

OAHU MILITARY WATER RESPONSE RESIDENT RESOURCES



INTRODUCTION

The Department of Defense acknowledges that contamination of the Navy water distribution system has been extremely stressful and disruptive to your lives, and caused concern about the safety of you and your family.

Your leadership remains committed to the safety and well-being of every individual and family impacted. We are responsible for and completely committed to ensuring we have and preserve safe drinking water throughout the Navy water distribution system.

This Oahu Military Water Response Resident Resources Guide is intended to provide a range of information to address the majority of concerns. However, it is not comprehensive and is based on the best and most current information that we have available. As new information becomes available, we will provide updates on the digital platforms listed in this guide. Additionally, we will continue to collect and respond to Frequently Asked Questions and post these updates online.

Thank you in advance for your patience and understanding as we work through this difficult challenge together.

Oahu Military Water Response Digital Platforms



Joint Base Pearl Harbor-Hickam Water Updates Website

<https://www.cpf.navy.mil/JBPHH-Water-Updates/>

- Latest news
- Reporting of water concerns
- Information for lodging/TLA assistance, medical care, water distribution, lab results, etc.



JBPHH Facebook Page

<https://www.facebook.com/JBPHH>

- Features daily joint base water updates
- Imagery and resources related to water response efforts
- Infographics/information



JBPHH Twitter

<https://twitter.com/JointBasePHH>

- Imagery and resources related to water response efforts
- Infographics/information



JBPHH Instagram

<https://www.instagram.com/jointbasephh/>

- Imagery of water response efforts



Task Force Ohana

<https://home.army.mil/hawaii/index.php/water>



15th Wing

<https://websites.dso.mil/sites/water-concern/>

- Department of Air Force Water Concern Site (dso.mil)



JBPHH Water Updates & Services

Scan the QR code to stay up to date with the latest information.

Find out more at www.navy.mil/jointbasewater



TABLE OF CONTENTS

▶ Do's and Don'ts	05
▶ General Flushing Graphic	06
▶ Cleaning Household Items	07
▶ Flushing and Cleaning FAQ	11
▶ Health FAQ	17
▶ Registry Information	19
▶ Medical Resources List	20
▶ Resources	21
▶ Definitions	22



DO'S AND DON'TS

Upon completion of the water distribution and residence system flushing in a community zone, interagency experts will take water samples from a representative number of homes, review results, and when confirmed, certify that the drinking water is safe for consumption.

For AMR, Red Hill, and other affected areas, or if you ever notice a fuel-like odor or obvious petroleum sheen in the water, it is recommended that you take the following precautions **until your water has been certified safe** by Hawaii Department of Health:

- **Do not** drink or otherwise consume the water.
- **Do not** cook using the water or use it for any sort of food preparation.
- **Do not** brush your teeth with the water and instead use bottled water.
- **Do not** provide the water to your pets to drink, or use as part of their food preparation.
- **Do** use bottled water for anything you or your pets consume.
- **Turn off** ice makers

Notify JBPHH Emergency Operations Center for any water related concerns at 808-449-1979, or 808-448-3262/2557/2570/2583. You can also email jbphh-water-response@navy.mil.

For those affected areas, once certified safe, you can:

- Drink the water. Pets may also drink the water.
- Use the water for cooking, making ice, and brushing teeth.
- Use the water for hand washing and bathing.
- Use the water for dish-washing and laundry.

There will be increased long-term monitoring of the drinking water system to ensure that your drinking water will continue to be safe.

GENERAL FLUSHING



Drinking Water Distribution System Recovery Plan

www.cpf.navy.mil/jointbasewater | www.dvidshub.net/feature/safewaters

Water distribution flushing

Initiation of GAC filtration of residential water mains prior to discharge into storm drains or overland.



Stage 1

Water samples taken and results evaluated.



Stage 2

Residence system flushing

Team members visit residence for flushing.



Stage 3

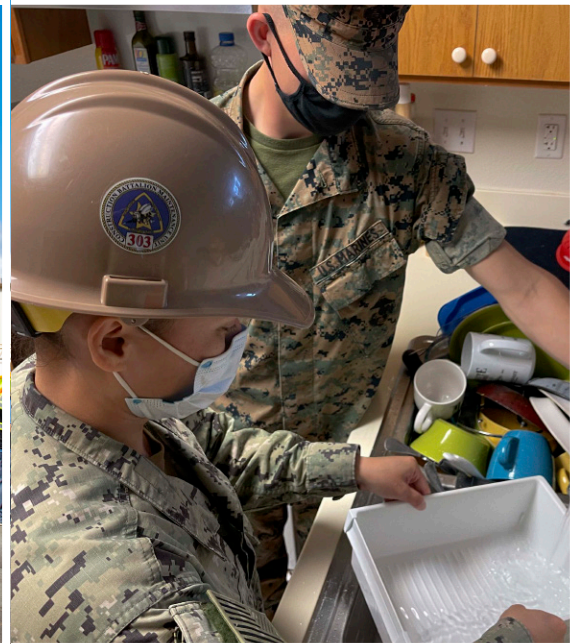
Water samples taken from selected homes and results evaluated.



Stage 4

Resident returns to home

Interagency experts review results and declare drinking water is fit for human consumption.



CLEANING HOUSEHOLD ITEMS

In the past weeks we have been working diligently to remove any contaminants from the water. The concentration of petroleum based products that may have been in the water in each home in the Navy water distribution system is unknown. The petroleum contamination was not pure, and it likely ranged from very diluted to nonexistent, and in many areas was undetectable to testing. Once it is determined that the water is safe, it is recommended that household items and appliances that may have come into contact with petroleum chemicals within the home be cleaned as a safety precaution.

GENERAL RULES TO CONSIDER BEFORE CLEANING

Cleaning an item with warm water and mild household detergent should remove residual chemicals from most surfaces. The type of material and surface is important to consider before deciding whether or not to clean an item. It is best to consult with the manufacturer for recommendations on safe and effective cleaning procedures, but glass, melamine, stainless steel, enamel, and glazed ceramic are unlikely to retain any residual chemicals and can be cleaned. Certain materials, such as plastics, stoneware, or wood, may retain chemical residue if exposed long enough, but it is unlikely that these materials will retain a chemical residue if exposure duration was short. If persistent sheen, taste or odor of petroleum is noticed, notify the JBPHH Emergency Operations Center at (808) 449-1979.



FOOD SERVICE ITEMS, EQUIPMENT AND APPLIANCES

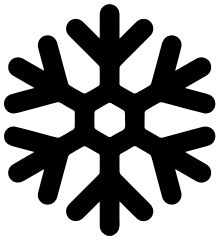
Food service items (i.e., dishes, bottles, utensils, cups/glasses, etc.) can be cleaned with standard dish soap and warm water. It is best to consult with the manufacturer for recommendations on safe and effective cleaning procedures. Residents should clean their household products according to this guidance. Items which cannot be cleaned and restored should be retained and may be eligible for reimbursement through their respective Service claims office.

FOR SMALLER HOUSEHOLD ITEMS AND APPLIANCES

Based on current available information, it is recommend standard cleaning and sanitizing procedures for items that are not in direct contact with a contaminated water source. Rinsing with standard dish soap and water will effectively remove most contaminants from the majority of products. The following specific guidance is provided for certain standard appliances.

CLEANING HOUSEHOLD ITEMS

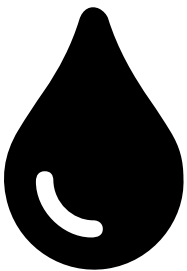
(cont'd)



ICE AND ICE MAKERS

On-site technician will conduct flushing procedures for refrigerators and ice makers

1. When home flushing is complete, discard any ice that may have been made with potentially contaminated water.
2. Wash the ice bin using mild soap and clean, warm water. Rinse the bin with clean water and sanitize with a diluted bleach solution followed by another rinse. Make the bleach solution by mixing 1 teaspoon of bleach in 1 cup of water.
3. Determine if the ice maker has a cleaning mode or not:
 - **If there is a cleaning mode**, follow the manufacturer's instructions and conduct at least 2 cleaning cycles.
 - **If the device does not have a cleaning mode**, allow it to go through 3 cycles of making ice and discard all ice in the bin. After discarding 3 cycles of ice, re-clean the ice bin with warm water and soap.
4. Once fresh ice has been made, collect a sample of ice in a small glass and allow it to melt and inspect for any signs of residual petroleum such as a visible shine or sheen on the surface, or an odor. In the unlikely event petroleum residual is observed, contact the Emergency Operations Center immediately.



DRINKING WATER DISPENSERS

1. Allow the water to flow freely for 15 minutes.
2. Discard this water and repeat these steps several times to flush the water line with clean, fresh water.
3. After completing these steps, collect a sample of the water in a small glass and inspect for any signs of residual petroleum such as a visible shine or sheen on the surface, or an odor. In the unlikely event petroleum residual is observed, contact the Emergency Operations Center immediately.

CLEANING HOUSEHOLD ITEMS

(cont'd)



COFFEE MAKERS

1. If the coffee maker has a plumbed water supply, turn off the water supply to the coffee maker. Disconnect the water supply line from the coffee maker and flush with copious amounts of clean, fresh water and a cleaning solution.
2. If the internal surfaces of the coffee maker are stained with coffee residue, follow the manufacturer's instructions for cleaning the machine to remove the coffee residue. When the internal surfaces of the machine are clean and free of coffee residue, run 3 cycles of hot, clean water through the system, discarding the water each time.
3. After 3 cycles, run an additional cycle of hot, fresh, clean water through the machine, collect a small sample of the water in a cup.
4. Allow the water to cool and observe any signs of residual petroleum such as a visible shine or sheen on the surface, or an odor. If any petroleum residue is detected, repeat the cleaning and flushing steps and inspect the water at the end of the process.



HUMIDIFIERS

1. Follow the manufacturer's instructions for cleaning the water reservoir.
2. Replace the filter with a new, clean filter.



INFANT, CHILD, OR SPECIAL CARE ITEMS

Items that come into contact with food or might otherwise be placed into the mouth can be typically cleaned, on the surface, by rinsing with warm water and standard dishwashing liquid. If you wish to perform additional cleaning, you may follow the steps outlined below. These procedures require the use of regular baking soda, the same non-toxic powder that many people already use as a cleaning agent or in the preparation of various foods, in addition to standard dish washing liquid and tap water.

As with other cleaning methods, the rinsing steps are important to ensure that all the cleaning agent has been fully removed prior to use.

Note: If persistent sheen, taste or odor of petroleum is noticed, repeat the recommended procedure. If after repeated cleaning the sheen, taste or odor persists, set aside and consider replacement and reimbursement through your respective claims office.

CLEANING HOUSEHOLD ITEMS

(cont'd)



INFANT, CHILD, OR SPECIAL CARE ITEMS

Baby bottles, sippy cups, or similar containers:

1. Wash with dishwashing liquid: Fill the container 75% of the way with clean, warm/hot water, add a drop of dishwashing liquid and shake well. [Alternatively, you can fill a basin and soak the items.]
2. Rinse with clean, warm water and repeat the wash 2 more times.
3. Wash with a mixture of baking soda in water: Add baking soda to the container and fill most of the way to the top with clean, warm/hot water. Use 1 tablespoon of baking soda for a baby bottle. The amount of baking soda will vary depending on the size of the container. Use more for larger containers.
4. Shake the container well and let sit for 3 hours (or overnight, if desired). [Alternatively, you can fill a basin and soak the items.]
5. Rinse 3 times with clean, warm/hot water to make sure that all the baking soda has been removed.
6. Wash a final time with dishwashing liquid after the last baking soda wash to ensure that all the baking soda has been removed. Be sure to rinse the items free of any soap residue.

Pacifiers, breast pumps, child utensils, or similar items:

1. Wash with dishwashing liquid: Fill a basin with clean, warm/hot water and dishwashing liquid. Submerge and soak the items in the soapy water for 15 minutes. Rinse thoroughly with clean, warm water.
2. Prepare a basin of baking soda and water using approximately 4 tablespoons (1/4 cup) of baking soda to each 1 quart of clean, warm/hot water. Submerge and soak the items overnight.
3. Rinse 3 times with clean, warm/hot water to make sure that all the baking soda has been removed.
4. Wash a final time with dishwashing liquid after the baking soda wash to ensure that all the baking soda has been removed, being sure to rinse the items free of any soap.

FLUSHING AND CLEANING FAQs

Flushing Logistics Questions

Q: How long will it take after the neighborhood system is flushed to flush our home?

A: After the certified test results confirm the neighborhood and distribution lines have been thoroughly flushed, we commence individual home flushing. We will provide notification no less than 48 hours before home flushing is scheduled to begin. Individual homes should take approximately 2 hours to flush.

Q: Can we use our water during the neighborhood flush?

A: Flushing moves large volumes of water through the system at high speeds. The process removes any settled sediment or mineral deposits. Residents may experience fluctuations in pressure and discolored water which is normal and expected with such flushing. Unless there is petroleum sheen or odor, the water is safe for activities that are less at risk for ingestion, such as dishwashing, laundry and bathing. After all homes in the neighborhood have been flushed, water samples will be taken and sent to a certified lab for testing. You will be notified once results are received and verified that the drinking water is safe for human consumption.

Q: What if we have COVID-19 and are sick at home?

A: Please call the EOC information desk at (808) 449-1979 so flushing teams can plan accordingly.

Q: This doesn't work for my schedule. Can I reschedule the flush?

A: Personnel from the flushing team will need access to your home when your home has been identified for flushing. You may not reschedule. Access to your home must be provided by an adult over the age of 18, but they do not have to remain in the home during the process. If you will not be on island call the EOC information desk at (808) 449-1979 to give notice.

FLUSHING AND CLEANING FAQS

(cont'd)

Q: Can my children be home when they complete the flushing?

A: Yes, as long as an adult is present.

Q: What do I do with my pets during the home flush?

A: Please secure pets when the flushing team arrives, as windows and doors will be open for ventilation.

Q: My home wasn't in an affected zone, do I really have to do this?

A: Yes. The entire Navy Water Distribution System is being flushed to do a deep cleaning.

Q: Is there anything I need to do once I return home?

A: You will need to run your washing machine for one complete cycle without clothes. If you have an in-fridge ice maker, throw away the next three rotations of batches of ice. Refer to cleaning household items section of this guide.

Q: How many people will be in my house doing the home flush?

A: Flushing of homes will be performed by two-person teams consisting of trained technicians and service members. Each team will take approximately two hours to conduct a step-by-step home flushing plan developed by medical and public health professionals and approved by an interagency team that includes the Hawaii Department of Health and EPA.

Q: Will I have to do anything?

A: Residents are asked to be available to provide the flushing teams access to their home, but do not have to remain in the home during the process. Residents should ensure sinks, showers, bathtubs, and dishwashers are empty.

Q: How do I air out my house after flushing?

A: Your doors and windows will be opened during the flushing process to provide ventilation.

FLUSHING AND CLEANING FAQS

(cont'd)

Safe Water Verification Questions

Q: How can we trust the safety of our water?

A: An Interagency Drinking Water System Team, comprised of representatives from the Hawaii Department of Health, Environmental Protection Agency, medical professionals and drinking water experts, has developed this flushing plan as the best way to restore safe drinking water for human consumption. After all homes in a particular neighborhood/zone have been flushed, water samples will be taken and sent to a certified lab for testing. We will notify you once results are received and verify that the drinking water is safe for human and pet consumption.

Q: What if we continue to feel sick and continue to have issues with our water after it's been flushed?

A: Stop using the water and call your medical provider or the Tricare Nurse Advice Line at 1-800-TRICARE (874-2273).

Q: How will I know if the water is safe for my pets?

A: After all homes in a particular neighborhood/zone have been flushed, water samples will be taken and sent to a certified lab for testing. You will be notified once results are received and verified that the drinking water is safe for human and pet consumption.

Q: Will our test results from our home be given to us?

A: The test results for the homes in the neighborhood will be shared but the results will not be linked to specific homes to protect personal information.

Cleaning/Replacement Questions

Q: Will we be reimbursed for all of our appliances/filters? If so, which ones?

A: The only filter that will be replaced is the filter in your refrigerator provided by the property manager. Filters for personally owned appliances remain the responsibility of the resident. Appliances, such as coffee makers, can be cleaned and sanitized. Detailed instructions are included in this guide.

FLUSHING AND CLEANING FAQS

(cont'd)

Q: Do I need to clean my washing machine?

A: You will need to run your washing machine for one complete cycle without clothes after your home flushing has been completed.

Q: Do we need to replace our water heater?

A: No, water heaters will be flushed according to a process drafted and approved by the Interagency Drinking Water System Team during the home flushing process.

Q: Do we need our dishwasher replaced?

A: No, dishwashers will be flushed during the home flushing process according to the recommendations by the Interagency Drinking Water System Team.

Q: Do we need to replace our coffee machine?

A: No, you can clean and sanitize your coffee machines. Detailed instructions are included in this guide. It is best to consult with the manufacturer for recommendations on safe and effective cleaning procedures.

Q: Do we need to throw away our plastic dishes (to include pet dishes), sippy cups, pacifiers?

A: No, most items can be cleaned and sanitized. Detailed instructions are included in this guide. It is best to consult with the manufacturer for recommendations on safe and effective cleaning procedures. If a resident is no longer able to use the item, it should be retained and residents can pursue a claim with their respective Service.

Q: Do I need to throw out the ice in my freezer?

A: Yes, the first three rotations of ice should be disposed of before ice should be consumed.

Q: What if I have an under the sink water Reverse Osmosis filter?

A: It is advisable to throw away and replace filters, which can be claimed through your respective Service claims process.

FLUSHING AND CLEANING FAQS

(cont'd)

Q: Do I need to throw away my drinking water filter pitcher?

A: No, the pitcher itself can be cleaned and sanitized following the detailed instructions included in this guide. The filter should be replaced.

Q: Will the underground pipes and plastic pipes be replaced?

A: No, the flushing plan was developed by an Interagency Drinking Water System Team comprised of representatives from the military, Hawaii Department of Health, Environmental Protection Agency, and drinking water experts. Consulting with experienced experts in government, academia, and industry, this directional flush will remove fuel contamination and render pipes safe. Please know that our commitment to safe drinking water does not end with this flush. We will follow up in the months and years to come to ensure the water and the plumbing that brings it to you remain safe.

Q: Do I need to throw away my kids' plastic bathtub toys?

A: No, plastic bath toys can be cleaned and sanitized following the detailed instructions included in this guide.



FLUSHING AND CLEANING FAQS

(cont'd)

NOTES

[illegible]

HEALTH FAQs

PETROLEUM HYDROCARBONS IN WATER

NOTE: The concentration of petroleum based products that may have been in the water in each home in the Navy water distribution system is unknown. The petroleum contamination was not pure, and it likely ranged from very diluted to nonexistent, and in many areas was undetectable to testing.



Q. What happens if I swallow water with petroleum?

A. *Drinking water containing petroleum hydrocarbons can cause an upset stomach, cramping, nausea, vomiting, and diarrhea. Your throat and mouth may also get irritated.*



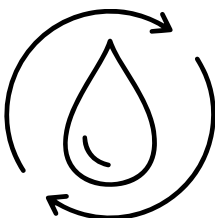
Q. What happens if water with petroleum gets on my skin?

A. *Petroleum hydrocarbons can irritate the skin (dermal exposure). Continuous exposure can cause itchy rash and peeling skin. After skin contact, always wash with soap and clean water.*



Q. What happens if I breathe air that smells like petroleum?

A. *Breathing petroleum vapors (also called inhalational exposure) can cause headaches, dizziness, tiredness and respiratory problems like cough and difficulty breathing. Nosebleeds are also possible.*



Q. How can this affect my future health?

A. *Evaluation of the possibility of long-term health effects is ongoing. Based on current information, people exposed to contaminated drinking water from the Joint Base Pearl Harbor-Hickam Drinking Water System in this incident are not expected to experience long-term health effects.*

HEALTH FAQs

(cont'd)

⚠️ WHAT SHOULD I DO IF I HAVE SYMPTOMS AFTER EXPOSURE TO CONTAMINATED WATER?

- If there is a strong petroleum smell, leave the area and get fresh air.
- If you develop respiratory problems or other severe symptoms, seek urgent medical evaluation.
- Contact your primary care manager or the Nurse Advice Line at 1-800-TRICARE (874-2273).
- Avoid exposure to the water. Do not drink or use the water for cooking or brushing teeth. Do not bathe in the water. If skin contact, always wash with soap and clean water.
- FOR MEDICAL EMERGENCIES GO TO TRIPLER EMERGENCY ROOM OR CALL 911.

⚠️ If at any time you notice a fuel-like odor in the water or obvious petroleum sheen:

- **Do not** drink or otherwise consume the water.
- **Do not** cook using the water or use it for any sort of food preparation.
- **Do not** brush your teeth with the water and instead use bottled water.
- **Do not** provide the water to your pets to drink, or use as part of their food preparation.
- **Do not** use the water for bathing, dish-washing or laundry.
- **Do** use bottled water for anything you or your pets consume.
- **Turn off** ice maker.
- **Notify JBPHH Emergency Operations Center.**

If your water supply comes from JBPHH and you have quality concerns email: jbphh-water-response@navy.mil or call the JBPHH Emergency Operations Center: (808) 449-1979, (808) 448-3262/2557/2570/2583

Civilians & DOD-affiliated personnel and their dependents affected by the Navy Water Distribution System contamination can take a health survey and be entered into an exposure registry. The survey and registry are separate efforts to understand and track health concerns.

DOH & CDC Health Survey

- Civilians & DOD-affiliated individuals who have been in areas served by the JBPHH water system since November 20, 2021 can participate in the Hawaii Department of Health and Centers for Disease Control health survey.
- People who live, work, visit, or attend school/daycare in the area may participate.
- Participation is voluntary and confidential. Results will be shared with the public.
- The survey will be available online until February 7, 2022.



Scan the QR code or follow the link for survey access
<http://go.usa.gov/xtg8v>
Questions: ATSDRACE@cdc.gov

DOD Registry

- All residents & assigned personnel will be automatically captured in the incident report registry.
- No action is required by members of the community to join this registry.
- Non-residents who only briefly visited or stayed in one of the impacted areas, and may not be reflected on resident or employee rosters, may self-report at the number below
- The registry will be updated with additional incident details as more information is obtained over time.



Scan the QR code or call the number below for survey access
1-800-984-8523



JBPHH Water Updates & Services

Scan the QR code to stay up to date with the latest information.

Find out more at www.navy.mil/jointbasewater



MEDICAL RESOURCES

⚠ FOR MEDICAL EMERGENCIES

GO TO TRIPLER EMERGENCY ROOM OR CALL 911. FAMILIES ARE ENCOURAGED TO CONTACT THEIR PRIMARY CARE PROVIDER FOR HEALTH RELATED CONCERNS.

Tripler Army Medical Center

(888) 683-2778

15th Medical Group, Hickam Clinic

(888) 683-2778

Naval Health Clinic Hawaii

(808) 473-1880

Monday-Friday, 7:30 a.m. - 4 p.m.

1253 Makalapa Road, Joint Base Pearl Harbor-Hickam

Military Health System Nurse Advice Line

(800) TRICARE

mhsnurseadvice.com

Hawaii Poison Center

(800) 222-1222



RESOURCES & CONTACTS

EMERGENCY OPERATIONS CENTER (EOC)

(808) 449-1979

CLAIMS

Air Force & Space Force Claims:

(808) 789-5287

<http://tlaclaims.setmore.com>

Army Claims:

(502) 626-3000

<https://home.army.mil/hawaii/index.php/water>

Email: usarmy.knox.hqda-otjag.mbx.cpcs@army.mil

USN & USMC Claims:

(757) 440-6315 / (888) 897-8217

www.jag.navy.mil/organization/code_15_redhill.htm

Email: norfolkclaims@navy.mil

USCG CLAIMS:

(808) 219-9084

<https://www.dcms.uscg.mil/Our-Organization/Director-of-Operational-Logistics-DOL/Bases/Base-Honolulu/JBPHH-Water-Updates/>

Email: D14-DG-M-SI-PCSAssistTeam@uscg.mil

OTHER CONTACTS

Airman and Family Readiness Center

(808) 449-0301 / (808) 449-0310

Army Emergency Relief (AER)

(808) 787-4227

Emergency Family Assistance Center

(866) 525-6676

Hawaii State Department of Health

(808) 586-4400

Housing

Housing Assistance Call Center:

(808) 789-5287

Hickam Housing Communities:

(888) 329-4758, opt. 4

Island Palms Housing Communities:

(877) 487-4323

Ohana Military Communities:

(855) 413-8805

Joint Base Emergency TLA Hot-line

(808) 789-5287

Navy and Marine Corps Relief Society

(808) 257-1972

Email: pearlharbor@nmcrs.org

Oahu Military Water Contamination Self Reporting Line

(210) 295-3700

(800) 984-8523

DEFINITIONS

DOH - (Department of Health) is organized into three administrations: Health Resources, Behavioral Health, and Environmental Health. The environmental health administration ensures that environmental safety regulations are satisfied and manages cases that pose threats to environmental safety.

EAL - (Environmental Action Level) are concentrations of contaminants in soil, soil gas, and groundwater that are used in decision making throughout the Environmental Hazard Evaluation (EHE) process.

EFAC - (Emergency Family Assistance Center) serves as a location for service members and family members impacted by crisis to get timely and accurate information. All military installations are required to create and maintain an emergency family assistance plan, which helps protect military families and other Department of Defense personnel. This plan helps ensure that your environment is safe and mission-ready after a disaster.

EHE - (Environmental Hazard Evaluation) is the link between site investigation activities and response actions carried out to address hazards posed by the presence of contaminated soil and groundwater.

EPA - (Environmental Protection Agency) is an independent executive agency of the United States federal government tasked with environmental protection matters.

EOC - (Emergency Operations Center) serves as EPA's emergency response operational focal point. It is a communication and coordination hub designed to increase data management and coordination capabilities.

GAC - (Granular Activated Carbon) is an organic carbon filtration media – wood, coconut shells, coal or peat – used for water purification, typically applied in a fixed bed application.

JIC - (Joint Information Center) facility established to coordinate critical emergency information, crisis communications, and public affairs functions.

JP-5 - (Jet Propellant-5) is one type of fuel used by the military. The Red Hill storage tanks store this type of fuel.

DEFINITIONS

(cont'd)

MCL - (Maximum Contaminant Level) the highest level of a contaminant that is allowed in drinking water according to the Environmental Protection Agency. The MCL standards are monitored by the EPA in order to protect human health.

µg/L - (Microgram per Liter) the unit that is used to report the amount of chemical in a specific volume. The data from water samples are reported using this unit.

PPB - (Parts per billion) is the number of units of mass of a contaminant per 1000 million units of total mass. PPB is used when there are very small amounts of a contaminant in the water.

TPH - (Total Petroleum Hydrocarbons) are a group of chemicals that come from petroleum. There are many types of TPHs that all have different shapes, sizes, and characteristics. The three most common are Diesel Range, Gasoline Range, and Oil Range.

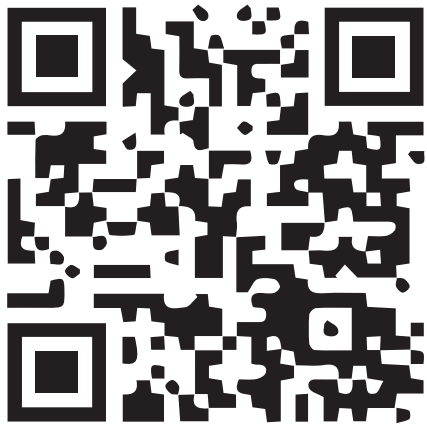
TPH-d - (Total Petroleum Hydrocarbons-Diesel Range) are a type of Total Petroleum Hydrocarbons that do not evaporate, but do produce a lot of energy when burned.

TPH-g - (Total Petroleum Hydrocarbons-Gasoline Range) are a type of Total Petroleum Hydrocarbons that easily evaporate and are flammable. These are most commonly associated with an unpleasant odor.

TPH-o - (Total Petroleum Hydrocarbons-Oil Range) are a type of Total Petroleum Hydrocarbons that do not evaporate and don't burn very well. They are commonly used to make lubricants and greases.

OAHU MILITARY WATER RESPONSE

SCAN THE QR CODES TO STAY UP TO DATE
WITH THE LATEST INFORMATION



[www.navy.mil/
jointbasewater](http://www.navy.mil/jointbasewater)



[https://home.army.mil/
hawaii/index.php/water](https://home.army.mil/hawaii/index.php/water)

