**Summary**: This document outlines actions Navy Closure Task Force-Red Hill (NCTF-RH) has taken or will be taking as part of 9its mission to safely and expeditiously execute the permanent decommissioning of the Red Hill Bulk Fuel Storage Facility (RHBFSF) and continue long-term environmental remediation in coordination with State and Federal stakeholders to protect public health and the environment.

This Status Update covers the following topics:

- Monitoring and Testing
- Remediation
- Coordination and Public Education

**Background**: For over a decade, the Navy has conducted environmental monitoring and modeling activities around the RHBFSF, including the installation of groundwater (GW) monitoring wells, establishment of a groundwater monitoring program, and the development of a GW Flow Model. In response to the November 2021 release at Red Hill and our commitment to close the RHBFSF permanently, the Navy significantly increased and enhanced environmental efforts, including increased monitoring, expanding its GW monitoring well network, and initiating several remediation projects.

The Navy's actions are in compliance with the following documents:

- 2015 Administrative Order of Consent
- State of Hawaii 2022 Superseding Emergency Order
- State of Hawaii Notice of Interest
- 2022 Red Hill Shaft Recovery and Monitoring Plan
- 2023 Administrative Consent Order
- Numerous regulator-approved, project-specific Work Plans

NCTF-RH coordinates extensively with DOH and EPA on all Red Hill environmental and closure activities.

# **Monitoring and Testing**

Groundwater Monitoring:

- As of April 2025, the Navy has expanded its GW monitoring well network to 45 GW monitoring points in and around the RHBFSF to monitor for a comprehensive analyte list, including fuel constituents, after aggressively completing 23 new wells in under three years.
- The Navy continues to expand its robust monitoring well network with the installation of multiple new sentinel wells, targeting areas where few or no wells exist (primarily to the west and northwest of the RHBFSF).
- The Navy selects GW monitoring well locations with the input of stakeholders, subject matter experts (SMEs), and regulatory agencies, including feedback received during numerous public and government engagements.

- Data collected from newly installed GW monitoring wells informs ongoing improvements to GW monitoring, modeling, and remediation efforts.
- GW monitoring has been extensively coordinated with regulators and is conducted on quarterly, monthly, twice monthly, and weekly frequencies, with sampling and analysis completed via approved EPA methods at certified laboratories in the continental U.S.
- GW monitoring data collected to date shows no evidence of contaminant migration from Red Hill.
- GW monitoring results are publicly available on the Navy's environmental webpage at jbphh-safewaters.org, a public-facing website which includes an interactive dashboard for GW monitoring results.

Per-and Polyfluoroalkyl Substances (PFAS) Monitoring:

- In 2023, the Navy completed a baseline PFAS sampling event of GW monitoring wells to help inform future site investigation.
- A concurrent, ongoing PFAS Remedial Investigation (RI) is in progress, through the regulatory framework of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Increased GW sampling and the additional monitoring wells mentioned above will support this effort, executed through the Navy's Environmental Restoration program.

Exterior Air Quality Monitoring:

• NCTF-RH regularly conducts air quality monitoring across the RHBFSF to support tank cleaning and closure. Data is reported on a daily basis, with the frequency increased to hourly during the tank degassing phase of tank cleaning operations.

Additional Monitoring:

- Under the Notice of Interest program, the Navy performs weekly passive soil vapor monitoring field readings and monthly analytical sampling (via Summa canisters) from soil beneath the RHBFSF fuel tanks.
- The Navy conducts National Pollutant Discharge Elimination System (NPDES) monitoring for the Red Hill Shaft granular activated carbon (GAC)-treated effluent, which is discharged into the Hālawa Stream.

Ecosystem Monitoring:

• Under a cooperative Agreement with the University of Hawai'i (UH), the Navy conducts Biodiversity Monitoring of Freshwater and Estuarine Communities in Hālawa Stream and adjacent forest reserves to determine the impact to species from the November 2021 Red Hill fuel release. Through the testing and monitoring performed, UH and the Navy look to identify potential changes in Hālawa Stream and the lower estuary area, including to water quality and aquatic biodiversity, as a result of the artificial increase in water flow associated with the Red Hill Shaft Recovery.

# Remediation

The Navy is pursuing multiple concurrent activities in a deliberate manner for the remediation of the environment. These include:

## GW Flow Model (GWFM):

For over a decade, the Navy has continued to refine its GW Flow Model as additional information becomes available:

- 2020 first GWFM submission
- 2023 submission of Best Available Model, including an interim Contaminant Fate and Transport (CF&T) model, prior to defueling
- 2024 updated GWFM, including a revised CF&T model
- 2025 pursuing additional updates to Vadose Zone Model and the incorporation of additional field data collected from GW monitoring wells drilled in 2024-2025
- 2026-2027 complete enhanced GWFM following the publication of UH's independent Red Hill GW model

## Site Assessment:

The Navy initiated a multi-year Site Assessment in 2023 to complete a comprehensive investigation to identify the presence or absence and characterize the nature and extent of fuel-related contamination at Red Hill. This effort involves extensive and close coordination with regulators and includes the following steps:

- Historical record review of past releases;
- Fieldwork investigation to document the extent and nature of contamination;
- Identification and evaluation of possible remediation technologies;
- Selection, application, and evaluation of remediation technologies; and
- Risk assessments and long-term monitoring.

#### Remediation Pilot Studies:

While the Site Assessment process will incorporate and evaluate remediation technologies, the Navy is proactively pursuing several related pilot studies, including:

- Shallow and Deep Soil Vapor Extraction (SVE);
- Passive Soil Vapor Monitoring; and
- Natural Source Zone Depletion.

#### **Coordination and Public Education**

The Navy has conducted significant public outreach and stakeholder engagement for matters relating to Red Hill, including briefings, updates, and public communication, including:

• Drinking Water Information Booths

- DOH Fuel Tank Advisory Committee (FTAC) Meetings
- Defueling Information Sharing Forum (DISF) / Navy Information Sharing Forum (NISF)
- Hawaii House of Representatives Special Committee on Red Hill
- Commission on Water Resource Management (CWRM)
- Governor's Water Committee
- EPA's Community Representation Initiative (CRI)
- Red Hill Subject Matter Expert Quarterly Meetings
- Red Hill Remediation Roundtable
- Hawaii State Emergency Response Commission
- Honolulu Local Emergency Planning Committee
- NCTF-RH Public Open Houses
- Informational public webinars
- Neighborhood boards
- Various Rotary Clubs
- Navy League of Honolulu
- Military Affairs Council
- Media interviews
- Public messages via NCTF-RH Vodcasts, NCTF-RH mobile app, and weekly Red Hill Highlights

As part of the 2023 Administrative Consent Order, NCTF-RH follows an EPA-approved Community Engagement Plan, which includes hosting a quarterly webinar and open house, and regular participation in other public forums.

NCTF-RH also leverages two websites for the public to access information and data related to Red Hill:

- The official NCTF-RH website (<u>https://www.navyclosuretaskforce.navy.mil</u>) contains a dashboard and updates on the decommissioning of the RHBFSF, along with links to past webinars, podcasts, and other educational material.
- The Joint Base Pearl Harbor-Hickam Safe Waters website <a href="https://jbphh-safewaters.org/">https://jbphh-safewaters.org/</a> provides updated information on the JBPHH drinking water system and test results for the homes and facilities on the system. The website also has information about groundwater testing and remediation efforts at Red Hill and reactivation of the Navy-Aiea Halawa and Red Hill Shafts.

NCTF-RH also operates a mobile app with up-to-date information on tank cleaning progress, educational videos, photos of current and past operations, engagement calendar, and the latest news. Simply search for "NCTF-Red Hill" or capture one of the QR codes here:



