Marine Corps Base Hawaii

ANNUAL WATER QUALITY REPORT

PUBLIC WATER SYSTEM NO. 356

This report meets federal and state requirements for Consumer Confidence Reports.
This report reflects monitoring data collected from Jan 1 – Dec 31, 2025

The Marine Corps is pleased to provide you with this year's Annual Water Quality Report for the Marine Corps Base Hawaii (MCBH) Drinking Water System. This pamphlet provides information about the water delivered to you from Jan 1 and Dec 31, 2025. It gives information on where your water comes from, what it contains, and how it compares to established standards for safe drinking water. **Test results confirm MCBH drinking water meets all Federal and State standards and is safe to drink.** The Marine Corps goal is, and always has been, to provide you safe and dependable drinking water.

Water Provider

MCBH properties are serviced by three separate public water systems (PWS). Depending on which installation you are located, the water system may or may not be owned and operated by the Marine Corps.

MCBH Kaneohe Bay (MCBH-KBay) is a Community Water System (CWS) (PWS HI000356) that purchases potable water from the City and County of Honolulu (CCH) Board of Water Supply (BWS). MCBH owns and operates the system for distributing potable water on-base. The BWS 2026 Semi annual Water Quality Report is included as Enclosure 1 and indicates the groundwater sources supplying water to MCBH-KBay water system include:

- Kaluanui Wells
- Ma'akua Well
- Punalu'u Wells II
- Punalu'u Wells III
- Waihee Tunnel

A source water assessment for the CCH wells serving MCBH-KBay was completed in 2003 and is available from the MCBH Environmental Compliance and Protection Division (ECPD) upon request. The MCBH S-4 Facilities department is responsible for maintaining and testing the potable water distribution system at MCBH-KBay. MCBH does not conduct public meetings about the drinking water system; however, questions regarding the assessment and in general, can be directed to MCBH ECPD.

MCBH Leeward Properties [Camp H. M. Smith, Manana Housing, Pu'uloa Range Training Facility, and Pearl City Annex (warehouses only)] receive potable water from the Joint Base Pearl Harbor Hickam (JBPHH) water system (PWS HI000360). Information regarding the water quality for these facilities is included in the JBPHH 2026 annual report (Enclosure 2).

Marine Corps Training Area Bellows (MCTAB) receives potable water directly from the CCH BWS via PWS HI000331. Information regarding the water quality for MCTAB is included in the BWS 2026 Semiannual report for PWS HI000334 (Enclosure 3).

Potential Contaminants

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 your 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, 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 byproducts of industrial processes and petroleum production, and can 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.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration prescribes regulations which limits for contaminants in bottled water which must provide the same protection for public health.

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 drinking water contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking water Hotline at 1-800-426-4791 or visiting their website at https://www.epa.gov/ground-water-and-drinking-water.

Should you have any questions, would like to review the service line inventory, or obtain a copy of the lead sampling data, it is publicly available upon request. To obtain a copy or review please feel free to contact Patrick Crile, MCBH ECPD at 808-496-4379 or Patrick.Crile@USMC.mil.

Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune system compromised persons, such as persons with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be partially at risk from infections. Infants less than a year in age are vulnerable to nitrates. These people should seek advice about drinking water from their healthcare providers.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. MCBH is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures.

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. MCBH-KBay does not have any lead or galvanized service lines. The service line inventory for our water system is publicly available upon request. To review the inventory, or if you are concerned about lead in your water and wish to have your water tested, contact Patrick Crile, MCBH ECPD at 808-496-4379 or Patrick.Crile@USMC.mil. All water quality sampling results, including lead and copper, are available from MCBH ECPD, upon request. 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.

BWS adds chlorine as a disinfectant to the potable water system, and MCBH monitors chlorine levels prior to delivering to customers on-base. Chlorine is an effective disinfectant that kills bacteria, viruses, and other microorganisms that cause disease and immediate illness as it travels to the consumers tap

TERMS USED IN THIS REPORT

AL	Action Level: a level that triggers additional treatment or other requirements that a water system must follow.
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. MCGLs allows for a margin of safety.
ND	Not Detected
ppb	Parts per billion or Micrograms per liter
ppm	Parts per million or Milligrams per liter
ppt	Parts per Trillion or Nanograms per liter

WATER QUALITY DATA TABLES

The following water quality data tables only include data for PWS HI000356 (MCBH-KBay). For detailed water quality data associated with PWS HI000360 (MCBH Leeward Properties) or PWS HI000331 (MCTAB), refer to Appendices 2 and 3, respectively. Oversight and maintenance of the MCBH-KBay potable water system is a coordinated effort between the S-4 Facilities department and ECPD.

Contaminants regulated by the BWS are summarized in Table 1 and further detailed in the BWS Biennial CCR (Appendix 1). In addition to regulated contaminants, BWS monitors for unregulated contaminants – those without established MCLs but which require monitoring based on action levels or health advisories. These are presented in Table 2. MCBH also conducts its own monitoring for additional regulated contaminants to ensure continued water quality and compliance. Results of this monitoring are shown in Tables 3 and 4.

Table 1 - Regulated Contaminants Sampled by BWS

Contaminant	Sample Year	Unit	Result Min	Result Max	MCL	MCLG	Typical Sources
Barium	2024	ppb	0.003	0.003	2.0	2.0	Natural erosion
Beta/Photon Emitters	2021	pi/l	3.0	3.0	50	0	Naturally occurring in Hawaii
Chromium	2025	ppb	1.3	2.3	100	100	Erosion of natural deposits
Nitrate	2025	ppm	0.11	0.32	10	10	Rainfall & agricultural activity
Trihalomethanes (Total)	2025	ppb	0	25	80	None	Water disinfection byproduct
Haloacetic Acids (Total)	2025	ppb	0	2.6	60	None	Water disinfection byproduct

Contaminant	No. of Positive E. Coli Samples	Violation (Yes/No)	No. of Assessments Required to Perform	Typical Sources
Escherichia Coli Bacteria (E-Coli)	0	No	0	Human and animal fecal waste or soil

Contaminant	Sample Year	Unit	Range of Detection Jan - Jun	Range of Detection Jun - Dec	AL	Samples Above AL	Typical Sources
Lead	2023	ppb	ND-6.4	ND-2.7	15†	0	Corrosion of household plumbing systems
Copper	2023	ppm	0.16	0.2	1.3	0	Corrosion of household plumbing systems

† The Action Level for lead will be reduced to 10 ppb on Nov. 1, 2027.

Table 2 - Unregulated Contaminants Sampled by BWS

Contaminant	Sample Year	Unit	Result Min	Result Max	Health Advisory	Typical Sources
Bromoform	2023	ppb	1.2	1.2	0	Disinfection byproduct
Chlorate	2025	ppb	29	29	210	Disinfection/with bleach
Chloride	2025	ppm	12	240	250*	Common environmental element
Chromium, Hexavalent	2023	ppb	1.2	2.2	13	Naturally and manmade sources
Chromium-6 (CrVI)	2025	ppb	0.95	2.5	13	Naturally and manmade sources
Sodium	2023	ppm	13	39	60	Common environmental element
Strontium	2025	ppb	30	240	4,000	Naturally occurring trace metal
Sulfate	2025	ppm	2	26	250*	Naturally occurring in minerals and rocks
Vanadium	2025	ppb	6.1	14	21	Naturally occurring trace metal

* Secondary Maximum Containment Levels (SMCLs) are standards established as guidelines to assist public water systems in managing the aesthetics quality (taste, odor, and color) of drinking water. The EPA does not enforce SMCLs.

Table 3 - Constituents Sampled by MCBH

Constituent	Frequency	Timeframe	No. of Locations
Lead and Copper	Every 3 years	August	30
Disinfection Bi-Products (THM and HAA)	Annually	February	4
Total Coliform Bacteria	Monthly	Twice per Month	15
Escherichia Coli Bacteria (E-Coli)	Monthly	Twice per Month	15
Asbestos	Every 9 years	August	1

Table 4 - Regulated Contaminants Sampled by MCBH

Contaminant	Sample Year	Unit	Result		MCL	MCLG	Typical Sources
			Min	Max			
Trihalomethanes (Total)	2025	ppb	1.95	3.43	80	None	Water disinfection byproduct
Haloacetic Acids (Total)	2025	ppb	ND	ND	60	None	Water disinfection byproduct
Total Coliform Bacteria	2025	Y/N	N	N	N	N	Human and animal fecal waste or soil

Contaminant	No. of Positive E. Coli Samples	Violation (Yes/No)	No. of Assessments Required to Perform	Typical Sources
Escherichia Coli Bacteria (E-Coli)	0	No	0	Human and animal fecal waste or soil

Contaminant	Sample Year	Unit	90th Percentile	AL	Samples Above AL	Typical Sources
Lead	2025	ppb	ND	15†	0	Corrosion of household plumbing systems
Copper	2025	ppm	ND	1.3	0	Corrosion of household plumbing systems

† The Action Level for lead will be reduced to 10 ppb on Nov. 1, 2027.

Results

Test results confirm that **MCBH drinking water meets all Federal and State standards and is safe to drink** in accordance with EPA regulations. Should you have any questions, please feel free to contact Patrick Crile, MCBH Environmental Compliance and Protection Division at 808-496-4379 or Patrick.Crile@USMC.mil. Additional information regarding MCBH's Public Water System, including a copy of this report, previous reports and supplemental sampling data is available on the MCBH ECPD website: https://www.mcbhawaii.marines.mil/Offices-and-Staff/Environmental/ under the One Water Program tab.

PER- AND POLYFLUOROALKYL SUBSTANCES

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 are found in many consumer products, as well as in industrial products, like certain firefighting agents called aqueous film forming foam (AFFF). PFAS is also found in essential use applications such as in microelectronics, batteries, and medical equipment. 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 26, 2024, the United States Environmental Protection Agency (EPA) published a National Primary Drinking Water Regulation (NPDWR) final rule on drinking water standards for six PFAS under the Safe Drinking Water Act (SDWA).

The rule establishes the following maximum contaminant levels (MCLs):

- perfluorooctane sulfonic acid (PFOS) = 4 ppt
- perfluorooctanoic acid (PFOA) = 4 ppt
- hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX) = 10 ppt
- perfluorononanoic acid (PFNA) = 10 ppt
- perfluorohexane sulfonic acid (PFHxS) = 10 ppt
  HI MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX = 1 (unitless)

Under the NPDWR, regulated public water systems (PWS) are required to complete initial monitoring by April 26, 2027. Beginning April 26, 2027, regulated PWSs will conduct ongoing compliance monitoring in accordance with the frequency dictated by the rule and as determined by the initial compliance monitoring results. Regulated PWSs must demonstrate compliance with the Maximum Contaminant Levels (MCLs) by April 26, 2029.

To provide safe drinking water to all Department of War (DoW) personnel, OSD policy extends this requirement to all DoW systems which provide drinking water for human consumption, regardless of size of the drinking water system. In addition to the six regulated compounds, DoW-owned systems are required by DoW policy to monitor for all 25 compounds detected when using EPA Method 533.

Protecting the health of our personnel, their families, and the communities in which we serve is a priority for the Department. DoW is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoW installations.

Has MCBH tested its water for PFAS in 2025? Yes. In January, June, September, and December 2025 samples were collected from the entry point into MCBH's public water system (i.e., the connection point with the City and County of Honolulu Board of Water Supply). We are pleased to report that drinking water testing results for all 25 PFAS covered by the sampling method, including the six regulated PFAS, were not detected in your water system.

What is next?

MCBH will continue to monitor for PFAS in accordance with the EPA regulation and DoW policy. Once required initial monitoring information is available, we will calculate the Running Annual Averages (RAA) for the regulated PFAS and will compare those numbers to the MCL and Hazard Index (HI) trigger levels. This will determine what our continuing monitoring requirements will be beginning in 2027, and if needed, we will plan operational or infrastructure changes to ensure our water complies with the PFAS MCLs and HI by April 2029 in accordance with the SDWA.

The water serving 600 Mokapu Road has been tested and meets all Federal and State standards. **00121651**

This biennial report is published in July and December of each year and contains the test results showing your water is safe to drink. If a contaminant is not listed, then it was not detected.During this biennium there were no violations of the drinking water standards and the lead action limit. There are no uncorrected significant deficiencies identified during sanitary survey inspections of the water system and no unaddressed fecal indicator-positive groundwater source detections.Additional information about the report contents can be obtained by calling the Water Quality Division Program Administrator at 808-748-5080. Paper copies of this report can be obtained by calling (808)748-5041 or emailing us at contactus@hbws.org . The report is also available online at www.boardofwatersupply.com/water-quality/water-quality-report . For a translated copy of this report or to get assistance in another language, call the Board of Water Supply Communications Office at (808)748-5041. Please share this information with anyone who drinks this water (or their guardians), especially those who may not have received this report directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this report in a public place or distributing copies by hand, mail, email, or another method.

The water quality monitoring results are presented below.

The water sources serving this address are:

Source Name	Origin of Water	Treatment	Region
a) Kaluanui Wells	Groundwater	Chlorination	2
b) Maakua Well	Groundwater	Chlorination	2
c) Punaluu Wells II	Groundwater	Chlorination	2
d) Punaluu Wells III	Groundwater	Chlorination	2
e) Waihee Tunnel	Groundwater	Chlorination	2

Source Water Monitoring

The substances detected in these sources are shown below. If a substance is not shown, then it was not detected.

Regulated Contaminants (2)

Contaminant	Sample Year	Unit	Highest Average	Range Minimum	Range Maximum	MCL (Allowed)	MCLG (Goal)	Found in Sources
Barium	2024	ppm	0.003	0.003	0.003	2.000	2.000	d
Beta/Photon Emitters	2021	pCi/L	3.000	3.000	3.000	50 *	0.000	c
Chromium	2025	ppb	2.300	1.300	2.300	100.000	100.000	a,c,d,e
Nitrate	2025	ppm	0.320	0.110	0.320	10.000	10.000	a,e

Unregulated Contaminants (Do not have designated maximum limits but require monitoring)

Contaminant	Tested By	Sample Year	Unit	Highest Average	Range Minimum	Range Maximum	Health Advisory	Found in Sources
Bromoform	(2)	2023	ppb	1.200	1.200	1.200	0.000	c
Chlorate	(2)	2025	ppb	29.000	29.000	29.000	210.000	a
Chloride	(2)	2025	ppm	235.000	12.000	240.000	250 **	a,c,d,e
Chromium, Hexavalent	(2)	2023	ppb	2.200	1.200	2.200	13.000	a,b,c,e
Hexavalent Chromium (CrVI)	(2)	2025	ppb	2.500	0.950	2.500	13.000	a,c,d,e
Sodium	(2)	2023	ppm	39.000	13.000	39.000	60.000	a,b,c,e
Strontium	(2)	2025	ppb	240.000	30.000	240.000	4000.000	a,c,d,e
Sulfate	(2)	2025	ppm	25.000	2.000	26.000	250 **	a,c,d,e
Vanadium	(2)	2025	ppb	14.000	6.100	14.000	21.000	a,c,d,e

Lead/Copper Testing (2)

Contaminant (Units)	Action Level	MCLG	90th Percentile	# of sites exceeding the Action Level	Range of Detection	Typical Sources of Contaminants	Violation
January 1 - June 30, 2023							
Copper (ppm)	1.300	1.3	0.050	0	ND-0.16	Corrosion of household plumbing systems, Erosion of natural deposits.	No
Lead (ppb)	15.000	0	ND	0	ND-6.4	Corrosion of household plumbing systems, Erosion of natural deposits.	No
July 1 - December 31, 2023							
Copper (ppm)	1.300	1.3	0.061	0	ND-0.20	Corrosion of household plumbing systems, Erosion of natural deposits.	No
Lead (ppb)	15.000	0	ND	0	ND-2.7	Corrosion of household plumbing systems, Erosion of natural deposits.	No

The EPA has revised the Lead and Copper Rule to require BWS to complete a water service line inventory for all service lines within BWS's distribution system and to test for lead and copper at select residential and commercial property sites. The inventory and water sampling results are available on the BWS website at https://www.boardofwatersupply.com/water-quality/lead-copper-rule. To learn more about the water service line that serves your home or business, insert your address into the search bar at https://lead.boardofwatersupply.com/. The website will produce a drawing showing the materials of your water service line. To find the water sampling results go to https://lead.boardofwatersupply.com/Reportsearch.

Microbial Contaminants (2)

System Name	Contaminant	Number of positive E. coli samples found	Violation (Yes/No)	Number of assessments required to perform	Major sources in drinking water
Honolulu-Windward-Pearl Harbor	E. Coli	0	No	0	Human and animal fecal waste

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Distribution System Monitoring

Disinfection By-Products (2)

System Name	Contaminant	Sample Year	Unit	Min	Max	Highest LRAA	MCL (Allowed)	MCLG (Goal)
Honolulu-Windward-Pearl Harbor	Total Trihalomethanes	2025	ppb	0.00	25.00	15.50	80	None
	Haloacetic Acids (HAA5)	2025	ppb	0.00	2.60	0.70	60	None

Residual Chlorine (2)

System Name	Sample Year	Unit	Lowest Monthly Average	Highest Monthly Average	Running Annual Average	MRDL	MRDLG
Honolulu-Windward-Pearl Harbor	2025	ppm	0.29	0.33	0.30	4	4

LRAA and RAA is a calculated average of all samples collected within the previous 12-month period, which may include test data from the previous calendar year.

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. MCGLs allows for a margin of safety.
GAC	Granular Activated Carbon Filtration
Health Advisory	An estimate of acceptable drinking water levels for a chemical substance based on health effects information. Health advisory is not a legally enforceable standard.
CFU/100ml	Colony forming units per 100 milliliter
mrem/yr	Millirems Per Year (A measure of Radiation)
pCi/L	Picocuries Per Liter (A measure of Radioactivity)
ppb	Parts per billion or Micrograms per liter
ppm	Parts per million or Milligrams per liter
ppt	Parts per trillion or Nanograms per liter
NQ	Not Quantifiable (<means "less than")
NYA	Not Yet Applicable
N/A	Not Applicable
ND	Not Detected
*	EPA considers 50 pCi/L to be the level of concern for beta particles
**	Secondary Maximum Containment Levels (SMCLs) are standards established as guidelines to assist public water systems in managing the aesthetics quality (taste, odor, and color) of drinking water. EPA does not enforce SMCLs.
(1)	Analysis by the State of Hawaii Department of Health
(2)	Analysis by the Honolulu Board Of Water Supply. Questions, call 748-5370.
(3)	Results from UCMR5 monitoring
(4)	This contaminant is considered in EPA's Hazard Index (HI) calculation, a cumulative health risk to be considered when multiple compounds are present, even if individual MCLs are met. The Hazard Index (HI) is the sum of the ratios of respective contaminants and the EPA requirement is for this sum of ratios to be less than 1 (unitless) to be in compliance. See: https://www.epa.gov/system/files/documents/2023-03/How%20do%20I%20calculate%20the%20Hazard%20Index._3.14.23.pdf
LRAA	Locational running annual average is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
MRDL	Maximum residual disinfectant level: The highest level of a disinfectant allowed in drinking water.
MRDLG	Maximum residual disinfectant level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health.

No violations found for calendar year 2025

Date Report Printed: 3/27/2026

Enclosure 2: JBPHH 2026 annual report will be added here as soon as as it is available. .

Enclosure 3: BWS 2026 Semiannual report for PWS HI000334 will be added here as soon as it is available.