simple screw-on vacuum breaker.



SAVE WATER....EVERY DROP COUNTS!!!



Questions on how we carry out drinking water requirements?

Installation Drinking Water Compliance Program Manager
DSN: (315) 370-4540

Installation Environmental Program Director
DSN: (315) 370-4542

Questions about water production and treatment?

Installation Production Officer
DSN: (315) 370-4543

Questions about health effects of potential contaminants in water?

Installation Preventive Medicine Authority
DSN: (315) 370-4258

Water samples analyzed using the parameters and methods required by U.S. National Primary Drinking Water Regulations (40 CFR 141) either on-island by BOS Contractor or US Army Public Health Center Laboratories in Camp Zama, Japan

Appendix A: 2023 Water Quality Data



Table 1. WATER QUALITY DATA FOR DETECTED CONTAMINANTS: MAIN WATER SYSTEM
(Data from January – December 2023)

Inorganic Chemicals – Annual and quarterly* sampling and testing						
Contaminant ^(a)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Highest Result	Range of Test Results	Violation	Typical Sources/Remarks*
Barium	2 ppm	2 ppm	0.080 ppm	0.0038 – 0.080 ppm	No	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits
Sodium	N/A	N/A	31 ppm	30-31 ppm	N/A	*No MCL & MCLG established. Monitoring is required so concentration levels can be made available upon request.
Volatile Organic Contaminants – Quarterly sampling and testing						
Contaminant ^(a)	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Highest Result	Range of Test Results	Violation	Typical Sources
Total Xylenes	10 ppm	10 ppm	0.0027 ppm	<0.0005 – 0.0027 ppm	No	Discharge from petroleum factories and chemical factories
Disinfectant – Monthly sampling and testing						
Contaminant ^(a)	Highest Level Allowed (EPA's MRDL)	Ideal Goal (EPA's MCLRG)	Highest Result	Range of Test Results	Violation	Typical Sources
Residual Chlorine	4 ppm	4 ppm	1.89 ppm	0.59 – 1.89 ppm	No	Water additive used to control microbes
Disinfection Byproducts – Quarterly sampling and testing						
Contaminant ^(a)	Highest Level Allowed (EPA's MCL, Quarterly Average)	Ideal Goal (EPA's MCLG, Quarterly Average)	Highest Result (Quarterly Average)	Range of Test Results (Quarterly Average)	Violation	Typical Sources
Total Trihalomethane (TTHM)	80 ppb	N/A	9.1 ppb	6.4 – 9.1 ppb	No	Byproduct of drinking water disinfection
Halo-acetic Acid (HAA5)	60 ppb	N/A	4.9 ppb	3.3 – 4.9 ppb	No	Byproduct of drinking water disinfection
Bacteria in Tap Water - Monthly sampling and testing						
Contaminant ^(a)	Highest Level Allowed (EPA's MCL) ^(b)	Ideal Goal (EPA's MCLG)	Highest Percentage of Samples with Total Coliform	Violation	Typical Sources	
Total Coliform (including fecal coliform and E. Coli)	5% of monthly samples are positive	0	0 %	No	Coliforms are naturally present in the environment. Fecal coliforms and E. Coli only come from human and animal fecal waste	
How to read the Water Quality Data Tables						
Diego Garcia Final Governing Standards and Navy policy establishes the safe drinking water standards based on National Primary Drinking Water Regulations that limit the amount of contaminants allowed in drinking water. Tables 1 and 2 show the concentrations of detected contaminants or substances in comparison to regulatory limits. Contaminants or substances not detected are not included in the tables.						
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.						
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.						
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 allow for a margin of safety.						
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 contamination.						
Units in the table:						
ppm – Parts per million (also expressed as milligrams per liter or 1 drop in 1 million gallons)	ppb – Parts per billion (also expressed as micrograms per liter or 1 drop in 1 billion gallons)	< - symbol meaning "less than" the value next to the symbol (ex: "<5" means "less than 5")	N/A – Not applicable; not required or no requirement			



Table 2 MONITORING FOR PER- and POLYFLUOROALKYL SUBSTANCES (PFAS)^(c)

Contaminant	Test Results Main Water	Units	U.S. EPA HA Level	MRL	MCLG	Violation
EPA METHOD 533						
11Cl-PF3OUdS/F53B Major	ND	ppt	N/A	1.8	N/A	N/A
4:2 Fluorotelomer sulfonic acid	ND	ppt	N/A	1.8	N/A	N/A
6:2 Fluorotelomer sulfonic acid	ND	ppt	70	1.8	N/A	No
8:2 Fluorotelomer sulfonic acid	ND	ppt	N/A	1.8	N/A	N/A
9Cl-PF3ONS/F53B Minor	ND	ppt	N/A	1.8	N/A	N/A
DONA/ADONA Acid	ND	ppt	N/A	1.8	N/A	N/A
HFPO-DA/Gen X Acid	ND	ppt	N/A	1.8	N/A	N/A
NFDHA	ND	ppt	N/A	1.8	N/A	N/A
Perfluorobutanesulfonic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorobutanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorodecanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorododecanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluoroheptane sulphonate	ND	ppt	N/A	1.8	N/A	N/A
Perfluoroheptanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorohexanesulfonic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorohexanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorononanoic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluorooctanesulfonic acid	ND	ppt	70	1.8	N/A	No
Perfluorooctanoic acid	ND	ppt	70	1.8	N/A	No
Perfluoropentane acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluoropentanesulfonic acid	ND	ppt	N/A	1.8	N/A	N/A
Perfluoroundecanoic acid	ND	ppt	N/A	1.8	N/A	N/A
PES	ND	ppt	N/A	1.8	N/A	N/A
PFECA A	ND	ppt	N/A	1.8	N/A	N/A
PFECA F	ND	ppt	N/A	1.8	N/A	N/A
EPA METHOD 537.1						
11Cl-PF3OUdS/F53B Major	ND	ppt	N/A	2.0	N/A	N/A
9Cl-PF3ONS/F53B Minor	ND	ppt	N/A	2.0	N/A	N/A
DONA/ADONA Acid	ND	ppt	N/A	2.0	N/A	N/A
HFPO-DA/Gen X Acid	ND	ppt	N/A	2.0	N/A	N/A
NEtFOSAA	ND	ppt	N/A	2.0	N/A	N/A
NMeFOSAA	ND	ppt	N/A	2.0	N/A	N/A
Perfluorobutanesulfonic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorodecanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorododecanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluoroheptanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorohexanesulfonic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorohexanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorononanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorooctanesulfonic acid	ND	ppt	70	2.0	N/A	No
Perfluorooctanoic acid	ND	ppt	70	2.0	N/A	No
Perfluorotetradecanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluorotridecanoic acid	ND	ppt	N/A	2.0	N/A	N/A
Perfluoroundecanoic acid	ND	ppt	N/A	2.0	N/A	N/A

How to read PFAS Data Table		
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 would 1) take immediate action to reduce exposure to PFOS or PFOA by providing alternative drinking water; and 2) evaluate and implement corrective actions to reduce levels below 70 ppt, or determine if the system should be permanently removed from use. Table 2 shows concentration of PFAS substances from Diego Garcia's FFHC water in comparison to these regulatory limits. New established MCL limits did not apply for CY2023.		
Health Advisory (HA): Develops to provide information on contaminants that can cause health effects and are known or anticipated to occur in drinking water		
Method Reporting Limit (MRL): The limit of detection for a specific target analyte for a specific sample after any adjustments have been made		
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 allow for a margin of safety.		
Units in the table:		
ppt – Parts per trillion or nanograms per liter	ND - non-detect or the contaminant has not been detected	N/A – Not applicable; not required or no requirement
Notes: (For Tables 1 and 2)		
(a) Only substances detected during sampling performed in calendar year 2023.		
(b) Values are reported as number of positive samples. MCL is computed using number of positive samples per month.		
(c) Not applicable. No established MCLs at the time of sampling.		

Has Diego Garcia tested its water for PFAS in 2023? Yes. In 2023, samples were collected quarterly from the point of entry to the main water distribution system. Results are shown in Table 2.

DG Main Water_ PFAS below MRL

We are pleased to report that drinking water testing results were below the method reporting limit (MRL) for all PFAS compounds covered by the sampling method, including PFOA and PFAS. This means that PFAS were not detected in the DG Main Water System. In accordance with DOD policy, the water system will be resampled every two years for your continued protection. Despite this, DG has chosen to sample every three months.

Appendix B:

Water Improvement Projects

Construction and Repairs		
Project Title	Purpose	Status or Planned Date
MILCON P-116 Water Treatment Plant Filtration System	Install surface water treatment that will ensure the provision of safe drinking water complying with the EPA Surface Water Filtration requirements and to receive a full Certificate to Operate (CTO) from the Water Quality Oversight Council	Target Award Date: Feb 2027
Ultra/Micro Filtration Set Treatment System(s)	To serve as interim filtration system(s) to the Main WTP pending approval of P-116. A pre-fabricated or custom-built treatment system where all units and components are installed on a frame; a plug-and-play approach. A straightforward connection to existing process equipment.	Planning phase
Replace Nano-filtration (NF) Membranes	Replace existing membranes to improve NF performance. Membranes have surpassed its life span	Project awarded to KBR. Estimated completion date: 2024
Extend Well Casing of some wells at the Cantonment Area	To protect the wells against runoff, drainage problems and possible source water contamination.	Project awarded to KBR. Estimated completion date: Aug 2024
Upgrade Q wells Raw Water Line System	To repair the damaged and corroded raw water line system to continue use the Q wells	Completed
Replace Variable Frequency Drive (VFD) of Nanofiltrations 2 and 5	VFD is used to control the pump speed. Replacement is needed to support higher water demand.	Completed
Replace Underground Water Pipeline near F-135	To replace existing deteriorated waterline and repair multiple leaks	Completed
Close Out Wells at Various Location	To close out monitoring wells at the Air that are recommended for high priority abandonment because their integrity has been compromised and major repairs would be required	Project awarded to KBR. Estimated completion date 2024
Install Isolation Valve Between AO-10 to 15 & AO-2 to 9 Water line	Expose/reconnect and provide isolation valve for well water line	Project awarded to KBR. Estimated Completion date Aug 2024
Construct Canopy and Louver at the Water Plant	To protect the water treatment chemicals from potential exposure to direct sunlight and provide sufficient spill containment pallet volume for spill protection.	Project awarded to KBR. Estimated completion date Sep 2024
Replace Water Treatment Plant Generator	To provide adequate auxiliary power at the Water Plant to ensure continuous water supply when the primary power has been interrupted.	Project awarded to ECC. Estimated completion date 2024
Install Isolation Valves at F-148	To easily maintain the inlet and outlet of pressure filter	Project awarded to KBR. Estimated completion date 2024
Repair Air Ops Water Wells and Piping	To protect AO wells from flooding and potential sources of contamination	Project awarded to JSK. Estimated completion date May 2025
Install Back-Up SCADA Computer Server	To provide resiliency to the existing server PC in case it fails to operate	Target Award Date FY24
Repair Double Check Valve Backflow Preventer Device	To comply with the requirements of Backflow Prevention and Cross Connection Control Program	Target Award Date FY24
Repair Water Distribution Line at C-Site	Install PVC pipeline loop to maintain water required chlorine residual and preclude water stagnation	Target Award Date FY24
Provide Water Pipeline Loop at R-site	Install PVC pipeline loop to maintain water required chlorine residual and preclude water stagnation.	Target Award Date FY24
Replace Underground Water Pipe at Finger Pier	Repair and fix water leaks to reduce high water consumption	Target Award Date: Apr 2025
Replace Well Instruments on 93 Wells at Cantonment Area	Replace existing defective Cantonment well instruments to include protection of instruments from direct sunlight and rainfall to properly operate and monitor the well system and track the impact of groundwater withdrawals on seawater intrusion.	Target Award Date: Nov 2024

Repair Overflowing Recharge Tank and Various Equipment	To prevent the NF concentrate/reject water from percolating back to the ground	Target Award Date: Sep 2024
Repair Fiberglass Water Tanks with NSF 61 Tanks	Replace with NSF 61 certified tanks to ensure that tanks are made up of the components that are compliant with the drinking water quality standards and won't contaminate our drinking water	Target Award Date: Sep 2025
Replace Hydropneumatic Tank at GEODDS	Need to provide a new tank due to excessive corrosion of the existing tank. New tank will resolve turbidity issue in the water supply at GEODDS	Target Award Date: Nov 2024
Replace Flushing Tank and CIP Tank at the Water Plant	To increase the capacity of our CIP tank to 1500 gals that will prevent water overflow	Target Award Date: Nov 2025
Replace Tank F-109	To replace the deteriorated tank with a new and larger tank. This will also provide additional water storage	Target Award Date: Aug 2024
Perform Repair to Water Tanks F-308, F-1655 and F-1503	To repair all leaks in the existing tanks and bring back the maximum storage capacity of each tank	Target Award Date: 2024
Install Post Filtration Aeration System at the Water Plant	Post filtration aeration will help in removing the hydrogen sulfide smell of the water	

Studies and Plans		
Project Title	Purpose	Status or Planned Date
Water System Vulnerability Assessment (WSVA)	To evaluate the susceptibility of the water source, treatment, storage, hauled water systems, and distribution systems(s) to disruption of service caused by a full range of threats	Completed May 2023
Emergency Contingency Plan (ECP)	To identify procedures that can be implemented and equipment to be utilized to protect our water system during emergency	Completed May 2023
Drinking Water Monitoring Plan	Update the appropriate monitoring requirements for the microbiological and chemical analysis of drinking water and develop drinking water sampling schedule to meet the requirements of FGS and CNIC instructions	Completed May 2023
Potable Water Master Plan	To assess the capacity, condition, and reliability of the Potable Water Systems in meeting present and future needs and provide recommendations to address identified deficiencies	Target Completion Date: Sep 2024
Cross Connection Control and Backflow Prevention Survey of Potable Water Distribution System	To identify existing and potential potable water system cross connections and recommend actions to correct cross connection deficiencies	Completed Apr 2024
Water Quality Improvement Study	Perform a comprehensive assessment of the current state of the drinking water treatment system and recommend options to upgrade the treatment to effectively treat for PFAS (and other compounds of concern)	Target Completion Date: Dec 2024
Wellhead Protection and Management Plan and Watershed Control Plan	Evaluate the condition of the existing wellheads and provide recommendations. This includes formal training to NSFDG personnel on how to properly inspect watershed	Completion Date: Sep 2024
Update of Drinking Water System Compliance Sampling Plans	Provide key working references for water quality compliance sampling and reflect the most recent governing standards and other applicable Navy and DoD policy and guidance	Completion Date: Sep 2024

Appendix C:

Surface Water Treatment Rule – Failure to Filter

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The U.S. Navy Support Facility (NAVSUPPFAC) Diego Garcia (DG) Water Treatment Plant Does Not Meet the USEPA Surface Water Treatment Rule Filtration requirements. However, our drinking water remains **Fit for Human Consumption (FFHC)**. This situation does not require that you take immediate action, but Navy Policy (CNIC M-5090.1A) requires issuance of this Public Notification (PN) because as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

The Surface Water Treatment Rule requires NAVSUPPFAC DG to have a filtration process upgrade in addition to our current nano filtration and disinfection processes because we do not have a complete watershed control program in place.

What does this mean?

This is NOT an emergency. If it had been, you would have been notified within 24 hours of discovery. We do not know of any cases of disease-causing organisms contaminating the water supply. Until the filtration improvements are in place, there is an increased chance that disease-causing organisms could contaminate the water supply. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms, however, are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

What should I Do?

- You do not need to boil your water. However, if you have specific health concerns, consult your doctor. A home filter will not necessarily solve the problem, because not all home filters protect against parasites. Call the National Sanitation Foundation (NSF) International at 1(800) NSF-8010 or the Water Quality Association at 1(800)749-0234 for information on appropriate filters.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available on the EPA Ground Water and Drinking Water Website at <https://www.epa.gov/ground-water-and-drinking-water>.

What is being done?

NAVSUPPFAC DG currently uses adequate chlorination and ultraviolet disinfection to inactivate these organisms. The disinfection processes are operating effectively to inactivate these organisms and the drinking water remains Fit for Human Consumption.

Surface Water Treatment Rule – compliant filtration, in combination with adequate disinfection, is the best method for ensuring removal of the organisms. NAVSUPPFAC DG is programmed for installation of a SWTR-compliant filtration system in FY2027. Until this required filtration is installed, you will receive an updated Notice similar to this every three months.

For more information, please contact:

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Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.