

NCTF-RH Update

Commission on Water Resource Management



24 MARCH 2026



Apple

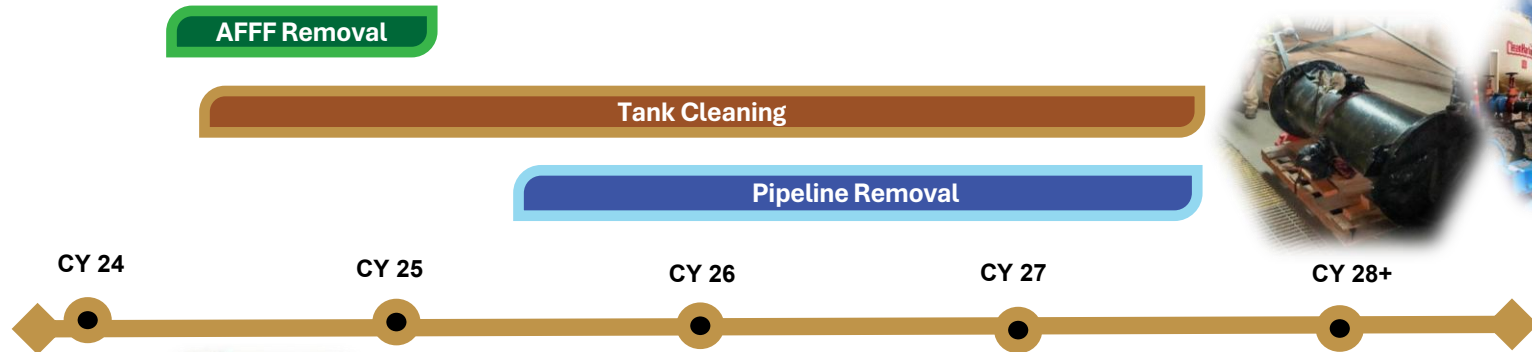


Android



NCTF-RH Mission

Decommission Timeline:



Ongoing: Environmental & Remediation



Communication



Website, Mobile App & Dashboard

Drinking Water Info Booths

Government / Community Meetings

Open Houses

Neighborhood Boards

Vodcasts / Webinars



Decommissioning Updates



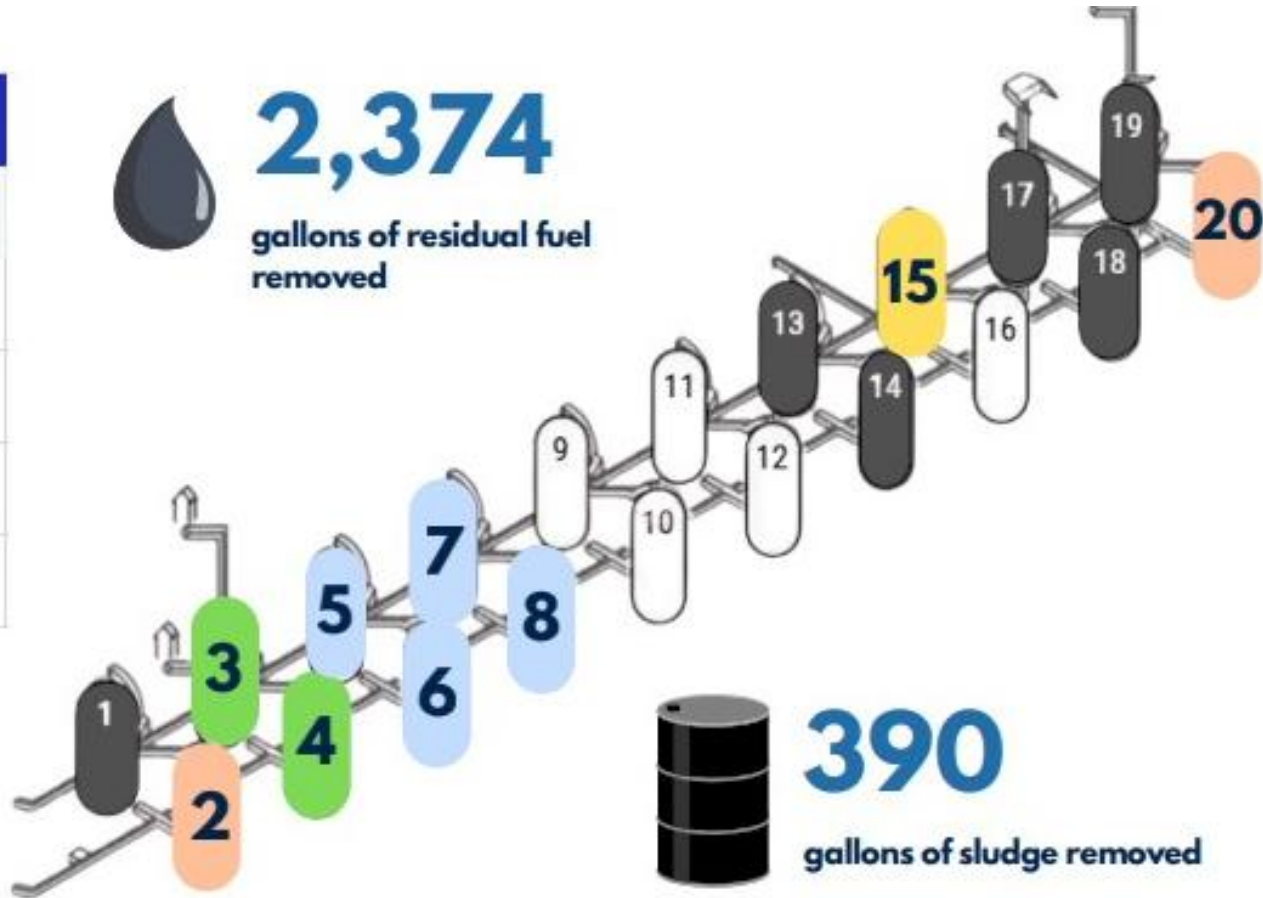
Tank Cleaning

Information current as of 09 MAR 2026

SAFE. DELIBERATE. ENGAGED. COMMITTED.

Status	
Step	Tank(s)
1	15
2	2, 20
3	3, 4
4	5, 6, 7, 8

*Gray tanks were empty and not in service before defueling


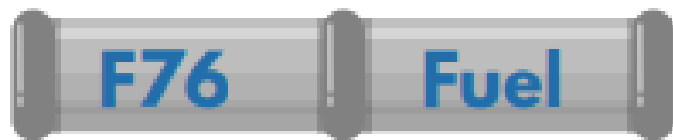
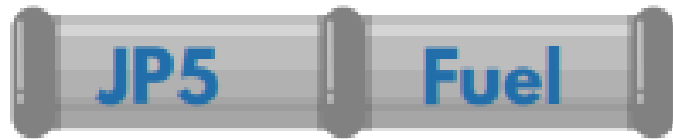
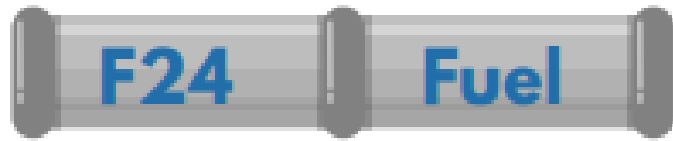




Pipeline Cleaning Status

Information current as of 09 MAR 2026

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2,512
total gallons
of residual
fuel removed as
part of pipeline
cleaning efforts



Environmental Updates



Environmental Monitoring and Remediation

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Layers of Environmental Monitoring



Passive soil vapor monitoring of conditions below fuel tanks



Air quality monitoring during tank degassing and ventilation



Extensive groundwater (GW) monitoring across region



Continued ecological monitoring of Halawa Stream

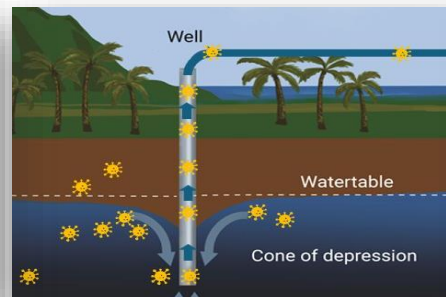
Site Investigation and Remediation



Expanding GW monitoring well network to increase visibility



Extensive Field Investigation sampling for site assessment and cleanup



Pumping and treating Red Hill Shaft to sustain groundwater capture zone



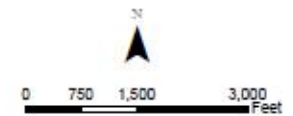
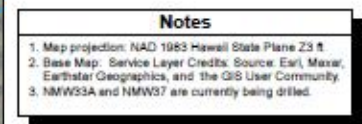
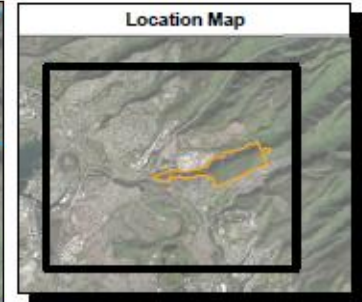
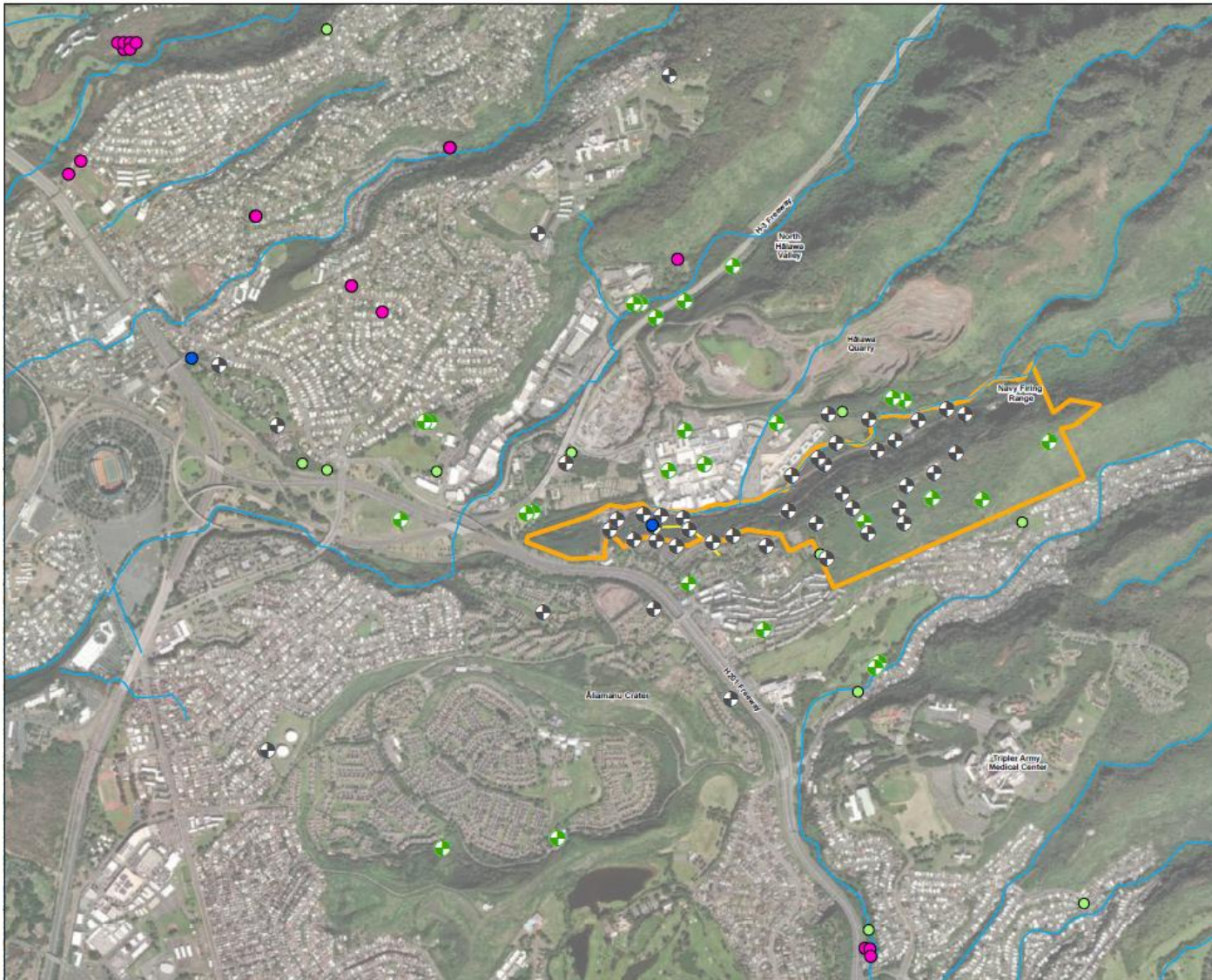
Soil vapor extraction and biodegradation studies to evaluate methods for site cleanup

Multiple lines of effort to monitor and evaluate environmental conditions and to inform site remediation



Groundwater Monitoring Network

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Existing and Proposed
Monitoring Well Locations
Red Hill Bulk Fuel Storage Facility
JBPHH, Oahu, Hawaii



Groundwater Flow Model

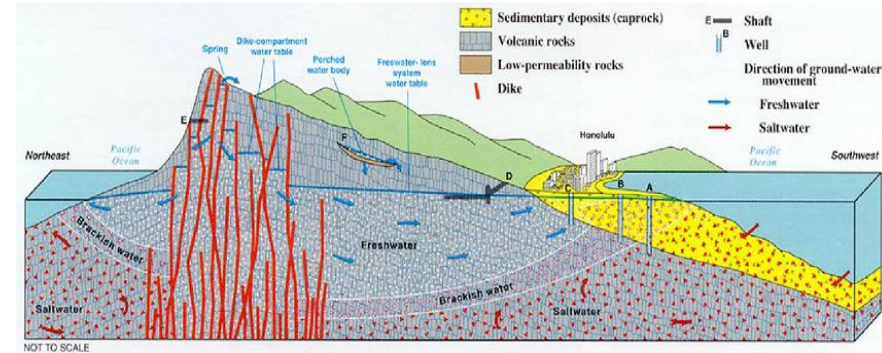
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Navy Groundwater Model

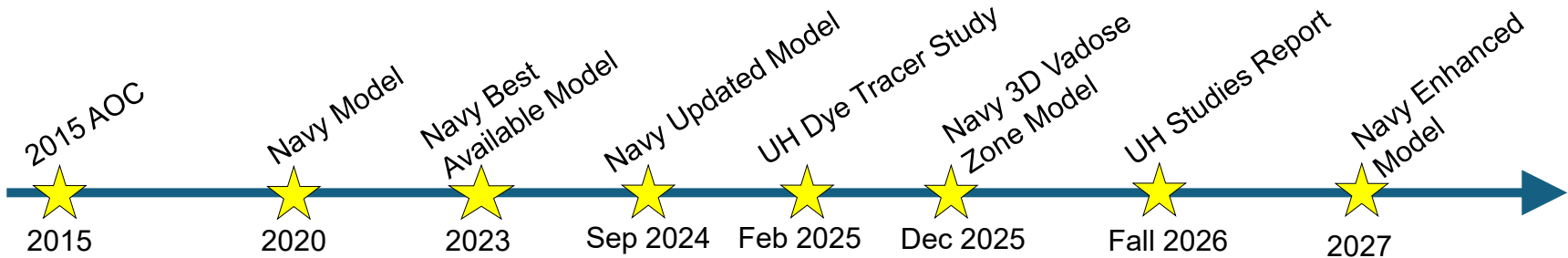
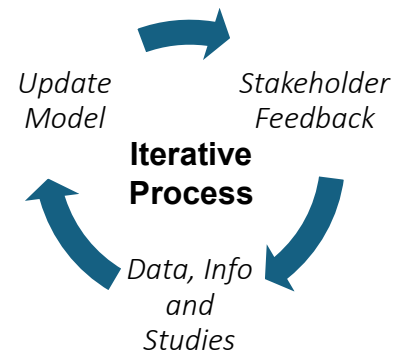
- Estimates environmental conditions from empirical data
- Advances understanding of subsurface conditions
- Independent from Univ. of HI groundwater studies
- Iterative approach - informed by data, studies, feedback

Composite Model

- Geological Conceptual Site Model
 - Estimates the geologic material distribution
- Groundwater Flow Model
 - Estimates flow direction and flow rates of groundwater
- Vadose Zone Model
 - Studies processes that occur in the geology between the land surface and groundwater table
- Contaminant Fate and Transport Model
 - Estimates migration pathways of contaminants
 - Estimates how natural processes affect concentrations



Conceptual Hydrogeology of Oahu





Multiple Lines of Evidence

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Holistic approach

- Scientific, data-driven approach
- Range of sampling and monitoring activities
- Highly frequent sampling, monitoring
- Close coordination, communication with DOH and EPA

TABLE 4. CALCULATED RETARDATION FACTORS FOR SELECTED PAH AND BTEX COMPOUNDS.

Compound	log K(oc)	RETARDATION FACTOR		
		foc	foc	foc
		0.0001	0.0003	0.001
Naphthalene	3.14	2	4	10
Acenaphthene	3.71	4	11	33
Fluorene	3.97	7	18	59
Anthracene	4.33	14	41	134
Phenanthrene	4.36	15	44	143
Pyrene	4.97	59	175	580
Fluoranthene	5.01	64	191	635
Chrysene	5.58	237	708	2,358
Benzo(a)anthracene	5.70	312	933	3,108
Benzo(a)pyrene	5.77	366	1,096	3,652
Benzo(g,h,i)perylene	6.89	4,814	14,439	48,128
Dibenzo(a,h)anthracene	6.98	5,922	17,764	59,211
Benzene	1.92	1	1	2
Toluene	2.44	1	2	3
Ethyl benzene	2.92	2	3	6
Xylenes	2.93	2	3	6

Frequent **soil vapor monitoring** below fuel tanks

Extensive groundwater (GW) monitoring

- Ultra frequent sampling
- Expanding GW monitoring well network
- Fuel indicator compounds (FICs): no change onsite
- FICs: no verified detects offsite

Groundwater studies – flow models

- Independent Navy, Univ of HI studies, dye tracer
- Slow, stable GW movement, down slope

Inhibitors in natural environment

- Halawa Valley watershed – complex geology
- Biodegradation – 4 years in oxygenated environment
- Chemical retardation factors – impede movement

Well operations – aquifer draw

- Red Hill Shaft pumping– GW capture zone
- Navy Aiea Halawa, C&C Halawa not pumping

Extensive **drinking water monitoring** at Red Hill Shaft

- No observation of fuel contamination 18+ months

Multiple lines of evidence used to evaluate conditions onsite –
no empirical evidence of fuel contamination migration



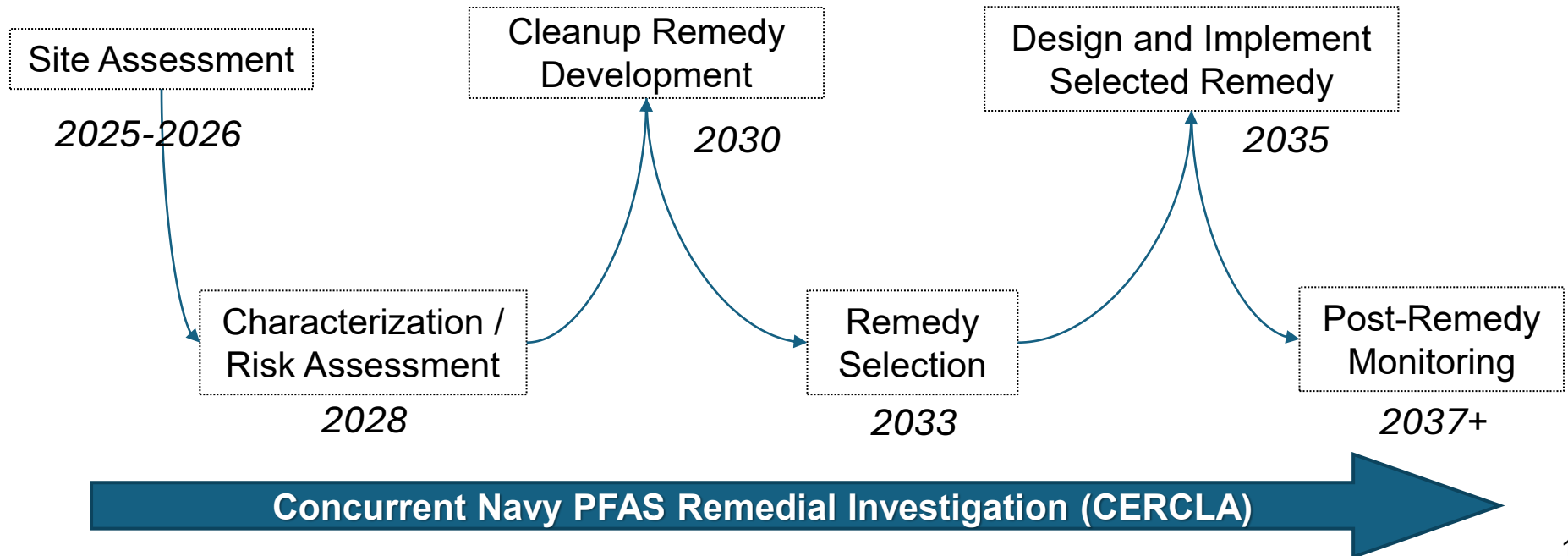
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Site Investigation and Remediation

Site Investigation Process

- Regulatory driven requirement (Resource Conservation & Recovery Act)
- Deliberate, data-driven process under regulatory oversight
- Investigates historic releases (known and unknown)
- Conducts sampling and analysis to confirm and characterize release
- Scopes and evaluates the extent of environmental cleanup

General Process





Water Resiliency Updates



Restoring Resiliency



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Water Distribution System Recovery

- Scientific, data-driven approach to extensive monitoring
- Independent investigations by both EPA and DOH

Water Source Resiliency, Redundancy

- Recovery of Navy Aiea-Halawa and Red Hill Shafts
- Treatment system installation
- Deliberate, closely coordinated reactivation plans, approved by DOH
- Enhanced drinking water system operations and maintenance under EPA oversight

Consumer Confidence

- Continued Water Quality Action Team operations to investigate water quality concerns
- Robust community and consumer engagement
- Layered communication and informational updates
- Data transparency and regular updates
- Expanded consumer resources

Extensive, layered measures to demonstrate complete recovery of the JBPHH drinking water system and restore consumer confidence



JOINT BASE PEARL HARBOR-HICKAM DRINKING WATER MONITORING PROGRAM ENSURING SAFE AND COMPLIANT DRINKING WATER



Emergency Response

Nov. 2021 - Dec. 2021



A Red Hill watchstander inadvertently strikes a drain valve, spilling fuel which contaminated the JBPHH drinking water well and distribution system. Hawaii Department of Health issued a health advisory on Nov. 29, 2021.



Interagency Drinking Water System Team

Dec. 2021 - Mar. 2022



A team of experts from the Hawaii Department of Health (DOH), Environmental Protection Agency (EPA), Navy and Army was formed to develop requirements to restore the JBPHH drinking water system.



JBPHH Drinking Water System Flushing

Dec. 2021 - Mar. 2022



Between Dec. 2021 to Mar. 2022, the Navy conducted a complete flush of the JBPHH drinking water distribution system to include all facilities and residences on the system in compliance with the IDWST approved Drinking Water Distribution System Recovery Plan. DOH lifts health advisory in Mar. 2022.



Drinking Water Long Term Monitoring

Mar. 2022 - Mar. 2024



From Mar. 2022 to Mar. 2024, Navy implemented a two-year period of LTM of the JBPHH drinking water system. Navy collected over 9,000 samples testing for over 50 analytes to include metals, hydrocarbons, Synthetic Organic Compounds, and Volatile Organic Compounds to ensure the water is safe.



Extended Drinking Water Monitoring

Apr. 2024 - Mar. 31, 2025



By Apr. 2025, Navy conducted 6,840 samples under EDWM. 93% of residences on the JBPHH drinking water system were sampled between LTM & EDWM. Over 16,000 samples were collected. The drinking water system remains safe for consumption and meets all state & federal standards.



SAFE DRINKING WATER ACT COMPLIANCE MONITORING

- Recurring monitoring in accordance with the Safe Drinking Water Act for drinking water systems.
 - Full drinking water analytes sampled for, plus required operational testing (bacteria/chlorine/etc).
 - Reported to all consumers by the JBPHH Consumer Confidence Report which is completed each summer.
- +
- Lead and Copper Rule (LCR)
 - Lead in Priority Area Rule (LIPA)
- Established and continue Water Quality Action Team operations to investigate consumer concerns.

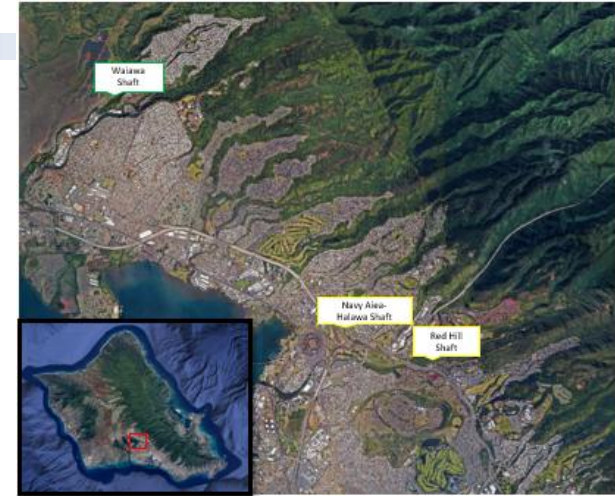


Navy Aiea-Halawa Shaft Reactivation

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Overview

- Smallest of three JBPHH drinking water production wells
- Isolated from system since Dec 2021
- Important asset supporting JBPHH water system resiliency
- Extensively monitored
- Proactive installation of onsite treatment system to address PFAS, well in advance of 2029 drinking water compliance



Communication

- NCTF-RH open houses
- Stakeholder engagements
- Drinking water Info Booths
- *Red Hill Highlights*
- Vodcasts
- Public webinars
- JBPHH-Safewaters website
- NCTF-RH website
- DOH, EPA, CWRM notice
- Notice to residents, consumers



Community Engagement Updates



Community Engagement

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Resources

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Navy Closure Task Force–Red Hill

navyclosetaskforce.navy.mil

- Document library for defueling & closure of Red Hill Bulk Fuel Storage Facility
- Photos & media gallery
- Upcoming public engagements
- Red Hill Highlights



Joint Base Pearl Harbor-Hickam Safe Waters

jbphh-safewaters.org

- Environmental data & plans
- Drinking water monitoring test results
- Groundwater monitoring test results
- Red Hill remediation actions schedule



Download the free NCTF-RH app

- Interactive progress dashboard
- Latest news
- Photos & videos
- Presentations & fact sheets
- Air quality monitoring data



“Let’s Talk Red Hill” Podcast

youtube.com/@NCTF-RH

- Updates and information regarding the closure of the Red Hill Bulk Fuel Storage Facility

