



CERCLA PROCESS

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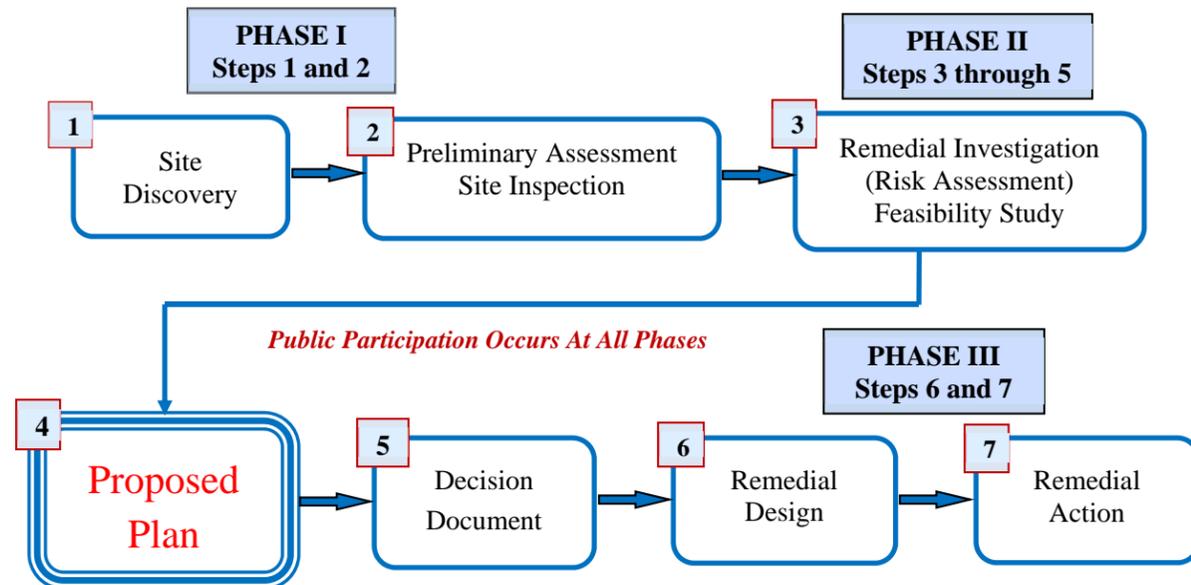
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The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial process begins when a site is discovered. Once a site is discovered, the next step is a **Preliminary Assessment and a Site Inspection** (PA/SI). This involves historical records reviews, field visits, and limited sampling to determine the likelihood of contamination and to identify possible contamination sources. If contamination exists or a source is identified, then the project team conducts a **Remedial Investigation** (RI). The remedial investigation involves more intensive sampling and analysis to determine the nature and extent of contamination at the site. Once data is collected, a Risk Assessment is conducted as part of the RI to determine the significance of the contamination in terms of human health and ecological impact. The results of the risk assessment assist in the development of remedial alternatives.

Following the Remedial Investigation, a **Feasibility Study** (FS) is conducted to evaluate remedial alternatives, new technologies, and ultimately identify the most suitable solution. When evaluating remedial alternatives, project managers consider risk, compliance with federal and state regulations, ability to reduce the toxicity, mobility and volume of the contaminant(s), implementability of a remedial alternative, long-term effectiveness, short-term effectiveness, cost, state acceptance, and community acceptance. Project managers plan strategies to reduce or prevent risk by limiting or stopping exposure to contaminants.

Once the project team determines a recommended remedial alternative, a public notice is placed in a local paper and public comments are solicited at a public meeting presenting the **Proposed Plan** (PP). Following a public comment period, the U.S. Army Corps of Engineers (USACE) will publish a **Decision Document** (DD) that includes a description of the selected remedial alternative. If appropriate, the project team will prepare a **Remedial Design** (RD), including engineering specifications for the remedial alternative, and conduct the **Remedial Action** (RA), which involves construction and operation of the selected remedy.

The Pacific Jungle Combat Training Center project is currently in the **Proposed Plan** phase of the CERCLA Process.



The U.S. Army Corps of Engineers (USACE) is conducting a Remedial Investigation/Feasibility Study (RI/FS) at Pacific Jungle Combat Training Center (FUDS Project No. H09HI027401). The investigation is being addressed under the Military Munitions Response Program (MMRP) initiative of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS). The Remedial Investigation portion of the project has been completed. The primary objectives of the Remedial Investigation were to determine 1) if munitions are present and if so, where they are located and 2) if there is contamination from the munitions at the site. Data was gathered between October 2013 and March 2014 and in September 2014 to meet these objectives and assess the potential risks to both humans and ecological receptors. A Feasibility Study was also completed to evaluate a range of potential actions for this site, called alternatives, in order to determine the best path forward.

Project Location. The former training site is located on the northeast coast of Oahu within the Punaluu Valley and Kahana Valley State Park. (Figure 1). The former training site consists of several non-contiguous parcels within the adjacent Kahana and Punaluu Valleys. Kahana Valley was designated a state park in 1960 and is currently under the purview of the State of Hawaii and managed by the State Department of Land and Natural Resources (DLNR). Punaluu Valley is owned by several private owners.

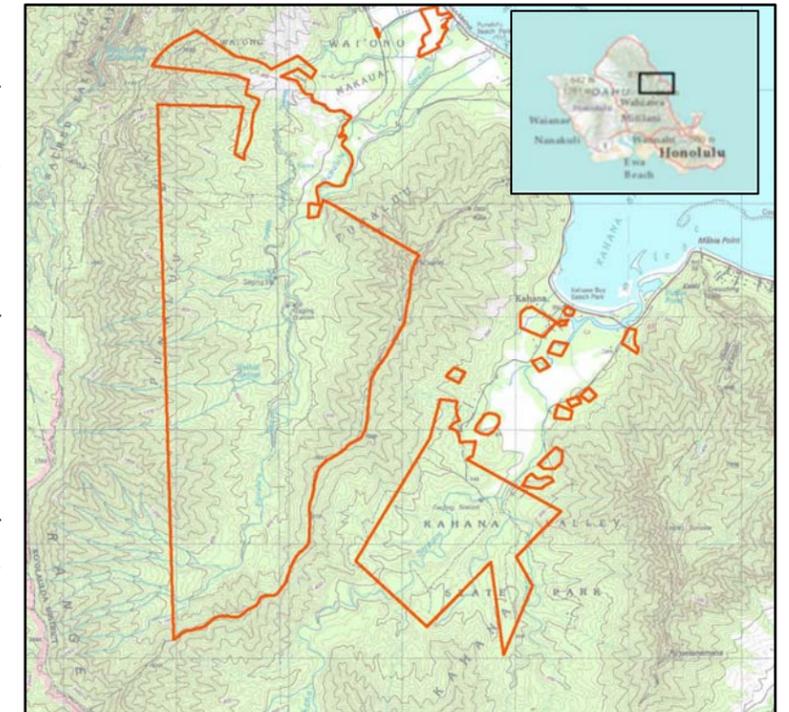


Figure 1 - Project Location

Project Property History. The U.S. Army acquired 2,545 acres in Kahana and Punaluu Valleys between 1943 and 1947. The Pacific Jungle Combat Training Center was established and used as a unit level jungle combat center to supplement Department Ranger and Combat School Training. The Center was divided into three courses: Red, Blue, and Green. Basic jungle warfare was conducted at the Red and Blue courses. Advanced jungle warfare training and Instructor Jungle Training School were conducted at the Green course. Munitions known to have been used or recovered include 75-millimeter (mm) armor piercing (AP) rounds, 105-mm high explosive (HE) rounds, 81-mm HE and practice mortar rounds, and small arms. In 1946, parcels in Kahana Valley were returned to its landowner. Leases and licenses for parcels in Punaluu Valley were terminated between 1945 and 1950. De-dudging efforts were conducted in Punaluu Valley in 1949.



Figure 2 - 81-mm Mortar

The USACE conducted an Inventory Project Report (INPR) (December 1993), an INPR Supplement (November 2004), and a Site Inspection (SI) (December 2008) for this Munitions Response Site (MRS). Munitions and Explosives of Concern (MEC) and munitions debris (MD) were reported during the INPR and SI site visits. The unexploded munitions, small arms ammunition, and munitions debris observed at the site included an expended 105-mm AP projectile; unexploded .30-caliber bullets; .30-caliber casings; expended M1 and M2 cartridges; a 75-mm HE or AP projectile; an unexploded smoke grenade; a 2.36-inch bazooka round; an expended MK28 sea marker; and a live 81-mm mortar round (Figure 2).



DERP – FUDS FACT SHEET

DERP FUDS Program

- The Department of Defense (DOD) is committed to correcting environmental damage caused by its activities. The Defense Environmental Restoration Program (DERP) is the vehicle to accomplish this. The cleanup of Formerly Used Defense Sites (FUDS) is a part of this program (DERP-FUDS).
- FUDS are properties that the DOD once owned or used, but no longer controls. These properties can range from privately-owned residences to National parks, schools, colleges, and industrial areas.
- The DERP-FUDS program includes property formerly owned or used by the Army, Navy, Air Force, or any other DOD agency.
- The Army is the Executive Agent for the program and the U.S. Army Corps of Engineers is the agency that manages and directs the program's administration.
- The objective of the DERP-FUDS program is to reduce, in a timely, cost-effective manner, the risk to human health, safety, and the environment resulting from past DOD activities.
- The goals of DERP-FUDS cleanup are:
 - Identification, investigation, and cleanup of contamination from DoD-related hazardous, toxic, and radioactive waste substances (HTRW);
 - Detection and disposal of munitions and explosives of concern (MEC); and
 - Demolition and removal of unsafe buildings and structures located on formerly-owned DOD properties that are currently owned by private parties, States, or municipalities.

Telephone:

Please call the US Army Corps of Engineers, Telephone Number: (808) 835-4004

Mail:

US Army Corps of Engineers, Honolulu District
Attn: CEPOH-PP-E, Building 230
Fort Shafter, Hawaii 96858-5440

DERP, CERCLA, and SARA
The Defense Environmental Restoration Program (DERP) was established by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA). This legislation provides the authority for certain remedial activities at former Department of Defense sites in the United States and its territories.

Remedial Investigation (RI)/ Feasibility Study (FS) Investigation. The RI was performed in the Kahana Valley and Punaluu Valley MRS. RI activities involved records reviews; surveying the site to identify subsurface anomalies; exposing the anomalies to determine the potential presence of munitions; collecting environmental samples where any munitions were found; and analyzing the samples for explosives and metals. The surveys took place along 1-meter wide paths called transects and within areas called grids that were typically between 0.02 and 0.85 acres in size. Approximately 33.02 miles of land-based transects and 0.56 miles of underwater transects (in Kahana Stream) were investigated. Fifty-one grids totaling 11.51 acres were also investigated. Two MEC and 120 MD items were found in Kahana Valley. The data gathered confirms that Kahana Valley was used as a maneuver area with a target area in the west, southwest corner of the valley. Thirty MEC and 114 MD items were found in Punaluu Valley. Three target areas were identified in Punaluu Valley using the data gathered. The RI Report documents the data collected, presents the results of the investigation, and assesses the risk to receptors.

Using the data collected from the RI, the FS Report was prepared to develop and screen remedial alternatives to address potential explosive hazards posed to humans from MEC identified during the RI and previous investigations. Each remedial alternative was then evaluated using the nine criteria established in the National Oil and Hazardous Substances Pollution Contingency Plan.

Proposed Plan/Decision Document. A Proposed Plan has been prepared to provide a brief summary of all alternatives studied in the RI/FS and present a Preferred Alternative. The Proposed Plan highlights the key factors that led to the selection of the Preferred Alternative. The Proposed Plan does not select the remedial action; it presents the Preferred Alternative. A public comment period is a required part of the Proposed Plan so that the public can participate in the remedy selection process. After the Proposed Plan has been issued for public review and comment, any changes, revisions, or modifications will be appropriately addressed, and USACE will present the selected remedy in a Decision Document.

Cultural and Natural Resources. USACE is committed to protecting the precious cultural and nature resources at the site. To enable the avoidance and minimization of any potential impacts to these resources, an archaeologist and a qualified biologist accompanied the field teams during the transect/grid investigation, rerouting, or relocating the team when appropriate. The archaeologist and qualified biologist also monitored munitions disposal activities that were required during the investigation.

Public Involvement. Public involvement is an important part of the FUDS Program. USACE has hosted public meetings, printed public notices, distributed fact sheets and may issue news releases, or mail other information to interested citizens. USACE continually gauges interest for the addition of new members to the existing Restoration Advisory Board which is composed of various stakeholders, including community members and government representatives.

Information Repository. The information repositories for this project are the Kaneohe and Kahuku Public Libraries, the Kahana Valley State Park, and the USACE Honolulu District Office at Ft. Shafter, Honolulu, Hawaii.

Questions. If you have questions about the FUDS Program and/or media queries, contact the Honolulu District's Public Affairs Office at (808) 835-4004. For technical questions, please contact Project Manager, Kevin Pien at (808) 835-4091.

Ordnance Finds. If you find any item you suspect might be ordnance – **RECOGNIZE**, leave the area immediately warning others in the vicinity – **RETREAT**, leave the area but note the location of the suspicious item – **REPORT**, notify local law enforcement officials. Never touch, move, or disturb the item. Ordnance, regardless of age, or physical shape, can be dangerous. The USACE encourages communities to educate children about ordnance hazards including proper procedures to follow if they find a suspected ordnance item. **Remember the 3Rs –**



RECOGNIZE
Military Items can be
DANGEROUS.

RETREAT
DO NOT TOUCH IT!
Move away from the area.

REPORT
CALL 911

Kaneohe Public Library
45-829 Kamehameha Hwy.
Kaneohe, HI 96744
Telephone: (808) 233-5676

Kahuku Public Library
56-490 Kamehameha Hwy.
Kahuku, HI 96731
Telephone: (808) 293-8935

Kahana Valley State Park
Renee Kamisugi, Park Coordinator
Renee.Y.Kamisugi@hawaii.gov
(808) 237-7767