



Water Quality Report

PMRF Kauai Water System

(Mana Well Source)

This report meets federal and state requirements for Consumer Confidence Reports. This report is updated annually and reflects monitoring data collected from Jan 1 - Dec 31, 2024.

The Navy is pleased to provide you with this year’s annual Water Quality Report for the Pacific Missile Range Facility (PMRF) Kauai Water System.

This document provides information about the water delivered to you over the past year. It describes where your water comes from, what it contains, and how it compares to standards for safe drinking water.

The Navy’s goal is, and always has been, to provide you safe and dependable drinking water.

Water Provider

The water system serving your area is managed by Naval Facilities Engineering Systems Command (NAVFAC) Hawaii, but operated and maintained by Koa Lani JV, LLC. As the Navy water provider in the State of Hawaii (State), we primarily supply water to military installations and housing.

Drinking Water Standards

To protect public health, the Environmental Protection Agency (EPA) prescribes regulations which limit the number of certain contaminants in tap water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Last year, as in years past, your drinking water met the EPA and State regulations. The regulations require us to test your water for contaminants on a regular basis, making sure it is safe to drink, and to report our results accordingly.

To ensure that tap water is safe to drink, EPA regulations limit the number of certain contaminants in water provided by public water systems. The Food and Drug Administration does the same for bottled water.

In this latest compliance monitoring period, we conducted tests for over 70 regulated contaminants that have potential for being found in your drinking water. Tables 1-1, 1-2, 1-3, and 1-4 show the concentrations of regulated contaminants found. In all cases, the levels measured were well within both EPA and State requirements for safe drinking water.

We are continually working to protect your drinking water from contaminants. The State’s Department of Health (DOH) completed the Source Water Assessment in 2004 which identifies the susceptibility of your water supply to contamination. The source water assessment is available for review by contacting NAVFAC Hawaii Public Affairs at NFHI_PAO_DL@us.navy.mil.

Source of Water

Your on-base drinking water comes from ground water sources: Mana Well and the County of Kauai’s Waimea-Kekaha system. Mana Well is located at the base of the cliffs in Mana. Ground water is naturally filtered as it travels from the surface to the aquifer below ground. The water is pumped up from the aquifer, disinfected, fluoridated, and piped into the PMRF drinking water distribution system. Information on the Waimea-Kekaha system is shown in Table 1-2.

For more information, please contact:
County of Kauai, Department of Water (KDOW)
Telephone: 808-245-5400
http://www.kauaiwater.org/waterqualityrpt_pdf.asp

Possible Source of Contaminants

Both tap water and bottled water come from 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. The water can also pick up and transport substances resulting from the presence of animals or from human activity. These substances are also called contaminants.

Drinking water, including bottled water, may reasonably be expected to contain at least some small amounts of contaminants. The presence of contaminants does not necessarily mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the EPA by calling the Safe Drinking Water Hotline (800-426-4791) or visiting the website epa.gov/safewater.

Potential Contaminants

Contaminants are any physical, chemical, biological, or radiological substance or matter in water.

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, 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.

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

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.

Navy Water Requirements

In accordance with Navy policy, chlorine and fluoride are added to your water supply after the water is pumped from the ground. We try to maintain the Navy’s recommended concentration of approximately 0.2 parts per million (ppm) for chlorine and 0.7 ppm for fluoride throughout the distribution system.

Planned Upgrades to Mana Well

A sanitary survey of the PMRF drinking water well was conducted on July 24, 2019. One of the findings of the inspection pertains to the opening at the bottom of the shaft. The DOH inspector recommended that the floor opening be temporarily sealed off to prevent debris from falling into the water and contaminating the drinking water supply as an interim solution until a permanent, DOH-approved solution could be identified. Currently, the well system is fully operational, and compliance testing shows that the Navy’s water meets regulatory standards. PMRF proposed installation of a permanent seal near the top portion of the well shaft. DOH reviewed and accepted the proposal. The design and construction have been completed and currently in process of being reviewed by DOH for official close out.

Drinking Water Service Line Material Inventory

On January 15, 2021, the EPA enacted the Lead and Copper Rule Revision (LCRR), further strengthening efforts to reduce lead and copper levels in drinking water. As a part of these revisions, all water systems were required to develop an initial inventory of the drinking water service line materials, known as the “Baseline Inventory” by October 16, 2024.

The Navy has completed the baseline inventories for each of its water systems. You can access the inventory yourself for your water system by visiting the link below. For National Security reasons, the exact street addresses have been replaced with unique Site IDs.

The baseline inventory is accessible here:
<https://cnrh.cnrc.navy.mil/Operations-and-Management/Environmental/Water-Quality-Information/Drinking-Water-Service-Line-Materials-Inventory/>

Concurrent to the baseline inventory compliance date, the EPA enacted the Lead and Copper Rule Improvements (LCRI) on October 9, 2024, further strengthening the LCRR protection by introducing additional safeguards and setting a more aggressive timeline for replacing the lead or galvanized lines.

As such, the Navy’s water systems must provide the updated baseline inventory to include the connector material along with the

service line material inventory by November 1, 2027. The inventory will also be updated periodically to reflect the Navy’s progress to remove any lead or galvanized materials services lines and connectors that are encountered.

Additionally, if you were identified to be served by a lead service line, galvanized requiring replacement (GRR) service line or lead-status unknown service line, you should have been notified in a letter from November 2024. You may contact NAVFAC Hawaii Public Affairs via email at NFHI_PAO_DL@us.navy.mil to inquire what material you are being served by.

Drinking Water Service Line Material Replacement Plan

In accordance with 40 C.F.R. § 141.84(c), all water systems with one or more lead, galvanized requiring replacement, or lead status unknown service lines in their distribution system must create a service line replacement plan by no later than November 1, 2027.

Corrosion and Optimal Corrosion Control Treatment (OCCT)

Corrosion of pipes, plumbing fittings, and fixtures may cause lead and copper to enter drinking water. To assess corrosion of lead and copper, PMRF Water System conducts tap sampling for lead and copper at selected sites every 3 years.

The PMRF Water System is considered to meet OCCT because its most recent tap water sampling results conducted from 2022 show that the 90th percentile lead level was non-detect. This means that 90% of the highest lead levels detected were at or below the limit of detection. The PMRF Water System will conduct another round of tap water sampling for lead in August 2025.

Safeguard Against Lead

The PMRF Water System 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 formulas, 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 have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, please contact the PMRF Work Control Hotline at (808) 335-4720. 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 Sampling in Schools

Beginning November 1, 2027, all Community Water Systems, the same systems that provide these annual Water Quality Reports (WQR), will be required to conduct sampling for lead in drinking water at schools and childcare facilities. Facilities that are being served by this water system are encouraged to contact the Navy to ensure that their school or childcare facility will be included in the sampling effort.

However, the Navy has already adopted a policy to perform lead sampling at schools and childcare facilities owned by the Department of Defense (DoD).

Please visit this website for more information:

<https://cnrh.cnrc.navy.mil/Operations-and-Management/Environmental/Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/>

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 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 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
- Hazard Index (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 MCLs by April 26, 2029.

In order to provide safe drinking water to all DoD personnel, OSD policy extends this requirement to all DoD systems which provide drinking water for human consumption, regardless of the size of the drinking water system. In addition to the six regulated compounds, DoD-owned systems are required by DoD 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. DoD is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoD installations.

Has PMRF Water System tested its water for PFAS in 2024?

No, the last PFAS sampling effort was in June 2023.

What is next?

The PMRF Water System will continue to monitor PFAS in accordance with the EPA regulation and DoD 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.

Public Discussion Opportunities

While there are no regularly scheduled meetings for discussions regarding the PMRF Water System, the public may communicate concerns related to water quality by emailing the NAVFAC Hawaii Public Affairs Office listed below.

For questions, concerns or hard copies, please contact:
NAVFAC Hawaii Public Affairs Office (PAO)
Telephone: 808-471-7300
Email: NFHI_PAO_DL@us.navy.mil

For additional copies of this and other Navy water reports, visit:
<https://cnrh.cnrc.navy.mil/Operations-and-Management/Environmental/Water-Quality-Information/>
<https://pacific.navy.mil/Facilities-Engineering-Commands/NAVFAC-Hawaii/About-Us/Our-Services/Environmental/Water-Quality-Reports/>

Please share this information with all other people who drink this water, especially those who may not have received this notice directly.

Official Address
Naval Facilities Engineering Systems Command, Hawaii
400 Marshall Road, JBPHH, HI 96860-3139

Printed June 2025

Water Quality Data Tables

The following tables list contaminants which were detected during the latest round of sampling required by EPA and State regulations. The water samples were collected from either the source water or distribution system and analyzed by the State and/or Navy. The presence of contaminants does not necessarily indicate that the water poses a health risk. You may obtain more information about contaminants and potential health effects by calling the EPA’s Safe Drinking Water Hotline 1-800-426-4791 or the State’s Department of Health at 808-586-4258.

Contaminants in the Navy’s Source Water

| Contaminants (units) | MCL (Allowed) | MCLG (Goal) | Highest Level Detected | Range of Detection | Year of Sample | Typical Sources of Contaminants | Violation | # of Sites Exceeding the Action Level |
|--|------------------|-------------|------------------------|--------------------|-------------------|---|-----------|---------------------------------------|
| Inorganic Contaminants | | | | | | | | |
| Chromium (ppb) | 100 | 100 | 5-7 | 5-7 ¹ | 2023 ² | Erosion of natural deposits | No | 0 |
| Nitrate (ppm) | 10 | 10 | 1 | 1 ¹ | 2023 ² | Runoff from fertilizer use; Erosion of natural deposits | No | 0 |
| Unregulated Contaminants | | | | | | | | |
| Sodium (ppm) | n/a ³ | n/a | 30 | 30 ¹ | 2023 ² | Naturally occurring | n/a | 0 |
| Perfluorinated and Polyfluorinated Alkyl Substances (PFAS) (ppt) | n/a ³ | n/a | nd | nd | 2023 ² | Synthetic chemical used in a wide range of consumer products and industrial applications. | n/a | 0 |

Contaminants in the County of Kauai’s Source Water

| Contaminants (units) | MCL (Allowed) | MCLG (Goal) | Highest Level Detected | Range of Detection | Year of Sample | Typical Sources of Contaminants | Violation | # of Sites Exceeding the Action Level |
|--|------------------|-------------|------------------------|--------------------|-------------------|---|-----------|---------------------------------------|
| Inorganic Contaminants | | | | | | | | |
| Chromium (ppb) | 100 | 100 | 12 | 2 – 12 | 2022 ² | Erosion of natural deposits | No | 0 |
| Nitrate (ppm) | 10 | 10 | 2.2 | 1.7 – 2.2 | 2024 | Runoff from fertilizer use; Erosion of natural deposits | No | 0 |
| Copper (ppm) | AL = 1.3 | 1.3 | 0.23* | nd – 0.27 | 2024 | Corrosion of household plumbing systems; Erosion of natural deposits | No | 0 |
| Lead (ppb) | AL = 10 | 0 | nd ⁵ | nd | 2024 | Corrosion of household plumbing systems; Erosion of natural deposits | No | 0 |
| Organic Contaminants | | | | | | | | |
| Total Trihalomethanes (ppb) | 80 | n/a | 1.9 | 1.9 ¹ | 2022 ² | Byproduct of drinking water disinfection | No | 0 |
| Unregulated Contaminants | | | | | | | | |
| Silica (ppm) | n/a ³ | n/a | 69 | 69 ¹ | 2020 ² | Naturally occurring | n/a | 0 |
| Sodium (ppm) | n/a ³ | n/a | 111 | 83 – 111 | 2022 ² | Naturally occurring | n/a | 0 |
| Sulfate (ppm) | 250 ⁴ | n/a | 34 | 10 – 34 | 2024 | Naturally occurring | n/a | 0 |
| Lithium (ppb) | n/a ³ | n/a | nd | nd | 2023 ² | Naturally occurring | n/a | 0 |
| Perfluorinated and Polyfluorinated Alkyl Substances (PFAS) (ppt) | n/a ³ | n/a | nd | nd | 2023 ² | Synthetic chemical used in a wide range of consumer products and industrial applications. | n/a | 0 |
| *For lead and copper: the 90th percentile concentration of the most recent round(s) of sampling, the number of sampling sites exceeding the action level, and the range of tap sampling results are shown. | | | | | | | | |

Contaminants in the Distribution System

| Contaminants (units) | MCL (Allowed) | MCLG (Goal) | Highest Level Detected | Range of Detection | Year of Sample | Typical Sources of Contaminants | Violation | # of Sites Exceeding the Action Level |
|--|---------------|-------------|------------------------|--------------------|-------------------|---|-----------|---------------------------------------|
| Copper (ppm) | AL = 1.3 | 1.3 | 0.251* | nd – 0.251 | 2022 ² | Corrosion of household plumbing systems; Erosion of natural deposits | No | 0 |
| Fluoride (ppm) | 4 | 4 | 0.27 | 0.20 – 0.27 | 2024 | Erosion of natural deposits; Water additive which promotes strong teeth | No | 0 |
| *For lead and copper: the 90th percentile concentration of the most recent round(s) of sampling, the number of sampling sites exceeding the action level, and the range of tap sampling results are shown. | | | | | | | | |

Disinfection Agent

| Contaminants (units) | MRDL (Allowed) | MRDLG (Goal) | Highest Average | Range of Detection | Year of Sample | Typical Sources of Contaminants | Violation | # of Sites Exceeding the Action Level |
|-------------------------|----------------|--------------|-------------------|--------------------|----------------|---|-----------|---------------------------------------|
| Residual Chlorine (ppm) | 4 | 4 | 0.46 ⁵ | 0.31 - 0.46 | 2024 | Water additive used to control microbes | No | 0 |

Table Definitions:

- AL** **Action Level.** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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.
- 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.
- 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.

Table Abbreviations:

- n/a** not applicable.
- ppb** parts per billion or micrograms per liter.
- ppt** parts per trillion or nanograms per liter.
- nd** not detectable at testing limits.
- ppm** parts per million or milligrams per liter.

Table Notes:

1. Only one sample collected.

2. The State and EPA require us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. The date of the last sample collected is as indicated.

3. These results are for informational purposes. There are no set standards. EPA will use this data to help determine where certain contaminants occur and whether it needs to regulate these contaminants. Currently, these contaminants do not have MCLs or MCL
4. National Secondary Drinking Water Regulations (NSDWRs), or secondary standards, are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply with the standard.

5. After each quarter, a running average is calculated using the preceding 12 months of data. This value is the highest running average for the year

Note: 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 microbial contaminants are available from the EPA’s Safe Drinking Water Hotline 1-800-426-4791.