

FY2013

POHAKULOA TRAINING AREA
Army Defense Environmental Restoration Program
Installation Action Plan

Printed 18 October 2013

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and long-term management (LTM), and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, the US Army Environmental Command (USAEC), Installation Management Command - Pacific Region (IMCOM-Pacific), the Pohakuloa Training Area (PTA), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

Acronyms

AEDB-R	Army Environmental Database- Restoration
AOC	Area of Concern
CA	Corrective Action
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CTT	Closed, Transferring or Transferred
DD	Decision Document
DERP	Defense Environmental Restoration Program
DHHL	Department of Hawaiian Homelands
DMM	Discarded Military Munitions
DoD	Department of Defense
DU	Decision Unit
EE/CA	Engineering Evaluation/Cost Analysis
ER,A	Environmental Restoration, Army
FRA	Final Remedial Action
FS	Feasibility Study
FUDS	Formerly Used Defense Site
FY	Fiscal Year
HDOH	Hawaii Department of Health
HIARNG	Hawaii Army National Guard
HRR	Historical Records Review
HSSW	Humuula Sheep Station - West
IAP	Installation Action Plan
IMCOM-Pacific	Installation Management Command, Pacific Region
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IS	Incremental Sampling
K	thousand
KBH	Kulani Boys' Home
kg	kilogram
LTA	Local Training Area
LTM	Long-Term Management
LUC	Land Use Control
MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mg	milligram
MMRP	Military Munitions Response Program
MRA	Munitions Response Area
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
N/A	Not Applicable
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List

Acronyms

PA	Preliminary Assessment
PBA	Performance-Based Acquisition
POL	Petroleum, Oil, and Lubricant
PP	Proposed Plan
PRG	Preliminary Remediation Goal
PTA	Pohakuloa Training Area
RA	Remedial Action
RA(C)	Remedial Action - Construction
RAB	Restoration Advisory Board
RAC	Risk Assessment Code
RC	Response Complete
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
RSL	Regional Screening Level
SAA	Small Arms Ammunition
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TPP	Technical Project Planning
TRC	Technical Review Committee
USAEC	US Army Environmental Command
USAG-HI	US Army Garrison, Hawaii
UST	Underground Storage Tank
UXO	Unexploded Ordnance
WWII	World War II

Installation Information

Installation Locale

Installation Size (Acreage): 108800

City: Waimea

County: Hawaii

State: Hawaii

Other Locale Information

The Pohakuloa Training Area (PTA) is located at the intersection of three mountain ranges on the island of Hawaii: Mauna Kea, Mauna Loa, and the Hualalai Volcanic Mountains. The installation consists of 108,800 acres and is located 32 miles west of Hilo and 27 miles southeast of Waimea, which is the closest city to PTA. The installation extends 6,800 feet up Mauna Kea and 9,000 feet up Mauna Loa.

Installation Mission

PTA is the largest live-fire and maneuver training complex within the US Army Garrison-Hawaii (USAG-HI). The training area consists of 19,148 acres of maneuver training land, 565 acres of live-fire static ranges, and 566 acres of cantonment area. The installation is used annually by approximately 18,000 Soldiers from the 25th Infantry Division, 8th Theater Sustainment Command, Marines from the 3d Marine Regiment at Kaneohe Bay, the US Air Force, National Guard, and Army Reserves. Approximately 37,520 acres of the PTA are classified as unsuitable for training.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USAEC

Regulator Participation

State Hawaii Department of Health (HDOH)

National Priorities List (NPL) Status

POHAKULOA TRAINING AREA is not on the NPL

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

The community has expressed no sufficient, sustained interest in a RAB.

Installation Program Summaries

IRP

Primary Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Affected Media of Concern: Soil

MMRP

Primary Contaminants of Concern: Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Affected Media of Concern: Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Planned	201410	201509	2015

5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
DD for POTA-03 and POTA-06	POTA-03, POTA-06

Land Use Control (LUC) Summary

LUC Title: POTA-03 Landfill #1

Site(s): POTA-03

ROD/DD Title: DD for POTA-03 and POTA-06

Location of LUC

AEDB-R site POTA-03 at Pohakuloa Training Area, Big Island, HI

Land Use Restriction: Landfill restriction - Restrict access to the site, Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Restrictions on land use

Date in Place: 200912

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200912

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: POTA-06 Landfill #2

Site(s): POTA-06

ROD/DD Title: DD for POTA-03 and POTA-06

Location of LUC

AEDB-R site POTA-06 at Pohakuloa Training Area, Big Island, HI

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Restrictions on land use

Date in Place: 200912

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200912

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

Installation Restoration Program (IRP):

POTA-03

This site was first identified in an installation assessment conducted in 1984. The abandoned Landfill 1 is located in the southern section of the main post. In 1977, the landfill was closed by the Army. A site inspection (SI) was completed in fiscal year (FY)97, and the site was not required to meet the criteria of 40 Code of Federal Regulation (CFR) Parts 257 and 258 for municipal solid waste landfills and neither a cover design nor a closure report was needed.

POTA-06

In 1993, Landfill 2 (POTA-06) was closed. In 1994, the closure report was issued, but not finalized. In August 1996, the cover for the landfill was installed. In February 1997, the preliminary assessment (PA)/SI was completed. As of FY09, the site is in LTM.

A decision document (DD) was signed for both POTA-03 and POTA-06 in FY10.

Site POTA-06 (landfill) was required to conduct methane monitoring. In accordance with the ramp-down strategy in the LTM Plan, methane monitoring was eliminated in June 2012 after zero methane findings for four consecutive quarterly monitoring events, and physical monitoring for both POTA-03 and POTA-06 was reduced from quarterly to semiannual after eight quarterly monitoring events.

A five-year review will be conducted in FY15. Costs for the five-year review and LTM are tracked under POTA-06.

Military Munitions Response Program (MMRP):

In 2005, an SI report was submitted to the HDOH for the Humuula Sheep Station (PTA-001-R-01) and Kulani Boys' Home (KBH) (PTA-002-R-01). The SI was accomplished in two parts: a historical records review (HRR) and field investigations. The field activities included a visual survey and the collection of soil samples for both sites.

Soil samples were collected from Humuula Sheep Station and were analyzed for explosives and metals. No explosive compounds were detected in any of the samples. Iron was the only metal found to be above preliminary remediation goals (PRGs), which is common for Hawaii shallow soils. Only munitions debris (MD) was identified on the eastern portion of the site, east of John Burns Way [munitions response site (MRS) PTA-001-R-02], and no further action (NFA) was recommended for this portion of the site.

During the SI, 11 munitions and explosives of concern (MEC)-related items were found on the surface of site PTA-001-R-01, all on the west side of John Burns Way. These items included both complete and expended blank small arms cartridges and one deteriorating ground burst simulator. Based upon these results of the SI visual survey of the western portion of the site, further investigation for MEC was recommended for west of John Burns Way (MRS PTA-001-R-01). This portion is known as Humuula Sheep Station-West (HSSW).

During the SI for KBH, 26 MEC-related items and one burn pile were found at site PTA-002-R-01. These items included both complete and expended blank small arms cartridges, M118 smoke and riot grenades, and an M117 simulator. The SI recommended that this site be further investigated for MEC. Based on soil analytical results for explosives and metals, the SI recommended that the burn pile be removed and no further evaluation for munitions constituents (MC) was needed.

In September 2008, a performance-based acquisition (PBA) was awarded for the remedial investigation (RI) of PTA-001-R-01 and PTA-002-R-01. Based on the results of the RI, NFA for MEC and MC is recommended for both PTA-001-R-01 and PTA-002-R-01.

At site PTA-002-R-01 (KBH), a removal action for the burn pile was recommended to meet the regulatory requirements, and the burn pile and immediate adjacent area was designated as site PTA-002-R-02. A supplemental investigation was conducted at PTA-002-R-02 in April 2012. Soil sample analysis concluded that copper concentrations were below the unrestricted land use action level, and the site is recommended for NFA.

A PBA awarded in March 2010 includes the RI/feasibility study (FS) for the Pu'u Pa'a site (PTA-003-R-01). The RI is underway. Preliminary findings indicate that a MEC removal action will be necessary, and LTM is not expected.

Cleanup Program Summary

Installation Program Cleanup Progress

IRP

Prior Year Progress: LTM is underway for POTA-06 and POTA-03.

Future Plan of Action: LTM for POTA-03 and POTA-06 will continue.

MMRP

Prior Year Progress: The RI will continue through FY13 for PTA-003-R-01. A DD will be signed for PTA-002-R-02, and the site will be closed.

Future Plan of Action: The RI/FS will continue and RA will begin for PTA-003-R-01.

POHAKULOA TRAINING AREA
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 18/16

Installation Site Types with Future and/or Underway Phases

2 Landfill
(POTA-03, POTA-06)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL)

Media of Concern

Soil

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
POTA-17	UST BLDG 186	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
POTA-06	LANDFILL 2 (WSC #7)	FRA	CAPPING	1997

Duration of IRP

Date of IRP Inception: 198306

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 199711/199707

Date of IRP completion including Long Term Management (LTM): 204309

IRP Contamination Assessment

Contamination Assessment Overview

An installation assessment report for all of PTA, prepared in 1984, indicated that small quantities of oils, solvents, and battery wastes had been disposed in Landfill 2 (POTA-06). The report concluded that no problems are anticipated from the landfill due to small quantities of potentially hazardous materials disposed of and the great depth to any aquifer. No other contamination assessments pertaining to either landfill have been conducted.

Cleanup Exit Strategy

Methane gas monitoring was conducted at POTA-06 for five years to satisfy the HDOH Closure Report. Implementation of LTM is underway by ECC for the duration of the PBA contract. Inspection and maintenance of POTA-03 and POTA-06 are ongoing semiannually to ensure meeting the LUC and LTM requirements set forth in the DD. Periodic reviews are scheduled for every five years. The next periodic review will occur in FY15. The current PBA contract will end in FY16; another contract will be necessary to fund LTM through FY43.

IRP Previous Studies

	Title	Author	Date
1997	Final Preliminary Assessment/Site Inspection Report, Pohakuloa Training Area, Hawaii	PRC Environmental Management	FEB-1997
2009	Final Long-Term Management Plan Pohakuloa Training Area, Landfills 1 and 2	ECC	AUG-2009
	Proposed Plan, Pohakuloa Training Area, Landfills 1 and 2, Island of Hawaii	ECC	DEC-2009
2010	Final Decision Document Pohakuloa Training Area Landfills 1 and 2 Island of Hawaii	ECC	FEB-2010

POHAKULOA TRAINING AREA
Installation Restoration Program
Site Descriptions

Site ID: POTA-03

Site Name: ABANDONED LANDFILL 1 (WSC #6)

STATUS

Regulatory Driver: CERCLA

RRSE:

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Soil

Phases	Start	End
PA.....	198306.....	198408
SI.....	199505.....	199705
LTM.....	200809.....	204309

RIP Date: N/A

RC Date: 199705

SITE DESCRIPTION

All costs for POTA-06 (Landfill 2) and POTA-03 (Abandoned Landfill 1) are being tracked under POTA-06, therefore POTA-03 has a zero cost estimate.

Abandoned Landfill 1 was initially identified in an installation assessment conducted in 1984. The abandoned landfill is located in the southern section of the main post. The landfill was closed in 1977 by the Army. An SI was completed in FY97. The site was not required to meet the criteria of 40 CFR Parts 257 and 258 for municipal solid waste landfills and no cover design or closure report was needed. POTA-03 does not have specific post-closure monitoring requirements, but it must maintain a minimum of two feet of cover over the landfill area to be consistent with HDOH regulations.

In March 2009, an exclusionary fence around the former landfill was erected to limit exposure to the landfill wastes; a geographic information shape file for LUC boundary determination was created; and a topographic survey conducted. Community input to the proposed plan (PP) for the site and POTA-06 was solicited in January 2010. The DD was signed in March 2010. LTM will include maintenance of the landfill exclusionary boundaries, signs, and five-year reviews. This is a zero-cost estimate because all costs are tracked under POTA-06.

Implementation of LTM is underway. Inspection and maintenance of the site are currently ongoing to ensure meeting the landuse control (LUC) requirement. In accordance with the ramp-down strategy, physical site inspections have been reduced from quarterly to semiannually as of May 2012. A concurrence letter for the reduction in inspections was provided by the state of Hawaii Department of Health.

The next five-year review will be scheduled in FY15. The current PBA contract will end in FY16, and another contract will be necessary to fund LTM through FY43.

CLEANUP/EXIT STRATEGY

Implementation of LTM is underway by a contractor for the duration of the PBA contract. Inspection and maintenance of the site are ongoing quarterly to ensure meeting the LUC and LTM requirements that are set forth in the DD. The next five year review will be scheduled in FY15. The PBA extends to the end of FY16.

Site ID: POTA-06
Site Name: LANDFILL 2 (WSC #7)

STATUS

Regulatory Driver: CERCLA

RRSE:

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Soil

Phases	Start	End
PA.....	198306.....	198408
SI.....	199505.....	199705
RA(C).....	199507.....	199707
LTM.....	200809.....	204309

RIP Date: N/A

RC Date: 199707

SITE DESCRIPTION

All costs for POTA-06 (Landfill 2) and POTA-03 (Abandoned Landfill 1) are being tracked under POTA-06, therefore POTA-03 has a zero cost estimate.

POTA-06 was used from 1979 until it was closed in October 1993. In 1997, an SI was completed for the sites and POTA-06 was covered with lava cinder. According to the PTA landfill closure report for POTA-06, issued in June 1994, the HDOH required methane monitoring of the site for a total of five years.

In March 2009, an exclusionary fence around the former landfill was erected to limit exposure to the landfill wastes. In addition, the cinder cover was augmented with additional cinder, and a topographic survey was completed. Methane monitoring commenced in FY09 for POTA-06. Community input to the PP for this was solicited in January 2010. The DD was signed in March 2010. LTM will include maintenance of the landfill exclusionary boundaries, signs, the cinder cover, methane monitoring to satisfy the HDOH closure report requirement, and five-year reviews in conjunction with the POTA-03 site.

Implementation of LTM is underway. Inspection and maintenance of the site are currently ongoing to ensure meeting the LUC requirement. Methane gas monitoring has been discontinued based on the methane results of four consecutive quarterly monitoring events and the ramp-down strategy. Physical site inspections have been reduced from a quarterly to semiannual basis as of May 2012. A concurrence letter for the reduction in inspections and elimination of methane gas monitoring was provided by the state of Hawaii Department of Health.

The next five-year review is scheduled for FY15. The current PBA contract will end in FY16, and another contract will be necessary to fund LTM through FY43.

CLEANUP/EXIT STRATEGY

LTM actions at the site are being implemented by the contractor for the duration of the PBA contract. LTM includes inspection and maintenance of the site and methane gas monitoring at seven vapor wells for five years at POTA-06 on a quarterly basis to ensure meeting the LUC and LTM requirements that are set forth in the DD. The next five-year review will be scheduled in FY15. The PBA extends to the end of FY16.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
POTA-01	FORMER FFTA PIT (WSC #11)	201212	Decision Document dated January 2013
POTA-02	FORMER STG AREA BEHIND BLDG T-31 (WSC#12)	201212	Decision Document dated January 2013
POTA-04	ARTILLARY FIRING AREA POWDER BURN	199409	Documentation not available
POTA-07	IMPACT AREA (WSC #1)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-08	BRADSHAW FIELD STORAGE AREA (WSC #2)	199512	Final Interim Preliminary Assessment Report at Various Sites at Pohakuloa Training Area, Pohakuloa Training Area Hawaii, Hawaii, 1995
POTA-09	POL STORAGE AREA (WSC #3)	199512	Final Interim Preliminary Assessment Report at Various Sites at Pohakuloa Training Area, Pohakuloa Training Area Hawaii, Hawaii, 1995
POTA-10	UST SITES (7) (WSC #4)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-11	MAINTENANCE AREA (WSC #5)	199512	Final Interim Preliminary Assessment Report at Various Sites at Pohakuloa Training Area, Pohakuloa Training Area Hawaii, Hawaii, 1995
POTA-12	AMMUNITION STG MAGAZINES (8) (WSC #8)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-13	FOAM STORAGE SHED (WSC #9)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-14	UST SITE (WSC #10)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-15	FORMER TRANSFORMER STG AREA (WSC #13)	199512	Final Interim Preliminary Assessment Report at Various Sites at Pohakuloa Training Area, Pohakuloa Training Area Hawaii, Hawaii, 1995
POTA-16	43 SEPTIC TANKS/12 LEACH WELLS (WSC #15)	199008	USATHAMA Solid Waste Management Unit Report, 1990
POTA-17	UST BLDG 186	199410	Documentation not available
POTA-18	VEHICLE REFUELING AREA	201212	Decision Document dated January 2013
POTA-19	EQUIPMENT STORAGE AREA	199605	Final Interim Preliminary Assessment Report at Various Sites at Pohakuloa Training Area, Pohakuloa Training Area Hawaii, Hawaii, 1995

IRP Schedule

Date of IRP Inception: 198306

Past Phase Completion Milestones

1984

PA (POTA-03 - ABANDONED LANDFILL 1 (WSC #6), POTA-06 - LANDFILL 2 (WSC #7))

1990

RFA (POTA-10 - UST SITES (7) (WSC #4))

PA (POTA-01 - FORMER FFTA PIT (WSC #11), POTA-02 - FORMER STG AREA BEHIND BLDG T-31 (WSC#12, POTA-04 - ARTILLARY FIRING AREA POWDER BURN, POTA-07 - IMPACT AREA (WSC #1), POTA-12 - AMMUNITION STG MAGAZINES (8) (WSC #8), POTA-13 - FOAM STORAGE SHED (WSC #9), POTA-14 - UST SITE (WSC #10), POTA-16 - 43 SEPTIC TANKS/12 LEACH WELLS (WSC #15))

1994

SI (POTA-04 - ARTILLARY FIRING AREA POWDER BURN)

ISC (POTA-17 - UST BLDG 186)

1995

IMP(C) (POTA-17 - UST BLDG 186)

1996

SI (POTA-19 - EQUIPMENT STORAGE AREA)

PA (POTA-08 - BRADSHAW FIELD STORAGE AREA (WSC #2), POTA-09 - POL STORAGE AREA (WSC #3), POTA-11 - MAINTENANCE AREA (WSC #5), POTA-15 - FORMER TRANSFORMER STG AREA (WSC #13), POTA-18 - VEHICLE REFUELING AREA, POTA-19 - EQUIPMENT STORAGE AREA)

1997

SI (POTA-02 - FORMER STG AREA BEHIND BLDG T-31 (WSC#12, POTA-03 - ABANDONED LANDFILL 1 (WSC #6), POTA-06 - LANDFILL 2 (WSC #7), POTA-18 - VEHICLE REFUELING AREA)

RA(C) (POTA-06 - LANDFILL 2 (WSC #7))

1998

SI (POTA-01 - FORMER FFTA PIT (WSC #11))

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 199707

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of IRP at Installation (including LTM phase): 204309

POHAKULOA TRAINING AREA IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
POTA-03	ABANDONED LANDFILL 1 (WSC #6)	LTM						
SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
POTA-06	LANDFILL 2 (WSC #7)	LTM						

POHAKULOA TRAINING AREA
Army Defense Environmental Restoration Program
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 6/4

Installation Site Types with Future and/or Underway Phases

- 1 Burn Area
(PTA-002-R-02)
- 1 Unexploded Munitions/Ordnance
(PTA-003-R-01)

Most Widespread Contaminants of Concern

Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern

Soil

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
N/A				

Duration of MMRP

Date of MMRP Inception 199709

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 204309/204309

Date of MMRP completion including Long Term Management (LTM): 204309

MMRP Contamination Assessment

Contamination Assessment Overview

The Department of Defense (DoD) has established the MMRP under the Defense Environmental Restoration Program (DERP) to address DoD sites with MEC including unexploded ordnance (UXO), discarded military munitions (DMM), and MC. The US Army's inventory of closed, transferring, and transferred (CTT) military ranges and sites identified two sites (PTA-001-R-01 and PTA-002-R-01) eligible for action under MMRP. The MMRP-eligible sites include other than operational ranges where UXO, discarded military munitions (DMM), and MC are known or suspected. Properties classified as operational ranges are not eligible; therefore, they are excluded from the MMRP.

The MMRP began in the early 2000s as a result of key drivers such as processes outlined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP - 40 CFR 300) as authorized by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 US Code 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499. The process began with three phases of range inventories. Phase 1 consisted of installations completing an initial data call. The USAEC managed the implementation of Phases 2 and 3 of the MMRP inventory. The Phase 2 inventory dealt with operational range considerations. Phase 3 involved the CTT range inventory conducted in 2002. The Phase 3 report included extensive mapping, data collection for upload to Army Environmental Database - Restoration (AEDB-R), an assessment of explosives safety risk using the risk assessment code (RAC) methodology and the determination of which sites on the inventory potentially qualify for the MMRP.

Initially, two MRSs were identified at PTA during the Army CTT range inventory. The first was a maneuver and bivouac area identified as the Humuula Sheep Station [Munitions Response Area (MRA) PTA-001-R]. The Humuula Sheep Station (Humuula) was obtained through a lease between the Army and the Department of Hawaiian Homelands (DHHL), and is comprised of 13,951 acres located near the intersection of Saddle Road and the Mauna Kea access road (also known as John Burns Way) near the center of the island of Hawaii. This site borders the eastern boundary of PTA. This MRA was itself divided into two MRSs during the SI: PTA-001-R-01 HSSW and PTA-001-R-02 [Humuula Sheep Station - East (HSSE)]. The second original MRS was a maneuver and bivouac area identified as Kulani Boys Home (KBH), MRS PTA-002-R-01; it consists of 2,224 acres and is located 10 miles southeast of PTA. The property on which this transferred maneuver area is located mostly comprises the Kulani Correctional Facility in an area surrounded by the Kulani Forest Reserve.

Based on the results of the SI visual survey, since only munitions debris was identified on MRS PTA-001-R-02, NFA was approved for this site. The SI recommended further investigation at the other two MRS.

In FY09, a portion of the Waikoloa Formerly Used Defense Site (FUDS) was determined to be ineligible for FUDS due to a lease with the USAG-HI for non-munitions related training. This area, referred to as the Pu'u Pa'a Area, was added as an MMRP site (PTA-003-R-01). The FUDS program conducted an engineering evaluation/cost analysis (EE/CA) of Pu'u Pa'a in 1999 and this document is now considered to meet the PA/SI requirements.

In 2008, a RI was initiated at PTA-001-R-01 (HSSW) and PTA-002-R-01 (KBH). During the RI, only small arms ammunition (SAA), SAA debris and munitions debris were found on both sites. The RI concluded that there are no MEC-related item found on both sites and do not pose an explosive hazard. Based on the results of the RI, NFA for MEC and MC is recommended for both PTA-001-R-01 and PTA-002-R-01; however, at site PTA-002-R-01 (KBH), a removal action for the burn pile was recommended to meet the regulatory requirements.

For administrative purposes, the current site PTA-002-R-01 was split into two separate MRSs. The burn pile and immediate adjacent area that required removal action were designated as site PTA-002-R-02 as registered in AEDB-R Site ID. The other remaining areas remain under the designation of PTA-002-R-01.

A supplemental investigation was conducted at PTA-002-R-02 in April 2012. The burn pile debris was removed, and incremental sampling was performed for surface soil beneath and adjacent to the pile. Soil sample analysis concluded that copper concentrations were below the unrestricted land use action level, and the site is recommended for NFA.

Cleanup Exit Strategy

The RI for PTA-003-R-01 is underway. Remaining actions include a focused FS, PP/DD, followed by RD and RA for MEC removal.

PTA-002-R-02 will be closed out following an NFA DD and PP to document the NFA decision.

MMRP Contamination Assessment

No LTM will be necessary for PTA-003-R-01 or PTA-002-R-02.

MMRP Previous Studies

Year	Title	Author	Date
2002	Phase II Engineering Evaluation/Cost Analysis, Former Waikoloa Maneuver Area and Nansay Sites, Island of Hawai'i, Hawai'i	Earth Tech	JAN-2002
	Final Closed, Transferring, and Transferred Inventory Report	TechLaw	OCT-2002
2005	Final Historical Records Review	Techlaw, Inc.	JAN-2005
	Final Site Inspection Work Plan	Techlaw, Inc.	MAR-2005
	Final Site Inspection Report	Techlaw, Inc.	JUL-2005
2009	Work Plan, Remedial Investigation, Humuula Sheep Station - West (PTA-001-R-01) and Kulani Boys Home (PTA-002-R-01), Hawaii	Shaw Environmental, Inc.	SEP-2009
2010	Community Involvement Plan, Remedial Investigation, Humuula Sheep Station - West (PTA-001-R-01) and Kulani Boys Home (PTA-002-R-01), Hawaii	Shaw Environmental, Inc.	FEB-2010
2011	Final Remedial Investigation Report Kulani Boys' Home (PTA-002-R-01) Hawaii	Shaw Environmental, Inc.	FEB-2011
	Final Remedial Investigation Report Humuula Sheep Station - West (PTA-001-R-01) Hawaii	Shaw Environmental, Inc	FEB-2011
2013	Final Remedial Investigation Report Addendum, Kulani Boys' Home Burn Pile (PTA-002-R-02), Pohakuloa Training Area, Hawaii	CH2M Hill	JAN-2013

POHAKULOA TRAINING AREA
Military Munitions Response Program
Site Descriptions

Site ID: PTA-002-R-02
Site Name: Kulani Burn Pile

STATUS

Regulatory Driver: CERCLA
MRSPP Score: 05
Contaminants of Concern: Metals
Media of Concern: Soil

Phases	Start	End
PA.....	200206.....	200406
SI.....	200406.....	200506
RI/FS.....	200806.....	201307
RIP Date:	N/A	
RC Date:	201412	

SITE DESCRIPTION

The KBH MRA contains a large two-story structure that was constructed for use as a correctional facility in the 1950s, but was never used because there was a fire in the building before it was opened. The 1996 Master Plan indicated that the Kulani facility was available for unit bivouac, tactical maneuvers, and air assault operations. An SI was conducted in 2005 and an RI was conducted in 2010.

During the RI fieldwork, only SAA, SAA debris, and munitions debris were found. Soil samples collected consisted of 11 incremental soil samples and two additional discrete samples, one from the burn pile and one from beneath the drum remnant located near the helipad/rain shed area. Analytical results from the burn pile indicated that copper was detected at a concentration of 17,500 mg/kg (SI results) which is above the screening level of 3,100 mg/kg.

Two MRSP scores were calculated, one for the Kulani Boys Home MRS (PTA-002-R-01), excluding the burn pile, and one for the Kulani Burn Pile MRS (PTA-002-R-02).

Based on the results of the SI and RI, the MRA was split into two MRS with the KBH MRS (approximately 2,223.75 acres) being designated as NFA and the Kulani Burn Pile MRS, approximately 0.25 acres, moving forward in the CERCLA process.

A PBA was awarded in September 2011 to perform any necessary removal actions, LTM, if necessary, and other response actions to achieve site closure or RC by December 2014.

An additional data collection was performed in April 2012 to further evaluate the need for response action. Incremental sampling was performed on the burn pile material and surface soil after the burn pile debris was removed. Sample results indicated that concentrations of total copper within the burn pile and in soil beneath and adjacent to the burn pile are below the unrestricted land use action level of 3,100 mg/kg. Therefore, the site is recommended for NFA. LTM will not be required.

An NFA DD and PP will be prepared in FY13 to propose the site for closure.

CLEANUP/EXIT STRATEGY

An NFA DD and PP will be prepared to propose the site for closure. No LTM will be necessary.

Site ID: PTA-003-R-01
Site Name: Pu'u Pa'a site

STATUS

Regulatory Driver: CERCLA
MRSPP Score: 02
Contaminants of Concern: Munitions and explosives of concern (MEC)
Media of Concern: Soil

Phases	Start	End
PA.....	199709.....	199903
SI.....	199709.....	199903
RI/FS.....	200909.....	201310
RD.....	201310.....	201708
RA(C).....	201310.....	204309
RIP Date:	N/A	
RC Date:	204309	

SITE DESCRIPTION

The Pu'u Pa'a site is a land parcel surrounded entirely by the Former Waikoloa Maneuver Area FUDS. The Pu'u Pa'a parcel was originally investigated in 1997 as part of the FUDS site, but deemed ineligible for FUDS due to the Army's active use of the parcel for non-live firing training until 2000. It was known as the Puu Paa Local Training Area (LTA) until 1998 and then used by the Hawaii Army National Guard (HIARNG) for similar training exercises until approximately 2000. The Pu'u Pa'a site consists of 13,542 acres of gently sloping land located approximately 1.5 miles south of the town of Waimea on the lower southwestern slope of Mauna Kea. It is mostly covered with grass and some cactus plants dispersed throughout. The most significant geographic feature is the Pu'u Pa'a cinder cone located in the north-central portion of the property. The parcel is privately owned by Parker Ranch and is primarily used for livestock grazing. One tenant on the parcel operates a wastewater treatment plant in conjunction with a cesspool maintenance business.

An RI currently underway is expected to be complete in FY13 for the site and is fully funded under a PBA contract. Future anticipated phases include an FS with a PP and DD, followed by RD and RA with MEC Removal phases.

A technical project planning (TPP) meeting was held in December 2012 to discuss future land use and site status with the stakeholders. Future land use will be commercial/industrial. There is little likelihood of residential use.

Due to the large size of the site, the cleanup effort is anticipated to take multiple years. RC is anticipated to be achieved in FY43. LTM is not anticipated.

CLEANUP/EXIT STRATEGY

Future anticipated actions include an FS with a PP and DD; all are included under the PBA contract that extends through 2014. MEC removal and clearance is expected during the remedial design (RD) and remedial action (construction) (RA(C)) phases. The cleanup effort for the MRS is anticipated to require 30 years since the MRS encompasses a considerably large area. LTM is not anticipated.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
PBA@MR POHAKUL	PBA@MMRP Pohakuloa	200809	The PBA is underway for this site. The funding is being tracked under the individual sites.
PTA-001-R-01	HUMUULA SHEEP STATION-WEST	201209	Final NFA Decision Document for PTA-001-R-01 (HSS-W) dated August 2012
PTA-001-R-02	Humuula Sheep Station-East	200601	The Final Site Inspection Report (July 2005) recommended no further action for this site.
PTA-002-R-01	KULANI BOYS' HOME	201209	Final NFA Decision Document for PTA-002-R-01 (KBH) dated August 2012

MMRP Schedule

Date of MMRP Inception 199709

Past Phase Completion Milestones

1999

SI (PTA-003-R-01 - Pu'u Pa'a site)

PA (PTA-003-R-01 - Pu'u Pa'a site)

2003

PA (PBA@MR POHAKUL - PBA@MMRP Pohakuloa, PTA-001-R-01 - HUMUULA SHEEP STATION-WEST, PTA-001-R-02 - Humuula Sheep Station-East, PTA-002-R-01 - KULANI BOYS' HOME)

2004

PA (PTA-002-R-02 - Kulani Burn Pile)

2005

SI (PTA-001-R-01 - HUMUULA SHEEP STATION-WEST, PTA-001-R-02 - Humuula Sheep Station-East, PTA-002-R-01 - KULANI BOYS' HOME, PTA-002-R-02 - Kulani Burn Pile)

2008

RI/FS (PBA@MR POHAKUL - PBA@MMRP Pohakuloa)

2012

RI/FS (PTA-001-R-01 - HUMUULA SHEEP STATION-WEST, PTA-002-R-01 - KULANI BOYS' HOME)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 204309

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of MMRP at Installation (including LTM phase): 204309

POHAKULOA TRAINING AREA MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY14	FY15	FY16	FY17	FY18	FY19+
PTA-003-R-01	Pu'u Pa'a site	RI/FS						
		RD						
		RA(C)						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201002

Restoration Advisory Board (RAB): No

Reason Not Established: The community has expressed no sufficient, sustained interest in a RAB.

Community Interest Solicited on: 201107

Efforts Taken to Determine Interest

In FY11, USAG-HI solicited the public for interest in establishing a RAB. The solicitation was made via an advertisement in the two Big Island newspapers on July 24 - 26, 2011.

Results

The USAG-HI received less than five responses to the solicitation indicating that there was insufficient interest in establishing a RAB. A RAB for PTA was not established.

Follow-up Procedures

Another solicitation will be made in FY13.

Additional Community Involvement Information

Under the IRP program, USAG-HI solicited for community interest in establishing a RAB in January 2011. Under the MMRP program, USAG-HI solicited for interest in a RAB in July 2011. An MMRP community involvement plan (specific to PTA-001-R-01 and PTA-002-R-01) was completed in FY10. The USAG-HI will solicit for a RAB for the Pu'u Pa'a Site (PTA-003-R-01) in FY13.

A Community Involvement Plan specific to the Pu'u Pa'a MRS was finalized in September 2011.

Administrative Record is located at

Directorate of Public Works (DPW)
948 Santos Dumont Ave, Bldg. 105
Wheeler AAF, Schofield Barracks, HI 96857-5013

Information Repository is located at

Hilo Public Library
300 Waianuenue Avenue
Hilo, HI 96720
808-933-8888

and

Kailua-Kona Public Library
75-138 Hualalai Road
Kailua-Kona, HI 96740
808-327-4327

Current Technical Assistance for Public Participation (TAPP):N/A

TAPP Title: N/A

Potential TAPP: N/A

