

**FY2011**  
as of Sep 2010

# FORT RILEY

Army Defense Environmental Restoration Program

Installation Action Plan



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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, the Installation Management Command (IMCOM)-West, the US Army Environmental Command (USAEC), Fort Riley (FTRI), 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.

The following persons contributed to the formulation and completion of this Installation Action Plan for FORT RILEY:

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FORT RILEY  
Installation Action Plan Approval Signatures

	
KEVIN P. BROWN COL, IN Garrison Commander Fort Riley	Date

A/I	Active/Inactive
AAFES	Army, Air Force Exchange Services
AEDB-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AGL	Abandoned Gasoline Line
AOC	Area of Concern
AST	Aboveground Storage Tank
BRAC	Base Realignment and Closure
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
COC	Contaminant of Concern
CR	Compliance Restoration
DCE	Dichloroethylene
DCFA	Dry Cleaning Facilities Area
DD	Decision Document
DDESB	Department of Defense Explosives Safety Board
DS/GS	Direct Support / General Support
EOD	Explosive Ordnance Disposal
EPR	Environmental Program Requirements
ER,A	Environmental Restoration, Army
ESD	Explanation of Significant Differences
ESS	Explosive Safety Submissions
FFA	Federal Facility Agreement
FORSCOM	US Army Forces Command
FRA	Future Remedial Action
FS	Feasibility Study
FTRI	Fort Riley
FY	Fiscal Year
HRS	Hazard Ranking System
IAP	Installation Action Plan
ID	Identification
IMCOM	Installation Management Command
IRA	Interim Remedial Action
IRP	Installation Restoration Program
K	Thousand
KDHE	Kansas Department of Health and Environment
KDWP	Kansas Department of Wildlife and Parks
LF	Landfill
LTM	Long-Term Management
LUC	Land Use Control
MAAF	Marshall Army Airfield
MC	Munitions Constituent
MCL	Maximum Contaminant Level
MEC	Munitions and Explosives of Concern
mm	millimeter

## Acronyms

MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MOGAS	Motor Gasoline
MRA	Munitions Response Area
MRS	Munitions Response Site
N/A	Not Applicable
NCDO	North Central District Office
NFA	No Further Action
NPL	National Priorities List
OB	Open Burning
OD	Open Detonation
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene (Perchloroethylene)
POL	Petroleum, Oil and Lubricants
PP	Proposed Plan
PSF	Pesticide Storage Facility
RA	Remedial Action
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RAP	Remedial Action Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
SEFL	Southeast Funston Landfill
SFL	Southwest Funston Landfill
SHSAR	Sherman Heights Small Arms Range
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
TRC	Technical Review Committee
ug/L	micrograms per liter
UPRR	Union Pacific Railroad
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
WWI	World War I
WWII	World War II



## Installation Information

### Installation Locale

Installation Size (Acreage): 100775

City: Junction City

County: Clay, Geary, and Riley

State: Kansas

### Other Locale Information

Fort Riley is located west of Manhattan (population 38,000) on 100,775 acres of land in portions of Clay, Geary, and Riley Counties in northeast Kansas. Interstate 70, Junction City (population 20,000), and Ogden (population 1,600) bound the installation to the south. Milford Lake (16,020 acres) bounds part of the western side of the installation.

### Installation Mission

The mission of FTRI, as an installation of excellence, is to:

- work in close partnership with local, regional, and state communities,
- provide trained and ready forces to meet joint force requirements across the full spectrum of current and future operations,
- transform and manage unit readiness as directed by the Army campaign plan,
- execute unit re-stationing as directed by US Army Forces Command (FORSCOM),
- execute garrison operations as directed by the IMCOM, and
- conduct homeland defense operations and support civil authorities.

### Lead Organization

IMCOM - West

### Lead Executing Agencies for Installation

US Army Corps of Engineers (USACE), Kansas City District

US Geological Survey

### Regulator Participation

Federal

US Environmental Protection Agency (USEPA), Region VII

State

KDHE Bureau of Environmental Field Services - North Central District Office (NCDO)

Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation

### National Priorities List (NPL) Status

A score of 33.8 was recorded on 01-AUG-90.

Date for RA(C) Completion: 201209

Date for NPL Deletion: TBD

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

RAB established 199709

## Installation Information

### Installation Program Summaries

#### IRP

Primary Contaminants of Concern: Metals, Perchlorate, Pesticides, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201409/201409

Prior Funding: \$74,580.4 K

Current Requirements: \$1,080.0 K

Future Requirements: \$3,929.0 K

#### MMRP

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

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201209/201209

Prior Funding: \$1,570.8 K

Current Requirements: \$168.0 K

Future Requirements: \$1,408.0 K

#### CR

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

Affected Media of Concern: Groundwater, Soil

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201209/201209

Prior Funding: \$.0 K

Current Requirements: \$148.0 K

Future Requirements: \$196.0 K

## 5-Year / Periodic Review Summary

### 5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	200701	200707	2007
Complete	200201	200207	2002
Planned	201110	201207	2012

### Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
Former Fire Training Area - MAAF	FTRI-019
RECORD OF DECISION - SW FUNSTON LANDFILL	FTRI-003
RECORD OF DECISION-PESTICIDE STORAGE FAC	FTRI-030
The 354 Area Solvent Detections	FTRI-031

**Results** All remedies in place are protective of human health and the environment.

**Actions** Continued monitoring and maintenance as required by the four Record of Decision documents.

**Plans** Next 5-Year Review is scheduled for FY2012.

### Recommendations and Implementation Plans:

The differential settlement in the landfill cover was identified as an issue at the Southwest Funston Landfill (SFL). The landfill cover west of the access road was repaired and reseeded in 2006, while the cover east of the access road was repaired and reseeded in 2007.

Additional landfill cover repair was conducted east of the access road in 2009. Also in 2009, as a condition for approval of the remedial action completion report (RACR), improvements were made to the riverbank stabilization structure to cover exposed asbestos-containing material.

## Land Use Control (LUC) Summary

LUC Title: Dry Cleaning Facilities

Site(s): FTRI-027

ROD/DD Title: Dry Cleaning Facilities Study Area

Location of LUC

The former Dry Cleaning Facilities Area (DCFA) is located in the southwest corner of the Main Post cantonment about 800 feet north of the Kansas River. The DCFA operated until 2002. The primary dry cleaning solvent was tetrachloroethylene (PCE).

Land Use Restriction: Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200802

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC Title: Forsyth Ldfl 2 / Repub. R

Site(s): FTRI-038

ROD/DD Title: Forsyth Landfill Area 2 Decision Memo

Location of LUC

Along Republican River, southwest of Camp Forsyth cantonment area. It is only applicable to site FTRI-003-R-01 which is a Military Munitions Response Program (MMRP) site number. Site FTRI-038 CLOSED OUT BY REGULATORS IN 2007

Land Use Restriction: Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system

Types of Engineering Controls: Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan

Date in Place: 200209

Modification Date: N/A

Date Terminated: 200708

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: 5 Year Reviews

Contaminants: Unexploded Ordnance(UXO)

Additional Information

N/A

## Land Use Control (LUC) Summary

LUC Title: Pest Stor Fac Land Mgmt

Site(s): FTRI-030

ROD/DD Title: RECORD OF DECISION-PESTICIDE STORAGE FAC

### Location of LUC

The Pesticide Storage Facility (PSF), Operable Unit 002, is situated on a terrace on the north side of the Kansas River Valley, approximately 2,000 feet north and west of the Kansas River (Figure 1). The PSF site covers about 2/3 of an acre around former building 348 and is located in the Main Post Area in the southeastern portion of the Public Works Storage Yard. The area is fenced and has restricted access. The area of investigation extended south of Dickman Avenue to the southeast across the railroad tracks. The entire site is within a zone designated as Industrial use in the Fort Riley Real Property Master Plan.

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

Types of Engineering Controls: Fences

Types of Institutional Controls: Dig Permits, Notations in Master Plan

Date in Place: 199710

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200708

LUC Enforcement: 5 Year Reviews

Contaminants: PESTICIDES

### Additional Information

N/A

LUC Title: SE Funston Landfill

Site(s): FTRI-036

ROD/DD Title: Decision Memorandum, SE Funston Landfill

### Location of LUC

SE corner of Camp Funston cantonment area, north of Kansas River, adjacent to 12th Street entrance. Site is bounded by river, levee, and highway embankment. SITE CLOSED OUT BY REGULATORS IN 2007

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 - Prohibit installation of utility system lines through the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Landfill restriction - Restrict plantings that interfere LF cap or cover system (roots that penetrate the cap or cover system)

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan

Date in Place: 200209

Modification Date: N/A

Date Terminated: 200711

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: 5 Year Reviews

## Land Use Control (LUC) Summary

Contaminants: METALS

Additional Information

N/A

LUC Title: SW Funston LdfI Controls

Site(s): FTRI-003

ROD/DD Title: RECORD OF DECISION - SW FUNSTON LANDFILL

Location of LUC

Southwest Funston Landfill (Operable Unit 001) covers approximately 120 acres and is located in the southern portion of Fort Riley adjacent to the southwest corner of the Camp Funston cantonment area (Figure 1-1). It is bordered on the south by the Kansas River, on the north by Well House Road, on the west by a former meander bend in the Kansas River and on the east by Threemile Creek. The landfill lies entirely within the 100-year floodplain of the Kansas River.

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 - Prohibit installation of utility system lines through the site, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Landfill restriction - Restrict plantings that interfere LF cap or cover system (roots that penetrate the cap or cover system), Landfill restriction - Restrict vehicular traffic, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 199710

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200708

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

# Cleanup Program Summary

## Installation Historic Activity

Fort Riley's history is closely linked to the history of American westward expansion and development. As early as the 1840s, travelers along the Oregon and Santa Fe Trails began a massive migration across the high plains of Kansas, which created the need for a series of military installations to protect them as they traveled west.

In 1852 Major E.A. Ogden established a temporary camp called Camp Center, north of the Kansas River, near the junction of the Smoky Hill and Republican Rivers. In 1853, the US Congress authorized establishment of a permanent installation there and renamed the encampment Fort Riley, in honor of Major General Bennett C. Riley who led the first military escort along the Santa Fe Trail in 1829.

Fort Riley evolved from a frontier outpost to a military training installation in the first 60 years following its inception in 1853. In the beginning, industry was limited to a few shops (e.g., blacksmiths) and storehouses. Early sewers dumped directly into the rivers. Military operations were limited to small arms, horse-mounted cavalry, and horse-drawn artillery. Practice ranges were located near the barracks areas in the lowlands, and river bluffs were used as natural backstops for the ranges.

During World War I (WWI), there was a build-up of forces at FTRI. Camp Funston was established during WWI and, in approximately three months, 1,401 temporary buildings were erected there to house troops. Camp Whitside was also built-up for WWI. Military training activities became more complex and the infrastructure more elaborate. Motor pools and auto repair shops replaced stables and blacksmith shops. Marshall Army Air Field became operational in 1921. The installation areas were electrified, and wastewater treatment plants were constructed.

Prior to World War II (WWII) and through the 1940s, FTRI expanded its transportation and industrial activities. Many motor pools were established in Camp Funston, Camp Whitside, Camp Forsyth, and the Main Post. Underground storage tanks (UST) were installed, and a gasoline pipeline was run from the rail spur on the north side of the Kansas River to Marshall Army Air Field. The installation infrastructure included laundry and dry cleaning facilities, numerous vehicle repair shops, boiler plants, and an asphalt plant.

Through the early years of WWII, the installation included the last vestiges of horse-mounted troops, including an animal dip facility on the rail spur for animals brought onto the installation. In 1949, the horse-mounted Cavalry was dissolved.

The heavy weapons training was focused on the main impact area, which was acquired in 1942, but small arms ranges were still prevalent along the river bluffs, especially in the Camp Forsyth, Camp Whitside, and Camp Funston areas. During the period between WWII and Vietnam, many of the temporary facilities built for WWII, especially those in Camp Forsyth, Camp Funston, and Camp Whitside, became obsolete and surplus, so they were demolished.

In 1955 the First Infantry Division was assigned to FTRI. Troop barracks and tactical equipment shops were built on Custer Hill and integrated with troop support facilities for health and recreational services. Family housing also expanded. Small arms training shifted to the ranges around the impact area.

During the Vietnam Era, environmental concerns came to the forefront. The wastewater treatment plants and controlled landfills were put into use. The older industrial activities were frequently upgraded or centralized. Transportation and industrial facilities that had been abandoned were demolished. A systematic review and upgrade of facilities focusing on several environmental concerns proceeded, including USTs, polychlorinated biphenyl (PCB)-containing transformers, and asbestos-containing materials used in buildings. With the passage of stricter federal and state laws governing air and water pollution, protection of natural resources, waste management, and environmental regulation progressively focused on the management of industrial and military activities.

Army personnel are trained at FTRI. The installation's history does not include large-scale manufacturing activities. Rather, development of FTRI included ancillary activities to support overall installation operations, including print shops, photographic processing facilities, laboratories, furniture repair, dry cleaning, paint shops, sewage treatment plants, and numerous vehicle maintenance and wash facilities.

Hazardous materials used include:

- Ordnance (of which there is no evidence of release of toxic chemical agents and no evidence of release of radioactive substances);
- Chlorinated solvents associated with furniture repair, dry cleaning, and cleaning of printing equipment;
- Pesticides for clearing of brush, pest and termite control, and routine maintenance of facility grounds;

# Cleanup Program Summary

## Installation Historic Activity

- A variety of small quantities of chemicals associated with laboratories;
- Silver-bearing solutions from the photographic processing and x-ray facilities;
- PCB fluids in electrical equipment; and
- Large quantities of petroleum-based fuels and cleaners associated with vehicle use, maintenance, and repair.

In addition to the waste outlined above, throughout its operational life the installation has generated typical, nonhazardous municipal waste and construction debris.

Past activities at FTRI have environmentally impacted several areas of the installation, primarily as the result of spills and leaks, and from previously approved waste disposal and handling practices. Cleanup of FTRI began in 1990-1991 in response to the Army's Installation Restoration Program (IRP) and the federal facility agreement (FFA).

Major tenants at FTRI include the Kansas Army National Guard, the Army Reserve, and the Irwin Army Community Hospital. In 1990, the installation was placed on the NPL with a hazard ranking system (HRS) score of 33.8. An FFA was signed by the USEPA, Region VII, the KDHE, and the Army and became effective on Feb. 28, 1991. The FFA requires that the installation address all significant environmental releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

## Installation Program Cleanup Progress

### IRP

- Prior Year Progress:
- MNA for operable unit (OU) FTRI-003, FTRI-027 & OB/OD FTRI-009 was conducted under long-term management (LTM)
  - An ESD was conducted for FTRI-030
  - A groundwater & soil sampling event was conducted & site re-treated for Abandoned Gas Line (AGL) FTRI-056.
  - A groundwater re-treatment was conducted at FTRI-027
  - A RACR was signed for FTRI-003
  - A five-year groundwater sampling event was conducted for FTRI-001
  - Dual-phase extraction was conducted for POL USTs 1044, 1245, & 1637 (under FTRI-057).

- Future Plan of Action:
- LTM will be conducted at OU001 (FTRI-003), OU003 (FTRI-027), OU005 (FTRI-031), and OB/OD (FTRI-009).
  - Dual-phase extraction will be conducted for petroleum, oil and lubricant (POL) USTs 1044, 1245, and 1637 (which are covered under FTRI-057).
  - Groundwater sampling will be conducted for AGL (FTRI-056) in FY11.

### MMRP

- Prior Year Progress:
- The explosive safety submissions (ESS) were approved by the Department of Defense Explosives Safety Board (DDESB).
  - The draft final remedial investigation (RI)/ feasibility study (FS) work plan was received from the USACE Omaha District.
  - RI/FS fieldwork was initiated.

- Future Plan of Action:
- The RI/FS will be completed and follow-on phases will be conducted as required.

### CR

- Prior Year Progress:
- CC-FTRI-01: Groundwater sampling event with free-product recovery
  - CC-FTRI-09 Buildings 388 and 5320: did soil-gas, soil, and groundwater sampling
  - CC-FTRI-10 Buildings 1460 and 2597: did soil and groundwater sampling

- Future Plan of Action:
- CC-FTRI-01: Continue free-product recovery and groundwater sampling through FY11.
  - CC-FTRI-10: The plan is for site closure at Building 1460 with plans to do soil-vapor extraction at Building 2597.



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**FORT RILEY**  
**Army Defense Environmental Restoration Program**  
**Installation Restoration Program**

# IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 72/63

## Installation Site Types with Future and/or Underway Phases

- 1 Explosive Ordnance Disposal Area  
(FTRI-009)
- 1 Fire/Crash Training Area  
(FTRI-019)
- 1 Incinerator  
(FTRI-074)
- 2 Landfill  
(FTRI-001, FTRI-003)
- 1 POL (Petroleum/Lubricants) Lines  
(FTRI-057)
- 1 Soil Contamination After Tank Removal  
(FTRI-056)
- 2 Spill Site Area  
(FTRI-027, FTRI-031)

## Most Widespread Contaminants of Concern

Metals, Perchlorate, Pesticides, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

## Media of Concern

Groundwater, Sediment, Soil, Surface Water

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

Site ID	Site Name	Action	Remedy	FY	Cost
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	FRA	IN-SITU SOIL TREATMENT	1991	TBD
FTRI-059	REMOVE USTS	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-063	FMR BLDG 1044 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-066	FMR BLDG 1245 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-067	FMR BLDG 1539 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-068	FMR BLDG 1637 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-069	FMR BLDG 1890 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	TBD
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTON	FRA	WASTE REMOVAL - SOILS	1992	TBD
FTRI-013	ABANDONED VOC TANKS NORTH OF IACH	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992	TBD
FTRI-049	MERCURY CONTAMINATION AREAS	FRA	REMOVAL	1992	TBD
FTRI-054	CUSTER HILL PX USTS BLDG 5320	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992	TBD
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	OTHER	1994	\$27.0 K
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON	FRA	WASTE REMOVAL - SOILS	1994	TBD

## IRP Summary

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))					
Site ID	Site Name	Action	Remedy	FY	Cost
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	IRA	WASTE REMOVAL - SOILS	1994	\$1,115.0 K
FTRI-035	NON-IMPACT AREA SMALL ARMS RANGES	IRA	WASTE REMOVAL - SOILS	1994	TBD
FTRI-060	MAINPOST PX GAS STATION / 218	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994	TBD
FTRI-027	DRY CLEANING FACILITIES AREA	IRA	SOIL VAPOR TREATMENT	1995	\$1,005.0 K
FTRI-064	FMR BLDG 1090 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995	TBD
FTRI-065	FMR BLDG 1190 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995	TBD
FTRI-073	BLDG 8360 FUEL OIL UST	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	CAPPING	1996	TBD
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	BIOREMEDIATION	1996	TBD
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	SOIL VAPOR TREATMENT	1996	\$1,000.0 K
FTRI-070	FMR BLDG 2341 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1996	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1997	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	FRA	CAPPING	1997	\$338.0 K
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	IRA	WASTE REMOVAL - SOILS	1997	\$230.0 K
FTRI-062	TMP GAS STATION BLDG 388	IRA	FREE PRODUCT RECOVERY	1997	\$637.0 K
FTRI-063	FMR BLDG 1044 DISPENSING STATION	IRA	FREE PRODUCT RECOVERY	1997	\$9.0 K
FTRI-029	OLD INCINERATOR SITE SE-CAMP FUNSTON	IRA	WASTE REMOVAL - SOILS	2000	\$21.0 K
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	IRA	CAPPING	2001	TBD
FTRI-038	FORSYTH LANDFILL(S)	IRA	OTHER	2001	\$16.0 K
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	ALTERNATE WATER SUPPLY/WATER SUPPLY TREATMENT	2003	TBD

**Total Environmental Restoration, Army (ER,A) Funding**

Prior Funding:	\$74,580.4 K
Current Requirements:	\$1,080.0 K
Future Requirements:	\$3,929.0 K

**Duration of IRP**

Date of IRP Inception:	198312
Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):	201409/201409
Date of IRP completion including Long Term Management (LTM):	202709

# IRP Contamination Assessment

## Contamination Assessment Overview

The Army initially began environmental restoration-related investigations as a result of the 1982 closure activities of the SFL where monitoring indicated groundwater contamination.

The installation was evaluated for placement on the NPL with an HRS score of 33.8. The placement on the NPL was announced in 1990. An FFA was signed in August 1990 to address the CERCLA and RCRA mandates. Five IRP sites have been designated as OUs:

- FTRI-003 SFL,
- FTRI-030 Pesticide Storage Facility,
- FTRI-027 DCFA,
- FTRI-019 Former Fire Training Area-Marshall Army Airfield (MAAF), and
- FTRI-031 354 Area Solvent Detections.

These sites have been identified as sites with contamination due to past operational activities which resulted in spills and releases to the environment. The primary contaminants of concern (COC) are chlorinated solvents and pesticides.

The SFL was operated from the mid-1950s through 1981. Post-closure monitoring and RI/FS sampling efforts detected contaminants such as chlorinated solvents, petroleum hydrocarbons, and metals in the groundwater at low levels. On Aug. 6, 1997, the ROD was signed, and institutional controls and LTM have been implemented. The remedy has achieved the required reduction in the risk by meeting the USEPA maximum contaminant levels (MCLs). A RACR was signed by the USEPA in February 2010. Ongoing LTM is required to document that contaminant levels remain below the MCLs.

Prior to 1994, pesticides were stored and mixed at the Pesticide Storage Facility. Pesticides were released to the environment through past operational and disposal practices. Contamination by pesticides and arsenic was the primary concern. A ROD for no further action (NFA) for this site was completed in FY97. A sampling event was conducted in FY09, which determined that there was no residual contamination above actionable levels. An explanation of significant differences (ESD) was submitted to the USEPA in 2010.

The DCFA has two sites with soil and groundwater contamination from dry cleaning operations using PCE. Dry cleaning occurred at Buildings 180/181 (demolished in 2000) and Building 183 (demolished in 2002). There is minimal contamination at the Building 183 location. The eastern groundwater plume originates at the former site of Building 180/181 with two hot spots: one east of the building centered on a sewer manhole and one at the southwest corner of the building. A utility trench appears to be the conduit for transporting PCE to the west, with the western groundwater plume centered on well DCF02-42. Both plumes move off the terrace into the alluvium and are not degrading Kansas River water quality. The ROD has been signed and a remedial design (RD)/remedial action plan (RAP) has been approved. The alternative of MNA with institutional controls is being implemented. The ROD requires conducting annual groundwater sampling in FY08, FY09, and FY10. By FY09, the groundwater bioremediation at the eastern plume showed signs of stalling out. In 2010 this groundwater was retreated and four quarterly sampling events will be conducted.

The Former Fire Training Area-Marshall Army Airfield site has contamination as a result of past operational practices. There were petroleum hydrocarbons and PCE present on and off post in the soil and groundwater. Private wells in the area could potentially be affected by the groundwater contamination plume and are being monitored. Two alternative wells were drilled outside the boundaries of the groundwater plume to replace the impacted private wells. The ROD was signed in 2005, and the RD/RAP was approved. The alternative of MNA with institutional controls was put in place. No contaminants were above the MCLs for the three years post-ROD and a RACR was generated in 2010.

The 354 Area Solvent Detections site has contamination that was discovered during investigations of a POL/UST site. There are volatile organic compounds (VOC) that include PCE, trichloroethylene (TCE), dichloroethylene (DCE) and benzene. The ROD was signed in 2006 and the RD/RAP was approved. The site is in MNA with institutional control. No contaminants were above the MCLs in the alluvial aquifer of the Kansas River for the three years post-ROD and a RACR was generated in 2010.

## Cleanup Exit Strategy

The principal objectives of the FTRI IRP are to protect human health and the environment while working toward the ultimate goal of delisting the installation from the NPL. There is the potential that some of the sites will not reach unlimited use/unrestricted exposure but they will be monitored and under the installation's control. The installation's real property master plan will preclude their utilization for unacceptable land uses. In order to accomplish these objectives, the following efforts have been determined to be essential and must be achieved.

## IRP Contamination Assessment

- Conduct LTM for the OUs as prescribed in the proposed plans (PPs), documented by the RODs, and determined to be required by the analysis of the data from the sampling events.
- Develop RACRs for those OUs that have attained the RA objectives defined in the PPs and RODs and no longer have contaminants remaining in situ above actionable levels.
- Perform the five-year review requirements as required under the CERCLA for all sites that may have hazardous substances left in place above the MCLs, have not achieved the RA objectives, and/or do not allow for unlimited use and unrestricted exposure based on contaminants above the MCLs.
- Conduct remediation efforts to include operations of the dual-phase extraction systems to address fuels-related soil and groundwater contamination at FTRI-063 (1044), -066 (1245), and -068 POL (1637) sites. These three sites are located in Camp Funston, and are covered under FTRI-057 (anchor site). Once the soil and groundwater contaminants have reached concentrations that ensure no restrictions to a site's use, closeout approval will be sought.
- FTRI-009 OB/OD has TCE contamination. The site does not have identifiable risks to human health or the environment at this time but requires further monitoring and sampling for one more year. A decision will be required on the disposition of the site after the analysis of the existing data from the monitoring program. This site will remain active for training and emergency disposal of UXO only, per a letter from the KDHE.
- The AGL (FTRI-056) has undergone in situ treatment for fuels-related soil and groundwater contamination. Monitoring is required to determine the effectiveness of the treatment and if additional remediation is required. Once the soil and groundwater contaminants have reached concentrations that ensure no restrictions on the site's use, closeout approval will be sought.
- Develop the final closeout report to begin the procedures for requesting delisting of the installation from the NPL.
- Well abandonment will occur at each site when groundwater monitoring is completed.

## IRP Previous Studies

	Title	Author	Date
1993	Remedial Investigation for Remedial Investigation/Feasibility Study Pesticide Storage Facility	Law Environmental	DEC-1993
1994	Remedial Investigation Report for Southwest Funston Landfill	Law Environmental	APR-1994
	Feasibility Study Report for Remedial Investigation/Feasibility Study Southwest Funston Landfill	Law Environmental	APR-1994
	Proposed Plan Southwest Funston Landfill	Fort Riley	NOV-1994
1995	Remedial Investigation Addendum and Feasibility Study Report for Remedial Investigation/Feasibility Study Pesticide Storage Facility	Law Environmental	MAY-1995
	Record of Decision Southwest Funston Landfill	Fort Riley	NOV-1995
1997	Proposed Plan Pesticide Storage Facility	Fort Riley	AUG-1997
	Remedial Investigation Addenda Pesticide Storage Facility	Law Environmental	AUG-1997
	Record of Decision Pesticide Storage Facility	Fort Riley	SEP-1997
2001	Remedial Investigation Report for Former Fire Training Area Marshall Army Airfield	Burns & McDonnell	MAR-2001
2002	Five-Year Review Report	DPW Environmental Fort Riley, KS	AUG-2002
2003	Site-Specific Sampling and Analysis Plan Long Term Monitoring Fort Riley Southwest Funston Landfill	Environmental Chemical Corporation	JAN-2003
	Installation-Wide Site Investigation Derived Waste Management Plan for Environmental Investigations at Fort Riley, Kansas	Burns & McDonnell	APR-2003
	Feasibility Study FFTA-MAAF	Burns & McDonnell	SEP-2003
2004	Installation-Wide Sampling and Analysis Plan for Environmental Investigations at Fort Riley, Kansas	Burns & McDonnell	FEB-2004
	Remedial Investigation Addendum for the Dry Cleaning Facilities Area	Burns & McDonnell	APR-2004
	Draft Final Proposed Plan FFTA-MAAF	Burns & McDonnell	MAY-2004
	Abandoned Gas Line, Site Investigation Report AGL Terminus Area	McKinzie	SEP-2004
	Technical Memorandum for Open Burning/Open Detonation Ground Range 16 at Fort Riley, Kansas	Burns & McDonnell	OCT-2004
	354 Area Solvent Detection Site, Feasibility Study Report 354	Burns & McDonnell	DEC-2004
2005	KRBCA Checklists for POL/UST Sites 1044, 1245, & 1637 Fort Riley, Kansas	Burns & McDonnell	FEB-2005

## IRP Previous Studies

2005	Title	Author	Date
	Feasibility Study Addendum for the Dry Cleaning Facilities Study Area	Burns & McDonnell	MAR-2005
	Site-Specific Field Sampling Plan for Groundwater, Spring, and Seep Sampling With Addendum - Spring 2005 for Open Burning/Open Detonation Ground (Range 16)	Burns & McDonnell	MAY-2005
	354 Area Solvent Detection Site, Soil-Gas Investigation Report 354 Area Solvent Detection	Burns & McDonnell	MAY-2005
	354 Area Solvent Detection Site, Proposed Plan 354 Area Solvent Detection	Burns & McDonnell	MAY-2005
	Pilot Study Report Pilot Study for Soil Remediation 354 Area Solvent Detections	Burns & McDonnell	JUN-2005
	Site Investigation Work Plans for the Petroleum, Oil, and Lubricant Sites 1044, 1245, & 1637 at Main Post Fort Riley, Kansas	Burns & McDonnell	JUN-2005
	Record of Decision Former Fire Training Area - Marshall Army Airfield	Burns & McDonnell	JUL-2005
	Abandoned Gas Line, Engineering Evaluation/Cost Analysis	McKinzie	AUG-2005
	Community Involvement Plan Fort Riley Superfund Site Fort Riley, Kansas	DPW Environmental Fort Riley, KS	AUG-2005
	Action Memorandum Non-Time Critical Removal Action Abandoned Gas Line/Terminus	McKinzie	DEC-2005
2006			
	Remedial Design/Remedial Action Plan Former Fire Training Area - Marshall Army Airfield	Burns & McDonnell	JAN-2006
	Former Fire Training Area-Marshall Army Airfield, Draft Final Remedial Design/Remedial Action Plan	Burns & McDonnell	JAN-2006
	Work Plan Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell	MAY-2006
	Work Plan Removal Action AGL Terminus Area Marshall Army Airfield	McKinzie	JUN-2006
	Record of Decision 354 Area Solvent Detections	Burns & McDonnell	JUN-2006
	Work Plan Removal Action AGL Terminus Area Marshall Army Airfield Fort Riley Kansas	McKinzie	JUN-2006
	Site Specific Sampling Plans for Groundwater Monitoring Activities Building 354	EA Engineering	AUG-2006
	Site Specific Sampling Plans for Groundwater Monitoring Activities Dry Cleaning Facility Area	EA Engineering	AUG-2006
	Site Specific Sampling Plans for Groundwater Monitoring Activities Former Fire Training Area-Marshall Airfield	EA Engineering	AUG-2006
	Quality Control Summary Report June 2006 Sampling Event Pesticide Storage Facility	Corps of Engineers - Kansas City District	AUG-2006
	Work Plan Pilot Study for Soil and Groundwater Remediation DCF Study Area	Burns & McDonnell	SEP-2006
	Quality Control Summary Reports Summer 2006 Sampling Events for the Expanded Site Investigation (Multi-Sites) at Fort Riley, Kansas	Burns & McDonnell	SEP-2006
	2007 Feasibility Study Addendum for the Dry Cleaning Facilities Study Area	Burns & McDonnell	OCT-2006
	Magnetometer Anomaly Investigation Work Plan for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	Burns & McDonnell	NOV-2006



## IRP Previous Studies

2007

Title	Author	Date
Draft Final Remedial Design/Remedial Action Plan 354 Area Solvent Detections	Burns & McDonnell	MAR-2007
Magnetometer Anomaly Investigation Report for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	Burns & McDonnell	MAR-2007
Quality Control Summary Report for April 2007 Groundwater Sampling Event 354 Site	EA Engineering	MAY-2007
Quality Control Summary Report March 2007 Sampling Event Former Fire Training Area - Marshall Army Airfield	EA Engineering	MAY-2007
Quality Control Summary Report March 2007 Sampling Event Southwest Funston Landfill	Environmental Chemical Corporation	MAY-2007
Design Addendum Investigation Work Plan for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	Burns & McDonnell	MAY-2007
Quality Control Summary Report for the April 2007 Groundwater Sampling Event at the Dry Cleaning Facilities Area	EA Engineering	JUN-2007
2007 Annual Sampling Report 354 Solvent Detections Site	EA Engineering	JUL-2007
2007 Annual Sampling Report Dry Cleaning Facilities Area	EA Engineering	JUL-2007
2007 Annual Sampling Report FFTA-MAAF	EA Engineering	JUL-2007
Real Property Master Plan Digest (Institutional Controls)	Black & Veatch	AUG-2007
Long Term Monitoring Report 2007 Southwest Funston Landfill	Environmental Chemical Corporation	SEP-2007
Second Five-Year Review Report Fort Riley, Kansas	Corps of Engineers - Kansas City District	SEP-2007
Quality Control Summary Report Air Site Investigation for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Pilot Study Camp Funston Fort Riley, Kansas	Burns & McDonnell	SEP-2007
Quality Control Summary Report August 2007 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16)	Burns & McDonnell	OCT-2007
Proposed Plan for the Dry Cleaning Facilities Area	Burns & McDonnell	OCT-2007
Quality Control Summary Report for the September 2007 Groundwater Sampling Event at the Dry Cleaning Facilities Area (Pilot Study)	Burns & McDonnell	OCT-2007
2007 Annual Inspection Report Southwest Funston Landfill	Corps of Engineers - Kansas City District	OCT-2007
Reports for Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell	OCT-2007
Quality Control Summary Report Air Sample Data for the POL Sites 1044, 1245, and 1637 Pilot Study Camp Funston Fort Riley, Kansas	Burns & McDonnell	NOV-2007

2008

Pilot Study Report for the Dry Cleaning Facilities Area	Burns & McDonnell	JAN-2008
Record of Decision Dry Cleaning Facilities Area	Burns & McDonnell	JAN-2008
Site Specific Plans for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	MAR-2008
Quality Control Summary Report for February 2008	EA Engineering	APR-2008

## IRP Previous Studies

2008

Title	Author	Date
Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas		
Quality Control Summary Report for March 2008 Sampling Event 354 Area Solvent Detections Site Fort Riley, Kansas	EA Engineering	MAY-2008
Quality Control Summary Report for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	MAY-2008
Draft Final Work Plan Addendum Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	MAY-2008
Quality Control Summary Report for April 2008 Sampling Event at the Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUN-2008
Quality Control Summary Report May 2008 Goundwater Sampling Event at the Petroleum, Oil, and Lubricant Site 5320 Fort Riley, Kansas	Burns & McDonnell/ECC	JUN-2008
Engineering Design Report for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Volumes I & 2 Fort Riley, Kansas	Burns & McDonnell/ECC	JUN-2008
2008 Annual Sampling Report Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	JUN-2008
Remedial Design/Remedial Action Plan Dry Cleaning Facilities Area (Operable Unit 003) at Main Post Fort Riley, Kansas	Burns & McDonnell	JUN-2008
Removal Action Final Report - Volumes I & 2 AGL Terminus Area Marshall Army Air Field Fort Riley, Kansas	McKinzie	JUL-2008
Final 2008 Annual Groundwater Sampling Report Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUL-2008
Long Term Monitoring Report Southwest Funston Landfill Fort Riley, Kansas 2008	CTI	JUL-2008
Quality Control Summary Report July 2008 Sampling Event Custer Hill Landfill Fort Riley, Kansas	Environmental Chemical Corporation	AUG-2008
Quality Control Summary Report July 2008 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	SEP-2008
Quality Control Summary Report Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	SEP-2008
2008 Maintenance and Repair Report and Annual Inspection Report Southwest Funston Landfill Operable Unit 001 Fort Riley, Kansas	Corps of Engineers - Kansas City District	OCT-2008
Quality Control Summary Report SVE/DPE and November 2008 Groundwater Sampling Event at the Petroleum, Oil, and Lubricant Site 388 Fort Riley, Kansas	Burns & McDonnell /ECC	DEC-2008
Draft Final Report Addendum Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	DEC-2008
Draft Final Building 1693 Report Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	DEC-2008

2009

Data Summary Report for the SVE/DPE Pilot Test and the November 2008 Groundwater Sampling Event for the POL Site 388 at Fort Riley, Kansas	Burns & McDonnell /ECC	MAR-2009
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## IRP Previous Studies

2009

Title	Author	Date
Quality Control Summary Report for February 2009 Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	APR-2009
Quality Control Summary Report for March 2009 Sampling Event 354 Area Solvent Detections Site Fort Riley, Kansas	EA Engineering	APR-2009
Quality Control Plan Final POL/UST Contaminated (Prior to 1984) Sites Remediation Services at Fort Riley, Kansas (1044, 1245, 1637)	Conti/CH2MHill	MAY-2009
Project Management Plan Final POL/UST Contaminated (Prior to 1984) Sites Remediation Services at Fort Riley, Kansas (1044, 1245, 1637)	Conti/CH2MHill	MAY-2009
Quality Control Summary Report for April 2009 Sampling Event at the Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	MAY-2009
Quality Control Summary Report for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	JUN-2009
Quality Control Summary Report for Groundwater Monitoring Activities Abandoned Gasoline Site Fort Riley, Kansas	CTI	JUN-2009
2009 Annual Sampling Report 354 Solvent Detections Site Fort Riley, Kansas	EA Engineering	JUN-2009
2009 Maintenance and Repair Report and Annual Inspection Report Southwest Funston Landfill Fort Riley, Kansas	Corps of Engineers - Kansas City District	JUN-2009
Final 2009 Annual Groundwater Sampling Report Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUL-2009
Quality Control Summary Report 2009 Groundwater Resampling Event Southwest Funston Landfill Fort Riley, Kansas	CTI	AUG-2009
Quality Control Summary Report for June 2009 Supplemental Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	AUG-2009
Quality Control Summary Report for September 2009 Supplemental Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	NOV-2009
Long Term Monitoring Report Southwest Funston Landfill Fort Riley, Kansas 2009	CTI	NOV-2009
Quality Control Summary Report August 2009 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	NOV-2009
Draft Final Remedial Action Completion Report Southwest Funston Landfill Site, OU001 Fort Riley, Kansas December 2009	DPW Environmental Fort Riley, KS	DEC-2009

# FORT RILEY

## Installation Restoration Program

### Site Descriptions

Site ID: FTRI-001

Site Name: CUSTER HILL SANITARY LANDFILL

## STATUS

Regulatory Driver: CERCLA  
RRSE:  
Contaminants of Concern: Metals  
Media of Concern: Groundwater

Phases	Start	End
PA.....	198706.....	198909
SI.....	198706.....	198909
RI/FS.....	198909.....	199307
LTM.....	200910.....	202509
RIP Date:	N/A	
RC Date:	199308	

## SITE DESCRIPTION

The Custer Hill Sanitary Landfill operated from 1981 to 1994. The KDHE issued a consent order in 1996 to provide for post-closure care to include landfill cover maintenance and groundwater monitoring for 30 years. The Post-Closure Monitoring Plan was revised in January 2006. Site progress was tracked under the environmental program requirements (EPR) process from October 1993 to March 2005 and by CC-FTRI-08 from April 2005 to September 2009. The site has been shifted from Army Environmental Database-Compliance-related Cleanup (AEDB-CC) to the Compliance Restoration (CR) program.

Arsenic and barium are currently detected above regulatory groundwater levels in one well. No completed pathways or ecological impacts are known. Groundwater is not a drinking water resource. Latest cover repair was conducted in 2008.

Five-year groundwater sampling was conducted in 2010.

Invasive weed control, spot repairs and reseeding are conducted annually. Prescribed burns or mowing are conducted annually to provide for cover inspection and to enhance the native grass cover.

## CLEANUP/EXIT STRATEGY

The Post-Closure Monitoring Plan requires site-wide groundwater sampling in 2015, 2020, and 2025.

Landfill cover repair is scheduled for 2013, 2018, and 2023.

Well abandonment will occur when all groundwater monitoring is completed.

The regulatory required post-closure monitoring ends in 2025.

Site Name: SOUTHWEST FUNSTON LANDFILL

**STATUS**

Regulatory Driver: CERCLA  
RRSE: MEDIUM  
Contaminants of Concern: Volatiles (VOC)  
Media of Concern: Groundwater

Phases	Start	End
PA.....	198312.....	198412
SI.....	198706.....	198909
RI/FS.....	199101.....	199603
RD.....	199510.....	199603
IRA.....	199312.....	199708
RA(C).....	199601.....	199709
<b>LTM.....</b>	<b>199709.....</b>	<b>202709</b>
RIP Date:	N/A	
RC Date:	199709	

**SITE DESCRIPTION**

The SFL is a closed municipal landfill of approximately 120 acres located in the southern portion of FTRI, adjacent to the southwest corner of the Camp Funston cantonment area. The landfill operated from the mid-1950s until 1981. The landfill closure was approved by the KDHE in a letter dated Oct. 25, 1983.

Post-closure activities were being performed under the SFL ROD that was signed in 1997. Three components of the remedy addressed the immediate risks of the landfill by implementing access controls, performing river-bank stabilization, and improving the existing cover.

Groundwater monitoring is required by the ROD. Analysis of the sampling results provided clear evidence of a decreasing trend in the COCs. In 2006, COCs were not present at concentrations above MCLs. From 2007 to 2009, the data have shown a continued presence of vinyl chloride in the groundwater in the central portion of the landfill near or below the MCL. An inspection of the landfill is performed annually. The most recent cover repair was conducted in 2009. Prescribed burning and mowing are conducted annually.

The five-year review reports in 2002 and 2007 determined the site presents no risk to human health and the environment.

A draft final RACR was completed in February 2010.

**CLEANUP/EXIT STRATEGY**

Annual inspections of the bank stabilization structure and landfill cover will be conducted.

Landfill cover/bank stabilization repair is scheduled for 2013.

Groundwater sampling and five-year reviews are planned for 2012 and 2017, and will be the basis for future decisions.

Well abandonment will occur when all groundwater monitoring is completed.

In 2010, FTRI requested that the USEPA consider partial NPL deletion.

Site ID: FTRI-009  
Site Name: OB/OD GROUND (RANGE 16)

## STATUS

Regulatory Driver: CERCLA  
RRSE: LOW  
Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)  
Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA.....	198312.....	198412
SI.....	199111.....	199809
RI/FS.....	199303.....	200409
LTM	200410	202709

RIP Date: N/A  
RC Date: 200409

## SITE DESCRIPTION

The OB/OD Ground (Range 16) is used for emergency ordnance disposal and training (no public access is permitted). Historical practices included the use of chlorinated solvents in an open burn area but the practice was discontinued in the early-1980s. In 1993, TCE was detected in the groundwater.

The complex hydrogeology made further characterization necessary. The ephemeral streams were sampled and contaminants of concern were not detected. Interpretation of the data has determined that no contaminants are exiting the site as a result of the complex hydrogeology. An ecological risk-screening evaluation was performed and found low risk to ecological receptors.

Perchlorate was found in 2004. The 2008 sampling event had perchlorate levels at 7.0 micrograms per liter (ug/L) or less. The proposed interim standard is set at 15 ug/L; therefore, the sampling for perchlorate was discontinued.

Due to the continued presence of TCE in the groundwater, the site will remain in LTM. A sampling event was conducted in 2010.

The site was addressed in the 2002 and 2007 five-year review reports.

## CLEANUP/EXIT STRATEGY

Groundwater sampling events are planned for 2011 and 2017 for the 2012 and 2017 five-year reviews.

The 2011 groundwater sampling event will be the basis for future decisions.

The 2004 technical memorandum identified all piezometers and a group of monitoring wells as no longer being needed, which will be abandoned in 2012.

The remaining monitoring wells will be abandoned when all groundwater monitoring is completed.

Site Name: FORMER FIRE TRAINING AREA FFTA-MAAF

**STATUS**

Regulatory Driver: CERCLA  
RRSE: MEDIUM  
Contaminants of Concern: Volatiles (VOC)  
Media of Concern: Groundwater

Phases	Start	End
PA.....	198706.....	198909
SI.....	199111.....	199305
RI/FS.....	199303.....	200509
IRA.....	199411.....	200210
LTM.....	200510.....	201309

RIP Date: N/A  
RC Date: 200509

**SITE DESCRIPTION**

The Former Fire Training Area-Marshall Army Airfield site consists of a former fire training and drum storage area located at Marshall Army Airfield near the installation boundary. The former fire training area consisted of an unlined pit filled with crushed stone. The fire training area operated from the mid 1960s to 1984. In 1982, a drum of PCE was accidentally released into the fire training pit. Efforts were made to recover the spilled material, but only a portion was recovered. Off-post contamination was encountered in private wells. The impacted private wells have been replaced by new wells drilled outside the groundwater contamination plume.

Since February 2005 all groundwater contaminant concentrations are below their respective MCLs.

The ROD was signed in 2005. The remedy is MNA with institutional controls.

The analysis of the 2009 sampling event showed no contaminants of concern above the MCLs were present in the alluvial aquifer of the Kansas River per the ROD, which specified three years of post-ROD sampling below the MCL. A RACR was generated in 2010 for site closeout. No further groundwater monitoring is proposed.

This site was addressed in the five-year reviews in 2002 and 2007.

**CLEANUP/EXIT STRATEGY**

No further five-year reviews are planned, pending RACR approval.

Well abandonment will occur when all groundwater monitoring is completed.

Fort Riley will request the USEPA to consider partial NPL deletion.



Site ID: FTRI-027

## Site Name: DRY CLEANING FACILITIES AREA

### STATUS

Regulatory Driver: CERCLA  
RRSE: MEDIUM  
Contaminants of Concern: Volatiles (VOC)  
Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198312.....	198412
SI.....	198706.....	198909
RI/FS.....	199106.....	200803
IRA.....	199406.....	199502
LTM.....	200803.....	201709

RIP Date: N/A  
RC Date: 200803

### SITE DESCRIPTION

The former DCFA is located in the southwest corner of the main post cantonment area, about 800 feet north of the Kansas River. The DCFA operated until 2002. The primary dry cleaning solvent was PCE. Chlorinated solvent contamination above regulatory standards was found in soil and groundwater.

The RI baseline risk assessment indicates minimal risk associated with the site under current and anticipated land use; however, the PCE-contaminated groundwater had degraded the Kansas River alluvial aquifer.

In 2006, a successful pilot study that addressed soil contamination using excavation and land farming was conducted. It also addressed groundwater contamination through enhanced bioremediation and chemical oxidation.

In March 2008, the ROD was approved and had MNA with institutional controls as the selected remedy. The 2010 annual sampling event concluded the pilot study evaluation.

An additional bioremediation injection was completed in 2010 to be followed by four quarterly sampling events.

This site was addressed in the five-year review reports completed in August 2002 and 2007.

### CLEANUP/EXIT STRATEGY

Groundwater sampling and five-year reviews are planned for 2012 and 2017, and will be the basis for future decisions.

Well abandonment will occur when all groundwater monitoring is completed.

A RACR will be prepared.

Fort Riley will request that the USEPA consider partial NPL deletion.

Site Name: 354 AREA SOLVENT DETECTIONS (354)

**STATUS**

Regulatory Driver: CERCLA

RRSE: LOW

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

Media of Concern: Groundwater

Phases	Start	End
PA.....	199111.....	199305
SI.....	199312.....	199507
RI/FS.....	199609.....	200608
LTM.....	200608.....	201209

RIP Date: N/A

RC Date: 200608

**SITE DESCRIPTION**

Fuel and solvent storage/dispensing occurred near Building 354 in the Public Works yard. The USTs were used to store fuel and removed in 1990 and 1991. There are no records to determine if solvents were stored in drums, USTs, or aboveground storage tanks (ASTs). The PCE, its degradation products, carbon tetrachloride, and fuel-related hydrocarbons are present. The site extends from just north of Building 430 (the Main Post fire station) to the "point bar" on the north bank of the Kansas River. At Building 430, the only contaminant is carbon tetrachloride below the MCL.

Currently, PCE and its degradation products are above the MCLs in groundwater samples in only three terrace wells. They do not pose a risk and do not present an impact to the Kansas River alluvial aquifer. One well in the transition zone has benzene above the MCL.

The ROD was signed in 2006 and the site remedy is MNA with institutional controls.

The results of the 2009 sampling event showed no contaminants of concern above the MCLs in the alluvial aquifer of the Kansas River. Per the ROD, it was specified that if three years of post-ROD sampling were below the MCLs in the alluvial aquifer of the Kansas River, the course of action would be to produce a RACR in FY10. A RACR was generated in FY10.

This site was addressed in the site-wide five-year review reports completed in August 2002 and 2007.

**CLEANUP/EXIT STRATEGY**

Groundwater sampling and five-year reviews are planned for 2012, and will be the basis for future decisions.

Well abandonment will occur when all groundwater monitoring is completed.

Fort Riley will request the USEPA to consider partial NPL deletion.

Site ID: FTRI-056

Site Name: ABANDONED GASOLINE LINE

## STATUS

Regulatory Driver: CERCLA

RRSE: LOW

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

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	199111.....	199409
SI.....	199408.....	199603
RI/FS	199803	201209
IRA	200609	201109

RIP Date: N/A

RC Date: 201209

## SITE DESCRIPTION

The AGL terminus area is located west of Building 741 on Marshall Army Airfield. The 1.1-mile abandoned steel pipeline associated with this area started at the Union Pacific Railroad (UPRR) line on the Main Post. In 1951, the pipeline was removed from service after a portion of the line was destroyed during the flooding of the Kansas River. In 1987, the USTs, where diesel and aviation gasoline were stored, were removed.

Field investigations in 2001 and 2004 revealed soil and groundwater contamination in the vicinity of the AGL terminus area exceeding risk-based standards for fuels-related contaminants. Sampling along the pipeline did not reveal any contamination.

In 2006 and 2007, an RA was performed using a chemical oxidant and an oxygen source to enhance bioremediation in the soil and groundwater. In 2007, 2008, and 2009, post-treatment groundwater monitoring to analyze the effectiveness was performed. In February 2010, the soil and groundwater were sampled to assess concentration trends and the site was re-treated. Groundwater sampling occurred in late FY10 with additional sampling is to occur in FY11.

## CLEANUP/EXIT STRATEGY

A closeout report will be prepared in 2012.

Well abandonment will occur when all groundwater monitoring is completed.

Site ID: FTRI-057

## Site Name: 6200 AREA FUEL OIL LINE (ANCHOR)

### STATUS

Regulatory Driver: CERCLA

RRSE: LOW

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

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	199010.....	199012
SI.....	199312.....	199502
RI/FS.....	199606.....	201409
IRA.....	199601.....	201309

RIP Date: N/A

RC Date: 201409

### SITE DESCRIPTION

Site FTRI-057 will be retained as an open site to be used for the anchor for the POL UST sites in Camp Funston (FTRI-063, -066, and -068). As a result of a pilot study that evaluated dual-phase extraction effectiveness, high levels of soil and groundwater fuels-related contamination and measurable free-product at FTRI-063, 066, and 068 were identified. The contamination at these sites be must be addressed in order to avoid potential future mission impacts or impacts to human health or the environment.

Site FTRI-063 is the Former Building 1044 Dispensing Station, which consisted of a former fuel dispensing station on the west side of Camp Funston with five 12,000-gallon steel USTs installed in 1942. In July 1990, the tanks were removed along with some of the associated underground piping. Contaminated soil encountered during the removal was excavated and treated, but there is still extensive soil and groundwater contamination.

Site FTRI-066, the Former Building 1245 Dispensing Station, consisted of a former UST area located on the east side of Camp Funston with five 12,000-gallon steel USTs containing fuels that were installed in 1942. In July 1990, the tanks were removed along with some of the associated underground piping. There is extensive soil and groundwater contamination.

Site FTRI-068, the Former Building 1637 Dispensing Station, consisted of a former UST area located in the southeast corner of Camp Funston with seven 12,000-gallon steel USTs, which were installed in 1942 and were used into the 1980s. They originally contained diesel, but prior to removal in 1990, they stored used oil. Approximately 7,200 feet of underground piping may remain in place.

Dual-phase extraction and air and groundwater treatment systems were installed at the three sites in FY09 and FY10. Prior to system start up, sampling was performed in February 2010 to confirm that contaminant concentrations in the treated effluent are below the discharge requirements. Full-scale operations for the remediation systems occurred in March 2010. The remaining site restoration activities from construction were performed in March and April 2010.

### CLEANUP/EXIT STRATEGY

Performance monitoring plus operation and maintenance repairs will be conducted throughout the full-scale operations of the remediation systems.

Site closeout reports are scheduled for FY14.

Well abandonment will occur when all groundwater monitoring is completed.

Site ID: FTRI-074

Site Name: WWI INCINERATOR, NW CAMP FUNSTON

**STATUS**

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

Phases	Start	End
PA.....	200102.....	200103
SI.....	200103.....	200109
LTM.....	200910.....	201109

RIP Date: N/A  
RC Date: 200109

**SITE DESCRIPTION**

The site has remnants of foundations, slabs, and curbing present. Soil sampling was conducted at the site in 2006. There were limited elevated detections of lead, arsenic, and mercury in the shallow soils to a depth of about one foot near the incinerator. The site is located in a heavily wooded area that is south of the UPRR tracks and west of Threemile Creek. Some of the area is potentially in the footprint of the planned space for the new wastewater treatment plant for Camp Funston. The new plant is necessary to accommodate the increase load resulting from the new missions assigned for the installation. In FY09, the construction of a railroad siding track resulted in extensive ground disturbance. Soil testing results revealed lead and arsenic exceedences to Kansas standards. Removal and disposal of approximately 2000 yards of soil to a solid waste facility is required in FY10. Fort Riley requested clean site closure in 2010.

**CLEANUP/EXIT STRATEGY**

Site has been funded and closeout was anticipated for FY10, but weather and contractor delays may affect that date.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-002	WHITSIDE C/D LANDFILL-CLOSED	199803	Landfill closed and inspected by the KDHE in 2002. This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-004	MAIN POST LANDFILL	199712	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-006	DRMO STORAGE AREA	199809	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-007	PCB STORAGE BUILDING 343	198909	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	199012	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTON	199204	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-011	CAMP FUNSTON GW DETECTIONS	200501	Received regulatory closure from the KDHE on 11/9/07 & the EPA, Region VII on 11/26/07.
FTRI-012	WASTE STORAGE DRMO SECONDARY AREA	199509	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-013	ABANDONED VOC TANKS NORTH OF IACH	199202	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-014	HOSPITAL INCINERATOR-IRWIN ACH	198909	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-015	FORMER DRMO LOCATION (DRMO AREA 2)	199509	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-016	WASTE OIL AST-3RD BATTERY	198909	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-017	WASTE OIL AST-4TH BATTERY	198909	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-018	FIRE TRAINING AREA FACILITY (892)	198909	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-020	INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL)	199803	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-022	FORMER WWTP & SLUDGE BEDS (ANCHOR)	200705	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-023	CUSTER HILL WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-024	FORSYTH WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-025	MAIN POST WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-026	RANGE COMPLEX WW LAGOONS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON	199402	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-029	OLD INCINERATOR SITE SE-CAMP FUNSTON	200308	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	201005	
FTRI-032	IMPACT ZONE	199309	This site is active and therefore ineligible for ER,A funding.
FTRI-033	DOUTHIT RANGE	199305	This site is active and therefore ineligible for ER,A funding.
FTRI-034	IMPACT AREA PERIMETER SMALL ARM RANGES	199612	This site is active and therefore ineligible for ER,A funding.
FTRI-035	NON-IMPACT AREA SMALL ARMS RANGES	200007	Undisturbed ranges were not previously considered for additional investigations/action
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	200901	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-037	OLD WHITSIDE INCINERATOR AREA	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-038	FORSYTH LANDFILL(S)	200708	Received regulatory closure from the EPA, Region VII & the KDHE for IRP in August 2007.
FTRI-039	CONSOLIDATED MAINTENANCE FACILITY	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-040	FORMER OIL TESTING LAB (ANCHOR)	200711	Received regulatory closure from the EPA, Region VII & the KDHE in November 2007.
FTRI-041	FURNITURE REPAIR SHOPS (3)	199507	This site is part of the overall effort to address improperly closed out sites. Two of the three sites received regulatory closure from the EPA, Region VII & the KDHE in 2007. One site (bldg 1605) required additional sampling in FY08 and received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-042	TAC VEHICLE MAINTENANCE SHOPS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-043	FORMER GAS STATIONS/GARAGES	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the KDHE in 2008 and the EPA, Region VII in 2009, except one site at Forsyth I Street that was sampled in FY08.
FTRI-044	FORMER ASPHALT PLANT (NEAR BLDG 354)	199509	This site was addressed in the 354 Area Solvent Detections RI/FS/PP and will fall under the ROD developed for FTRI-031.
FTRI-045	PHOTO AND PRINT PLANTS	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-046	FRMR DS/GS Bldg 1693 Adj Areas	199507	This site is part of the overall effort to address improperly closed out sites. It was included under the sampling event in FY08.
FTRI-047	FORMER LIVESTOCK DIPPING FACILITY	200711	Received regulatory closure from the EPA, Region VII & the KDHE in November 2007.
FTRI-048	FORMER PESTICIDES FACILITIES	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-049	MERCURY CONTAMINATION AREAS	199305	This site is part of the overall effort to



## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-050	PCB SPILL AREAS /TRANSFORMER SITES	199803	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-051	BLDG. 727 WASTE PIT	199903	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-052	INACTIVE LANDFILLS - CAMP WHITESIDE	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-053	POL TANK FARM	200505	This site has been transferred to the Compliance-Related Cleanup Program.
FTRI-054	CUSTER HILL PX USTS BLDG 5320	199709	This site is part of the overall effort to address improperly closed out sites. It is on hold per a letter from the KDHE-NCDO. It is to be addressed in a new CC site.
FTRI-055	MILFORD LAKE CAMPGROUND/MARINA WELLS	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-059	REMOVE USTS	199012	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-060	MAINPOST PX GAS STATION / 218	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	199510	This site was part of the 354 Area Solvent Detection site ROD.
FTRI-062	TMP GAS STATION BLDG 388	200501	This site is part of the overall effort to address improperly closed out sites. It is to be addressed in a new CC site.
FTRI-063	FMR BLDG 1044 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being included in the AEDB-R funding stream and the anchor site is FTRI-057 6200 Area Fuel Oil Line. This site has extensive soil & groundwater contamination. It requires extensive remediation efforts.
FTRI-064	FMR BLDG 1090 DISPENSING STATION	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-065	FMR BLDG 1190 DISPENSING STATION	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-066	FMR BLDG 1245 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being included in the AEDB-R funding stream and the anchor site is FTRI-057 6200 Area Fuel Oil Line. This site has extensive soil & groundwater contamination that requires extensive remediation efforts.
FTRI-067	FMR BLDG 1539 DISPENSING STATION	199708	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-068	FMR BLDG 1637 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being included in the AEDB-R funding stream and the anchor site is FTRI-057 6200 Area Fuel Oil Line. This site has soil & groundwater contamination that will require remediation.
FTRI-069	FMR BLDG 1890 DISPENSING STATION	199708	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-070	FMR BLDG 2341 DISPENSING STATION	199601	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-071	FMR BLDG 2345 DISPENSING STATION	199411	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-072	BLDG 8340 FUEL OIL UST	199411	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-073	BLDG 8360 FUEL OIL UST	199505	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.

# IRP Schedule

Date of IRP Inception: 198312

## Past Phase Completion Milestones

1985

RFA (FTRI-008 - PCB STORAGE CONEX (BUILDING 348), FTRI-039 - CONSOLIDATED MAINTENANCE FACILITY)  
 PA (FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-004 - MAIN POST LANDFILL, FTRI-009 - OB/OD GROUND (RANGE 16) , FTRI-023 - CUSTER HILL WWTP AND SLUDGE BEDS, FTRI-024 - FORSYTH WWTP AND SLUDGE BEDS, FTRI-025 - MAIN POST WWTP AND SLUDGE BEDS, FTRI-027 - DRY CLEANING FACILITIES AREA , FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-032 - IMPACT ZONE, FTRI-033 - DOUTHIT RANGE, FTRI-034 - IMPACT AREA PERIMETER SMALL ARM RANGES, FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)  
 SI (FTRI-032 - IMPACT ZONE)

1989

ISC (FTRI-018 - FIRE TRAINING AREA FACILITY (892))  
 DES (FTRI-008 - PCB STORAGE CONEX (BUILDING 348))  
 CS (FTRI-007 - PCB STORAGE BUILDING 343, FTRI-008 - PCB STORAGE CONEX (BUILDING 348), FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-016 - WASTE OIL AST-3RD BATTERY, FTRI-017 - WASTE OIL AST-4TH BATTERY)  
 RFA (FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-007 - PCB STORAGE BUILDING 343, FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-016 - WASTE OIL AST-3RD BATTERY, FTRI-017 - WASTE OIL AST-4TH BATTERY, FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES)  
 SI (FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-014 - HOSPITAL INCINERATOR-IRWIN ACH, FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-023 - CUSTER HILL WWTP AND SLUDGE BEDS, FTRI-024 - FORSYTH WWTP AND SLUDGE BEDS, FTRI-025 - MAIN POST WWTP AND SLUDGE BEDS, FTRI-027 - DRY CLEANING FACILITIES AREA , FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-034 - IMPACT AREA PERIMETER SMALL ARM RANGES, FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)  
 INV (FTRI-018 - FIRE TRAINING AREA FACILITY (892))  
 PA (FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-014 - HOSPITAL INCINERATOR-IRWIN ACH, FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF, FTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL), FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-026 - RANGE COMPLEX WW LAGOONS, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON, FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTRI-038 - FORSYTH LANDFILL(S))

1990

DES (FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH)

1991

DES (FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON)

IMP(C)

(FTRI-059 - REMOVE USTS)

ISC

(FTRI-059 - REMOVE USTS, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354, FTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION, FTRI-070 - FMR BLDG 2341 DISPENSING STATION)

CMI(C)

(FTRI-008 - PCB STORAGE CONEX (BUILDING 348))

PA

(FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))

IRA

(FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION)

INV

(FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION)

## IRP Schedule

1992	
RFA	(FTRI-049 - MERCURY CONTAMINATION AREAS)
ISC	(FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-072 - BLDG 8340 FUEL OIL UST, FTRI-073 - BLDG 8360 FUEL OIL UST)
IRA	(FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354)
CMI(C)	(FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-049 - MERCURY CONTAMINATION AREAS)
1993	
RFA	(FTRI-042 - TAC VEHICLE MAINTENANCE SHOPS, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-051 - BLDG. 727 WASTE PIT, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE)
CS	(FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-039 - CONSOLIDATED MAINTENANCE FACILITY, FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES, FTRI-051 - BLDG. 727 WASTE PIT, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE)
ISC	(FTRI-053 - POL TANK FARM, FTRI-060 - MAINPOST PX GAS STATION / 218)
PA	(FTRI-005 - CUSTER HILL ROAD RUBBLE DUMP, FTRI-006 - DRMO STORAGE AREA, FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-031 - 354 AREA SOLVENT DETECTIONS (354), FTRI-037 - OLD WHITSIDE INCINERATOR AREA, FTRI-040 - FORMER OIL TESTING LAB (ANCHOR), FTRI-043 - FORMER GAS STATIONS/GARAGES, FTRI-044 - FORMER ASPHALT PLANT (NEAR BLDG 354), FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)
SI	(FTRI-004 - MAIN POST LANDFILL, FTRI-006 - DRMO STORAGE AREA, FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF, FTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL), FTRI-026 - RANGE COMPLEX WW LAGOONS, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON, FTRI-033 - DOUTHIT RANGE, FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTRI-037 - OLD WHITSIDE INCINERATOR AREA, FTRI-038 - FORSYTH LANDFILL(S), FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)
RI/FS	(FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-032 - IMPACT ZONE)
1994	
PA	(FTRI-056 - ABANDONED GASOLINE LINE)
IRA	(FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES, FTRI-060 - MAINPOST PX GAS STATION / 218)
RA(C)	(FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON)
INV	(FTRI-070 - FMR BLDG 2341 DISPENSING STATION, FTRI-072 - BLDG 8340 FUEL OIL UST)
ISC	(FTRI-062 - TMP GAS STATION BLDG 388, FTRI-071 - FMR BLDG 2345 DISPENSING STATION)
1995	
CAP	(FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION)
RFI/CMS	(FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE)
IRA	(FTRI-027 - DRY CLEANING FACILITIES AREA )
INV	(FTRI-060 - MAINPOST PX GAS STATION / 218, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354, FTRI-062 - TMP GAS STATION BLDG 388, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION, FTRI-071 - FMR BLDG 2345 DISPENSING STATION, FTRI-073 - BLDG 8360 FUEL OIL UST)
SI	(FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-031 - 354 AREA SOLVENT DETECTIONS (354),

	FTRI-044 - FORMER ASPHALT PLANT (NEAR BLDG 354), FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR)
IMP(C)	(FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION, FTRI-071 - FMR BLDG 2345 DISPENSING STATION, FTRI-072 - BLDG 8340 FUEL OIL UST, FTRI-073 - BLDG 8360 FUEL OIL UST)
RI/FS	(FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-037 - OLD WHITSIDE INCINERATOR AREA, FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)
1996	
RD	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL )
IMP(C)	(FTRI-070 - FMR BLDG 2341 DISPENSING STATION)
RI/FS	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL )
SI	(FTRI-056 - ABANDONED GASOLINE LINE)
INV	(FTRI-053 - POL TANK FARM, FTRI-063 - FMR BLDG 1044 DISPENSING STATION)
1997	
RI/FS	(FTRI-004 - MAIN POST LANDFILL, FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING))
CAP	(FTRI-062 - TMP GAS STATION BLDG 388, FTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION)
INV	(FTRI-054 - CUSTER HILL PX USTS BLDG 5320)
RA(C)	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL )
IRA	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-062 - TMP GAS STATION BLDG 388, FTRI-063 - FMR BLDG 1044 DISPENSING STATION)
1998	
RFI/CMS	(FTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES, FTRI-051 - BLDG. 727 WASTE PIT)
RI/FS	(FTRI-006 - DRMO STORAGE AREA, FTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL))
SI	(FTRI-009 - OB/OD GROUND (RANGE 16) )
2000	
IRA	(FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
RI/FS	(FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)
2001	
SI	(FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
RI/FS	(FTRI-038 - FORSYTH LANDFILL(S))
PA	(FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
IRA	(FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTRI-038 - FORSYTH LANDFILL(S))
2003	
IRA	(FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)
RI/FS	(FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
2004	
RI/FS	(FTRI-009 - OB/OD GROUND (RANGE 16) )
2005	
CAP	(FTRI-053 - POL TANK FARM)
LTM	(FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-062 - TMP GAS STATION BLDG 388, FTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION)
RI/FS	(FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)

2006  
 RI/FS (FTRI-031 - 354 AREA SOLVENT DETECTIONS (354))  
 2007  
 LTM (FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-038 - FORSYTH LANDFILL(S))  
 2008  
 LTM (FTRI-040 - FORMER OIL TESTING LAB (ANCHOR), FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY)  
 RI/FS (FTRI-027 - DRY CLEANING FACILITIES AREA )  
 2009  
 RI/FS (FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR))

**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: 199709

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of IRP at Installation (including LTM phase): 202709

## FORT RILEY IRP Schedule

[Green Box] = phase underway

SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
FTRI-001	CUSTER HILL SANITARY LANDFILL	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-003	SOUTHWEST FUNSTON LANDFILL	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-009	OB/OD GROUND (RANGE 16)	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-027	DRY CLEANING FACILITIES AREA	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-056	ABANDONED GASOLINE LINE	RI/FS IRA	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	RI/FS IRA	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON	LTM	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]

## IRP Costs

Total Funding through FY 2004: \$63,841.0 K

Prior Funding

FY	Phase	Site ID	Obligations	FY Total			
2005	LTM	FTRI-003	\$49.0 K	\$2,076.4 K			
		FTRI-009	\$224.2 K				
		FTRI-011	\$21.0 K				
		FTRI-022	\$14.1 K				
		FTRI-040	\$83.2 K				
		FTRI-047	\$40.1 K				
		RAB/TAPP	RAB/TAPP		\$1.4 K		
			RD		FTRI-019	\$46.6 K	
			RI		FTRI-019	\$90.0 K	
			FTRI-027		\$981.4 K		
			FTRI-031		\$79.0 K		
			FTRI-036		\$68.0 K		
			FTRI-053		\$15.0 K		
			FTRI-056		\$22.0 K		
			FTRI-057		\$341.4 K		
			FTRI-003		\$163.0 K		
		2006	LTM		FTRI-009	\$140.0 K	\$2,189.0 K
FTRI-019	\$207.0 K						
FTRI-022	\$5.0 K						
FTRI-030	\$20.0 K						
FTRI-031	\$25.0 K						
RAB/TAPP	RAB/TAPP			\$3.0 K			
	RD			FTRI-031	\$10.0 K		
	RI			FTRI-027	\$458.0 K		
	FTRI-031			\$74.0 K			
	FTRI-036			\$12.0 K			
FTRI-056	\$386.0 K						
FTRI-057	\$686.0 K						
2007	LTM			FTRI-003	\$123.0 K	\$1,095.0 K	
				FTRI-009	\$91.0 K		
				FTRI-019	\$65.0 K		
				FTRI-022	\$25.0 K		
				FTRI-031	\$81.0 K		
		RD	FTRI-027	\$2.0 K			
			RI/FS	FTRI-027	\$121.0 K		
			FTRI-036	\$40.0 K			
		FTRI-056	\$140.0 K				
		FTRI-057	\$407.0 K				
		2008	LTM	FTRI-003	\$338.0 K		\$1,250.0 K
FTRI-009	\$102.0 K						
FTRI-019	\$71.0 K						



## IRP Costs

		FTRI-031	\$79.0 K	
		FTRI-040	\$50.0 K	
		FTRI-047	\$100.0 K	
	RAB/TAPP	RAB/TAPP	\$1.0 K	
	RD	FTRI-027	\$63.0 K	
	RI/FS	FTRI-027	\$47.0 K	
		FTRI-036	\$54.0 K	
		FTRI-056	\$15.0 K	
		FTRI-057	\$330.0 K	
2009	LTM	FTRI-003	\$147.0 K	\$4,129.0 K
		FTRI-009	\$110.0 K	
		FTRI-019	\$68.0 K	
		FTRI-027	\$61.0 K	
		FTRI-030	\$76.0 K	
		FTRI-031	\$75.0 K	
	RAB	RAB/TAPP	\$2.0 K	
	RI/FS	FTRI-056	\$155.0 K	
		FTRI-057	\$3,435.0 K	

TOTAL PRIOR FUNDING: \$74,580.4 K

### Current Requirements

FY	Phase	Site ID	Requirements	FY Total
2010	IRA	FTRI-056	\$25.0 K	\$1,080.0 K
		FTRI-057	\$498.0 K	
	LTM	FTRI-003	\$100.0 K	
		FTRI-009	\$103.0 K	
		FTRI-019	\$118.0 K	
		FTRI-027	\$67.0 K	
		FTRI-031	\$123.0 K	
	RI/FS	FTRI-057	\$46.0 K	

TOTAL CURRENT REQUIREMENTS: \$1,080.0 K

TOTAL FUTURE REQUIREMENTS: \$3,929.0 K

TOTAL PROGRAM COST: \$79,589.4 K

Required Cost-to-Complete

SITE ID	SITE NAME	Phase	FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total	
ACTIVITY												
FTRI-001	CUSTER HILL SANITARY LANDFILL											
	LTM	2	2	189	2	45	2	2		225	469	
	Landfill cover inspections, groundwater monitoring, and cover repair.										Site Total	469
FTRI-003	SOUTHWEST FUNSTON LANDFILL											
	LTM	51	102	370	15				102		640	
	Landfill/riverbank inspections & repairs, groundwater monitoring, and request partial NPL deletion.										Site Total	640
FTRI-009	OB/OD GROUND (RANGE 16)											
	LTM	106	116	16					88		326	
	Groundwater monitoring.										Site Total	326
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF											
	LTM	15	125	8							148	
	RACR and request partial NPL deletion.										Site Total	148
FTRI-027	DRY CLEANING FACILITIES AREA											
	LTM	175	96						106		377	
	Groundwater monitoring, a final RACR, and request installation NPL deletion.										Site Total	377
FTRI-031	354 AREA SOLVENT DETECTIONS (354)											
	LTM	3	98								101	
	Groundwater monitoring, a RACR, and request partial NPL deletion.										Site Total	101
FTRI-056	ABANDONED GASOLINE LINE											
	RI/FS		50								50	
	IRA	50									50	
	Groundwater monitoring and close-out report.										Site Total	100
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)											
	RI/FS				370						370	
	IRA	531	515	352							1398	
	O&M of treatment systems and site close-out reports.										Site Total	1768
Totals		933	1104	935	387	45	2	298		225	3929	
											Site Total	3929

Programmed Cost-to-Complete

SITE ID	SITE NAME		FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total
	Phase	ACTIVITY									
FTRI-001	CUSTER HILL SANITARY LANDFILL										
	LTM		2	2	189	2	45	2	2	225	469
	Landfill cover inspections, groundwater monitoring, and cover repair.									Site Total	469
FTRI-003	SOUTHWEST FUNSTON LANDFILL										
	LTM		51	102	370	15			102		640
	Landfill/riverbank inspections & repairs, groundwater monitoring, and request partial NPL deletion.									Site Total	640
FTRI-009	OB/OD GROUND (RANGE 16)										
	LTM		106	116	16				88		326
	Groundwater monitoring.									Site Total	326
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF										
	LTM		15	125	8						148
	RACR and request partial NPL deletion.									Site Total	148
FTRI-027	DRY CLEANING FACILITIES AREA										
	LTM		175	96					106		377
	Groundwater monitoring, a final RACR, and request installation NPL deletion.									Site Total	377
FTRI-031	354 AREA SOLVENT DETECTIONS (354)										
	LTM		3	98							101
	Groundwater monitoring, a RACR, and request partial NPL deletion.									Site Total	101
FTRI-056	ABANDONED GASOLINE LINE										
	RI/FS			50							50
	IRA		50								50
	Groundwater monitoring and close-out report.									Site Total	100
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)										
	RI/FS					370					370
	IRA		531	515	352						1398
	O&M of treatment systems and site close-out reports.									Site Total	1768
Totals											
			933	1104	935	387	45	2	298	225	3929
										Site Total	3929

**FORT RILEY**  
**Army Defense Environmental Restoration Program**  
**Military Munitions Response Program**

# MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 4/2

## Installation Site Types with Future and/or Underway Phases

- 1 Landfill  
(FTRI-003-R-01)
- 1 Small Arms Range  
(FTRI-001-R-02)

## Most Widespread Contaminants of Concern

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

## Media of Concern

Groundwater, Sediment, Soil, Surface Water

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

Site ID	Site Name	Action	Remedy	FY	Cost
N/A					

## Total Environmental Restoration, Army (ER,A) Funding

Prior Funding: \$1,570.8 K  
Current Requirements: \$168.0 K  
Future Requirements: \$1,408.0 K

## Duration of MMRP

Date of MMRP Inception: 200303  
Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201209/201209  
Date of MMRP completion including Long Term Management (LTM): 201509

# MMRP Contamination Assessment

## Contamination Assessment Overview

The MMRP manages the environmental and health issues associated with MC and MEC. In 2000, FTRI completed the advance range survey followed by an active/inactive (A/I) range inventory in 2002. The closed, transferring, and transferred range/site inventory report was completed in 2003. That report identified the Sherman Heights Small Arms Range (SHSAR) and the Southeast Funston landfill (SEFL) incinerator site as inactive ranges requiring further investigation. In April 2005 the historical records review on these two sites was completed. The site inspection (SI) work plan was completed July 1, 2005, and the SI was initiated in 2005.

There is a low potential for MEC, MC or UXO at the two sites. Sherman Heights is a small arms range that is wholly contained on the installation. In 1994, lead-contaminated soil was removed from Sherman Heights (Colyer Manor) under CERCLA. The SEFL incinerator site was transferred to the Kansas Department of Wildlife and Parks (KDWP). In 1999, lead-contaminated soil and UXO were removed from the SEFL incinerator site. In summer 2008, the state of Kansas performed a UXO clearance in association with road construction and found no UXO.

There is a third site near the Camp Forsyth Landfill Area 2 contained in the sandbars within the Republican River. The site contains munitions debris. There have been three occasions where UXO removal or blow-in-place was conducted. The site is on the installation boundary and can be accessed by the general public in a relatively uncontrolled manner.

## Cleanup Exit Strategy

Future actions will be determined on the basis of the results of the RI/FS. MC and MEC soil removal, off-site soil disposal, institutional controls, and monitoring may be required.

## MMRP Previous Studies

	Title	Author	Date
1993	Action Memorandum for Removal Action Sensitive-Receptor Lead Site - Colyer Manor Area, Fort Riley Military Installation, Fort Riley, Kansas	Fort Riley	DEC-1993
1994	Work Plan for Rapid Response Removal of Contaminated Soils Pesticide Storage Facility and Colyer Manor Sites, Fort Riley, Kansas	OHM Corporation	JAN-1994
	Project Report for Rapid Response Removal of Contaminated Soils Pesticide Storage Facility and Colyer Manor Sites, Fort Riley, Kansas (5 Volumes),	OHM Corporation	JUN-1994
2002	US Army Active/Inactive (A/I) Range Inventory Range Inventory Binder Fort Riley, Kansas	Colorado State University/FORSCOM	MAR-2002
2003	Closed, Transferring, and Transferred Range/Site Inventory Report Fort Riley, Kansas	e2M	OCT-2003
2005	Stakeholder Final of the Military Munitions Response Program Historical Records Review Fort Riley, Kansas	e2m	APR-2005
	Work Plan Military Munitions Response Program Site Inspection Munitions Response Sites Fort Riley - Kansas	e2m	JUL-2005
2006	Site Inspection Report Military Munitions Response Program Site Inspection Fort Riley, Kansas	e2m	MAY-2006

# MMRP Installation Map(s)





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**FORT RILEY**  
**Military Munitions Response Program**  
**Site Descriptions**

Site ID: FTRI-001-R-02  
Site Name: SHSAR Impact Slope

**STATUS**

Regulatory Driver: CERCLA  
MRSPP Score: 04  
Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)  
Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
<u>RI/FS.....</u>	<u>200708.....</u>	<u>201012</u>
RD.....	201101.....	201103
RA(C).....	201104.....	201209

RIP Date: N/A  
RC Date: 201209

**SITE DESCRIPTION**

The SHSAR Impact Slope munitions response site (MRS) covers approximately 52 acres and is located above the Colyer Manor housing area in Camp Forsyth. Small arms ranges were operational from the 1880s until the 1980s. Pistols firing nine millimeter (mm), .22 caliber, .38 caliber, .45 caliber, small caliber (sub-caliber) qualification anti-tank and .22 caliber (sub-caliber) anti-aircraft machine guns were used on these ranges. During the 2005 site investigation fieldwork, four-inch practice mortars were discovered.

Lead contamination was the focus at the SHSAR Firing Points MRS, which is co-located with the Colyer Manor housing. In 1994 under the IRP, 1500 cubic yards of lead-contaminated soil were removed from a target area near Building 3135. This site received clean closure in a 1994 SI report. Negative lead detections from confirmation soil sampling conducted during the 2005 MMRP Site Investigation fieldwork resulted in clean closure under the MMRP.

In 2010, an RI work plan was reviewed by the USEPA and the KDHE. In 2010, the site was characterized for MEC using a combination of digital and analog geophysical technologies. Anomalies were excavated and evaluated.

**CLEANUP/EXIT STRATEGY**

In 2011, an RI report will be prepared. Depending on the presence of live munitions and the RI report risk assessment, an FS, PP, and ROD may be prepared.

Site ID: FTRI-003-R-01  
Site Name: Camp Forsyth Landfill Area 2 MRS

## STATUS

Regulatory Driver: CERCLA  
MRSPP Score: 04  
Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)  
Media of Concern: Sediment, Surface Water

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
<u>RI/FS.....</u>	<u>200708.....</u>	<u>201104</u>
RD.....	201105.....	201106
RA(C).....	201107.....	201209
LTM.....	201210.....	201509
RIP Date:	N/A	
RC Date:	201209	

## SITE DESCRIPTION

The Camp Forsyth Landfill Area 2 MRS lies along the southwestern boundary of FTRI and covers approximately 30 acres of sandbars and riverbed in the Republican River. The River Walk, a nature trail, passes by the site. A series of warning signs are posted between the site and the River Walk to warn the public of the possible presence of munitions. During the winter months, bald eagles pass over the site as they travel between their roosting site downstream on the Kansas River and their feeding areas upstream on Milford Lake.

Munitions debris was found on a downstream sandbar after the 1993 regional flood. In 1994, this munitions debris consisting of 3.5- and 2.36-inch rockets, M1 mines, and expended small arms ammunitions was destroyed. In 2000 and 2001, a 1500-foot revetment was constructed to stabilize the bank on the FTRI side of the river. Between 2002 and 2009, additional debris, 2.36-inch rockets, and expended small arms ammunition has been found on the sandbar adjacent to the revetment during annual inspections.

In 2010, an RI work plan was reviewed by the USEPA and the KDHE. In 2010, the site was characterized for MEC using a combination of digital and analog geophysical technologies. Anomalies were excavated and evaluated.

## CLEANUP/EXIT STRATEGY

In 2011, an RI report will be prepared. Depending on the presence of live munitions and the RI report risk assessment, an FS, a PP, and a ROD may be prepared.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-001-R-01	SHERMAN HEIGHTS SMALL ARMS	200605	Made RC after the June 2006 Site Investigation based on no MEC or MC Contamination.
FTRI-002-R-01	SOUTHEAST FUNSTON LANDFILL	200605	Made RC after the June 2006 Site Investigation based on no MEC or MC Contamination.

# MMRP Schedule

Date of MMRP Inception: 200303

## Past Phase Completion Milestones

2004

PA (FTRI-001-R-01 - SHERMAN HEIGHTS SMALL ARMS , FTRI-001-R-02 - SHSAR Impact Slope, FTRI-002-R-01 - SOUTHEAST FUNSTON LANDFILL, FTRI-003-R-01 - Camp Forsyth Landfill Area 2 MRS)

2006

SI (FTRI-001-R-01 - SHERMAN HEIGHTS SMALL ARMS , FTRI-001-R-02 - SHSAR Impact Slope, FTRI-002-R-01 - SOUTHEAST FUNSTON LANDFILL, FTRI-003-R-01 - Camp Forsyth Landfill Area 2 MRS)

## Additional Past Phase Completion Milestones

2003

Preliminary Assessment, Sites FTRI-001-R-01, FTRI-001-R-02, FTRI-002-R-01, FTRI-003-R-01, October

2005

Site Investigation, Sites FTRI-001-R-01, FTRI-001-R-02, FTRI-002-R-01, FTRI-003-R-01, December

## 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
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	CFLA2 Decision Document	20130930
FTRI-001-R-02	SHSAR Impact Slope	SHSAR Impact Slope Decision Document	20110930

Final RA(C) Completion Date: 201209

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of MMRP at Installation (including LTM phase): 201509

## FORT RILEY MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
FTRI-001-R-02	SHSAR Impact Slope	RI/FS						
		RD						
		RA(C)						
SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	RI/FS						
		RD						
		RA(C)						
		LTM						

## MMRP Costs

Total Funding through FY 2004:        \$268.7 K

Prior Funding

FY	Phase	Site ID	Obligations	FY Total
2005	SI	MMRP Sites	\$17.0 K	\$17.0 K
2006	SI	FTRI-001-R-01	\$3.0 K	\$6.0 K
		FTRI-003-R-01	\$3.0 K	
2007	RI	FTRI-001-R-02	\$600.0 K	\$1,236.1 K
		FTRI-003-R-01	\$616.1 K	
	SI	FTRI-003-R-01	\$20.0 K	
2008	RI/FS	FTRI-001-R-02	\$22.0 K	\$43.0 K
		FTRI-003-R-01	\$21.0 K	

TOTAL PRIOR FUNDING:        \$1,570.8 K

Current Requirements

FY	Phase	Site ID	Requirements	FY Total
2010	RI/FS	FTRI-001-R-02	\$94.0 K	\$168.0 K
		FTRI-003-R-01	\$74.0 K	

TOTAL CURRENT REQUIREMENTS:        \$168.0 K

TOTAL FUTURE REQUIREMENTS:        \$1,408.0 K

TOTAL PROGRAM COST:        \$3,146.8 K



Required Cost-to-Complete

SITE ID	SITE NAME		FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total
ACTIVITY	Phase										
FTRI-001-R-02	SHSAR Impact Slope										
	RI/FS		32								32
	RD		26								26
	RA(C)		876								876
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.										Site Total	934
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS										
	RI/FS		34								34
	RD		10								10
	RA(C)		269								269
	LTM				161						161
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.										Site Total	474
Totals											
			1247		161						1408
										Site Total	1408

Programmed Cost-to-Complete

SITE ID	SITE NAME		FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total
	Phase	ACTIVITY									
FTRI-001-R-02	SHSAR Impact Slope										
	RI/FS		32								32
	RD		26								26
	RA(C)		876								876
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.										Site Total	934
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS										
	RI/FS		34								34
	RD		10								10
	RA(C)		269								269
	LTM				161						161
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.										Site Total	474
Totals											
			1247		161						1408
										Site Total	1408

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**FORT RILEY**  
**Army Defense Environmental Restoration Program**  
**Compliance Restoration**

# CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 3/0

Installation Site Types with Future and/or Underway Phases

- 1 Contaminated Ground Water  
(CC-FTRI-01)
- 2 Underground Storage Tank  
(CC-FTRI-09, CC-FTRI-10)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL)

Media of Concern

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY	Cost
N/A					

Total Environmental Restoration, Army (ER,A) Funding

Prior Funding: \$0 K  
Current Requirements: \$148.0 K  
Future Requirements: \$196.0 K

Duration of CR

Date of CR Inception: 199104  
Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201209/201209  
Date of CR completion including Long Term Management (LTM): 202501

## CR Contamination Assessment

### Contamination Assessment Overview

The CR sites have POL contamination in soil and groundwater resulting from fuel releases at a petroleum storage facility, fuel dispensing facilities, and motor pools.

### Cleanup Exit Strategy

Conduct groundwater monitoring until the active facilities (CC-FTRI-01 POL Tank Farm and CC-FTRI-09 Fuel Dispensing Stations at 388 and 5320) cease operations. Evaluate sites to develop cleanup/exit strategies. Obtain site closures from KDHE, NCDO. Abandon wells when groundwater monitoring is complete.

The results of the 2010 site investigations will determine future actions at CC-FTRI-10 Fuel USTs (active and abandoned). It is anticipated that the Building 1460 USTs will receive clean closure from KDHE, NCDO. Soil excavation and soil-vapor extraction will probably be required for the Building 2597 USTs before requesting site closure.

## CR Previous Studies

	Title	Author	Date
2008	Project Submittals for the Petroleum, Oil, and Lubricant Tank Farm Custer Hill Fort Riley, Kansas	Burns & McDonnell/ECC	JAN-2008
2009	2008 Data Summary Report Product Recovery Remediation System for the POL Tank Farm Custer Hill Fort Riley, Kansas	Burns & McDonnell/ECC	JUN-2009
2010	Work Plan Fuels Sites Environmental Investigation (Multiple Sites) at Fort Riley, Kansas (388, 1460, 2597, & 5320)	Malcolm Pirnie/Burns & McDonnell	FEB-2010

**FORT RILEY**  
**Compliance Restoration**  
**Site Descriptions**



## STATUS

Regulatory Driver: RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199104.....	200509
INV.....	199809	201109
IRA.....	200709	201209

RIP Date: N/A  
RC Date: 201209

## SITE DESCRIPTION

CC-FTRI-01 (alias FTRI-053) is an active POL Tank Farm, located on First Division Road on the eastern side of the Custer Hill Troop Area. The construction of the POL Tank Farm facility began in 1987 and was completed in 1989. The facility was constructed to consolidate storage of petroleum products for the Custer Hill Troop Area. The products currently stored at the POL Tank Farm in six ASTs consist of motor gasoline (MOGAS), diesel, and slop oil (recyclable liquid petroleum products). The site has been shifted from AEDB-CC to the CR program.

POL records indicate that spills varying in magnitude have occurred since the facility began operations. Free-product recovery events have resulted in only partial recovery. The POL Tank Farm has undergone several phases of an ongoing site investigation that found measurable free product and levels of benzene, toluene, ethylbenzene, and xylene (BTEX) that exceed MCLs in the groundwater. Low concentrations of fuel-related contaminants were also detected in some sediment samples collected from an adjacent ephemeral streambed.

Manual removal of free product has reduced, but not eliminated, the presence of free product within the POL Tank Farm.

In March 2008, the belt skimmer system was removed based on its lack of effectiveness and new recovery systems were installed in two wells. A total of 49 gallons of free product had been recovered through 2009.

Groundwater sampling and free-product recovery will continue through 2011.

## CLEANUP/EXIT STRATEGY

The 2011 groundwater sampling event will be the basis for future decisions.

Upon ceasing operations, develop a cleanup/exit strategy.

Well abandonment will occur when all groundwater monitoring is completed.

Site ID: CC-FTRI-09

Site Name: Fuel Dispensing Stations

## STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200810.....	200811
LTM.....	200812.....	202501
RIP Date:	N/A	
RC Date:	200811	

## SITE DESCRIPTION

This site consists of two active fuel dispensing stations. Building 388 is a transportation motor pool dispensing station. In 2008, approximately 32 gallons of free product were recovered from the site and the groundwater has benzene contamination above the MCL of five ug/L. Building 5320 is an Army, Air Force Exchange Services (AAFES) service station that also has benzene groundwater contamination above the MCL. Both sites are in the "monitor" status in KDHE's Buried Tank Leak Assessment database. The site has been transferred from the AEDB-CC to the CR program.

The KDHE has approved a five-year groundwater sampling scenario while the sites are active.

Once either facility is shut down, the site data will be analyzed and may require cleanup action based on that analysis.

## CLEANUP/EXIT STRATEGY

Continue five-year groundwater sampling (2015 and 2020) until sites cease operations.

Upon a site ceasing operations, develop a cleanup/exit strategy.

Well abandonment will occur when all groundwater monitoring is completed.

Site ID: CC-FTRI-10

Site Name: Fuel USTs (Active & Abandoned)

## STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200810.....	200810
INV.....	200909.....	201109

RIP Date: N/A

RC Date: 201109

## SITE DESCRIPTION

These two sites have active and abandoned-in-place USTs. Building 1460 has two active fuel USTs that are adjacent the former Building 1044 UST site that has extensive soil and groundwater contamination. There is also a used oil UST that was abandoned in place, requires site characterization, and is in the "hold" status in KDHE's Buried Tank Leak Assessment database. The site was transferred from the AEDB-CC to the CR program.

Building 2597 is an AAFES service station. Two fuel USTs were abandoned in place in 2008, has POL soil contamination, has two new fuel ASTs, and is in "active" status in the KDHE Buried Tank Leak Assessment database.

The proposed site investigation at the two Building 1460 fuels USTs will determine if they are contributing to the Building 1044 groundwater plume and if there is soil and/or groundwater contamination associated with the used oil UST. The proposed site investigation at Building 2597 will determine the extent of soil and/or groundwater contamination from the abandoned-in-place fuels USTs.

The likely contaminants at both sites are BTEX, methyl tert-butyl ether (a fuel additive), and naphthalene.

## CLEANUP/EXIT STRATEGY

Based on outcome of the site investigations, it is anticipated that the building 1460 site will be closed and the building 2597 site will require soil-vapor extraction and soil excavation in 2011 before requesting site closure.

## Site Closeout (No Further Action) Summary

Site ID            Site Name  
There are no NFA sites

NFA Date        Documentation

## CR Schedule

Date of CR Inception: 199104

### Past Phase Completion Milestones

2005

ISC (CC-FTRI-01 - POL Tank Farm Site)

2009

ISC (CC-FTRI-09 - Fuel Dispensing Stations, CC-FTRI-10 - Fuel USTs (Active & Abandoned))

### 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:

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of CR at Installation (including LTM phase): 202501

## FORT RILEY CR Schedule

[Green Box] = phase underway

SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
CC-FTRI-01	POL Tank Farm Site	INV	[Green Box]	[Green Box]				
		IRA	[Green Box]	[Green Box]				
SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
CC-FTRI-09	Fuel Dispensing Stations	LTM	[Green Box]	[Green Box]	[Green Box]	[Green Box]	[Green Box]	[Green Box]
SITE ID	SITE NAME	PHASE	FY11	FY12	FY13	FY14	FY15	FY16+
CC-FTRI-10	Fuel USTs (Active & Abandoned)	INV	[Green Box]					

## CR Costs

Total Funding through FY 2008: \$0 K

### Prior Funding

FY	Phase	Site ID	Obligations	FY Total
TOTAL PRIOR FUNDING:				\$0 K

### Current Requirements

FY	Phase	Site ID	Requirements	FY Total
2010	INV	CC-FTRI-10	\$94.0 K	\$148.0 K
	IRA	CC-FTRI-01	\$30.0 K	
	LTM	CC-FTRI-09	\$24.0 K	

TOTAL CURRENT REQUIREMENTS: \$148.0 K

TOTAL FUTURE REQUIREMENTS: \$196.0 K

TOTAL PROGRAM COST: \$344.0 K

Required Cost-to-Complete

SITE ID	SITE NAME		FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total
ACTIVITY	Phase										
CC-FTRI-01	POL Tank Farm Site										
	IRA		36	5							41
	Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.									Site Total	41
CC-FTRI-09	Fuel Dispensing Stations										
	LTM						25			25	50
	Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.									Site Total	50
CC-FTRI-10	Fuel USTs (Active & Abandoned)										
	INV		105								105
	Building 1460 site closure and building 2597 remediation.									Site Total	105
Totals			141	5			25			25	196
										Site Total	196



Programmed Cost-to-Complete

SITE ID	SITE NAME		FY11	FY12	FY13	FY14	FY15	FY16	FY17	Out Yrs	Total
ACTIVITY	Phase										
CC-FTRI-01	POL Tank Farm Site										
	IRA		36	5							41
	Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.									Site Total	41
CC-FTRI-09	Fuel Dispensing Stations										
	LTM						25			25	50
	Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.									Site Total	50
CC-FTRI-10	Fuel USTs (Active & Abandoned)										
	INV		105								105
	Building 1460 site closure and building 2597 remediation.									Site Total	105
Totals											
			141	5			25			25	196
										Site Total	196

Costs - Combined Requirements Spreadsheet

PROGRAM	SITE ID		SITE NAME							Out Yrs	Total
	Phase	FY11	FY12	FY13	FY14	FY15	FY16	FY17			
ACTIVITY											
IRP	FTRI-001		CUSTER HILL SANITARY LANDFILL								
	LTM	2	2	189	2	45	2	2		225	469
Landfill cover inspections, groundwater monitoring, and cover repair.											
IRP	FTRI-003		SOUTHWEST FUNSTON LANDFILL								
	LTM	51	102	370	15			102			640
Landfill/riverbank inspections & repairs, groundwater monitoring, and request partial NPL deletion.											
IRP	FTRI-009		OB/OD GROUND (RANGE 16)								
	LTM	106	116	16				88			326
Groundwater monitoring.											
IRP	FTRI-019		FORMER FIRE TRAINING AREA FFTA-MAAF								
	LTM	15	125	8							148
RACR and request partial NPL deletion.											
IRP	FTRI-027		DRY CLEANING FACILITIES AREA								
	LTM	175	96					106			377
Groundwater monitoring, a final RACR, and request installation NPL deletion.											
IRP	FTRI-031		354 AREA SOLVENT DETECTIONS (354)								
	LTM	3	98								101
Groundwater monitoring, a RACR, and request partial NPL deletion.											
IRP	FTRI-056		ABANDONED GASOLINE LINE								
	IRA	50									50
	RI/FS		50								50
Groundwater monitoring and close-out report.											
IRP	FTRI-057		6200 AREA FUEL OIL LINE (ANCHOR)								
	RI/FS				370						370
	IRA	531	515	352							1398
O&M of treatment systems and site close-out reports.											
										<b>IRP Total</b>	
		933	1104	935	387	45	2	298		225	3929
MMPR	FTRI-001-R-02		SHSAR Impact Slope								
	RD	26									26
	RA(C)	876									876
	RI/FS	32									32
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.											
MMPR	FTRI-003-R-01		Camp Forsyth Landfill Area 2 MRS								
	LTM			161							161
	RA(C)	269									269
	RD	10									10
	RI/FS	34									34
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.											

Costs - Combined Requirements Spreadsheet

PROGRAM	SITE ID		SITE NAME					Out Yrs	Total	
	Phase	FY11	FY12	FY13	FY14	FY15	FY16			FY17
ACTIVITY										
								<b>MMRP Total</b>		
		1247		161					1408	
CR	CC-FTRI-01	POL Tank Farm Site								
	IRA	36	5						41	
Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.										
CR	CC-FTRI-09	Fuel Dispensing Stations								
	LTM				25			25	50	
Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.										
CR	CC-FTRI-10	Fuel USTs (Active & Abandoned)								
	INV	105							105	
Building 1460 site closure and building 2597 remediation.										
								<b>CR Total</b>		
		141	5		25			25	196	
								<b>Grand Total</b>		
		2321	1109	1096	387	70	2	298	250	5533

Costs - Combined Programmed Spreadsheet

PROGRAM	SITE ID	SITE NAME									Out Yrs	Total
ACTIVITY	Phase	FY11	FY12	FY13	FY14	FY15	FY16	FY17				
IRP	FTRI-001	CUSTER HILL SANITARY LANDFILL										
	LTM	2	2	189	2	45	2	2			225	469
Landfill cover inspections, groundwater monitoring, and cover repair.												
IRP	FTRI-003	SOUTHWEST FUNSTON LANDFILL										
	LTM	51	102	370	15			102				640
Landfill/riverbank inspections & repairs, groundwater monitoring, and request partial NPL deletion.												
IRP	FTRI-009	OB/OD GROUND (RANGE 16)										
	LTM	106	116	16				88				326
Groundwater monitoring.												
IRP	FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF										
	LTM	15	125	8								148
RACR and request partial NPL deletion.												
IRP	FTRI-027	DRY CLEANING FACILITIES AREA										
	LTM	175	96					106				377
Groundwater monitoring, a final RACR, and request installation NPL deletion.												
IRP	FTRI-031	354 AREA SOLVENT DETECTIONS (354)										
	LTM	3	98									101
Groundwater monitoring, a RACR, and request partial NPL deletion.												
IRP	FTRI-056	ABANDONED GASOLINE LINE										
	IRA	50										50
	RI/FS		50									50
Groundwater monitoring and close-out report.												
IRP	FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)										
	RI/FS				370							370
	IRA	531	515	352								1398
O&M of treatment systems and site close-out reports.												
											IRP Total	
		933	1104	935	387	45	2	298			225	3929
MMRP	FTRI-001-R-02	SHSAR Impact Slope										
	RD	26										26
	RA(C)	876										876
	RI/FS	32										32
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.												
MMRP	FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS										
	LTM		161									161
	RA(C)	269										269
	RD	10										10
	RI/FS	34										34
Pending RI Report, a FS, PP, ROD, RD, and RA(C) may be prepared.												

Costs - Combined Programmed Spreadsheet

PROGRAM	SITE ID		SITE NAME							Out Yrs	Total
	Phase	FY11	FY12	FY13	FY14	FY15	FY16	FY17			
ACTIVITY											
										<b>MMRP Total</b>	
		1247		161						1408	
CR	CC-FTRI-01	POL Tank Farm Site									
	IRA	36	5							41	
Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.											
CR	CC-FTRI-09	Fuel Dispensing Stations									
	LTM				25				25	50	
Groundwater monitoring and upon cessation of facility operations evaluate cleanup/exit strategy.											
CR	CC-FTRI-10	Fuel USTs (Active & Abandoned)									
	INV	105								105	
Building 1460 site closure and building 2597 remediation.											
										<b>CR Total</b>	
		141	5		25				25	196	
										<b>Grand Total</b>	
		2321	1109	1096	387	70	2	298	250	5533	

## Community Involvement

Technical Review Committee (TRC): 199201  
Community Involvement Plan (Date Published): 200509  
Restoration Advisory Board (RAB): RAB established 199709  
RAB Adjournment Date: N/A  
RAB Adjournment Reason: None

### Additional Community Involvement Information

On Sept. 30, 1997, FTRI held its orientation meeting for members of the community who were interested in participating on a RAB. Adjacent landowners, local environmental groups, local college professors, mayors and other public officials, members of the local Chambers of Commerce, and select individuals recommended to the Directorate of Environment and Safety were invited to the orientation meeting by direct mail. Newspaper advertisements and television and radio announcements were also used to announce the formation of the RAB.

Approximately 20 people attended the orientation meeting. If they had not completed and returned an application beforehand, interested community members were asked to complete an application, a biographical information form and a demographic information form. A community co-chair was elected by the community representatives who were in attendance. The low number of applications received at that time made it possible to appoint everyone that applied to be a member of the RAB.

The current RAB members include citizens from Riley and Geary Counties in addition to the USEPA, KDHE and representatives from the Geary County Extension Office and the city of Ogden (former mayor).

The RAB meets on an as-needed basis or once per year. In July 2004 the RAB members provided public comment on the Former Fire Training Area (FTRI-019) PP. The repository was eliminated in Clay Center, KS at Clay Center's request. In 2005 a new community involvement plan was developed. The members also provided public comment on the 354 Area Solvent Detections (FTRI-031) PP.

Two RAB meetings were held in 2007 and RAB meetings also were held in April 2008 and April 2009.

Over the next year RAB members will continue to gain knowledge of FTRI's sites and regulatory issues, review documents, provide technical advice, and participate in formal public comment period activities.

### Administrative Record is located at

407 Pershing Court  
Fort Riley, KS 66442  
(785) 239-3194/8536/3343

### Information Repository is located at

Dorothy Bramlage Public Library  
230 West Seventh Street  
Junction City, KS 66441  
(785) 238-4311

Manhattan Public Library  
629 Poyntz Avenue  
Manhattan, KS 66502  
(785) 776-4741

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

Potential TAPP: N/A

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