

November 2001

Fort Riley

Installation Action Plan

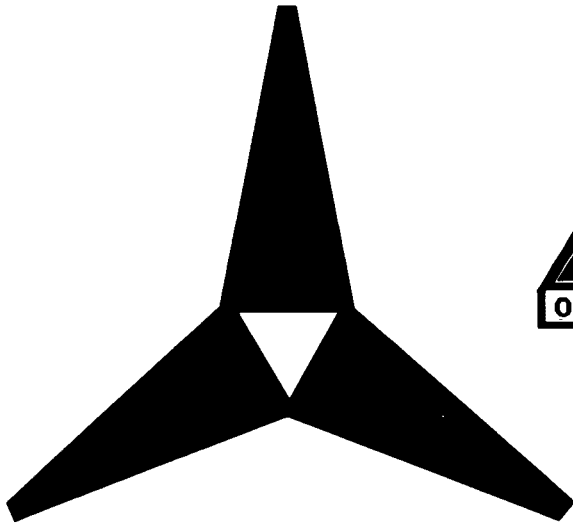
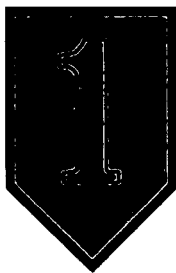


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November 2001

Fort Riley
Junction City, Kansas
Installation Action Plan

AMERICA'S



ARMY

Table of Contents

SUMMARY

Installation Action Plan Summary 1

INSTALLATION INFORMATION & DESCRIPTION

Installation Information / Map 1
Installation Description 2

CONTAMINATION ASSESSMENT

Contamination Assessment 1
Previous Studies 4

SITE DESCRIPTIONS

OPERABLE UNITS/INDIVIDUAL SITE PROJECTS 1
FTRI-003 SOUTHWEST FUNSTON LANDFILL, OU 001 2
FTRI-019 FORMER FIRE TRAINING AREA FFTA-MAAF, OU 004 3
FTRI-027 DRY CLEANING FACILITIES AREA, OU 003 4
FTRI-030 PESTICIDE STORAGE FACILITY (MIXING), OU 002 5
FTRI-031 354 AREA SOLVENT DETECTIONS, OU005 6

SUPPLEMENTAL SITE INVESTIGATIONS 7
FTRI-009 OB/OD GROUND (RANGE 16) 8
FTRI-011 CAMP FUNSTON GW DETECTIONS 9
FTRI-029 OLD INCINERATOR SITE SE-CAMP FUNSTON 10
FTRI-036 SOUTHEAST FUNSTON LANDFILL 11
FTRI-038 FORSYTH LANDFILL(S) 12

POL/UST SITES 13
FTRI-053 POL TANK FARM 14
FTRI-054 CUSTER HILL PX USTS BLDG 5320 15
FTRI-056 ABANDONED GASOLINE LINE 16
FTRI-057 6200 AREA FUEL OIL LINE 17
FTRI-062 TMP GAS STATION BLDG 388 18
FTRI-063 FMR BLDG 1044 DISPENSING STATION 19
FTRI-066 FMR BLDG 1245 DISPENSING STATION 20
FTRI-068 FMR BLDG 1637 DISPENSING STATION 21

Response Complete CERCLA Sites 22
Response Complete POL/UST Sites 24

SCHEDULE & DSERTS REPORTS

Past Milestones 1
Future Milestones 5
No Further Action Sites 7
Schedule Chart 9
DSERTS Phase Summary Report 10
DSERTS IAP Report 11

Table of Contents

REMEDIATION ACTIVITIES

Past Removal / Interim Remedial Action / Remedial Action Assessment 1
Current Removal / Interim Remedial Action / Remedial Action Assessment 2
Future Removal / Interim Remedial Action / Remedial Action Assessment 3
Innovative Means to Expedite the Study Process to RA Phase 4

COST ESTIMATES

Prior Year Funds 1
Unconstrained Cost to Complete Chart 4
Constrained Cost to Complete Chart 6

COMMUNITY INVOLVEMENT

Restoration Advisory Board Status 1

Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year restoration program for an installation. The plan will define all Installation Restoration Program (IRP) requirements and propose a comprehensive approach and associated costs to conduct future investigations and remedial actions at each IRP site at the installation and other areas of concern.

In an effort to coordinate planning information between the IRP manager, major army commands (MACOMs), installations, executing agencies, regulatory agencies, and the public, an IAP has been completed for Fort Riley. The IAP is used to track requirements, schedules and budgets for all major Army installation restoration programs.


This Fort Riley IAP was principally developed in May 2001 at a meeting in Overland Park, Kansas. Participants included representatives of Kansas Department of Health and Environment, EPA Region VII, Fort Riley's Restoration Advisory Board, U.S. Army Environmental Center, U.S. Army Forces Command Headquarters, as well as the Fort Riley Directorate of Environment and Safety, the Kansas City District Army Corps of Engineers, and the U.S. Geological Survey. This IAP is updated and submitted to FORSCOM and the Department of the Army annually.

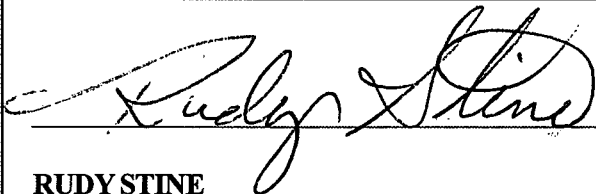
All site specific funding and schedule information has been prepared according to projected overall Army funding levels and is therefore subject to change. Under current project funding and regulatory schedules, Fort Riley will have all remedies in place by 2011.

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

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**Fort Riley October 2001 Installation
Action Plan Approval Signatures**


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Garrison Commander, Fort Riley, Kansas


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Acronyms & Abbreviations

AC/RC	Active Component/Reserve Component
AEC	Army Environmental Center
AEHA	Army Environmental Hygiene Agency
AOC	Area of Concern
AR	Administrative Record
ARAR(s)	Applicable or Relevant and Appropriate Requirements
AST	Aboveground Storage Tank
Bldg	Building
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CA	Corrective Action
CAP	Corrective Action Plan
CC	Construction Cost
CENWK	U.S. Army Corps of Engineers, Kansas City District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
CMI	Corrective Measure Implementation
CMS	Corrective Measure Study
CY	Cubic Yards
DA	Department of the Army
DASA(ESOH)	Deputy Assistant Secretary of Army (Environmental Safety and Occupational Health)
DCE	Dichloroethylene / Dichlorothene
DCF	Dry Cleaning Facilities
DCP	Data Collection Platform
DD	Decision Document
DEH	Directorate of Engineering and Housing (now Public Works)
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DES	Directorate of Environment and Safety
DM	Decision Memorandum
DOD	Department of Defense
DOL	Directorate of Logistics
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Sites Environmental Restoration Tracking System
DS/GS	Direct Support / General Support
EE/CA	Engineering Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
ER,A	Environmental Restoration, Army (formally known as DERA)
FFA	Federal Facility Agreement
FMR	Former
FORSCOM	U.S. Army Forces Command
FS	Feasibility Study
FTRI	Fort Riley
FY	Fiscal Year
GMS	Groundwater Modeling System
GW	Groundwater
HRS	Hazard Ranking System

Acronyms & Abbreviations

HW	Hazardous Waste
IAG	Interagency Agreement
IAP	Installation Action Plan
IFI	Initial Field Investigation
IR	Information Repositories
IRA	Interim Remedial Action or Interim Response Action
IRP	Installation Restoration Program
IWSA	Installation Wide Site Assessment
JP-4	Jet Propellant Number Four
JP-8	Jet Propellant Number Eight
KDHE	Kansas Department of Health and Environment
KDWP	Kansas Department of Wildlife and Parks
KSU	Kansas State University
LTM	Long Term Monitoring
LTO	Long Term Operation
MAAF-FFTA	Marshall Army Airfield - Former Fire Training Area
MACOM	Major Army Command
MATES	Mobilization and Training Equipment Site
MCL	Maximum Contaminant Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NE	Not Evaluated
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NOV	Notice of Violation
NPL	National Priorities List
OB/OD	Open Burning / Open Detonation
OMA	Operations and Maintenance - Army
OU	Operable Unit
OWS	Oil and Water Separator
PA	Preliminary Assessment
PAOC	Potential Areas of Concern
PCB	Polychlorinated Biphenyls
PCE	Perchloroethylene, Perchloroethene (Tetrachloroethylene/Tetrachoroethene)
POL	Petroleum, Oil and Lubricants
PP	Proposed Plan
PPB	Parts Per Billion
PPM	Parts Per Million
PSF	Pesticide Storage Facility
PW	Public Works
PX	Post Exchange
PY	Prior Year
RA	Remedial Action
RA(C)	Remedial Action - Construction
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RAP	Remedial Action Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design

Acronyms & Abbreviations

REM	Removal
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
S&A	Supervision and Administration
SARA	Superfund Amendments and Reauthorization Act
SE	Southeast
SEFL	Southeast Funston Landfill
SFL	Southwest Funston Landfill
SI	Site Inspection or Site Investigation
S&R	Supervision and Review
STP	Sewage Treatment Plant
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene, Trichloroethene
TCLP	Toxicity Characteristic Leachate Procedure
TMP	Transportation Motor Pool
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine (formerly AEHA)
USAEC	United States Army Environmental Center
USATHAMA	United States Army Toxic and Hazardous Materials Agency (now AEC)
USGS	United States Geological Survey
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
WWTP	Wastewater Treatment Plant

Summary

STATUS: Fort Riley was placed on the National Priorities List in 1990.
HRS Score is 33.8 which exceeds the 28.5 minimum score for listing on the NPL.

TOTAL # OF DSERTS SITES: 72 DSERTS sites
ACTIVE ER,A SITES: 10 Active ER,A Eligible Sites
RESPONSE COMPLETE (RC) SITES: 62 Response Complete Sites

DIFFERENT SITE TYPES:

18	Underground Tank Farms	11	Spill Site Areas
7	Landfills	4	Storage Areas
4	Sewage Treatment Plants	4	Above Ground Storage Tanks
2	Contaminated Groundwater Sites	3	Fire Training Areas
4	Incinerators	2	Pesticide Shops
2	Surface Impoundments/Lagoons	2	Small Arms Range
1	Surface Disposal Area	1	Disposal Pit/Dry Well
1	Dip Tank	1	Firing Range
1	Explosive Ordnance Disposal Area	1	Industrial Discharge Site
1	Unexploded Munitions/Ordnance Area		

CONTAMINANTS OF CONCERN: Chlorinated solvents, Pesticides, Petroleum hydrocarbons, Metals, Explosives

MEDIA OF CONCERN: Soil, Groundwater, Surface Water, Sediment

- COMPLETED REM/IRA/RA:**
- REM - Excavation of lead contaminated soils at FTRI-035 (FY94) (Construction Cost (CC) = \$533,000)
 - REM - Excavation of pesticide contaminated soils at FTRI-030 (FY94) (CC = \$788,000)
 - REM - Replacement of leaking sewers at FTRI-027 (FY94 & FY96) (CC = \$100,000)
 - REM - Numerous UST removals (FY90 - 95) (CC = \$1,500,000)
 - REM - Bank stabilization and landfill cover repair and cover improvement at FTRI-003 (FY94 and FY96) (CC = \$4,000,000)
 - Pilot Study - Soil vapor extraction at FTRI-027 (FY95) (CC = \$500,000)
 - Pilot Study - Soil vapor extraction and bio-venting at FTRI-019 (FY95) (CC = \$900,000)
 - REM - Fuel lines and contaminated soil removed at FTRI-057 (FY96-97) (CC = \$2,300,000)
 - REM - Free Product Recovery at FTRI-062 and -063 (FY95) (CC = \$37,500)
 - REM - Soil Removal at FTRI-029 FY99 and FY00 (CC=\$269,585)
 - REM - Cover Improvement at FTRI-036 FY99 and FY00 (CC=\$348,968)
 - REM - River Bank Stabilization at FTRI-038 FY00 (CC=\$826,743)

CURRENT IRP PHASES: RI/FS (10 sites) IRA (1 sites) LTM (6 sites)

PROJECTED IRP PHASES: RI/FS (0 sites) IRA (4 sites) RD (2 sites)
RA (2 sites) RA (O) (2 sites) LTM (8 sites)

- IDENTIFIED POSSIBLE REM/IRA/RA:**
- Groundwater treatment at FTRI-019, 027, 031
 - Soil/pipeline removal at FTRI-031, 056

FUNDING:

PRIOR YEAR THROUGH 2001:	\$ 550,664,600
FY 2002:	\$ 2,800,000
FUTURE REQUIREMENTS:	\$ 24,982,000
TOTAL:	\$ 83,446,600

DURATION:

YEAR OF IRP INCEPTION:	1989
YEAR OF IRP COMPLETION EXCLUDING LTM (Remedy in Place):	2011
YEAR OF IRP COMPLETION INCLUDING LTM:	2036

Installation Information

SITE DESCRIPTION:

Fort Riley is located on 100,671 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. Fort Riley is west of Manhattan (population 38,000). Milford Reservoir bounds part of the western side of the installation.

COMMAND ORGANIZATION:

MAJOR COMMAND: United States Army Forces Command (FORSCOM)
INSTALLATION: Fort Riley, Directorate of Environment and Safety (DES)

IRP EXECUTING AGENCIES:

- U.S. Army Corps of Engineers, Kansas City District
- U.S. Geological Survey, Kansas District

REGULATORY PARTICIPATION:

FEDERAL: U.S. Environmental Protection Agency (EPA), Region VII
STATE: Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation and Bureau of District Operations

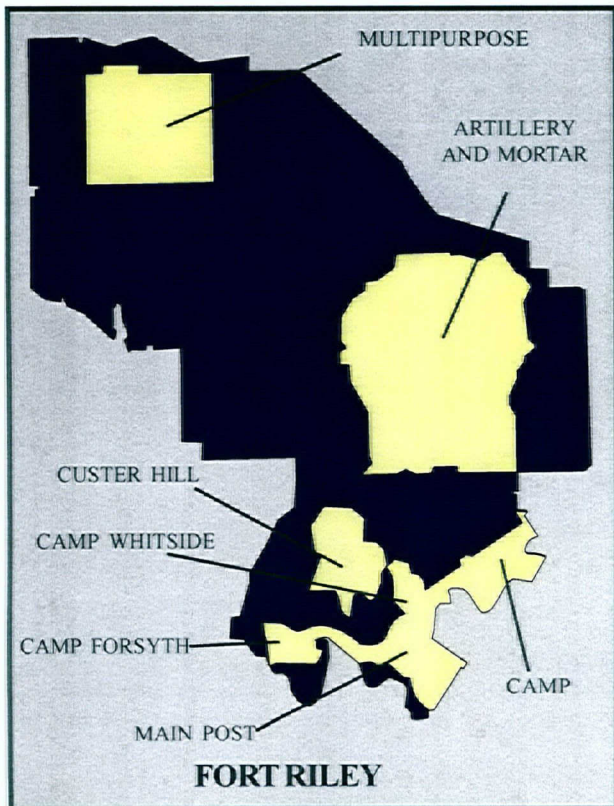
REGULATORY STATUS:

- NPL Installation (entire installation), 1990, CERCLIS Site KS6214020756
- CERCLA/RCRA Federal Facility Agreement (FFA or IAG), Effective June 1991
- RCRA Part B Permit, 1998
- No Notices Of Violations have been issued for any of Fort Riley's IRP sites

MAJOR CHANGES TO IAP FROM PREVIOUS YEAR:

- Performed additional RI field investigations at 354 Area Solvent Detections Site (FTRI-031) and revised schedule
- Completed RI Report, initiated FS and revised schedule for MAAF-FFTA (FTRI-019)
- Re-opened RI, revised schedule, and performed additional investigations at DCF Area (FTRI-027)

- Completion of Programmatic Agreement re: endangered species considerations



Installation Description

LOCATION: Fort Riley is located in the Flint Hills region of Kansas along I-70 about 125 miles west of Kansas City, between Junction City and Manhattan. As the fourth largest employer in the state of Kansas, Fort Riley's economic impact exceeded \$577,366,000 in FY 2000. Fort Riley has a daytime population of over 22,000 and is home to over 3,000 families. This population makes Fort Riley the 16th largest city in Kansas. The reservation covers 100,671 acres, of which 70,926 acres are used for maneuver training.

HISTORY: In an 1843 expedition, Captain John C. Fremont, "The Pathfinder," camped at the junction of the Smoky Hill and Republican Rivers. He reported great numbers of elk, antelope and Indians. Within a few years, the "Great Migration" along the Oregon Trail and trade along the Santa Fe Trail brought thousands of pioneers through Indian Territory, as Kansas was formerly known.

In 1852, Major E.A. Ogden established a temporary camp north of the Kansas River in the area where Fort Riley's Main Post is now located. The encampment was originally known as "Camp Center" because it was thought to be the geographic center of the United States. A permanent post was authorized the following year and the new installation was named Fort Riley in honor of Major General Bennet Riley, who had been a distinguished veteran of the Mexican War and commander of the first military escort along the Santa Fe Trail. Fort Riley was designated a Cavalry Headquarters in 1885 resulting in the post becoming known as the "Cradle of the Cavalry." Fort Riley stood as the major horse cavalry training school in our country and boasted a position as one of the best cavalry training schools in the world.

Fort Riley has trained and deployed military forces in virtually every major war of our nation's history.

For over 30 years, Fort Riley was home to the 1st Infantry Division, but world-wide commitments resulted in the 1st Infantry Division Headquarters deploying to Wuerzburg, Germany, in 1996. In 1999, Fort Riley became the headquarters of the 24th Infantry Division (Mech). Currently, Fort Riley is home to two combat brigades (1st Brigade, 1st Infantry Division, Mechanized and 3rd Brigade, 1st Armored Division) and an engineer group (937th).

The post has always been an integral part of the state of Kansas and American military history and is known as the "Home of America's Army."

MISSION: The 24th Infantry Division and Fort Riley provides training, readiness, and deployment support for two Brigade Combat Teams and one Engineer Group; serves as higher headquarters providing training/readiness oversight, pre-and post-mobilization training and mobilization validation for three enhanced Separate Brigades; provides planning, mobilization, validation and demobilization for Active Components (AC) and Reserve Component (RC) units and individuals; and provides exemplary well-being for soldiers, civilians and their families.

The Directorate of Environment and Safety's (DES) mission is to protect life, property, and natural resources for use today and in the future, by integrating environment and safety programs with Fort Riley's missions.

Contamination Assessment

The Army initially began environmental restoration-related investigations as a result of the 1981 closure of the Southwest Funston Landfill where monitoring indicated groundwater contamination. Also, practices at a pesticide facility prior to the mid 1970's resulted in contamination in the soils and in sediments in the drainage way behind the building.

Fort Riley's placement on the National Priorities List was announced on 30 August 1990 with a Hazard Ranking System (HRS) score of 33.8. The minimum HRS score for NPL listing is 28.5. A Federal Facilities Agreement (FFA or IAG) was signed by the DASA (ESOH) and the 1st Infantry Division Commander in August, 1990. The Kansas Department of Health and Environment (KDHE) and the U. S. Environmental Protection Agency (USEPA or EPA) signed this agreement in February, 1991. The IAG, which incorporates both Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Resource Conservation and Recovery Act (RCRA) actions, became effective in June 1991. Project schedules are re-negotiated annually based on available resources or as needed due to project requirements.

Five IRP sites have been designated as Operable Units (OUs). Three OUs are currently the subject of Remedial Investigation / Feasibility Studies. Three Removal Actions were performed in 1994 with additional phases performed in FY95 at one site. Removal Actions were performed in FY99 and FY00 at 3 additional sites. Removal Actions have been completed at seven sites (FTRI-003, FTRI-029, FTRI-030, FTRI-057, FTRI-035, FTRI-036 and FTRI-038). Soil contamination has been removed through pilot treatment studies at two sites (FTRI-019, FTRI-027) and free product has been recovered at two sites (FTRI-062, FTRI-063). An Installation-Wide Site Assessment was performed in 1993 to identify additional potential areas of concern and several sites were investigated in phases under the Multiple Sites Investigations project. Two of these sites were designated as Operable Units in FY95 including one (FTRI-019) which is adjacent to the installation boundary and contamination is known to exist off post. Many of the sites have been determined to require no further action, while several warranted further investigation and/or action.

The Five Operable Units (OUs) are: FTRI-003 Southwest Funston Landfill (SFL), FTRI-030 Pesticide Storage Facility (PSF), FTRI-027 Dry Cleaning Facilities (DCF), FTRI-019 Marshall Army Airfield - Former Fire Training Area (MAAF-FFTA), and FTRI-031 354 Area Solvent Detections site (354-Solvent). These sites have been identified as sites with significant contamination due to past operational activities resulting in spills and releases to the environment. The primary contaminants of concern are chlorinated solvents and pesticides.

The Southwest Funston Landfill was operated from the mid-1950's through 1981. Post-closure monitoring and RI/FS sampling detected contaminants such as chlorinated solvents, petroleum hydrocarbons, and metals in the groundwater at low levels. A Removal Action was completed to stabilize the Kansas River bank and to reduce infiltration through the cover. The ROD was finalized in FY96. Institutional controls and long-term monitoring have been implemented.

Pesticides stored and mixed at the former PSF are believed to have been released to the environment through past operational and disposal practices. Pesticide and arsenic contamination in soils was the primary concern. A Removal Action to excavate and dispose of contaminated soils was taken in FY94. The RI/FS and a ROD for No Further Action for this site was completed in FY 97. Because residual contamination is still present, five-year reviews will be conducted per the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Per the IAG, Fort Riley is subject to stipulated penalties assessed by the EPA. If a deadline for a primary document is not met, stipulated penalties may be assessed. In June 1993, the Draft Final RI Report for the Pesticide Storage Facility was not submitted on its scheduled date. In December 1993, EPA assessed a penalty of \$65,000. Fort Riley disputed the method used to determine the amount assessed. A Dispute Agreement reduced the monetary penalty to \$34,000 and the completion of three removal actions (SFL Bank Stabilization, PSF & Colyer Manor). The penalty was paid in FY97.

Perchloroethylene (PCE) has been used at the adjacent former and current Dry Cleaning Facilities. Organic contamination of soils, sediments and groundwater was confirmed in a Preliminary Assessment / Site Investigation (PA/SI) completed in the fall of 1992. Regulatory approval was received on RI/FS planning documents, and RI field activities occurred in the fall of 1993. A Pilot Study for soil vapor extraction was successful in removing most of the soil contamination (therefore, a formal Removal Action was not performed). Following review of the RI and the Draft FS it was determined, in concert

Contamination Assessment

with EPA and KDHE, that additional characterization of the adjacent alluvial aquifer (“The Island”) was warranted. “The Island” characterization was performed in the spring of 1996. The RI was approved in April 1996 and an FS completed in April 1998. The proposed remedy included a Long Term Monitoring (LTM) program focused on the Kansas River and the associated alluvial groundwater, institutional controls, and required periodic reviews as well as a contingency to develop and implement a future response action if necessary. Proposed plans were submitted in 1998. EPA and KDHE invoked dispute resolution over ARARs which were resolved. A revised Proposed Plan was submitted in May 1999, but new groundwater data in a downstream location prompted additional review of the site by EPA and KDHE. The former DCF buildings were torn down in the summer of 2000 and additional soil and groundwater screening was performed at the building site and along the sewer line. The results of this screening were reviewed by Fort Riley and the regulators in 2001, resulting in the development of a plan to proceed to ROD by revising the RI and preparing a feasibility study focused on the objective of hot spot reduction. With the addition of this hot spot treatment, the remedy is expected to be as previously described.

Extensive site characterization was performed at the FFTA-MAAF site under the Site Investigation. A pilot study was conducted to address soil contamination in the vicinity of the FFTA in FY94-95. Additional groundwater investigations were conducted in FY97-99 to further characterize the off-post groundwater plume. Private wells in the area have been monitored. A Removal Action Engineering Evaluation/Cost Analysis (EE/CA) was prepared which recommended providing an alternate water source to two impacted properties and an Action Memorandum was prepared. Access to the property has not been granted by the owners to implement this action. A tracer study and a natural attenuation evaluation were performed in FY99-00. The RI Report was completed in FY01 to delineate and refine the fate and transport estimation and approved by the regulators. The FS is underway beginning with the identification of ARARs and Remedial Action objectives. A federal lawsuit brought by the owners of an off-post property was decided in April 2001, in favor of the plaintiff. The Department of Justice filed a notice of intent to appeal and the case was referred to mediation.

The 354 Area Solvent Detections site was discovered during investigations of a POL/UST site. Initial field investigations were conducted in 1997. The original RI/FS Workplan was developed and received regulator approval in FY98. Revisions to the Workplan are an on going process. RI field investigations were initiated in FY99 and continued in FY00 that identified a significantly larger area of contamination than anticipated. Monitoring wells, piezometers, and data collection platforms (DCPs) were installed in FY00 to support the RI. Additional data needs were identified and additional RI investigations were performed in 2001 to include investigations along the sanitary sewer line in conjunction with a site investigation of the Abandoned Gas Line (FTRI-056).

The Installation-Wide Site Assessment was performed in 1992 and the results presented in the Draft Final Installation-Wide Site Assessment (IWSA) for Fort Riley, Kansas, dated 7 December 1992 and revised on 16 February 1993. It identified 25 groups of potential areas of concern (PAOC), with 23 sites being identified for further Site Investigations. Contaminants associated with these sites vary greatly from potential lead-contaminated soils at old firing ranges to potential releases of solvents due to practices at furniture repair shops. The IWSA was conducted consistent with EPA requirements for Preliminary Assessments under CERCLA. Based on EPA’s Preliminary Assessment (PA) methodology, potential risk posed by the PAOCs was estimated using the Hazard Ranking System (HRS). The IWSA identified PAOCs subject to RCRA corrective actions and/or CERCLA where a release of hazardous substances to the environment has occurred or is considered likely, where migration pathways from the site exist, and where potential receptors are known to exist. Specifically, 23 PAOCs were identified and evaluated using the HRS PA SCORE methodology. As outlined in the NCP, the results of the PA were used to identify sites requiring further investigation of SI’s.

These PAOCs were addressed under the Multiple Site Investigations project which is further broken down into groupings including the Sensitive Receptor Lead Sites, the “High Priority” Sites, and the “Other Sites”. The Sensitive Receptor Lead Sites were expedited due to the accessibility of the areas to the general public (especially children). Only one area near the Colyer Manor Family Housing Area was identified as having elevated levels of lead in the soils, and a removal action involving excavation and disposal of soils was performed. The High Priority Sites field investigations were completed in November, 1993. Results are indicated in the following site contamination summaries. The Former Fire Training Area, Marshall Army Airfield (FFTA-MAAF) was broken out as a separate site because of the magnitude of detected contamination and off-post contamination. The “Other Sites” grouping consisted of 14 sites which had very low PA HRS scores

Contamination Assessment

and have a low potential for release of contaminants to the environment. Field work for these "Other" sites occurred in the spring and summer 1994. A joint review of the Multiple Sites with EPA & KDHE in the summer of 1995 resulted in concurrence on the designation of two sites as formal Operable Units (MAAF-FFTA and 354-Solvent), on the recommendations of No Further Action on numerous sites, and identified several sites which warranted additional characterization or action. The Forsyth Landfill Area 2, the Southeast Funston Landfill and Incinerator sites, and the OB/OD range required additional work. No Further Action Decision Memoranda for many of the Multiple Sites have been prepared.

Phase I and II Site Investigations were completed at seven POL UST sites from 1992 to 1995. Remedial Action Plans were prepared for these sites and submitted to KDHE in FY97. KDHE placed 5 sites into LTM status and 2 sites were approved for NFA. Workplans for investigation of the Abandoned Gas Line and POL Tank Farm were completed in FY98 and FY99, respectively; field work was conducted in 2001.

Fort Riley's first Five Year Review is due in August 2002. A schedule was developed and the review initiated in 2001.

Previous Studies

Title	Author	Date
Installation Assessment of the Headquarters, 1st Infantry Division (Mechanized) and Fort Riley, KS	Environmental Science and Engineering (for USATHAMA)	June-1983
Evaluation of Solid Waste Management Units, Fort Riley, KS	Army Environmental Hygiene Agency	June-1989
Installation-Wide Site Assessment	Louis Berger & Associates	Dec 1992 w/ Feb 1993 revisions
Impact Area Site Assessment Report	Louis Berger & Associates	March-1993
Site Investigation Report for High Priority Sites	Louis Berger & Associates	February-1994
Site Investigation Report for "Other Sites"	Louis Berger & Associates	April-1995

Southwest Funston Landfill (OU 001)

Engineering Evaluation / Cost Analysis w/ August 1993 Supplement	Law Environmental, Ft. Riley DEH, Environmental and Natural Resources	Jul 1993 w/ Aug 1993 Supplement
Remedial Investigation Report	Law Environmental	April-1994
Feasibility Study Report	Law Environmental	April-1994
Proposed Plan	Law Environmental	November-1994
Record of Decision	Law Environmental / Ft Riley DES	December-1995
Operation and Maintenance Plan	Kansas City District, Corps of Engineers	September-1996
Longterm Groundwater Monitoring Plan	Kansas City District, Corps of Engineers	January-1997
Removal Action Report	Kansas City District, Corps of Engineers	June-1997
Institutional Controls Plan	Ft. Riley DES	November-1997
Annual Monitoring Report, Dec 1995 - Nov 1996	U.S Geological Survey, Lawrence, Kansas	August-1997
Annual Monitoring Report, 1997	U.S Geological Survey, Lawrence, Kansas	September-1998
Annual Monitoring Report, 1998	U.S Geological Survey, Lawrence, Kansas	September-1999
See Camp Funston Area Groundwater for USGS Modeling Report		

Pesticide Storage Facility (OU 002)

Engineering Evaluation / Cost Analysis	Ft. Riley DEH, Environmental and Natural Resources Division	August-1993
Remedial Investigation	Law Environmental	Jul 93 w/ Dec 93 revisions
Remedial Investigation Addenda	Law Environmental	Jun 1997 w/ Aug 1997 revisions
Record of Decision	Law Environmental / Ft Riley DES	September-1997
Proposed Plan	Ft Riley, DES	August-1997
Land Use Management Plan	Ft Riley, DES	July-1999

Dry Cleaning Facilities, OU 003

Remedial Investigation Report	Louis Berger & Associates	March-1995
Draft Final Remedial Investigation Addendum / Monitoring Expansion Report	Louis Berger & Associates	April-1998
Draft Final Feasibility Study Report	Louis Berger & Associates	April-1998

Previous Studies

Title	Author	Date
Former Fire Training Area, Marshall Army Airfield, OU 004		
Expanded Site Investigation Sampling and Analysis Plan (includes reporting of data to-date)	Louis Berger & Associates	May-1994
Site Investigation Report	Louis Berger & Associates	Aug 1995 w/ revisions
Pilot Study Report	Louis Berger & Associates	March-1999
Remedial Investigation / Feasibility Study Work Plan	Burns & McDonnell	April-1997
Engineering Evaluation / Cost Analysis, Exposure Control Action	Louis Berger & Associates	December-1997
Action Memorandum, Exposure Control	Louis Berger & Associates	April-1998
Institutional Control Evaluation	DPRA	June-2000
Remedial Investigation Report	Burns & McDonnell	April-2001

354 Area Solvent Detection Site, OU 005

Preliminary Evaluation of Data	Kansas City District, Corps of Engineers	June-1995
Initial Field Investigations Sampling and Analysis Plan	Burns & McDonnell	July-1997
Initial Field Investigations Report	Burns & McDonnell	March-1998
RI/FS Work Plan	Burns & McDonnell	January-1999
Monitoring Well Installation Report	Kansas City District, Corps of Engineers	May-2000
RI/FS Work Plan Addendum	Burns & McDonnell	April-2001

Custer Hill Sanitary Landfill (activities performed under DERA only)

Data Summary and Evaluation Report	Kansas City District, Corps of Engineers	August-1992
Data Summary and Evaluation Supplement	Louis Berger & Associates	June-1993
Interim Sampling Data Report for the Custer Hill Sanitary Landfill	Louis Berger & Associates	December-1993
Interim Sampling Data Report for the Custer Hill Sanitary Landfill	Louis Berger & Associates	July-1994

Camp Funston Area Groundwater

Monitoring Well Installation Report	Kansas City District, Corps of Engineers	August-1997
Camp Funston Annual Report: Hydrogeological Data for Digital Groundwater Flow Model	U. S. Geological Survey, Lawrence, Kansas	September-1997
Chemical and Isotope Evaluation Report	Dept. of Geology, Kansas State University	November-1997
Work Plan for Hydrologic Evaluation of the Camp Funston Area	U. S. Geological Survey, Lawrence, Kansas	September-1998
Annual Groundwater Monitoring Report, 1997	U. S. Geological Survey, Lawrence, Kansas	October-1998
Annual Groundwater Monitoring Report, 1998	U. S. Geological Survey, Lawrence, Kansas	October-1999
Monitoring Well Installation Report	Kansas City District, Corps of Engineers	November-2000
Characterization and Simulation of Groundwater Flow in the Kansas River Valley at Fort Riley, Kansas 1990-1998	U. S. Geological Survey, Lawrence, Kansas	March-2000

Multiple Sites Follow-On Investigations

Site Investigation Report Addendum, Former Wherry Substation and DRMO Area 1 Drainage Ditch	Louis Berger & Associates	February-1997
Site Investigation Report Addendum, Open Burn/Open Detonation Area	Louis Berger & Associates	August-1998
Site Investigation Report Addendum, Southeast Funston Landfill Incinerator Area	Louis Berger & Associates	July-1997
Decision Memorandum - Multiple Sites	Louis Berger & Associates	September-1998
Decision Memorandum - DRMO Area 1	Louis Berger & Associates	April-1998
Decision Memorandum - Building 727 Former Service Pit	Louis Berger & Associates	May-1999

Previous Studies

Title	Author	Date
Forysth Landfill		
Engineering Evaluation / Cost Analysis	Corps of Engineers, Kansas City District	June-1998
Action Memorandum	Corps of Engineers, Kansas City District	March-1999
Removal Action Report	Wenck Associates Inc	August-2001
Southeast Funston Lanfill		
Engineering Evaluation / Cost Analysis	Corps of Engineers, Kansas City District	January-1999
Action Memorandum	Corps of Engineers, Kansas City District	June-1999
Removal Action Report	Wenck Associates Inc	August-2000
Petroleum / Underground Storage Tanks		
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 5390, Fort Riley, KS.	Dames & Moore	August-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1890, Fort Riley, KS.	Dames & Moore	June-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1637, Fort Riley, KS.	Dames & Moore	July-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1539, Fort Riley, KS.	Dames & Moore	July-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1044, Fort Riley, KS.	Dames & Moore	July-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1245, Fort Riley, KS.	Dames & Moore	July-1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 388, Fort Riley, KS.	Dames & Moore	June-1997
Annual Groundwater Sampling Report	Hydrogeologic, Inc	March-1999
Annual Groundwater Sampling Report	Hydrogeologic, Inc	May-1999
Annual Groundwater Sampling Report	Hydrogeologic, Inc	June-2000
Annual Groundwater Sampling Report	Hydrogeologic, Inc	October-2000

Operable Units / Individual Site Projects

FTRI-003 (OPERABLE UNIT 001) SOUTHWEST FUNSTON LANDFILL

SITE DESCRIPTION

Southwest Funston Landfill is located in the southern portion of Fort Riley, adjacent to the southwest corner of the Camp Funston cantonment area. This approximately 120 acre landfill was closed in 1981. The RI indicated sporadic hits of low level organic contamination. A Bank Stabilization action was accomplished in the winter/spring of 1994 and cover repairs were performed in 1995. Another action consisting of regrading and improving the native soil cover was completed in the spring of 1997. Minor bank stabilization repairs, re-seeding and monitoring well abandonment were accomplished in 1998.

The site does not present significant risk to human health and the environment under current conditions. The ROD includes a contingency for future action, the completed native soil cover, institutional controls to prevent on-site groundwater use, long-term groundwater monitoring, and further hydrogeologic characterization of surface water/groundwater interaction in conjunction with LTM efforts.

Groundwater monitoring is performed semi-annually and site inspections are performed annually.

A cover repair project was developed and awarded in FY2001 after a spring inspection revealed that more settlement has occurred than expected.

PROPOSED PLAN

Groundwater monitoring is continuing on a semi-annual basis. This work is included on the Army Region VII LTM/LTO Pilot Bundling contract, beginning in FY01. Surface water sampling of the Kansas River was added in FY01.

Since some contamination will remain on-site, statutory reviews will be required at 5 year intervals. Five year reviews are planned through 2027. The USGS will continue to collect hydrogeologic data for use in 5 year reviews in 2002 & 2007.

Annual inspections and periodic maintenance and repair of the bank stabilization and cover will be conducted. Additional cover repairs may be needed in FY02. Monitoring well pump replacement may be necessary, and unnecessary monitoring wells may be removed in the future.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metals, VOCs (primarily Vinyl Chloride)

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

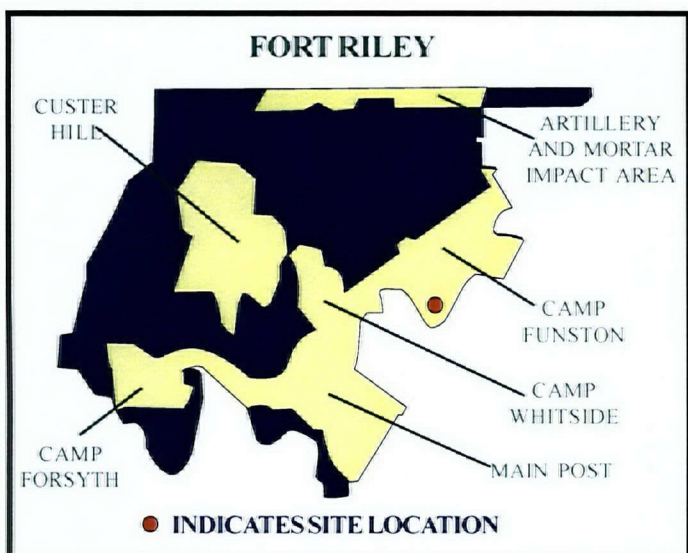
PA/SI, RI/FS, IRA, PP, ROD, RD/RA

CURRENT IRP PHASE: LTM

FUTURE IRP PHASE: LTM

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	274
2003	181
2004	183
2005	135
2006	1211
2007	560
2008+	2570
Total:	5,114,000



FTRI-019 (OPERABLE UNIT 004) FORMER FIRE TRAINING AREA FFTA - MAAF

SITE DESCRIPTION

This site consists of a former fire training area and former drum storage area located at Marshall Army Airfield (MAAF) near the installation boundary. The former fire training pit consisted of an unlined pit filled with crushed stone. The fire training area operated from the mid 1960s to 1984. A drum of tetrachloroethene (PCE) was accidentally released into the fire training pit in 1982. Efforts were made to recover the spilled material; however, only a portion was recovered.

The Installation Wide Site Assessment (dated 1992) indicated that the activities at FFTA-MAAF site potentially impacted the soils and groundwater in the vicinity of the site. Site Investigation activities conducted from 1993 through 1995 indicated off-post contamination which was confirmed by analyses taken from private wells. A Soil Vapor Extraction (SVE) and Bioventing Pilot Study was completed in 1994/1995 to address the source area. Remedial Investigations have been ongoing since 1996 to perform plume characterization and fate and transport.

An EE/CA was performed (Dec 97) to assess the need for a Removal Action for Exposure Control, and an Action Memorandum was completed.

A second EE/CA was performed (1998) to evaluate groundwater "hot spot" removal. The evaluation concluded that natural degradation was occurring faster than the available technologies could effectively accomplish a removal, and the EE/CA was discontinued.

A Natural Attenuation bench scale study and an Aquifer Tracer Study were completed in FY99.

The RI document was prepared in FY00 and was finalized in April 2001, including a groundwater model. KDHE's approval of the RI was contingent on further data ranges being added to the groundwater model, installation of one nested pair of groundwater monitoring wells on the north side of the Kansas River, and completion of a surface water sample transect.

The FS is underway including establishment of the RA objectives and ARARs.

A Federal court found against the installation in April 2001. The case is in mediation while awaiting the decision by Department of Justice on whether or not to appeal.

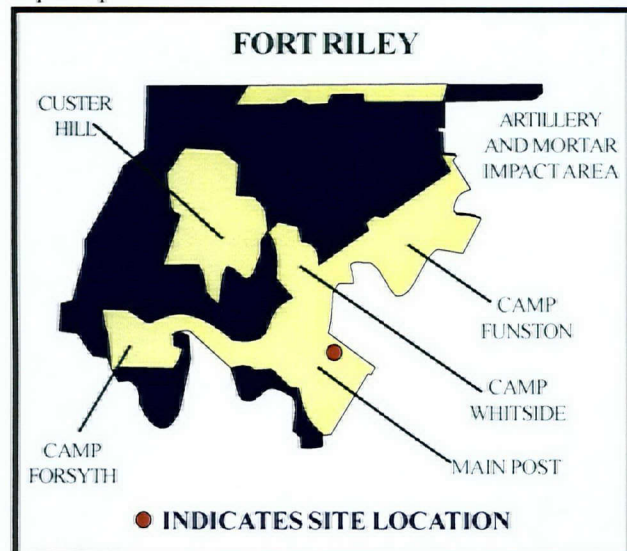
PROPOSED PLAN

The 1997 Exposure Control Removal Action decision proposed two replacement wells to supply domestic water to two off-post properties. This action is being delayed due to litigation and property access difficulties. A replacement well and associated appurtenances may be installed in 2002 if pending mediation discussions are successful.

Complete the FS.

Periodic Groundwater Monitoring to continue, estimated at 2 times per year.

The anticipated remedy, for planning purposes (clearly subject to change based on a completed Feasibility Study and accompanying Record of Decision), is institutional controls, monitored natural attenuation, plume control, and a contingency for future action. Long-term monitoring is assumed for 25 years following completion of the plume control RA. Five-year reviews will be required per the NCP.



STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, TPH, Napthalene

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA (Pilot Study: Bioventing)

CURRENT IRP PHASE: RI/FS, IRA

FUTURE IRP PHASE: RI/FS, RD, RA, RA(O), LTM

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS	IRA	RD	RA	RA(O)	LTM
2002	444	20				
2003	465					
2004	407					
2005	393					
2006	440		15			
2007			495	2000		
2008+				490	1600	2079
Total:						8,848,000



FTRI-027 (OPERATABLE UNIT 003) DRY CLEANING FACILITIES AREA

SITE DESCRIPTION

The Former Dry Cleaning Facility is located in the southwest corner of the Main Post cantonment area, about 800 feet north of the Kansas River. A PA/SI was completed for the Former DCF in September 1992 and a RI/FS initiated. Chlorinated solvent contamination was found in soils and groundwater. A Pilot Study for Dual-Phase Groundwater and Soil Vapor Extraction (SVE) was completed. The dual-phase vapor extraction tests were unsuccessful. SVE rates were low, but yielded enough contaminant removal to extend the study to further assess sustainable removal rates. The SVE was successful in removing most of the known soil contamination. Leakage from a nearby sewer servicing the laundry was corrected in 1994 and 1996 (non-ER,A).

Following review of the RI and the Draft FS in 1995 it was determined, in concert with EPA and KDHE, that additional characterization of the adjacent alluvial aquifer ("The Island") was warranted. This work, accomplished in the spring of 1996, showed that contaminant levels exceed MCLs, and the results were reported in a RI addendum (1998).

The baseline risk assessment indicates minimal risk associated with the site under current and anticipated land use. However, risk could exist under an unrestricted land use scenario. Exposure to impacted groundwater has not occurred and is not expected to occur. A 1998/1999 Proposed Plan included a Long Term Monitoring Program with sentinel wells focusing on the Kansas River and associated alluvial groundwater, institutional controls, periodic reviews and a contingency to develop and implement a future response action, if necessary. The sentinel wells installed in 1999 indicated a need for additional investigations. The former DCF buildings were removed in 2000 (OMA) and additional soil and groundwater screening was performed at the building site and along the sewer line at the request of the regulators.

The results of this screening were discussed by Fort Riley and the regulators in 2001, resulting in development of a plan to proceed to ROD by amending the RI and preparing a FS focused on the objective of hot spot reduction. With addition of the source control through hot spot treatment, the remedy is expected to be similar to the 1998/1999 Proposed Plan.

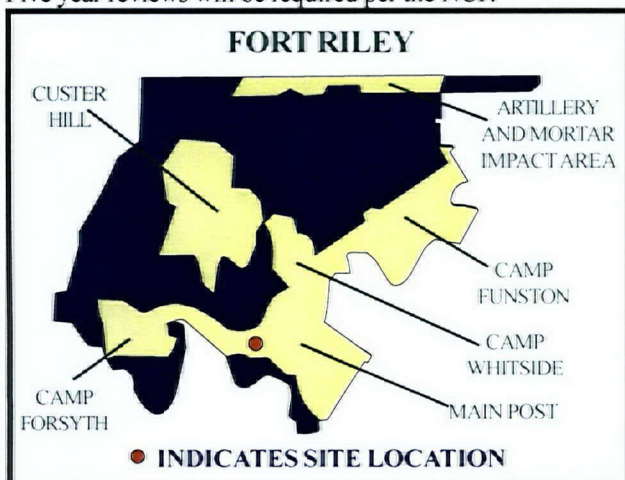
PROPOSED PLAN

Complete additional RI/FS investigations areas open due to building removal, RI Addendum and revised FS, Proposed Plan and ROD.

Potentially implement hot spot treatment as a Removal Action.

Perform hot spot groundwater treatment on the terrace and periodic groundwater monitoring.

Five year reviews will be required per the NCP.



STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA (Pilot Study, SVE)

CURRENT IRP PHASE: RI/FS

FUTURE IRP PHASE: RI/FS, RD,

RA, RA(O), LTM

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS	RD	RA	RA(O)	LTM
2002	884				
2003	458				
2004	359	150			
2005			1000	25	245
2006				40	245
2007	40			375	175
2008+	160				1275
Total:			5,431,000		



FTRI-030 (OPERABLE UNIT 002) PESTICIDE STORAGE FACILITY (MIXING)

SITE DESCRIPTION

Sampling conducted in 1983-1984 detected pesticide contamination in the soils in the area behind the building and in sediments in the lined channel behind the building. It has been determined that prior to the mid 1970's, pesticide wastewaters and inadvertent spills that occurred when mixing pesticides were allowed to run onto the ground in the equipment-washing area behind the facility. A removal action consisting of excavation and off site disposal occurred in the spring of 1994, followed by the performance of a residual risk assessment and issuance of a RI Addendum.

A No Further Action ROD was signed in September 1997. This decision is based on continued industrial land use and will be annotated in the installation master plan for consideration if land use changes. Because residual contamination remains in place, five year reviews are required.

A Land Use Management Plan was prepared in 1999.

PROPOSED PLAN

The first Five Year Review will be completed by August 6, 2002. Four additional reviews are anticipated.

STATUS

RRSE RATING: Low (High before REM)

CONTAMINANTS:

Pesticides (Chordane, DDT, Dieldrin, Hepachlor), PAHs, Metals (Arsenic)

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI, REM, RI, PP, ROD

CURRENT IRP PHASE:

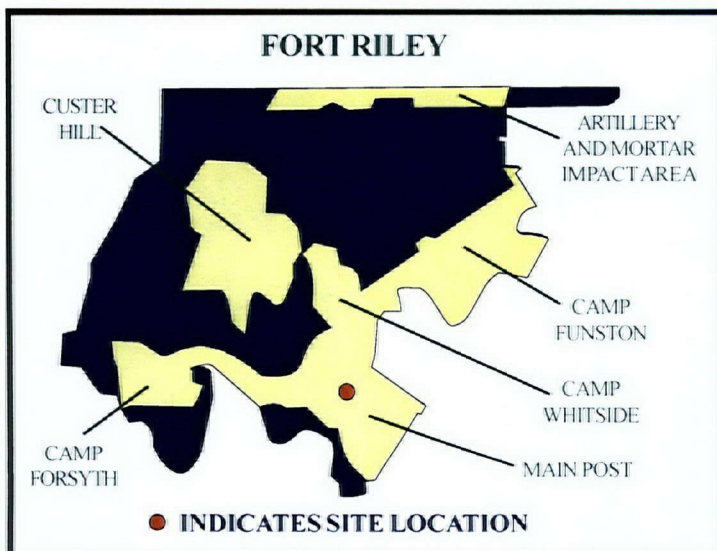
None

FUTURE IRP PHASE:

LTM (5 year reviews)

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	
2003	
2004	
2005	
2006	
2007	10
2008+	30
Total:	40,000



FTRI-031 (OPERABLE UNIT 005) 354 AREA SOLVENT DETECTIONS

SITE DESCRIPTION

Fuel and solvent storage and dispensing occurred near Bldg 354 in the Public Works (PW) Yard. USTs used to store fuel were removed in 1990/91. Solvents were assumed to be stored in drums; however, it was rumored that a UST or AST was used for storage. No records exist to confirm this.

Investigations to determine the extent of fuel contamination were performed from 1992 through 1995. Perchloroethylene (PCE) and its breakdown products were detected above MCLs in samples collected from monitoring wells. An Initial Field Investigation was performed in FY97 but was not successful in delineating the extent of solvent contamination.

A RI Workplan was developed in 1998 and RI fieldwork was conducted from June 1999 through April 2000. Monitoring wells, piezometers and data collection platforms were installed to support the RI. Fieldwork was expanded to include the Point Bar along the Kansas River and a former motor pool area approximately 2 blocks north of PW. Potential source areas for PCE and its breakdown products were identified near buildings 332 and 367. In addition to PCE and its breakdown products, carbon tetrachloride (CCl₄) was identified in laboratory confirmation samples collected during fieldwork. This phase of the investigation was not successful at delineating the northern and western extents of CCl₄.

An addendum to the RI work plan was developed in FY00/01 and approved by the regulators. Fieldwork continued in 2001 to include investigations around Building 430 and along the sanitary sewer line in conjunction with the site investigation at the Abandoned Gasoline Line (FTRI-056).

PROPOSED PLAN

Complete the RI Fieldwork and develop the RI Report.

IRAs are possible for soil and/or groundwater hotspots.

Complete FS, Proposed Plan, ROD, and LTM plan. Perform LTM semi-annually through 2012, annually thereafter. Assumes 20 years of monitoring after the ROD (through 2022) and four 5 year reviews.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

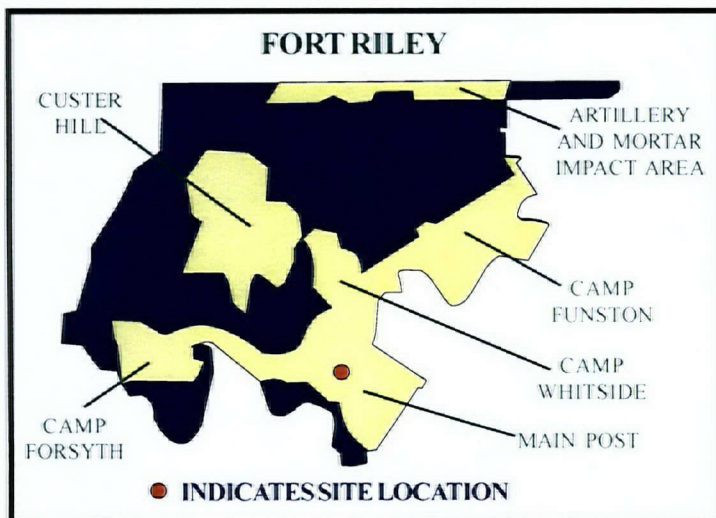
CURRENT IRP PHASE: RI/FS, IRA

FUTURE IRP PHASE:

RI/FS, IRA, LTM

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS	IRA	LTM
2002	507	75	
2003	895	1000	
2004	429	150	
2005	340	1000	
2006	293		
2007	5		120
2008+			1465
Total:	6,279,000		



Supplemental Site Investigations

FTRI-009 OPEN BURNING/ OPEN DETONATION GROUND (RANGE 16)

SITE DESCRIPTION

Range 16 is used to destroy defective ordnance. Historical practices included use of solvents in an open burn area. This practice was discontinued in the early 1980s. In 1993, low levels of solvents were detected in the groundwater. Due to its remote locations, there are no nearby receptors. Eight surface soil, eight deep borings, two surface water, and three sediment samples were collected and analyzed for explosives, VOCs, SVOCs, and depleted uranium. Four monitoring wells were installed and sampled for the same analytes. The open burn pit has not been used since approximately 1993. Groundwater sampling performed in winter 1995/96 confirmed low level VOC contamination.

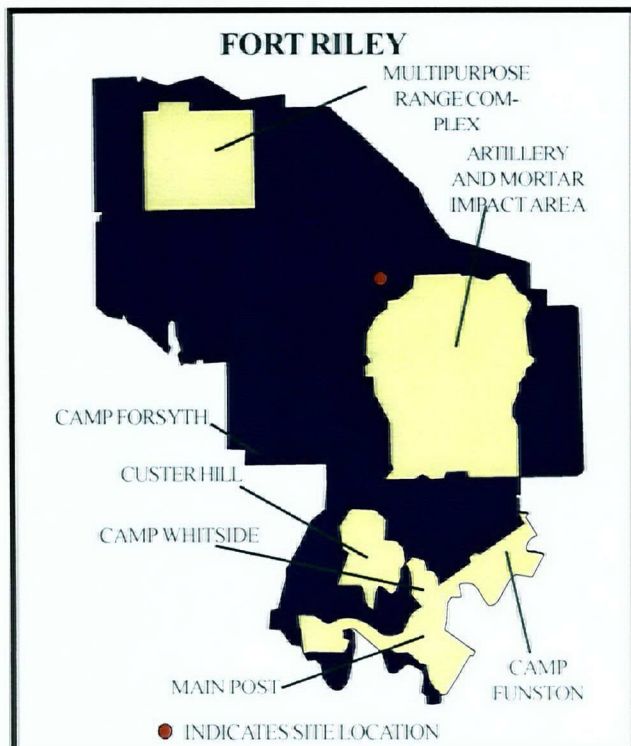
Site hydrogeology is complex and, therefore, additional characterization was needed. In 1997, four additional groundwater monitoring wells and five nested piezometers were installed and sampling results indicate higher VOC contamination.

A hand dug well (part of a historic farmstead) was converted to a permanent groundwater monitoring well. In 1998, 5 surface water samples from the ephemeral streams onsite were collected and analyzed. The results were non-detect for contaminants of concern.

Additional monitoring and data collection is being performed to better understand this complex site and to aid in potential future investigation scoping activities. This includes the sampling of surface water using an automated surface water collection system designed and installed by the USGS in 1999. Data collection platforms are in place to remotely monitor groundwater levels, surface water flow, and groundwater to surface water interaction. The system will operate for at least 5 years to evaluate potential migration pathways. In 1999, a Stratigraphic/Structural Evaluation of the area was completed by KSU, Department of Geology. An Ecological Risk Screening Evaluation was performed in 1998 and found low risk to ecological receptors.

PROPOSED PLAN

Continue to monitor stream flow and surface water quality for at least 5 years (started in 1998).
Prepare data reports as needed and complete DD.



STATUS

RRSE RATING: Medium

CONTAMINANTS: VOCs

MEDIA OF CONCERN:

Soils, Groundwater, Surface Water

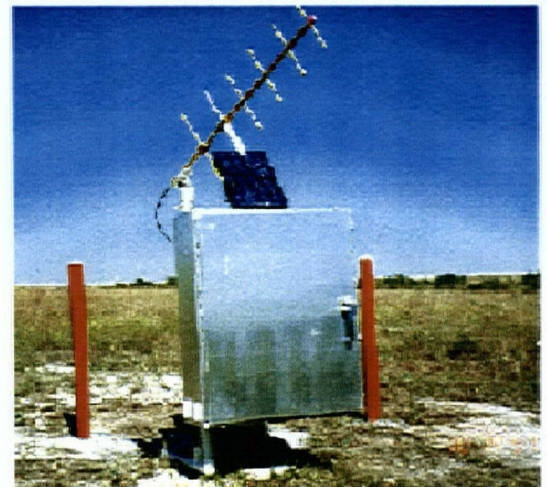
COMPLETED IRP PHASE: PA/SI

CURRENT IRP PHASE: RI/FS

FUTURE IRP PHASE: RI/FS

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS
2002	75
2003	89
2004	119
2005	10
2006	
2007	
2008+	
Total:	293,000



CAMP FUNSTON GROUNDWATER DETECTIONS

SITE DESCRIPTION

For additional information, see SE Funston Landfill, DRMO Area 2, Former DS/GS site and Funston area (1000 Area) POL/UST sites. Groundwater screening and monitoring well sampling data indicate apparent wide spread but low level solvent (including vinyl chloride) and metals contamination. No specific source has been identified. Hydrogeology of the area is variable due to alluvial deposits and influence of oxbow lakes as well as the fluctuating and meandering Kansas River. The installation boundary is nearby and the city of Ogden is immediately adjacent. A well field in Ogden supplies not only the city, but a large rural water district. Sampling of private wells do not show groundwater contamination. Additional groundwater monitoring wells have been installed to fill data gaps and relocate monitoring wells.

The USGS has performed data evaluation and developed a groundwater model. A GW Modeling report was issued in 2000 which indicated that Camp Funston Area contamination would not likely impact public or private water supplies, except under extreme assumptions.

PROPOSED PLAN

Prepare DD. Perform LTM through 2007 of key wells, upgradient of public and private supply wells. Include in future Five-Year Reviews.

Monitoring activities included on the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI (Groundwater Study)

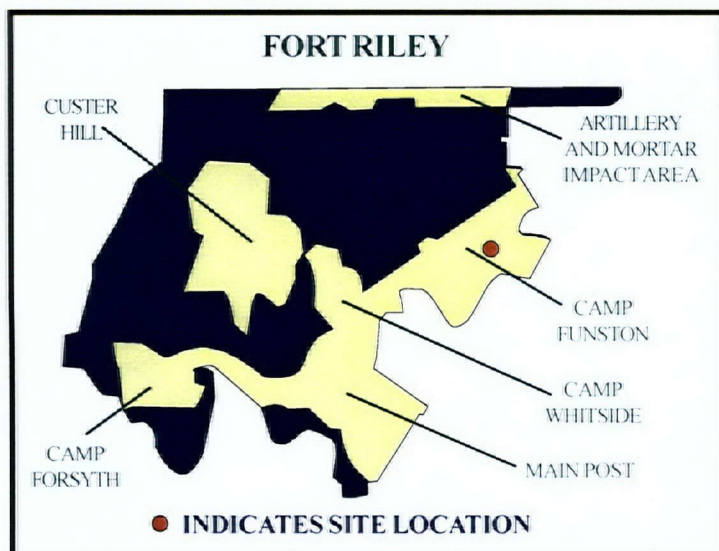
CURRENT IRP PHASE: LTM

FUTURE IRP PHASE: LTM

(Five Year Reviews)

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	58
2003	35
2004	15
2005	15
2006	15
2007	20
2008+	35
Total:	193,000



OLD INCINERATOR SITE SOUTHEAST CAMPFUNSTON

SITE DESCRIPTION

This site is located adjacent to the southeast portion of the installation. The land was transferred to the Kansas Department of Wildlife and Parks when Highway K-18 was constructed. The incinerator was abandoned in the mid 1950's or earlier. Incinerator ash with high lead content has been detected over a wide area within the approximate 10 acre site. Ten (10) of 78 surface soil sample locations analyzed by X-Ray Fluorescence (XRF) indicated high concentrations of lead (up to 5600 ppm). Additional sampling in FY97 identified three localized areas of high lead concentration. UXO has been encountered during previous investigations. An ecological risk screening was conducted in 1998 showing minor risk from soil contamination. The incinerator building posed a safety hazard. KDWP accomplished safety repairs in 2000.

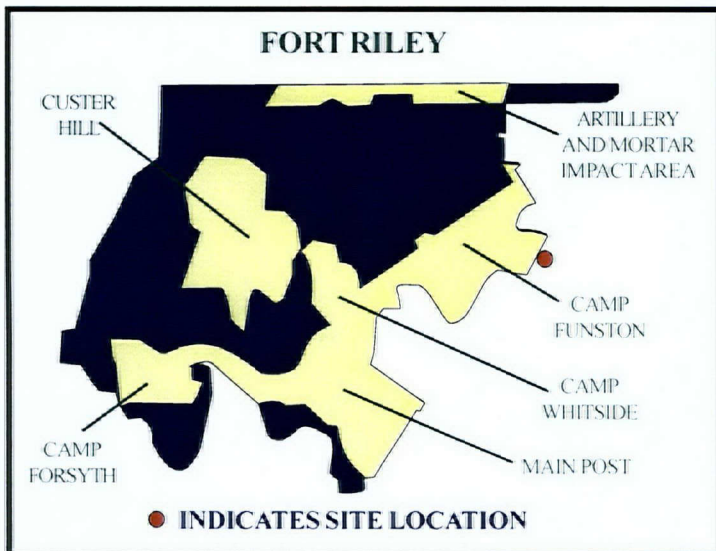
In 1999-2000, metals contaminated soil and debris were removed, placed in the landfill [SEFL (FTRI-036)] and covered with clean fill. The excavated areas were backfilled with clean fill. A Removal Action Report was submitted and approved by the regulators in FY00. Confirmation sampling showed lead above action levels existed after the soil removal. Currently Fort Riley is discussing future land use scenarios with KDWP for the SEFL incinerator site to ensure land use continues to be protective of public health.

STATUS
RRSE RATING: Medium
CONTAMINANTS: Metals
MEDIA OF CONCERN: Soil
COMPLETED IRP PHASE: PA/SI, IRA, RI/FS
CURRENT IRP PHASE: RC
FUTURE IRP PHASE: RC
PROGRAMMED COST-TO-COMPLETE

PROPOSED PLAN

Complete decision document.

Five year reviews will be performed in conjunction with FTRI-036.



FTRI-036 SOUTHEAST FUNSTON LANDFILL

SITE DESCRIPTION

This former municipal solid waste landfill, 50 acres, is located in the southeast portion of the installation. Operations ceased in the mid 1950's. Eleven (11) soil gas sampling locations indicated no VOC contamination. Four (4) perimeter monitoring wells were installed and sampled during the SI. Initial laboratory analysis showed low levels of 1,2 dichloroethylene, and levels of lead slightly exceeding MCL. Confirmation sampling of groundwater in December 1995 indicated similar results to previous data. Organic contaminants were detected in the western portion of the landfill. Groundwater sampling and analysis conducted after 1995 have not shown groundwater contamination.

In FY98-99, an EE/CA, Action Memorandum/Responsiveness Summary and Design were completed for cover improvements to 10 acres of the western portion of the landfill to correct for subsidence and improve drainage. This project was combined with the soil removal at the nearby Southeast Funston Landfill Incinerator (FTRI-29) and performed in 1999. A Removal Action Report was issued in 2000.

PROPOSED PLAN

Prepare a No Further Action Decision Document and perform five year reviews.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Metals (including lead), VOCs

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

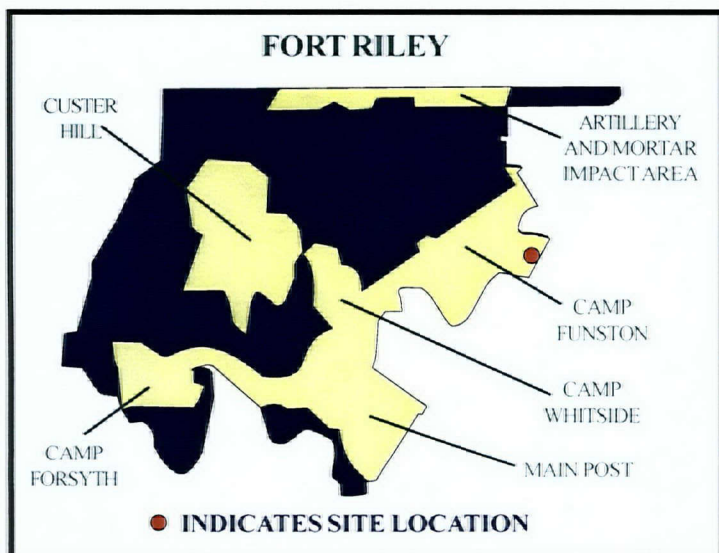
PA/SI, RI/FS, IRA

CURRENT IRP PHASE: DD

FUTURE IRP PHASE: LTM (Five Year Reviews)

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	
2003	
2004	
2005	20
2006	20
2007	5
2008+	80
Total:	125,000



SITE DESCRIPTION

Located south and west of Camp Forsyth, five separate areas have been identified as former landfill areas. One area can be observed in aerial photos as early as 1936. Investigations conducted in 1994 did not identify contaminants of concern in either soil or groundwater in four of the five sites. Landfill Areas 1, 3, 4, and 5 and the groundwater media of Area 2 are documented as requiring "no further action" in the Multiple Sites Decision Document. In Area 2, landfill materials were exposed on the surface in a drainage swale and along the Republican River bank. Landfill trenches were observed from the riverbed. UXO was found on a sandbar adjacent to Area 2 following the 1993 flood.

In 1997, the Army entered into a license agreement with Junction City, Kansas, to allow construction of a trail, Linear Trail, for pedestrian and recreational access along the Republican River adjacent to Area 2.

Review of aerial photos and land surveys shows that erosion from the Republican River has removed an area approximately 800 ft long by 100 ft wide along Area 2 since 1982. In 1998 an EE/CA and design to stabilize Area 2 were prepared. The Action Memorandum was completed in 1999. Construction of a revetment and baffles, a stabilization structure, was completed in two phases. The first 500 ft were completed in the summer of 2000 and the remaining 1000 ft were constructed in the spring of 2001.

PROPOSED PLAN

A Removal Action Report will be completed in FY01/02.

Prepare a Decision Document.

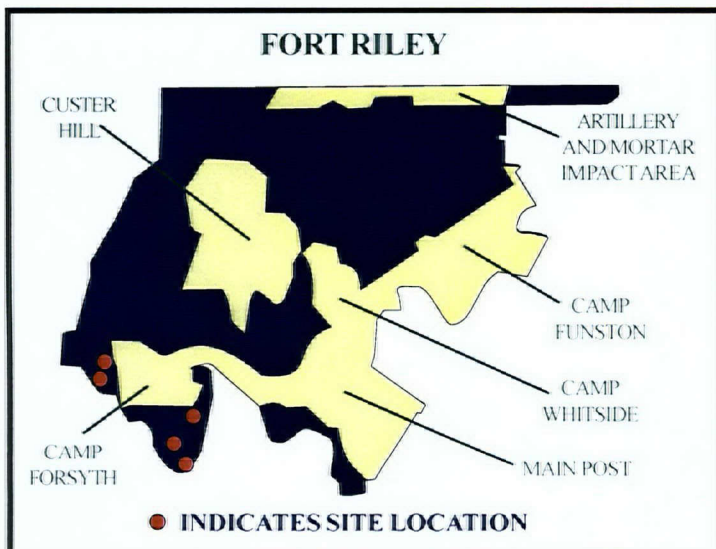
Conduct LTM including inspection and repairs.

Conduct five year reviews.

STATUS
RRSE RATING: Medium
CONTAMINANTS:
 Metals, Explosives
MEDIA OF CONCERN:
 Soil, Surface Water
COMPLETED IRP PHASE:
 PA/SI, RI/FS, IRA
CURRENT IRP PHASE: DD
FUTURE IRP PHASE: LTM (Five Year Reviews)

**PROGRAMMED
COST-TO-COMPLETE**

Phase	LTM
2002	
2003	
2004	
2005	
2006	
2007	3
2008+	603
Total:	606,000



POL/UST Sites

SITE DESCRIPTION

The POL Tank Farm is a consolidated storage facility located on 1st Division Road, Custer Hill. Contamination is due to documented surface releases and piping leakage from past operations. Limited site investigations have found free product (from current activities) and high levels of BTEX and PAHs. Groundwater contamination in the shale formation may be impractical to remediate because of relatively small amounts of groundwater in a fractured bedrock formation.

A Site Investigation work plan was completed and approved by KDHE in FY99. Site Investigation field work commenced in spring 2001. Trenching activities found no petroleum hydrocarbon contamination in fill material within the POL Tank Farm facility or along utility trenches. Contaminants were found in sediment samples collected from the stream drainage southwest of the POL Tank Farm. Further investigation of sediment in the streambed is warranted. Ten groundwater monitoring wells were installed in summer FY01 to obtain bedrock and groundwater flow information. Free produce recovery is on-gong (non-ER,A).

PROPOSED PLAN

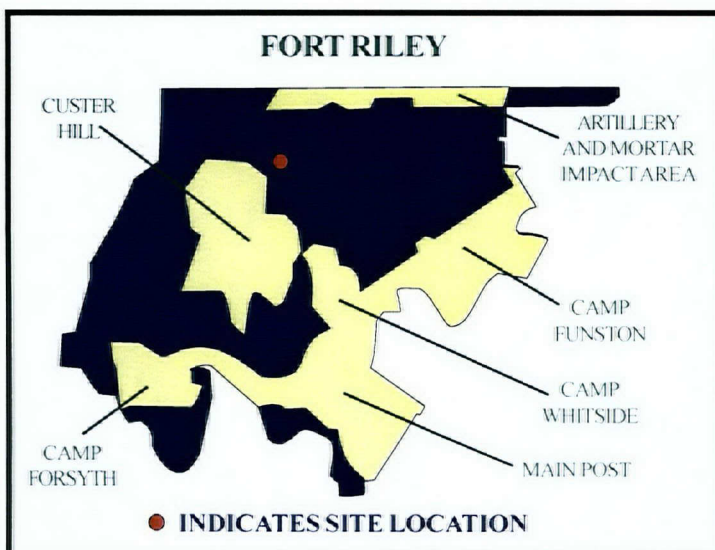
- Non-ER,A funds will continue to be used for free product recovery.
- Complete characterization of the soil & groundwater contamination.
- Conduct Groundwater Monitoring.
- Develop a SI Report and Decision Document.
- No further action is expected under ER,A.

STATUS

RRSE RATING: High
CONTAMINANTS:
 BTEX, PAHs
MEDIA OF CONCERN:
 Soils, Groundwater
COMPLETED IRP PHASE:
 PA/SI
CURRENT IRP PHASE: RI/FS
FUTURE IRP PHASE: RI/FS

**PROGRAMMED
COST-TO-COMPLETE**

Phase	RI/FS
2002	187
2003	10
2004	
2005	
2006	
2007	
2008+	
Total:	197,000



SITE DESCRIPTION

This site was closed and 5 USTs were removed in 1991. In 1995, the station was reopened and above ground storage tanks were installed. Soil contamination was documented during the tank removal. Site investigations have found moderate to high levels of BTEX in groundwater and low levels of BTEX in soils. Groundwater contamination in the shale formation may be impractical to remediate because of relatively small amounts of groundwater in a fractured bedrock formation. A Remedial Action Plan was submitted to KDHE in 1997. KDHE has placed the site in "on hold" status pending support of "closure". Quarterly sampling was conducted in FY98. Annual sampling events were conducted from 1999 through 2001. The final sampling round to support possible closure will be conducted in 2002.

PROPOSED PLAN

Long Term Monitoring through 2002

Develop an annual report.

This work is included in the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.

STATUS

RRSE RATING: Low

CONTAMINANTS:

BTEX, 1,2-dichloroethane, methyl-t-butyl ether

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

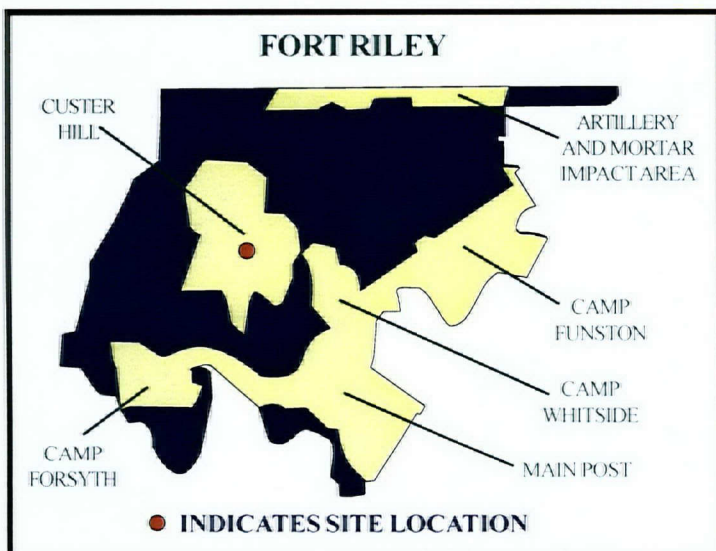
Tank Removal, PA/SI, RI

CURRENT IRP PHASE: LTM

FUTURE IRP PHASE: RC

PROGRAMMED COST-TO-COMPLETE

Phase	L T M
2002	5
2003	
2004	
2005	
2006	
2007	
2008+	
Total:	5,000



FTRI-056 ABANDONED GASOLINE LINE

SITE DESCRIPTION

The site consists of an abandoned 3-mile gasoline pipeline and three former underground storage tanks at the terminus. Preliminary assessment conducted by the Corps did not identify any releases along the pipeline in the areas explored. Evidence of releases were identified in terminus area. Preliminary investigation of the terminus area shows contamination in the soil and groundwater.

A SI was conducted in 1994. Based on the recommendations, further investigation is required. Widespread groundwater contamination is not expected. In FY98, a survey located and identified gaps in the gasoline line. A work plan for future investigation was completed in FY98. An additional investigation conducted in summer FY01 included Geoprobe investigation of soils, temporary and permanent monitoring well installation, subsurface soil sampling and also included investigations along the sanitary sewer line to support the RI for the 354 Area Solvent Detection Site (FTRI-031).

PROPOSED PLAN

Complete SI Report.

Perform Removal Action, if needed.

If warranted, LTM for 5 years, one year quarterly sampling and four years annual sampling to support closure.

Complete a No Further Action Decision Document.

Abandon wells.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

BTEX, VOCs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI

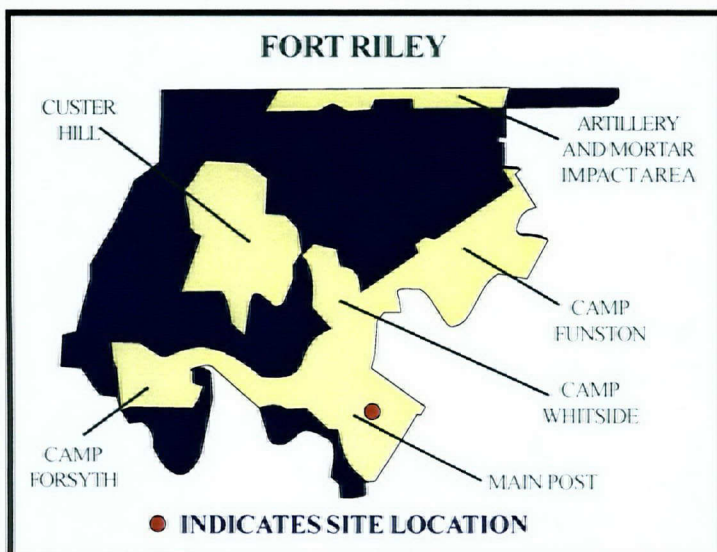
CURRENT IRP PHASE: RI/FS

FUTURE IRP PHASE:

IRA, LTM

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS	IRA	LTM
2002	120		
2003	10	250	40
2004			40
2005			20
2006			20
2007			
2008+			
Total:	500,000		



SITE DESCRIPTION

This former heating oil dispensing system consisted of two underground storage tanks and a pump house. The heating oil was distributed through underground piping which serviced 100 housing units. Heating oil was released within the tankhold and along piping trenches which also held the water lines and other utilities serving the housing unit. The tanks and the piping have been removed. Source removal of contaminated trench backfill materials and surrounding soils was completed in 1997.

Groundwater contamination in the limestone formation is impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation. Removal Action Report was submitted in FY99. Fort Riley formally requested KDHE re-review the CHPPM Risk Assessment and the Removal Action Report in context with their new guidance, "Risk-Based Standards for Kansas" and "Clean-up Levels for Total Petroleum Hydrocarbons" published in 1999 and 2001 respectively, and consider closure of the site.

PROPOSED PLAN

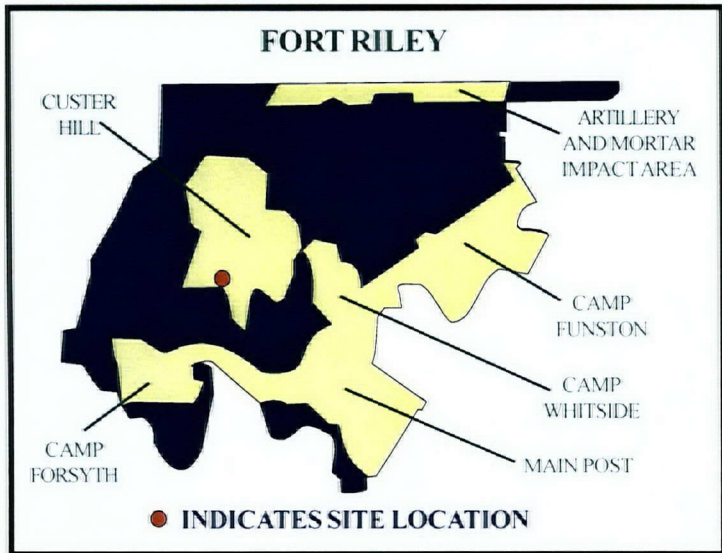
- Review site information.
- Prepare Decision Document.

STATUS

RRSE RATING: Low
CONTAMINANTS: TPH, BTEX, PAHs
MEDIA OF CONCERN: Soils, Groundwater
COMPLETED IRP PHASE: PA/SI, IRA
CURRENT IRP PHASE: RI/FS
FUTURE IRP PHASE: RC

PROGRAMMED COST-TO-COMPLETE

Phase	RI/FS
2002	16
2003	
2004	
2005	
2006	
2007	
2008+	
Total:	16,000



FTRI-062 TMP GAS STATION (BUILDING 388)

SITE DESCRIPTION

This TMP site is located in the southern portion of the Main Post area. Contamination is due to past leakage from dispensing lines which have been replaced. Site investigations have identified a limited amount of free product and high levels of BTEX in groundwater. Free-product recovery was performed in FY95. Soil contamination is limited. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. The USTs were removed and replaced with ASTs in April 1998. LTM was initiated in FY98.

STATUS

RRSE RATING: High
CONTAMINANTS:
 Benzene, Toluene, Xylene
MEDIA OF CONCERN:
 Soils, Groundwater
COMPLETED IRP PHASE:
 Tank Removal, PA/SI, RI, IRA
CURRENT IRP PHASE: LTM
FUTURE IRP PHASE: RC

PROPOSED PLAN

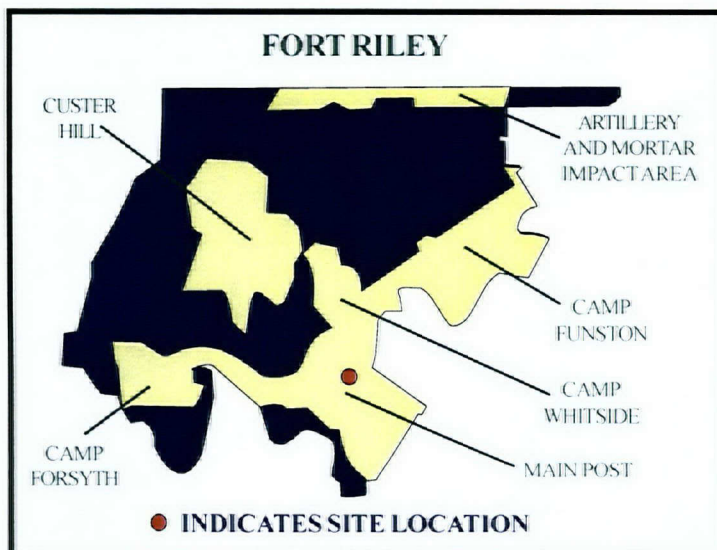
Long Term Monitoring for one more year.

Develop an annual report.

This work is included in the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	10
2003	
2004	
2005	
2006	
2007	
2008+	
Total:	10,000



FORMER BUILDING 1044 DISPENSING STATION

SITE DESCRIPTION

This site is located in the northwest portion of Camp Funston. The dispensing stations dated from WWII and were used into the 1980's. The USTs were removed in the early 1990's. Site investigations have found soil and groundwater contamination, including a limited amount of free product. Free product recovery was performed. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. LTM started in FY98.

PROPOSED PLAN

Long Term Monitoring through at least 2002.

Develop an annual report.

This work is included in the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.

STATUS

RRSE RATING: High

CONTAMINANTS:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

Tank Removal (IRA), Free Product

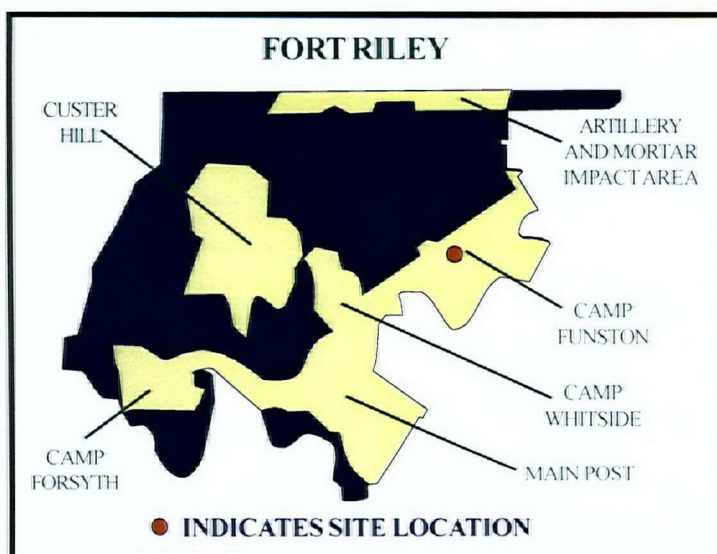
Removal (IRA), PA/SI, RI

CURRENT IRP PHASE: LTM

FUTURE IRP PHASE: RC

PROGRAMMED COST-TO-COMPLETE

Phase	LTM
2002	15
2003	
2004	
2005	
2006	
2007	
2008+	
Total:	15,000



FORMER BUILDING 1245 DISPENSING STATION

SITE DESCRIPTION

This site is located near the eastern boundary of Camp Funston. The city of Ogden is approximately 4,000 ft east of this site. Five USTs were removed in the early 1990's. Site investigation results indicated areas with medium to high levels of TPH and BTEX, which do not appear to be migrating.

KDHE has approved the Remedial Action Plan (RAP) for long term monitoring.

Long Term Monitoring started in FY98.

STATUS

RRSE RATING: High

CONTAMINANTS:

TPH, Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI, LTM

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: RC

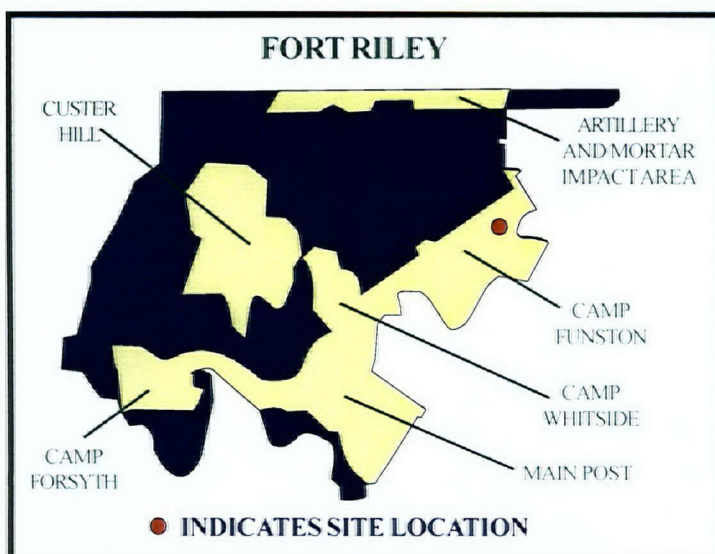
**PROGRAMMED
COST-TO-COMPLETE**

PROPOSED PLAN

Long Term Monitoring through at least 2002.

Develop an annual report.

This work is included in the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.



FORMER BUILDING 1637 DISPENSING STATION

SITE DESCRIPTION

This site is located in the eastern portion of Camp Funston. The dispensing stations dated from WWII and were used into the 1980's. The tanks were removed in the early 1990's. Site investigations have identified moderate BTEX groundwater contamination. Migration of contaminants does not appear to be occurring. Soil contamination is low (BTEX). KDHE has approved the Remedial Action Plan (RAP) for long term monitoring.

Long Term Monitoring started in FY98.

PROPOSED PLAN

Long Term Monitoring through at least 2002.

Develop an annual report.

This work is included in the Army Region VII LTM/LTO Pilot Bundling contract, begun in FY01.

STATUS

RRSE RATING: High

CONTAMINANTS:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

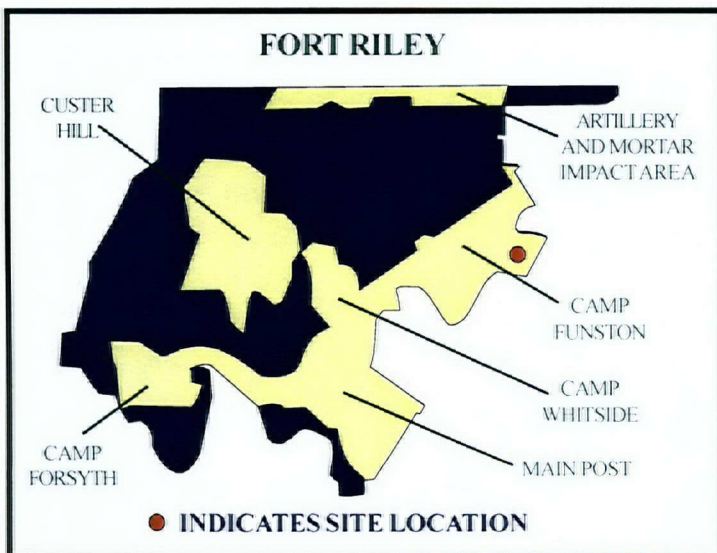
COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE: LTM

FUTURE IRP PHASE: LTM

**PROGRAMMED
COST-TO-COMPLETE**



Response Complete CERCLA Sites

Three Decision Memoranda were completed in FY98 and early FY99: Multiple Sites, former DRMO Area 1, and Main Post Landfill and Building 727 Former Service Pit. The sites addressed in the Decision Memoranda fall into three categories: those not warranting investigation, those which are being addressed under other regulatory programs (No Action under CERCLA), and those warranting No Action or No Further Action following investigations or Removal Actions.

As a result of the IWSA, numerous sites were determined to not have the potential to pose a risk to human health or the environment and, therefore, not warrant site investigations. These sites or site groupings were:

DSERTS No.	Common Site Name - may differ from DSERTS site name
FTRI-005	Construction/Demolition Debris Landfill - Custer Hill
FTRI-007, 008	PCB Storage Areas
FTRI-020	Central Vehicle Wash Facility
FTRI-028	Former Fire Training Area - Camp Funston
FTRI-032	Impact Zone
FTRI-033	Multi-Purpose Range Complex (MPRC)
FTRI-035	Non-Impact Area Small Arms Ranges: Pistol Range - Marshall Army Airfield (MAAF)
FTRI-035	Non-Impact Area Small Arms Ranges: Soils Moved from Small Arms Ranges
FTRI-040	Former Oil Testing Laboratory
FTRI-042, 043	Tactical Equipment and Maintenance Shops, Former Gas Stations/Garages, and Former Fuel Facilities
FTRI-044	Former Asphalt Plant (near Bldg 354)
FTRI-046	Former DS/GS - Bldg 1693 and Adjacent Areas
FTRI-049	Mercury Use Sites
_____	Commissary Landfill - Main Post
_____	Radioactive Storage Facilities
FTRI-055	Disposal of Trash and Demolition - Milford Recreation Center

Investigations of the sites not screened out following the IWSA were performed under the general designation of "Multiple Site Investigations" and divided into three projects for phased execution. These projects are designated as the Sensitive-Receptor Lead Sites, High-Priority Sites, and "Other Sites" Site Investigations. While most of the sites investigated in these projects are addressed by the Decision Memoranda, a few are being investigated and considered further (and are presented separately in this IAP).

The Site Investigation (SI) for the Sensitive-Receptor Lead Sites was initiated in June 1993. These sites were identified and evaluated based on a potential for lead contamination in shallow soils in areas readily accessible to the public. The Sensitive-Receptor Lead Sites project was later incorporated into the High Priority Sites project. The High Priority sites were identified as having the potential to pose a more immediate risk to human health and the environment than other sites, or there was a desire by Fort Riley to collect environmental information at an earlier stage for these sites due to other planned activities. The High Priority Sites SI was initiated in September 1993 and the results were reported in the SI Report for High Priority Sites. The remaining sites, referred to as the "Other Sites", were examined in an SI initiated in March 1994 and the results were reported in the SI Report for Other Sites. SI Addenda were prepared to address supplemental investigations performed at a few sites such as DRMO Area 1 and others. The SI reports provide detailed information about the site history, and the scope and results of the investigations.

Response Complete CERCLA Sites

As a result of site investigations, the following sites or site groupings were determined to not have the potential to pose a risk to human health or the environment under current and anticipated land use. A Removal Action was accomplished at the Colyer Manor Housing Area in 1994, removing lead-contaminated soils from an area behind the housing units.

DSERTS No.	Common Site Name - may differ from DSERTS site name
FTRI-004	Main Post Landfill
FTRI-006, 015, 012	Defense Reutilization and Marketing Office Areas 1, 2 and 3
FTRI-035	Non-Impact Area Small Arms ranges: Sensitive-Receptor Lead Sites (Colyer Manor Housing Area, Ware and Custer Elementary Schools, Former Mullins Park)
FTRI-037	Old Whitside Incinerator Area
FTRI-038	Camp Forsyth Landfills Areas 1, 2, 3, 4, and 5 (except Area 2 riverbank)
FTRI-041	Former Furniture Repair Shops (Former Buildings 1301 and 1605)
FTRI-041	Former Furniture Repair and Small Arms Shop (Building 319)
FTRI-045	Print and Publications Shops
FTRI-047	Former Livestock Dipping Facility
FTRI-048	Custer Hill Golf Course Pesticide Storage Facility
FTRI-050	Former Electrical Substations
FTRI-051	Building 727 Former Service Pit
FTRI-052	Former Camp Whitside Landfill
FTRI-055	Former Milford Lake Recreation Area

The following sites were determined to require No Action under CERCLA/SARA because site investigations have revealed that they do not have the potential to pose a risk to human health or the environment and/or they are being addressed under other existing regulatory programs as noted:

DSERTS No.	Common Site Name - may differ from DSERTS site name	
FTRI-001	Custer Hill Sanitary Landfill	RCRA Subtitle D
FTRI-002	Whitside Construction/Demolition Landfill	RCRA Subtitle D
FTRI-014	Hospital Incinerator	RCRA / Clean Air Act
FTRI-020	Custer Hill (Industrial) Wastewater Retention Ponds	Clean Water Act
FTRI-022-025	Wastewater Treatment Plants (Former Camp Funston, Camp Forsyth, Main Post, Custer Hill)	Clean Water Act
FTRI-022-025	Sludge Drying Beds (Former Camp Funston, Camp Forsyth, Main Post, Custer Hill)	Clean Water Act
FTRI-026	Range Complex Waste Water Lagoons	Clean Water Act
FTRI-039	Consolidated Maintenance Facility (Building 8100), Waste Underground Storage Tanks	RCRA Subtitle I
_____	Petroleum Sites / Underground Storage Tanks	RCRA Subtitle I

The following DSERTS sites were addressed prior to commencement of NPL/CERCLA activities at Fort Riley.

DSERTS No.	Common Site Name - may differ from DSERTS site name
FTRI-008	PCB Storage CONEX near Bldg 348
FTRI-010	Pesticide (2-4D) UST at Camp Funston
FTRI-013	Abandoned VOC Tanks North of Irwin Army Hospital
FTRI-016	Waste Oil AST - 3 rd Battery
FTRI-017	Waste Oil AST - 4 th Battery

Response Complete CERCLA Sites

FTRI-034 Impact Area Perimeter Small Arms Ranges.

Both active and inactive ranges are located around the perimeter of the Impact Area. These were generally evaluated in the *Impact Area Site Assessment* (FTRI-032). No significant levels of contamination was detected. Site is considered response complete in DSERTS and will be included in a future Decision Document with the Impact Area.

FTRI-044 Former Asphalt Plant (Near Building 354)

This site was identified in the Installation-Wide Site Assessment. No significant contamination has been identified, based on the results of investigations at the 354 POL/UST (FTRI-061) and the site is considered Response Complete in DSERTS. Further review of the site is pending the completion of investigations at 354 Area Solvent Detections (FTRI-031) site.

FTRI-074 WWI Incinerator, NW Camp Funston

This site was added to DSERTS in 2001 after being identified on a WWI-era map, located in the field and sampled. Elevated levels of metals were identified but due to it's location and land use, no action is anticipated.

Response Complete POL/UST Sites

SITE DESCRIPTION

Dispensing stations dating from WWII through 1970's and 1990's. Tanks were removed in the early 1990's through 1998. Site investigations have been completed. No further action is required at the following sites:

FTRI-010; Pesticide (2-4D) USTs at Camp Funston

FTRI-013; Abandoned VOC Tanks North of IACH

FTRI-018; UST and Fire Training Area Facility (892) (Response Complete under ER-A).

FTRI-059; Remove USTs

FTRI-060; Main Post PX Gas Station/218

FTRI-061; Former Gas Service Station Building 354 (See also FTRI-031)

FTRI-064; Former Building 1090 Dispensing Station

FTRI-065; Former Building 1190 Dispensing Station

FTRI-067; Former Building 1539 Dispensing Station

FTRI-069; Former Building 1890 Dispensing Station

FTRI-070; Former Building 2341 Dispensing Station

FTRI-071; Former Building 2345 Dispensing Station

FTRI-072; Building 8340 Fuel Oil UST

FTRI-073; Building 8360 Fuel Oil UST

STATUS

RRSE RATING: Not Evaluated

CONTAMINANTS:

TPH, Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Groundwater Soil

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: RC

PROPOSED PLAN

No further action is required at these sites.

PAST MILESTONES

1983-1984

- Installation Assessment (By USATHAMA)

1988-1989

- Solid Waste Management Unit Survey (By AEHA)
- IRP Initiation

1990

- NPL Listing Published
- IAG - Dept. Army and Fort Riley Signature

1991

- IAG - EPA Region VII and KDHE Signature
- IAG - Effective Date

1993

- PA/SI - Installation Wide Site Assessment
- SI/SA
 - FTRI-001, Custer Hill Sanitary Landfill
 - FTRI-032, Impact Zone
- RI/FS
 - FTRI-003, Southwest Funston Landfill
 - FTRI-030, Pesticide Storage Facility
- RI/FS (PA/SI) - FTRI-027, Dry Cleaning Facilities Area
- RI/FS (SI) - FTRI-019, Marshall Army Airfield-Former Fire Training Area

1994

- RI/FS
 - FTRI-003, Southwest Funston Landfill
 - FTRI-027, Dry Cleaning Facilities Area
 - FTRI-030, Pesticide Storage Facility
- RI/FS (SI) - FTRI-019, Marshall Army Airfield-Former Fire Training Area
- REM
 - FTRI-030, Pesticide Storage Facility, Excavation of pesticide contaminated soils
 - FTRI-035, Non-Impact Area Small Arms Ranges, Excavation of lead contaminated soils, Colyer Manor
- IRA
 - FTRI-003, Southwest Funston Landfill, Riverbank stabilization and cover repair/improvements (FY 94-96)
 - FTRI-027, Dry Cleaning Facilities Area, Sewer line replacement-OMA funded (FY 94-96)

1995

- RI/FS
 - FTRI-003, Southwest Funston Landfill
 - FTRI-027, Dry Cleaning Facilities Area

PAST MILESTONES

- FTRI-030, Pesticide Storage Facility
- RI/FS (SI) - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Site Investigation Report
- REM
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Soil vapor extraction & bioventing pilot study
 - FTRI-027, Dry Cleaning Facilities Area, Soil vapor extraction pilot study
 - FTRI-062, TMP Gas Station(Bldg 388), Free Product Recovery
 - FTRI-063, Former Bldg 1044 Dispensing Station, Free Product Recovery

1996

- RI/FS
 - FTRI-003, Southwest Funston Landfill, ROD
 - FTRI-027, Dry Cleaning Facilities Area
 - FTRI-030, Pesticide Storage Facility
- RI/FS (SI) - FTRI-019, Marshall Army Airfield-Former Fire Training Area
- REM - FTRI-057, 6200 Area, Soil Removal

FY 1997

- IRA
 - FTRI-003, Southwest Funston Landfill, Removal Action Report
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Exposure Control EE/CA initiated
- RI/FS
 - FTRI-006, DRMO & Wherry Substation, Site Investigations
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, RI/FS Work Plan
 - FTRI-027, Dry Cleaning Facilities Area, Draft Revised FS
 - FTRI-030, Pesticide Storage Facility, RI Addendum, Proposed Plan, ROD (Sep 97)
 - FTRI-031, 354 Area Solvent Detections Site, Initial Field Investigations
- RI/FS - FTRI-067 and FTRI-069, No Further Action required
- RI/FS, LTM - FTRI-054, -063, -066, -068, Remedial Action Plans
- LTM - FTRI-003, Southwest Funston Lanfill, Long Term Monitoring & Operations & Maintenance Plans
- RAB Formation (Sept 97)

FY 1998

- Decision Memorandum - FTRI-various, Multi-Sites and DRMO
 - FTRI-004 (MPLF), -051 (727), and multiple UST sites
- RI/FS
 - FTRI-009, Open Burn/Open Detonation, SI Addendum Report
 - FTRI-011, Camp Funston Groundwater Detections, Annual (Investigation) Monitoring Report
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, RI/FS Work Plan (Final Oct 97),
Basic Plans (Final Jul 98), Plume Characterization, Natural Attenuation Work Plan
 - FTRI-027, Dry Cleaning Facilities Area, RI Addendum/FS (Approved May 98)
 - FTRI-029, Southeast Funston Incinerator, SI Addendum Report
 - FTRI-031, 354 Area Solvent Detections Site, Initial Field Investigations Report
- IRA
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Exposure Control EE/CA (Jan 98),
Action Memo Signature (Apr 98)
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Groundwater Action EE/CA,

PAST MILESTONES

(Draft Apr 98, Discontinued)

FTRI-029 Southeast Funston Landfill Incinerator, EE/CA, Preliminary IRA Design

FTRI-036, Southeast Funston Landfill, EE/CA, Preliminary IRA Design

FTRI-038, Forsyth Bank Stabilization, EE/CA (Aug 98)

- PP - FTRI-027, Dry Cleaning Facilities Area, Draft Proposed Plan (Aug 98)

- LTM

FTRI-003, Southwest Funston Landfill, Final Institutional Controls Plan, 1997 Annual Monitoring Report, 1997 Inspection Report

FTRI-054, -063, -066, -068, POL/UST Sites

FY 1999

- RI/FS

FTRI-009, Open Burn/Open Detonation, Risk Screening Report (Final Apr 99)

FTRI-011, Camp Funston Groundwater Detections, 1997 Annual (Investigation) Monitoring Report (Final Dec 98), Groundwater Isotope Report (Final Mar 99), 1998 Annual (Investigation) Monitoring Report (Sep 99)

FTRI-019 Marshall Army Airfield-Former Fire Training Area, Tracer Study, Microcosm Study

FTRI-027, Dry Cleaning Facilities Area, Draft Proposed Plan (Aug 98, May 99), Dispute Resolution (Jan – Apr 99)

FTRI-031, 354 Area Solvent Detections, RI/FS Work Plans (Final Mar 99), Phase I Field Investigations

FTRI-038, Forsyth Landfill(s), Data Review

FTRI-053, POL Tank Farm, RI/FS Work Plan

- IRA

FTRI-029, Southeast Funston Landfill Incinerator, EE/CA (Feb 99), Action Memo Signature (Jun 99), Construction Award for Soil Removal (Jun 99)

FTRI-036, Southwest Funston Landfill, EE/CA (Feb 99), Action Memo Signature (Jun 99), Construction Award for Cover Improvements (Jun 99)

FTRI-038, Forsyth Landfill, Area 2 Action Memo Signature (Apr 99), Bank Stabilization Design

FTRI-057, 6200 Area Fuel Oil System, Removal Action Report

- LTM

FTRI-030, Pesticide Storage Facility, Land Use Management Plan

FTRI-054, Custer Hill PX USTs

FTRI-062, TMP Gas Station (Bldg 388)

FTRI-063, Former Building 1044 Dispensing Station

FTRI-066, Former Building 1245 Dispensing Station

FTRI-068, Former Building 1637 Dispensing Station

- LTM

FTRI-003, SFL, 1998 Annual Monitoring Report (Sep 99), 1998 Inspection Report, Maintenance, Contract Award (Sep 99)

FY 2000

- RI/FS

FTRI-009, Open Burn/Open Detonation, Surface Water monitoring

FTRI-011, Camp Funston Groundwater Detections, Groundwater Modeling Report

PAST MILESTONES

- FTRI-019, Marshall Army Airfield-Former Fire Training Area, Draft Remedial Investigation Report
- FTRI-027, Dry Cleaning Facilities Area, Additional site evaluation
- FTRI-031, 354 Area Solvent Detections, Remedial Investigations, preliminary evaluation
- IRA - FTRI-019, MAAF-FFTA, Construction of Exposure Controls pending real estate issues
- LTM
 - FTRI-003, Southwest Funston Landfill, Maintenance Construction (Oct 99), 1999 Annual Inspection Report (Nov 99)
 - FTRI-054, Custer Hill PX USTs
 - FTRI-062, TMP Gas Station (Bldg 388)
 - FTRI-063, Former Building 1044 Dispensing Station
 - FTRI-066, Former Building 1245 Dispensing Station
 - FTRI-068, Former Building 1637 Dispensing Station

FY2001

- RI
 - FTRI-009, Open Burn/Open Detonation, Surface water monitoring
 - FTRI-011, Camp Funston Groundwater, Groundwater monitoring
 - FTRI-029, Southeast Funston Landfill Incinerator, Land use control development
 - FTRI-036, Southeast Funston Landfall, Draft Decision Memorandum
 - FTRI-053, POL Tank Farm, Site Investigations
 - FTRI-056, Abandoned Gasoline Line, Site Investigations
- RI/FS
 - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Initiated FS
 - FTRI-027, Dry Cleaning Facilities Area, Investigations
 - FTRI-031, 354 Area Solvent Detections Area, Additional Investigations
- IRA - FTRI-038, Forsyth Landfill
- LTM
 - FTRI-003, Southwest Funston Landfill
 - FTRI-054, Custer Hill PX USTS (5320)
 - FTRI-062, TMP Gas Station (Bldg 388)
 - FTRI-063, Former Building 1044 Dispensing Station
 - FTRI-066, Former Building 1245 Dispensing Station
 - FTRI-068, Former Building 1637 Dispensing Station
- Initiate Five-Year Review
 - FTRI-003, Southwest Funston Landfill
 - FTRI-030, Pesticide Storage Facility

FUTURE MILESTONES

FY 2002

LTM/Five Year Review – FTRI-003, 030, all sites
LTM - FTRI-003, Southwest Funston Landfill
RI
FTRI-009, Open Burn/Open Detonation, Surface water sampling/reporting
FTRI-011, Camp Funston Groundwater Detections, Complete Groundwater Study
RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Treatability Study
IRA - FTRI-019, Marshall Army Airfield-Former Fire Training Area, possibly implement exposure control
RI/FS - FTRI-027, Dry Cleaning Facilities Area, Perform additional investigations
RI - FTRI-029, Southeast Funston Landfill Incinerator, Develop land use controls
RI/FS - FTRI-031, 354 Area Solvent Detections, RI Report
RI/FS - FTRI-031, 354 Area Solvent Detections, initiate EE/CA for source treatment, Decision Memorandum
LTM - FTRI-036, Southeast Funston Landfill, maintenance every 2 years for about 15 years
LTM - FTRI-038, Forsyth Landfill(s), bank stabilization maintenance
RI - FTRI-053, POL Tank Farm, review data
LTM - FTRI-054, Custer Hill PX USTs (5320)
RI/FS - FTRI-056, Abandoned Gasoline Line
IRA - FTRI-056, Abandoned Gasoline Line, soil removal, if needed
RI - FTRI-057, 6200 Area UST, Decision Memorandum
LTM - FTRI-057, 6200 Area UST, initiate 5 years of LTM if needed
LTM - FTRI-062, TMP Gas Station (Bldg 388)
LTM - FTRI-063, Former Building 1044 Dispensing Area
LTM - FTRI-066, Former Building 1245 Dispensing Station
LTM - FTRI-068, Former Building 1637 Dispensing Area

FY 2003

LTM - FTRI-003, Southwest Funston Landfill
RI - FTRI-009, Open Burn/Open Detonation, Surface Water sampling/reporting
LTM - FTRI-011, Camp Funston Area Groundwater
RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Treatability Study
RI/FS - FTRI-027, Dry Cleaning Facilities Area, RI Addendum
RI/FS - FTRI-031, 354 Area Solvent Detections, RI Report completion, FS alternative development initiation
LTM - FTRI-036, Southeast Funston Landfill
LTM - FTRI-038, Forsyth Landfill(s)
RI - FTRI-053, POL Tank Farm, Decision Document
RI - FTRI-056, Abandoned Gasoline Line, Decision Document
RI - FTRI-056, Abandoned Gasoline Line, IRA source removal/treatment
LTM - FTRI-056, Abandoned Gasoline Line, initiate groundwater LTM (FY03-07)
LTM - FTRI-057, 6200 Area UST

FY 2004

LTM - FTRI-003, Southwest Funston Landfill

FUTURE MILESTONES

- RI - FTRI-009, Open Burn/Open Detonation, Surface Water sampling/reporting
- LTM - FTRI-011, Camp Funston Groundwater
- RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area , continue FS
- RI/FS - FTRI-027, Dry Cleaning Facilities Area, continue RI/FS
- RI/FS - FTRI-031, 354 Area Solvent Detections, continue FS
- LTM - FTRI-036, Southeast Funston Landfill, maintenance
- LTM - FTRI-038, Forsyth Landfill(s), maintenance
- LTM - FTRI-056, Abandoned Gasoline Line, groundwater monitoring

FY 2005

- LTM - FTRI-003, Southwest Funston Landfill
- RI - FTRI-009, Open Burn/Open Detonation, Finalize Decision Memorandum
- LTM - FTRI-011, Camp Funston Groundwater Detections
- RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area, FS
- IRA - FTRI-019, Marshall Army Airfield-Former Fire Training Area, possible groundwater treatment
- RI/FS - FTRI-027, Dry Cleaning Facilities Area
- RI/FS - FTRI-031, 354 Area Solvent Detections
- IRA - FTRI-031, 354 Area Solvent Detections, complete source removal
- LTM - FTRI-036, Southeast Funston Landfill
- LTM - FTRI-038, Forsyth Landfill(s)
- LTM - FTRI-056, Abandoned Gasoline Line

FY 2006

- RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Proposed Plan
- RI/FS - FTRI-031, 354 Area Solvent Detections, ROD
- LTM - FTRI-031, 354 Area Solvent Detections (FY06-FY24)
- IRA - FTRI-027, Dry Cleaning Facilities Area, Hot spot groundwater treatment
- LTM - FTRI-036, Southeast Funston Landfill
- LTM - FTRI-038, Forsyth Landfill(s)
- LTM - FTRI-056, Abandoned Gasoline Line

FY 2007

- RI/FS - FTRI-019, Marshall Army Airfield-Former Fire Training Area, complete ROD
- RD - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Groundwater treatment
- RI/FS - FTRI-027, Dry Cleaning Facilities Area, Complete ROD
- RD - FTRI-027, Dry Cleaning Facilities Area, Groundwater Treatment

Five Year Reviews – FY 02, 07, 12, 17, 22, 27, 32, 36

Remedy-in-Place - Completion of Construction of final remedial action: 2010, FTRI-027

Deletion from NPL 2010

RA Completion Date - FY Last RA completed Or RA(0) system shut off 2012, FTRI-019, FTRI-027

IRP Completion Date Includes LTM 2036, FTRI-019

NO FURTHER ACTION

The following sites currently require no further action by the Installation Restoration Program:

FTRI-001	CUSTER HILL SANITARY LANDFILL
FTRI-002	WHITSIDE CONSTRT. DEBRIS LANDFILL-ACTIVE
FTRI-004	MAIN POST LANDFILL
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP
FTRI-006	DRMO STORAGE AREA
FTRI-007	PCB STORAGE BUILDING 343
FTRI-008	PCB STORAGE CONEX (BUILDING 348)
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-014	HOSPITAL INCINERATOR-IACH
FTRI-015	FORMER DRMO LOCATION (DRMO AREA 2)
FTRI-016	WASTE OIL AST-3RD BATTERY
FTRI-017	WASTE OIL AST-4TH BATTERY
FTRI-018	FIRE TRAINING AREA FACILITY (892)
FTRI-020	INDUSTRIAL WASTEWATER SYSTEM (CUSTER HILL)
FTRI-022	FORMER WWTP AND SLUDGE BEDS-CAMP FUNSTON
FTRI-023	CUSTER HILL WWTP AND SLUDGE BEDS
FTRI-024	FORSYTH WWTP AND SLUDGE BEDS
FTRI-025	MAIN POST WWTP AND SLUDGE BEDS
FTRI-026	RANGE COMPLEX WW LAGOONS
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON
FTRI-032	IMPACT ZONE
FTRI-033	DOUTHIT RANGE
FTRI-034	IMPACT AREA PERIMETER SMALL ARM RANGES
FTRI-035	NON-IMPACT AREA SMALL ARMS RANGES
FTRI-037	OLD WHITSIDE INCINERATOR AREA
FTRI-039	CONSOLIDATED MAINTENANCE FACILITY
FTRI-040	FORMER OIL TESTING LAB (BLDG 1022)
FTRI-041	FURNITURE REPAIR SHOPS (3)
FTRI-042	TAC VEHICLE MAINTENANCE SHOPS
FTRI-043	FORMER GAS STATIONS/GARAGES
FTRI-044	FORMER ASPHALT PLANT (NEAR BLDG 354)
FTRI-045	PHOTO AND PRINT PLANTS
FTRI-046	FORMER DS/GS - BLDG 1693 AND ADJACENT AREAS
FTRI-047	FORMER LIVESTOCK DIPPING FACILITY
FTRI-048	FORMER PESTICIDES FACILITIES
FTRI-049	MERCURY CONTAMINATION AREAS
FTRI-050	PCB SPILL AREAS/TRANSFORMER SITES
FTRI-051	BUILDING 727 FORMER SERVICE PIT
FTRI-052	INACTIVE LANDFILLS - CAMP WHITSIDE
FTRI-055	MILFORD LAKE CAMPGROUND/MARINA WELLS
FTRI-059	REMOVE USTS
FTRI-060	MAINPOST PX GAS STATION/218
FTRI-061	FORMER GAS SERVICE STATION BLDG 354
FTRI-064	FMR BLDG 1090 DISPENSING STATION

NO FURTHER ACTION

FTRI-065	FMR BLDG 1190 DISPENSING STATION
FTRI-067	FMR BLDG 1539 DISPENSING STATION
FTRI-069	FMR BLDG 1890 DISPENSING STATION
FTRI-070	FMR BLDG 2341 DISPENSING STATION
FTRI-071	FMR BLDG 2345 DISPENSING STATION
FTRI-072	BLDG 8340 FUEL OIL UST
FTRI-073	BLDG 8360 FUEL OIL UST
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON

Schedule

Based on Current Funding

		Current Phase				Future Phase		
		FY02	FY03	FY04	FY05	FY06	FY07	FY08+
FTRI-003	LTM	█	█	█	█	█	█	█
FTRI-009	RI/FS	█	█	█	█			
FTRI-011	LTM	█	█	█	█	█	█	█
FTRI-019	RI/FS	█	█	█	█	█		
	IRA	█						
	RD					█	█	█
	RA						█	█
	RA(O)							█
	LTM							█
FTRI-027	RI/FS	█	█	█	█			
	RD				█			
	RA					█		
	RA(O)						█	█
	LTM							█
FTRI-030	LTM						█	
FTRI-031	RI/FS	█	█	█	█	█	█	
	IRA	█	█	█	█			
	LTM							█
FTRI-036	LTM				█	█	█	█
FTRI-038	LTM						█	
FTRI-053	RI/FS	█	█					
FTRI-054	LTM	█						
FTRI-056	RI/FS	█	█					
	IRA		█					
	LTM		█	█	█	█		
FTRI-057	RI/FS	█						
FTRI-062	LTM	█						
FTRI-063	LTM	█						

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Site, 4. Installation Phase Summary Report

11/27/2001

Installation: FORT RILEY

Programs: BRAC I, BRAC II, BRAC III, BRAC IV, IRP

Subprograms: Compliance, Restoration, UXO

Installation count for Programs: 1

NPL Options: Delisted, No, Proposed, Yes

Installations count for Programs and NPL 1

Site count for Programs and NPL: 72

Phase / Status / Sites

PA				SI			
C	U	F	RC	C	U	F	RC
72	0	0	4	66	0	0	17
RI / FS				RD			
C	U	F	RC	C	U	F	
32	10	0	28	4	0	2	
RA(C)				RA(O)			
C	U	F	RC	C	U	F	RC
13	0	2	13	0	0	2	0
				LTM			
				C	U	F	N
				0	6	8	57

Remedy / Status / Sites (Actions)

IRA			
C	U	F	
18 (23)			1 (1)
FRA			
C	U	F	
13 (13)			0 (0)
			2 (2)

RIP Total: 0

RC Total: 62

Reporting Period End Date: 09/30/2001

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM
 Site, 7. SITE SUMMARY

11/27/2001

Installation: FORT RILEY

Major Commar. FORSCOM

FFID: KS214020756

Subcommand:

Program Options: IRP, BRAC I, BRAC II, BRAC III, BRAC IV

Subprogram Options: Compliance, Restoration, UXO

Phase Status

Site	Description	Site Type	RRSE	PA	SI	RI	RD	RA(C)	RA(O)	LTM	IRA	IRA	RIP	RC
											Completed	Underway		
FTRI-001	CUSTER HILL SANITARY LANDFILL	Landfill	NE	C	C	C				N	0	0		199308
FTRI-002	WHITSIDE CONSTRT. DEBRIS LANDFILL	Landfill	3A	C	C	C			N	N	0	0		199803
FTRI-003	SOUTHWEST FUNSTON LANDFILL	Landfill	1A	C	C	C	C	C	N	U	3	0		199709
FTRI-004	MAIN POST LANDFILL	Landfill	3A	C	C	C			N	N	0	0		199712
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP	Surface Disposal Area	NE	C						N	0	0		199305
FTRI-006	DRMO STORAGE AREA	Spill Site Area	3A	C	C	C			N	N	0	0		199809
FTRI-007	PCB STORAGE BUILDING 343	Storage Area	NE	C	C					N	0	0		198909
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	Storage Area	NE	C	C		C	C		N	0	0		199012
FTRI-009	OB/OD GROUND (RANGE 16)	Explosive Ordnance Dispo	2A	C	C	U				N	0	0		200508
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTO	Underground Tank Farm	NE	C	C		C	C		N	0	0		199204
FTRI-011	CAMP FUNSTON GW DETECTIONS	Contaminated Ground Wa	1A	C	C	U			N	F	0	0		200209
FTRI-012	WASTE STORAGE DRMO SECONDARY A	Storage Area	3A	C	C	C			N	N	0	0		199509
FTRI-013	ABANDONED VOC TANKS NORTH OF IA	Above Ground Storage Ta	NE	C	C		C	C		N	0	0		199202
FTRI-014	HOSPITAL INCINERATOR-IRWIN ACH	Incinerator	NE	C	C					N	0	0		198909
FTRI-015	FORMER DRMO LOCATION (DRMO AREA	Storage Area	2A	C	C	C			N	N	0	0		199509
FTRI-016	WASTE OIL AST-3RD BATTERY	Above Ground Storage Ta	NE	C	C					N	0	0		198909
FTRI-017	WASTE OIL AST-4TH BATTERY	Above Ground Storage Ta	NE	C	C					N	0	0		198909
FTRI-018	FIRE TRAINING AREA FACILITY (892)	Fire/Crash Training Area	NE	C	C					N	0	0		198909
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MA	Fire/Crash Training Area	1A	C	C	U	F	F	F	F	2	1	200909	201209
FTRI-020	INDUSTRIAL WASTEWATER SYSTEM (C)	Surface Impoundment/Lag	2A	C	C	C			N	N	0	0		199803
FTRI-022	FORMER WWTP AND SLUDGE BEDS-CAN	Sewage Treatment Plant	NE	C	C					N	0	0		199305
FTRI-023	CUSTER HILL WWTP AND SLUDGE BEDS	Sewage Treatment Plant	NE	C	C					N	0	0		199305
FTRI-024	FORSYTH WWTP AND SLUDGE BEDS	Sewage Treatment Plant	NE	C	C					N	0	0		199305
FTRI-025	MAIN POST WWTP AND SLUDGE BEDS	Sewage Treatment Plant	NE	C	C					N	0	0		199305
FTRI-026	RANGE COMPLEX WW LAGOONS	Surface Impoundment/Lag	NE	C	C					N	0	0		199305
FTRI-027	DRY CLEANING FACILITIES AREA	Spill Site Area	1A	C	C	U	F	F	F	F	1	0	201101	201209
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNST	Fire/Crash Training Area	NE	C	C	C		C		N	0	0		199309
FTRI-029	OLD INCINERATOR SITE SE-CAMP FUNS	Incinerator	2A	C	C	U				N	1	0		200209
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING	Pesticide Shop	3A	C	C	C			N	F	1	0		199709
FTRI-031	BLDG 354 AREA SOLVENT DETECTIONS	Contaminated Buildings	1A	C	C	U			N	F	0	0		200809
FTRI-032	IMPACT ZONE	Unexploded Munitions/Or	2A	C	C	C			N	N	0	0		199309
FTRI-033	DOUTHIT RANGE	Firing Range	NE	C	C					N	0	0		199305

Phase Status

Site	Description	Site Type	RRSE	PA	SI	RI	RD	RA(C)	RA(O)	LTM	IRA	IRA	RIP	RC
FTRI-034	IMPACT AREA PERIMETER SMALL ARM	Small Arms Range	NE	C	C				N	N	0	0		199612
FTRI-035	NON-IMPACT AREA SMALL ARMS RANG	Small Arms Range	2A	C	C	C			N	N	1	0		200007
FTRI-036	SOUTHEAST FUNSTON LANDFILL	Landfill	2A	C	C	U			N	F	1	0		200209
FTRI-037	OLD WHITSIDE INCINERATOR AREA	Incinerator	2A	C	C	C			N	N	0	0		199507
FTRI-038	FORSYTH LANDFILL(S)	Landfill	2A	C	C	C				F	1	0		200109
FTRI-039	CONSOLIDATED MAINTENANCE FACILI	Industrial Discharge	NE	C	C					N	0	0		199305
FTRI-040	FORMER OIL TESTING LAB (BLDG. 1022)	Spill Site Area	NE	C						N	0	0		199305
FTRI-041	FURNITURE REPAIR SHOPS (3)	Spill Site Area	NE	C	C	C			N	N	0	0		199507
FTRI-042	TAC VEHICLE MAINTENANCE SHOPS	Spill Site Area	NE	C						N	0	0		199305
FTRI-043	FORMER GAS STATIONS/GARAGES	Spill Site Area	NE	C						N	0	0		199305
FTRI-044	FORMER ASPHALT PLANT (NEAR BLDG	Spill Site Area	NE	C	C				N	N	0	0		199509
FTRI-045	PHOTO AND PRINT PLANTS	Spill Site Area	3A	C	C	C			N	N	0	0		199507
FTRI-046	FRMR DSGS - BLDG 1693 AND ADJACENT	Spill Site Area	2A	C	C	C			N	N	0	0		199507
FTRI-047	FORMER LIVESTOCK DIPPING FACILITY	Dip Tank	3A	C	C	C			N	N	0	0		199507
FTRI-048	FORMER PESTICIDES FACILITIES	Pesticide Shop	NE	C	C	C			N	N	0	0		199507
FTRI-049	MERCURY CONTAMINATION AREAS	Spill Site Area	NE	C				C		N	0	0		199305
FTRI-050	PCB SPILL AREAS /TRANSFORMER SITES	Spill Site Area	3A	C	C	C			N	N	0	0		199803
FTRI-051	BLDG. 727 WASTE PIT	Disposal Pit/Dry Well	3A	C	C	C			N	N	0	0		199903
FTRI-052	INACTIVE LANDFILLS - CAMP WHITSIDE	Landfill	NE	C	C	C			N	N	0	0		199507
FTRI-053	POL TANK FARM	Above Ground Storage Ta	1B	C	C	U			N	N	0	0		200309
FTRI-054	CUSTER HILL PX USTS BLDG 5320	Underground Tank Farm	3B	C	C	C				U	1	0		199709
FTRI-055	MILFORD LAKE CAMPGROUND/MARINA	Contaminated Ground Wa	3A	C	C	C			N	N	0	0		199507
FTRI-056	ABANDONED GASOLINE LINE	POL (Petroleum/Lubricant	2B	C	C	U		N	N	F	0	0		200309
FTRI-057	6200 AREA FUEL OIL LINE	Underground Tank Farm	3B	C	C	U			N	N	1	0		200209
FTRI-059	REMOVE USTS	Underground Tank Farm	NE	C				C		N	0	0		199012
FTRI-060	MAINPOST PX GAS STATION / 218	Underground Tank Farm	3B	C	C					N	1	0		199506
FTRI-061	FORMER GAS SERVICE STATION BLDG 3	Underground Tank Farm	2B	C	C				N	N	2	0		199510
FTRI-062	TMP GAS STATION BLDG 388	Underground Tank Farm	1B	C	C	C			N	U	1	0		199710
FTRI-063	FMR BLDG 1044 DISPENSING STATION	Underground Tank Farm	1B	C	C	C			N	U	2	0		199710
FTRI-064	FMR BLDG 1090 DISPENSING STATION	Underground Tank Farm	NE	C	C	C		C		N	0	0		199504
FTRI-065	FMR BLDG 1190 DISPENSING STATION	Underground Tank Farm	NE	C	C	C		C		N	0	0		199504
FTRI-066	FMR BLDG 1245 DISPENSING STATION	Underground Tank Farm	1B	C	C	C			N	U	1	0		199708
FTRI-067	FMR BLDG 1539 DISPENSING STATION	Underground Tank Farm	2B	C	C	C			N	N	1	0		199708
FTRI-068	FMR BLDG 1637 DISPENSING STATION	Underground Tank Farm	1B	C	C	C			N	U	1	0		199708
FTRI-069	FMR BLDG 1890 DISPENSING STATION	Underground Tank Farm	2B	C	C	C			N	N	1	0		199708
FTRI-070	FMR BLDG 2341 DISPENSING STATION	Underground Tank Farm	NE	C	C			C	N	N	0	0		199406
FTRI-071	FMR BLDG 2345 DISPENSING STATION	Underground Tank Farm	NE	C	C			C	N	N	0	0		199411
FTRI-072	BLDG 8340 FUEL OIL UST	Underground Tank Farm	NE	C	C			C	N	N	0	0		199409
FTRI-073	BLDG 8360 FUEL OIL UST	Underground Tank Farm	NE	C	C			C	N	N	0	0		199503
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON	Incinerator	3A	C	C						0	0		200109

Report Period End Date: 09/30/2001

Remediation Activities

Past REM/IRA/RA

Dry Cleaning Facility (FTRI-027) - FY94

The possibility of "slip-lining" the sanitary and storm sewers to reduce or eliminate a driving force moving contamination from soils to the groundwater was evaluated. Camera inspection of the lines indicated, however, that the sanitary sewer line contained too much mineral scaling (from nearby boiler plant) to allow slip-lining. The storm sewer is very steep, circuitous and in pretty good shape, making slip-lining difficult and unnecessary. Therefore, replacement of the one damaged sanitary sewer line was performed. Remaining lines, suspected to leak also, were assessed and a project was completed in 1996 to abandon in-place and construct new lines.

Soil vapor extraction and groundwater extraction and treatment pilot studies were initiated in August 1994. Pumping tests performed on the groundwater extraction wells indicated extremely low flow rates and determined the impracticality of this technology as a remedial action. The test was extended to determine if the mass removal rates would be sustainable (they were not) and because volatiles, (albeit low levels), were being extracted from the soils. The system operated until March 1995, when vapor analysis indicated no detections of VOCs. The action directed at remediating soils was implemented to address this media as a continuing source for groundwater contamination, not because of any determined risk due to exposure to the soils. Had the extraction been sustainable, an EE/CA would have been prepared and a Removal Action undertaken. However, the pilot test removed much of the soil contamination.

Custer Hill Sanitary Landfill (FTRI-001) - FY93/94

Low level contamination was revealed by the site investigation. Rather than carry the site through the CERCLA/IAG process, the site was addressed under the state-administered RCRA subtitle D program for closure and post-closure monitoring.

Marshall Army Airfield -Former Fire Training Area (FTRI-019) - FY94/95 Total Construction Cost = \$900,000

Initial Site Investigations and off-post private well data indicated there was soil contamination in two areas on post and groundwater contamination likely existed on-post and extended off-post. Since the soil contamination was a potential source for additional groundwater contamination, soil treatment options were considered for implementation of an early action. Pilot Studies were developed for Bioventing and/or SVE in each of the two areas respectively and implemented in the winter 1994/95. These proved successful and were extended to gain additional design information while an EE/CA was being prepared to evaluate performance of these technologies as Removal Actions. The EE/CA was terminated because evaluation of field data (including drop off of removal rates) indicated that much of the contamination had been removed and continued operation was not cost effective.

Numerous UST Removals Total Construction Cost = \$1,500,000

Numerous additional tank removals have been conducted under OMA tank management program

Southwest Funston Landfill Landfill (FTRI-003) - FY94/96/97 Total Construction Cost = \$ 4,000,000

Settlement and minimal maintenance of the closure cover has resulted in ponding and otherwise poor drainage. Landfilling occurred along and near the Kansas River bank. Erosion of materials into the river has occurred. A "Non-time Critical" Removal Action has been completed. The Engineering Evaluation/Cost Analysis (EE/CA) for cover improvements and bank stabilization was issued for public comment on 16 August 1993. Design was initiated concurrent with preparation of the EE/CA with the intent that the design be complete by the time the Decision Document is completed. However, in light of the stipulated penalties, the Bank Stabilization removal action was expedited and substantially completed by 9 April 1994. It was fully completed by June 1994. The cover portion of the removal action was contracted for 4th quarter FY94. Construction of the cover repairs was completed 1995, however it was discovered that insufficient cover existed in some places and a 2nd contract was developed to correct this situation. Additional cover improvements were completed in 1997. LTM was initiated at the site in FY96.

Pesticide Storage Facility (FTRI-030) - FY94 Total Construction Cost = \$788,000

Removal of contaminated soils was completed in May 1994. Sampling during the removal action revealed significantly greater volumes of contaminated soil than identified in the RI. The amount of soil removed was approximately 2700 tons. This IRA allowed the Final Remedial Action to be No Further Action based on anticipated industrial land use.

Remediation Activities

Past REM/IRA/RA

Sensitive Receptor Lead Sites (FTRI-035) - FY94 Total Construction Cost = \$533,000

An "expedited" removal assessment performed in June 1993 revealed that a small area near a housing and recreation area was a "hot spot" of lead contamination. Removal of lead contaminated soils was completed May 1994. The amount of soil removed was 1338 tons.

6200 Area Fuel Oil Line (FTRI-057) - FY96 Total Construction Cost = \$2,300,000

This former heating oil dispensing system consisted of two underground storage tanks and a pump house. The heating oil was distributed through underground piping which serviced 100 housing units. Heating oil was released within the tankhold and along piping trenches which hold water lines and other utilities serving the housing unit. The tanks and the piping have been removed. Source removal of contaminated trench backfill materials and surrounding soils was completed in 1997.

Southeast Funston Landfill – Incinerator (FTRI-29) - FY99 Total Construction Cost = \$269,585

In FY98 an EE/CA, Design, and Action Memorandum with public comment and RAB involvement were completed for excavation of ash/metals contaminated soil. The incinerator Removal Action was combined with the cover improvements for the SE Funston Landfill (SEFL) where the soils were re-buried in the western portion of the SEFL site. Construction activities were conducted from early Oct 99 through early Nov 99.

Southeast Funston Landfill – Inactive (FTRI-036) - FY99/00 Total Construction Cost = \$349,000

In FY98 an EE/CA, Design and Action Memorandum, with public comment and RAB involvement, were completed for landfill cover improvements to the western portion of the SEFL. The cover improvements were designed to control surface runoff and to address landfill trench subsidence problems. The construction contract award amount was \$218K with FY00 modification of \$131K. Construction was performed Oct-Nov 1999.

Forsyth Landfill Area 2 (FTRI-038) - FY00 Total Construction Cost = \$826,743

Evaluations show that approximately a 100 ft. width of riverbank along an 800 foot section of the Landfill Area 2 had been eroded by the Republican River. Therefore, an IRA was conducted that includes riverbank stabilization and erosion control (eroded material has in the past included UXO). In 1998 and 1999 an EE/CA and an Action Memorandum (respectively) were completed. The stabilization was completed in FY01.

Current REM/IRA/RA

Forsyth Landfill Area 2 (FTRI-038) - FY00 Total Construction Cost = \$826,743

Construction completed. Removal Action Report developed.

Remediation Activities

Future REM/IRA/RA

FY2002

Marshall Army Airfield - Former Fire Training Area (FTRI-019)

Private wells in the area have been monitored since this site was discovered. Because private wells have been impacted, an Engineering Evaluation/Cost Analysis (EE/CA) was performed (completed December 1997) to assess the need for a Removal Action aimed at Exposure Control. New wells outside the plume will be installed for two off-post properties (delayed due to litigation and property access).

IRA - FTRI-056, Abandoned Gas Line, Soil Removal

IRA - FTRI-031, 354 Area Solvent Detection Site, Pending investigation results, initiate soil/groundwater "hot spot" Removal Action(s)

FY2003

IRA - FTRI-056, potential IRA Source Removal/Treatment

FY2005

IRA - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Groundwater Treatment

FY2006

IRA - FTRI-027, Dry Cleaning Facilities Area, Groundwater Treatment

FY2008

RA - FTRI-027, Dry Cleaning Facilities Area, Groundwater Treatment

FY2009

RA - FTRI-019, Marshall Army Airfield-Former Fire Training Area, Groundwater Treatment

Remediation Activities

Innovative Means to Expedite the Study Process to the RA Phase

- Partnering with the regulators and the RAB Community co-chair through an IAP Development Workshop.
- With concurrence between the signatories of the IAG, perform Removal Actions as “Time Critical” when actions are simple, straightforward, and quickly implementable. Example: “Sensitive Receptor Lead Sites”.
- Again, with concurrence between the signatories of the IAG, perform response actions as either “Time Critical” or “Non-Time Critical” Removal Actions rather than initiating RI/FS’s. This approach is planned for all sites identified under the IWSA for site investigations. Time and resources will be saved through streamlined study, documentation and decision-making processes.
- For “Non-time Critical” Removal Actions, initiate and perform design and contract documents concurrent with EE/CA preparation, public comment period, and Decision Document preparation and staffing. Procurement actions can be initiated as well, although the Notice-to-Proceed would not be issued until Decision Document signatures have been obtained. There is some risk that re-design and/or contract modifications may be required due to public comment.
- Transfer projects to other on-going regulatory programs to reduce IAG administrative requirements. Example: Custer Hill Landfill.
- Use of field screening and other data collection methods such as automated data collection platforms with satellite telemetry, soil gas surveys, “geo-probe” groundwater sampling, on-site analyses, cone-penetrometer, geo-physical surveys.
- Use of risk-based corrective action evaluations - particularly helpful in addressing UST sites to avoid costly cleanups where little or no risk exists to receptors.
- Use of “dynamic” sampling plans and field analyses.
- Use of low flow monitoring well purging method methodology
- Participation in DA LTM/LTO pilot “contract bundling” project for EPA Region VII IRP/FUDs sites.
- Development of Programmatic Agreement with the U.S. Fish & Wildlife Service and Kansas Department of Wildlife and Parks to allow routine and repetitive activities to occur in endangered species critical habitat and no disturbance area with preparing individual biological assessments.

PRIOR YEAR FUNDS

FY89-96

\$ 38,660,000

FY97	FTRI-003	IRA	\$ 14,069	
	FTRI-003	LTM	\$ 261,097	
	FTRI-003	LTO	\$ 3,905	
	FTRI-003	PY M/SR	\$ 18,327	
	FTRI-003	PY RA/SA	\$ 40,590	
	FTRI-006	PY RI/SR	\$ 11,171	
	FTRI-009	PY RI/SR	\$ 81,400	
	FTRI-009	RI/FS	\$ 61,677	
	FTRI-011	RI/FS	\$ 339,464	
	FTRI-019	IRA	\$ 317,763	
	FTRI-019	PY RA/SA	\$ 26,000	
	FTRI-019	PY RI/SR	\$ 172,333	
	FTRI-019	RI/FS	\$ 814,529	
	FTRI-027	PY FS/SR	\$ 121,531	
	FTRI-027	RI/FS	\$ 28,398	
	FTRI-029	PY RI/SR	\$ 34,889	
	FTRI-029	RI/FS	\$ 24,915	
	FTRI-030	PY RI/SR	\$ 29,400	
	FTRI-030	RI/FS	\$ 34,000	
	FTRI-030	RI/FS	\$ 36,701	
	FTRI-031	PY RI/SR	\$ 40,398	
	FTRI-031	RI/FS	\$ 12,126	
	FTRI-038	IRA	\$ 3,131	
	FTRI-053	RI/FS	\$ 447	
	FTRI-054	PY RI/SR	\$ 4,964	
	FTRI-057	PY RA/SA	\$ 103,042	
	FTRI-057	RA	\$ 126,899	
	FTRI-060	PY RI/SR	\$ 4,870	
	FTRI-062	PY RI/SR	\$ 5,584	
	FTRI-062	RI/FS	\$ 781	
	FTRI-063	PY RI/SR	\$ 7,789	
	FTRI-063	RI/FS	\$ 464	
	FTRI-066	PY RI/SR	\$ 7,494	
	FTRI-066	RI/FS	\$ 595	
	FTRI-067	PY RI/SR	\$ 4,447	
	FTRI-068	PY RI/SR	\$ 3,482	
	FTRI-069	PY RI/SR	\$ 3,000	
	Restoration Advisory Board		\$ 2,328	\$ 2,804,000

Cost Estimates

PRIOR YEAR FUNDS

FY98	FTRI-003	IRA	\$ 7,708.32	
	FTRI-003	LTM	\$ 226,970.52	
	FTIR-003	LTO	\$ 35,286.44	
	FTRI-006	RI/FS	\$ 25,524.46	
	FTRI-009	RI/FS	\$ 250,451.07	
	FTRI-011	RI/FS	\$ 251,366.46	
	FTRI-019	IRA	\$ 148,134.83	
	FTRI-019	RI/FS	\$ 1,511,680.11	
	FTRI-027	RI/FS	\$ 274,711.33	
	FTRI-029	RI/FS	\$ 35,543.58	
	FTRI-031	RI/FS	\$ 199,753.53	
	FTRI-036	IRA	\$ 50,194.15	
	FTRI-038	IRA	\$ 64,099.43	
	FTRI-051	RI/FS	\$ 6,407.79	
	FTRI-053	RI/SR	\$ 63,995.27	
	FTRI-056	RI/FS	\$ 48,351.47	
	FTRI-057	RA	\$ 17,054.28	
	FTRI-062	LTM	\$ 9,026.81	
	FTRI-063	LTM	\$ 9,364.35	
	FTRI-066	LTM	\$ 7,817.53	
	FTRI-068	LTM	\$ 6,558.47	
	Restoration Advisory Board		\$ 26,000.00	\$ 3,276,000
FY99	FTRI-003	LTM	\$ 43,240.95	
	TRI-003	LTO	\$ 68,334.83	
	FTRI-009	RI/FS	\$ 112,474.37	
	FTRI-011	RI/FS	\$ 153,571.72	
	FTRI-019	RI/FS	\$ 1,132,184.29	
	FTRI-027	RI/FS	\$ 436,669.93	
	FTRI-029	IRA	\$ 280,927.67	
	FTRI-031	RI/FS	\$ 771,873.43	
	FTRI-036	IRA	\$ 256,638.61	
	FTRI-038	RI/FS	\$ 1,038.50	
	FTRI-038	IRA	\$ 34,478.04	
	FTRI-053	RI/SR	\$ 11,042.13	
	FTRI-054	LTM	\$ 1,848.40	
	FTRI-057	IRA	\$ 6,219.95	
	FTRI-062	LTM	\$ 20,606.43	
	FTRI-063	LTM	\$ 35,717.09	
	FTRI-066	LTM	\$ 16,939.15	
	FTRI-068	LTM	\$ 16,194.51	
	Restoration Advisory Board		\$ 10,000.00	\$ 3,510,000

Cost Estimates

PRIOR YEAR FUNDS

FY00	FTRI-003	LTM	\$ 186,682.85	
	FTRI-003	LTO	\$ 32,720.91	
	FTRI-009	RI/FS	\$ 67,419.16	
	FTRI-011	RI/FS	\$ 118,593.74	
	FTRI-019	RI/FS	\$ 790,685.65	
	FTRI-019	IRA	\$ 2,499.99	
	FTRI-027	RI/FS	\$ 581,526.93	
	FTRI-029	IRA	\$ 20,369.16	
	FTRI-031	RI/FS	\$ 661,344.89	
	FTRI-036	IRA	\$ 161,868.77	
	FTRI-038	IRA	\$ 864,724.82	
	FTRI-053	RI/FS	\$ 2,479.11	
	FTRI-054	LTM	\$ 3,837.38	
	FTRI-056	RI/FS	\$ 1,869.84	
	FTRI-062	LTM	\$ 4,209.51	
	FTRI-063	LTM	\$ 21,591.54	
	FTRI-066	LTM	\$ 17,463.99	
	FTRI-068	LTM	\$ 17,711.76	
	Restoration Advisory Board		\$ 8,000.00	\$ 3,575,600.00
FY01	FTRI-003	LTM	\$ 490,512.29	
	FTRI-009	RI/FS	\$ 52,845.70	
	FTRI-011	RI/FS	\$ 82,768.75	
	FTRI-011	LTM	\$ 5,055.62	
	FTRI-019	RI/FS	\$ 647,413.11	
	FTRI-027	RI/FS	\$ 814,298.54	
	FTRI-031	RI/FS	\$ 1,258,142.20	
	FTRI-036	RI/FS	\$ 11,770.82	
	FTRI-038	IRA	\$ 15,538.02	
	FTRI-053	RI/FS	\$ 187,337.56	
	FTRI-054	LTM	\$ 4,528.89	
	FTRI-056	RI/FS	\$ 214,023.19	
	FTRI-057	RI/FS	\$ 589.54	
	FTRI-062	LTM	\$ 10,879.41	
	FTRI-063	LTM	\$ 20,159.05	
	FTRI-066	LTM	\$ 12,284.83	
	FTRI-068	LTM	\$ 10,852.48	
	Restoration Advisory Board		\$ 8,000.00	\$ 3,839,000.00

Fort Riley FY02 Unconstrained Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY02	FY03	FY04	FY05	FY06	FY07	FY08+	PHASE	SITE	Activity DESCRIPTION		
			5YR	5YR	5YR	5YR	5YR	5YR	TOTAL				TOTAL	
FTRI-003	Southwest Funston Landfill	LTM	1789	181	183	135	189	82	2571		5130	5130	Monitoring start with ~9 wells semi-annual, 5 year reviews, cover repairs & maintenance, bank stabilization (1.5M in 02, 500K in 08, 200K in 12, 1M in 15)	
FTRI-009	OB/OD Grounds (RANGE 16)	RI/FS	75	89	119	10					293	293	3 yrs surf water sampling (# of locations & frequency), DD, NFA / LUCs	
FTRI-011	Camp Funston GW Detections	LTM	38	35	15	15	15	20	35		173	173	6 yrs of GW sampling (# of locations & frequency), 5YR, well abandonment, update model, USGS database	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RI/FS	444	485	407	393	420				2149	8848	5 yrs GW sampling (~40 wells, semi-annual), treatability study, FS, PP, ROD, Real Estate leases, USGS database, Temp bldg removal, contract modifications, public meetings	
		IRA	20								20		Real Estate, well replacement	
		RD					15	495				510		1 yr GW sampling (~40 wells, semi-annual), design, real estate leases
		RA								2490	2490			In-situ GW ttmt (what), 1 yr GW sampling (~40 wells, semi-annual), real estate leases
		RA(O)								1600	1600			GW ttmt operation
		LTM								2079	2079			4 yrs GW sampling ~40 wells, semi-annual; 18 yrs annual, well abandonment, 5YR, real estate leases
FTRI-027	Dry Cleaning Facilities Area	RI/FS	884	458	359			40	160		1901	5431	3 yrs GW sampling (~25 wells, 3/yr), RI, FS, surface water sampling, USGS database, public meetings, PP, ROD, 5YR	
		RD			150							150		design
		RA				1000						1000		In-situ source control - zero valent iron over (~7500 sq ft area)
		RA(O)				25	40	375				440		ttmt operation, system optimization
		LTM				245	245	175	1275			1940		2 yrs GW sampling 3/yr; 6yrs at semi-annual, 18 yrs at annual, well abandonment, 5YR
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS	15								15	15	Decision Doc	

Fort Riley FY02 Unconstrained Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY02 FY03 FY04 FY05 FY06					FY07 FY08+		PHASE TOTAL	SITE TOTAL	Activity DESCRIPTION
			5YR					5YR				
FTRI-030	Pesticide Storage Facility (MIXING)	LTM	25					10	30	65	65	5YR
FTRI-031	Building 354 Area Solvent Detections	RI/FS	432	895	429	340	293	5		2394	6279	5 yrs GW sampling (~47 wells, semi-annual), 1 round river sampling, treatability study, EE/CA, FS, PP, ROD, 5YR, USGS database
		IRA		1150	1150					2300		Streamlined EE/CA, Source soil tmtt / hot spot groundwater s.a. peroxide, Geocleanse, etc.
		LTM						120	1465	1585		6 yrs GW sampling (~47 wells, semi-annual), 12 yrs annual, 5YR, well abandonment
FTRI-036	Southeast Funston Landfill -Inactive	LTM			20		20	5	80	125	125	Cover inspection & minor repairs, 5YRs
FTRI-038	Forsyth Landfill(s)	LTM						3	603	606	606	5 year reviews & repairs to stabilization
FTRI-053	POL Tank Farm	RI/FS	187	10						197	197	1 yr GW sampling (~12 wells, quarterly), sediment sampling, DD
FTRI-054	Custer Hill PX USTS BLDG 5320	LTM	5							5	5	GW sampling 1 well; report
FTRI-056	Abandoned Gasoline Line	RI/FS	120	10						130	550	1 yr GW sampling (# wells, 3/yr), EE/CA, DD
		IRA		300						300		remove pipeline
		LTM		40	40	20	20			120		2 yrs quarterly, 2 yrs semi-annual (# wells), 5YR
FTRI-057	6200 Area Fuel Oil LINE	RI/FS	15							15	15	DD
FTRI-062	TMP Gas Station (Bldg 388)	LTM	10							10	10	1 GW sampling 3 wells
FTRI-063	Former Building 1044 Dispensing STATION	LTM	15							15	15	1 GW sampling 4 wells
FTRI-066	Former Building 1245 Dispensing Station	LTM	15							15	15	1 GW sampling 4 wells
FTRI-068	Former Building 1637 Dispensing STATION	LTM	10							10	10	1 GW sampling 3 wells
TOTALS IN THOUSANDS OF DOLLARS			4099	3653	2872	2183	1257	1330	12388	27782	27782	

Fort Riley Comstrained Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY02 5YR	FY03	FY04	FY05	FY06	FY07 5YR	FY08+	Phase Total	SITE TOTAL	Activity DESCRIPTION
FTRI-003	Southwest Funston Landfill	LTM	274	181	183	135	1,211	560	2,570	5,115	5,115	Monitoring, 5 year reviews, reduce after each review
FTRI-009	OB/OD Grounds (RANGE 16)	RI/FS	75	89	119	10	0	0	0	292	292	5 yrs surf water sampling, DD, NFA / LUCs; 2 Auto stream samplers, with 6 samples & report
FTRI-011	Camp Funston GW Detections	LTM	58	35	15	15	15	20	35	193	193	Monitoring thru 2030, 5 year review, update model, USGS database
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RI/FS	444	465	407	393	440	0	0	2,149	8,848	
		IRA	20	0	0	0	0	0	0	20		
		RD	0	0	0	0	15	495	0	510		
		RA	0	0	0	0	0	2,000	490	2,490		
		RA(O)	0	0	0	0	0	0	1,600	1,600		
		LTM	0	0	0	0	0	0	2,079	2,079		semi-annual reduced to annual
FTRI-027	Dry Cleaning Facilities Area	RI/FS	884	458	359	0	0	40	160	1,901	5,431	PP/ROD
		RD	0	0	150	0	0	0	0	150		
		RA	0	0	0	1,000	0	0	0	1,000		In-situ source control - zero valent iron over (~7500 sq ft area)
		RA(O)	0	0	0	25	40	375	0	440		Add'l well monitoring of performance, add'l injections
		LTM	0	0	0	245	245	175	1,275	1,940		Well Abandonment, LTM, Nat Attn Est - 25 - 30 yrs - 2030
FTRI-030	Pesticide Storage Facility (MIXING)	LTM	0	0	0	0	0	10	30	40	40	5 year reviews of land use, re-sample for residual contam, perform unrestricted site use risk assessment ('02)
FTRI-031	Building 354 Area Solvent Detections	RI/FS	507	895	429	340	293	5	0	2,469	6,279	Soil & GW investigations - Water @ 50-60 feet in uplands, ~20 in alluvium; 2 plumes superimposed - PCE/TCE/DEC and Carbon Tet
		IRA	75	1,000	150	1,000	0	0	0	2,225		
		LTM	0	0	0	0	0	120	1,465	1,585		semi annual -2012, annual 2024, 5 year reviews
FTRI-036	Southeast Funston Landfill - Inactive	LTM	0	0	0	20	20	5	80	125	125	Cover inspection & minor repairs, 5YRs
FTRI-038	Forsyth Landfill(s)	LTM	0	0	0	0	0	3	603	606	606	5 year reviews & repairs to stabilization
FTRI-053	POL Tank Farm	RI/FS	187	10	0	0	0	0	0	197	197	Soil and GW investigation

Fort Riley Comstrained Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY02 5YR	FY03	FY04	FY05	FY06	FY07 5YR	FY08+	Phase Total	SITE TOTAL	Activity DESCRIPTION
FTRI-054	Custer Hill PX USTS BLDG 5320	LTM	5	0	0	0	0	0	0	5	5	one well; report
FTRI-056	Abandoned Gasoline Line	RI/FS	120	10	0	0	0	0	0	130	500	soil and GW investigation
		IRA	0	250	0	0	0	0	0	250		remove pipeline?
		LTM	0	40	40	20	20	0	0	120		1 year quarterly, 4 years annually, 5YR
FTRI-057	6200 Area Fuel Oil LINE	RI/FS	16	0	0	0	0	0	0	16	16	
FTRI-062	TMP Gas Station (Bldg 388)	LTM	10	0	0	0	0	0	0	10	10	Annually, 3 wells, reduced from 5 FY00; report
FTRI-063	Former Building 1044 Dispensing STATION	LTM	15	0	0	0	0	0	0	15	15	Annually, 4 wells; report
TOTALS IN THOUSANDS OF DOLLARS			2,690	3,433	1,852	3,204	2,299	3,808	10,387	27,673	27,673	
POM - Forecasted ER-A Allocation to Installation			2,800	3,433	1,852	3,204	2,299	3,808				

Community Involvement

RESTORATION ADVISORY BOARD (RAB) STATUS

TECHNICAL REVIEW COMMITTEE

A Technical Review Committee was organized and met for the first time on January 16, 1992. The TRC charter was approved at the next meeting held on June 18, 1992. Meetings were held approximately twice a year. The TRC has not been active since the fall of 1994.

FORMATION OF FORT RILEY'S RESTORATION ADVISORY BOARD

Fort Riley held its orientation meeting September 30, 1997 for members of the community who may be interested in participating on a Restoration Advisory Board (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 (DES) were invited to the orientation meeting by direct mail. Newspaper advertisements, television and radio announcements were additional methods used to announce the formation of Fort Riley's RAB.

At the orientation meeting, interested community members were asked to complete an application, a biographic information form and a demographic information form, if they had not completed and returned an application to DES before the meeting. A Community Co-chair was elected by community representatives in attendance. Due to the number of applications received at that time, everyone that applied to be a member of the RAB served. Approximately 20 people attended the orientation meeting.

RAB MEMBERSHIP

The current members include representatives from the Fort Riley military community, local environmental businesses, private business, Unified School District 475, Geary County Extension Office, Riley County Planning, Geary County (Commissioner), Clay County (Commissioner), Kansas State University, City of Ogden (former Mayor), EPA, and KDHE.

The RAB lost several members and appointed new members in 2000. Recruitment for new members was completed by letters and applications being sent to members of the local communities that had expressed an interest in serving on the RAB. Several people applied for the vacancies. The Garrison Commander and both RAB Co-Chairs reviewed the applications and selected the new members to serve.

RAB ACTIVITIES

The RAB members have been reviewing projects and funding plans and providing input concerning project priorities. A Public Awareness Education Program was implemented in FY98 by holding meetings in the surrounding communities. RAB members have provided comments on documents open for public comment review. The RAB was represented with a booth at the Fort Riley Open House, April 2000. A newsletter was created and is published for the RAB members every other month, during non-meeting months, to keep the members up-to-date on the current status of the projects. An electronic version of the RAB application was created and placed on Fort Riley's web site under the RAB page. The applications are sent automatically to the RAB coordinator for submission.

PROJECTIONS FOR THE RAB

Over the next year, the members will continue to gain knowledge of site characteristics and issues, review documents, provide technical advice, and participate in formal public comment period activities.