July 2002

Fort Riley
Installation Action Plan

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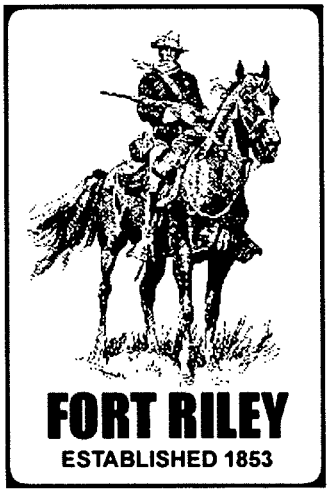
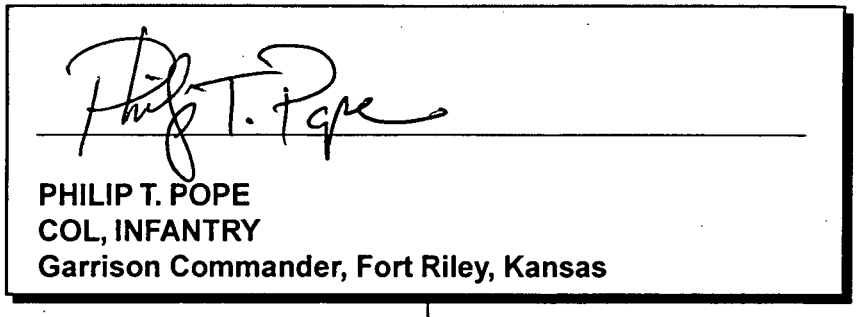
Fort Riley

Kansas

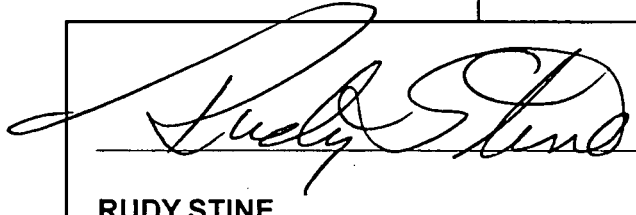
Installation Action Plan



Fort Riley July 2002 Installation Action Plan Approval Signatures



PHILIP T. POPE
COL, INFANTRY
Garrison Commander, Fort Riley, Kansas



RUDY STINE
Chief, Environmental Branch
Headquarters, Forces Command

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 2002 at a meeting in Overland Park, Kansas. Participants included representatives of the Kansas Department of Health and Environment, the EPA Region VII, Fort Riley's Restoration Advisory Board, the U.S. Army Environmental Center and the 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. 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 FY2011.

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

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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
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	Dichloroethyene / Dichloroethene
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/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
FFTA/MAAF	Former Fire Training Area/Marshall Army Airfield
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
HW	Hazardous Waste
IAP	Installation Action Plan
IFI	Initial Field Investigation

Acronyms & Abbreviations

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
KCD-CoE	Kansas City District, Corps of Engineers
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
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 Biphenyl
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
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
Rem	Removal
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
S&A	Supervision and Administration

Acronyms & Abbreviations

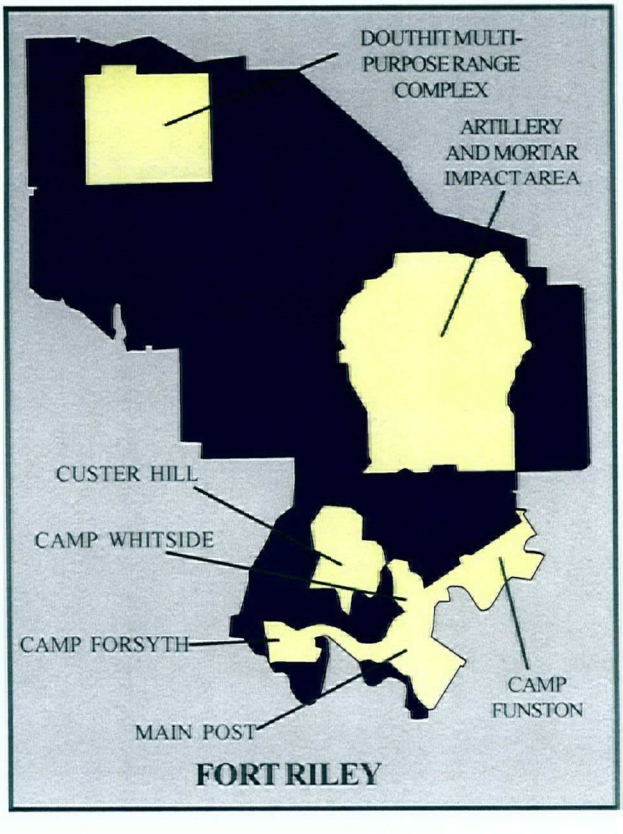
SARA	Superfund Amendments and Reauthorization Act
SE	Southeast
SEFL	Southeast Funston Landfill
SFL	Southwest Funston Landfill
SI	Site Inspection or Site Investigation
S&R	Supervision and Review
STP	Sewage Treatment Plant
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene, Trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TMP	Transportation Motor Pool
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
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:	8
REMEDY IN PLACE with LTM:	9
RESPONSE COMPLETE (RC) SITES:	55
DIFFERENT SITE TYPES:	18 Underground Tank Farms 7 Landfills 4 Sewage Treatment Plants 2 Contaminated Groundwater Sites 4 Incinerators 2 Surface Impoundments/Lagoons 1 Surface Disposal Area 1 Dip Tank 1 Explosive Ordnance Disposal Area 1 Unexploded Munitions/Ordnance Area 11 Spill Site Areas 4 Storage Areas 4 Above Ground Storage Tanks 3 Fire Training Areas 2 Pesticide Shops 2 Small Arms Range 1 Disposal Pit/Dry Well 1 Firing Range 1 Industrial Discharge Site
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, $533,000) • Rem - Excavation of pesticide contaminated soils at FTRI-030 (FY94, $788,000) • Rem - Replacement of leaking sewers at FTRI-027 (FY94 & FY96, $100,000) • Rem - Numerous UST removals (FY90 - 95, $1,500,000) • Rem - Bank stabilization and landfill cover repair and cover improvement at FTRI-003 (FY94 and FY96, $4,000,000) • Pilot Study - Soil vapor extraction at FTRI-027 (FY95, $500,000) • Pilot Study - Soil vapor extraction and bio-venting at FTRI-019 (FY95, $900,000) • Rem - Fuel lines and contaminated soil removed at FTRI-057 (FY96-97, $2,300,000) • Rem - Free Product Recovery at FTRI-062 and -063 (FY95, $37,500) • Rem - Soil Removal at FTRI-029 (FY99 and FY00, $269,585) • Rem - Cover Improvement at FTRI-036 (FY99 and FY00, $348,968) • Rem - River Bank Stabilization at FTRI-038 (FY00, $826,743)
CURRENT IRP PHASES:	RI/FS at 7 sites IRA at1 site RA at 1 site LTM at 6 sites
PROJECTED IRP PHASES:	RI/FS at 3 sites IRA at 2 sites RD at 1 site RA at 1 site RA(O) at 2 sites LTM at 14 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: $ 56,464,600 FY 2002: $ 3,433,000 FUTURE REQUIREMENTS: $ 64,581,000 TOTAL: $ 124,478,600
DURATION:	YEAR OF IRP INCEPTION: 1989 YEAR OF IRP COMPLETION EXCLUDING LTM (Remedy in Place): 2011 YEAR OF IRP COMPLETION INCLUDING LTM: 2032

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 Lake 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 AGENCY:	- U.S. Army Corps of Engineers, Kansas City 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 Environmental Field Services - North Central Distric Office
REGULATORY STATUS:	- NPL Installation (entire installation), 1990, CERCLIS Site KS6214020756 - CERCLA/RCRA Federal Facility Agreement (FFA), 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:	- The treatability studies for OU004 and OU005 are being moved into the RD phase in order to proceed to a ROD on or before 2007.



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 Bennett 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 "America's Warfighting Center."

MISSION: The 24th Infantry Division (Mech) and Fort Riley provide training, readiness, and deployment support for two Brigade Combat Teams and one Engineer Group and other Corps forces; 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 and safe and secure environment and 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 1970s 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) was signed by the Deputy Assistant Secretary of Army (Environmental Safety and Occupational Health) (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 FFA, 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 Investigations/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 and FTRI-027) and free product has been recovered at two sites (FTRI-062 and 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 Former Fire Training Area-Marshall Army Airfield (FFTA-MAAF), and FTRI-031354 Area Solvent Detections site (354). 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-1950s 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 an evapo-transpirative cover. The ROD was signed August 6, 1997. Institutional controls and long-term monitoring have been implemented. Because contamination is still present, five-year reviews will be conducted per the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

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 FFA, 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, and Colyer Manor). The penalty was paid in FY97.

Perchloroethylene (PCE) has been used at the adjacent former and current Dry Cleaning Facilities. Chlorinated

solvent contamination of soils, sediments, and groundwater was confirmed in a Preliminary Assessment / Site Inspection (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 much 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 with the EPA and the 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 neccessary. Proposed plans were submitted in 1998. The EPA and the 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 the EPA and the 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 source control. 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-MAAF in FY94-95. Additional groundwater investigations were conducted in FY97-99 to further characterize the off-post groundwater plume. Private wells in the area are being 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. 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 with three contingencies. 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 Work Plan was developed and received regulator approval in FY98. Revisions to the Work Plan are an on-going process. RI field investigations were initated 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 the 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 SIs.

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

Contamination Assessment

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 off-post contamination. The "Other Sites" grouping consisted of 14 sites which had very low PA HRS scores and have a low potential for release of contaminants to the environment. Field work for these "Other" sites occurred in the spring and summer of 1994. A joint review of the Multiple Sites with the EPA & the KDHE in the summer of 1995 resulted in concurrence on the designation of two sites as formal Operable Units (FFTA-MAAF and 354), 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 were completed and approved by the EPA and the KDHE in 1998.

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. The KDHE placed 5 sites into LTM status and 2 sites were approved for NFA. The Work Plan for investigation of the Abandoned Gas Line was completed in FY98. The Work Plan for POL Tank Farm was completed in FY99. Investigation field work for the POL Tank Farm was completed in 2002 and documented in the SI report.

Fort Riley's first 5 Year Review Report is due in August 2002. A schedule was developed and the review initiated in 2001. The draft version was provided to the EPA, the KDHE, and all interested RAB members. A regulatory review of the draft document was conducted. A public comment period ran from June 1 through July 1, 2002. The final version is required by statute no later than August 6, 2002.

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/ Aug1993
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	August-1997
Operation and Maintenance Plan	Kansas City District, Corps of Engineers	September-1996
Long-term 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
Annual Monitoring Report for 1999 and 2000	Burns & McDonnell	February-2002
Annual Monitoring Report for 2001	Environmental Chemical Corp	March-2002
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
Proposed Plan	Ft Riley, DES	August-1997
Record of Decision	Law Environmental / Ft Riley DES	September-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
Draft Final Remedial Investigation/Feasibility Study Addendum Work Plan	Burns & McDonnell	March-2002

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/
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
ARARs/TBCs/RAOs Tech Memo	Burns & McDonnell	January-2002

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
Draft Final Data Evaluation Technical Memorandum and Work Plan Addendum for the RI/FS	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
Annaul Groundwater Monitoring Report, 1999/2000	Burns & McDonnell	March-2002

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

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
Decision Memorandum	Fort Riley	February-2002

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

Annual Groundwater Sampling Report	Environmental Chemical Corporation	May-2002

Abandoned Gas Line

AGL Site Investigation	Dames & Moore	Mar-96
Tech Memo Site Specific Work Plan	Burns & McDonnell	Apr-98
Tech Memo Work Plan	Burns & McDonnell	Aug-01

FTRI-003 (OU 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 detections of volatile organic compounds. 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 one-time surface water samping of the Kansas River was conducted in FY01, and resulted in all non-detects.

A cover repair project was completed in 2002 after a spring inspection revealed that more settlement had occurred than expected.

STATUS

RRSE RATING: High

CONTAMINANTS:

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

Constrained Cost to Complete

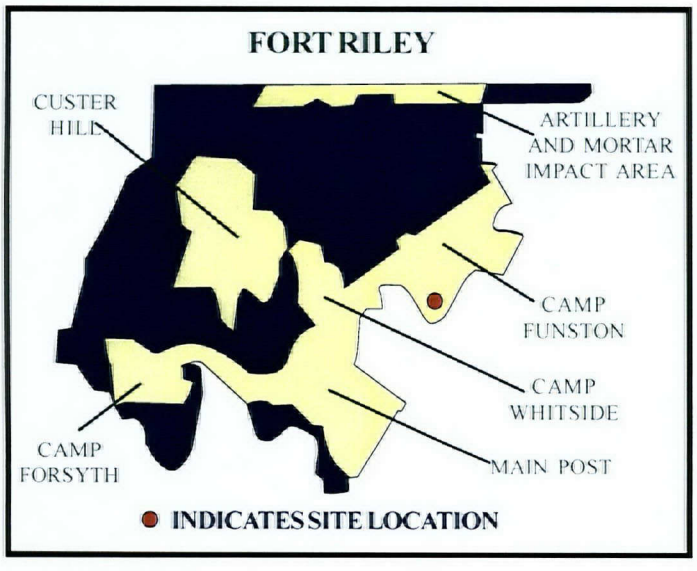
	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	156	156	269	4548
Total	5,129,000			

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.

Since some contamination will remain on-site, statutory reviews will be required at least every 5 years. Five Year Reviews are planned through 2027. The USGS will continue to collect hydrogeologic data for use in 5 Year Reviews in 2002 & 2007. The first 5 Year Review Report is expected to be finalized in Aug 2002.

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



Fort Riley - Installation Action Plan
Site Descriptions - Page 1

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

SITE DESCRIPTION

Range 16 is used to destroy defective ordnance. Historical practices included use of chlorinated solvents in an open burn area. This practice was discontinued in the early 1980s. In 1993, TCE was detected in the groundwater. Due to its remote location, there are no nearby receptors. Eight surface soil samples, 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.

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 indicated 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 be removed in FY03 as the stream has been dry and remains so. 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.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

VOCs

MEDIA OF CONCERN:

Soils, Groundwater, Surface Water

COMPLETED IRP PHASE:

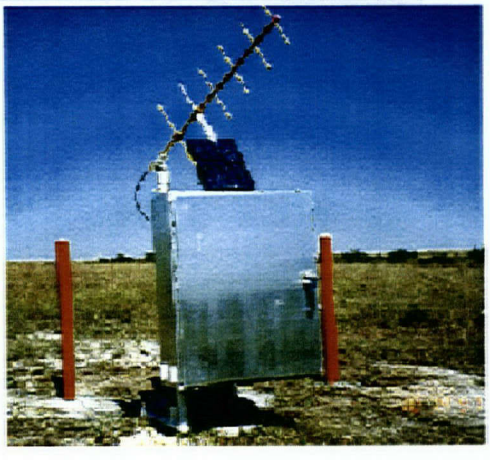
PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

LTM



PROPOSED PLAN

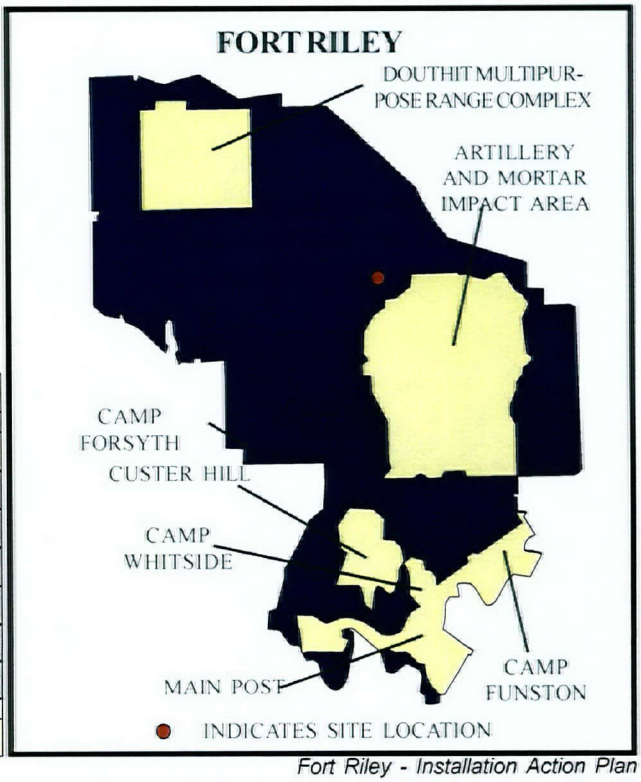
Complete a data compilation report (funded in FY02).

Continue to monitor stream flow and surface water quality to determine if groundwater is surfacing (started in 1998). One additional round of groundwater samples will be taken to be included in the site completion report.

Prepare data reports as needed and prepare decision document in consultation with regulators.

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS	38			
IRA				
RD				
RA				
RA(O)				
LTM		18	88	15
Total	**159,000**			



FTRI-011
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 widespread but low level (generally below regulatory limits) 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 does 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.

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

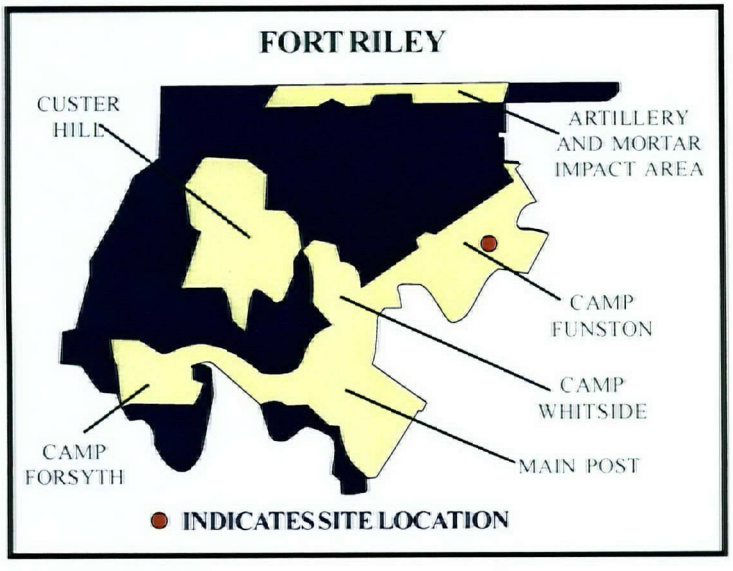
Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	29	22	15	255
Total	321,000			

PROPOSED PLAN

Finalize the groundwater sampling report with 2001-2002 data (funded in FY02). Prepare decision document in consultation with regulators. Perform LTM of key wells, upgradient of public and private supply wells and include in future 5-Year Reviews.

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



FTRI-019 (OU 004) FORMER FIRE TRAINING AREA-MARSHALL ARMY AIRFIELD

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 groundwater contamination above regulatory limits 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 characterizations.

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 occuring 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. The 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. Except for the installation of the nested pair of monitoring wells across the river these are complete. This issue has been complicated because the Army cannot get access to the land to install the well.

The FS is underway including establishment of the RA Objectives and ARARs, and Completion of the Tech ID & Alternative Screening.

A federal court found against the installation in April 2001. The case was in mediation while awaiting the decision by Department of Justice on whether or not to appeal. The CERCLA portion has been settled (in 2002) by the installation of an alternate water supply for the affected parties.

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:

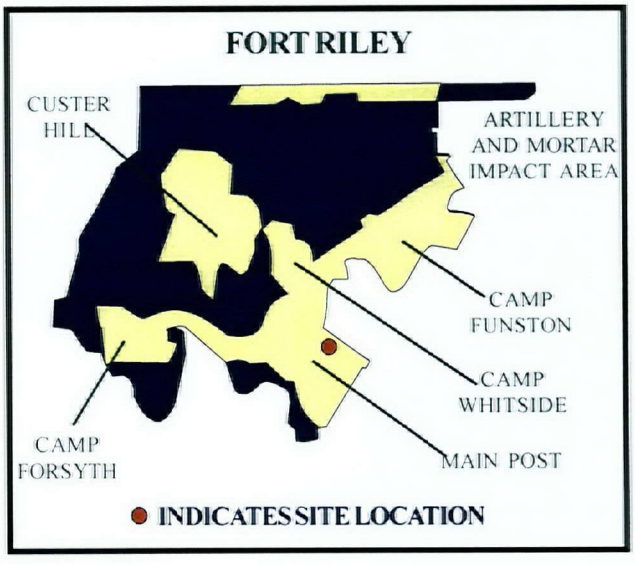
RI/FS

FUTURE IRP PHASE:

RI/FS, RD, RA, RA(O), LTM

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS	789	166	399	
IRA				
RD			1181	
RA				12362
RA(O)				25592
LTM				1392
Total	41,881,000			



FTRI-019 (OU 004) FORMER FIRE TRAINING AREA- MARSHALL ARMY AIRFIELD

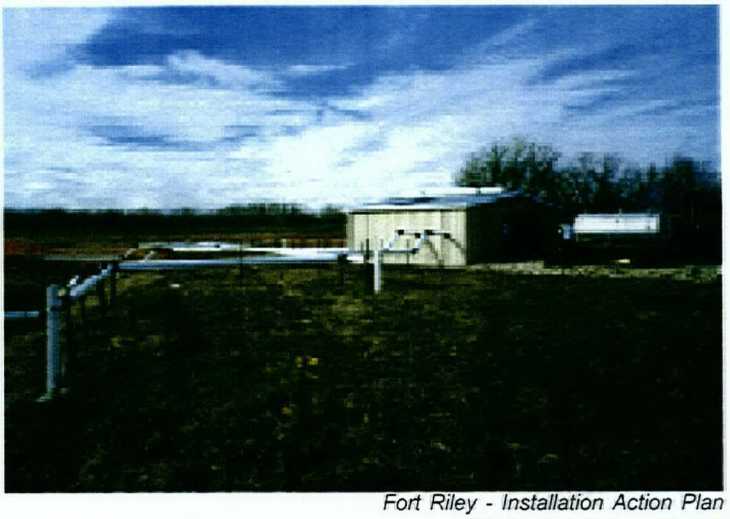
PROPOSED PLAN

The 1997 Exposure Control Removal Action decision proposed two replacement wells to supply domestic water to two off-post properties. The implementation of the provision for providing an alternate water supply is completed.

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, plume control (such as a permeable reactive barrier), monitored natural attenuation, and a contingency for future action. Long-term monitoring is assumed for 25 years following completion of a permeable reactive barrier RA. Five-year reviews will be required.



FTRI-027 (OU 003)
DRY CLEANING FACILITIES AREA (PAGE 1 OF 2)

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 much of the soil contamination known at that time. 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 the EPA and the 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 exceeded 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 (180/181) were removed in 2000 (OMA). 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.

The RI/FS Addendum Work Plan was completed in March 2002, with additional field work conducted in May-July 2002. This report included Bldg 183 that was removed in 2002 and investigation of the deep hydrology in transition & island areas.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

VOCs

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA (Pilot Study, SVE)

CURRENT IRP PHASE:

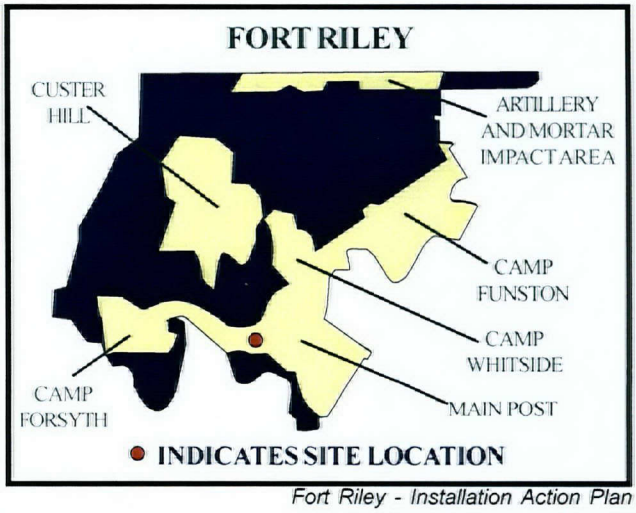
RI/FS

FUTURE IRP PHASE:

RI/FS, IRA, RA(O), LTM

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS	317	310	502	915
IRA				3418
RD				
RA				
RA(O)				7117
LTM				854
Total	13,433,000			



FTRI-027 (OU 003)
DRY CLEANING FACILITIES AREA (PAGE 2 OF 2)

PROPOSED PLAN

Complete additional RI/FS investigations in areas opened due to removal of Buildings 180, 181, 183, revised FS, Proposed Plan and ROD.

Implement source control (potentially using a permeable reactive barrier), monitored natural attenuation on the Island and long-term groundwater monitoring.

5 Year Reviews will be required, the first will be submitted in Aug 2002.

FTRI-029 OLD INCINERATOR SITE SOUTHEAST CAMP FUNSTON

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. The incinerator was abandoned in the mid 1950s or earlier. Incinerator ash with high lead content has detected over a wide area within the site. Ten 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 metals contamination in soil. The incinerator building posed a safety hazard. KDWP accomplished safety repairs in 2000.

In 1999-2000, metals contaminated soil and debris were removed targeting lead "hot spots", 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 primarily at depths greater then 2ft below the surface. 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. A Memorandum of Agreement (MOA) between Fort Riley and KDWP is under development. The MOA outlines land use controls.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Metals

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI, IRA, RI

CURRENT IRP PHASE:

FS

FUTURE IRP PHASE:

RC

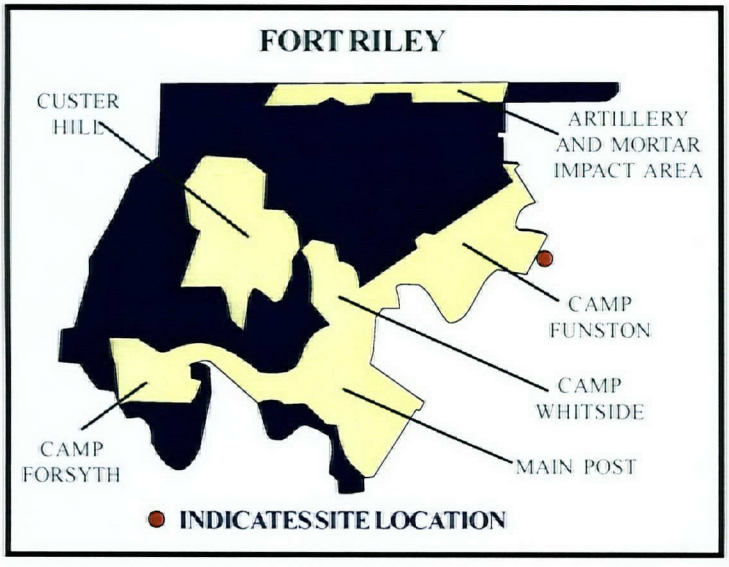
Constrained Cost to Complete

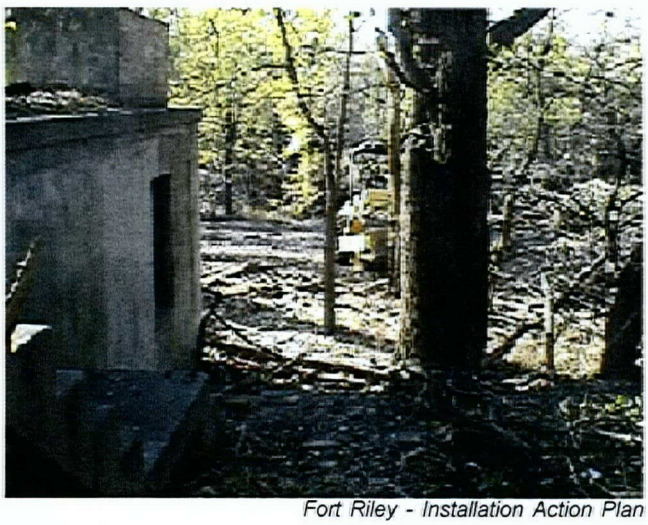
	2003	2004	2005	2006+
RI/FS	1			
IRA				
RD				
RA				
RA(O)				
LTM				
Total	1,000			

PROPOSED PLAN

Complete MOA.

5 Year Reviews will be performed in conjunction with FTRI-036.





FTRI-030 (OU 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 1970s, 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 was based on continued industrial land use and was annotated in the installation master plan for consideration if land use changes. Because residual contamination remains in place, 5 year reviews are required.

A Land Use Management Plan was prepared in 1999.

STATUS

RRSE RATING: Low (High before REM)

CONTAMINANTS: Pesticides (Chlordane, DDT, Dieldrin, Hepachlor), PAHs, Metals (Arsenic)

MEDIA OF CONCERN:
Soil, Groundwater

COMPLETED IRP PHASE:
PA/SI, REM, RI, PP, ROD

CURRENT IRP PHASE: None

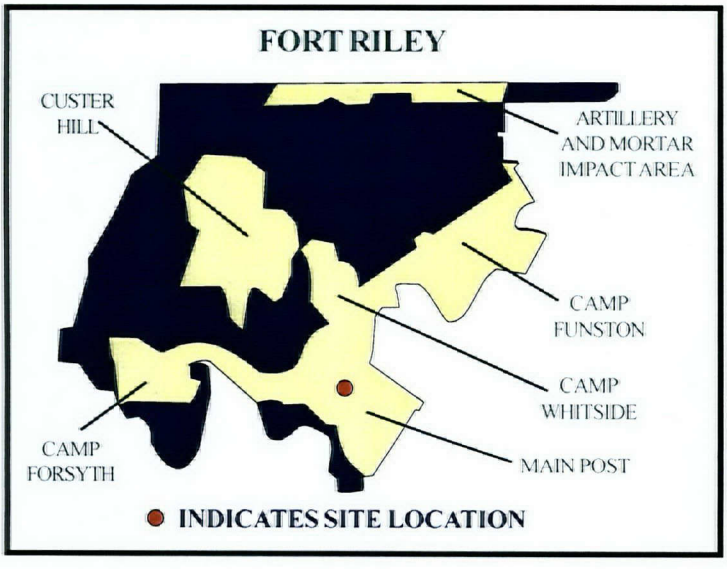
FUTURE IRP PHASE:
LTM (5 year reviews)

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM				25
Total	25,000			

PROPOSED PLAN

The first 5 Year Review Report will be completed by August 6, 2002. Additional 5 Year Reviews are anticipated.



FTRI-031 (OU 005)
354 AREA SOLVENT DETECTIONS (PAGE 1 OF 2)

SITE DESCRIPTION

Fuel and solvent storage and dispensing occurred near building 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 Work Plan 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 the PCE and its breakdown products were identified near buildings 332 and 367. In addition to the PCE and its breakdown products, carbon tetrachloride (CCl_4) 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 CCl_4.

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 a sanitary sewer line in conjunction with the site investigation at the Abandoned Gasoline Line (FTRI-056). The northern and western extent of the CCl_4 and PCE were identified as a result of an extensive soil boring effort at buildings 430 and 367. Three groundwater sampling events are being conducted for the Baseline Risk Assessment to be incorporated into the RI/FS.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, Fuels

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

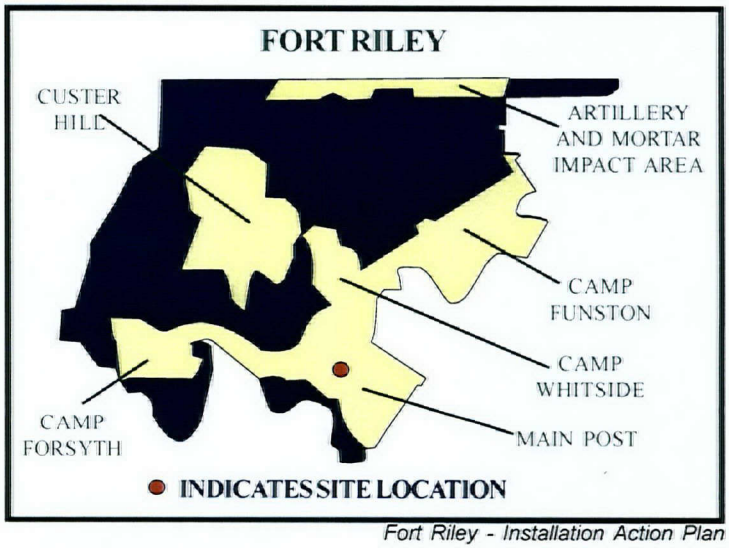
RI/FS, IRA

FUTURE IRP PHASE:

RI/FS, IRA, LTM

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS	643	163	514	288
IRA	1170	952	178	
RD				
RA				
RA(O)				
LTM				1870
Total	5,778,000			



FTRI-031 (OU 005)
354 AREA SOLVENT DETECTIONS (PAGE 2 OF 2)

PROPOSED PLAN

Complete the RI Report, FS, Proposed Plan, ROD and LTM plan. Perform LTM semi-annually through 2006, annually thereafter. Assumes 30 years of monitoring after the ROD (through 2036). 5 Year Reviews will be required.

IRA may include source soil treatment and/or hot spot removal and groundwater treatment by in-situ oxidation.

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 1950s. Soil gas sampling locations indicated no VOC contamination. Three groundwater screening samples were collected during the SI. Organic contaminants were detected below MCLs. Initial analysis showed levels lead in soil (below residential risk levels). 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. A Decision Memorandum, proposing no additional action, was completed and submitted to EPA and KDHE in 2002.

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:

None

FUTURE IRP PHASE:

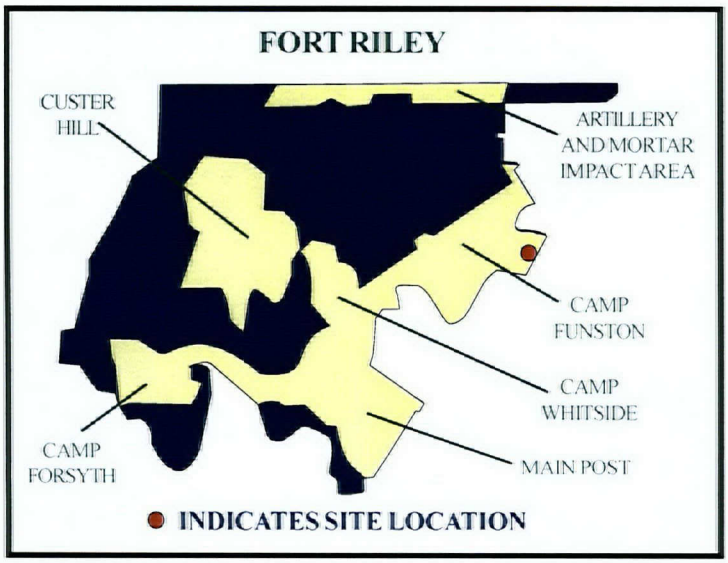
LTM (Five Year Reviews)

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM				125
Total	125,000			

PROPOSED PLAN

5 Year Reviews will be required.



FTRI-038
FORSYTH LANDFILL(S)

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 x 100 ft 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. A Removal Action Report was approved by KDHE in January 2002. Semi-annual UXO surveys were started in January 2002.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

Metals, Explosives

MEDIA OF CONCERN:

Soil, Surface Water

COMPLETED IRP PHASE:

PA/SI, RI/FS, IRA

CURRENT IRP PHASE:

None

FUTURE IRP PHASE:

LTM (Five Year Reviews)

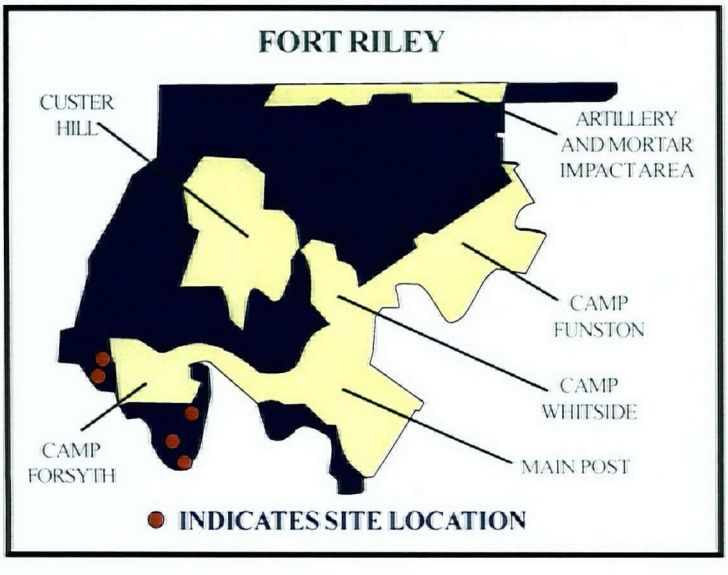
Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM				625
Total	625,000			

PROPOSED PLAN

Prepare a Decision Document.

Conduct LTM including inspection and repairs to revetment, UXO surveys and 5 Year Reviews will be required.



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FTRI-053
POL TANK FARM

SITE DESCRIPTION

The POL Tank Farm is an active 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 was completed. Seven groundwater monitoring wells were installed in FY02 to obtain bedrock and groundwater flow information. The SI Report was completed in 2002. Free product was detected, BTEX was detected in groundwater above MCLs and chlorinated hydrocarbons were detected in groundwater below MCLs.

STATUS

RRSE RATING: High

CONTAMINANTS:

BTEX, PAHs, **VOCs**

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RC

Constrained Cost to Complete

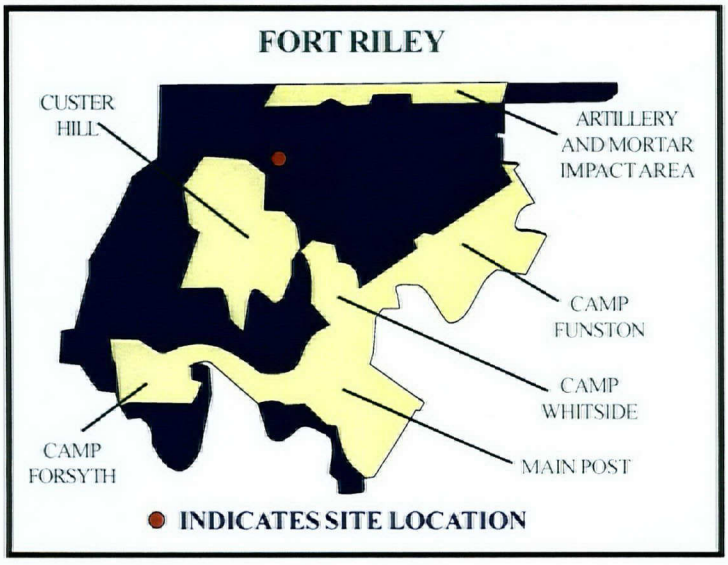
	2003	2004	2005	2006+
RI/FS	1			
IRA				
RD				
RA				
RA(O)				
LTM				
Total	1,000			

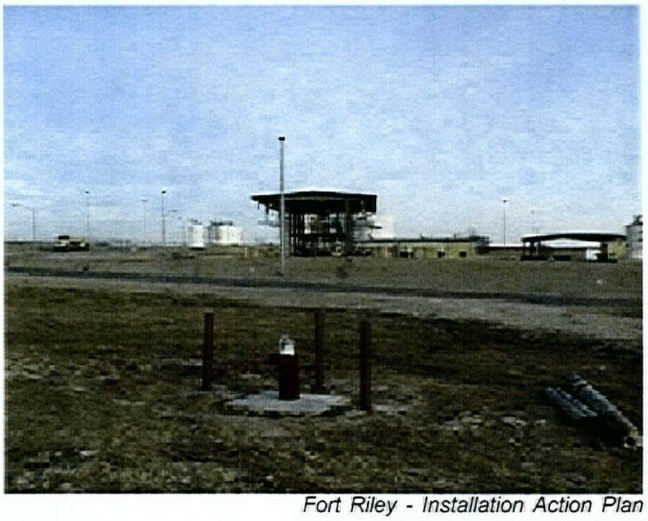
PROPOSED PLAN

Since this site is still active, non-ER,A funds will continue to be used for free product recovery.

Develop a Decision Document.

No further action is expected under ER,A.





FTRI-054
CUSTER HILL PX USTS BLDG 5320

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-NCDO in 1997. KDHE has placed the site in "on hold" status pending additional groundwater data to support "closure". Quarterly sampling was conducted in FY98. Annual sampling events were conducted from 1999 through 2001. The final sampling round to support possible closure was conducted in 2002. Annual LTM Reports have been developed and submitted to KDHE.

STATUS

RRSE RATING: Low

CONTAMINANTS:

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

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

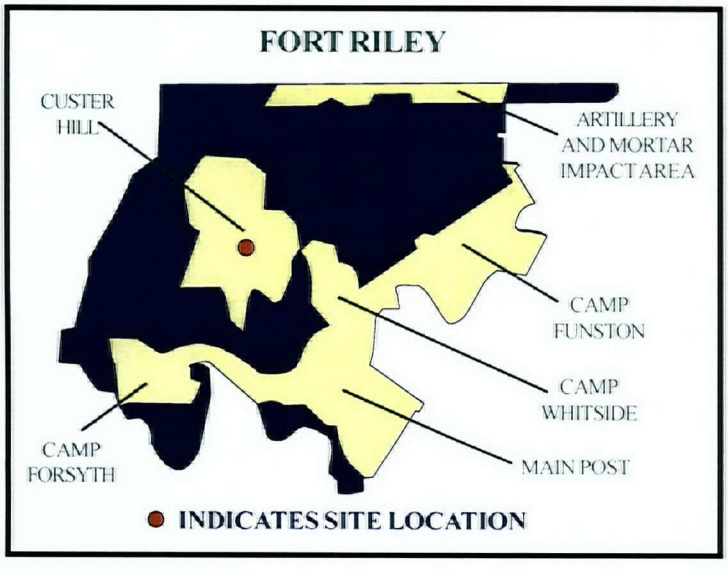
RC

FUTURE IRP PHASE:

RC

PROPOSED PLAN

The Final Annual Report is expected to be completed by the end of FY02.



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 the terminus area that most likely resulted from the USTs. Preliminary investigation of the terminus area shows contamination in the soil and groundwater.

A SI was conducted in 1994. 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 a sanitary sewer line to support the RI for the 354 Area Solvent Detection Site (FTRI-031). Further investigations have shown localized contamination of BTEX, VOCs and TPH near the pipeline, at the terminus area, and at a small area just north of building 319. There is soil contamination at two locations and limited groundwater contamination at the terminus area.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

BTEX, VOCs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI/FS

CURRENT IRP PHASE:

RA

FUTURE IRP PHASE:

LTM

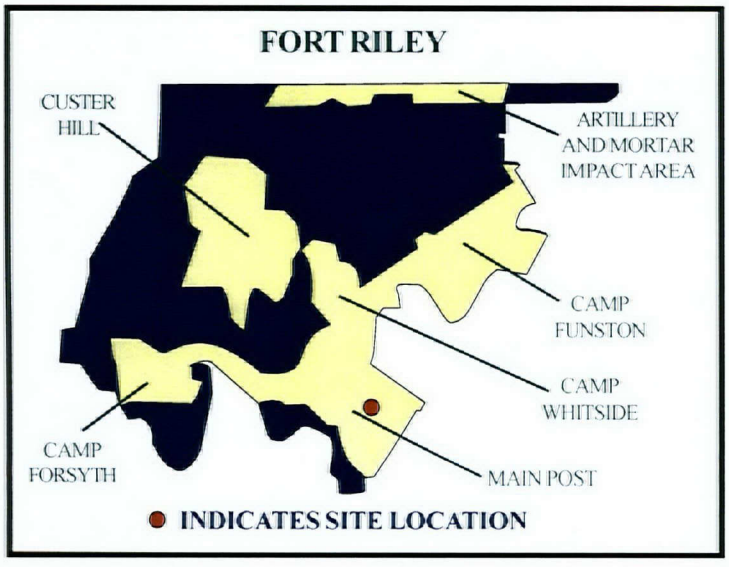
Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA	238			
RA(O)				
LTM		15	8	24
Total	**285,000**			

PROPOSED PLAN

Complete SI Report. Complete a Decision Document.

Perform Removal Action (soil excavation). The design was funded in FY02. LTM is expected to follow.



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FTRI-057
6200 AREA FUEL OIL LINE

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-NCDO 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.

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

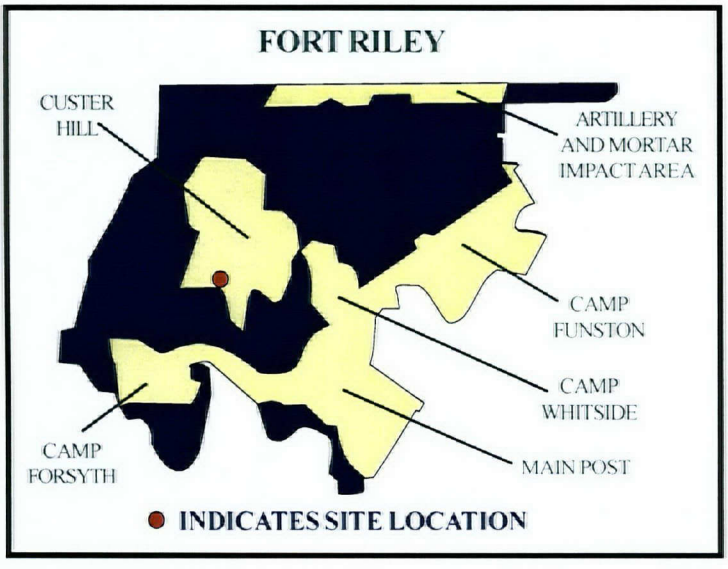
PROPOSED PLAN

Review site information.

Prepare Decision Document.

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS	1			
IRA				
RD				
RA				
RA(O)				
LTM				
Total	1,000			



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 peformed in FY95. Soil contamination is limited. KDHE-NCDO 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. Annual LTM reports have been prepared and submitted to KDHE-NCDO. BTEX (above MCLs) are still present in groundwater, however no free product is currently being detected.

STATUS

RRSE RATING: High

CONTAMINANTS:

Benzene, Toluene, Xylene, 1-2 DCA

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI, IRA

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

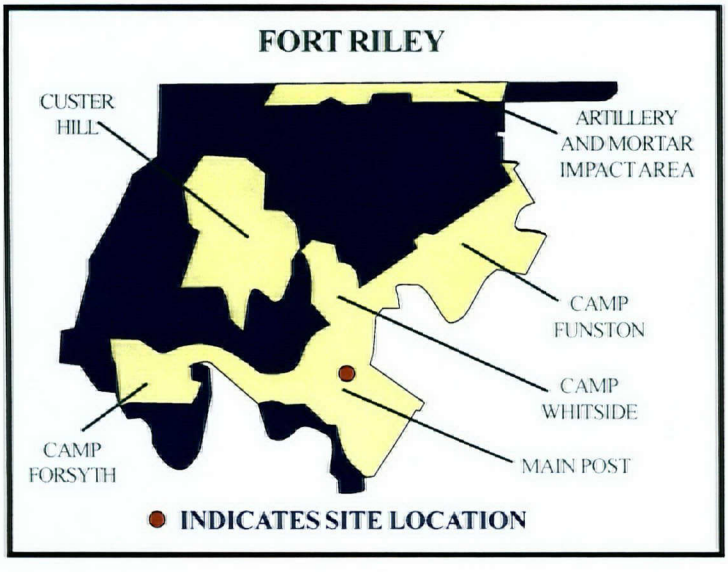
PROPOSED PLAN

Long Term Monitoring and annual reports will continue. Remove free product as needed.

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

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	10	10	10	20
Total	**50,000**			



FTRI-063
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. Annual LTM reports have been prepared and submitted to KDHE-NCDO. BTEX (above MCLs) and free product are still present in groundwater.

STATUS

RRSE RATING: High

CONTAMINANTS: Benzene, Toluene, Xylene, 1,2-DCA, Naphthalene

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:
LTM

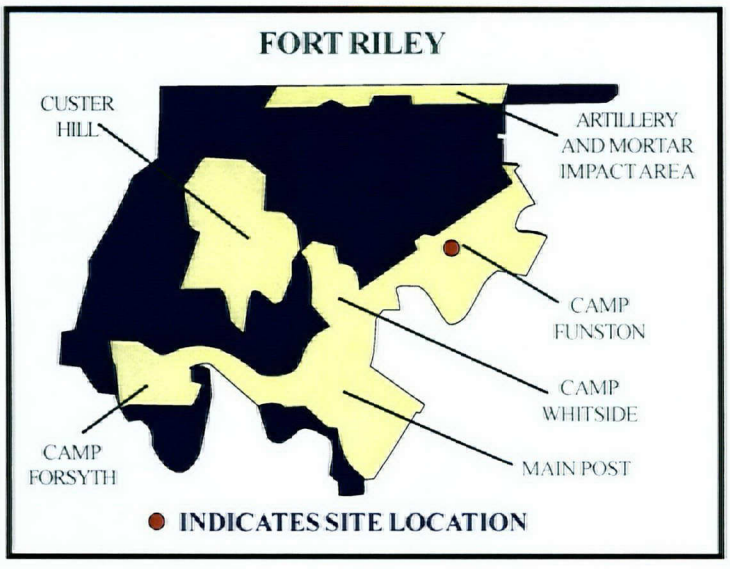
PROPOSED PLAN

Long Term Monitoring and annual reports will continue. Remove free product as needed.

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

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	15	15	15	30
Total	**75,000**			



FTRI-066
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.

LTM started in FY98. Annual LTM reports have been prepared and submitted to KDHE-NCDO. BTEX (above MCLs) and free product are still present in groundwater.

STATUS

RRSE RATING: High

CONTAMINANTS:

TPH, Benzene, Toluene, Xylene, 1,2-DCA, Napthalene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

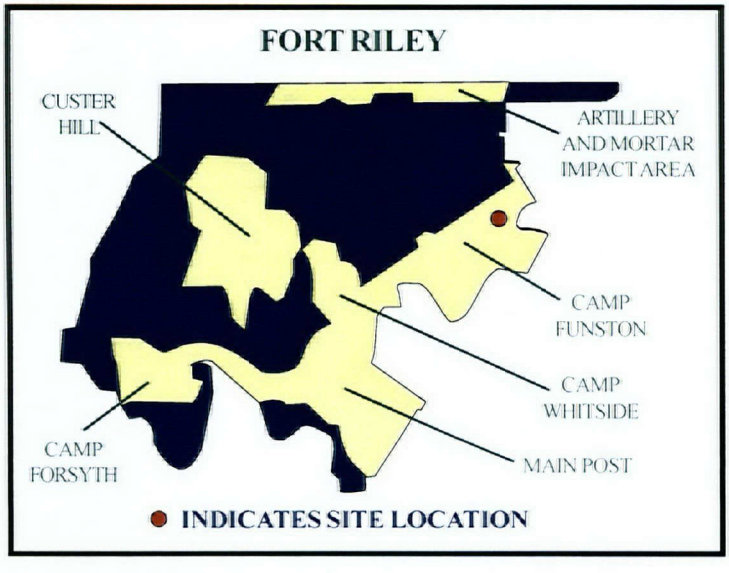
PROPOSED PLAN

Long Term Monitoring and annual reports will continue. Remove free product as needed.

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

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	15	15	15	30
Total	75,000			



FTRI-068
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.

LTM started in FY98. Annual LTM reports have been prepared and submitted to KDHE-NCDO. BTEX (above MCLs) are still present in groundwater, however no free product is currently being detected.

STATUS

RRSE RATING: High

CONTAMINANTS:

Benzene, Toluene, Xylene, 1,2 DCA, Napthalene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

LTM

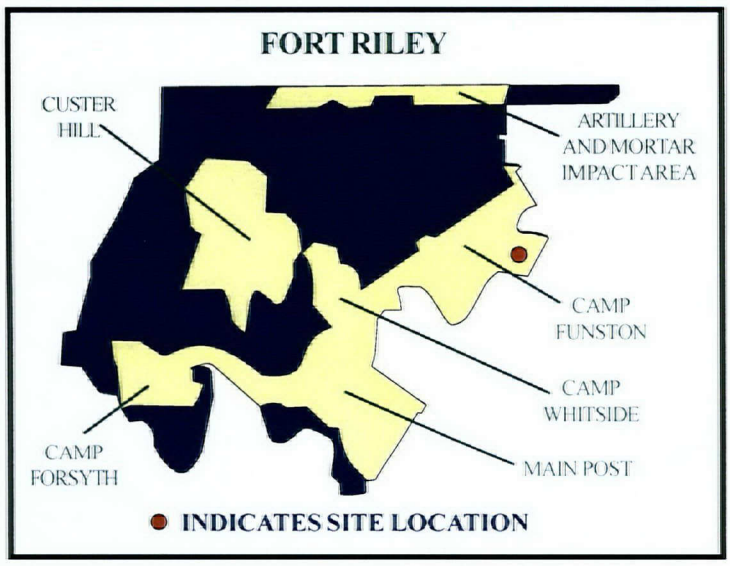
PROPOSED PLAN

Long Term Monitoring and annual reports will continue. Remove free product as needed.

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

Constrained Cost to Complete

	2003	2004	2005	2006+
RI/FS				
IRA				
RD				
RA				
RA(O)				
LTM	10	10	10	20
Total	50,000			



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 - 3rd Battery
FTRI-017	Waste Oil AST - 4th 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 its 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, Former Fire Training Area-Marshall Army Airfield

1994

RI/FS
- FTRI-003, Southwest Funston Landfill
- FTRI-027, Dry Cleaning Facilities Area
- FTRI-030, Pesticide Storage Facility

RI/FS (SI)
- FTRI-019, Former Fire Training Area-Marshall Army Airfield

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
- FTRI-030, Pesticide Storage Facility

RI/FS (SI)
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, Site Investigation Report

REM
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, 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, Former Fire Training Area-Marshall Army Airfield

PAST MILESTONES

REM - FTRI-057, 6200 Area, Soil Removal

FY1997

IRA
- FTRI-003, Southwest Funston Landfill, Removal Action Report
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, Exposure Control EE/CA initiated

RI/FS
- FTRI-006, DRMO & Wherry Substation, Site Investigations
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, 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, Former Fire Training Area-Marshall Army Airfield, RI/FS Work Plan (Final Oct)
- 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, Former Fire Training Area-Marshall Army Airfield, Exposure Control EE/CA (Jan 98), Action Memo Signature (Apr 98)
- FTRI-019, Marshall Army Airfield-Former Fire Training Area, Groundwater Action EE/CA, (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 Former Fire Training Area-Marshall Army Airfield, 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

PAST MILESTONES

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

Schedule

PAST MILESTONES

- 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

FY2002

RI/FS
- FTRI-009, Open Burn/Open Detonation, Surface water sampling/reporting
- FTRI-011, Camp Funston Groundwater Detections, Complete Groundwater Study
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, Treatability Study
- FTRI-027, Dry Cleaning Facilities Area, Perform additional investigations
- FTRI-029, Southeast Funston Landfill Incinerator, Develop land use controls
- FTRI-031, 354 Area Solvent Detections, RI Report
- FTRI-031, 354 Area Solvent Detections, Initiate EE/CA for source treatment, Decision Memorandum
- FTRI-053, POL Tank Farm, Review data
- FTRI-056, Abandoned Gasoline Line
- FTRI-057, 6200 Area UST, Decision Memorandum

IRA
- FTRI-019, Former Fire Training Area-Marshall Army Airfield, Implement exposure control
- FTRI-056, Abandoned Gasoline Line, Soil removal

LTM
- Five Year Review – FTRI-003, 030, all sites
- FTRI-003, Southwest Funston Landfill
- FTRI-036, Southeast Funston Landfill, Maintenance every 2 years for about 15 years
- FTRI-038, Forsyth Landfill(s), Bank stabilization maintenance
- FTRI-054, Custer Hill PX USTs (5320)
- FTRI-057, 6200 Area UST, Initiate 5 years of LTM if needed
- FTRI-062, TMP Gas Station (Bldg 388)
- FTRI-063, Former Building 1044 Dispensing Area
- FTRI-066, Former Building 1245 Dispensing Station
- FTRI-068, Former Building 1637 Dispensing Area

FUTURE MILESTONES

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

Remedy-in-Place - Completion of Construction of final remedial action:	2011
Deletion from NPL	2011
IRP Completion Date Includes LTM	2036

NO FURTHER ACTION

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

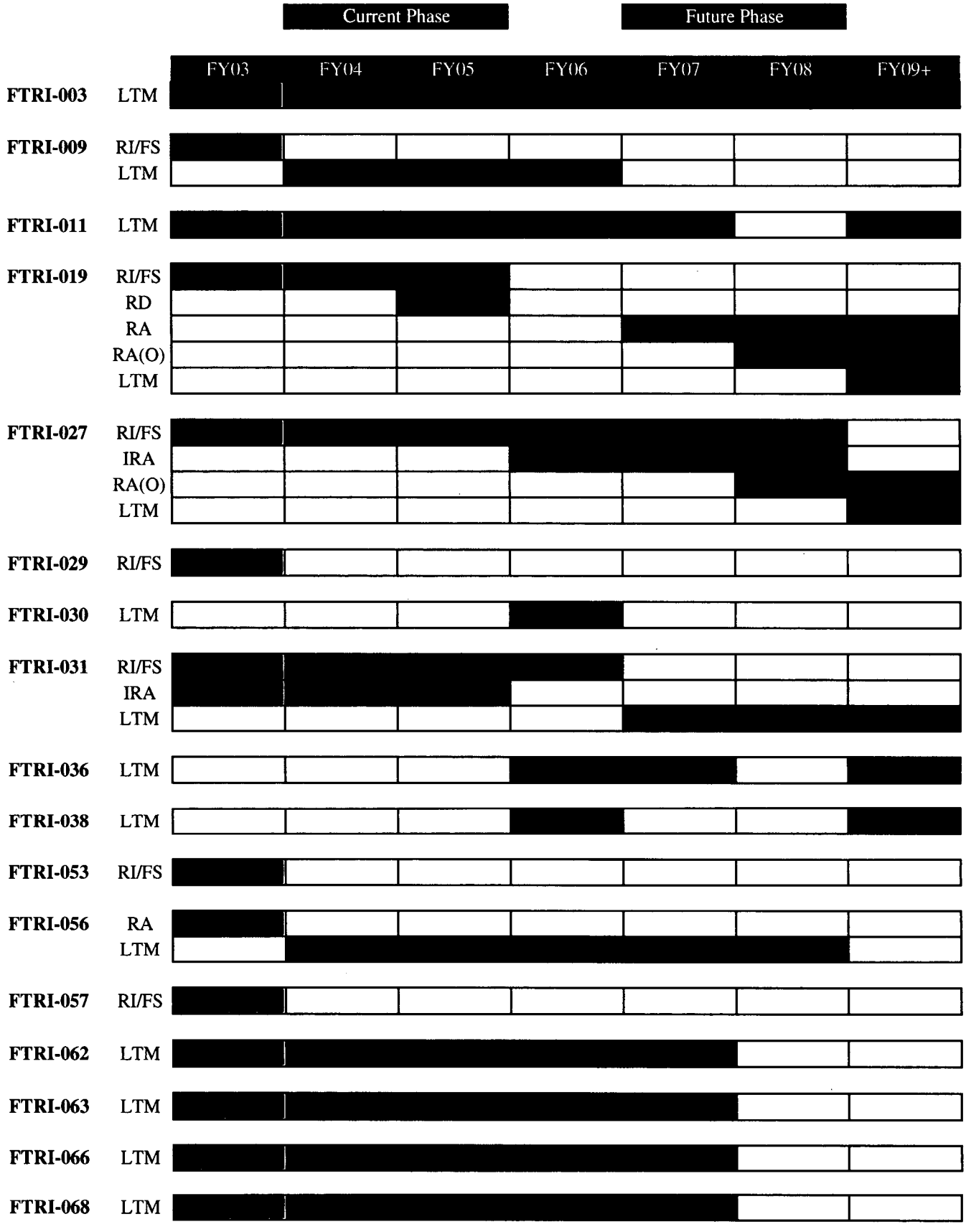
FTRI-001	CUSTER HILL SANITARY LANDFILL
FTRI-002	WHITSIDE CONSTRT. DEBRIS LANDFILL-ACTIVE
FTRI-004	MAIN POST LANDFILL
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP
FTRI-006	DRMO STORAGE AREA
FTRI-007	PCB STORAGE BUILDING 343
FTRI-008	PCB STORAGE CONEX (BUILDING 348)
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTON
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-054	CUSTER HILL PX USTS BLDG 5320
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



DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Site, 4. Installation Phase Summary Report 5/13/2002

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 an 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	8	6	57

Remedy / Status / Sites (Actions)

IRA

C	U	F
18 (23)	1 (1)	2 (3)

FRA

C	U	F
13 (13)	0 (0)	2 (2)

RIP Total: 0

RC Total: 62

Reporting Period End Date: 03/31/2002

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM
Site, 7. SITE SUMMARY 05/13/2002

Installation: FORT RILEY **Major Comm** FORSCOM

FFID: KS214020756 **Subcommand:**
Program Options: IRP, BRAC I, BRAC II, BRAC III, BRAC IV
Subprogram Options: Compliance, Restoration, UXO

Site	Description	Site Type	RRSE	Phase Status PA	SI	RI	RD	RA(C)	RA(O)	LTM	IRA Complet	IRA Underway	RIP	RC
FTRI-001	CUSTER HILL SANITARY LANDFILL	Landfill	NE	C	C	C				N	0	0		199308
FTRI-002	WHITSIDE CONSTRT. DEBRIS LAND	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 Ar	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 3	Storage Area	NE	C	C		C	C		N	0	0		199012
FTRI-009	OB/OD GROUND (RANGE 16)	Explosive Ordnance	2A	C	C	U				N	0	0		200508
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FU	Underground Tank F	NE	C	C		C	C		N	0	0		199204
FTRI-011	CAMP FUNSTON GW DETECTIONS	Contaminated Grour	1A	C	C	U			N	F	0	0		200309
FTRI-012	WASTE STORAGE DRMO SECONDA	Storage Area	3A	C	C	C			N	N	0	0		199509
FTRI-013	ABANDONED VOC TANKS NORTH C	Above Ground Stora	NE	C	C		C	C		N	0	0		199202
FTRI-014	HOSPITAL INCINERATOR-IRWIN AC	Incinerator	NE	C	C					N	0	0		198909
FTRI-015	FORMER DRMO LOCATION (DRMO	Storage Area	2A	C	C	C			N	N	0	0		199509
FTRI-016	WASTE OIL AST-3RD BATTERY	Above Ground Stora	NE	C	C					N	0	0		198909
FTRI-017	WASTE OIL AST-4TH BATTERY	Above Ground Stora	NE	C	C					N	0	0		198909
FTRI-018	FIRE TRAINING AREA FACILITY (892	Fire/Crash Training	NE	C	C					N	0	0		198909
FTRI-019	FORMER FIRE TRAINING AREA FFT	Fire/Crash Training	1A	C	C	U	F	F	F	F	2	1	200909	201209
FTRI-020	INDUSTRIAL WASTEWATER SYSTE	Surface Impoundme	2A	C	C	C			N	N	0	0		199803
FTRI-022	FORMER WWTP AND SLUDGE BED	Sewage Treatment F	NE	C	C					N	0	0		199305
FTRI-023	CUSTER HILL WWTP AND SLUDGE	Sewage Treatment F	NE	C	C					N	0	0		199305
FTRI-024	FORSYTH WWTP AND SLUDGE BED	Sewage Treatment F	NE	C	C					N	0	0		199305
FTRI-025	MAIN POST WWTP AND SLUDGE BE	Sewage Treatment F	NE	C	C					N	0	0		199305
FTRI-026	RANGE COMPLEX WW LAGOONS	Surface Impoundme	NE	C	C					N	0	0		199305
FTRI-027	DRY CLEANING FACILITIES AREA	Spill Site Area	2A	C	C	U	F	F	F	F	1	0	201001	201302

Site	Description	Site Type	RRSE	PA	SI	RI	RD	RA(C)	RA(O)	LTM	IRA Complet	IRA Underway	RIP	RC
FTRI-028	FMR FIRE TRAINING AREA CAMP FU	Fire/Crash Training A	NE	C	C	C		C		N	0	0		199309
FTRI-029	OLD INCINERATOR SITE SE-CAMP F	Incinerator	2A	C	C	U				N	1	0		200303
FTRI-030	PESTICIDE STORAGE FACILITY (MIX	Pesticide Shop	3A	C	C	C			N	U	1	0		199709
FTRI-031	BLDG 354 AREA SOLVENT DETECTI	Contaminated Buildi	1A	C	C	U			N	F	0	0		200809
FTRI-032	IMPACT ZONE	Unexploded Munitio	2A	C	C	C			N	N	0	0		199309
FTRI-033	DOUTHIT RANGE	Firing Range	NE	C	C					N	0	0		199305
FTRI-034	IMPACT AREA PERIMETER SMALL A	Small Arms Range	NE	C	C				N	N	0	0		199612
FTRI-035	NON-IMPACT AREA SMALL ARMS R	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		200303
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				U	1	0		200109
FTRI-039	CONSOLIDATED MAINTENANCE FA	Industrial Discharge	NE	C	C					N	0	0		199305
FTRI-040	FORMER OIL TESTING LAB (BLDG.	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 SHOP	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 B	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 ADJA	Spill Site Area	2A	C	C	C			N	N	0	0		199507
FTRI-047	FORMER LIVESTOCK DIPPING FACI	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	Spill Site Area	3A	C	C	C			N	N	0	0		199803
FTRI-051	BLDG. 727 WASTE PIT	Disposal Pit/Dry We	3A	C	C	C			N	N	0	0		199903
FTRI-052	INACTIVE LANDFILLS - CAMP WHITS	Landfill	NE	C	C	C			N	N	0	0		199507
FTRI-053	POL TANK FARM	Above Ground Stora	1B	C	C	U			N	N	0	0		200309
FTRI-054	CUSTER HILL PX USTS BLDG 5320	Underground Tank F	3B	C	C	C				U	1	0		199709
FTRI-055	MILFORD LAKE CAMPGROUND/MAR	Contaminated Grour	3A	C	C	C			N	N	0	0		199507
FTRI-056	ABANDONED GASOLINE LINE	Soil Contamination A	2B	C	C	U		N	N	F	0	0		200309
FTRI-057	6200 AREA FUEL OIL LINE	POL (Petroleum/Lub	3B	C	C	U			N	N	1	0		200303
FTRI-059	REMOVE USTS	Underground Tank F	NE	C				C		N	0	0		199012
FTRI-060	MAINPOST PX GAS STATION / 218	Underground Tank F	3B	C	C					N	1	0		199506
FTRI-061	FORMER GAS SERVICE STATION BI	Underground Tank F	2B	C	C				N	N	2	0		199510
FTRI-062	TMP GAS STATION BLDG 388	Underground Tank F	1B	C	C	C			N	U	1	0		199710
FTRI-063	FMR BLDG 1044 DISPENSING STAT	Underground Tank F	1B	C	C	C			N	U	2	0		199710
FTRI-064	FMR BLDG 1090 DISPENSING STAT	Underground Tank F	NE	C	C	C		C		N	0	0		199504

Site	Description	Site Type	RRSE	PA	SI	RI	RD	RA(C)	RA(O)	LTM	IRA Complet	IRA Underway	RIP	RC
FTRI-065	FMR BLDG 1190 DISPENSING STAT	Underground Tank F	NE	C	C	C		C		N	0	0		199504
FTRI-066	FMR BLDG 1245 DISPENSING STAT	Underground Tank F	1B	C	C	C			N	U	1	0		199708
FTRI-067	FMR BLDG 1539 DISPENSING STAT	Underground Tank F	2B	C	C	C			N	N	1	0		199708
FTRI-068	FMR BLDG 1637 DISPENSING STAT	Underground Tank F	1B	C	C	C			N	U	1	0		199708
FTRI-069	FMR BLDG 1890 DISPENSING STAT	Underground Tank F	2B	C	C	C			N	N	1	0		199708
FTRI-070	FMR BLDG 2341 DISPENSING STAT	Underground Tank F	NE	C	C			C	N	N	0	0		199406
FTRI-071	FMR BLDG 2345 DISPENSING STAT	Underground Tank F	NE	C	C			C	N	N	0	0		199411
FTRI-072	BLDG 8340 FUEL OIL UST	Underground Tank F	NE	C	C			C	N	N	0	0		199409
FTRI-073	BLDG 8360 FUEL OIL UST	Underground Tank F	NE	C	C			C	N	N	0	0		199503
FTRI-074	WWI INCINERATOR, NW CAMP FUN	Incinerator	3A	C	C						0	0		200109

Report Period End Date: 03/31/2002

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.

Former Fire Training Area-Marshall Army Airfield (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 (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 signifi-

Past REM/IRA/RA

cantly 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.

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 stablization 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.

Future REM/IRA/RA

FY2002

Former Fire Training Area-Marshall Army Airfield (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 are being 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 Detections 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, Former Fire Training Area-Marshall Army Airfield, 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, Former Fire Training Area-Marshall Army Airfield, Groundwater Treatment

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 FFA, 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 FFA, perform response actions as either "Time Critical" or "Non-Time Critical" Removal Actions rather than initiating RI/FSs. 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 FFA 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, geophysical 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 without 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
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	

PRIOR YEAR FUNDS

	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
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	

PRIOR YEAR FUNDS

	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
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
FY02				$ 2,800,000
Prior Year Funding				$ 56,464,600

Riley Required (Unconstrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-003	Southwest Funston Landfill	LTM	156	156	156	166	161	633	3,701	5,129	5,129	Monitoring ~9 wells semi-annual 76K/yr until then FY11, then 38K/yr, Annual report 37K/yr, USGS cost 23K/yr until FY07, quality assurance 4K/yr until FY11, the 2K/yr, 50K in FY11 to mod ROD to reduce LTM, 5 year reviews (15K each for next 2, then 10K each), COE 16K/yr, cover repairs & maintenance, bank stabilization (500K in 08, 200K in 12, 1M in 15+)
FTRI-009	OB/OD Grounds (Range 16)	RI/FS	38							38	159	S&R to complete data compilation report 20K, USGS 18K
		LTM		18	88	15				121		surface water & GW sampling every 3yrs 70K, USGS 18K/yr, closure reports 15K
FTRI-011	Camp Funston GW Detections	LTM	29	22	15	15	20		220	321	321	GWM 15K/yr ~5 wells annually, USGS database 14K in FY03, 7K in FY04, 5 yr reviews 5K each, well abandon 200K in FY15+
FTRI-019	Former Fire Training Area (FFTA-MAAF)	RI/FS	595	360	399					1,354	41,881	Each year includes= 2 GW sampling events ~40 wells semi-annual (194K), real estate leases 12K, USGS DCP maint 38K, Corp S&R 96K, buy private property for access for required actions 220K (slight $ changes are in Corps S&R) project coordinator salary 65K/yr in FY03-05
		RD				906				906		design (RACER), 200K treatability study
		RD-GWM				275				275		2 GW sampling events ~40 wells semi-annual, real estate leases, USGS DCP maint, Corp S&R
		RA					12,000			12,000		In-situ GW ttmt- costed out permable reactive wall by injected zero-valent iron 1000ft wide (plume+wings), 75ft deep and 2ft width (modified RACER)
		RA-GWM					362			362		2 GW sampling events ~40 wells semi-annual, plus additional wells to monitor wall, real estate leases, USGS DCP maint, Corp S&R
		RA(O)					1,954	4,067	18,788	24,809		GW ttmt operation (assumes 10 yrs of operation) includes system removal and well closures (RACER)
		RA(O)-GWM						87	696	783		GWM ~20wells, semi-annual, 87K/yr (RACER)
		LTM							1,392	1,392		GWM ~20wells, semi-annual, 16yrs 87K/yr

Riley Required (Unconstrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-027	Dry Cleaning Facilities Area	RI/FS	317	310	310	415	382			1,734		Each year includes= 3GW events (192K/yr), USGS DCP 20K/yr, and Corps S&R, FY06 includes 90K for FS Addendum, FY07 includes 66K for PP, ROD
		RD						218		218		design (RACER)
		RD-GWM						310		310		3GW events (192K/yr), USGS DCP 20K/yr, and Corps S&R
		RA						3,200		3,200		In-situ source control- costed out zero valent iron 500ft wide (plume+wings), 40ft deep (functional depth less than 30ft), 3ft width (modified RACER)
		RA(O)						892	5,615	6,507		GW ttmt operation (assumes 10 yrs of operation) includes system removal and well closures (RACER)
		RA(O)-GWM							610	610		GWM 61K/yr (RACER)
		LTM							854	854	13,433	GWM 61K/yr for 14yrs (RACER)
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS	1							1	1	Complete MOA
FTRI-030	Pesticide Storage Facility (Mixing)	LTM				5			20	25	25	5YR
FTRI-031	Building 354 Area Solvent Detections	RI/FS	155	296	374	148				973		FY03-55K S&R, FY04-39K tech ID of alternatives, 94K analysis of alternatives, 63K S&R, FY05- 97K FS, 68K PP, 34K ROD, 75K S&R, FY06-48K S&R Each yr includes 100K for project coordinator salary
		RI/FS-GWM	215	140	140	140				635		FY03- GWM- ~47 wells semi-annual, VOCs, SVOCs, FY04-06 ~25 wells, semi-annual
		IRA	1,150	1,150						2,300		Streamline EE/CA, source soil ttmt/ hot spot, groundwater s.a. peroxide, Geocleanse etc
		LTM					70	70	1,730	1,870	5,778	GW sampling ~25 wells, annual, 5YR, well abandonment (50K in Fy15)
FTRI-036	Southeast Funston Landfill -Inactive	LTM				5	50		70	125	125	Cover inspection & minor repairs 50K in FY07, 15+, 5YRs
FTRI-038	Forsyth Landfill(s)	LTM				5			620	625	625	DD, 5 year reviews (5K each) & repairs to stabilization (300K in FY10, 15+), UXO surveys
FTRI-053	POL Tank Farm	RI/FS	1							1	1	DD
FTRI-056	Abandoned Gasoline Line	RA	238							238	285	soil removal (~1900 cy)
		LTM		15	8	8	8	8		47		6 wells semi-annual for 1 yr then annual

Riley Required (Unconstrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-057	6200 Area Fuel Oil Line	RI/FS	1							1	1	DD
FTRI-062	TMP Gas Station (Bldg 388)	LTM	10	10	10	10	10			50	50	3 wells annually, free product removal 10K/yr
FTRI-063	Former Building 1044 Dispensing Station	LTM	15	15	15	15	15			75	75	5 wells, annually, free product removal 15K/yr
FTRI-066	Former Building 1245 Dispensing Station	LTM	15	15	15	15	15			75	75	4 wells, annually free product removal
FTRI-068	Former Building 1637 Dispensing Station	LTM	10	10	10	10	10			50	50	2 wells, annually free product removal
TOTALS IN THOUSANDS OF DOLLARS			**2,946**	**2,517**	**1,540**	**2,153**	**15,057**	**9,485**	**34,316**	**68,014**	**68,014**	

Riley Programmed (Constrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-003	Southwest Funston Landfill	LTM	156	156	269	53	161	633	3,701	5,129	5,129	Monitoring ~9 wells semi-annual 76K/yr until then FY11, then 38K/yr, Annual report 37K/yr, USGS cost 23K/yr until FY07, quality assurance 4K/yr until FY11, the 2K/yr, 50K in FY11 to mod ROD to reduce LTM, 5 year reviews (15K each for next 2, then 10K each), COE 16K/yr, cover repairs & maintenance, bank stabilization (500K in 08, 200K in 12, 1M in 15+)
FTRI-009	OB/OD Grounds (Range 16)	RI/FS	38							38	159	S&R to complete data compilation report 20K, USGS 18K
		LTM		18	88	15				121		surface water & GW sampling every 3yrs 70K, USGS 18K/yr, closure reports 15K
FTRI-011	Camp Funston GW Detections	LTM	29	22	15	15	20		220	321	321	GWM 15K/yr ~5 wells annually, USGS database 14K in FY03, 7K in FY04, 5 yr reviews 5K each, well abandon 200K in FY15+
FTRI-019	Former Fire Training Area (FFTA-MAAF)	RI/FS	789	166	399					1,354	41,881	Each year includes= 2 GW sampling events ~40 wells semi-annual (194K), real estate leases 12K, USGS DCP maint 38K, Corp S&R 96K, buy private property for access for required actions 220K (slight $ changes are in Corps S&R) project coordinator salary 65K/yr in FY03-05
		RD			906					906		design (RACER), treatability study 200K
		RD-GWM			275					275		2 GW sampling events ~40 wells semi-annual, real estate leases, USGS DCP maint, Corp S&R
		RA						1,919	10,081	12,000		In-situ GW ttmt- costed out permable reactive wall by injected zero-valent iron 1000ft wide (plume+wings), 75ft deep and 2ft width (modified RACER)
		RA-GWM					362			362		2 GW sampling events ~40 wells semi-annual, plus additional wells to monitor wall, real estate leases, USGS DCP maint, Corp S&R
		RA(O)							24,809	24,809		GW ttmt operation (assumes 10 yrs of operation) includes system removal and well closures (RACER)
		RA(O)-GWM						87	696	783		GWM ~20wells, semi-annual, 87K/yr (RACER)
		LTM							1,392	1,392		GWM ~20wells, semi-annual, 16yrs 87K/yr

Riley Programmed (Constrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-027	Dry Cleaning Facilities Area	RI/FS	317	310	502	289	316	310		2,044		Each year includes= 3GW events (192K/yr), USGS DCP 20K/yr, and Corps S&R, FY06 includes 90K for FS Addendum, 66K for PP, ROD
		IRA				1,566	771	1,081		3,418		EE/CA (218K) In-situ source control- costed out zero valent iron 500ft wide (plume+wings), 40ft deep (functional depth less than 30ft), 3ft width (modified RACER)
		RA(O)						892	5,615	6,507		GW ttmt operation (assumes 10 yrs of operation) includes system removal and well closures (RACER)
		RA(O)-GWM							610	610		GWM 61K/yr (RACER)
		LTM							854	854	13,433	GWM 61K/yr for 14yrs (RACER)
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS	1							1	1	Complete MOA
FTRI-030	Pesticide Storage Facility (Mixing)	LTM				5			20	25	25	5YR
FTRI-031	Building 354 Area Solvent Detections	RI/FS	288	163	374	148				973		FY03-55K S&R, 39K tech ID of alternatives, 94K analysis of alternatives, FY04-63K S&R, FY05- 97K FS, 68K PP, 34K ROD, 75K S&R, FY06-48K S&R Each yr includes 100K for project coordinator salary
		RI/FS-GWM	355		140	140				635		FY03- GWM- ~47 wells semi-annual, VOCs, SVOCs, FY04-06 ~25 wells, semi-annual
		IRA	1,170	952	178					2,300		Streamline EE/CA, source soil ttmt/ hot spot, groundwater s.a. peroxide, Geocleanse etc
		LTM					70	70	1,730	1,870	5,778	GW sampling ~25 wells, annual, 5YR, well abandonment (50K in Fy15)
FTRI-036	Southeast Funston Landfill -Inactive	LTM				5	50		70	125	125	Cover inspection & minor repairs 50K in FY07, 15+, 5YRs
FTRI-038	Forsyth Landfill(s)	LTM				5			620	625	625	DD, 5 year reviews (5K each) & repairs to stabilization (300K in FY10, 15+), UXO surveys
FTRI-053	POL Tank Farm	RI/FS	1							1	1	DD
FTRI-056	Abandoned Gasoline Line	RA	238							238	285	soil removal (~1900 cy)
		LTM		15	8	8	8	8		47		6 wells semi-annual for 1 yr then annual
FTRI-057	6200 Area Fuel Oil Line	RI/FS	1							1	1	DD

Riley Programmed (Constrained) Cost to Complete

DSERTS #	SITE TITLE	PHASE	FY03	FY04	FY05	FY06	FY07 5YR	FY08	FY09+	PHASE TOTAL	SITE TOTAL	ACTIVITY DESCRIPTION
FTRI-062	TMP Gas Station (Bldg 388)	LTM	10	10	10	10	10			50	50	3 wells annually, free product removal 10K/yr
FTRI-063	Former Building 1044 Dispensing Station	LTM	15	15	15	15	15			75	75	5 wells, annually, free product removal 15K/yr
FTRI-066	Former Building 1245 Dispensing Station	LTM	15	15	15	15	15			75	75	4 wells, annually free product removal
FTRI-068	Former Building 1637 Dispensing Station	LTM	10	10	10	10	10			50	50	2 wells, annually free product removal
TOTALS IN THOUSANDS OF DOLLARS			**3,433**	**1,852**	**3,204**	**2,299**	**1,808**	**5,000**	**50,418**	**68,014**	**68,014**	
POM - Forecasted ER-A Allocation			**3,433**	**1,852**	**3,204**	**2,299**	**1,808**	**5,000**				
Difference			0	0	0	0	0	0			68,014	

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 and 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), the EPA, and the 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 Awarness Education Program was implemented in FY98 by holding meetings in the surrounding communities. RAB members have provided comments on documents open for pubic 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.

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Riley's IAP Workshop July 16-17, 2003

	SIGN-IN SHEET	ORGANIZATION	PHONE/FAX	E-MAIL ADDRESS
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Shimp, John CIV DES

From: Richard.Van-saun@nwk02.usace.army.mil

Sent: Tuesday, July 08, 2003 3:16 PM

To: craig.phillips@riley.army.mil; fittroc@riley.army.mil; shieldsd@riley.army.mil; john.shimp@riley.army.mil; andrea.austin@riley.army.mil; oral.saulters@riley.army.mil

Subject: FY04 Obligation Plan

All,

To prepare for the IAP Work Shop, I have taken a first stab at putting together a detailed obligation plan for next year. I have added detail to the plan using the funding categories in the AEC funds request form. Maybe that will make it easier for Maggie next year.

I have attempted to convert the details contained in the "Activity Description" column of the spreadsheet from last year's Work Shop" into the individual line items for each project under the column entitled "May 02 IAP FY04". My initial estimate of what we'll need for next year is under the column entitled "8 Jul 03 Corps".

The USGS figures come from the latest FY04 budget provided by the GS. The Corps S&R figures come from resourced Microsoft Project schedules.

I am now working on a spreadsheet which will summarize all items that have been contracted for on the active OUs - DCFA, 354 and MAAF. I hope to have that to you by noon tomorrow to assist in our planning.

I welcome any comments you might have.

<<RileyFY04OPlan-FRBreakout.xls>>

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	A	B	C	F	G
1	DSERTS #	SITE TITLE	PHASE EVENT	May 02 IAP FY04	8 Jul 03 Corps
2	FTRI-003	**Southwest Funston Landfill**	**LTM**	**$ 156,000**	**$ 163,200**
3					
4		Pre-Award			
5		In-House - QA		**$ 4,000**	$ 5,000
6		Contract - 2 GWE + Annual Report		**$ 113,000**	$ 113,000
7		S&R - Prior Year WAD		**$ 16,000**	$ 22,000
8		S&R - Current Year MIPR			
9		S&A			
10		Scoping			
11		**USGS**		**$ 23,000**	**$ 23,200**
12	FTRI-009	**OB/OD Grounds (RANGE 16)**	**RI/FS**	**$ -**	**$ 77,100**
13					
14		Pre-Award			
15		In-House - Sampling QA			$ 3,000
16		Contract			
17		S&R - Prior Year WAD			$ 56,000
18		S&R - Current Year MIPR			
19		S&A			
20		Scoping			
21		**USGS**			**$ 18,100**
22	FTRI-009	**OB/OD Grounds (RANGE 16)**	**LTM**	**$ 18,000**	**$ -**
23					
24		Pre-Award			
25		In-House			
26		Contract			
27		S&R - Prior Year WAD			
28		S&R - Current Year MIPR			
29		S&A			
30		Scoping			
31		**USGS**		**$ 18,000**	
32	FTRI-011	**Camp Funston GW Detections**	**RI/FS**	**$ 22,000**	**$ 49,000**
33					
34		Pre-Award			
35		In-House - Sampling QA			$ 1,000
36		Contract - 1 GWE		**$ 15,000**	$ 15,000
37		S&R - Prior Year WAD			$ 18,000
38		S&R - Current Year MIPR			
39		S&A			
40		Scoping			
41		**USGS**		**$ 7,000**	**$ 15,000**

	A	B	C	F	G
1	DSERTS #	SITE TITLE	PHASE EVENT	May 02 IAP FY04	8 Jul 03 Corps
42	FTRI-019	**FORMER Fire Training Area (FFTA-MAAF)**	**RI/FS**	**$ 166,000**	**$ 96,800**
43		**$166,000 does not agree with Activity Description in ObPlan**			
44		**Project Coordinator**		**$ 65,000**	
45		Pre-Award			
46		In-House - Real Estate Leases			$ 12,000
47		In-House - Sampling QA			$ 7,600
48		Contract - Sampling Events		**$ 63,000**	
49		S&R - Prior Year WAD			$ 45,000
50		S&R - Current Year MIPR			
51		S&A			
52		Scoping			
53		**USGS**		**$ 38,000**	**$ 32,200**
54	FTRI-019	**FORMER Fire Training Area (FFTA-MAAF)**	**IRA**	**$ -**	**$ -**
55					
56		Pre-Award			
57		In-House			
58		Contract			
59		S&R - Prior Year WAD			
60		S&R - Current Year MIPR			
61		S&A			
62		Scoping			
63					
85	FTRI-027	**Dry Cleaning Facilities Area**	**RI/FS**	**$ 310,000**	**$ 89,200**
86					
87		Pre-Award			
88		In-House - Sampling QA		**$ 7,000**	$ 7,000
89		Contract - 3 GWE (Currently doing 2)		**$ 192,000**	
90		Contract -2 GWE, FS,PP, Meetings			
91		S&R - Prior Year WAD		**$ 91,000**	$ 55,000
92		S&R - Current Year MIPR			
93		S&A			
94		Scoping			
95		**USGS**		**$ 20,000**	**$ 27,200**
96					
110	FTRI-029	**Old Incinerator Site SE-Camp Funston**	**RI/FS**		**$ -**
111		Pre-Award			
112		In-House			
113		Contract			
114		S&R - Prior Year WAD			
115		S&R - Current Year MIPR			
116		S&A			
117		Scoping			
118	FTRI-030	**Pesticide Storage Facility (MIXING)**	**LTM**	**$ -**	
119		5 year Review (Sampling, Corps)			

	A	B	C	F	G
1	DSERTS #	SITE TITLE	PHASE EVENT	May 02 IAP FY04	8 Jul 03 Corps
120	FTRI-031	**Building 354 Area Solvent Detections**	**RI/FS**	**$ 163,000**	**$ 184,600**
121		**Project Coordinator**		**$ 100,000**	
122		Pre-Award			
123		In-House - Sampling QA			$ 12,000
124		In-House - GSA Sedan			$ 6,000
125		Contract			
126		S&R - Prior Year WAD		**$ 63,000**	$ 136,000
127		S&R - Current Year MIPR			
128		S&A			
129		Scoping			
130		**USGS**			**$ 30,600**
131	FTRI-031	**Building 354 Area Solvent Detections**	**IRA**	**$ 952,000**	
132					
133		Pre-Award			
134		In-House			
135		Contract		**$ 952,000**	
136		S&R - Prior Year WAD			
137		S&R - Current Year MIPR			
138		S&A			
139		Scoping			
140					
148	FTRI-053	**POL Tank Farm**	**RI/FS**	**$ -**	**$ 13,000**
149					
150		Pre-Award			
151		In-House			
152		Contract -			
153		S&R - Prior Year WAD			$ 13,000
154		S&R - Current Year MIPR			
155		S&A			
156		Scoping			
157					
158					
159	FTRI-054	**Custer Hill PX USTS BLDG 5320**	**LTM**	**$ -**	**$ -**
160					
161		Pre-Award			
162		In-House			
163		Contract - GWE			
164		S&R - Prior Year WAD			
165		S&R - Current Year MIPR			
166		S&A			
167		Scoping			
168					

	A	B	C	F	G
1	DSERTS #	SITE TITLE	PHASE EVENT	May 02 IAP FY04	8 Jul 03 Corps
177	FTRI-056	**Abandoned Gasoline Line**	**IRA**	**$ 15,000**	**$ 46,000**
178					
179		Pre-Award			
180		In-House			
181		Contract		$ 15,000	
182		S&R - Prior Year WAD			$ 46,000
183		S&R - Current Year MIPR			
184		Scoping			
185					
186	FTRI-056	**Abandoned Gasoline Line**	**LTM**		
187	FTRI-057	**6200 Area Fuel Oil LINE**	**RI/FS**	**$ -**	**$ -**
188		Decsion Document			
189	FTRI-062	**TMP Gas Station (Bldg 388)**	**LTM**	**$ 10,000**	**$ 10,000**
190					
191		Pre-Award			
192		In-House			
193		Contract		$ 7,000	$ 7,000
194		S&R - Prior Year WAD		$ 3,000	$ 3,000
195		S&R - Current Year MIPR			
196		Scoping			
197	FTRI-063	**Former Building 1044 Dispensing Stn**	**LTM**	**$ 15,000**	**$ 15,000**
198					
199		Pre-Award			
200		In-House			
201		Contract		$ 11,000	$ 11,000
202		S&R - Prior Year WAD		$ 4,000	$ 4,000
203		S&R - Current Year MIPR			
204		Scoping			
205	FTRI-066	**Former Building 1245 Dispensing Stn**	**LTM**	**$ 15,000**	**$ 15,000**
206					
207		Pre-Award			
208		In-House			
209		Contract		$ 11,000	$ 11,000
210		S&R - Prior Year WAD		$ 4,000	$ 4,000
211		S&R - Current Year MIPR			
212		Scoping			
213	FTRI-068	**Former Building 1637 Dispensing Stn**	**LTM**	**$ 10,000**	**$ 10,000**
214					
215		Pre-Award			
216		In-House			
217		Contract		$ 7,000	$ 7,000
218		S&R - Prior Year WAD		$ 3,000	$ 3,000
219		S&R - Current Year MIPR			
220		Scoping			
221					
222		**TOTALS**		**$ 1,852,000**	**$ 768,900**