2025 Annual Water Quality Report (for water quality in 2024)

Fort Shafter

U.S. ARMY GARRISON—HAWAII

The Safe Drinking Water Act requires all community water systems to provide an annual Consumer Confidence Report (CCR) to their customers. CCRs provide drinking water quality information, including information on the origin of the drinking water and any detected contaminants.

U.S. Army Garrison Hawaii is providing this report as a service to the community in conjunction with this Safe Drinking Water Act requirement.

How does the CCR work? An essential part of the CCR is the water quality table on page 3 showing the level of each substance detected during 2024. There are three columns on the table which should be given special attention: the maximum contaminant level (MCL), the level detected, and whether a violation occurred. The Environmental Protection Agency (EPA) set MCLs for a number of substances which may be found in drinking water. All of the substances listed in the table are below the MCLs set by the EPA. U.S. Army Garrison (USAG) Hawaii continues to provide some of the cleanest and safest drinking water available in Hawaii.

What is the source of the water? The Fort Shafter water system is served by two 12-inch diameter deep wells. Ground water is pumped out of these wells, and chlorinated and fluoridated prior to distribution. Both additives are required under Army standards. Chlorine is used as a disinfectant and fluoride is used to promote strong teeth in children.

The Fort Shafter water system has three different service zones: the upper, the middle, and the lower. Each zone is served by reservoir storage and booster pumps. The upper zone and the majority of the middle zone supply family housing areas. The lower zone includes the Funston Loop housing area but, primarily supplies water for non-housing demands.

The Fort Shafter system is also interconnected with the City and County of Honolulu water system for emergency situations.

The susceptibility of the Fort Shafter water system to contamination has been evaluated under the Hawaii Source Water Assessment Program. The results of the Assessment, dated March 2004, are available for review by contacting the Directorate of Public Works, Environmental Division, at 520-687-2162.

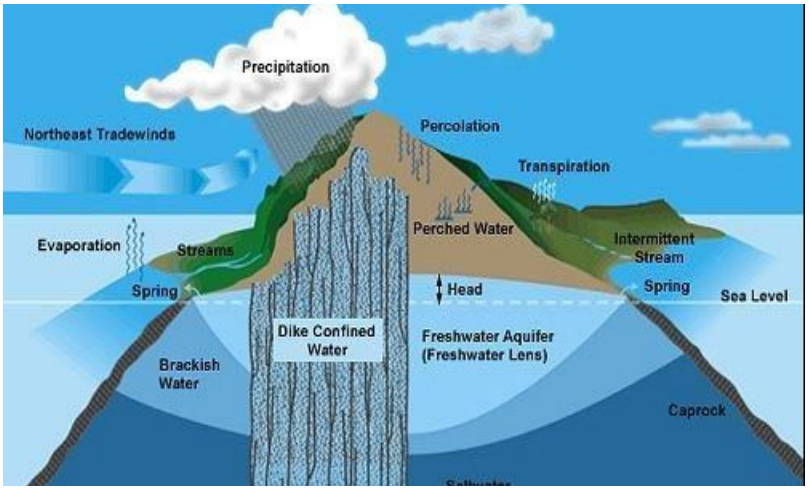
In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of specific contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for the contaminants in bottled water, which must provide the same protection for public health as tap water.

THE FOLLOWING PAGES WILL DESCRIBE THE CONTAMINANTS AND THE RESULTS OF THE DRINKING WATER SAMPLING THAT OCCURRED IN 2024.

Inside this Report:

Where Do Potential Ground Water Quality Problems Come From?

As water percolates through the ground, it dissolves naturally-occurring minerals. Substances resulting from the presence of animal or human activity can also be introduced to the ground water or the distribution system. 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (1-800-426-4791) or submitting a request through their online form at https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information.



http://www.boardofwatersupply.com/water-resources/the-water-cycle

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, the water dissolves naturally occurring minerals and, in some cases, radioactive material. The water can also pick up substances resulting from the presence of animals or from human activity as indicated in the contaminant summary below.

Contaminant Categories

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

Inorganic contaminants, such as salts and metals, which 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 by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water runoff, and septic systems.

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

Important Health Information

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/Center for Disease Control 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). Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses.) You can do this by posting this notice in a public place or distributing copies by hand or mail.

Lead Facts

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. The Fort Shafter Water System is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components.

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 water for drinking or cooking. Using a filer, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposure. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes.

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 https://www.epa.gov/safewater/lead.

If you are concerned about lead in your water and wish to have your water tested or want to obtain the most recent lead sampling data, contact DPW ENV at 520-687-2162 . Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

Lead Service Line Improvements (LSLI)
USAG Hawaii prepared the Lead Service Line Inventory in compliance with State and Federal regulations on October 16, 2024. Due to sensitive and defense critical information, the inventory with addresses, building numbers, and identifiable information will not be directly posted or distributed however if you'd like to obtain information about a water line that services your residence, building, or another area please contact The Schofield Barracks Water System at 520-687-2207. The Lead Service Line Replacement Plan is in progress to be submitted to Hawaii Department of Health and the EPA by 2027, in accordance with State and Federal regulations

UCMR 5 Information

Every 5 years, the Environmental Protection Agency (EPA) uses the UCMR to monitor for the highest priority unregulated drinking water contaminants at public water systems across the United Sates. Occurrence data collected under the fifth Unregulated Contaminant Monitoring Rule (UCMR 5) will be used by EPA as basis for future regulatory determinations and may support additional actions to protect public health. The UCMR 5 specifies assessment monitoring for PFAS and lithium.

Cross Connection Information

Cross-connection is defined as an actual or potential connection between a drinking water supply and any source through which backflow may occur and introduce any substance other than the intended drinking water into the drinking water system.

DO NOT connect hoses or equipment to fire hydrants, backflow preventers, or utility sink faucets to fill water buffaloes, water trucks, or other equipment. Unauthorized connections to the drinking water system may present a possible risk of chemical or microbiological contamination into our drinking water system.

To ensure a safe and secure drinking water system, all connections, including temporary water connections, must be approved by the DPW Plumbing Shop. To request a water connection, please submit information via ArMA.

If you encounter any cross connections that may have the potential to introduce contaminants into our drinking water system please contact us! The DPW Safe Drinking Water Program can be reached at 520-687-2162.

https://www.dfrsd.com/Home/Components/News/News/26/18?arch=1&selectview=1&image=2

Water Quality Table for Fort Shafter Water System

The tables below list all of the drinking water contaminants detected during calendar year 2023 unless otherwise indicated. The EPA allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or our system is not considered vulnerable to this type of contamination. Some of our data, though representative, are more than one year old. Results of samples in the tables below identify low levels of contaminants detected below EPA limits. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

Contaminants in the Distribution System (units of measurement)	MCL	MCLG	Average Level Detected	Range of Detection (multiple samples)	Year Sample Collected	Likely Source of Contaminant	Violation
Disinfectant & Disinfection Byproducts							
Residual Chlorine (ppm)	MRDL =4	MRDLG=4	0.7	0.53-0.81	2024	Water additive used to control microbes	**NO**
Total Trihalomethanes (ppb)	80	N/A	9.78	No Range	2024	By-product of drinking water chlorination	**NO**
Total Haloacetic Acids ppb)	60	N/A	ND	No Range	2024	By-product of drinking water chlorination	
Inorganic							
Copper (ppm)	AL=1.3	1.3	ND[1,2]	0[3]	2023	Corrosion of household plumbing systems; erosion of natural deposits	**NO**
Lead (ppb)	AL= 10	0	ND[1,2]	0[3]	2022	Corrosion of household plumbing systems; erosion of natural deposits	**NO**
Fluoride (ppm)[5]	4	4	0.53	ND-1.80	2024	Erosion of natural deposits, water additive to promote strong teeth	**NO**

Contaminants in the Plant Water (units of measurement)	MCL	MCLG	Highest Level Detected	Range of Detection (multiple samples)	Year Sample Collected	Likely Source of Contaminant	Violation
Inorganic							
Barium (ppb)	2000	2000	18.39[2]	No Range	2023	Erosion of natural deposits	**NO**
Chromium (ppb)	100	100	2.19[2]	No Range	2023	Erosion of natural deposits	**NO**
Fluoride (ppm)	4	4	0.72	No Range	2024	Erosion of natural deposits; water additive to promote strong teeth	**NO**
Nitrate as Nitrogen (ppm)	10	10	0.42	No Range	2024	Runoff from fertilizer use	**NO**
Unregulated[5]							
Sodium (ppm)	N/A	N/A	79.00[2]	No Range	2023	Naturally occurring	**N/A**
Sulfate (ppm)	250[6]	N/A	56.99	No Range	2024	Naturally occurring	**N/A**

Table Definitions, Notes, and Abbreviations

Table Definitions:
MCL - Maximum Contaminant Level - 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.
MCLG - Maximum Contaminant Level Goal - 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.
MRDL - Maximum Residual Disinfectant Level - 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.
MRDLG - Maximum Residual Disinfectant Level Goal - 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.
AL (Action Level) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Table Abbreviations:
ppb - parts per billion or micrograms per liter (µg/L)
ppm - parts per million or milligrams per liter (mg/L)
pCi/L - picocurie per liter
ND - non-detect
* - EPA/HDOH interim proposed Health Advisory (HA). Final MCL's effective 4/10/2024, replace HA.

Water Quality Table for Fort Shafter Water System

UCMR 5 PFAS (units of measurement)	MCL (ppt)	MCGL (ppt)	Average Level Detected	Range of Detection (multiple samples)	Year Sample Collected	Likely Source of Contaminant	Violation
UCMR5[6]							
Perfluorooctanoic acid (PFOA)	4	0	ND	ND	2023	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	**N/A**
Perfluorooctanesulfonic acid (PFOS)	4	0	ND	ND	2023	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	**N/A**
Perfluorobutanesulfonic acid (PFBS)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluoroheptanoic acid (PFHpA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluorohexanesulfonic acid (PFHxS)	10	10	ND	ND	2023	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	**N/A**
Perfluorononanoic acid (PFNA)	10	10	ND	ND	2023	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	**N/A**
Perfluorodecanoic acid (PFDA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluorohexanoic acid (PFHxA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluorododecanoic acid (PFDoA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluorotridecanoic acid (PFTrDA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluoroundecanoic acid (PFUnA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	10	10	ND	ND	2023	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	**N/A**
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
Perfluorotetradecanoic acid (PFTA)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	N/A	N/A	ND	ND	2023	Synthetic chemical used in a wide range of consumer products and industrial applications	**N/A**

Water Quality Table for Fort Shafter Water System

UCMR 5 PFAS (units of measurement)	MCL	EPA Proposed MCL (ppt)*	Average Level Detected	Range of Detection (multiple samples)	Year Sample Collected	Likely Source of Contaminant	Violation
UCMR5[6]							
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluoro-3-methoxypropanoic acid (PFMPA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluoro-4-methoxybutanoic acid (PFMBA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluorobutanoic acid (PFBA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluoroheptanesulfonic acid (PFHpS)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
perfluoropentanesulfonic acid (PFPeS)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Perfluoropentanoic acid (PFPeA)	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**
Lithium	N/A	N/A	ND	ND	2023	By-product of drinking water	**N/A**

Table Definitions, Notes, and Abbreviations, Continued

Table Notes:

1. In accordance with EPA and State regulations, this number represents the 90th percentile value of the sample collected.
2. The state and EPA require water systems to monitor certain contaminants less than once per year because the concentration is not expected to vary significantly from year to year. The date of the last sample collected is as indicated.
3. Number of samples above the action level.
4. Fluoride is added to the water system to help promote healthy teeth in children. The target level is 0.7 ppm.
5. Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future.
6. This is a Secondary Maximum Contaminant Level (SMCL). It is not enforced by the EPA and is not considered a risk to human health at SMCL.

Table Abbreviations:

ppb - parts per billion or micrograms per liter (µg/L)
ppm - parts per million or milligrams per liter (mg/L)
pCi/L - picocurie per liter
N/A - not applicable
ND - not detected

https://depositphotos.com/

Summary of Results

Many different water samples are collected and analyzed for various contaminants throughout the year. The number and frequency of sampling events depends upon federal and state requirements. The water quality table on page 4 lists all of the drinking water contaminants detected during calendar year 2022, there were no violations. All of the substances listed in the table are below the MCLs set by the EPA. Contaminants not present in the drinking water or analyzed below detection limits are not included in this table. Remember, the presence of contaminants does not necessarily indicate that the water poses a health risk.

This CCR is posted on the web at:

https://home.army.mil/hawaii/7617/4803/8424/FINAL_2025_CCR_341_FS.pdf

THE DIRECTORATE OF PUBLIC WORKS DOES NOT HAVE ROUTINE PUBLIC MEETINGS ABOUT THE WATER SYSTEM. IF YOU HAVE QUESTIONS REGARDING THE WATER SYSTEM OR WATER QUALITY PLEASE CONTACT THE DPW ENVIRONMENTAL DIVISION, SAFE DRINKING WATER PROGRAM AT 520-687-2162.

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