

FY2016

FORT SHAFTER

Army Defense Environmental Restoration Program

Installation Action Plan

Printed 27 December 2016

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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 taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, Installation Management Command, Pacific Region, Fort Shafter, the US Army Environmental Command (USAEC), 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
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CR	Compliance Restoration
CTT	Closed, Transferred or Transferring
DD	Decision Document
DERA	Defense Environmental Restoration Account
DMM	Discarded Military Munitions
DoD	Department of Defense
DU	Decision Unit
EAL	Environmental Action Level
FRA	Final Remedial Action
FS	Feasibility Study
FY	Fiscal Year
HDOH	Hawaii Department of Health
IAP	Installation Action Plan
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IS	Incremental Sampling
kg	kilogram
KMR	Kahauiki Military Reservation
LTM	Long-Term Management
LUC	Land Use Control
MC	Munitions Constituents
MCL	Maximum Contaminant Level
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MR	Munitions Response
NCO	Noncommissioned Officer
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NFRAP	No Further Response Action Planned
NPL	National Priorities List
O&M	Operations and Maintenance
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PBA	Performance-Based Acquisition
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil, and Lubricants
PP	Proposed Plan
RA	Remedial Action
RAB	Restoration Advisory Board
RC	Response Complete

Acronyms

RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SVOC	Semi-Volatile Organic Compound
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
TCRA	Time-critical Removal Action
TD	Transferred
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USAG-HI	US Army Garrison, Hawaii
USARPAC	US Army Pacific Command
USATHAMA	US Army Toxic and Hazardous Materials Agency
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
XRF	X-Ray Fluorescence

Installation Information

Installation Locale

Installation Size (Acreage): 593

City: Honolulu

County: Honolulu

State: Hawaii

Other Locale Information

Fort Shafter is located on the Island of Oahu, approximately three miles northwest of downtown Honolulu. The 593-acre base is divided into two areas: Shafter Flats and the main post. The main post is the older section of the base. The two areas are divided by the Moanalua Highway, which cuts through the installation at the H-1 interchange and was installed in the early-1960s.

Installation Mission

Fort Shafter's mission is to train, equip, and sustain Army forces in the Pacific Theater.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USAEC

Regulator Participation

State State of Hawaii Department of Health (HDOH)

National Priorities List (NPL) Status

FORT SHAFTER 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: Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Affected Media of Concern: Soil

MMRP

Primary Contaminants of Concern: Metals, Munitions constituents (MC)

Affected Media of Concern: Soil

CR

Primary Contaminants of Concern: Metals

Affected Media of Concern: Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	201406	201410	2015
Planned	201910	201910	2020

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
FTSHF-46, DD	FTSHF-46, FTSHF-48, FTSHF-50, FTSHF-51, FTSHF-52

Results Current LTM efforts are protective of HH and the environment.

Actions Continue LTM. Abandon monitoring wells.

Plans Continue LTM. Abandon monitoring wells.

Recommendations and Implementation Plans:

Current long-term management (LTM) efforts are protective of human health and the environment. Abandon monitoring wells.

Land Use Control (LUC) Summary

LUC Title: FTSHF-46 LUCs

Site(s): FTSHF-46

ROD/DD Title: FTSHF-46, DD

Location of LUC

AEDB-R Site FTSHF-46 at Fort Shafter Flats, HI

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on land use

Date in Place: 200909

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

Record of LUC: Master Plan or Equivalent

Documentation Date: 200909

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: FTSHF-48 LUCs

Site(s): FTSHF-48

ROD/DD Title: FTSHF-46, DD

Location of LUC

AEDB-R site FTSHF-48 at Fort Shafter, HI.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: Fences

Types of Institutional Controls: Restrictions on land use

Date in Place: 200909

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

Record of LUC: Master Plan or Equivalent

Documentation Date: 200909

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, PCBs, PESTICIDES

Additional Information

N/A

LUC Title: FTSHF-50 LUCs

Site(s): FTSHF-50

Land Use Control (LUC) Summary

ROD/DD Title: FTSHF-46, DD

Location of LUC

AEDB-R site FTSHF-50 at Fort Shafter Flats, HI.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on land use

Date in Place: 200909

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

Record of LUC: Master Plan or Equivalent

Documentation Date: 200909

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS

Additional Information

N/A

LUC Title: FTSHF-51 LUCs

Site(s): FTSHF-51

ROD/DD Title: FTSHF-46, DD

Location of LUC

AEDB-R site FTSHF-51 at Fort Shafter Flats, HI

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on land use

Date in Place: 200909

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

Record of LUC: Master Plan or Equivalent

Documentation Date: 200909

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS

Additional Information

N/A

LUC Title: FTSHF-52 LUCs

Site(s): FTSHF-52

ROD/DD Title: FTSHF-46, DD

Location of LUC

Land Use Control (LUC) Summary

AEDB-R site FTSHF-52 at Fort Shafter Flats, HI

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Restrictions on land use

Date in Place: 200909

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

Record of LUC: Master Plan or Equivalent

Documentation Date: 200909

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, PAH

Additional Information

N/A

LUC Title: LUC

Site(s): FTSHF-004-R-01

ROD/DD Title: FTSHF-004-R-01

Location of LUC

FTSHF-004-R-01

Land Use Restriction: Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Restrictions, Dig Permits, Restrictions on land use

Date in Place: 201610

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201511

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

Fort Shafter is an active military installation that is part of the US Army Garrison Hawaii (USAG-HI) footprint. The installation was established in 1907 and serves as the US Army, Pacific Command (USARPAC) Headquarters. It is the oldest Army installation in Hawaii. The land in the area surrounding this installation is used as residential, park, school, business/commercial, light industrial and forest reserve.

Fort Shafter is situated in an area of approximately 1,438 acres formerly known as Kahauiki, which extended from sea level to 1,440 feet. The area was part of the Hawaiian Crown Lands that were ceded to the US government after annexation. The earliest recorded uses of Kahauiki were reported to indicate the presence of irrigated agricultural terraces fed by the Kahauiki Stream extending inland from the sea for about one-half mile.

An earthen-banked fishpond named Weli was a resource of Kahauiki and appeared to have received a portion of freshwater from Kahauiki Stream (McCallister, 1933:91). This man-made prehistoric structure was filled with dredge soil from construction of the Keehi seaplane harbor during the 1940s and is now located under the area seaward of Loop Road at Shafter Flats known as the Motor Park (Thompson, 1983:99).

The series of native Hawaiian land reforms adopted by Kamehameha III during the mid-1800s saw no Kuleana registrations or awards for cultivated lands in Kahauiki, which became Crown Lands. Most of this land was subsequently leased to the Dowsett Estate, who then subleased it to Star Dairy Company. The higher elevation lands that comprised the dairy were reportedly used for grazing cattle and the lower elevation lands for raising feed.

Following annexation in 1898, the Kahauiki Crown Lands were designated the Kahauiki Military Reservation (KMR). In 1902, all tenant leases were negotiated and completed; military construction began in 1905. In 1907, a portion of KMR was set aside and renamed Fort Shafter, and from 1907 to 1909, two areas were constructed consisting of the initial battalion cantonment at Palm Circle and Post Hospital (or old Tripler General Hospital), where the present noncommissioned officer (NCO) family housing area is serviced by Funston Loop.

In 1913, Fort Shafter was authorized to expand the original Palm Circle cantonment area, and construction was completed in December 1914. Construction consisted of a complete Regimental Post consisting of troop barracks, officer and NCO quarters, gun parks, and support facilities along the length of Wisser Road from the Shafter Bowling Alley to Shafter Patch Gate (Meeken, 1974:16).

In 1917, the Hawaiian Ordnance Depot was designated and formed in the area that included the high ground adjacent and north of the present Middle Street and east of King Street which overlooked the Kahauiki Stream and its wetlands to the west.

The depot served as a separate post within Fort Shafter with its own gate house, Post Headquarters (lost during H-1 Freeway construction), quarters along Montgomery Drive (the depot commander's quarters is currently T-305), a fire station, an officer's club (T-313), a series of warehouses served by railroad sidings (T-341 to T-347, T-434, T-435, T-438, T-441, and T-443), and barracks (now T-320, Headquarters 94th Army Air and Missile Defense Command), which became known as the Hawaii Arsenal Military Reservation at the end of 1918.

In October 1940, the Signal Corps area at Shafter Flats was initially occupied and consisted largely of warehouses, a Bachelor Officers Quarters, office buildings, and a photo lab. This area lies on a former tidal marsh area behind the old Weli fishpond which was covered with over one and a half million cubic yards of dredge fill to an average elevation of 12 feet above sea level.

Prior to 1949, much of the area seaward of King Street was cleared off and used as a storage area for the Signal Corps. By 1962, the Ordnance Corps was eliminated through the reorganization of the Army and the use of many of the standing structures was assigned to other commands. This area consists of the present-day 300-400 area, the Craft Shops and Child Care Center, the USARPAC Support Training Battalion Consolidated Motor Pool and Base Plant, and the Shafter Flats area.

Between 1956 and 1961, most of the 1914 Regimental Post barracks, offices, officer and NCO quarters, motor pool areas, and warehouse facilities were demolished and removed. After 1969, Parks Road was realigned and rerouted south of the Fourth Street intersection and extended to intersect with Chamberlain Road.

In 1984, the Palm Circle Historic District, which incorporates a majority of the original 1907 cantonment structures, was listed on the National Register of Historic Places, and in 1987 it was declared a national historic landmark.

Cleanup Program Summary

Installation Historic Activity

References:

- McCallister, J. Gilbert, 1933, Archeology of Oahu. B.P. Bishop Museum Bulletin 104, Honolulu.
- Meeken, Stanley R., 1974, "A History of Fort Shafter, 1894-1974." Machine reproduced copy at Fort Shafter Library.
- Thompson, Erwin N., 1983, History of the US Army Corps of Engineers in the Pacific 1905-1980.
- Watanabe, Farley K., Archeologist, US Army Corps of Engineers, Pacific Ocean Division, June 1993, Verbal Conversation.

Installation Program Cleanup Progress

IRP

Prior Year Progress: LTM continued at FTSHF-46, FTSHF-48, FTSHF-50, FTSHF-51, and FTSHF-52.

Future Plan of Action: LTM will continue for FTSHF-46, FTSHF-48, FTSHF-50, FTSHF-51, and FTSHF-52.

MMRP

Prior Year Progress: RA fieldwork was completed at FTSHF-004-R-01 and LTM started at the site.

Future Plan of Action: LTM will continue at FTSHF-004-R-01.

CR

Prior Year Progress: By the end of fiscal year (FY)16, a contract will be awarded to conduct a remedial investigation (RI)/feasibility study (FS) at CCFS0007.

Future Plan of Action: The RI/FS will be conducted at CCFS0007. The results of the RI/FS will determine the need for follow on actions and funding.

FORT SHAFTER
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 46/41

Installation Site Types with Future and/or Underway Phases

2	Contaminated Ground Water (FTSHF-48, FTSHF-50)
1	Soil Contamination After Tank Removal (FTSHF-46)
1	Storage Area (FTSHF-52)
1	Washrack (FTSHF-51)

Most Widespread Contaminants of Concern

Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern

Soil

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

Site ID	Site Name	Action	Remedy	FY
FTSHF-33	USARC BLDG A, FT SHAFTER FLATS UST SITE	IRA	WASTE REMOVAL - SOILS	1991
FTSHF-33	USARC BLDG A, FT SHAFTER FLATS UST SITE	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTSHF-15	USTS-USASCH MAINTN AREA, BLD422 (WSC#11)	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992
FTSHF-45	LUST SOIL REMEDIATION - BLDG 1605	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992
FTSHF-37	UST BLDG 508	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994
FTSHF-20	USTS AT BLDG 535 (SERVICE STAT)(WSC #16)	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-34	USTS BLDG 310	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-35	USTS BLDG 320	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-36	USTS BLDG 430	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-38	USTS BLDG 507	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-39	UST BLDG 520	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-41	UST BLDG 1500	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-42	UST BLDG 1528	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-43	UST BLDG 1535	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTSHF-45	LUST SOIL REMEDIATION - BLDG 1605	FRA	THERMAL DESORPTION	1996
FTSHF-15	USTS-USASCH MAINTN AREA, BLD422 (WSC#11)	FRA	THERMAL DESORPTION	1997
FTSHF-01	BLD 225, 434 FORMER PEST STG (WSC #20)	FRA	WASTE REMOVAL - SOILS	1998
FTSHF-23	PAINT/PLATING BLDG 1507-WING A (WSC #22)	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1998

IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
FTSHF-42	UST BLDG 1528	FRA	WASTE REMOVAL - SOILS	2000
FTSHF-46	FORMER FUEL STATION NEAR USARC, BLD 1537	FRA	INSTITUTIONAL CONTROLS	2010
FTSHF-48	FORMER LAUNDRY FACILITY, FLATS	FRA	INSTITUTIONAL CONTROLS	2010
FTSHF-50	FORMER REPAIR SHOP, BLDG 1553	FRA	INSTITUTIONAL CONTROLS	2010
FTSHF-51	WASHRACK T-1539	FRA	INSTITUTIONAL CONTROLS	2010
FTSHF-52	FORMER WAREHOUSE (T1542)	FRA	INSTITUTIONAL CONTROLS	2010

Duration of IRP

Date of IRP Inception: 198306

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 200910/200910

Date of IRP completion including Long Term Management (LTM): 204609

IRP Contamination Assessment

Contamination Assessment Overview

Investigations at Fort Shafter were initially conducted from 1983 through 1984 as part of the Army's sub-installation assessment program. No significant sources of contamination were identified and no further action (NFA) was recommended.

In August 1990, the US Army Toxic and Hazardous Materials Agency (USATHAMA) conducted an assessment to establish baseline data for potential waste. Waste sites were broadly defined as locations from which hazardous constituents might be released into the environment, regardless of whether the material is a solid or a hazardous waste. The report identified 29 potential hazardous waste sites at Fort Shafter. Although the report did not differentiate between sites that are eligible for the Defense Environmental Restoration Account (DERA) funds under the sub-installation restoration program, it did form the basis of sites listed in the Defense Environmental Restoration Tracking System database.

In 1992, the US Army Corps of Engineers (USACE), Pacific Ocean Division conducted a preliminary assessment (PA)/site inspection (SI) at 13 selected sites that were eligible for DERA funds. The primary contaminants of concern were POLs, heavy metals, and pesticides. The PA recommended seven sites for further investigation [Army Environmental Database-Restoration (AEDB-R) sites FTSHF-01, -02, -14, -16, -23, -24, and -25] and six sites for no further response action planned (NFRAP), response complete (RC) (AEDB-R sites FTSHF-04, -07, -09, -13, -18, and 22). The SI recommended remediation of the former pesticide storage Building 225 (FTSHF-01), and in March 1998 the plating shop, Building 1507 (FTSHF-23), was completed. At the pesticide storage Building 225, approximately 290 tons of pesticide (chlordane) contaminated soil was excavated from the site. A subsequent risk assessment determined that there were no unacceptable risks present at the site. A sump and surrounding soil were removed from the former plating shop, Building 1507 (FTSHF-23). No further RAs are planned for the site.

The original database of potential hazardous waste sites (29 sites) was expanded in FY94 to 43 AEDB-R sites. The increase was primarily due to the inclusion of abandoned underground storage tanks (UST) (AEDB-R sites FTSHF-33 through -43). In FY94 removal actions were completed.

In June 1994, the US Army Environmental Hygiene Agency conducted a PA on the remaining 16 sites identified in the USATHAMA property report. The purpose of the PA was to determine the potential threat to human health and the environment, and to identify any waste sites needing an SI. The PA recommended three sites for further action (AEDB-R sites FTSHF-17, -20, -27) and 13 sites for NFRAP RC (AEDB-R sites FTSHF-06, -08, -10, -11, -12, -15, -19, -21, -26, -28, -29, -30, and -43). For sites that require further action to be eligible for DERA funds, evidence of contamination must have resulted from past activities; however, in most cases this assessment was difficult. After review of the PA recommendations, sites FTSHF-21 and -28 were added to the list of sites requiring further investigation. Additional investigation conducted by Dames & Moore in 1995 recommended NFRAP RC for sites FTSHF-17, -21 and -28. In 1997, an SI was conducted at FTSHF-27 which concluded that there was no risk to human health or the environment.

In a 1996 PA/SI, an additional seven sites were identified as requiring further investigation. The seven sites are referred to in the RI/Risk Assessment Report (2006) that has been accepted by the HDOH. At these sites in 2009, 16 wells were abandoned and a remaining 16 will be maintained during LTM. A fence was constructed at FTSHF-48 as an engineering control at this site.

Cleanup Exit Strategy

An RI/RA was accepted by the HDOH. Two decision documents (DD) were signed in November 2009 (ECC, 2009): one for FTSHF-47 and FTSHF-49 selecting NFA and another collectively for the remaining five sites tracked under FTSHF-46 selecting land use controls (LUC) as the remedy. A five-year review was completed in FY15.

The LTM estimates for sites FTSHF-46, FTSHF-48, FTSHF-50, FTSHF-51, and FTSHF-52 are covered under FTSHF-46. Please see the specific site cleanup exit strategies for more details.

IRP Previous Studies

1984	Title	Author	Date
	Installation Assessment of US Army Support Command, Hawaii, Installations - Volume I: Fort Shafter and Subinstallations: Tripler Army Medical Center, Fort Kamehameha, and Kapalama Military Reservation, Oahu, Hawaii. Report 338	Environmental Science and Engineering, Inc	DEC-1984
	Installation Assessment of US Army Support Command, Hawaii. Prepared for the US Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland,	Roy F. Weston, Inc	DEC-1984
1990	Regional Hawaii Army Solvent Recycling Study. Prepared for US Army Support Command, Hawaii, and US Army Western Command	Woodward-Clyde Consultants	JUL-1990
	Property Report. Prepared for the US Army Toxic and Hazardous Materials Agency, Aberdeen Proving Ground, Maryland	Roy F. Weston, Inc	DEC-1990
1991	Survey of Polychlorinated Biphenyls (PCB), Fort Shafter Flats, Oahu, Hawaii. Prepared for the US Army Corps of Engineers, Pacific Ocean Division, Fort Shafter, Hawaii	Woodward-Clyde Consultants	JAN-1991
1992	Preliminary Assessment, Various Sites, Fort Shafter, Oahu, Hawaii	US Army Corps of Engineers, Pacific Ocean Division, Design Division/Military Division	JUL-1992
	Preliminary Assessment for Six Selected Sites, Fort Shafter, Hawaii, Pacific Ocean Division, Honolulu, Hawaii	US Army Corps of Engineers	NOV-1992
1993	Site Inspection at the Underground Storage Tank Site, US Army Reserve Center, Fort Shafter Flats, Hawaii	US Army Corps of Engineers, Pacific Ocean Division, Honolulu, Hawaii by PRC Environmental Management Inc	AUG-1993
1994	Site Investigation at Various Sites, Fort Shafter, Oahu, Hawaii, Pacific Ocean Division, Honolulu, Hawaii	US Army Corps of Engineers	JAN-1994
	Site Assessment No. 38-26-K28U-94, Waste Sites at Army properties, Hawaii. Prepared for USARPAC and USAG-HI	US Army Environmental Hygiene Agency	JUN-1994
1995	Interim Preliminary Assessment Report, Various Sites, Fort Shafter, Hawaii	Dames and Moore	JUN-1995
1996	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii Vols 1, 2, 3	Harding Lawson Associates	FEB-1996
1997	Site Inspection Report, Fort Shafter Solid Waste Dump, Oahu, Hawaii Vols I and II	Dames and Moore	MAR-1997
1998			

IRP Previous Studies

Year	Title	Author	Date
1998	Site Characterization and Remediation at the Pesticide Storage Building 225 and Plating Shop Building 1507, Fort Shafter, Hawaii	PRC Environmental Management, Inc	MAR-1998
2006	Final Remedial Investigation and Risk Assessment for Various Sites, Ft. Shafter, Oahu, Hawaii. Sites included in this study included: FTSHF-46, -47, -48, -49, -50, -51, -52, and -53, as outlined in other sections of this write-up.	Environment	SEP-2006
2009	Proposed Plan Seven Sites Fort Shafter Flats, Oahu, Hawaii (covers FTSHF-46, -47, -48, -49, -50, -51, and -52)	ECC	JUL-2009
	Final Land Use Controls Work Plan Fort Shafter Flats, Sites 46, 48, 50, 51, and 52, Fort Shafter, Oahu, Hawaii	ECC	SEP-2009
	Final Decision Document Fort Shafter Flats, Sites 47 and 49, Fort Shafter, Oahu, Hawaii	ECC	OCT-2009
	Final Decision Document Fort Shafter Flats, Sites 46, 48, 50, 51, and 52, Fort Shafter, Oahu, Hawaii	ECC	OCT-2009
	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52	ECC	DEC-2009
2010	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (January to June 2010)	ECC	JUL-2010
2011	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (July to December 2010)	ECC	JAN-2011
	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (January to June 2011)	ECC	JUN-2011
2012	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (July to December 2011)	ECC	JAN-2012
	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (January to June 2012)	ECC	JUN-2012
2013	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (July to December 2012)	ECC	JAN-2013
	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (January to June 2013)	ECC	JUL-2013
	Decision Document to Support No Further Action, Site FTSHF-27 (Solid Waste Dump), Fort Shafter, Oahu, Hawaii	CH2M Hill	DEC-2013
	Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (July to December 2013)	ECC	DEC-2013
2014			

IRP Previous Studies

2014

Title	Author	Date
Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (January to May 2014)	ECC	MAY-2014
Final First Five-Year Review Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii, October 2014 (October 2009 to July 2014)	ECC	OCT-2014
Final Semi-Annual Long Term Management Report, Fort Shafter Flats, Sites 46, 48, 50, 51 & 52, Fort Shafter, Oahu, Hawaii (June to October 2014)	ECC	NOV-2014

FORT SHAFTER
Installation Restoration Program
Site Descriptions

Site Name: FORMER FUEL STATION NEAR USARC, BLD 1537

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals, Pesticides, Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Soil

Phases	Start	End
PA.....	199309.....	199605
SI.....	199309.....	199605
RI/FS.....	200206.....	200609
RA(C).....	200901.....	200910
LTM.....	200910.....	204609

RIP Date: N/A

RC Date: 200910

SITE DESCRIPTION

This site was a fueling station and paint spray booth (Building T-1537) located in Area 4 (HLA, 1996) in the southwest corner of Fort Shafter. A review of historical aerial photographs and topographic maps indicates that gasoline and oil storage tanks were present at the site in 1952, and the structure was built prior to 1969. The buildings and structures, including the tanks, have been demolished and removed, and the area is currently an open field with short grasses and shrubs. The SI sampling results show low level trichloroethylene (TCE) groundwater contamination below maximum contaminant levels (MCL). The RI/RA concluded that the observance of TCE in the shallow groundwater is consistent with an off-site source.

In the RI/RA report (Environet, 2006), this site (FTSHF-46) is also known as Site G. Contaminants of potential concern for this site are arsenic, PCBs, PAHs, total petroleum hydrocarbons (TPH), and three VOCs. Based upon the risk assessment for this site, LUCs are the selected remedy in the DD to maintain this site as industrial use only. The LTM began in August 2008 to account for work conducted under a performance-based acquisition (PBA).

Additional LUCs for this site include installation of a fence with warning signs along the drainage channel on the perimeter of this site.

The PBA covers five sites (FTSHF-46, -48, -50, -51, and -52). The DD, which was signed in November 2009 for these five sites, has LUCs as the selected remedy for the LTM. Programming for sites FTSHF-46, FTSHF-48, and FTSHF-50 to FTSHF-52 is tracked under site FTSHF-46.

During closure of several monitoring wells at the Fort Shafter Installation Restoration Program (IRP) sites, a strong hydrocarbon odor was detected in three of the wells. Those three monitoring wells were not closed. An investigation will be funded in FY16 to determine the nature and extent of POL contamination in the groundwater. The costs will be tracked under FTSHF-46.

The first five-year review was completed in October 2014 (FY15) and the next five-year review is planned for FY20.

CLEANUP/EXIT STRATEGY

Implementation of LTM is ongoing at the site. The LTM includes inspection and maintenance of existing monitoring wells and associated parts such as well protective casing, well vaults, traffic bollards and others on a semiannual basis. A semiannual LTM report is prepared and submitted to HDOH. The next five-year review will be conducted in FY20. The LTM funding is tracked under the PBA and includes FTSHF-48 and FTSHF-50 to -52.

Site ID: FTSHF-48

Site Name: FORMER LAUNDRY FACILITY, FLATS

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals, Pesticides, Polychlorinated Biphenyls (PCB)

Media of Concern: Soil

Phases	Start	End
PA.....	199309.....	199605
SI.....	199309.....	199605
RI/FS.....	200206.....	200609
RA(C).....	200901.....	200910
LTM.....	200910.....	204509

RIP Date: N/A

RC Date: 200910

SITE DESCRIPTION

The site, Bldg 305, is a former laundry facility in the Fort Shafter Flats area. A review of historical aerial photographs and topographic maps indicates that the structure was built prior to 1950 and demolished prior to 1978. Building 305 was located on the north side of Building 1547. About one-third of the former building would have been in the footprint of Building 1547. The area is currently a paved parking lot with some landscaping. The draft PA/SI report indicated mercury contamination in the groundwater and soil samples indicated the presence of VOCs below action levels.

In the RI/RA report (Environet, 2006) this site is also known as Site B. The risk assessment for the site itself will likely allow for closure for industrial use; however, this site (FTSHF-48) includes additional work that may be necessary to evaluate on-site concentrations and consideration of sources of contamination to differentiate between site-specific and regional anthropogenic contamination should a change in land use occur.

Based upon the risk assessment for this site, LUCs are the selected remedy in the DD to maintain this site as industrial use only. LTM began in August 2008 to account for work conducted under a PBA. Additional LUCs for this site include installation of a fence with warning signs along the drainage channel on the perimeter of this site.

The PBA covers five sites (FTSHF-46, -48, -50, -51, and -52). The DD, signed in November 2009 for these five sites, have LUCs as the selected final remedy.

The first five-year review was completed in October 2014 (FY15) and the next five-year review is planned for FY20.

Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF-52 is tracked under site FTSHF-46.

CLEANUP/EXIT STRATEGY

Implementation of LTM is ongoing at the site. The LTM includes inspection and maintenance of existing monitoring wells and associated parts such as well protective casing, well vaults, traffic bollards and others on a semiannual basis. A semiannual LTM report is prepared and submitted to HDOH. The next five-year review will be conducted in FY20. The LTM funding is tracked under the FTSHF-46 PBA.

Site Name: FORMER REPAIR SHOP, BLDG 1553

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Metals

Media of Concern: Soil

Phases	Start	End
PA.....	199309.....	199605
SI.....	199309.....	199605
RI/FS.....	200206.....	200609
RA(C).....	200901.....	200910
LTM.....	200910.....	204509

RIP Date: N/A

RC Date: 200910

SITE DESCRIPTION

This is the former repair shop site. It is located on the south side (near Middle Street) of what is now the US Army Reserve Center (USARC) and includes former Buildings 1553 and 1567. A review of historical aerial photographs and topographic maps indicates that Building 1553 was built prior to 1950 and was demolished after 1969 and prior to 1978. The former repair shop, Building 1553, overlaps a portion of the southeast corner of the Unit Storage Warehouse (Building 1556), and the south end of the former building extended to what is now a part of the H-1 viaduct roadway. The location of the former building is now asphalt paved roadways and parking area and some landscaped grounds. The former motor pool repair shop, Building 1567, is also a part of the Building 1553 RI site. SI samples retrieved indicate concentrations of pentachlorophenol above US Environmental Protection Agency (USEPA) MCLs.

The RI/RA report (Environet, 2006) refers to this site as Site C. The risk assessment for the site will likely allow for closure for industrial use. Further evaluation of on-site concentrations and consideration of sources of contamination at this site (FTSHF-50) may be necessary to evaluate petroleum contamination in site soils should a change in land use occur. The LTM phase began in August 2008 to account for work conducted under a PBA.

The PBA covers five sites (FTSHF-46, -48, -50, -51, and -52). The DD, signed in November 2009 for these five sites, have LUCs as the selected final remedy. Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF- 52 is tracked under site FTSHF-46.

The first five-year review was completed in October 2014 (FY15), and the next five-year review is planned for FY20.

Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF-52 is tracked under site FTSHF-46.

CLEANUP/EXIT STRATEGY

Implementation of LTM is ongoing at the site. The LTM includes inspection and maintenance of existing monitoring wells and associated parts such as well protective casing, well vaults, traffic bollards and others on a semiannual basis. A semiannual LTM report is prepared and submitted to HDOH. The next five-year review will be conducted in FY20. The LTM funding is tracked under the FTSHF-46 PBA.

Site ID: FTSHF-51
Site Name: WASHRACK T-1539

STATUS

Regulatory Driver: CERCLA
RRSE: LOW
Contaminants of Concern: Metals
Media of Concern: Soil

Phases	Start	End
PA.....	199309.....	199605
SI.....	199309.....	199605
RI/FS.....	200206.....	200609
RA(C).....	200901.....	200910
LTM.....	200910.....	204509

RIP Date: N/A
RC Date: 200910

SITE DESCRIPTION

This site is located south (near Middle Street) of what is now the USARC. The vehicle washrack, Structure T1539 in Area 4, consists of a rectangular paved vehicle parking area that is surrounded by a 6-inch high asphalt concrete berm. A review of historical aerial photographs and topographic maps indicates that the structure was built prior to 1969. The area around the washrack and the buildings directly north of the washrack, T-1533 and T-1354, are being used by a contractor for materials and equipment storage and truck parking. The washrack is no longer in use, and vegetation is starting to grow in the pavement. Samples retrieved indicate concentrations of arsenic in groundwater just below USEPA MCLs. The arsenic concentrations are likely naturally occurring.

The RI/RA report (Environet, 2006) refers to this site as Site E. The risk assessment for the site will likely allow for closure for industrial use. Further evaluation of on-site concentrations and consideration of sources of contamination may be necessary at this site (FTSHF-51) should a change in land use occur. The LTM began in August 2008 to account for work conducted under a PBA.

The PBA covers five sites (FTSHF-46, -48, -50, -51, and -52). The DD, signed in November 2009 for these five sites, have LUCs as the selected final remedy. Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF-52 is tracked under site FTSHF-46.

The first five-year review was completed in October 2014 (FY15) and the next five-year review is planned for FY20.

Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF-52 is tracked under site FTSHF-46.

CLEANUP/EXIT STRATEGY

Implementation of LTM is ongoing at the site. The LTM includes inspection and maintenance of existing monitoring wells and associated parts such as well protective casing, well vaults, traffic bollards and others on a semiannual basis. A semiannual LTM report is prepared and submitted to HDOH. The next five-year review will be conducted in FY20. The LTM funding is tracked under the FTSHF-46 PBA.

Site ID: FTSHF-52

Site Name: FORMER WAREHOUSE (T1542)

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH)

Media of Concern: Soil

Phases	Start	End
PA.....	199306.....	199602
SI.....	199306.....	199602
RI/FS.....	200206.....	200609
RA(C).....	200901.....	200910
LTM.....	200910.....	204509

RIP Date: N/A

RC Date: 200910

SITE DESCRIPTION

This site is located on the southern edge of what is now the USARC in Fort Shafter. The warehouse structure (T1542) is no longer present at the site. A review of historical aerial photographs and topographic maps indicates that the structure was built prior to 1950. A portion of the former warehouse building location overlaps the west side of Building 1556, the Unit Storage Warehouse. The location of the former warehouse building is currently a paved driveway and parking area for Building 1556. The risk drivers for this site are PAHs and metals.

The RI/RA report (Environet, 2006) refers to this site as Site F. The risk assessment for the site will likely allow for closure; however, further evaluation will probably be required should the site be disturbed. The LTM began in August 2008 to account for work conducted under a PBA.

The PBA covers five sites (FTSHF-46, -48, -50, -51, and -52). The DD, signed in November 2009 for these five sites, have LUCs as the selected final remedy. Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF- 52 is tracked under site FTSHF-46.

The first five-year review was completed in October 2014 (FY15) and the next five-year review is planned for FY20. Programmed funding for sites FTSHF-46, FTSHF-48, and FTSHF-50 through FTSHF-52 is tracked under site FTSHF-46.

CLEANUP/EXIT STRATEGY

Implementation of LTM is ongoing at the site. The LTM includes inspection and maintenance of existing monitoring wells and associated parts such as well protective casing, well vaults, traffic bollards and others on a semiannual basis. A semiannual LTM report is prepared and submitted to HDOH. The next five-year review will be conducted in FY20. The LTM funding is tracked under the FTSHF-46 PBA.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTSHF-01	BLD 225, 434 FORMER PEST STG (WSC #20)	199805	Final Remediation Completion Report, Site Characterization and Remediation at the Pesticide Storage Building 225 and Plating Shop Building 1507, Fort Shafter, Hawaii, PRC Environmental, 1998
FTSHF-02	BLD 725 PESTICIDE STG (WSC #17)	199401	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-03	SHAFTER FLATS VEH MAINT BLD 1515/1519	199602	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-04	VEHICLE MAINT BLD 345 (WSC #19)	199211	Preliminary Assessment for Six Selected Sites, Fort Shafter, USACE, 1992
FTSHF-06	AUTOCRAFT SHOP (WSC #2)	199602	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-07	VEHICLE WASH AREA AT FSACS (WSC #3)	199602	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-09	VEH WASH AREA NR T1521 & T1522 (WSC #5)	199307	Site Inspection at the Underground Storage Tank Site, Fort Shafter Flats, PRC Environmental, 1993
FTSHF-10	VETERINARY CLINIC (WSC #6)	199602	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-11	PHOTO LAB (BLDG 1500) (WSC #7)	199602	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-12	ARTS AND CRAFTS CENTER (WSC #8)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-13	MAINTENANCE AREA IN 400 BLOCK-6(WSC #9)	199211	Preliminary Assessment for Six Selected Sites, Fort Shafter, USACE, 1992
FTSHF-14	VEHICLE WASH AREA NR BLDG 405 (WSC #10)	199401	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-15	USTS-USASCH MAINTN AREA, BLD422 (WSC#11)	199610	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-16	VEHICLE WASH AREA NR BLDG 420 (WSC #12)	199401	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-17	USASCH MAINTEN AREA AT BLDG 420(WSC #13)	199605	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-18	FLAM MATLS STG (BLDG 346, 347) (WSC #14)	199207	Preliminary Assessment for Six Selected Sites, Fort Shafter, USACE, 1992
FTSHF-19	DENTAL CLINIC (WSC #15)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-20	USTS AT BLDG 535 (SERVICE STAT)(WSC #16)	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-21	TRANSFORMER STG AREA (WSC #18)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			Shafter, Hawaii, 1990
FTSHF-22	FORMER HERBICIDE STG BLDG 310 (WSC #21)	199401	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-23	PAINT/PLATING BLDG 1507-WING A (WSC #22)	199805	Final Remediation Completion Report, Site Characterization and Remediation at the Pesticide Storage Building 225 and Plating Shop Building 1507, Fort Shafter, Hawaii, PRC Environmental, 1998
FTSHF-24	PHOTOGRAPHY LABS(435,1290,1292)(WSC #23)	199401	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-25	STORMWATER RUNOFF AREA (WSC #24)	199207	Preliminary Assessment for Six Selected Sites, Fort Shafter, USACE, 1992
FTSHF-26	LIFT STATION AT BLDG 1605 (WSC #25)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-27	DUMP SITE (WSC #26)	201401	
FTSHF-28	WATER TREATMENT LAB (WSC #27)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-29	WATER TREATMENT PLANT AT 511 (WSC #28)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-30	INDOOR FIRING RANGE (WSC #29)	199008	USATHAMA Property Report, Fort Shafter, Property Number 15835, Fort Shafter, Hawaii, 1990
FTSHF-33	USARC BLDG A, FT SHAFTER FLATS UST SITE	199308	Final Site Inspection Report, Site Inspection at the Underground Storage Tank Site, US Army Reserve Center, Fort Shafter Flats, Volumes I to IV
FTSHF-34	USTS BLDG 310	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-35	USTS BLDG 320	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-36	USTS BLDG 430	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-37	UST BLDG 508	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-38	USTS BLDG 507	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-39	UST BLDG 520	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-41	UST BLDG 1500	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-42	UST BLDG 1528	200003	Final Remedial Investigation Report, Fort Shafter, Building 1528, Removal of USTs

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			and Remediation of Contaminated Soils, May 2003
FTSHF-43	UST BLDG 1535	199410	Site Investigation, Various Sites, Fort Shafter, Hawaii, USACE Design Division, 1994
FTSHF-45	LUST SOIL REMEDIATION - BLDG 1605	199612	Preliminary Assessment/Site Inspection, Fort Shafter Flats, Fort Shafter, Hawaii, Harding Lawson Associates, 1996
FTSHF-47	FORMER FUELING STATION, BLDG 1593	200911	A DD signed in FY10 recommended no further action at this site.
FTSHF-49	FORMER WAREHOUSE 45	200911	A DD signed in FY10 recommended no further action at this site.

IRP Schedule

Date of IRP Inception: 198306

Past Phase Completion Milestones

1984

PA (FTSHF-03 - SHAFTER FLATS VEH MAINT BLD 1515/1519)

1990

PA (FTSHF-06 - AUTOCRAFT SHOP (WSC #2), FTSHF-10 - VETERINARY CLINIC (WSC #6), FTSHF-11 - PHOTO LAB (BLDG 1500) (WSC #7), FTSHF-12 - ARTS AND CRAFTS CENTER (WSC #8), FTSHF-15 - USTS-USASCH MAINTN AREA, BLD422 (WSC#11), FTSHF-19 - DENTAL CLINIC (WSC #15), FTSHF-20 - USTS AT BLDG 535 (SERVICE STAT)(WSC #16), FTSHF-21 - TRANSFORMER STG AREA (WSC #18), FTSHF-26 - LIFT STATION AT BLDG 1605 (WSC #25), FTSHF-27 - DUMP SITE (WSC #26), FTSHF-28 - WATER TREATMENT LAB (WSC #27), FTSHF-29 - WATER TREATMENT PLANT AT 511 (WSC #28), FTSHF-30 - INDOOR FIRING RANGE (WSC #29))

1991

IRA (FTSHF-33 - USARC BLDG A,FT SHAFTER FLATS UST SITE)

PA (FTSHF-33 - USARC BLDG A,FT SHAFTER FLATS UST SITE)

1992

ISC (FTSHF-34 - USTS BLDG 310, FTSHF-35 - USTS BLDG 320, FTSHF-36 - USTS BLDG 430, FTSHF-37 - UST BLDG 508, FTSHF-38 - USTS BLDG 507, FTSHF-39 - UST BLDG 520, FTSHF-41 - UST BLDG 1500, FTSHF-43 - UST BLDG 1535, FTSHF-45 - LUST SOIL REMEDIATION - BLDG 1605)
IRA (FTSHF-15 - USTS-USASCH MAINTN AREA, BLD422 (WSC#11))
PA (FTSHF-01 - BLD 225, 434 FORMER PEST STG (WSC #20), FTSHF-02 - BLD 725 PESTICIDE STG (WSC #17), FTSHF-18 - FLAM MATLS STG (BLDG 346, 347) (WSC #14), FTSHF-22 - FORMER HERBICIDE STG BLDG 310 (WSC #21), FTSHF-23 - PAINT/PLATING BLDG 1507-WING A (WSC #22), FTSHF-24 - PHOTOGRAPHY LABS(435,1290,1292)(WSC #23), FTSHF-25 - STORMWATER RUNOFF AREA (WSC #24), FTSHF-42 - UST BLDG 1528)

1993

PA (FTSHF-04 - VEHICLE MAINT BLD 345 (WSC #19), FTSHF-07 - VEHICLE WASH AREA AT FSACS (WSC #3), FTSHF-09 - VEH WASH AREA NR T1521 & T1522 (WSC #5), FTSHF-13 - MAINTENANCE AREA IN 400 BLOCK-6(WSC #9), FTSHF-14 - VEHICLE WASH AREA NR BLDG 405 (WSC #10), FTSHF-16 - VEHICLE WASH AREA NR BLDG 420 (WSC #12))

SI (FTSHF-09 - VEH WASH AREA NR T1521 & T1522 (WSC #5), FTSHF-33 - USARC BLDG A,FT SHAFTER FLATS UST SITE)

1994

SI (FTSHF-01 - BLD 225, 434 FORMER PEST STG (WSC #20), FTSHF-02 - BLD 725 PESTICIDE STG (WSC #17), FTSHF-14 - VEHICLE WASH AREA NR BLDG 405 (WSC #10), FTSHF-16 - VEHICLE WASH AREA NR BLDG 420 (WSC #12), FTSHF-22 - FORMER HERBICIDE STG BLDG 310 (WSC #21), FTSHF-23 - PAINT/PLATING BLDG 1507-WING A (WSC #22), FTSHF-24 - PHOTOGRAPHY LABS(435,1290,1292)(WSC #23))

IMP(C) (FTSHF-37 - UST BLDG 508)

1995

IMP(C) (FTSHF-34 - USTS BLDG 310, FTSHF-35 - USTS BLDG 320, FTSHF-36 - USTS BLDG 430, FTSHF-38 - USTS BLDG 507, FTSHF-39 - UST BLDG 520, FTSHF-41 - UST BLDG 1500, FTSHF-43 - UST BLDG 1535)

IRA (FTSHF-42 - UST BLDG 1528)

RA(C) (FTSHF-20 - USTS AT BLDG 535 (SERVICE STAT)(WSC #16))

1996

PA (FTSHF-17 - USASCH MAINTEN AREA AT BLDG 420(WSC #13), FTSHF-46 - FORMER FUEL STATION NEAR USARC, BLD 1537, FTSHF-47 - FORMER FUELING STATION, BLDG 1593, FTSHF-48 - FORMER LAUNDRY FACILITY, FLATS, FTSHF-49 - FORMER WAREHOUSE 45, FTSHF-50 - FORMER REPAIR SHOP, BLDG 1553, FTSHF-51 - WASHRACK T-1539, FTSHF-52 - FORMER WAREHOUSE (T1542))
SI (FTSHF-03 - SHAFTER FLATS VEH MAINT BLD 1515/1519, FTSHF-06 - AUTOCRAFT SHOP (WSC #2), FTSHF-07 - VEHICLE WASH AREA AT FSACS (WSC #3), FTSHF-10 - VETERINARY CLINIC (WSC #6), FTSHF-11 - PHOTO LAB (BLDG 1500) (WSC #7), FTSHF-46 - FORMER FUEL STATION NEAR USARC, BLD 1537, FTSHF-47 - FORMER FUELING STATION, BLDG 1593, FTSHF-48 - FORMER LAUNDRY FACILITY,

IMP(C)	FLATS, FTSHF-49 - FORMER WAREHOUSE 45, FTSHF-50 - FORMER REPAIR SHOP, BLDG 1553, FTSHF-51 - WASHRACK T-1539, FTSHF-52 - FORMER WAREHOUSE (T1542) (FTSHF-45 - LUST SOIL REMEDIATION - BLDG 1605)
1997	
RA(C)	(FTSHF-15 - USTS-USASCH MAINTN AREA, BLD422 (WSC#11))
SI	(FTSHF-27 - DUMP SITE (WSC #26))
1998	
RA(C)	(FTSHF-01 - BLD 225, 434 FORMER PEST STG (WSC #20), FTSHF-23 - PAINT/PLATING BLDG 1507-WING A (WSC #22))
2000	
RA(C)	(FTSHF-42 - UST BLDG 1528)
2006	
RI/FS	(FTSHF-46 - FORMER FUEL STATION NEAR USARC, BLD 1537, FTSHF-47 - FORMER FUELING STATION, BLDG 1593, FTSHF-48 - FORMER LAUNDRY FACILITY, FLATS, FTSHF-49 - FORMER WAREHOUSE 45, FTSHF-50 - FORMER REPAIR SHOP, BLDG 1553, FTSHF-51 - WASHRACK T-1539, FTSHF-52 - FORMER WAREHOUSE (T1542))
2010	
LTM	(FTSHF-47 - FORMER FUELING STATION, BLDG 1593, FTSHF-49 - FORMER WAREHOUSE 45)
RA(C)	(FTSHF-46 - FORMER FUEL STATION NEAR USARC, BLD 1537, FTSHF-48 - FORMER LAUNDRY FACILITY, FLATS, FTSHF-50 - FORMER REPAIR SHOP, BLDG 1553, FTSHF-51 - WASHRACK T-1539, FTSHF-52 - FORMER WAREHOUSE (T1542))
2014	
LTM	(FTSHF-27 - DUMP SITE (WSC #26))

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: 200910

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of IRP at Installation (including LTM phase): 204609

FORT SHAFTER IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-46	FORMER FUEL STATION NEAR USARC, BLD 1537	LTM						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-48	FORMER LAUNDRY FACILITY, FLATS	LTM						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-50	FORMER REPAIR SHOP, BLDG 1553	LTM						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-51	WASHRACK T-1539	LTM						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-52	FORMER WAREHOUSE (T1542)	LTM						

FORT SHAFTER
Army Defense Environmental Restoration Program
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 5/4

Installation Site Types with Future and/or Underway Phases

1 Small Arms Range
(FTSHF-004-R-01)

Most Widespread Contaminants of Concern

Metals, 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
FTSHF-001-R-01	PISTOL RANGE	FRA	WASTE REMOVAL - SOILS	2010
FTSHF-005-R-01	Skeet Range	FRA	REMOVAL	2013
FTSHF-004-R-01	Rifle Range 1 (TD)	FRA	REMOVAL	2016

Duration of MMRP

Date of MMRP Inception 200204

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201510/201510

Date of MMRP completion including Long Term Management (LTM): 204609

MMRP Contamination Assessment

Contamination Assessment Overview

The Department of Defense (DoD) has established the Military Munitions Response Program (MMRP) under the Defense Environmental Restoration Program to address DoD sites with munitions and explosives of concern (MEC) including unexploded ordnance (UXO), discarded military munitions (DMM), and MC. The US Army's inventory of closed, transferred or transferring (CTT) military ranges and sites, identified three sites at Fort Shafter eligible for action under MMRP. The MMRP eligible sites include other than operational ranges where UXO, DMM, and MC is known or suspected. Properties classified as operational ranges are not eligible and, therefore, 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 of 1980 (CERCLA), 42 US Code 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499, (hereinafter referred to as CERCLA). 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 active and inactive range considerations. Phase 3 involved the CTT range inventory conducted in 2002. The inventories included extensive mapping, data collection for upload to the Army Range Inventory Database, assessment of explosives safety risk using the risk assessment code methodology for CTT ranges or sites with UXO or DMM identified in the inventory, and determination of which sites on the inventory potentially qualify for the MMRP.

There are five MMRP sites at Fort Shafter. A PA (final CTT inventory report) was completed for Fort Shafter and three small arms ranges were identified. They were FTSHF-001-R-01, FTSHF-002-R-01, and FTSHF-003-R-01. Two additional Munitions Response (MR) sites were identified through the research conducted for the final historical records review. One of the sites, FTSHF-004-R-01, is a transferred (TD) range. The other, FTSHF-005-R-01, is a skeet range. An SI was completed in FY09 for all sites which recommended NFA for FTSHF-002-R-01 and additional investigative actions for MC at the remaining four sites (FTSHF-001-R-01, FTSHF-003-R-01, FTSHF-004-R-01, and FTSHF-005-R-01). A time-critical removal action (TCRA) was performed at FTSHF-001-R-01 in the first quarter of FY10 to remove lead-contaminated soil above the HDOH environmental action level (EAL). After the TCRA was completed, an NFA letter was issued by HDOH for this site. An RI for the three remaining sites was completed in FY12 and recommended NFA for FTSHF-003-R-01. An NFA DD was signed by HDOH. Two sites, FTSHF-004-R-01 and FTSHF-005-R-01, require RA for MC.

Cleanup Exit Strategy

An RA including excavation, on-site stabilization and off-site disposal of soil, and LUCs is the recommended alternative in the FS. RA fieldwork commenced in July 2014, and the RA is expected to be complete by April 2016. It is expected that LTM consisting of operations and maintenance (O&M) and five-year reviews will be required after the RA.

MMRP Previous Studies

Year	Title	Author	Date
2002	Final CTT Inventory Report	TechLaw	OCT-2002
2007	Final Historical Records Review	TLI Solutions, Inc.	JAN-2007
	Final Site Inspection Work Plan	TLI Solutions, Inc.	MAR-2007
2009	Final SI Report	TLI Solutions, Inc.	FEB-2009
	Final Project Work Plan, Time Critical Response for Former Pistol Range Removal Action, Fort Shafter, Oahu, Hawaii	Project Resources, Inc.	AUG-2009
	Final Closure Report, Time Critical Response, Former Pistol Range Removal Action, Fort Shafter, Oahu, Hawaii	Project Resources, Inc.	DEC-2009
2010	Final Work Plan Fort Shafter Hawaii Phase 2 MMRP	Weston Solutions	FEB-2010
2011	Final RI Report, Fort Shafter Hawaii Phase 2 MMRP, Rifle Range 2, Rifle Range 1 (TD), Skeet Range	Weston Solutions	AUG-2011
2012	Final FS Data Collection Work Plan, Rifle Range 1 (TD) and Skeet Range, Fort Shafter, Oahu, Hawaii	CH2M Hill	FEB-2012
	Final Decision Document, Rifle Range 2, Fort Shafter, Oahu, Hawaii	CH2M Hill	AUG-2012
	Final FS Data Collection Report, Rifle Range 1 (TD) and Skeet Range, Fort Shafter, Oahu, Hawaii	CH2M Hill	SEP-2012
2013	Final Feasibility Study Report, Rifle Range 1 (TD) (FTSHF-004-R-01) and Skeet Range (FTSHF-005-R-01)	CH2M Hill	MAR-2013
	Final Remedial Action Work Plan, Skeet Range (FTSHF-005-R-01), Ft Shafter, Oahu, HI	CH2M Hill	SEP-2013
2014	Final Remedial Action Work Plan, Rifle Range 1 (TD), MRS, Ft Shafter, Oahu, HI	CH2M Hill	JUL-2014
	Final Remedial Action Completion Report, Skeet Range MRS, Ft Shafter, Oahu, HI	CH2M Hill	AUG-2014

FORT SHAFTER

Military Munitions Response Program

Site Descriptions

Site ID: FTSHF-004-R-01
Site Name: Rifle Range 1 (TD)

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 05

Contaminants of Concern: Metals, Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200204.....	200305
SI.....	200604.....	200903
RI/FS.....	200906.....	201309
RD.....	201103.....	201404
RA(C).....	201103.....	201510
LTM.....	201601.....	204609

RIP Date: N/A

RC Date: 201510

SITE DESCRIPTION

This site occupies approximately 1.27 acres of land located beyond the installation boundary on the eastern portion of the installation south of the south branch of Kahauiki Stream at the end of Hase Drive. It is the transferred portion of Rifle Range 1 and includes the 200-yard targets from that range. Rifle Range 1 was in operation from 1937 through the early-1960s and was identified as a known distance range for the use of rifles, carbines, Browning automatic rifles, and .30 caliber machine guns. There is also documentation limiting the weapons used at the range to shotguns and .22 caliber, .30 caliber, .38 caliber, and .45 caliber guns. Targets and other equipment were readily available for the range and included targets, frames, pasters, spotters, marking discs, and paste.

An SI was conducted in 2009 which identified four munitions debris (MD) items (three small arm projectiles and expended slap flare). The SI concluded that further investigation for MEC and MC was warranted.

The 2011 RI included 9.9 line miles of instrument aided visual survey for MEC, investigative intrusive activities, and incremental sampling (IS) of seven decision units (DU) for lead and antimony. During vegetation clearance, the UXO Safety identified one MEC item (partial M-9 rifle grenade) and one MD item (small arms projectile) on-site. Explosive ordnance disposal conducted a blow-in-place action, and explosives confirmation sampling was conducted. No other MEC or MD items were encountered during the RI. Five of the seven DUs reported lead and antimony at concentrations that exceed the Tier 1 EAL [200 milligrams (mg)/kilogram (kg) and 6.3 mg/kg]. The current land use of the site is commercial/industrial.

An additional data collection was performed in September 2012 to improve remedial alternatives development. Two DUs from the RI were subdivided into three subunits, and a new DU was created. IS samples were collected and analyzed for total lead.

Resulting concentrations of total lead were above the recreational land use EAL (2,240 mg/kg) in shallow surface soil. Also, an s-ray fluorescence (XRF) correlation study was performed and concluded that the XRF device is useful to support real-time decisions during potential soil removal actions. Treatability testing was also performed to evaluate stabilization of soil that could be classified as hazardous waste. Results demonstrated that stabilization does not significantly reduce bioavailability; however, phosphate agent does reduce toxicity characteristics and classifies the soil as nonhazardous waste.

An FS was completed in March 2013 and recommended excavation, on-site stabilization, and off-site disposal of soil with LUCs as the most favorable remedial alternative. A proposed plan (PP) and DD were completed as well and formally documented the RA decision.

The RA fieldwork began in July 2014 and was completed in FY16. LTM is underway and five-year reviews will be required in the future.

Site ID: FTSHF-004-R-01
Site Name: Rifle Range 1 (TD)

CLEANUP/EXIT STRATEGY

It is expected that LTM consisting of O&M and five-year reviews will be required after the RA.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTSHF-001-R-01	PISTOL RANGE	200912	A December 2009 letter from HDOH agreed to NFA at this site.
FTSHF-002-R-01	RIFLE RANGE 1	200903	The Final SI Report (2009) recommended no further action at this site for MEC or MC. HDOH concurred with the report's recommendation in an NFA letter dated 18 Feb. 2009.
FTSHF-003-R-01	RIFLE RANGE 2	201209	The Final Decision Document signed in August 2012 recommended No Further Action.
FTSHF-005-R-01	Skeet Range	201309	A December 2014 letter from HDOH agreed to NFA at this site.

MMRP Schedule

Date of MMRP Inception 200204

Past Phase Completion Milestones

2003

PA (FTSHF-001-R-01 - PISTOL RANGE, FTSHF-002-R-01 - RIFLE RANGE 1, FTSHF-003-R-01 - RIFLE RANGE 2, FTSHF-004-R-01 - Rifle Range 1 (TD), FTSHF-005-R-01 - Skeet Range)

2009

SI (FTSHF-001-R-01 - PISTOL RANGE, FTSHF-002-R-01 - RIFLE RANGE 1, FTSHF-003-R-01 - RIFLE RANGE 2, FTSHF-004-R-01 - Rifle Range 1 (TD), FTSHF-005-R-01 - Skeet Range)

RI/FS (FTSHF-001-R-01 - PISTOL RANGE)

2010

RA(C) (FTSHF-001-R-01 - PISTOL RANGE)

2012

RI/FS (FTSHF-003-R-01 - RIFLE RANGE 2, FTSHF-005-R-01 - Skeet Range)

2013

RI/FS (FTSHF-004-R-01 - Rifle Range 1 (TD))

RD (FTSHF-005-R-01 - Skeet Range)

RA(C) (FTSHF-005-R-01 - Skeet Range)

2014

RD (FTSHF-004-R-01 - Rifle Range 1 (TD))

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: 201510

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of MMRP at Installation (including LTM phase): 204609

FORT SHAFTER MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
FTSHF-004-R-01	Rifle Range 1 (TD)	LTM						

FORT SHAFTER
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 3/2

Installation Site Types with Future and/or Underway Phases

1 Spill Site Area
(CCFS0007)

Most Widespread Contaminants of Concern

Metals

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 CR

Date of CR Inception: 199209

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 202003/202003

Date of CR completion including Long Term Management (LTM): 204609

CR Contamination Assessment

Contamination Assessment Overview

Lead-contaminated soil was encountered at CCFS0007 during the course of an RA at an MMRP site in the same area. The contamination was clearly not related to skeet range activities and therefore a Compliance-related Cleanup (CC) site was opened to address the lead-contaminated soil.

Cleanup Exit Strategy

An investigation to determine nature and extent will be funded/executed. Further response actions are to be determined.

CR Previous Studies

Title

Author

Date

There are no Previous Studies

FORT SHAFTER
Compliance Restoration
Site Descriptions

Site Name: Lead-Impacted Site-frm Skeet Range

STATUS

Regulatory Driver: CERCLA

Phases	Start	End
PA.....	201206.....	201408
SI.....	201206.....	201408
RI/FS.....	201408.....	201712
RA(C).....	201804.....	202003
LTM.....	202003.....	204609

RIP Date: N/A

RC Date: 202003

SITE DESCRIPTION

This site was initially addressed under MMRP at the Fort Shafter Skeet Range (FTSHF-005-R-01) Munitions Response Site (MRS). The Skeet Range MRS occupied approximately 16 acres in the western portion of Fort Shafter Flats. During the RI for the Skeet Range MRS, lead was detected in the soil. The selected RA at the Skeet Range MRS was excavation and offsite disposal of lead-contaminated soil above the unrestricted land use remediation goal of 400 mg/kg within a 0.3 acre excavation area.

During RA fieldwork, lead-contaminated soil was discovered in subsurface soil at depths beyond what could have been caused by Skeet Range activities. Lead concentrations in the soil at 3.5 to 4 feet below ground surface was found as high as 5,260 mg/kg. Based on soil removal activities conducted between November 2013 and January 2014, response action at the Skeet Range MRS is complete and NFA was achieved for the MRS. Residual contamination associated with dark brown, fine-grained soil (fill) was detected in the soil at depths of approximately 4 feet below ground surface. This site was then opened under the CC program to fund an RI/FS to determine the nature and extent of the lead-contamination in the subsurface soil.

CLEANUP/EXIT STRATEGY

A RI/FS will be conducted in accordance with CERCLA to determine nature and extent of Lead contamination at this site. This RI/FS will be funded and conducted in FY16.

The PP/DD will be conducted in FY18 with RA expected in FY19/20 followed by LTM.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCFS0003	BLDG 1507 Consolidated Motor Pool	201003	
CCFS0006	Command and Control Facility	201003	

CR Schedule

Date of CR Inception: 199209

Past Phase Completion Milestones

2003

RFA (CCFS0003 - BLDG 1507 Consolidated Motor Pool)

2007

PA (CCFS0006 - Command and Control Facility)

2010

RI/FS (CCFS0006 - Command and Control Facility)

RFI/CMS (CCFS0003 - BLDG 1507 Consolidated Motor Pool)

2014

SI (CCFS0007 - Lead-Impacted Site-frm Skeet Range)

PA (CCFS0007 - Lead-Impacted Site-frm Skeet Range)

Projected Phase Completion Milestones

See attached schedule

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

To Be Determined

Final RA(C) Completion Date: 202003

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of CR at Installation (including LTM phase): 204609

FORT SHAFTER CR Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
CCFS0007	Lead-Impacted Site-frm Skeet Range	RI/FS						
		RA(C)						
		LTM						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201402

Restoration Advisory Board (RAB): No

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

Community Interest Solicited on: 201507

Efforts Taken to Determine Interest

The installation solicited interest in establishing a RAB in July 2015. A public notice was published in the Honolulu Advertiser from July 20 - August 19, 2015.

Results

No interest was received from the community. A RAB was not established in FY15.

Follow-up Procedures

Future solicitation to monitor community interest in establishing a RAB for Fort Shafter will occur every two years. The next solicitation will occur in FY17.

Additional Community Involvement Information

A community involvement plan was finalized in 2014.

Administrative Record is located at

Directorate of Public Works
948 Santos Dumont Ave, Bldg. 105
Wheeler AAF, Schofield Barracks, HI 96857-5013
(808)656-2419

Information Repository is located at

Salt Lake/Moanalua Public Library
3225 Salt Lake Blvd.
Honolulu, HI 96818

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

TAPP Title: N/A

Potential TAPP: N/A

