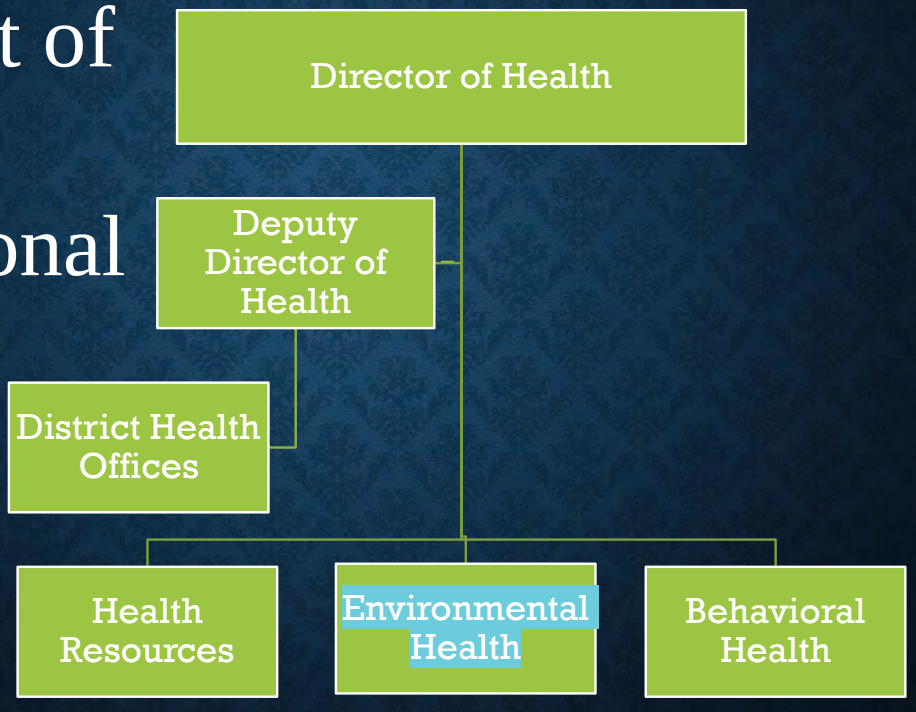
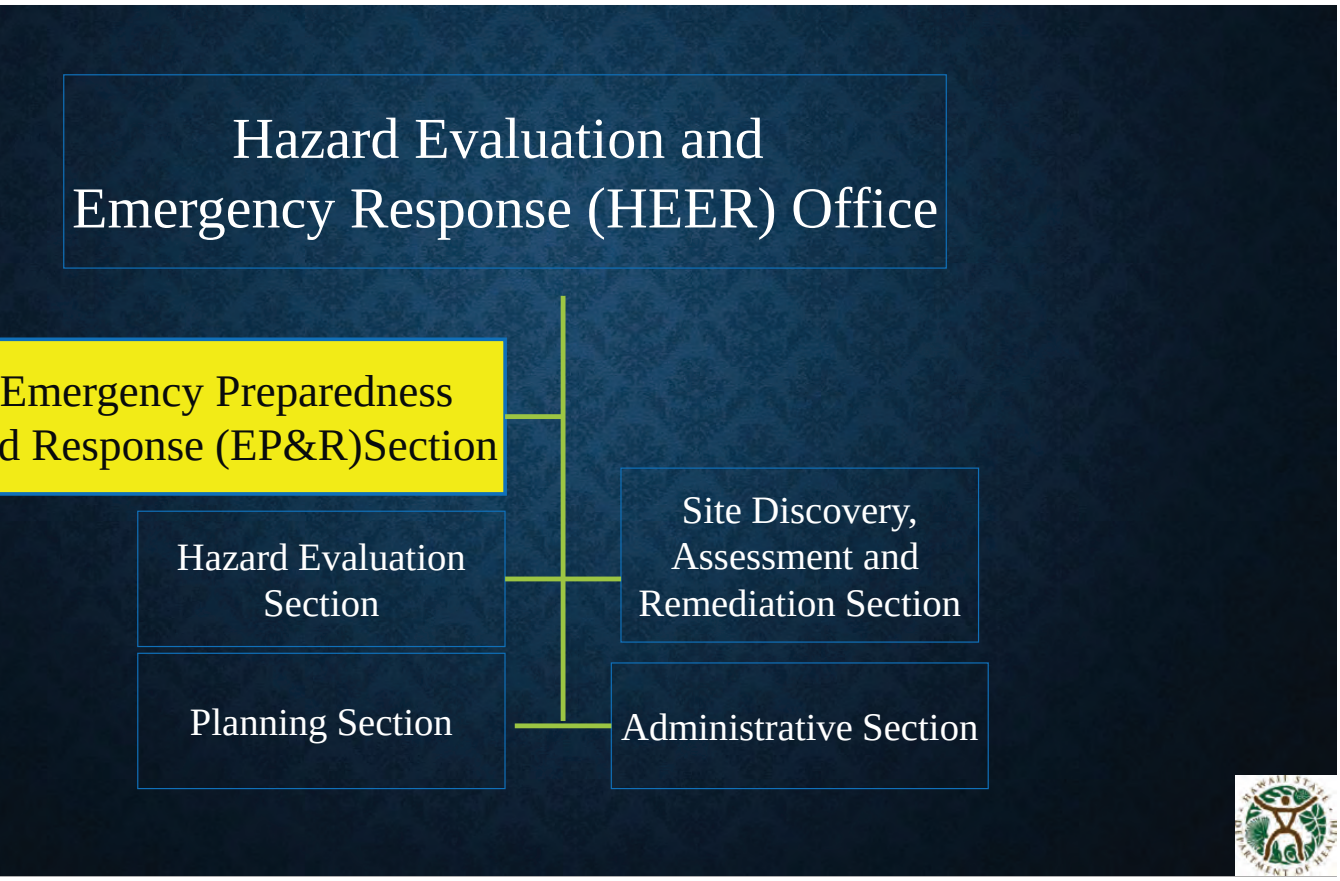
HAZARD EVALUATION AND EMERGENCY RESPONSE (HEER) OFFICE

Department of Health Organizational Chart



Organizational Chart



HEER Office Authorities

STATE LAW Hawaii Revised Statues (HRS)	STATE REGULATIONS Hawaii Administrative Rules (HAR)
Chapter 128D, HRS "Hawaii Environmental Response Law"	Title 11, Chapter 451, HAR " State Contingency Plan" (SCP)
Chapter 128E, HRS "Hawaii Emergency Planning and Community Right-to-Know Act" (HEPCRA)	Title 11, Chapter 453, HAR "HEPCRA"
Chapter 321, HRS "Department of Health"	Title 11, Chapter 5, HAR "Environmentally-Related Illness and Injury"
	Title 11, Chapter 452, HAR "Requirements for the Decontamination And Cleanup of Methamphetamine Manufacturing Sites"

EP&R Section MISSION

- To **Protect** human health, public welfare and the environment, and to provide state leadership, support and partnership in preventing, planning for, responding to and enforcing environmental laws related to releases or threats of releases of hazardous substances, pollutants or contaminants.
- **Prepare** for and respond in a timely and effective manner to releases (& potential) of hazardous substances (including oil) into the environment.
- **Prevent** harmful releases of hazardous substances into the environment.

EMERGENCY PREPAREDNESS AND RESPONSE SECTION

- **State On-Scene-Coordinators:**

a) 24/7/365 **Respond and if necessary clean up** Emergency (time-critical) Releases and Potential Releases of hazardous substances, including oil

b) Release includes containers that are: spilling, leaking, dumping, discharging, & abandoned

c) **Provide technical assistance** and partner with federal, state, county agencies, and industry for emergency responses and planning

d) **Legally authorized to take response actions.**

Emergency Preparedness and Response Section
Hawaii Emergency Planning and Community Right-to-Know Act

Emergency Response Planning
Emergency Release Reporting
Hazardous Chemical Storage and Tier II Reporting
Establish : Local Emergency Planning Community and State Emergency Response Commission.

HEPCRA Coordinator: Mission is to increase public's awareness of the potential chemical hazards present in our communities in order to improve chemical safety and protect human health and the environment

Emergency Preparedness and Response Section

HEPCRA Coordinator duties include:

a) Collects and distributes Community Right to Know Hazardous Substance Information and Fees from facilities

b) Partner and coordinate with state, county, and industry for emergency planning:

- **HSERC – Hawaii State Emergency Response Commission**
- **LEPC – Local Emergency Response Committees**

- c) Risk Management Planning

Emergency Preparedness and Response Section

Hawaii Emergency Planning and Community Right-to-Know Act

- 1,086 estimated Facilities
- $200 Annual fee
- Funding for four (4) Local Emergency Planning Committees : LEPCs in Honolulu, Hawaii, Maui, Kauai
- Facility/Hazmat info shared with first responders

October 23, 2018, American Water Infrastructure Act (AWIA) signed into law, amending EPCRA

- Release into a source of drinking water or to land in a source water protection area could impact drinking water
- Prompt notification may allow prevention or minimize impacts

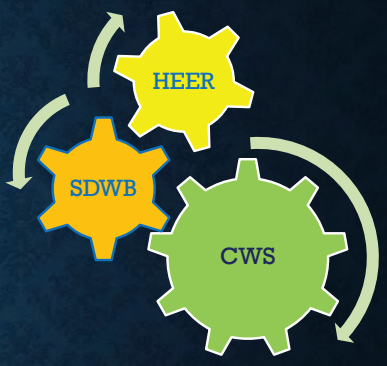
HEER receives Release Notifications

HEER to SDWB:

- Promptly notifies pertinent reportable releases
- Provides information collected from initial notification
- Provides written follow-up report

Partnership:

- Plan
- Prevent
- Prepare for
- Respond



SDWB to HEER:

- Provides surface water intake and well locations

SDWB to CWS:

- Provides notification of releases and all information received that may potentially affect the water system

Community Water Systems (CWS):

- Uses information to prepare for possible impacts to systems resulting from the release

CWS to HEER:

- Reports Releases
- Requests for Tier II information within source water protection area

Emergency Preparedness and Response Section

HEPCRA Coordinator
Sharon Leonida

Risk Management Program Coordinator
(vacant)

On-Scene Coordinators
Terry Corpus
Liz Galvez
Adam Teekel
Ramon Mendoza

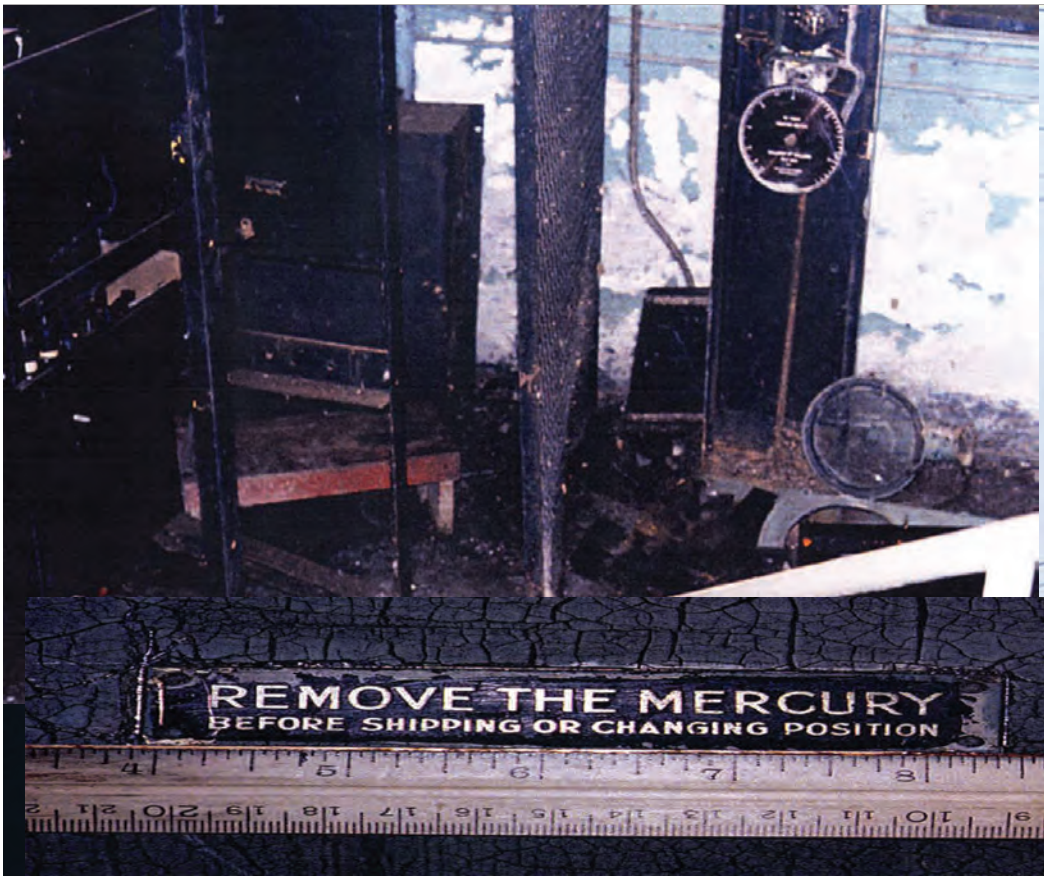
STATE ON-SCENE COORDINATORS CASE STUDIES :

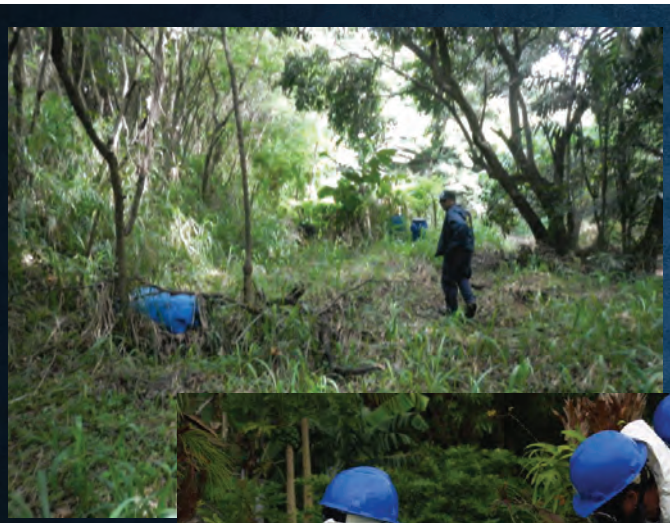
- A) Abandoned Pumphouse Mercury Spill
- B) Illegal Dumping
- C) Chemical Safety Awareness
- D) Red Hill Response

Abandoned Pumphouse (Aiea Oahu)

Mercury Source in Pump House

- Venturi meter (water flowmeter)
- Contained 54 pounds of mercury
- Equipment vandalized, Hg spilled
- Children discovered mercury and brought it to a 210-unit complex and school
- Mercury spread throughout neighborhood





Investigate Illegal Dumping.

Set-up:
15 June 2016 – Hawaii Ammonia Safety Day
Maui Soda & Ice Works Manager and Maui Fire Department Captain - both who took time out of their busy schedules …..

Hazmat team summoned to ammonia leak on Lower Main

LOCAL NEWS

JUL 20, 2016

A hazardous materials leak in Wailuku prompted the evacuation of one building while people at nearby businesses were told to shelter in place Tuesday morning, according to a fire official.

SHARE TWEET

Firefighters were called to the incident at Maui Soda & Ice Works on Lower

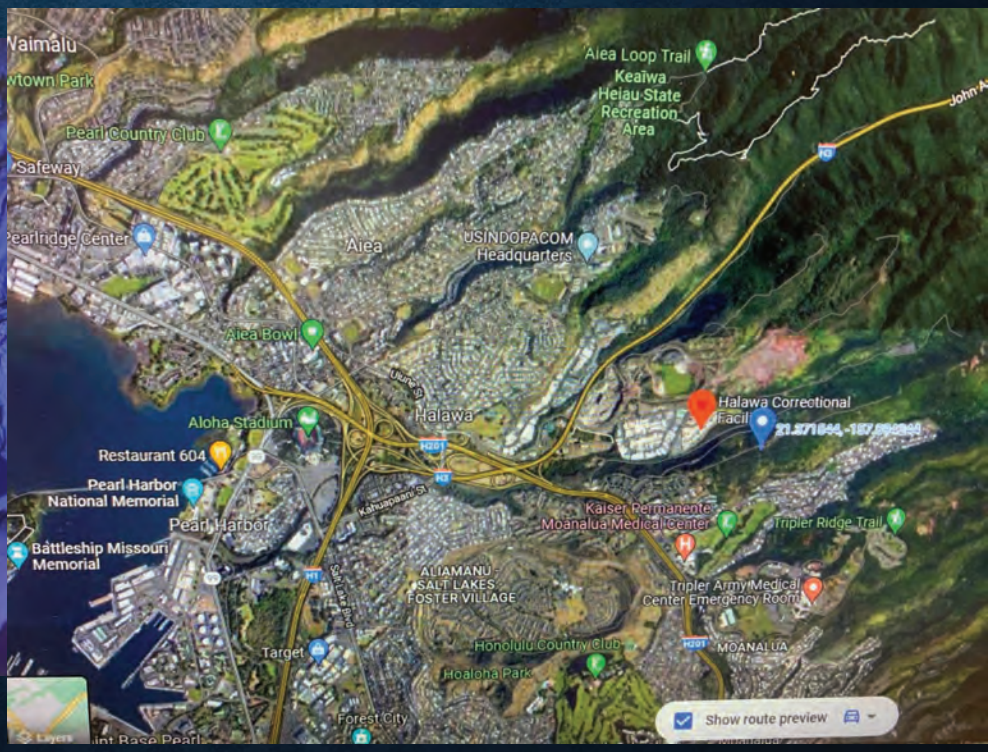
Capt. Jeffrey Kihune (Maui County HAZMAT) Success Story:
The Manager said he remembered….. that Ammonia is attracted to water and he used a wet cloth to wrap around the relief valve to assist in slowing down the leak prior to our arrival. When we arrived at the valve the cloth was very cold, but not frozen which gave us a visual that the leak had stopped and was confirmed with our meter."

RED HILL FUEL SPILL

Tanks superimposed to show their location at Red Hill facility

RED HILL BACKGROUND

- The Red Hill facility, which was constructed in the early 1940s, consists of 20 tanks mined inside a volcanic ridge near Pearl Harbor. Each tank measures 100 feet in diameter and 250 feet high — roughly the height of a 25-story building.
- They can hold up to 250 million gallons of fuel, or 12.5 million gallons each. Fuel travels 2.5 miles via pipelines to ships and planes waiting at Joint Base Pearl Harbor-Hickam
- Hundreds of thousands of Oʻahu residents — civilian and military — rely on drinking water from an aquifer that sits 100 feet below the fuel storage facility. The Navy's water system serves some 93,000 residents



RED HILL TIMELINE

- **Nov. 20 , 2021, 11:30pm:** The Navy initially reports 14,000 gallons of a fuel and water mix leaked from a fire suppression drain line. (In a January 2022 report, the Navy says "approximately 19,000 gallons of JP-5" leaked.)
- **Nov. 20-21, 2021**: DOH HEER OSC on duty is notified by the Navy. DOH OSC notifies the DOH **Safe Drinking Water Act Branch who notifies the Honolulu Board of Water Supply.**

RED HILL TIMELINE

- **Nov. 27, 2021:** The Navy halts use of the Red Hill storage tank facility.
- **Nov. 28, 2021:** Military residents begin complaining to Navy, DOH, and BWS, about fuel or chemical odor from their drinking water. Some say they've been getting sick.
- The Navy takes its Red Hill water well offline. It remains isolated from the distribution system.
- **Nov. 29, 2021: The Hawaii Department of Health issues a Health Advisory : "All Navy water system users avoid using the water for drinking, cooking, or oral hygiene."**
- The U.S. Navy says it is investigating reports of a "chemical smell" in drinking water at some military homes.

RED HILL TIMELINE

- **Nov. 30, 2021:** The Navy recommends Joint Base Pearl Harbor – Hickam military housing residents avoid ingestion of their potable water as a cautionary measure "if chemical or petroleum odors are present."
- **Dec. 1, 2021: DOH** Preliminary testing shows the presence of petroleum product in a water sample from Red Hill Elementary which is on the Navy water system,
- **Dec. 2, 2021:** The Navy says tests have identified petroleum in its Red Hill well. Rear Adm. Blake Converse, Pacific Fleet deputy commander, told a town hall meeting the Navy took this well offline on Nov. 28 because it was the closest well to affected housing areas. The source of contamination is not yet announced.
- The U.S. Army , Air Force, USCG, authorizes evacuation and/or lodging allowances for residents in affected areas.

RED HILL TIMELINE

- **Dec. 3, 2021:** The Honolulu Board of Water Supply shuts down its Halawa Shaft as a precaution. A report released Dec. 13 by the BWS finds no contaminants in its Halawa Shaft.
- The Hawai‘i congressional delegation urges Gov. David Ige to request an emergency declaration from President Joe Biden.
- The U.S. Navy authorizes evacuation and/or lodging allowances for residents in affected areas.
- **Dec. 5, 2021:** Gov. David Ige and Hawai‘i’s congressional delegation say that operations at the Red Hill fuel site should be suspended immediately.
- Rear Adm. Blake Converse says at a town hall meeting that a recent spill was likely the source of the contamination found in the well.

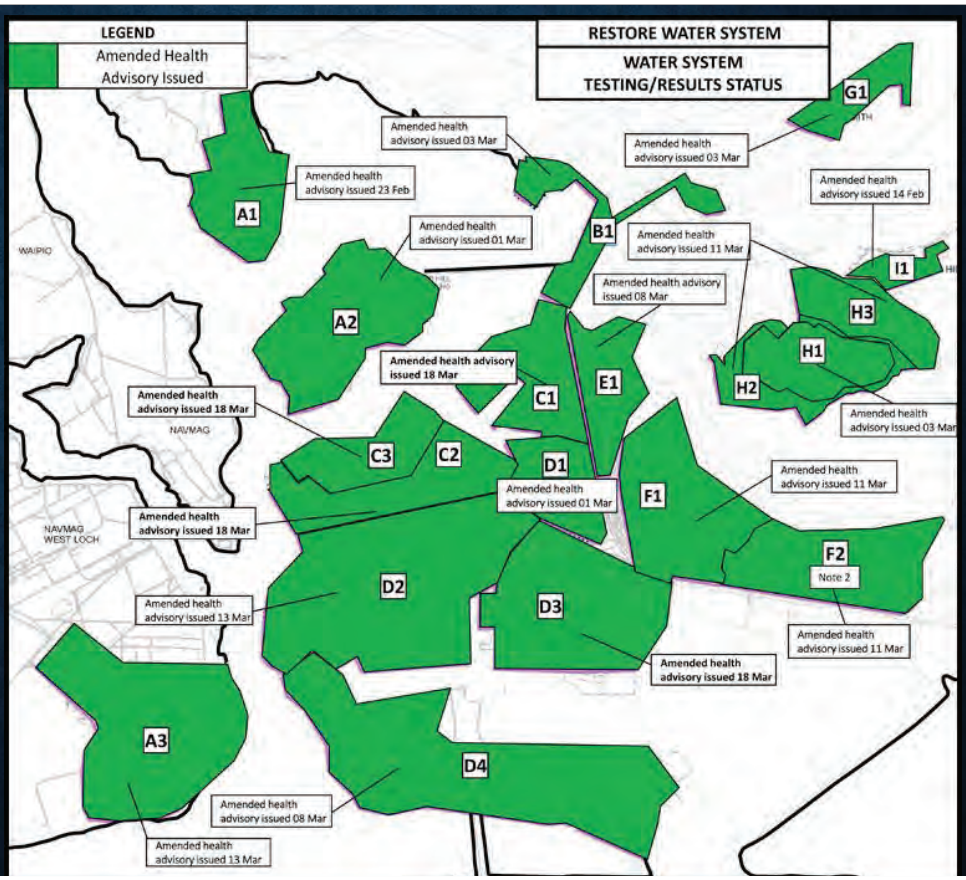
RED HILL TIMELINE

- **Dec. 6, 2021:** Gov. David Ige and the Department of Health order the Navy to further suspend operations until independent evaluators can ensure that appropriate actions are taken to protect drinking water. They also order the Navy to treat contaminated drinking water and plan to remove the fuel.
- **Dec. 8, 2021:** The Department of Health reports diesel fuel levels are more than double the limit for drinking water in the Navy's Aiea-Halawa Shaft. The Navy says "the sample was not from the Halawa well but from an off-service section of the water distribution system." As a precaution, the Honolulu Board of Water Supply shuts down its Halawa well.
- A total of 3 drinking water wells have been shut down: 1) Navy: Red Hill, Aiea- Halawa, 2) BWS: Halawa

RED HILL TIMELINE

- **Dec. 10, 2021:** Water from the Navy's Red Hill shaft contains high levels of gasoline and diesel fuel hydrocarbons, the Hawai‘i Department of Health confirms. Hydrocarbons associated with diesel fuel were detected at 350 times the level the health department considers safe.
- **Dec. 13, 2021:** Navy divers begin trying to remove jet fuel from the Red Hill water shaft near Pearl Harbor.
- **Dec. 17, 2021:** The U.S. Navy, U.S. Army, Environmental Protection Agency and state Department of Health announce the creation of an interagency partnership to ensure clean drinking water. Sampling plan to restore the drinking water system was signed.
- **DOH was represented daily by State On-Scene Coordinator and Safe Drinking Water / Environmental Management Division Program Manager.**

A total of 19 distinct DW distribution systems in 19 Zones were contaminated and needed to be flushed. Population about 93,000 residents



SAMPLING RESTORATION PLAN – FOR EACH ZONE

Step 1 Distribution System Flushing

- Granular Activated Carbon Units Use for Distribution system. After flushing samples are collected. Results are evaluated by DOD, EPA, and DOH to determine

if established criteria have been met. If so then

Proceed to residential flushing.

SAMPLING RESTORATION PLAN – FOR EACH ZONE

Step Two: Residential and Non-Residential Flushing

- Includes residences, schools, building apartments, child care centers, medical facilities.
- Representative samples are collected (over 1000 samples). DOH, DOD, and EPA reviewed results. Once there is agreement that Criteria have been met and other lines of evidence reviewed, a recommendation to amend the advisory is made by DOD to DOH.

DOH APPROACH TO AMENDING THE PUBLIC HEALTH ADVISORY USING LINES OF EVIDENCE

1. **Ensure no contamination is entering the water system:** Contamination from the Red Hill shaft is isolated from the Navy's water distribution system. Navy system is being supplied by the **Waiawa Shaft.** Data from the Waiawa drinking water well is compliant with MCLs, EALs, and ISPs. Cross connection control investigation shows distribution is protected.

2. Ensure no contamination remains in the System and Water Chemistry concerns are addressed: Water in the distribution system and premise plumbing of homes/buildings meets State and Federal MCLs, Environmental Action Levels (EALs), and Incident Specific Parameters (ISPs)

   MCLs include : Benzene, Toluene, Ethylbenzene, Xylene (and other VOCs and Metals)

   Incident Specific Parameter Total Petroleum Hydrocarbons – Gasoline, Diesel, and oil ranges = 211 ug/kg (211 ug/l screening level based on risk based action level for TPH associated with JP-5)

STEP THREE : AMENDED HEALTH ADVISORY AND RESIDENTS RETURN

- **March 18, 2022 - DOH declares the tap water is safe to drink in all residential areas (zones)**

- **Current Status: Navy drinking water system undergoing Long Term Monitoring under HI DOH oversight (Safe Drinking Water Act Branch)**

OTHER ONGOING RESPONSE ACTIONS

Red Hill Shaft Cleanup: Jan. 27, 2022: The Hawai‘i Department of Health permits the Navy to flush up to 5 million gallons of treated (GAC System) water a day from its contaminated Red Hill Shaft into the Halawa Stream.

Characterization to remediate the subsurface and groundwater are ongoing.

Navy is the responsible party with DOH and EPA overseeing as regulatory agencies.

HEER Office
808-586-4249
Mon – Fri 7:45 a.m. – 4:30 p.m.

808-236-8200
After Hours, Weekends, holidays

HI DOH HEER HOW TO REPORT A SPILL (NEEDS TO BE ABOVE REPORTABLE QUANTITY) :

HTTPS://HEALTH.HAWAII.GOV/HEER/HOW-TO-REPORT-A-RELEASE-SPILL/

For Chlorine: RQ = 10 pounds

For oil:

- **Any amount of oil which when released into the environment causes a sheen to appear on surface water, or any navigable water of the state;**
- **Any free product that appears on ground water;**
- **Any amount of oil released to the environment greater than 25 gallons;**
- **Any amount of oil released to the environment which is less than 25 gallons, but which is not contained and remediated within 72 hours.**

Hawaii Reportable quantities at:
https://health.hawaii.gov/heer/files/2021/05/TGMAppendix2-D.pdf

DOH/EPA HAWAII CHEMICAL SAFETY DAYS JUNE 15-16, EWA BEACH , HI

- Free Training. Topics include: Fentanyl Awareness, Chlorine Release, Ammonia Safety, Lithium-Ion Battery Storage and Fire Response, Marine Flares.

- In-person (Register by 5/31/2022):
- https://www.eventbrite.com/e/hawaii-chemical-safety-days-registration-328533441367
- Virtual:
- https://us06web.zoom.us/webinar/register/WN_VLwpKMpgQg2HfK_gnmlVqg

Contact: Ramon Mendoza
State On-Scene Coordinator
HI DOH HEER OFFICE
Ramon.Mendoza@doh.hawaii.gov; 808-586-4698

This Photo by Unknown Author is licensed under CC BY