

FY2009
as of Oct 2008

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 multi-year 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, with the costs and schedules required to conduct investigations and take the necessary remedial actions (RAs).

In an effort to coordinate planning information between the restoration manager, the US Army Environmental Command (USAEC), Fort Riley, the Installation Management Command (IMCOM), executing agencies, and regulatory agencies, an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all 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. Project schedules are re-negotiated annually based on available resources or as needed due to project requirements.

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Acronyms

A/I	Active/Inactive
AEDB-R	Army Environmental Database - Restoration
AGL	Abandoned Gasoline Line
AOC	Area of concern
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DCE	cis-1,2-dichloroethylene
DCFA	Dry Cleaning FacilitiesArea
ESI	Expanded Site Investigation
FFA	Federal Facility Agreement
FORCOM	US Army Forces Command
FS	Feasibility Study
FY	Fiscal Year
IAP	Installation Action Plan
IMCOM	Installation Management Command
IRP	Installation Restoration Program
IWSA	Installation-Wide Site Assessment
K	Thousand
KDHE	Kansas Department of Health and Environment
KDWP	Kansas Department of Wildlife and Parks
LTM	Long-Term Management
MC	Munitions Constituent
MCL	Maximum Contaminant Level
MEC	Munitions and Explosives of Concern
mg/kg	milligrams/kilograms
mm	millimeter
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MRS	Munitions response site
N/A	Not Applicable
NCP	National Oil & Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List
OB/OD	Open Burning/Open Detonation
OD	Open Detonation
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
POL	Petroleum, Oil & Lubricants
PP	Proposed Plan
RAB	Restoration Advisory Board
RAC	Risk Assessment Code
RACR	Remedial Action Completion Report
RAP	Remedial Action Plan

Acronyms

RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SEFL	Southeast Funston Landfill
SFL	Southwest Funston Landfill
SHSAR	Sherman Heights Small Arms Range
TCE	Trichloroethylene
ug/L	micrograms per liter
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UXO	Unexploded Ordnance
WWI	World War I
WWII	World War II

Installation Information

Installation Locale

Installation Size (Acreage): 100707

City: Junction City

County: Clay, Geary, & Riley

State: Kansas

Other Locale Information

Fort Riley is located west of Manhattan (population 38,000) on 100,707 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 Fort Riley, 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 U.S. Army Forces Command (FORSCOM), execute garrison operations as directed by the Installation Management Command (IMCOM), and conduct homeland defense operations and support civil authorities.

Lead Organization

IMCOM - West

Lead Executing Agencies for Installation

USACE, Kansas City District

US Geological Survey

Regulator Participation

Federal

USEPA, Region VII

State

Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation and KDHE Bureau of Environmental Field Services - North Central District Office

National Priorities List (NPL) Status

A score of 33.8 was recorded on 199008.

Date for RA(C) Completion:

201209

Date for NPL Deletion

IR: N/A

MR: N/A

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

RAB established 199709

Installation Program Summaries

IRP

Primary Contaminants of Concern: Metals, Perchlorate, Pesticides, Petroleum, Oil and Lubricants, Volatiles

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

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

Prior Funding: \$69,201.4 K

Current Requirements: \$1,250.0 K

Future Requirements: \$7,630.0 K

MMRP

Primary Contaminants of Concern: Munitions and explosives of concern, Munitions constituents

Affected Media of Concern: Groundwater, Soil, Surface Water

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

Prior Funding: \$1,527.8 K

Current Requirements: \$43.0 K

Future Requirements: \$2,219.0 K

Land Use Control (LUC) Summary

LUC Title: DRMO Trench Area ROD/RAP

Site(s):

ROD/DD Title: ROD/RAPDRMO TRENCH AREA

Location of LUC

Open Trench and DRMO groundwater.

Land Use Restriction: Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment

Types of Engineering Controls: Fences

Types of Institutional Controls: Dig Permits, Restrictions on Groundwater Withdrawal

Date in Place: 199803

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: State

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 and north of Republican River, southwest of Camp Forsyth cantonment area.

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: N/A

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: Forsyth Ldfl 2 / Repub. R

Site(s): FTRI-038

ROD/DD Title: Forsyth Landfill Area 2 Decison Memo

Location of LUC

Along and north of Republican River, southwest of Camp Forsyth cantonment area.

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: N/A

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: SE Funston Incinerator

Site(s): FTRI-029

ROD/DD Title: Decision Memo, SE Funston Incinerator

Location of LUC

The incinerator and portion of SE Funston Landfill lie east of K-18 highway at the SE corner of Camp Funston Cantonment area, north of the Kansas River. This property was previously transferred to the Kansas Dept of Wildlife and Parks (KDWP). A Memorandum of Agreement was finalized with the KDWP to include specific provisions for access and land/ground-water use. There will be public notification signs and open entry for the installation to do long-term monitoring.

Land Use Restriction: Landfill restriction - Restrict access to the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Notices (in the grantor/grantee index, newspapers, etc.), Restrictions on Groundwater Withdrawal, Restrictive covenants

Date in Place: 200209

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Transferee Reporting

Contaminants: METALS, Unexploded Ordnance(UXO)

Additional Information

N/A



Land Use Control (LUC) Summary

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. Bounded by river, levee and highway embankment.

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: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: 5 Year Reviews

Contaminants: METALS

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 U.S. 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 sixty 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 Fort Riley. 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, Fort Riley 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 Fort Riley. 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.

Because Fort Riley is used to train Army personnel, the installation's history does not include large-scale manufacturing activities. Rather, development of Fort Riley 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, insecticides, and herbicides 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, non-hazardous municipal waste and construction debris.

Past activities at Fort Riley 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 Fort Riley began in 1990-1991 in response to the Army's IRP and the Federal Facility Agreement (FFA).

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

Installation Program Cleanup Progress

IRP

- Prior Year Progress:**
- Cover repair and annual groundwater sampling for OU 001 was completed
 - The Pilot Study Report and the PP, ROD, and RD/RAP for OU 003 were completed
 - MNAs for OU 004 and OU 005 were conducted under LTM
- Future Plan of Action:** LTM will be conducted at OU 001, 003, 004, 005, and OB-OD. An additional soil and sediment sampling event will be conducted for OU 002. Dual-phase extraction will be conducted for POL USTs.

MMRP

- Prior Year Progress:** An RI/FS is underway.
- Future Plan of Action:** An RD will begin in FY09, and RAC will begin in FY10.

FORT RILEY
Army Defense Environmental Restoration Program
Installation Restoration Program

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IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/RC Sites: 72/68

Installation Site Types with Future and/or Underway Phases

- 1 Explosive Ordnance Disposal Area
(FTRI-009)
- 1 Fire/Crash Training Area
(FTRI-019)
- 2 Landfill
(FTRI-003, FTRI-036)
- 1 POL (Petroleum/Lubricants) Lines
(FTRI-057)
- 1 Pesticide Shop
(FTRI-030)
- 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, Volatiles

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	1989	TBD
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	FRA	IN-SITU SOIL TREATMENT	1990	TBD
FTRI-059	REMOVE USTS	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-063	FMR BLDG 1044 DISPENSING STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-066	FMR BLDG 1245 DISPENSING STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-067	FMR BLDG 1539 DISPENSING STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-068	FMR BLDG 1637 DISPENSING STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-069	FMR BLDG 1890 DISPENSING STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990	TBD
FTRI-054	CUSTER HILL PX USTS BLDG 5320	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991	\$99.0 K
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	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-060	MAINPOST PX GAS STATION / 218	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1993	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	OTHER	1994	\$27.0 K

IRP Summary

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

Site ID	Site Name	Action	Remedy	FY	Cost
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON	FRA	WASTE REMOVAL - SOILS	1994	TBD
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-071	FMR BLDG 2345 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994	TBD
FTRI-072	BLDG 8340 FUEL OIL UST	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994	TBD
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	CAPPING	1995	\$955.0 K
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-070	FMR BLDG 2341 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-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-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	2000	\$162.0 K
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	2002	\$544.0 K

Total Environmental Restoration, Army (ER,A) Funding

Prior Funding (Includes BRAC funding from FY04 and prior years)	\$69,201.4 K
Current Requirements:	\$1,250.0 K
Future Requirements:	\$7,630.0 K

IRP Summary

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 Southwest Funston Landfill where monitoring indicated groundwater contamination.

Five IRP sites have been designated as Operable Units (OUs):

- FTRI-003 Southwest Funston Landfill,
- FTRI-030 Pesticide Storage Facility,
- FTRI-027 Dry Cleaning Facilities Area,
- FTRI-019 Former Fire Training Area-Marshall Army Airfield, 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 are chlorinated solvents and pesticides.

The Southwest Funston Landfill (SFL) was operated from the mid-1950s through 1981. Post-closure monitoring and Remedial Investigation/Feasibility Study (RI/FS) sampling efforts detected contaminants such as chlorinated solvents, petroleum hydrocarbons, and metals in the groundwater at low levels. On August 6, 1997 the Record of Decision (ROD) was signed and institutional controls and LTM have been implemented. As a result of vinyl chloride being present above the Maximum Contaminant Level (MCL), five-year reviews will be conducted per the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

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 pesticide and arsenic was the primary concern. A ROD for No Further Action (NFA) for this site was completed in FY97. A sampling event will be conducted in FY09 to determine if there is residual contamination above actionable levels; if there is not, a remedial action completion report (RACR) will be sought.

The Dry Cleaning Facilities Area has two sites with soil and ground-water contamination from dry cleaning operations using perchloroethylene/tetrachloroethylene (PCE). Dry cleaning occurred at Building 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 hotspots: 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 an RD/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.

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 has been signed and the Remedial Design/Remedial Action Plan (RD/RAP) approved. The alternative of monitored natural attenuation (MNA) with institutional controls was put in place. If no contaminants remain above the MCLs for a period of three years, a Remedial Action Completion Report (RACR) will be generated. Currently there are no contaminants of concern above the MCLs.

The 354 Area Solvent Detections site has contamination that was discovered during investigations of a Petroleum, Oil, and Lubricants (POL)/Underground Storage Tank (UST) site. There are volatile organic compounds (VOC) that include PCE, trichloroethylene (TCE), dichloroethylene (DCE), and benzene. The ROD has been signed and the RD/RAP approved. The site is in MNA with institutional controls.

Cleanup Exit Strategy

The principal objectives of the Fort Riley Installation Restoration Program (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 use for unacceptable land uses. In order to accomplish these objectives, the efforts delineated in the following list are essential and must be achieved.

1. Conduct the long-term management for the five Operable Units as prescribed in the Proposed Plans (PPs), documented by the

IRP Contamination Assessment

RODs, and determined to be required by the analysis of the data from the sampling events.

2. Produce RACRs for those OUs that have attained the Remedial Action Objectives defined in the PPs and RODs and no longer have contaminants remaining in-situ above actionable levels.
3. Perform the Five-Year Review requirements per the CERCLA for all sites that may have hazardous substances left in place above the MCLs, or have not achieved the Remedial Action Objectives, and/or do not allow for unlimited use and unrestricted exposure.
4. Develop the Final Close-Out Report to begin the procedures for requesting delisting of the installation from the NPL.
5. Complete the additional sampling for five sites under the Extended Site Investigation-Multi Sites (ESI) Final Report recommendations. Site FTRI-046 Former DS/GS-Building 1693 & Adjacent Areas will be tested as well to determine if there is a migration potential for in-situ contaminants to impact human health or the environment. If the results determine there are no impacts, a closure report will seek regulatory concurrence.
6. Conduct a soil-vapor/dual-phase extraction effort to address fuels-related soil & groundwater contamination at sites FTRI-063 (1044), 066 (1245), and 068 (1637). These three sites are located in Camp Funston that is undergoing massive buildup to accommodate the mission changes and new missions assigned to the installation and are top priority to be addressed. Installation and implementation of active remediation systems are required to address the extensive contamination. FTRI-057 and FTRI-062 are low priority as they do not constitute a significant potential to impact human health or the environment. They may require some effort to support installation requests for closure to the KDHE.
7. FTRI-009 OB/OD has perchlorate and TCE contamination. The site does not have identifiable risks to human health or the environment at this time, but it requires further monitoring and sampling for two or three more years. A decision will be required on the disposition of the site after the analysis of the data from the monitoring program. This site will remain active for training and emergency disposal of unexploded ordnance (UXO) per a letter from the KDHE.
8. The Abandoned Gasoline Line (AGL) (FTRI-056) has undergone an in-situ treatment for the fuels-related soil and groundwater contamination. Monitoring has shown that additional treatment is required. Additional monitoring will be required after the next treatment to determine the effectiveness. Once the soil & groundwater contaminants have dropped below actionable levels, a closeout will be sought for the site.

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	Fort Riley	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
	Feasibility Study Addendum for the Dry Cleaning Facilities Study Area	Burns & McDonnell	MAR-2005

IRP Previous Studies

2005	Title	Author	Date
	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	Fort Riley	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
2007			

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

FORT RILEY
Installation Restoration Program
Site Descriptions

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Site Name: SOUTHWEST FUNSTON LANDFILL

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
Contaminants of Concern: Volatiles
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
LTM.....	199709.....	202709

RIP Date: N/A
RC Date: 199709

SITE DESCRIPTION

The Southwest Funston Landfill is a landfill site of approximately 120-acres located in the southern portion of Fort Riley, adjacent to the southwest corner of the Camp Funston cantonment area. From the mid-1950's to 1981 municipal & industrial waste were disposed of here. In 1982 the landfill was closed under a Closure Plan administered by the KDHE. Following the inspection, the landfill closure was approved by the KDHE in 1983.

Post-closure activities are 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 in 1994, and improving the existing cover in 1996.

Groundwater monitoring occurred from 1982 to 1983 and from 1992 to 2008. Prior to 2006, vinyl chloride was detected in the groundwater above the MCL of 2 ug/L. In 2006, volatile organic compounds were not present at concentrations above MCLs. Two sampling events in 2007 showed the continued presence of vinyl chloride in groundwater in only one well at a concentration near the MCL. LTM efforts include repair and management of the native grass and soil cover, use of institutional controls to prevent on-site groundwater use, and performance of long-term, annual, groundwater monitoring. An inspection of the landfill is performed annually.

In August of 2002 the first Five-Year Review report was completed; no changes in the remedy were needed. In 2007 the second Five-Year Review was completed. The site does not present a risk to human health and the environment under current conditions and no changes to the remedy are needed.

CLEANUP/EXIT STRATEGY

Groundwater monitoring will continue on an annual basis until FY12. A Remedial Action Completion Report will be completed if the contaminants of concern are below the MCLs. Prescribed burns will be performed approximately every three years to enhance the native grass cover. Annual inspections of the bank stabilization structure and cover will be conducted and periodic repair conducted as required. Unnecessary monitoring wells will be removed. Five-Year Review reports will be required. The next review is planned for 2012.

Site ID: FTRI-009

Site Name: OB/OD GROUND (RANGE 16)

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Metals, Perchlorate, Volatiles

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 Open Burning/Open Detonation 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. This practice was discontinued in the early 1980's. 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.

In April of 2004 a groundwater sampling event was conducted and subsequent samplings identified the presence of perchlorate.

CLEANUP/EXIT STRATEGY

Groundwater and surface-water monitoring will continue on an annual basis until FY11 when a decision will be made on site activities in relation to perchlorate, metals, and chlorinated solvent contamination after evaluation of the existing data.

Five-Year Review reports will be required. The next review is planned for 2012.

Site Name: FORMER FIRE TRAINING AREA FFTA-MAAF

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
Contaminants of Concern: Volatiles
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 1960's 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.

In the 1990's, based on the analysis of samples taken from private wells, off-post, groundwater contamination was identified above the MCLs. The impacted private wells have been replaced by new wells drilled outside the groundwater contamination plume.

In 1995, a pilot study using soil-vapor extraction and bioventing successfully treated the contaminated soil source.

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

The ROD was signed and the RD/RAP was approved by the USEPA, Region VII. The remedy is MNA with Institutional Controls.

This site was addressed in the Five-Year Review reports completed in August of 2002 and in 2007.

CLEANUP/EXIT STRATEGY

The next Five-Year Review report is planned for 2012. If the contaminants of concern (COC) remain below the MCLs for three consecutive years, the Five-Year Review report in 2012 will be the last one for this site. Annual groundwater sampling will be conducted through FY09. After the sampling event results in 2009 have been analyzed, if the COCs are below the MCLs, a Removal Action Completion Report will be filed. Well abandonment will be conducted.

Site Name: DRY CLEANING FACILITIES AREA

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Volatiles

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 Dry Cleaning Facilities Area (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.

In 1994, a soil vapor extraction pilot study recovered 20 pounds of PCE. Based on the low yields and minimal impact to groundwater contamination, this technology was determined not viable for this site.

The baseline risk assessment indicates minimal risk associated with the site under current and anticipated land use. A pilot study was conducted to determine the best available technology(ies) to remediate the site.

In 2006 a successful Pilot Study that addressed soil contamination using excavation & land farming was conducted. It also addressed groundwater contamination through enhanced bio-remediation and chemical oxidation. As a result, site costs were reduced as the FY10 & FY11 retreatments were eliminated.

This site was addressed in the Five-Year Review reports completed in August of 2002 and 2007.

In March of 2008 the ROD which was approved had MNA with institutional controls as the selected remedy. Annual groundwater sampling is required for 2008, 2009, and 2010, followed by Five-Year Review sampling.

CLEANUP/EXIT STRATEGY

Groundwater monitoring will continue on an annual basis in FY09 & FY10. A Remedial Action Completion Report will be completed. A Final Close Out Report for all five operable units to facilitate delisting from the NPL will be completed. Five-Year Review reports will be required in 2012 & 2017 and well abandonment will be conducted.

Site ID: FTRI-030

Site Name: PESTICIDE STORAGE FACILITY (MIXING)

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Metals, Pesticides

Media of Concern: Sediment, Soil

Phases	Start	End
PA.....	198312.....	198412
SI.....	198706.....	198909
RI/FS.....	199106.....	199709
IRA.....	199312.....	199406
LTM.....	200201.....	202209

RIP Date: N/A

RC Date: 199709

SITE DESCRIPTION

Prior to the mid-1970's, pesticide wastewaters and inadvertent spills that occurred during pesticide mixing were allowed to run onto the ground in the equipment-washing area behind the facility. Sampling conducted in 1983 and 1984 detected pesticide contamination in the soil and in sediments in the lined channel behind the building.

In 1994, a Removal Action to excavate pesticide-contaminated soil was conducted. A No Further Action ROD was signed. This decision was based on continued industrial land use and was annotated in the installation master plan for consideration if land use is planned to change.

In August of 2002 and 2007 Five-Year Review Reports were completed; no changes to the remedy were needed.

In 2009 soil and sediment sampling will be conducted. Based on the results, a decision as to whether to produce a Remedial Action Closure Report or conduct further testing will be made.

CLEANUP/EXIT STRATEGY

A soil and sediment sampling event will be conducted in FY09. If the results indicate contamination below actionable levels, a Remedial Action Closure Report to close out the site will be developed.

Site ID: FTRI-031

Site Name: 354 AREA SOLVENT DETECTIONS (354)

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Petroleum, Oil and Lubricants,
Volatiles

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. 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 above-ground storage tanks (ASTs). 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.

In 2004, a pilot study using land farming and potassium permanganate successfully treated the PCE-contaminated soil adjacent to Building 367.

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 currently are not impacting the Kansas River alluvial aquifer. Two wells in the transition zone have benzene above the MCL.

This site was addressed in the site-wide Five-Year Review reports completed in August 2002 and 2007.

The ROD was signed and the RD/RAP has been approved. The site remedy is MNA with institutional controls.

CLEANUP/EXIT STRATEGY

Annual groundwater sampling will be conducted through FY10.

The next, and most likely final, Five-Year Review report is planned for 2012. After the sampling event results have been analyzed, if the COCs are below the MCLs, a Removal Action Completion Report will be filed.

Well abandonment will be conducted.

Site ID: FTRI-036

Site Name: SOUTHEAST FUNSTON LANDFILL (ANCHOR)

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals, Volatiles

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198312.....	198909
SI.....	199111.....	199305
RI/FS.....	199307.....	201108
IRA.....	199901.....	201108

RIP Date: N/A

RC Date: 201108

SITE DESCRIPTION

FTRI-036 is the anchor site for the Expanded Site Investigation (ESI) sites requiring additional testing to be done in FY08. This anchor site will be held open in case further work is necessary to secure regulatory close out.

CLEANUP/EXIT STRATEGY

Regulatory concurrence will be achieved with closeout for the remaining six sites: FTRI-007, 018, 041 (Building 1605), 043 (Forsyth I Street), 046, and 051.

Site ID: FTRI-056

Site Name: ABANDONED GASOLINE LINE

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Petroleum, Oil and Lubricants, Volatiles

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 Abandoned Gasoline Line (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 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 various fuels 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 a removal action was performed using a chemical oxidant & an oxygen source to enhance bioremediation in the soil & groundwater. In 2007 and 2008 post-treatment monitoring to analyze the effectiveness was performed. Based on the post-treatment monitoring event, another injection treatment will be required at the site in FY09 as a result of high levels of benzene in the groundwater at Well 5. In FY10 and FY11 there will be two further monitoring events. A closeout report and well abandonment are scheduled for FY12.

CLEANUP/EXIT STRATEGY

In FY09 treatment injection will be conducted. In FY10 & FY11 two years of post-treatment groundwater monitoring will be conducted.

A closure report will be produced and well abandonment will be conducted.

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, Volatiles

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

FTRI-057 will be retained as the anchor site as it is the only one with an open phase to cover the work on these sites. 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. These sites, which are located in Camp Funston, require further extensive dual-phase extraction and soil-vapor extraction efforts. Camp Funston is undergoing a massive build-up as a result of new missions and mission changes. This mandates that the contamination at these sites be fully addressed in an expedient manner in order to avoid potential mission impacts or human health issues.

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 of 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.

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

FTRI-068, the Former Building 1637 Dispensing Station, consisted of a former UST area located in Camp Funston with seven 12,000-gallon steel USTs which were installed in 1942 and were used into the 1980's. 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.

On November 13, 2007 sites FTRI-043, -064, -065, -067, -069, -070, -071, -072, and -073 received regulatory closure from the KDHE and the EPA, Region VII on 11/26/07. FTRI-057 will be retained as an open site to be used for the anchor for the POL UST sites in Camp Funston (FTRI-054, -062, -063, -066, & -068).

CLEANUP/EXIT STRATEGY

In the spring of 2007 extensive data collection was conducted for FTRI-063, -066, & -068. The data analysis are to be used to develop a design to remediate these sites that are heavily contaminated with POL. Sites FTRI-054 & -062 have been moved to other sites and will be addressed at a later date, as they do not appear to have the potential to impact human health or the environment at this time.

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-001	CUSTER HILL SANITARY LANDFILL	199308	POST-CLOSURE MONITORING & CARE BEING PERFORMED UNDER RCRA D AND OMA FUNDING.
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 with the expectation of regulatory closure in FY09.
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.

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
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.
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 part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08 with the expectation of closure in FY09.
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.

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
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-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 with the expectation of closure in FY09.
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 EPA, Region VII & the KDHE in 2007 except one site at Forsyth I Street that will be sampled in FY08 with the expectation of closure in FY09.
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 is being included under the sampling event in FY08 with the potential for closure in FY09.

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
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 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 in FY08 with the expectation of closure in FY09.
FTRI-052	INACTIVE LANDFILLS - CAMP WHITSIDE	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.
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 being included in the AEDB-R funding stream and the anchor site is FTRI-057 6200 Area Fuel Oil Line.
FTRI-063	FMR BLDG 1044 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			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.
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.

Response Complete (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
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.
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON	200109	A letter requesting site closure has been submitted to the EPA, Region VII and the KDHE for concurrence.

IRP Schedule

Date of IRP Inception: 198312

Past Phase Completion Milestones

1985

SI (FTRI-032 - IMPACT ZONE)
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)
RFA (FTRI-008 - PCB STORAGE CONEX (BUILDING 348), FTRI-039 - CONSOLIDATED MAINTENANCE FACILITY)

1989

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)
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))
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)
INV (FTRI-018 - FIRE TRAINING AREA FACILITY (892))
ISC (FTRI-018 - FIRE TRAINING AREA FACILITY (892))
DES (FTRI-008 - PCB STORAGE CONEX (BUILDING 348))

1990

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

1991

PA (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))
IMP(C) (FTRI-059 - REMOVE USTS)
DES (FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON)
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)
CMI(C) (FTRI-008 - PCB STORAGE CONEX (BUILDING 348))
INV (FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION)
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)

1992

ISC (FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-072 - BLDG 8340 FUEL OIL UST, FTRI-073 - BLDG

IRP Schedule

	8360 FUEL OIL UST)
CMI(C)	(FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-049 - MERCURY CONTAMINATION AREAS)
RFA	(FTRI-049 - MERCURY CONTAMINATION AREAS)
IRA	(FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354)
1993	
ISC	(FTRI-053 - POL TANK FARM, FTRI-060 - MAINPOST PX GAS STATION / 218)
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)
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)
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)
RI/FS	(FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-032 - IMPACT ZONE)
1994	
RA(C)	(FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON)
IRA	(FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES, FTRI-060 - MAINPOST PX GAS STATION / 218)
PA	(FTRI-056 - ABANDONED GASOLINE LINE)
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)
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)
IRA	(FTRI-027 - DRY CLEANING FACILITIES AREA)
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)
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)

IRP Schedule

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)
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))
1996	
IMP(C)	(FTRI-070 - FMR BLDG 2341 DISPENSING STATION)
SI	(FTRI-056 - ABANDONED GASOLINE LINE)
RI/FS	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL)
INV	(FTRI-053 - POL TANK FARM, FTRI-063 - FMR BLDG 1044 DISPENSING STATION)
RD	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL)
1997	
RI/FS	(FTRI-004 - MAIN POST LANDFILL, FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING))
RA(C)	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL)
INV	(FTRI-054 - CUSTER HILL PX USTS BLDG 5320)
IRA	(FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-062 - TMP GAS STATION BLDG 388, FTRI-063 - FMR BLDG 1044 DISPENSING STATION)
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)
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	
RI/FS	(FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)
IRA	(FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
2001	
PA	(FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
SI	(FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
RI/FS	(FTRI-038 - FORSYTH LANDFILL(S))
IRA	(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	
RI/FS	(FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)
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)
CAP	(FTRI-053 - POL TANK FARM)
2006	
RI/FS	(FTRI-031 - 354 AREA SOLVENT DETECTIONS (354))

IRP Schedule

2007

LTM (FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-038 - FORSYTH LANDFILL(S))

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

NPL Deletion Date: N/A

Schedule for Next Five-Year Review: 2012

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

FORT RILEY IRP Schedule

 = phase underway

SITE ID	SITE NAME	PHASE	FY09	FY10	FY11	FY12	FY13	FY14+
FTRI-003	SOUTHWEST FUNSTON LANDFILL	PA						
		SI						
		RI/FS						
		RD						
		IRA						
		RA(C)						
		LTM						
FTRI-009	OB/OD GROUND (RANGE 16)	PA						
		SI						
		RI/FS						
		LTM						
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	PA						
		SI						
		RI/FS						
		IRA						
		LTM						
FTRI-027	DRY CLEANING FACILITIES AREA	PA						
		SI						
		RI/FS						
		IRA						
		LTM						
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	PA						
		SI						
		RI/FS						
		IRA						
		LTM						
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	PA						
		SI						
		RI/FS						
		LTM						
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	PA						
		SI						
		RI/FS						
		IRA						

FORT RILEY IRP Schedule

SITE ID	SITE NAME	PHASE	FY09	FY10	FY11	FY12	FY13	FY14+
FTRI-056	ABANDONED GASOLINE LINE	PA						
		SI						
		RI/FS						
		IRA						
SITE ID	SITE NAME	PHASE	FY09	FY10	FY11	FY12	FY13	FY14+
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	PA						
		SI						
		RI/FS						
		IRA						

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	\$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		
		2006	LTM		FTRI-003	\$163.0 K	\$2,189.0 K
					FTRI-009	\$140.0 K	
FTRI-019	\$207.0 K						
FTRI-022	\$5.0 K						
FTRI-030	\$20.0 K						
FTRI-031	\$25.0 K						
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			

TOTAL PRIOR FUNDING: \$69,201.4 K

IRP Costs

Current Requirements

FY	Phase	Site ID	Requirements	FY Total	
2008	LTM	FTRI-003	\$338.0 K	\$1,250.0 K	
		FTRI-009	\$102.0 K		
		FTRI-019	\$71.0 K		
		FTRI-031	\$79.0 K		
		FTRI-040	\$50.0 K		
		FTRI-047	\$100.0 K		
		RAB/TAPP	RAB/TAPP		\$1.0 K
			RD		\$63.0 K
			RI/FS		\$47.0 K
					\$54.0 K
			FTRI-056		\$15.0 K
			FTRI-057		\$330.0 K

TOTAL CURRENT REQUIREMENTS: \$1,250.0 K

TOTAL FUTURE REQUIREMENTS \$7,630.0 K

TOTAL PROGRAM COST: \$78,081.4 K

Required Cost-to-Complete

SITE ID	SITE NAME	Phase	FY09	FY10	FY11	FY12	FY13	FY14	FY15	Out Yrs	Total	Description of Work	
FTRI-003	SOUTHWEST FUNSTON LANDFILL	LTM	117	98	100	151	766	15			102	1349	Long-term Operation; Monitoring - Groundwater
											1349	Site Total	
FTRI-009	OB/OD GROUND (RANGE 16)	LTM	100	103	106						264	573	Monitoring, System Water-VOCs
											573	Site Total	
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	LTM	65	63	13	49	108					298	Monitoring, System Water-VOCs
											298	Site Total	
FTRI-027	DRY CLEANING FACILITIES AREA	LTM	65	66	14	249	26				99	519	Monitoring, System Water-VOCs
											519	Site Total	
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	LTM	80			20						100	Monitoring, System Soil-Pesticides
											100	Site Total	
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	LTM	72	72		145						289	Monitoring, System Water-VOCs
											289	Site Total	
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	RI/FS		23	58							81	In Situ Biodegradation, Groundwater
											81	Site Total	
FTRI-056	ABANDONED GASOLINE LINE	RI/FS				50						50	Well Abandonment; Site Close Out Documentation
		IRA	165	25	25							215	In Situ Biodegradation, Groundwater; Monitoring, System Water-Fuels
											265	Site Total	
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	RI/FS		67					370			437	Well Abandonment; Site Close Out Documentation
		IRA	3111	152	152	152	152					3719	Long-term Operation; Free Product Removal, Mechanical
											4156	Site Total	
Totals			3775	669	468	816	1052	385			465	7630	
											7630	Site Total	

Programmed Cost-to-Complete

SITE ID	SITE NAME	Phase	Start Date	End Date	FY09	FY10	FY11	FY12	FY13	FY14	FY15		Out Yrs	Total	Description of Work
FTRI-003	SOUTHWEST FUNSTON LANDFILL	LTM	199709	202709	117	98	100	151	766	15			102	1349	Long-term Operation; Monitoring - Groundwater
														1349	Site Total
FTRI-009	OB/OD GROUND (RANGE 16)	LTM	200410	202709	100	103	106						264	573	Monitoring, System Water-VOCs
														573	Site Total
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	LTM	200510	201309	65	63	13	49	108					298	Monitoring, System Water-VOCs
														298	Site Total
FTRI-027	DRY CLEANING FACILITIES AREA	LTM	200803	201709	65	66	14	249	26				99	519	Monitoring, System Water-VOCs
														519	Site Total
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	LTM	200201	202209	80			20						100	Monitoring, System Soil-Pesticides
														100	Site Total
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	LTM	200608	201209	72	72		145						289	Monitoring, System Water-VOCs
														289	Site Total
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	RI/FS	199307	201108		23	58							81	In Situ Biodegradation, Groundwater
														81	Site Total
FTRI-056	ABANDONED GASOLINE LINE	RI/FS	199803	201209				50						50	Well Abandonment; Site Close Out Documentation
		IRA	200609	201109	165	25	25							215	In Situ Biodegradation, Groundwater; Monitoring, System Water-Fuels
														265	Site Total
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	RI/FS	199606	201409		67				370				437	Well Abandonment; Site Close Out Documentation
		IRA	199601	201309	3111	152	152	152	152					3719	Long-term Operation; Free Product Removal, Mechanical
														4156	Site Total

Programmed Cost-to-Complete

SITE ID	SITE NAME	Phase	Start Date	End Date	FY09	FY10	FY11	FY12	FY13	FY14	FY15		Out Yrs	Total	Description of Work
Totals					3775	669	468	816	1052	385			465	7630	
														7630	Site Total

FORT RILEY
Army Defense Environmental Restoration Program
Military Munitions Response Program

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MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/RC Sites: 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, Munitions constituents

Media of Concern

Groundwater, 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 (Includes BRAC funding from FY04 and prior years) \$1,527.8 K
 Current Requirements: \$43.0 K
 Future Requirements: \$2,219.0 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): 204209

MMRP Contamination Assessment

Contamination Assessment Overview

The Military Munitions Response Program (MMRP) manages the environmental and health issues associated with munitions constituents (MC) and munitions and explosives of concern (MEC). In 2000, Fort Riley 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 Incinerator Site as inactive ranges requiring further investigation. In April of 2005 the Historical Records Review on these two sites was completed. Site Inspection Work Plan was completed July 1, 2005 and the Site Inspection 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 Southeast Funston Landfill Incinerator Site was transferred to the Kansas Department of Wildlife and Parks (KDWP). In 1999 lead contaminated soil and unexploded ordnance were removed from the Southeast Funston Landfill Incinerator Site. While there is a possibility for UXO, there is no supporting evidence for the need for further action at this time.

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 has been required. 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.

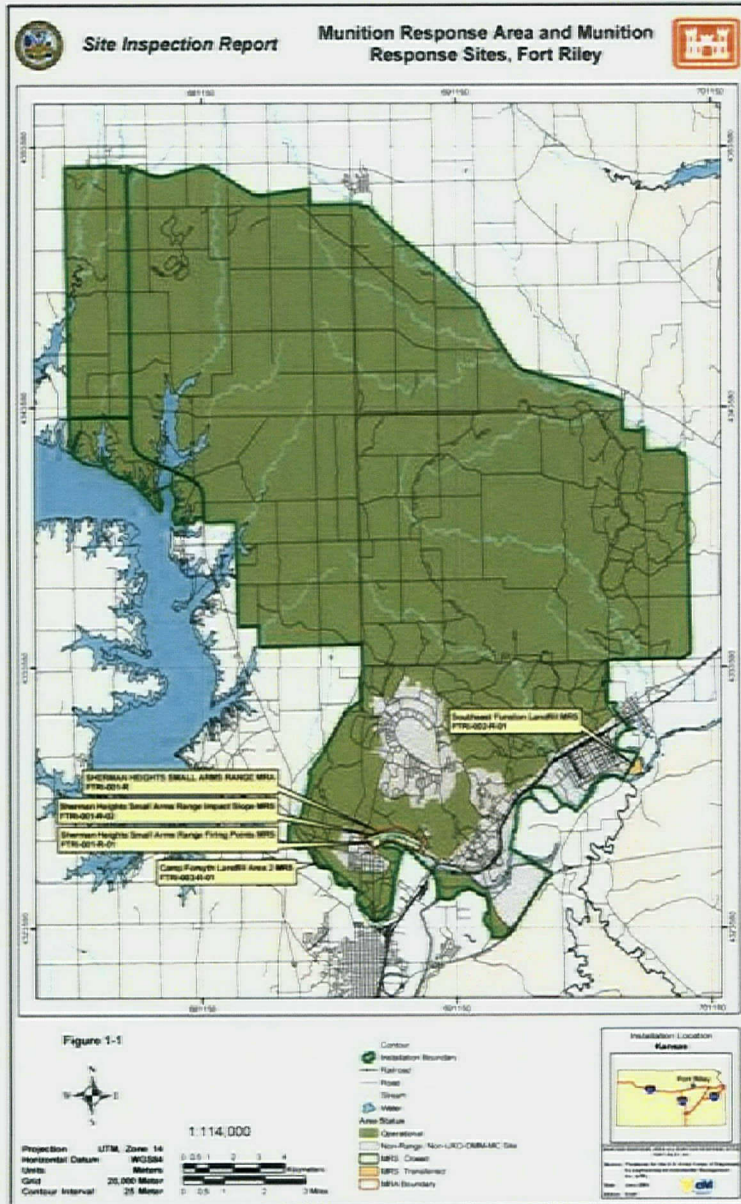
MMRP Previous Studies

	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)

FORT RILEY MMRP SITE MAP

Map of MMRP Site locations



FORT RILEY
Military Munitions Response Program
Site Descriptions

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

STATUS

Regulatory Driver: CERCLA

MRSPP Score: Evaluation pending

Contaminants of Concern: Munitions and explosives of concern, Munitions constituents

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
<u>RI/FS.....</u>	<u>200708.....</u>	<u>200908</u>
RD.....	200909.....	201008
RA(C).....	201009.....	201209
LTM.....	201210.....	204209

RIP Date: N/A

RC Date: 201209

SITE DESCRIPTION

The Sherman Heights Small Arms Range (SHSAR) MRA covers approximately 50 acres and is located near the Colyer Manor Housing area, northeast of Camp Forsyth and is bordered by Sherman Heights to the north and the Republican River to the south. The SHSAR was reportedly operational from the 1880's until about 1945. The SHSAR complex was used primarily as a practice firing range for small arms and machine guns. The ranges that comprised the SHSAR included pistol, 9 millimeter (mm), .22 caliber, .38 caliber, small caliber (sub-caliber) qualification anti-tank and .22 caliber (sub-caliber) anti-aircraft machine gun, .45 caliber, and 4-inch mortar ranges. The ranges covered 198.93 acres and overlapped to form an arc shaped area north of the Republican River. Firing was to the north toward Sherman Heights. This site is the impact area of the Sherman Heights Small Arms Range.

CLEANUP/EXIT STRATEGY

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

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, Munitions constituents

Media of Concern: Soil, Surface Water

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
<u>RI/FS.....</u>	<u>200708.....</u>	<u>200908</u>
RD.....	200909.....	201008
RA(C).....	201009.....	201209
LTM.....	201210.....	204209

RIP Date: N/A

RC Date: 201209

SITE DESCRIPTION

The Camp Forsyth Former Landfill Area 2 Munitions Response Site (MRS) (hereinafter referred to as the MRS) originally covered 26.70 acres and lies between Camp Forsyth and the Republican River. It is located in a floodplain of the Republican River known as the Republican Flats, and is adjacent to a section of the Republican River extending 1,500 feet along the northern bank. The northern 300 feet of the bank is vegetated and covered with concrete rubble. The remainder of the bank extending approximately 1,200 feet downstream to the next channel bend is undergoing active erosion, with banks characterized by steep vertical walls in the top 10 feet of the bank which then falls off to a slope of about 45 degrees for the lower 10 feet of bank, which has minimal vegetation.

Regional flooding in the summer of 1993 caused significant erosion of the banks of the Republican River. In this flood, the Republican River overflowed its banks for about 30 days. During the spring of 1994, a sand bar in the Republican River approximately 700 feet downstream from the MRS was found to contain significant quantities of munitions debris, consisting of approximately two hundred 3.5- and 2.36-inch rockets, M1 mines, and a variety of small arms ammunition.

During the summer of 1994 the Fort Riley Explosive Ordnance Disposal Detachment detonated the rockets and mines in-place and the remaining munitions debris was relocated to the Fort Riley OB-OD and properly destroyed.

CLEANUP/EXIT STRATEGY

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

Response Complete (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-002-R-01, FTRI-003-R-01, October

2005

• Site Investigation, Sites FTRI-001-R-01, 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

To Be Determined


Final RA(C) Completion Date: 201209






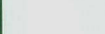



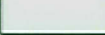

NPL Deletion Date: N/A

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of MMRP at Installation (including LTM phase): 204209

FORT RILEY MMRP Schedule

 = phase underway

SITE ID	SITE NAME	PHASE	FY09	FY10	FY11	FY12	FY13	FY14+
FTRI-001-R-02	SHSAR Impact Slope	PA						
		SI						
		RI/FS						
		RD						
		RA(C)						
		LTM						
SITE ID	SITE NAME	PHASE	FY09	FY10	FY11	FY12	FY13	FY14+
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	PA						
		SI						
		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	
TOTAL PRIOR FUNDING:				\$1,527.8 K

Current Requirements

FY	Phase	Site ID	Requirements	FY Total
2008	RI/FS	FTRI-001-R-02	\$22.0 K	\$43.0 K
		FTRI-003-R-01	\$21.0 K	

TOTAL CURRENT REQUIREMENTS: \$43.0 K

TOTAL FUTURE REQUIREMENTS \$2,219.0 K

TOTAL PROGRAM COST: \$3,789.8 K

Required Cost-to-Complete

SITE ID	SITE NAME	Phase	FY09	FY10	FY11	FY12	FY13	FY14	FY15	Out Yrs	Total	Description of Work	
FTRI-001-R-02	SHSAR Impact Slope	RD	27								27	Remedial Design	
		RA(C)		902								902	Excavation, No Sidewall Protection; MEC Institutional Controls; MEC Removal Action; Off-site Transport & Waste Disposal, Hazardous, Solid
		LTM									498	498	MEC Monitoring, 2 Events; MEC Monitoring, 2 Events; MEC Monitoring, 2 Events
											747	Site Total	
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	RD	10								10	Remedial Design	
		RA(C)		284								284	Excavation, No Sidewall Protection; MEC Institutional Controls; MEC Removal Action; Off-site Transport & Waste Disposal, Hazardous, Solid
		LTM									498	498	MEC Monitoring, 2 Events; MEC Monitoring, 2 Events; MEC Monitoring, 2 Events
											792	Site Total	
Totals			37	1186							996	2219	
											2219	Site Total	

Programmed Cost-to-Complete

SITE ID	SITE NAME	Phase	Start Date	End Date	FY09	FY10	FY11	FY12	FY13	FY14	FY15		Out Yrs	Total	Description of Work	
FTRI-001-R-02	SHSAR Impact Slope	RD	200909	201008	27									27	Remedial Design	
		RA(C)	201009	201209		902									902	Excavation, No Sidewall Protection; MEC Institutional Controls; MEC Removal Action; Off-site Transport & Waste Disposal, Hazardous, Solid
		LTM	201210	204209								50		448	498	MEC Monitoring, 2 Events; MEC Monitoring, 2 Events; MEC Monitoring, 2 Events
													1427	Site Total		
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	RD	200909	201008	10									10	Remedial Design	
		RA(C)	201009	201209		284									284	Excavation, No Sidewall Protection; MEC Institutional Controls; MEC Removal Action; Off-site Transport & Waste Disposal, Hazardous, Solid
		LTM	201210	204209								50		448	498	MEC Monitoring, 2 Events; MEC Monitoring, 2 Events; MEC Monitoring, 2 Events
													792	Site Total		
Totals					37	1186					100		896	2219		
													2219	Site Total		

Community Involvement

Technical Review Committee (TRC): 199201

Restoration Advisory Board (RAB): RAB established 199709

RAB Adjournment Date: N/A

RAB Adjournment Reason: None

Community Involvement Plan (Date Published): 200509

Additional Community Involvement Information

On September 30, 1997 Fort Riley 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.

RAB Membership:

The current membership includes representatives from the Fort Riley military community, local environmental businesses, private business, Unified School District 475, the Geary County Extension Office, the Riley County Planning Board, the Geary County Commissioner, the Clay County Commissioner, Kansas State University, the former Mayor and Mayor of the city of Ogden, the USEPA, and the KDHE.

RAB Activities:

The RAB meets on an as-needed basis or once per year in January.

In July of 2004, the 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) Proposed Plan.

Two RAB meetings were held in 2007. A RAB meeting was held in April 2008.

Over the next year, RAB members will continue to gain knowledge of Fort Riley'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
Ft. Riley, KS 66442

Information Repository is located at

Dorothy Bramlage Public Library
230 West Seventh Street
Junction City, KS 66441

Manhattan Public Library
629 Poyntz Avenue
Manhattan, KS 66502

Community Involvement

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

TAPP Title: N/A

Potential TAPP: N/A

31 October 2008

Craig Phillips
IMNW-RLY-PWE
407 Pershing Court
Fort Riley, KS 66442-6121

Subject: FY08 Final Army Installation Action Plan (IAP) for Fort Riley

Dear Mr. Phillips:

Bechtel-S Corporation is pleased to submit the FY08 Final Army IAP for Fort Riley on behalf of the U.S. Army Environmental Command. You will find enclosed two bound and two electronic copies of the IAP.

If you have any questions, please feel free to contact your Installation Support Team members.

Sincerely,

Bechtel-S Team



FY2008

FORT RILEY
Army Defense Environmental Restoration Program
Installation Action Plan

Printed 28 October 2008

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