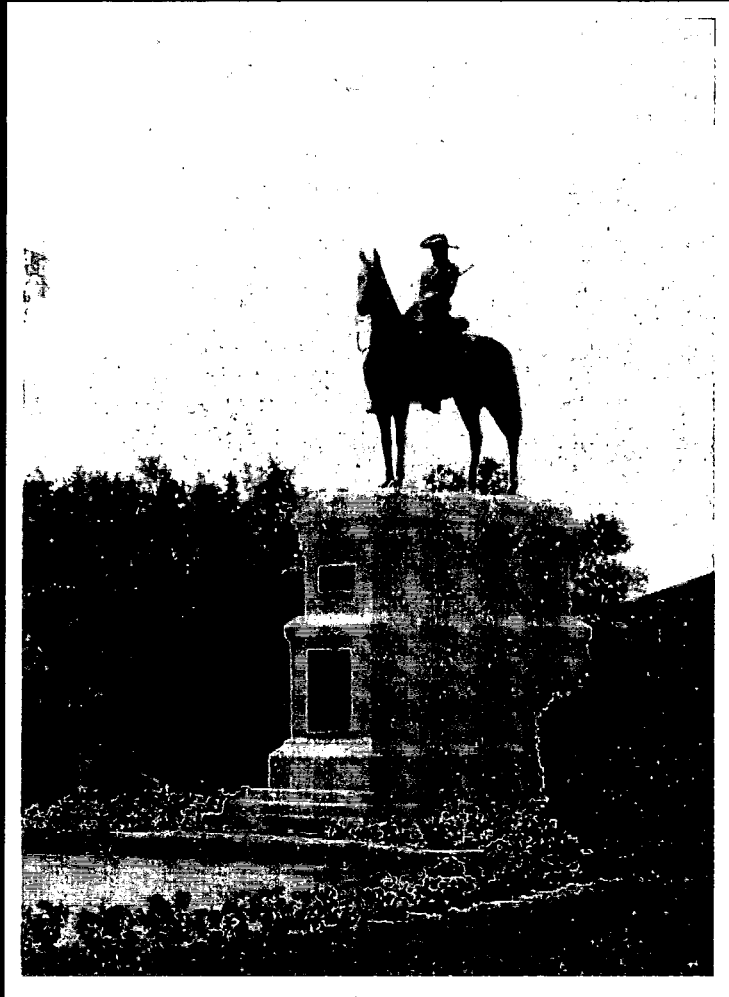


INSTALLATION RESTORATION PROGRAM INSTALLATION ACTION PLAN



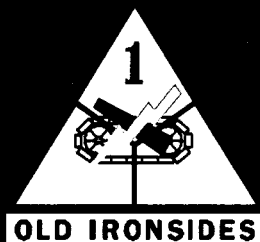
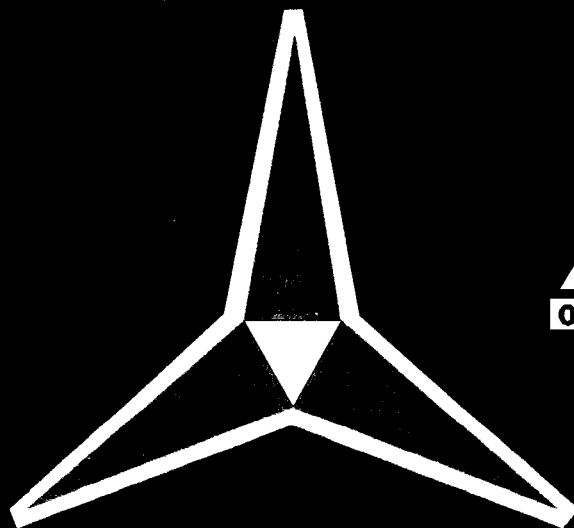
FORT RILEY
MARCH 1999



Pub 13 2 003

FORT RILEY INSTALLATION ACTION PLAN

AMERICA'S



ARMY

MARCH 1999

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 July 1998 at a meeting in Kansas City, Mo. Participants included representatives of Kansas Department of Health and Environment, EPA Region VII, U.S. Geological Survey, Fort Riley's Restoration Advisory Board, U.S. Army Environmental Center, U.S. Army Forces Command Headquarters, as well as the Fort Riley Directorate of Environment and Safety and the Kansas City District Army Corps of Engineers. This IAP is updated 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, Fort Riley will have all remedies in place by 2010.

APPROVAL

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ACRONYMS & ABBREVIATIONS

AC/RC	Active Component/ ReserveComponent
AEC	Army Environmental Center
AOC	Area of Concern
AR	Administrative Record
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
CENWK	U.S. Army Corps of Engineers, Kansas City District
CMI	Corrective Measure Investigation
CMS	Corrective Measure Study
CY	Cubic Yards
DA	Department of Army
DASA(ESOH)	Deputy Assistant Secretary of Army (Evrnmental Safety and Occupational Health)
DCE	Dichloroethylene
DCF	Dry Cleaning Facilities
DD	Decision Document
DEH	Directorate of Engineering and Housing
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DES	Directorate of Environmental Safety
DM	Decision Memorandum
DOD	Department of Defense
DOL	Directorate of Logistics
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Sites Environmental Restoration Tracking System
DSGS	Direct Support General Support
EE/CA	Engineer Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
ERA	Environmental Restoration, Army (formally known as DERA)
FFA	Federal Facility Aggrement
FORSCOM	U.S. Army Forces Command
FMR	
FS	Feasibility Study
FTRI	Fort Riley
FY	Fiscal Year
GW	Groundwater
GMS	Groundwater Modeling System
HRS	Hazard Ranking Score
HW	Hazardous Waste
IAP	Installation Action Plan
LAG	Interagency Agreement
IFI	Intitial Field Investigation
IR	Information Repositories
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IWSA	Installation Wide Site Assessment
JP-4	Jet Propellant Number Four
JP-8	Jet Propellant Number Eight
KDHE	Kansas Department of Health and Environment
LTM	Long Term Monitoring
LTO	Long Term Operation
MAAF-FFTA	Marshall Army Airfield - Former Fire Training Area
MATES	Mobilization and Training Equipment Site
MCL	Maximum Contaminant Level

ACRONYMS & ABBREVIATIONS

LIST OF ACRONYMS AND ABBREVIATIONS CONTINUED...

NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NE	Not Evaluated
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NOV	Notice of Violation
NPL	National Priorities List
OB/OD	Open Burning / Open Detonation
OMA	Operations and Maintenance - Army
OU	Operable Unit
OWS	Oil and Water Separator
PA	Preliminary Assessment
PAOC	Potential Areas of Concern
PCB	Polychlorinated Biphenyls
PCE	Perchloroethylene (Tetrachloroethylene)
POL	Petroleum, Oil and Lubricants
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
SARA	Superfund Amendments and Reauthorization Act
SE	Southeast
SFL	Southwest Funston Landfill
SEFL	Southeast Funston Landfill
SI	Site Inspection
S&R	Supervision and Review
STP	Sewage Treatment Plant
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leachate Procedure
TMP	Temporary Motor Pool
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine (replaced AEHA)
USAEC	United States Army Environmental Center
USATHAMA	United States Army Toxic and Hazardous Materials Agency (replaced by AEC)
USGS	United States Geological Survey
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds

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SUMMARY

STATUS:

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

NUMBER OF DSERTS SITES:

71 DSERTS sites
 18 Active DERA Eligible Sites
 50 Response Complete DERA Eligible Sites
 3 Response Complete Non-DEA Eligible Sites

DIFFERENT SITE TYPES:

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

CONTAMINANTS OF CONCERN:

Chlorinated solvents, petroleum hydrocarbons, metals

MEDIA OF CONCERN:

Soil, Groundwater, Surface Water

COMPLETED REM/IRA/RA:

REM - Excavation of lead contaminated soils at FTIRI-035 (FY94) (Construction Cost (CC) = \$533,000)

- REM - Excavation of pesticide contaminated soils at FTIRI-030 (FY94) (CC = \$788,000)
- REM - Replacement of leaking sewers at FTIRI-027 (FY94 & FY96) (CC = \$100,000)
- REM - Numerous UST removals (FY90 - 95) (CC = \$1,500,000)
- REM - Bank stabilization and landfill cover repair and cover improvement at FTIRI-003 (FY94 and FY96) (CC = \$4,000,000)
- Pilot Study - Soil vapor extraction at FTIRI-027 (FY95) (CC = \$500,000)
- Pilot Study - Soil vapor extraction and bio-venting at FTIRI-019 (FY95) (CC = \$900,000)
- REM - Fuel lines and contaminated soil removed at FTIRI-057 (FY96-97) (CC = \$2,300,000)
- REM - Free Product Recovery at FTIRI-062 and -063 (FY95) (CC = \$37,500)

CURRENT IRP PHASES:

RI/FS (10 sites) IRA (2 sites) RA (1 site) LTM (4 sites)

PROJECTED IRP PHASES:

IRA (2 sites) RD (2 site) RA (4 site)
 RA (O) (3 site) LTM (10 sites) LTO (1 site)

IDENTIFIED POSSIBLE REM/IRA/RA:

Groundwater Treatment at FTIRI-019
 Groundwater Treatment at FTIRI-027
 Soil Removal at FTIRI-029
 Cover Improvement at FTIRI-036
 Bank Stabilization at FTIRI-038
 Pipeline removal at FTIRI-056

FUNDING:

PRIOR YEAR THROUGH 1997:	\$	41,500,000
FY 1998:	\$	3,000,000
FY 1999:	\$	3,000,000
FUTURE REQUIREMENTS:	\$	28,205,000
TOTAL:	\$	75,605,000

DURATION:

YEAR OF IRP INCEPTION:	1989
YEAR OF IRP COMPLETION EXCLUDING LTM:	2010
YEAR OF IRP COMPLETION INCLUDING LTM:	2030

INSTALLATION INFORMATION

LOCALE

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 4 miles west of Manhattan (population 38,000). Milford Reservoir bounds the majority 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

IRP EXECUTING AGENCY

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

REGULATOR PARTICIPATION

FEDERAL: U.S. Environmental Protection Agency (EPA), Region VII

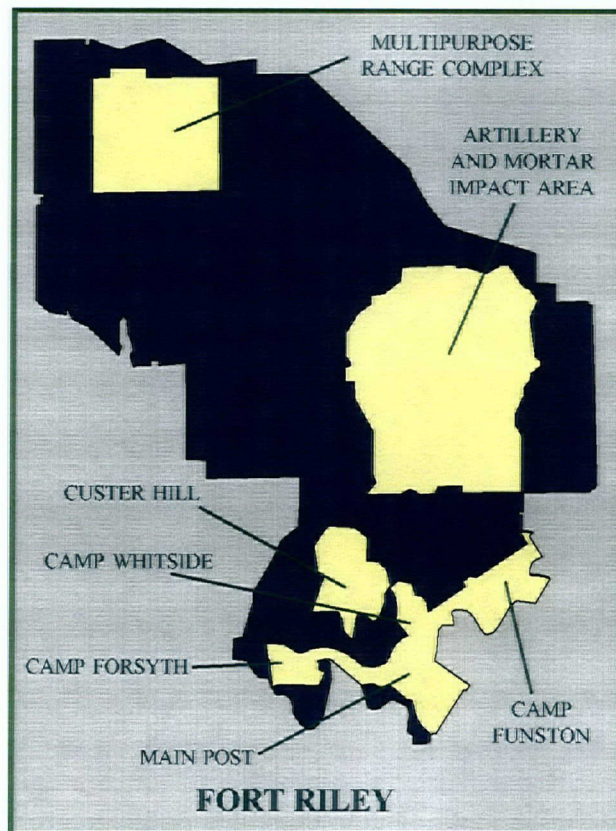
STATE: Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation and Bureau of District Operations

REGULATORY STATUS

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

MAJOR CHANGES TO ACTION PLAN FROM PREVIOUS YEAR (FY 98)

- Completed RI/FS at DCF Area (FTRI-027)
- Completed exposure control EE/CA document and Action Memorandum for MAAF-FFTA (FTRI-019)
- Initiated an early GW Action EE/CA for MAAF-FFTA (FTRI-019)
- Completed Decontamination Memoranda for Multiple Sites (FTRI-various), DRMO Area 1, FTRI-006, Building 727 Former Waste Pit (FTRI-051) and Main Post LF (FTRI-004).
- Prepared River Bank Stabilization EE/CA, Action Memo and Design for Forsyth LF Area 2 (FTRI-038)
- Prepared EE/CA, Action Memo and Design for Old SEFL and Incinerator Areas (FTRI-036, -029)



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 second largest employer in the state of Kansas, Fort Riley's economic impact exceeded \$559,000,000 in 1996. Fort Riley has a daytime population of over 20,000 and is home to over 3,000 families. This population makes Fort Riley the 13th largest city in Kansas. The reservation covers 100,671 acres, of which 70,926 acres are used for maneuver training.

HISTORY

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

In 1852, Major E.A. Ogden established a temporary camp north of the Kansas River in the area where Fort Riley's Main Post is now located. The encampment was originally known as "Camp Center" because it was thought to be the geographic center of the United States.

A permanent post was authorized the following year and the new installation was named Fort Riley in honor of Major General Bennet Riley, who had been a distinguished veteran of the Mexican War and commander of the first military escort along the Santa Fe Trail. Fort Riley was designated a Cavalry Headquarters in 1885 resulting in the post becoming known as the "Cradle of the Cavalry." Fort Riley stood as the major horse cavalry training school in our country and boasted a position as one of the best cavalry training schools in the world.

Fort Riley has trained and deployed military forces in virtually every major war of our nation's history. In 1996 alone, Fort Riley deployed over 8,800 soldiers to 11 different countries.

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. Currently, Fort Riley is home to two combat brigades (1st Brigade, 1st Infantry Division, Mechanized and 2nd Brigade, 1st Armored Division) and an engineer group (937th). In the next year Fort Riley will become home to one of the Army's two Active Component/ Reserve Component (AC/RC) Divisions.

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

MISSION

Fort Riley's Mission is to provide training, readiness, and deployability for two active component combat brigades; mobilizes and deploys active and reserve component units; and provides effective support for soldiers and families during peace and war.

CONTAMINATION ASSESSMENT

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

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

Five IRP sites have been designated as operable units (OUs). Three OUs are currently the subject of Remedial Investigation / Feasibility Studies. Three Removal Actions were performed in 1994 with additional phases performed in FY95 at one site. Removal Actions have been completed at four sites (FTRI-003, FTRI-030, FTRI-057, and FTRI-035). An Installation-Wide Site Assessment was performed for identification of 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 warrant further investigation.

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

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

Pesticides stored and mixed at the former PSF are believed to have been released to the environment through past operational and disposal practices. Pesticide and arsenic contamination in soils was the primary concern. A Removal Action to excavate and dispose of contaminated soils was taken in FY94. The RI/FS was completed in FY97. The ROD for No Further Action for this site was completed in FY 97. Because residual contamination is still present, a five year review will be conducted, per the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

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

Perchloroethylene (PCE) has been and is being used at the adjacent former and current Dry Cleaning Facilities, respectively. Organic contamination of soils, sediments and groundwater was confirmed in a Preliminary Assessment / Site Investigation (PA/SI) completed in the fall of 1992. Regulatory approval was received on RI/FS planning documents and RI field activities occurred in the fall of 1993. A Pilot Study for soil vapor extraction was successful in removing most of the soil contamination (therefore a formal Removal Action was not performed). Following review of the RI and the Draft FS, it was determined, in concert with EPA and KDHE, that additional characterization of the adjacent alluvial aquifer ("The Island") was warranted. "The Island" characterization was performed in the spring of 1996. The RI was amended and the FS completed. Natural attenuation, institutional controls, and long term monitoring are expected to be components of the remedy.

Extensive site characterization was performed at the FFTA-MAAF site under the Site Investigation. A pilot study was conducted to address soil contamination in the vicinity of the FFTA in FY94-95. Additional groundwater investigations were conducted in FY97-98 to further characterize the off-post groundwater plume. Private wells in the area have been monitored. An Engineering Evaluation/Cost Analysis (EE/CA) proposes providing an alternate water source to two impacted property owners with field activities scheduled for the fall of FY99. Access to the property has not been granted by the owners to implement this. An additional EE/CA is underway to address high concentrations in the groundwater plume. A Tracer study and Natural Attenuation evaluation are in progress to evaluate remediation technologies and refine fate and transport estimation.

The 354-Solvent site was discovered during investigations of a POL/UST site. The source has not been determined and understanding of the nature and extent of contamination is limited. However, there are no nearby receptors and the contamination is not expected to migrate significantly in the near future. Initial field investigations were conducted in 1997. The development of the RI/FS Workplan was initiated in FY98.

The Installation-Wide Site Assessment was performed in 1992 with the results presented in the Draft Final Installation-Wide Site Assessment (IWSA) for Fort Riley, Kansas, dated 7 December 1992, as revised on 16 February 1993. It identified 25 groups of potential areas of concern (PAOC), with 23 sites being scheduled for further Site Investigations. Contaminants associated with these sites vary greatly from potentially lead-contaminated soils at old firing ranges to potential releases of solvents due to practices at furniture repair shops. Information was collected on the PAOCs to evaluate their eligibility under CERCLA and RCRA pathways and potentially exposed populations. The IWSA was conducted consistent with EPA requirements for Preliminary Assessments under CERCLA. Based on EPA's Preliminary Assessment (PA) methodology, potential risk posed by the PAOCs was estimated using the Hazard Ranking System (HRS).

The IWSA identified PAOCs subject to RCRA corrective actions and/or CERCLA where a release of hazardous substances to the environment has occurred or is considered likely, where migration pathways from the site exist, and where potential receptors are known to exist. Specifically, 23 PAOCs were identified and evaluated using the HRS PA SCORE methodology. As outlined in the NCP, the results of the PA were used to identify sites requiring further investigation of SI's.

These PAOCs are being addressed under the Multiple Site Investigations project which is further broken down into groupings including the Sensitive Receptor Lead Sites, the "High Priority" Sites, and the "Other Sites". The Sensitive Receptor Lead Sites were expedited due to the accessibility of the areas to the general public (especially children). Only one area near the Colyer Manor Family Housing Area was identified as having elevated levels of lead in the soils, and a removal action involving excavation and disposal of soils has been 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) has been broken out as a separate site because of the magnitude of detected contamination and off-post contamination. The "Other" Multiple Site grouping consists 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 1994. A joint review of the Multiple Sites with EPA & KDHE in the summer of 1995 resulted in concurrence on the designation of two sites as formal Operable Units (MAAF-FFTA and 354-Solvent), on the recommendations of No Further Action on numerous sites, and identified several sites which warranted additional characterization or action. Only two sites, Forsyth Landfill Area 2 and the Southeast Funston Landfill, may require additional work. A NFA Decision Memorandum for many of the Multiple Sites has been prepared.

Phase I and II Site Investigations have been completed at 7 POL UST sites from 1992 to 1995. Remedial Action Plans were prepared for these sites and submitted to KDHE in FY97. KDHE placed 5 sites into LTM status and 2 sites were approved for NFA. The Work Plan for the investigation of the POL Tank Farm (FTRI-053) was initiated in FY98.

PREVIOUS STUDIES

Title	Author	Date
Installation Assessment of the Headquarter, 1st Infantry Division (Mechanized) and Fort Riley, KS	Environmental Science and Engineering (for USATHAMA)	Jun-05
Evaluation of Solid Waste Managment Units, Fort Riley, KS	Army Environmental Hygiene Agency	Jun-05
Installation-Wide Site Assessment	Louis Berger & Associates	December 1992 w/ February 1993 revisions
Impact Area Site Assessment Report	Louis Berger & Associates	Mar-93
Site Investigation Report for High Priority Sites	Louis Berger & Associates	Feb-94
Site Investigation Report for "Other Sites"	Louis Berger & Associates	Apr-95

Southwest Funston Landfill (OU 001)

Engineering Evaluation / Cost Analysis w/ August 1993 Supplement	Law Environmental, Ft. Riley DEH, Environmental and Natural Resources Division	July 1993 w/ August 1993 Supplement
Remedial Investigation Report	Law Environmental	Apr-94
Feasibility Study Report		Apr-94
Record of Decision	Law Environmental / Ft Riley DES	Dec-95
Operation and Maintenance Plan	Kansas City District, Corps of Engineers	Sep-96
Longterm Groundwater Monitoring Plan	Kansas City District, Corps of Engineers	Jan-97
Removal Action Report	Kansas City District, Corps of Engineers	Jun-97
Institutional Controls Plan	Ft. Riley DES	Nov-97
Annual Monitoring Report, Dec 1995 - Nov 1996	U.S Geological Survey, Lawrence, Kansas	Aug-97
Annual Monitoring Report, 1997	U.S Geological Survey, Lawrence, Kansas	Sep-97

Pesticide Storage Facility (OU 002)

Engineering Evaluation / Cost Analysis	Ft. Riley DEH, Environmental and Natural Resources Division	Aug-93
Remedial Investigation/	Law Environmental	July 1993 w/ December 1993 revisions
Remedial Investigation Addenda	Law Environmental	June 1997 w/ August 1997 revisions

PREVIOUS STUDIES

Title	Author	Date
Record of Decision Dry Cleaning Facilities, OU 003	Law Environmental / Ft Riley DES	Sep-97
Remedial Investigation Report	Louis Berger & Associates	Mar-95
Draft Final Remedial Investigation Addendum / Monitoring Expansion Report	Louis Berger & Associates	Apr-98
Draft Final Feasibility Study Report	Louis Berger & Associates	Apr-98
Former Fire Training Area, Marshal Army Airfield, OU 004		
Expanded Site Investigation Sampling and Analysis Plan (includes reporting of data to-date)	Louis Berger & Associates	May-94
Site Investigation Report	Louis Berger & Associates	August 1995 w/ revisions
Remedial Investigation / Feasibility Study Work Plan	Burns & McDonnell	Apr-97
Engineering Evaluation / Cost Analysis, Exposure Control Action	Louis Berger & Associates	Dec-97
Building 354 Area Solvent Detection Site, OU 005		
Preliminary Evaluation of Data	Kansas City District, Corps of Engineers	Jun-95
Sampling and Analysis Plan	Burns & McDonnell	Jul-97
Draft Initial Field Investigations Report	Burns & McDonnell	Dec-97
Custer Hill Sanitary Landfill		
Data Summary and Evaluation Report	Kansas City District, Corps of Engineers	Aug-92
Data Summary and Evaluation Supplement	Louis Berger & Associates	Jun-93
Interim Sampling Data Report for the Custer Hill Sanitary Landfill	Louis Berger & Associates	Dec-93
Interim Sampling Data Report for the Custer Hill Sanitary Landfill	Louis Berger & Associates	Jul-94
Camp Funston Area Groundwater		
Monitoring Well Installation Report	Kansas City District, Corps of Engineers	Aug-97
Camp Funston Annual Report: Hydrogeological Data for Digital Groundwater Flow Model	U. S. Geological Survey, Lawrence, Kansas	Sep-97
Chemical and Isotope Evaluation Report	Dept. of Geology, Kansas State University	Nov-97
Work Plan for Hydrologic Evaluation of the Camp Funston Area	U. S. Geological Survey, Lawrence, Kansas	Sep-98
Annual Groundwater Monitoring Report, 1997	U. S. Geological Survey, Lawrence, Kansas	Oct-98

PREVIOUS STUDIES

Title	Author	Date
Site Investigation Report Addendum, Former Wherry Substation and DRMO Area 1 Drainage Ditch	Louis Berger & Associates	Feb-97
Site Investigation Report Addendum, Open Burn/ Open Detonation Area	Louis Berger & Associates	Aug-98
Site Investigation Report Addendum, Southeast Funston Landfill Incinerator Area	Louis Berger & Associates	Jul-97
Petroleum / Underground Storage Tanks		
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 5390, Fort Riley, KS.	Dames & Moore	26 August, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1890, Fort Riley, KS.	Dames & Moore	31 July, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1637, Fort Riley, KS.	Dames & Moore	29 July, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1539, Fort Riley, KS.	Dames & Moore	28 July, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1044, Fort Riley, KS.	Dames & Moore	24 July, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 1245, Fort Riley, KS.	Dames & Moore	16 July, 1997
Remedial Action Plan and Final Site Investigation Report for POL/UST Site 388, Fort Riley, KS.	Dames & Moore	1997

**OPERABLE UNITS/
INDIVIDUAL SITE PROJECTS**

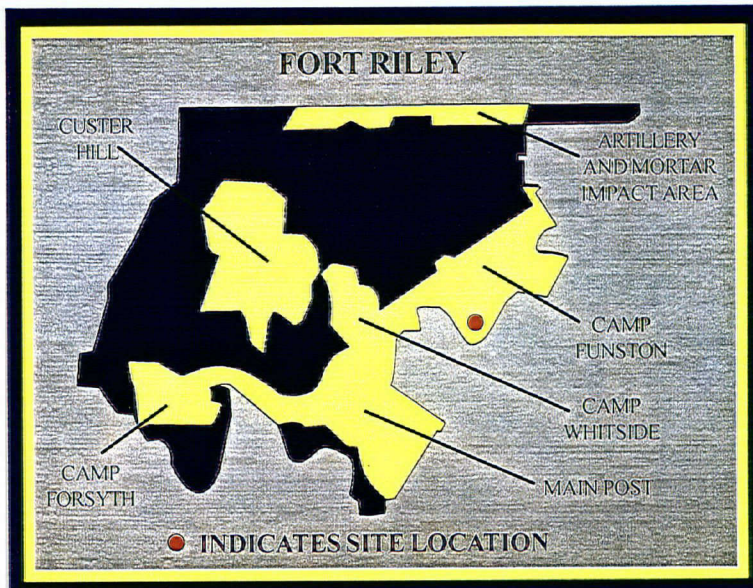
FTRI-003 (OPERABLE UNIT 001) SOUTHWEST FUNSTON LANDFILL

SITE DESCRIPTION

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

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.

Minor bank stabilization repairs, re-seeding and monitoring well abandonment were accomplished in 1998.



PROPOSED PLAN

Groundwater monitoring is continuing on a semi-annual basis under an indefinite delivery contract. As of July 98, semi-annual groundwater events through spring of 1999 have been contracted for.

The USGS will prepare annual monitoring reports including hydrogeologic evaluations. A groundwater monitoring report will be issued in the spring of 1999.

Since some contamination will remain on-site, statutory reviews will be required at 5 year intervals.

Annual inspections and periodic maintenance of bank stabilization and cover will be conducted. Groundwater monitoring well pump replacement may be necessary.

In the future, additional RI/FS monitoring wells and closure monitoring wells will be abandoned.



IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

Metals, VOCs (primarily Vinyl Chloride)

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS, IRA, Proposed Plan, ROD

CURRENT IRP PHASE:

LTM, RA(O)

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
LTO	20	10	40	10	485	55	880
IRA							
LTM	155	170	195	300	75	75	1180

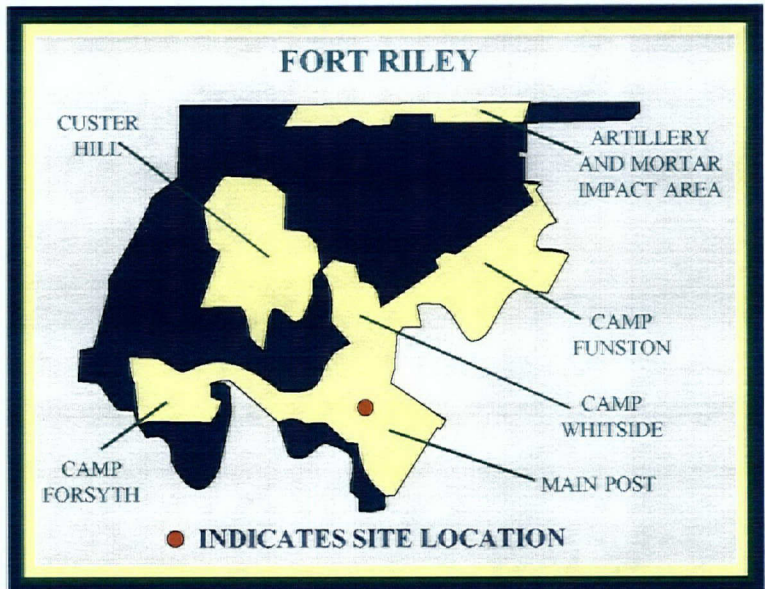
PROJECTED TOTAL: \$3,650,000

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

SITE DESCRIPTION

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

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



PROPOSED PLAN

The first five year review will occur in FY02. Four additional reviews are anticipated.

IRP STATUS

RRSE RATING: Low Risk
(High Risk prior to REM)

CONTAMINANTS OF CONCERN:
Pesticides (Chlordane, DDT, Dieldrin, Heptachlor, PAHs, metals (arsenic))

MEDIA OF CONCERN:
Soils, Groundwater

COMPLETED IRP PHASE:
PA/SI, Removal, RI, Proposed Plan, ROD

CURRENT IRP PHASE:
LTM

FUTURE IRP PHASE:
Response Complete

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM				10			40
PROJECTED TOTAL:					\$50,000		

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

SITE DESCRIPTION

The former Dry Cleaning Facility is located in the southwest corner of the Main Post cantonment area, about 800 feet north of the Kansas River. A PA/SI was completed for the Former DCF in September 1992 and an RI/FS initiated. Chlorinated solvent contamination was found in soils and groundwater. A Pilot Study for Groundwater and Soil Vapor Extraction was completed. The groundwater pumping tests, conducted in the overburden and bedrock aquifer, indicated that groundwater extraction would be an ineffective remedy, as the pumping rate was approximately 0.75 gallons per minute. Soil Vapor Extraction rates were low, also, but yielded enough contaminant removal to extend the pilot study for two months to further assess sustainable removal rates. The SVE was successful in removing most of the soil contamination, and the results have been incorporated into the Feasibility Study.

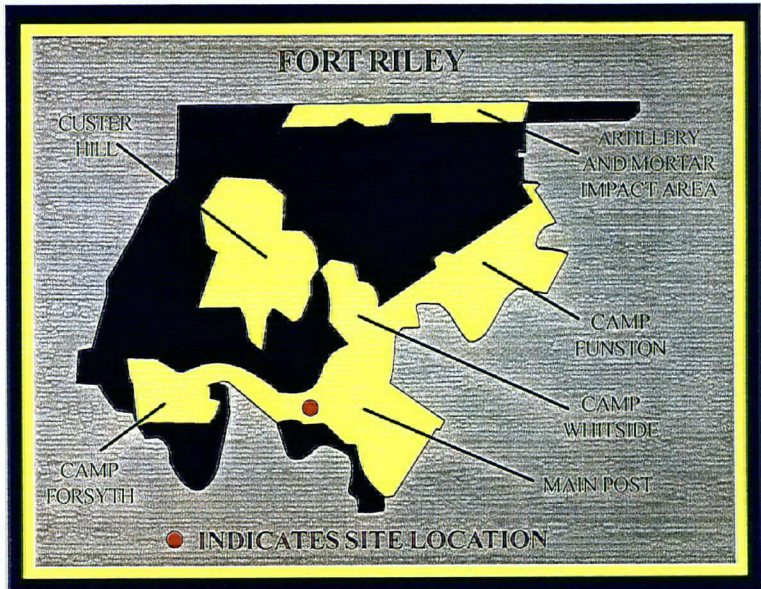
Following review of the RI and the Draft FS it was determined, in concert with EPA and KDHE, that additional characterization of the adjacent alluvial aquifer ("The Island") was warranted. This work, accomplished in the spring of 1996, showed that contaminant levels exceed MCLs, and the results were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

Baseline risk assessment indicates minimal risk associated with the site. Exposure to impacted groundwater has not occurred and is not expected to occur. Data shows contaminant levels are steadily declining. However, contaminant levels in groundwater above MCL's triggers long-term monitoring with contingency for future action as well as institutional controls to prohibit groundwater use (although such use is considered unlikely as a baseline condition). Natural attenuation was evaluated in the FS.

PROPOSED PLAN

Periodic groundwater monitoring is continuing pending the execution of the PP/ROD.

The anticipated remedies are institutional controls, natural attenuation, LTM, and potential contingency action. Since some contamination will remain on-site, 5 year reviews will be required per the NCP.



IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

VOCs

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS (PP/ROD)

FUTURE IRP PHASE:

RD/RA, LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	133						
RD			150				
RA(C)				1500			
RA(O)					380	20	600
IRA							
LTM		160	115	115	115	115	1620

PROJECTED TOTAL: \$5,023,000

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

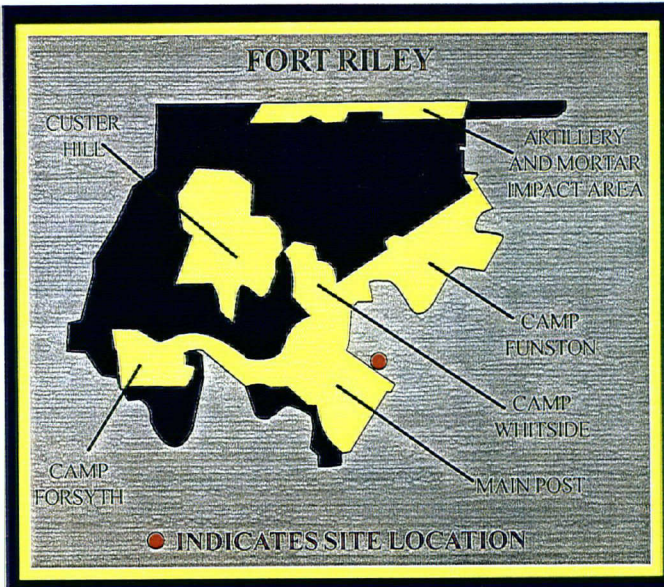
SITE DESCRIPTION

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 crushed stone pit. The fire training area operated from the mid 1960s to 1984. The current road around MAAF is constructed over a portion of the former fire training area. 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. SI activities were initiated in 1993 and indicated the soils and groundwater on post were impacted by contamination. Further SI activities conducted between 1993 and 1995 indicated off-post contamination and samples collected from private wells confirmed the presence of contamination. A Soil Vapor Extraction (SVE) and Bioventing Pilot Study were performed in late 1994 and early 1995 to address the vadose zone soils in the immediate vicinity of the former fire training area and drum storage area. RI activities conducted in May and November 1996, including the installation of multiple depth wells, were performed to characterize the vertical and horizontal extent of the groundwater contamination. RI activities continued in FY98 to characterize the extent of the groundwater contamination and define the leading edge of the plume.

A Natural Attenuation bench scale demonstration was initiated in FY98.

A groundwater model is being developed using GMS and integrated into the Kansas River valley model being prepared by USGS.



PROPOSED PLAN

After the RI/FS report is completed, a PP/ROD will be prepared.

The RI/FS document preparation will begin in FY99. Monitoring Natural Attenuation is under evaluation.

Periodic Groundwater Monitoring to continue, estimated 3 times per year.

Remedial Design will start in FY03 and Remedial Action will start in FY04 and will be conducted for the full implementation of the best technology demonstrated in the FS.



CONSTRAINED COST TO COM

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	1015	1255	1249	483	638		
RD					1110		
RA(C)						1175	2835
RA(O)							
IRA							
LTM							4615

PROJECTED TOTAL: \$14,375,000

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

VOCs, TPH, Napthalene

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, Pilot Study

CURRENT IRP PHASE:

RI/FS, RA

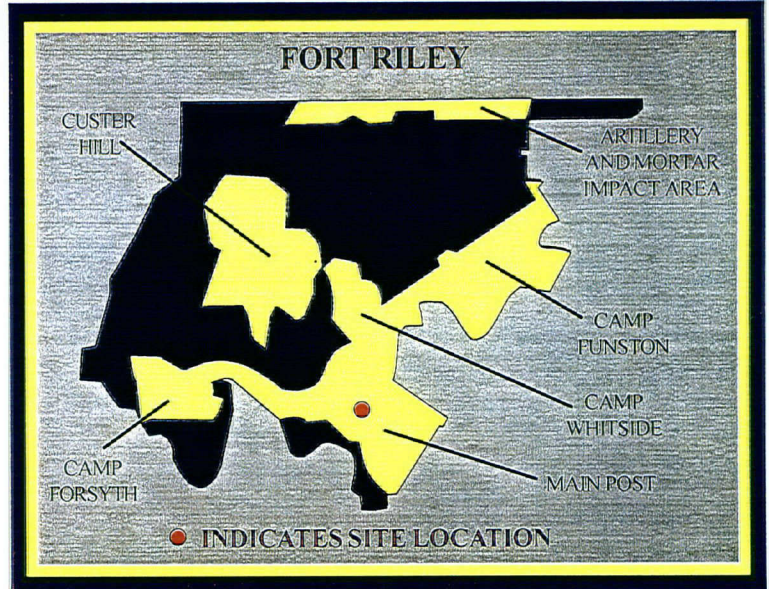
FUTURE IRP PHASE:

ROD, RD, RA, RA(O), LTM

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

SITE DESCRIPTION

Solvent storage and dispensing previously occurred near Bldg 354 in the Public Works (formerly DEH) yard. Site was identified in the IWSA but no specific SI was developed. In lieu of a Site Investigation, CERCLA groundwater monitoring is being conducted in concert with POL/UST monitoring. Available data from several adjacent study areas were consolidated into a data review package. Perchloroethylene and/or its breakdown products have been detected below MCLs in recent sampling of the UST groundwater monitoring wells. The source is unknown but may be resulting from previous activities in the public works yard. In FY97, initial field investigations were performed. The initial field investigation was not successful at locating a source but the nature and extent of contamination was generally defined.



PROPOSED PLAN

Plan and execute phased RI to locate the source of contamination and focused FS.

RI/FS - quarterly GWM for one year (FY99).

Contract and write Proposed Plan, ROD, and LTM plan.

Perform LTM - semiannually through 2012, annually through 2024.

Assumes 20 years of monitoring after the ROD (through 2024) and four 5 year reviews.



IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

VOCs

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PP/ROD, LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	91	839	120	50			
RD							
RA(C)							
RA(O)							
IRA							
LTM					50	50	960

PROJECTED TOTAL: \$2,160,000

FTRI-001 CUSTER HILL SANITARY LANDFILL

SITE DESCRIPTION

Custer Hill Sanitary Landfill is located northeast of the Custer Hill Maintenance complex approximately 0.7 miles south of Vinton School Road on the Fort Riley military reservation. Groundwater monitoring of the CHL was incorporated as part of the site investigation under the IAG. The landfill was scheduled to close 1 Oct 1993, however, a nation-wide extension until April 1994 was granted. Closure has been accomplished and long term monitoring is being performed under state Subtitle D program (OMA funded). This site is included in FY98 Multiple Sites Decision Document as No further CERCLA action unless post-closure monitoring reveals contamination.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Not Evaluated

CONTAMINANTS OF CONCERN:

VOCs, metals

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

ROD

FUTURE IRP PHASE:

Response Complete

FTRI-032 IMPACT ZONE

SITE DESCRIPTION

The Impact Zone (IZ) is located in the east central portion of the installation. The IZ is approximately 26 square miles in size. Prior to the purchase of the land now encompassing the IZ, the primary land use was for agricultural purposes. Since the purchase of the IZ land in 1942, the area has been used for tank and troop maneuvers and as an impact area. During this time it has received a variety of ordnance including high explosive, white phosphorus, illumination and smoke rounds. Records search indicate no usage or firing of chemical agents (mustard or nerve gas) or depleted-uranium. Ten groundwater monitoring wells were installed and surface water and sediment samples were taken during the Site Investigation activities conducted during FY92/93. No contamination was found.

PROPOSED PLAN

No further action will be conducted under DERP.

IRP STATUS

RRSE RATING: Not Applicable

CONTAMINANTS OF CONCERN:

Munitions residue

MEDIA OF CONCERN:

Soil, Sediment

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

MULTIPLE SITE INVESTIGATIONS

The Installation Wide Site Assessment required by the IAG was completed in 1992 and identified several potential areas of contamination (PAOCs). PAOCs were split into several groups for investigation “Sensitive Receptor Lead Sites”; “High Priority Sites”; and “Other Sites” as grouped in the following section. Additional sites have been identified including the Building 354 Area Solvent Detections and Camp Funston Area Groundwater Contamination.

FTRI-035

SENSITIVE RECEPTOR LEAD SITES



SITE DESCRIPTION

This is a sub-group of the "Non-Impact Area Small Arms Ranges" site. Former Camp Forsyth Ranges, Former Mullins Parks, Custer Hill Elementary and Ware Elementary School were all suspected of having lead contaminated soil because the areas were former firing ranges or had soils brought in for fill from firing ranges. Expedited site investigation indicated that lead contaminated soils existed only in one isolated area in the Colyer Manor Housing Area at the Former Camp Forsyth Ranges. This work is documented in the "High Priority" Sites SI Report. A Removal Action was performed in the Spring 1994, consisting of excavation of soils contaminated with lead. Clean soils were used as backfill. This site was included in FY98 Multiple Sites Decision Document as No Further Action .

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Lead

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

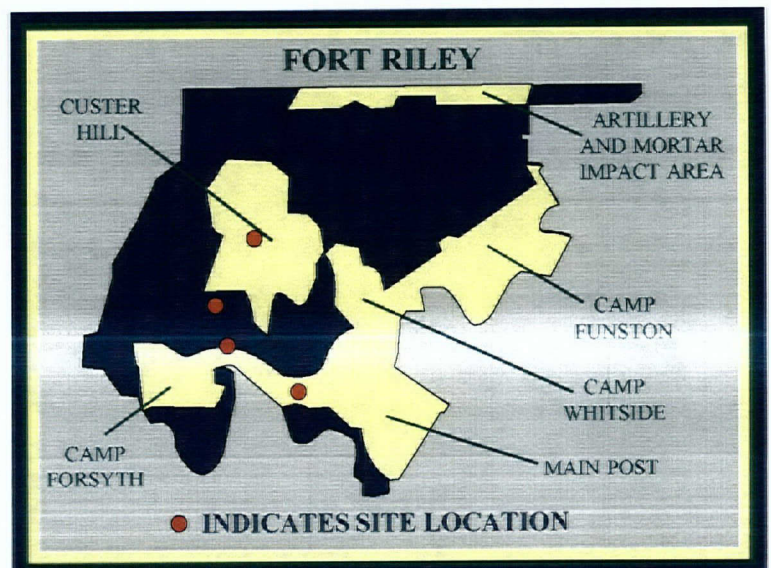
PA/SI, Removal, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-020 INDUSTRIAL WASTEWATER SYSTEM CUSTER HILL



SITE DESCRIPTION

This system consists of two wastewater ponds, an old wash rack reservoir, and four large shallow cells which receive industrial wastewater from automotive and industrial shops on Custer Hill. The free product found in one well at the East Pond is believed to be related to the POL Tank Farm, not the pond. SI reveals primarily POL contamination, although low levels of a few CERCLA hazardous substances have been detected. This site was included in FY98 Multiple Sites Decision Document as no further action under CERCLA. The closure of the East and West Ponds will be performed under state programs (OMA funded), not under IAG/DERA.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

POL, VOCs, SVOCs, Metals

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

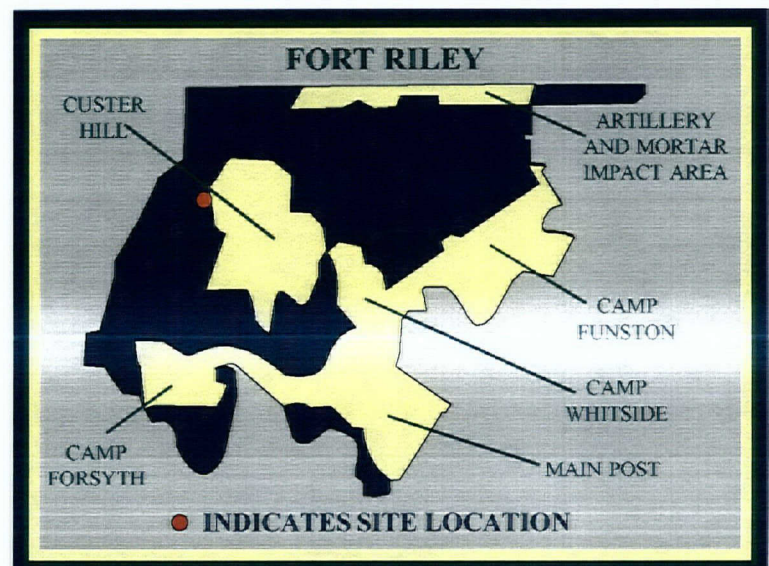
PA/SI, RI, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-041 FURNITURE REPAIR SHOPS



SITE DESCRIPTION

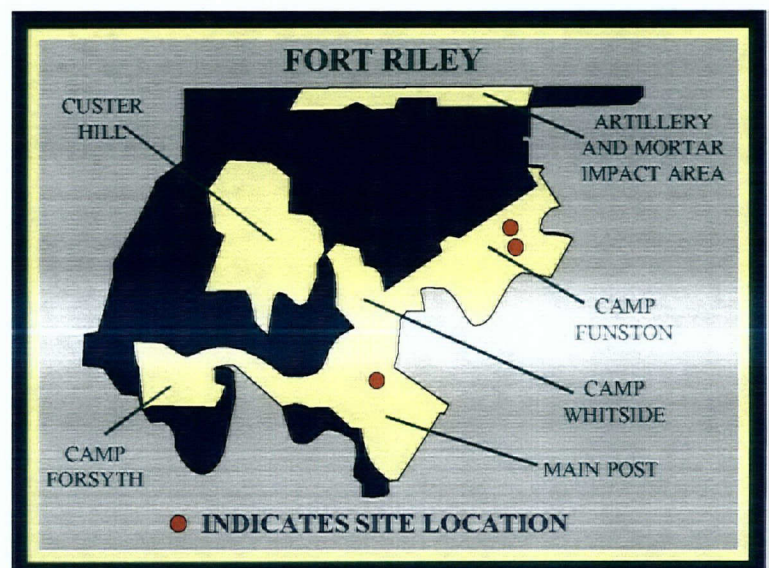
The SI for this site was conducted concurrently with the High Priority Sites as Building 1301 was scheduled for demolition in the fall of 1993. Building 1301 was located in Camp Funston and was used as a furniture repair shop. Building 1605, a previous furniture repair shop, was located within 600 feet of 1301. It burned in 1988 and was also evaluated. No CERCLA hazardous substances were found. A small area where POL constituents were detected was excavated to avoid concerns being raised during construction activities. This site was included in FY98 Multiple Sites Decision Document as No Further Action .

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Not Evaluated
CONTAMINANTS OF CONCERN:
VOCs
MEDIA OF CONCERN:
Soils
COMPLETED IRP PHASE:
PA/SI, RI, ROD
CURRENT IRP PHASE:
Response Complete
FUTURE IRP PHASE:
Response Complete



FTRI-036

SOUTHEAST FUNSTON LANDFILL - INACTIVE

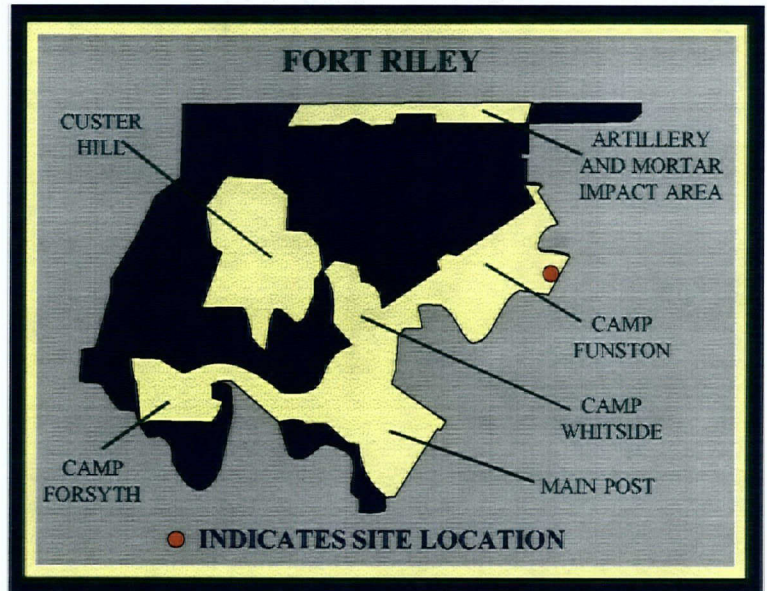
SITE DESCRIPTION

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

In FY98, an EE/CA, Action Memorandum 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 will be combined with the limited soil removal at the SELF incinerator (FTRI-29).

PROPOSED PLAN

- Implement cover improvements.
- Prepare Decision Memorandum, ROD.
- Preform cover inspection concurrent with 5 year reviews.



IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Metals (including lead), VOCs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI

FUTURE IRP PHASE:

IRA, ROD

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)	427						
RA(O)				5	50		70
IRA							
LTM							
PROJECTED TOTAL:					\$552,000		

FTRI-015 FORMER DRMO LOCATION (AREA 2)



SITE DESCRIPTION

This site was used by the Defense Reutilization and Marketing Office from 1972 to 1975, and is approximately 2.5 acres in size. The site is located at 5th and K streets in Camp Funston. Soil gas sampling and groundwater screening has been performed. One groundwater screening sample showed PCE at 6.2 ug/l and very low levels of benzene, xylene and toluene. Groundwater is being addressed under site FTRI-011, Camp Funston Groundwater.

PROPOSED PLAN

No further action is required.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

VOCs

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

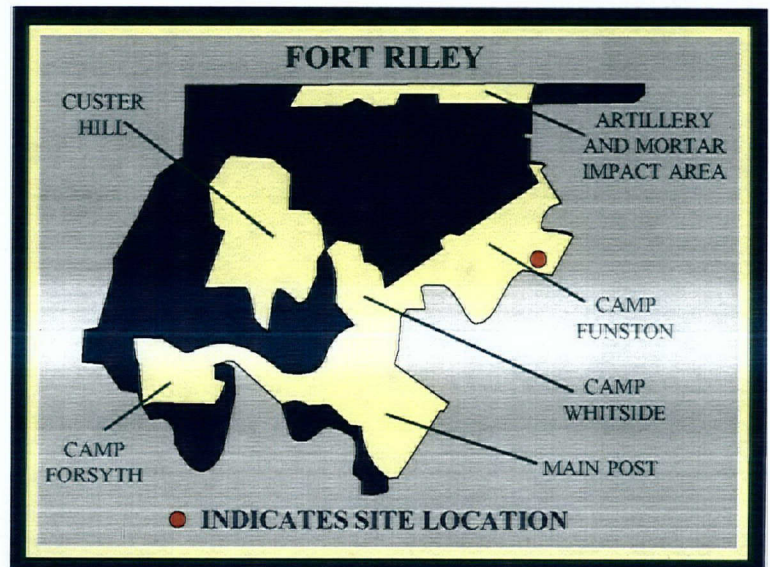
PA/SI, RI, DM

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

ROD



FTRI-006

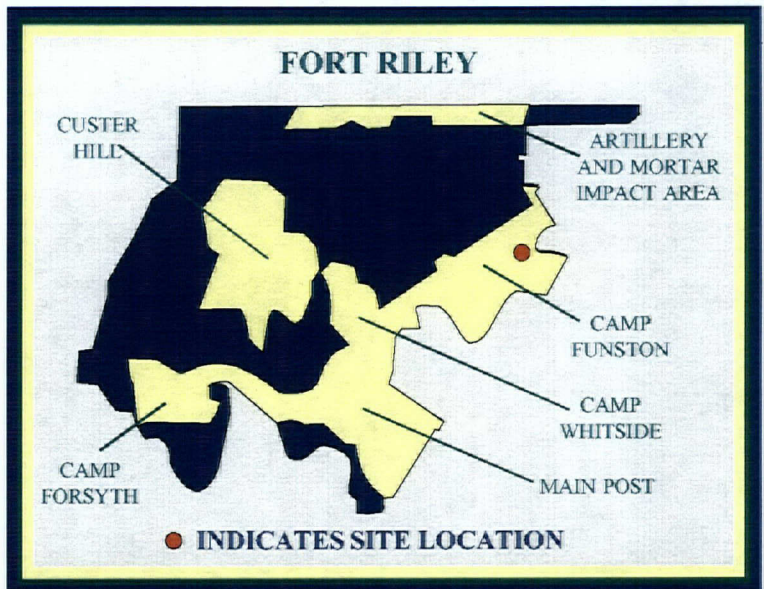
DRMO STORAGE AREA (DRMO AREA 1)

SITE DESCRIPTION

The Defense Reutilization and Marketing Office, located in the northeastern portion of Camp Funston, handled transformers taken out of service during the 1950's and 1960's. The potential for PCB releases would have been greatest during this time frame because the hazards of PCBs were not widely known. A wide variety of other chemicals may also have been spilled. One surface soil/sediment sample had PCBs above risk-based (industrial setting) guideline concentrations. Additional sampling performed in 1996 indicated PCB levels below Toxic Substances Control Act (TSCA) action levels. Response complete 19 May 98

PROPOSED PLAN

No further action is required.



IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

PCBs

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

PA/SI, RI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

FTRI-012 WASTE STORAGE DRMO SECONDARY (AREA 3)



SITE DESCRIPTION

This site was used by the Defense Reutilization and Marketing Office from 1975 to 1978, and is approximately 3 acres in size. The site is located at 11th and L Street in Camp Funston. Soil gas sampling and groundwater screening has been performed and one groundwater screening sample showed very low levels of xylene and toluene, which is not believed to be associated with site operations. Groundwater monitoring (for CERCLA hazardous substances) will be addressed under Camp Funston Area Groundwater Detections, FTRI-011. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required.

IRP STATUS

RRSE RATING: Low Risk

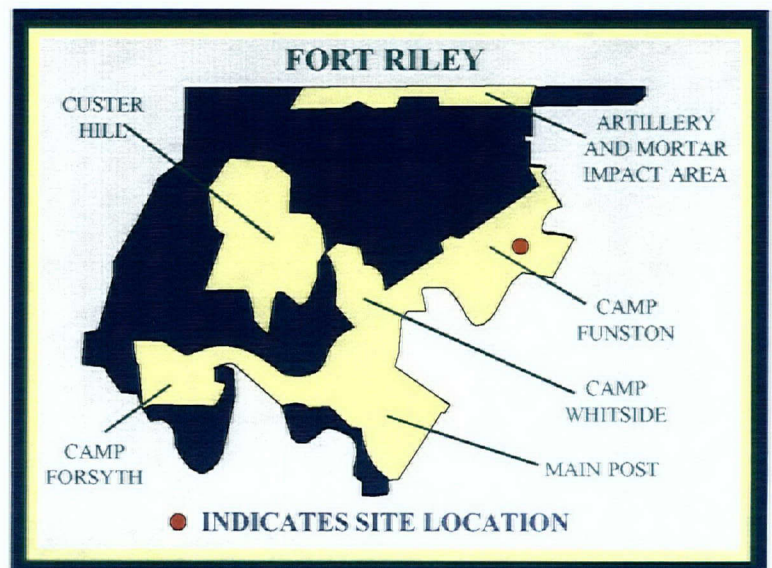
CONTAMINANTS OF CONCERN:
VOCs

MEDIA OF CONCERN:
Groundwater

COMPLETED IRP PHASE:
PA/SI, RI

CURRENT IRP PHASE:
Response Complete

FUTURE IRP PHASE:
Response Complete



FTRI-037 CAMP WHITESIDE INCINERATOR AREA

SITE DESCRIPTION

Site is located adjacent to the Kansas River in the southern portion of the installation. (Near the historic territorial capitol). Medical Waste and combustible refuse was burned here and the ashes were apparently scattered over the adjacent area. The area of metal contamination in soils is very limited. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.



IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Metals

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

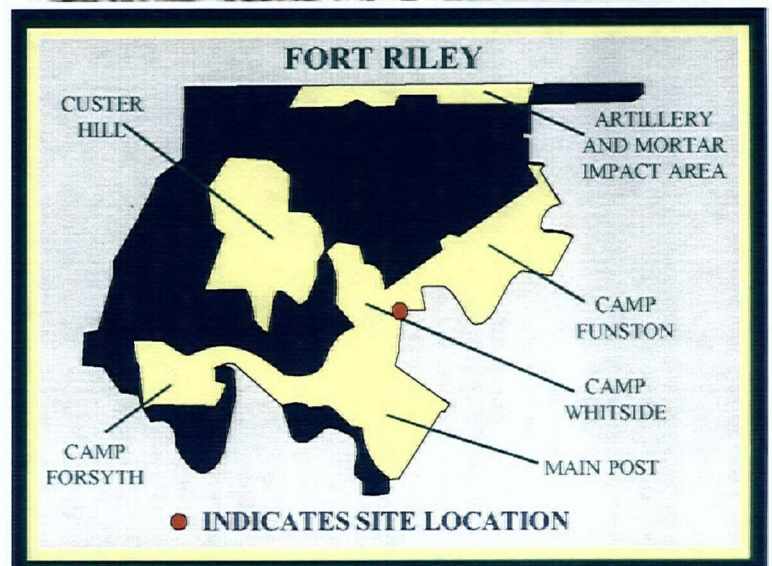
PA/SI, RI, ROD

CURRENT IRP PHASE:

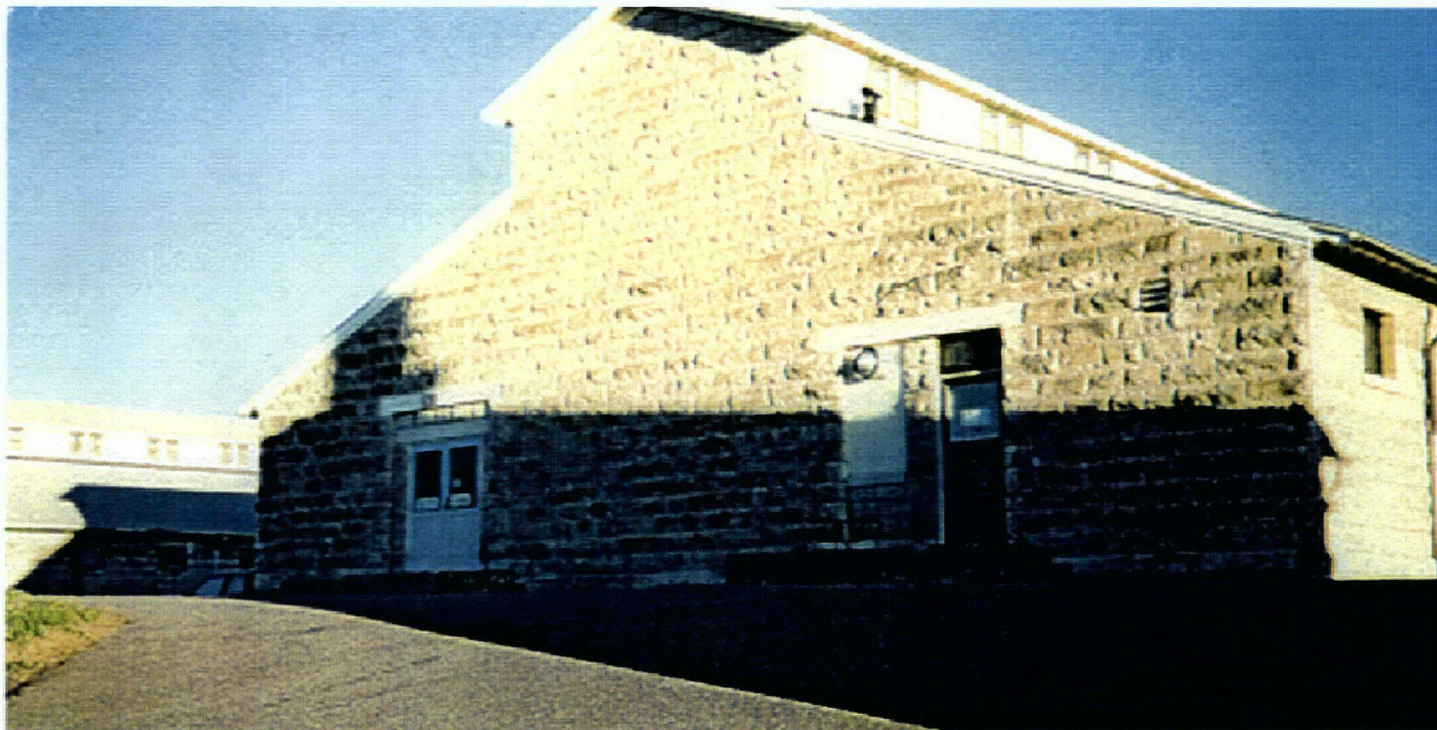
Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-045 PHOTO AND PRINT PLANTS



SITE DESCRIPTION

Use of solvents at the central print shop for Fort Riley may have resulted in contamination. One soil sample revealed low levels of chlorinated solvents (PCE, TCE, and toluene) in subsurface soils. Soil borings were advanced to bedrock and groundwater was not encountered. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

VOCs, metals

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

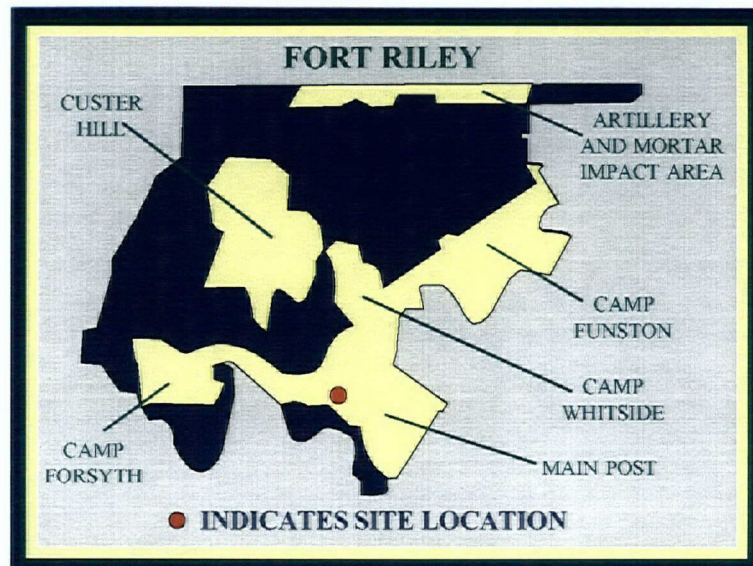
PA/SI, RI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-046 FORMER DSGS - BLDG. 1693 & ADJACENT AREAS



SITE DESCRIPTION

This former Direct Support / General Support Maintenance Facility, Building 1693 had two paint booths where the floor was sawed and removed around 1965 to install five by five foot sand infiltration pits for new floor drains. The booths were last used in 1981 and were removed Sept 1987. The floor drains have been plugged. Fifty (50) soil gas samples were collected, results yielded non-detects; 11 surface soil samples were collected. Diesel range organics exceeded KDHE standards in 5 of the samples. Soil samples from beneath the floor slabs contained chromium and lead. Three ground-water screening samples were collected from beneath the paint booths, 1,1,1-trichloroethane was detected at 98 ppb. Groundwater contamination does not appear to be related to operations at this site. See Camp Funston Groundwater Contamination, FTRI-011. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action under this site is required.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Metals

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

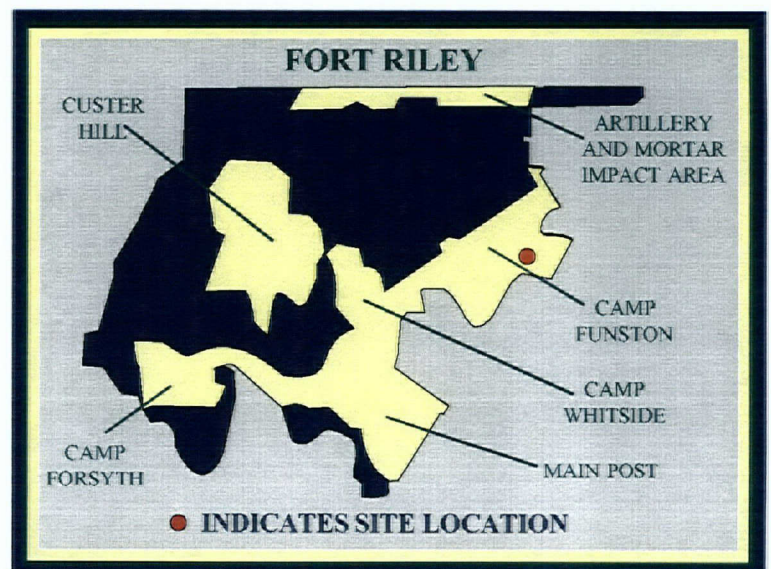
PA/SI, RI, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-047 FORMER LIVESTOCK DIPPING FACILITY



SITE DESCRIPTION

The livestock dipping facility is located near the railroad tracks and across a drainage ditch east of the Public Works (formerly DEH) yard and the PSF site. The site is depicted on old maps as 2 buildings which included several dipping vats and surrounding drying pens. It is believed this facility ended operation in about 1948 after the horse cavalry ceased to exist, although it appears on records from early 1950's. Foundations and concrete trench features remain. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

Pesticides, Metals

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

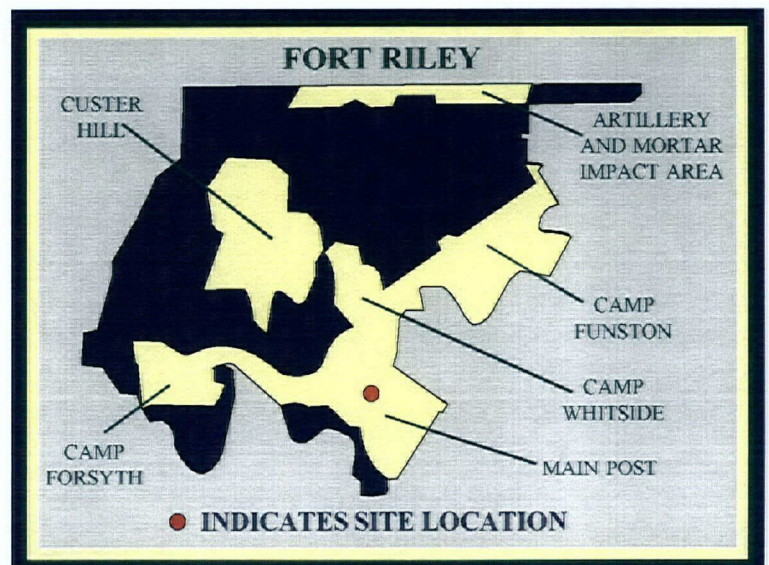
PA/SI, RI, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-048 FORMER PESTICIDE FACILITIES



SITE DESCRIPTION

Located on Custer Hill Golf Course property, these sites have been used for storage and mixing of pesticides, herbicides, and fungicides. The drainage path from a concrete vehicle wash pad which may have been used to mix pesticides is an area of concern as well as the areas surrounding the building sites. SI data revealed no contamination. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Not Evaluated

CONTAMINANTS OF CONCERN:

Pesticides, Herbicides

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

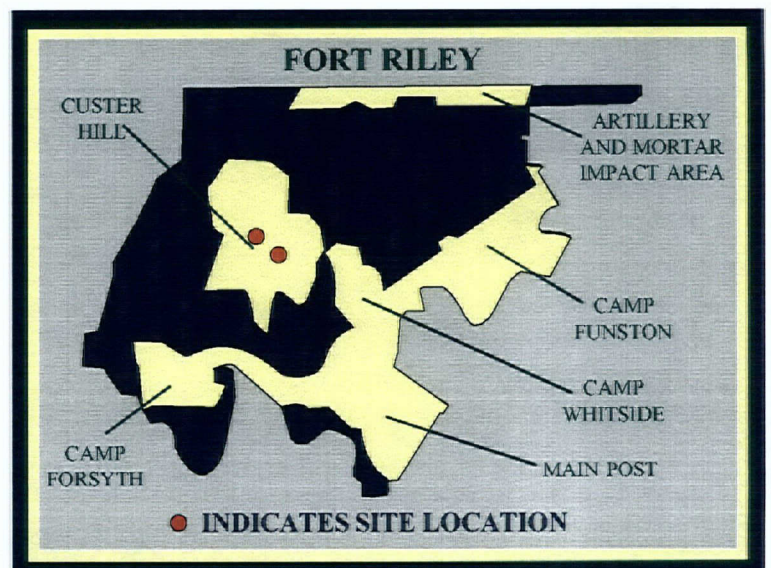
PA/SI, RI

CURRENT IRP PHASE:

Response Complete

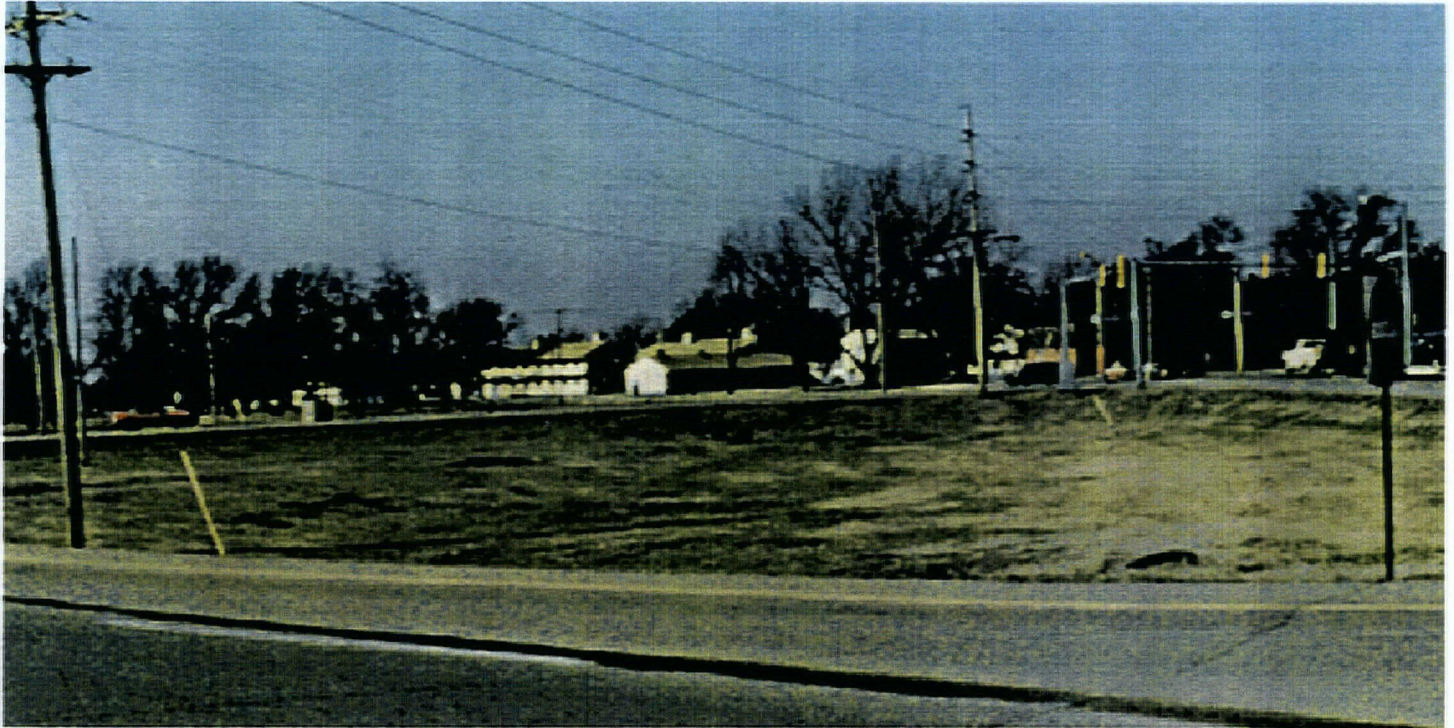
FUTURE IRP PHASE:

Response Complete



FTRI-050

PCB SPILLS AREA/TRANSFORMER SITES



SITE DESCRIPTION

Five former substations have potential for PCB contamination. The locations of the substations have been located on historic maps, but some depicted have been demolished. Some were owned and operated by a private utility. Five sites have been sampled and no detections above TSCA levels were found. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

PCBs

MEDIA OF CONCERN:

Soils

COMPLETED IRP PHASE:

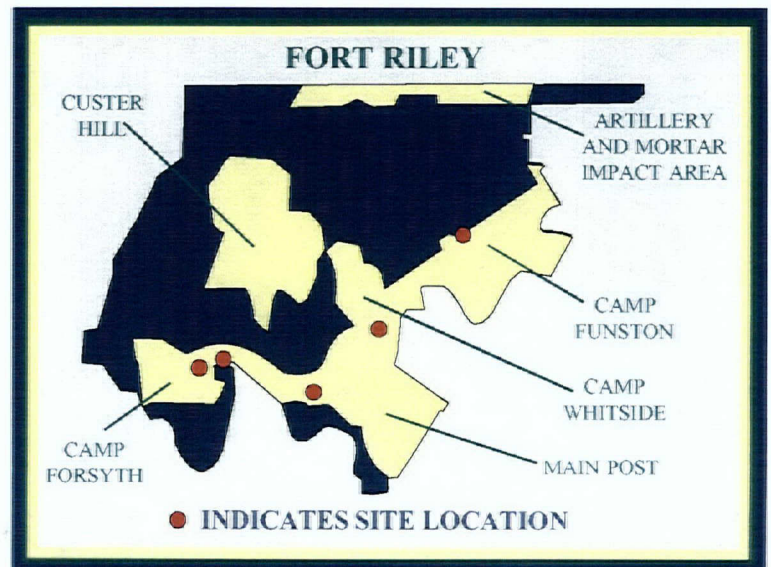
PA/SI, RI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-052 CAMP WHITESIDE - INACTIVE LANDFILLS



SITE DESCRIPTION

One portion of this site is believed to have been a C/D landfill, therefore materials placed in it are likely to be substantially non-hazardous. One area was apparently used as a dump/sanitary landfill and may have received industrial wastes. Groundwater, surface water, and sediment sampling indicate no contamination. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Not Evaluated

CONTAMINANTS OF CONCERN:

Metals, VOCs, SVOCs, Herbicides,

PCBs, Pesticides

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

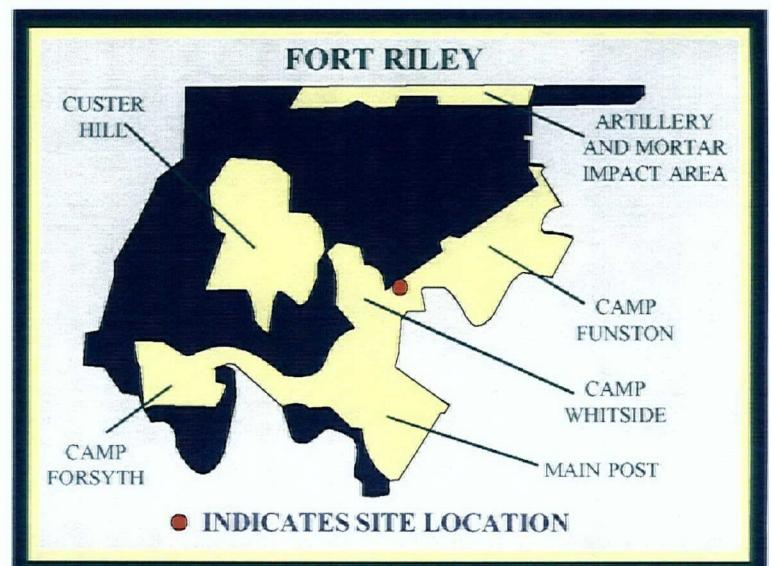
PA/SI, RI, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-055 MILFORD LAKE CAMPGROUND/MARINA WELLS



SITE DESCRIPTION

1988 sampling indicated lindane slightly above the MCL. This well was later abandoned and closed per state regulations. Regulators required that the detection be reinvestigated. Laboratory data indicates no detections in the monitoring well. The monitoring wells were closed in FY96. This site was included in FY98 Multiple Sites Decision Document as No Further Action.

PROPOSED PLAN

No further action is required at this site.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

Lindane

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

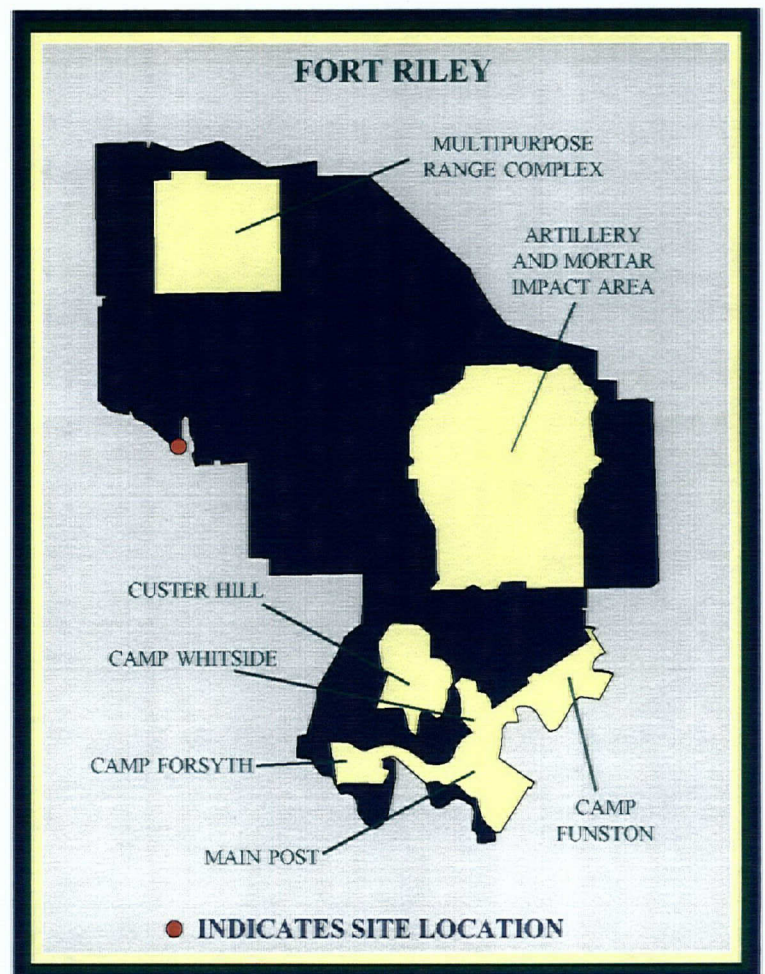
PA/SI, RI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete



FTRI-002 WHITSIDE CONSTRUCTION DEBRIS LANDFILL

SITE DESCRIPTION

This landfill is a C/D landfill. Site included in DERPMIS in 1984. Site inspection indicated nonconforming disposal practices occurred. This landfill caught fire in 1982 and again in 1988. Preliminary SI results showed some VOC detections. SI confirmatory groundwater sampling conducted in the winter of 95/96 found no detections. This site was included in FY98 Multiple Sites Decision Document as No Further Action under CERCLA. Future monitoring, if any, will be performed under RCRA subtitle D (OMA).

PROPOSED PLAN

No further action is required under the IRP

IRP STATUS

RRSE RATING: Not Applicable

CONTAMINANTS OF CONCERN:

VOCs, SVOCs, Metals, PCBs, Pesticides

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, RI, ROD

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

NO FURTHER ACTION MULTIPLE SITE INVESTIGATION SITES

As a result of a review of past practices and sites conditions in *the Installation-Wide Site Assessment*, the following sites or site groupings are determined to not have the potential to pose a risk to human health or the environment:

FTRI-028	Former Fire Training Area - Camp Funston
FTRI-033	Douthit Range (Multi-Purpose Range Complex)
FTRI-005	Custer Hill Road Rubble Dump (Construction/Demolition Debris Landfill)
FTRI-040	Former Oil Testing Laboratory, Building 1022
FTRI-049	Mercury Contamination Areas (/Use Sites)
FTRI - 042	Tactical Equipment and Maintenance Shops,
FTRI - 043	Former Gasoline Stations/ Garages,

The following sites are 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:

Wastewater Treatment Plants and Sludge Drying Beds - Clean Water Act:

FTRI-022	Former Camp Funston
FTRI-024	Camp Forsyth
FTRI-025	Main Post
FTRI-023	Custer Hill
FTRI-026	Range Complex Waste Water Lagoons - Clean Water Act
FTRI-039	Consolidated Maintenance Facility (Building 8100)- Waste Underground Storage - RCRA Subtitle I

All of the above sites have been included in the FY98 No Action/No Further Action Decision Document.

NO FURTHER ACTION MULTIPLE SITE INVESTIGATION SITES

FTRI-008 PCB Storage CONEX (Building 348)

Site decontamination performed and closure was achieved under the provisions of 40 CFR 265 in December 1990 with OMA funding. Site is not DERA eligible.

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

Underground tanks and piping were removed in 1991 and clean closure achieved following installation and sampling of groundwater monitoring wells in 1991/92

FTRI -013 Abandoned VOC Tanks North of IACH

These tanks were removed and clean closure achieved in 1991.

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. Further review of the site is pending the completion of investigations at 354 Solvent Detections (FTRI-031) site.

SUPPLEMENTAL SITE INVESTIGATIONS

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

SITE DESCRIPTION

Range 16 is where defective rounds are destroyed. Historical practices included use of solvents in an open burn area, this practice was discontinued in the early 1980s. In 1993, Low levels of solvents were detected in the groundwater, however, there are no nearby receptors. Eight surface soil, eight deep borings, two surface water and three sediment samples were collected and analyzed for explosives, VOC's, SVOC's, and uranium. Four monitoring wells were installed and sampled for the same suite of analytes. The open burn pit has not been used since approximately 1993. Groundwater sampling performed in winter 1995/96 confirmed low level VOC contamination.

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

A hand dug well (presumably part of a historic farmstead) was converted to a permanent groundwater monitoring well. In 1998, 5 surface watersamples from the ephemeral streams onsite were collected and analyzed (the results were non-detects for contaminants of concern). Additional monitoring and data collection is needed to better understand this complex site and to aid in scoping future investigation activities.

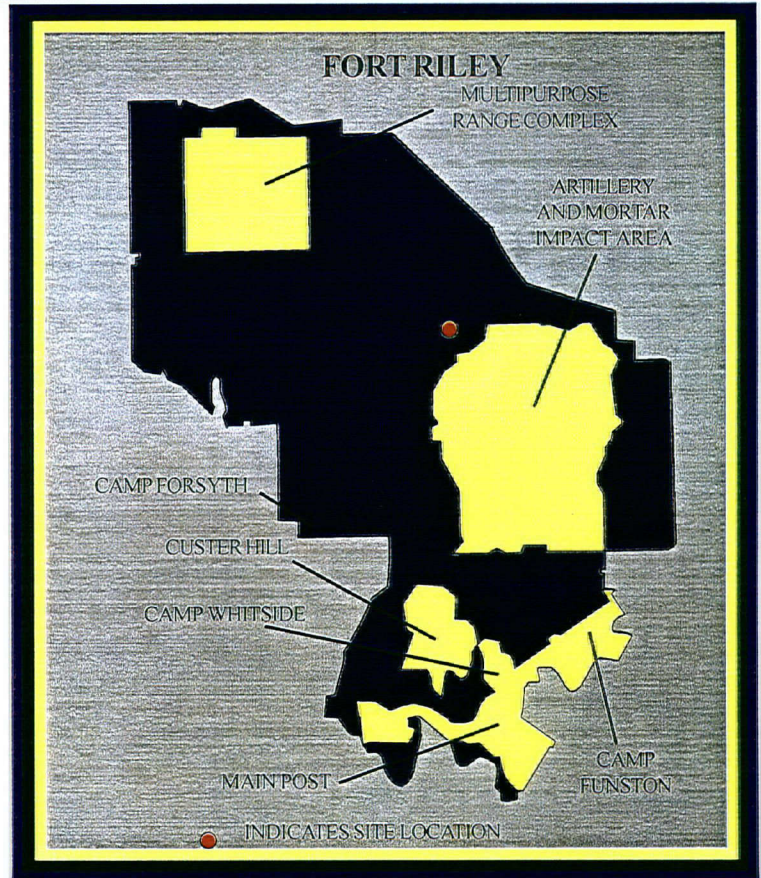
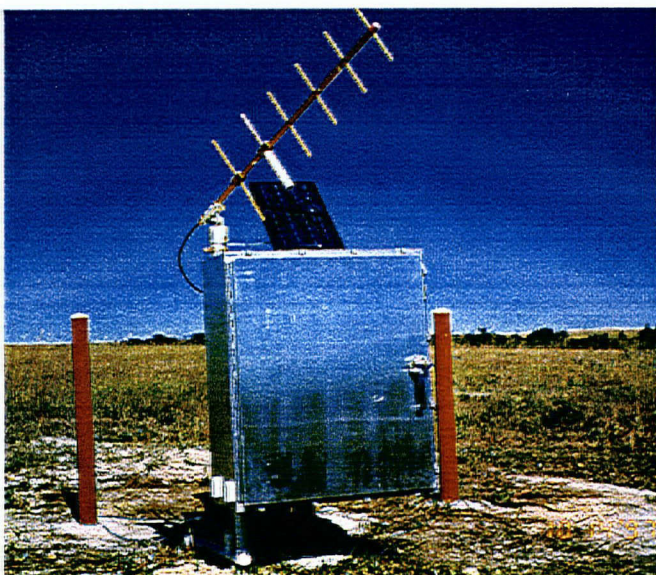
In 1998, 5 surface water samples from the ephemeral streams onsite were collected and analyzed (the results were non-detects for contaminants of concern).

Additional monitoring and data collection is needed to better understand this complex site and to aid in potential future investigation scoping activities.

PROPOSED PLAN

Additional characterization will be conducted including a preliminary risk screening (Human Health and Ecological) and evaluation of the site hydrogeology to determine future actions. Focus continued monitoring on stream flow from the site for 5 years.

Complete Kansas State University geologic characterization.



IRP STATUS

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

CONSTRAINED COST TO COMPLETE

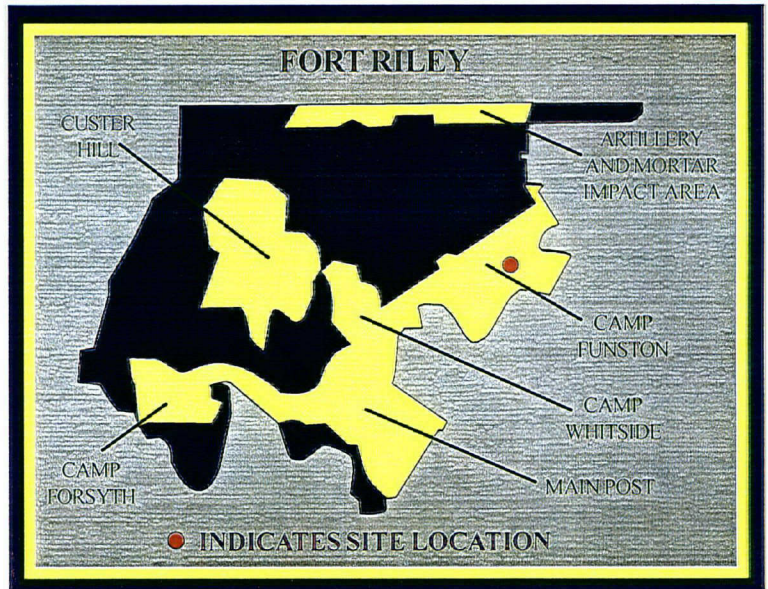
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	127	253	85	85	110	80	10
RD							
RA(C)							
RA(O)							
IRA							
LTM							

PROJECTED TOTAL: \$750,000

FTRI-011 CAMP FUNSTON GROUNDWATER DETECTIONS

SITE DESCRIPTION

For additional information, see SE Funston Landfill, DRMO Area 2, Former DSGS site and Funston area (1000 Area) POL/UST sites. Groundwater screening and monitoring well sampling data indicate apparent wide spread, but low level solvent (includes vinyl chloride) and some 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. Private wells exist in the immediate area. Sampling of the identified private wells do not show groundwater contamination. Additional groundwater monitoring wells have been installed to fill data gaps and replace abandoned monitoring wells.



PROPOSED PLAN

Focus of study is to determine whether flow across Camp Funston is likely to impact the Ogden City wells.

Maintain GIS database & characterize hydrogeology of area as well as contamination.

Perform periodic characterization monitoring. Probable Long term monitoring (expect to perform in concert with Southwest Funston Landfill and Camp Funston Groundwater Contamination monitoring as a integrated program)

This is a joint effort between the installation, Corps of Engineers and the USGS. USGS is being utilized to plan and perform GWM. USGS will plan, coordinate execution in conjunction with the Corps, evaluate data and issue reports. Inorganic tracing performed by Kansas State University will assist in understanding groundwater flow.

Chemical sampling and analyses will be performed by contractors. The Corps will review and provide QA/QC.

Should data and evaluation indicate the presence/location of a specific source or sources, additional site-specific SI's would likely be planned and executed.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

VOCs, Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI

FUTURE IRP PHASE:

ROD, LTM

CONSTRAINED COST TO COMPLETE

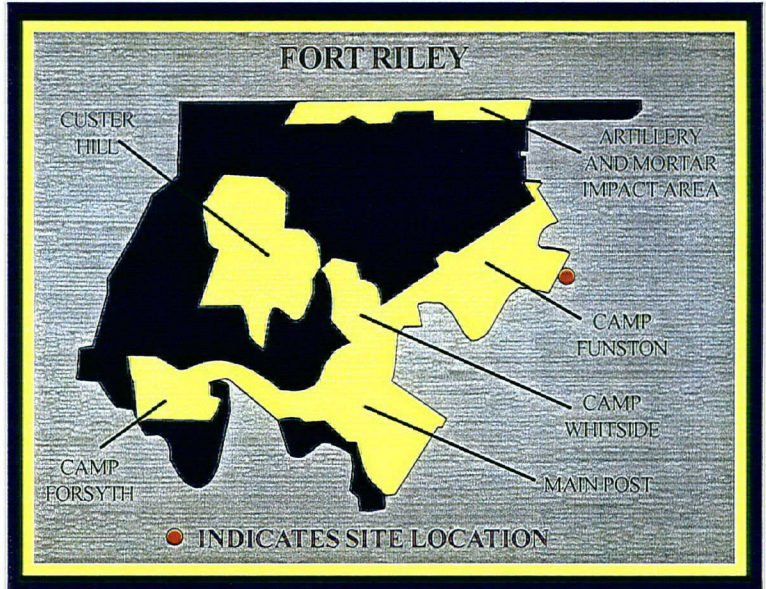
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	155	95					
RD							
RA(C)							
RA(O)							
IRA							
LTM		160	100	285			

PROJECTED TOTAL: \$775,000

FTRI-029 OLD INCINERATOR SITE SE-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 when Highway K-18 was constructed. The incinerator was abandoned in the mid 1950's or earlier. Incinerator ash with high lead content has been detected over a wide area within the approximate 10 acre site. Ten (10) of 78 surface soil sample locations analyzed by X-Ray Fluorescence (XRF) indicated high concentrations of lead (up to 5600 ppm). Additional sampling in FY97 identified three localized areas of high lead concentration. UXO has been encountered during previous investigations. An ecological risk screening was conducted in 98 showing minor risk from soil contamination. The incinerator building itself is a safety hazard (slips, trips and falls) and is being addressed by a state agency.



PROPOSED PLAN

Remove lead contaminated soil and debris. This project will be done in conjunction with the cover improvements on the SEFL (FTRI-36).

A surface sweep for UXO will be conducted.

Implement land use institutional controls.



IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Metals

MEDIA OF CONCERN:

Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI, RA

FUTURE IRP PHASE:

DM, ROD, RC

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	25						
RD							
RA(C)	210						
RA(O)							
IRA							
LTM							

PROJECTED TOTAL: \$235,000

FTRI-038 FORSYTH LANDFILL(S)

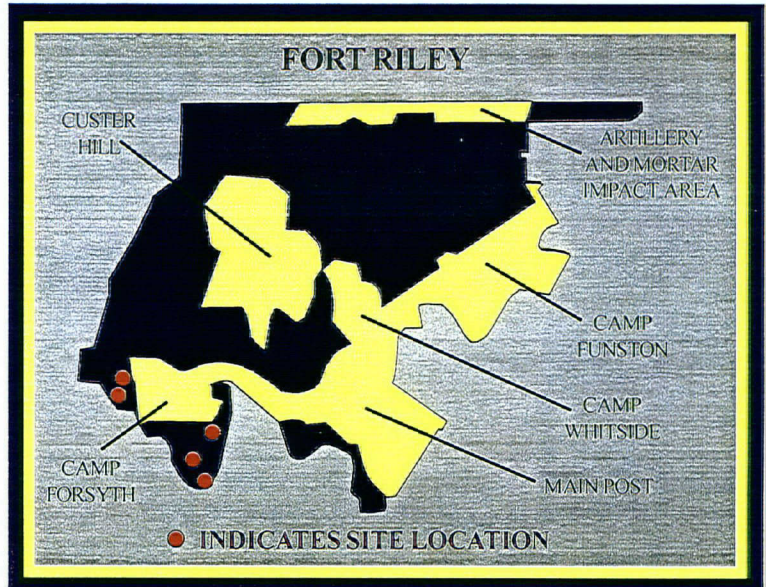
SITE DESCRIPTION

Located in areas south and west of Camp Forsyth, five separate areas have been identified as areas which have received dumping. One of these areas is present in the aerial photos taken in 1939. In 1994, soil gas and groundwater sampling did not detect any contaminants of concern. In Area 2, along the Republican River on the western side of Camp Forsyth, landfill material is exposed on the surface, in a drainage, and along the riverbank. Landfill material may include UXO. UXO was found on a sandbar adjacent to Area 2 after 1993 flooding. Landfill Areas 1, 3, 4, and 5 and the groundwater media of Area 2 are included in the Multiple Sites Decision Document as No Further Action.

In 1997, the Army entered into a license agreement to allow for pedestrian and recreational access along a specified corridor adjacent to this site.

Evaluations show that approximately a 100 ft. width of river bank along an 800 ft. section of the landfill Area 2 has been eroded by the Republican River since 1982.

In 1998, an EE/CA and design to stabilize landfill material exposed and eroding along the river bank were completed.



PROPOSED PLAN

Fort Riley proposes to implement the EE/CA design with operations and Maintenance Account (OMA) funds, thus No Further Action is required under ER,A.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Metals, Explosives

MEDIA OF CONCERN:

Soil, Surface Water

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI, RA

FUTURE IRP PHASE:

RA(O), DM, ROD

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	10						
RD							
RA(C)							
RA(O)							
IRA	500	50					200
LTM				10			20

PROJECTED TOTAL: \$790,000

FTRI-051

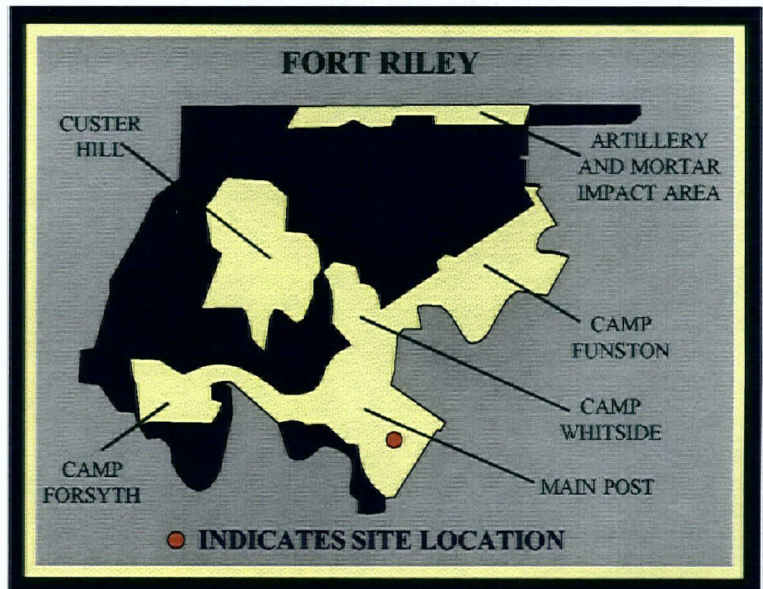
BUILDING 727 FORMER SERVICE PIT

SITE DESCRIPTION

A maintenance hanger at Marshall Field was built over a portion of a former service pit. It is reported that after the pit was taken out of service, oils and hazardous substances were dumped into the exposed portion of the pit. It was subsequently excavated and backfilled with clean soil. Soil sampling indicated very low levels of Diesel Range TPH, but levels are well below the 100 ppm interim soil clean-up standard set by KDHE in August, 1993. Metals were also detected at low concentrations. Groundwater sampling was performed in FY97 in conjunction with the Building 354-Solvent investigation. A DM was completed in FY98.

PROPOSED PLAN

No further remedial action is required.



IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

VOCs, Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI (DD)

FUTURE IRP PHASE:

Response Complete

FTRI-004 MAIN POST LANDFILL



SITE DESCRIPTION

Located in the southern area of Main Post, these dumping areas were used intermittently from approximately 1880 to the late 1940's. Only the areas which received wastes after World War II are of concern. Typical municipal, non-hazardous waste is present. Site investigations indicated low levels (below MCLs) of VOCs in the groundwater. Investigations indicate metals are not a concern in the soils. Additional groundwater monitoring was conducted as part of the Building 354 investigations in FY97. DM was completed in FY98.

PROPOSED PLAN

No further remedial action is required.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

VOCs

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

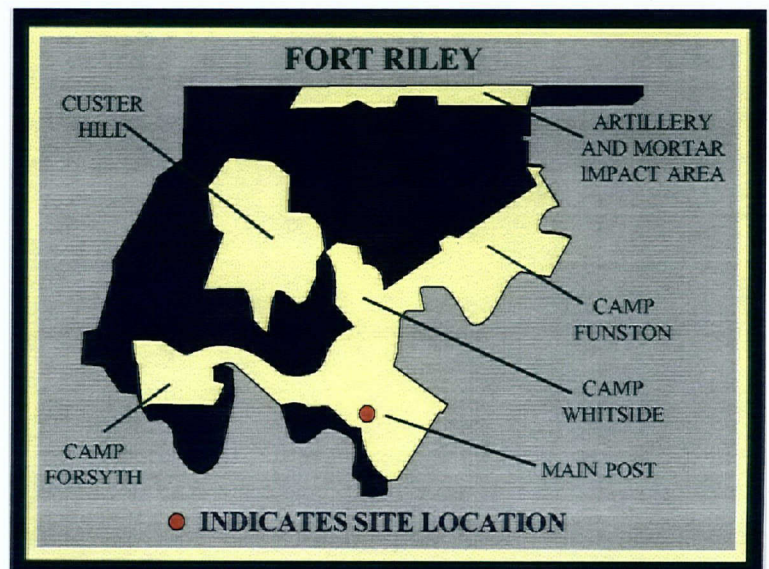
PA/SI

CURRENT IRP PHASE:

RI (DD)

FUTURE IRP PHASE:

Response Complete



POL/UST SITES

FTRI-053 POL TANK FARM

SITE DESCRIPTION

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

PROPOSED PLAN

Conduct (IRA) Free Product Recovery.

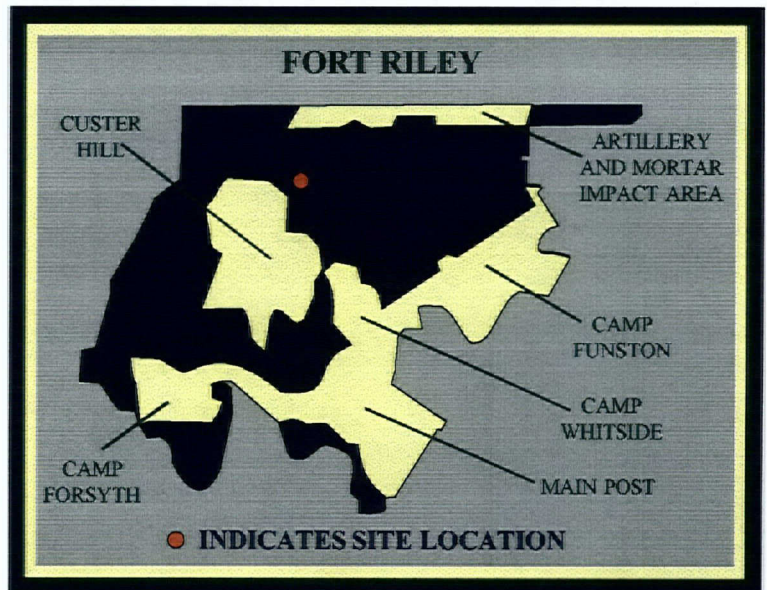
Conduct Groundwater Monitoring.

Perform additional characterization of the soil & ground-water contamination.

Shallow overburden contamination along utility trenches is expected - source removal possible.

Free product recovery (IRA) and natural attenuation are possible actions.

A Remedial Action Plan will be prepared.



IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

BTEX, PAHs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	5	6	359				
RD							
RA(C)							
RA(O)							
IRA							
LTM			110	60	60	60	360

PROJECTED TOTAL: \$1,020,000

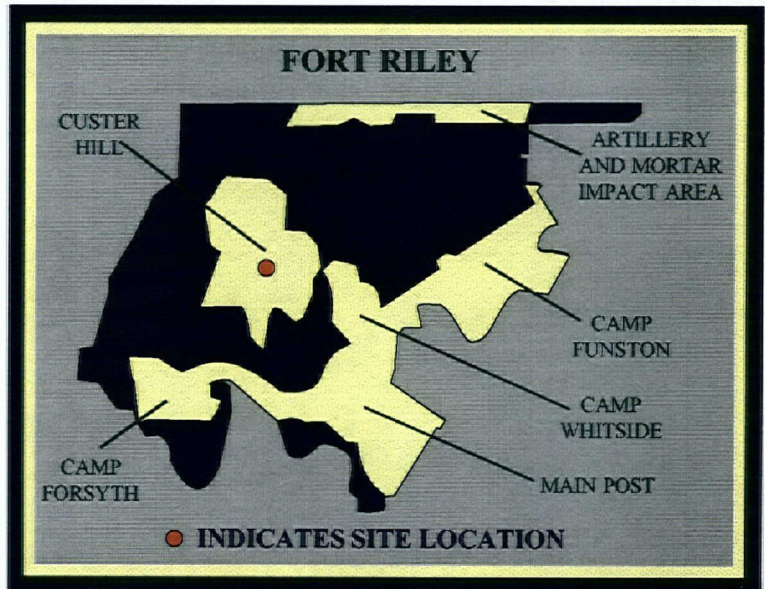
FTRI-054 CUSTER HILL PX USTs

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 ground water and low levels of BTEX in soils. Ground-water contamination in the shale formation may be impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation. A Remedial Action Plan was submitted to KDHE in 1997. KDHE has placed the site in "on hold" status pending support of "closure". Quarterly sampling was conducted in FY98.

PROPOSED PLAN

Long Term Monitoring for 5 years to support closure.



IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

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

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

Response Complete

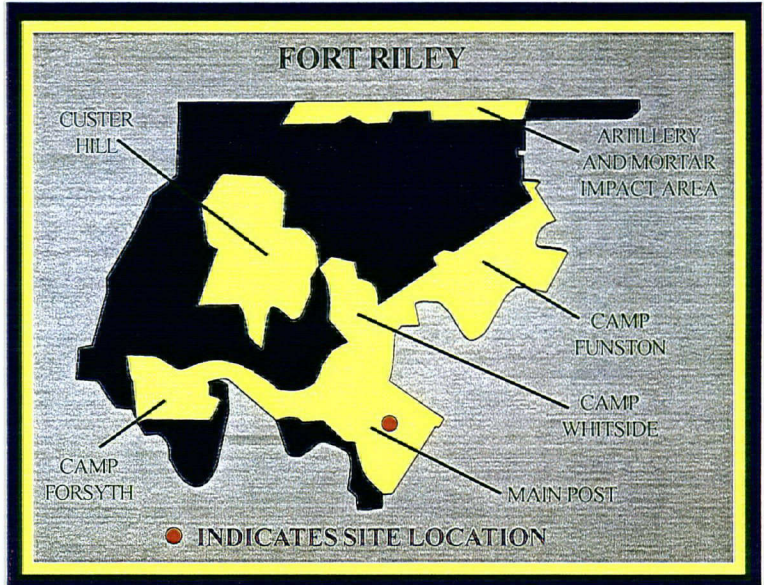
CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	2	2	2	2	2		
PROJECTED TOTAL:					\$10,000		

FTRI-056 ABANDONED GASOLINE LINE

SITE DESCRIPTION

The site consists of an abandoned 3 mile pipeline and three former underground storage tanks at the terminus. Preliminary assessment conducted by the Corps did not identify any releases along the pipeline in the areas explored. Evidence of releases were identified in terminus area. Preliminary investigation of the terminus area shows contamination in the soil and ground water. A SI was conducted in 1994. Based on the recommendations, further investigation is required. Widespread groundwater contamination not expected. A gas line location survey conducted in FY98 located the line and identified gaps in the line. Line was surveyed in. A work plan for future investigation was awarded in FY98 also.



PROPOSED PLAN

RI will include:

- Geoprobe investigation of soils. Sample for TPH, Benzene and 1,2 DCA
- Install temporary monitoring wells and conduct groundwater sampling for BTEX and 1,2 DCA
- Install 4 driven well points at terminus and sample GW for BTEX, Naphthalene and 1,2DCA
- Subsurface sampling for TPH, benzene and 1,2 DCA
- Possible removal action to excavate pipeline

LTM will include:

- Conduct quarterly sampling for one year and annual sampling for 4 years
- Abandon wells

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

BTEX, Lead

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RA, LTM

CONSTRAINED COST TO COMPLETE

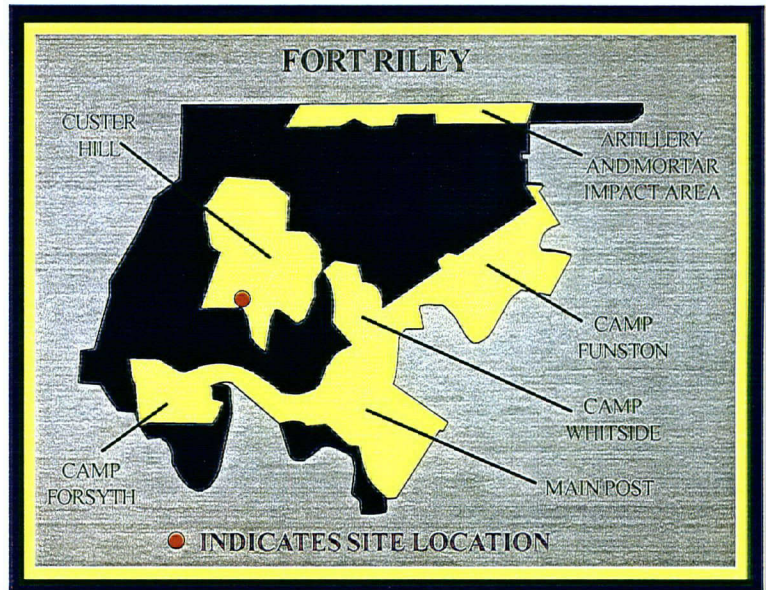
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS			300				
RD							
RA(C)			400				
RA(O)							
IRA							
LTM			50	40	85	5	50

PROJECTED TOTAL: \$930,000

FTRI-057 6200 AREA (FUEL OIL UST)

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 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. Groundwater contamination in the limestone formation may be impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation. Removal Action Report will be submitted in FY99.



PROPOSED PLAN

Tentative Groundwater Investigation Planned.

- Install Approximately 6 wells/across the site.
- Conduct GW monitoring for BTEX and PAHs.
- Complete a draft Investigation Report
- Draft a Remedial Action Plan
- Conduct quarterly sampling for one year and annual sampling for four year
- Abandon wells.

*Polynuclear
Aromatic
Hydrocarbons*

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

TPH, BTEX, PAHs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS, RA

FUTURE IRP PHASE: LTM

LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	5	145					
RD							
RA(C)							
RA(O)							
IRA	10						
LTM		90	45	45	90	5	

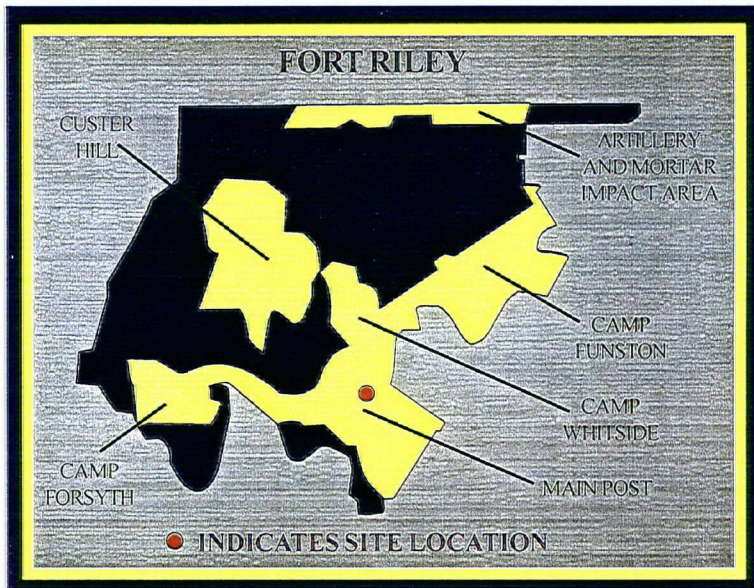
PROJECTED TOTAL: \$435,000

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, high levels of BTEX in groundwater. Soil contamination is limited. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. USTs removed April 1998. LTM initiated.



PROPOSED PLAN

Conduct Free Product Recovery.

Evaluate recovery units versus passive recovery.

Long Term Monitoring for 5 years starting FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

IRA, LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

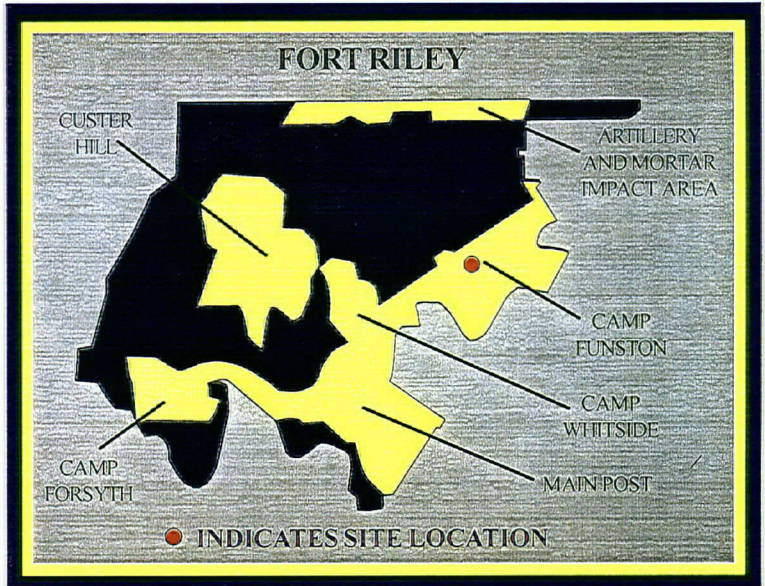
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA	10	5	5	5			
LTM	20	15	15	15			

PROJECTED TOTAL: \$90,000

FTRI-063 FORMER BUILDING 1044 DISPENSING AREA

SITE DESCRIPTION

This site is located in the northwest portion of Camp Funston. The dispensing stations dated from WWII and were used through the 1970's and 80's. The tanks were removed in early 1990's. Site investigations have found soil and groundwater contamination, including a limited amount of free product. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. LTM started in FY98.



PROPOSED PLAN

Conduct Free Product Recovery.

Evaluate recovery units versus passive recovery.

Long Term Monitoring for 5 years starting FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

IRA, LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA	10	5	5	5			
LTM	20	15	15	15			

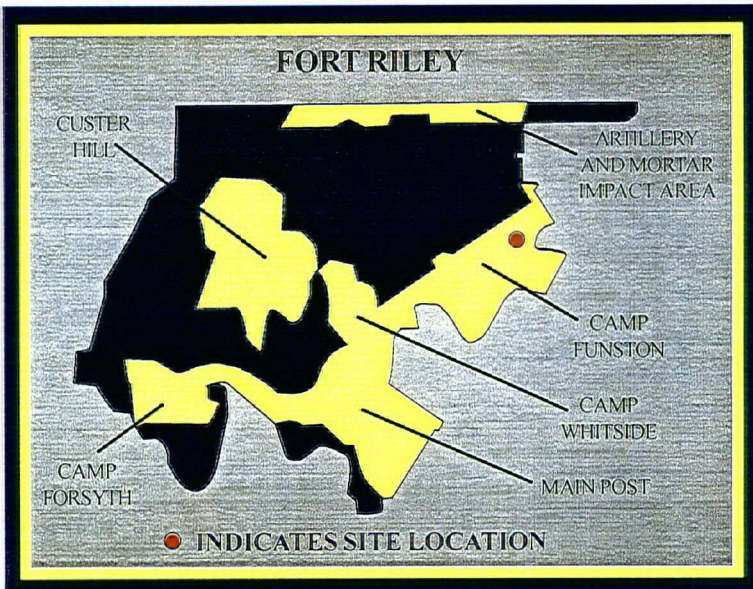
PROJECTED TOTAL: \$90,000

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 4000 feet east of this site. Five USTs were removed in the early 1990's. Site investigation results indicate 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.



PROPOSED PLAN

Long Term Monitoring for 5 years started in FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

TPH, Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

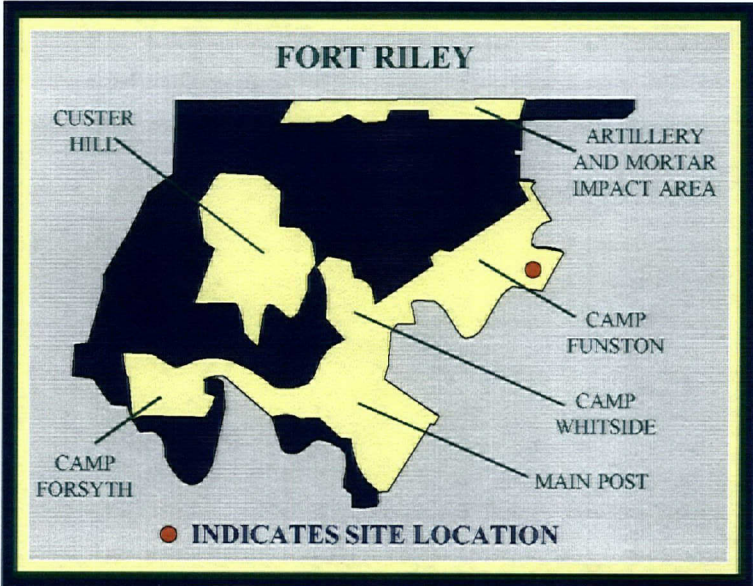
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	25	20	20	20			

PROJECTED TOTAL: \$85,000

FTRI-068 FORMER BUILDING 1637 DISPENSING AREA

SITE DESCRIPTION

This site is located in the eastern portion of Camp Funston. The dispensing stations dated from WWII and were used through the 1970's and 80's. The tanks were removed in early 1990's. Site investigations have identified moderate BTEX groundwater contamination. Migration does not appear to be occurring. Soil contamination is low (BTEX). KDHE has approved the Remedial Action Plan (RAP) for long term monitoring.



PROPOSED PLAN

Long Term Monitoring for 5 years started in FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

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

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	25	20	20	20			
PROJECTED TOTAL:					\$85,000		

FTRI-061

FORMER GAS SERVICE STATION BUILDING 354

SITE DESCRIPTION

Building 354, which was torn down in FY96, was a former gasoline service station located in the Public Works maintenance yard on Main Post. Leaks in the product fill lines and some contaminated soil were discovered during closure activities. A site investigation has been performed. Moderate POL contamination was found in a limited area, therefore, the state has placed the site in interim monitoring status for the purposes of assessing whether natural attenuation is occurring. For more site history, see 354 Solvent Site FTRI-031.

PROPOSED PLAN

Prepare Decision Document. No further remedial action is required.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

Tank Removal, PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

Response Complete

FTRI-067

FORMER BUILDING 1539 DISPENSING STATION

SITE DESCRIPTION

This site is located on the west side of Camp Funston. Dispensing stations dated from WWII and were used through 70's and 80's. The tanks removed in early 1990's. Site investigations have found low levels of BTEX in groundwater. A Remedial Action Plan for No Further Action was approved by KDHE.

PROPOSED PLAN

No further action is required.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Groundwater, Soils

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI/FS

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

FTRI-051

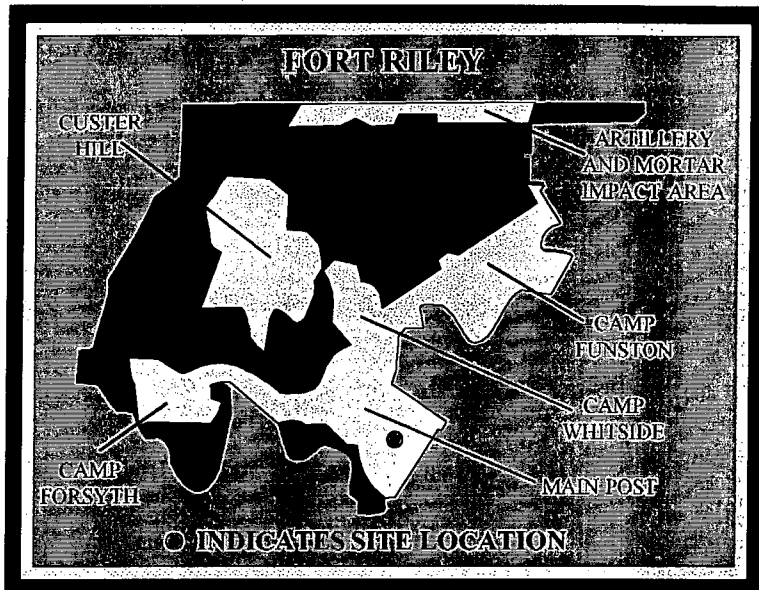
BUILDING 727 FORMER SERVICE PIT

SITE DESCRIPTION

A maintenance hanger at Marshall Field was built over a portion of a former service pit. It is reported that after the pit was taken out of service, oils and hazardous substances were dumped into the exposed portion of the pit. It was subsequently excavated and backfilled with clean soil. Soil sampling indicated very low levels of Diesel Range TPH, but levels are well below the 100 ppm interim soil clean-up standard set by KDHE in August, 1993. Metals were also detected at low concentrations. Groundwater sampling was performed in FY97 in conjunction with the Building 354-Solvent investigation. A DM was completed in FY98.

PROPOSED PLAN

No further remedial action is required.



IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

VOCs, Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

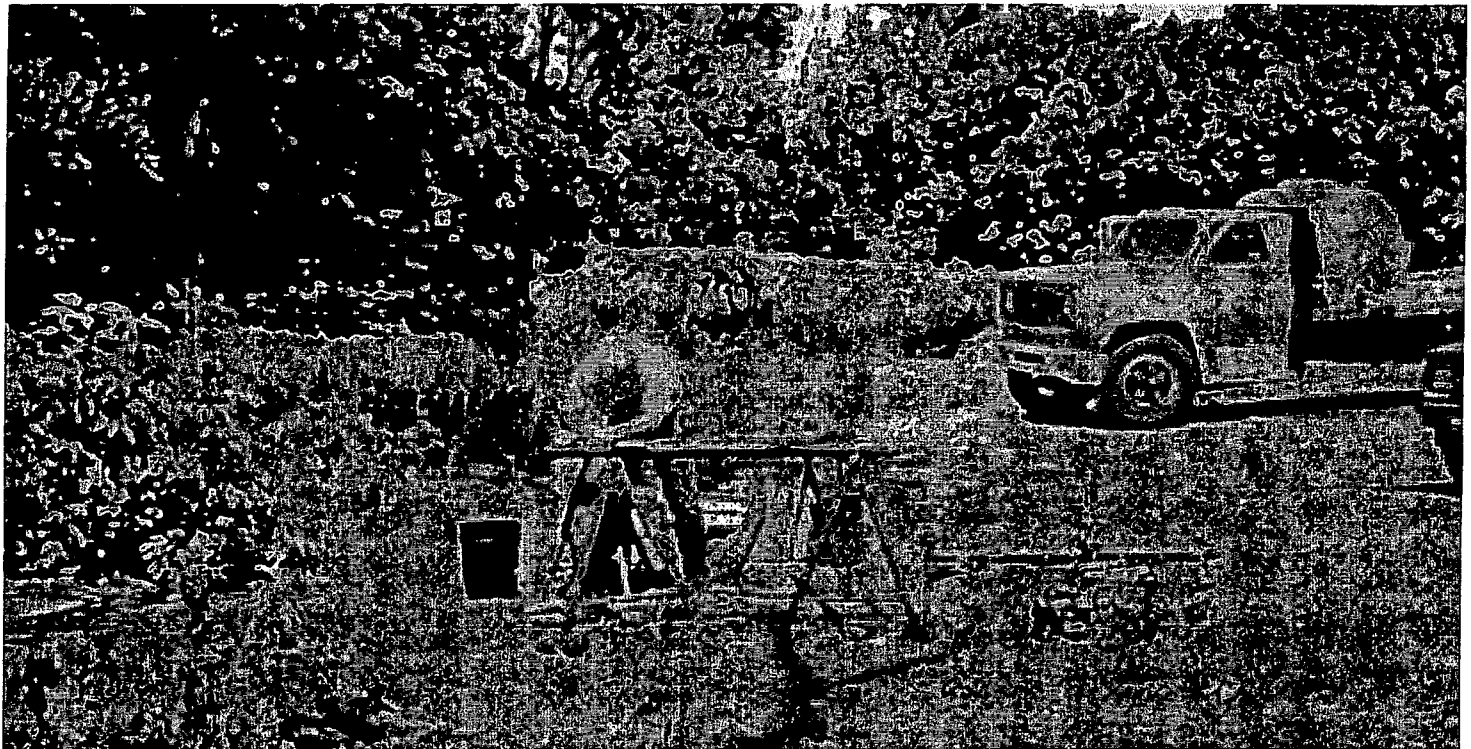
CURRENT IRP PHASE:

RI (DD)

FUTURE IRP PHASE:

Response Complete

FTRI-004 MAIN POST LANDFILL



SITE DESCRIPTION

Located in the southern area of Main Post, these dumping areas were used intermittently from approximately 1880 to the late 1940's. Only the areas which received wastes after World War II are of concern. Typical municipal, non-hazardous waste is present. Site investigations indicated low levels (below MCLs) of VOCs in the groundwater. Investigations indicate metals are not a concern in the soils. Additional groundwater monitoring was conducted as part of the Building 354 investigations in FY97. DM was completed in FY98.

PROPOSED PLAN

No further remedial action is required.

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

VOCs

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

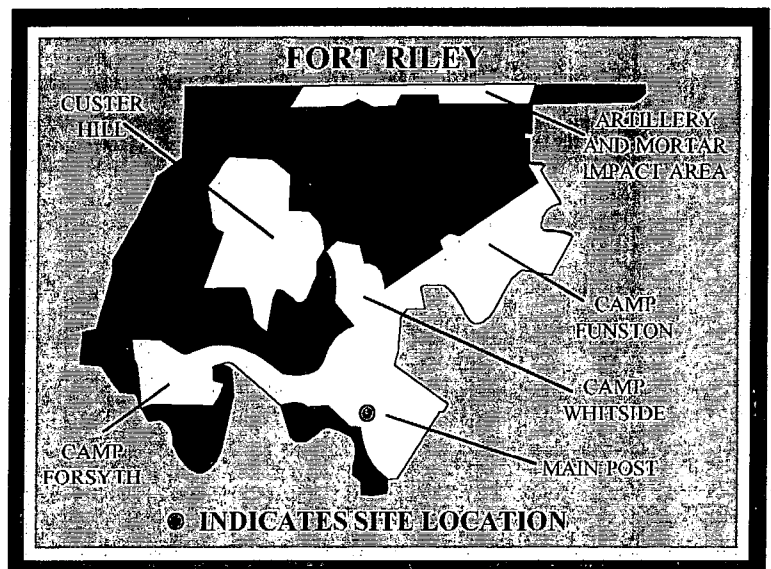
PA/SI

CURRENT IRP PHASE:

RI (DD)

FUTURE IRP PHASE:

Response Complete



FTRI-053 POL TANK FARM

SITE DESCRIPTION

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

PROPOSED PLAN

Conduct (IRA) Free Product Recovery.

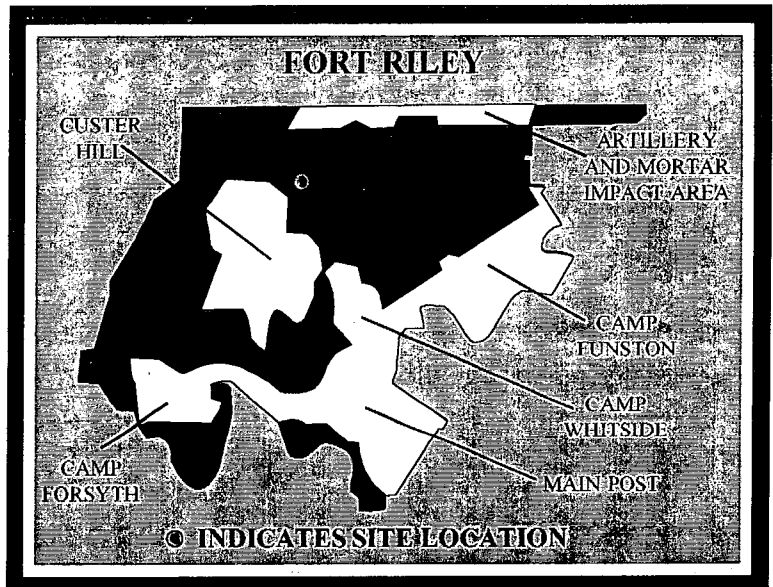
Conduct Groundwater Monitoring.

Perform additional characterization of the soil & ground-water contamination.

Shallow overburden contamination along utility trenches is expected - source removal possible.

Free product recovery (IRA) and natural attenuation are possible actions.

A Remedial Action Plan will be prepared.



IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

BTEX, PAHs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	5	6	359				
RD							
RA(C)							
RA(O)							
IRA							
LTM			110	60	60	60	360
PROJECTED TOTAL:					\$1,020,000		

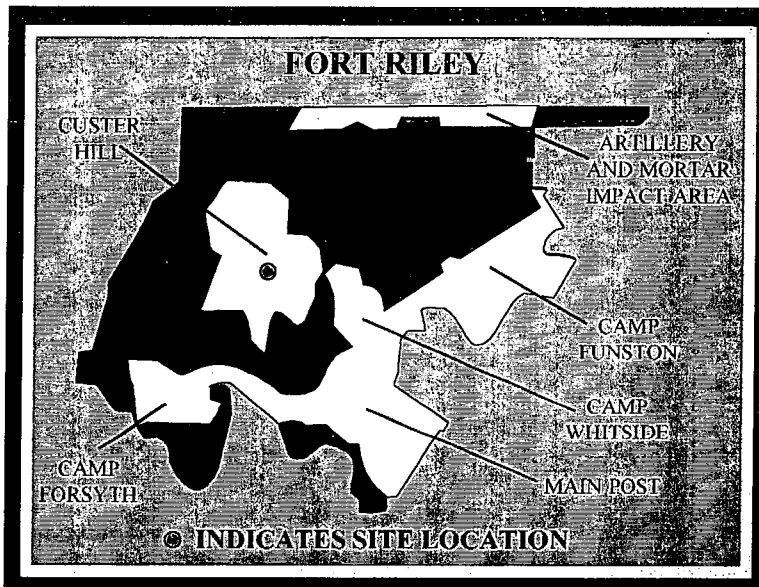
FTRI-054 CUSTER HILL PX USTS

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 ground water and low levels of BTEX in soils. Ground-water contamination in the shale formation may be impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation. A Remedial Action Plan was submitted to KDHE in 1997. KDHE has placed the site in "on hold" status pending support of "closure". Quarterly sampling was conducted in FY98.

PROPOSED PLAN

Long Term Monitoring for 5 years to support closure.



IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

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

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

Response Complete

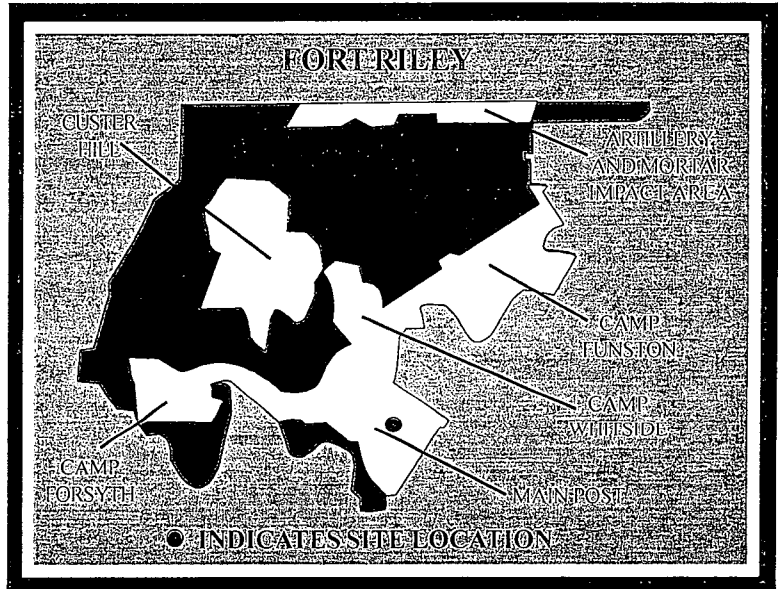
CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	2	2	2	2	2		
PROJECTED TOTAL:						\$10,000	

FTRI-056 ABANDONED GASOLINE LINE

SITE DESCRIPTION

The site consists of an abandoned 3 mile pipeline and three former underground storage tanks at the terminus. Preliminary assessment conducted by the Corps did not identify any releases along the pipeline in the areas explored. Evidence of releases were identified in terminus area. Preliminary investigation of the terminus area shows contamination in the soil and ground water. A SI was conducted in 1994. Based on the recommendations, further investigation is required. Widespread groundwater contamination not expected. A gas line location survey conducted in FY98 located the line and identified gaps in the line. Line was surveyed in. A work plan for future investigation was awarded in FY98 also.



PROPOSED PLAN

RI will include:

- Geoprobe investigation of soils. Sample for TPH, Benzene and 1,2 DCA
- Install temporary monitoring wells and conduct groundwater sampling for BTEX and 1,2 DCA
- Install 4 driven well points at terminus and sample GW for BTEX, Napthalene and 1,2DCA

- Subsurface sampling for TPH, benzene and 1,2 DCA

- Possible removal action to excavate pipeline

LTM will include:

- Conduct quarterly sampling for one year and annual sampling for 4 years

- Abandon wells

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

BTEX, Lead

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RA, LTM

CONSTRAINED COST TO COMPLETE

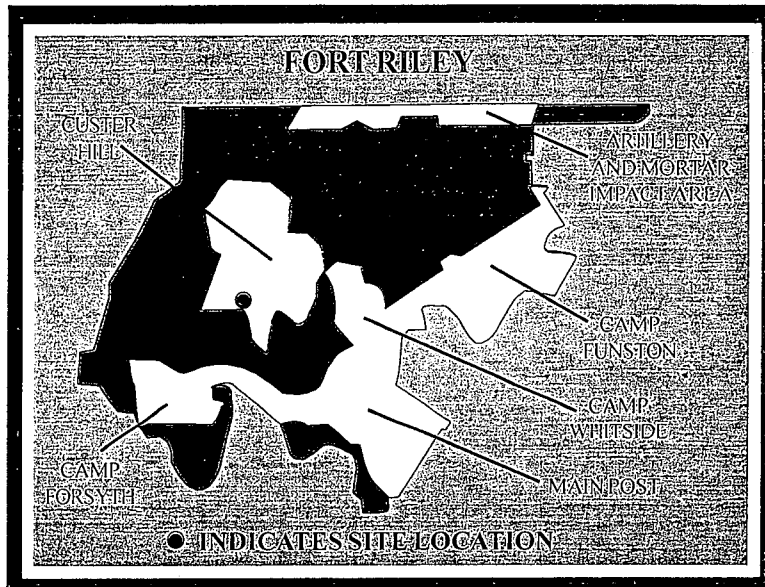
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS			300				
RD							
RA(C)			400				
RA(O)							
IRA							
LTM			50	40	85	5	50

PROJECTED TOTAL: \$930,000

FTRI-057 6200 AREA (FUEL OIL UST)

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 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. Groundwater contamination in the limestone formation may be impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation. Removal Action Report will be submitted in FY99.



PROPOSED PLAN

Tentative Groundwater Investigation Planned.

- Install Approximately 6 wells/across the site.
- Conduct GW monitoring for BTEX and PAHs.
- Complete a draft Investigation Report
- Draft a Remedial Action Plan
- Conduct quarterly sampling for one year and annual sampling for four year
- Abandon wells.

*Polynuclear
Aromatic
Hydrocarbons*

IRP STATUS

RRSE RATING: Low Risk

CONTAMINANTS OF CONCERN:

TPH, BTEX, PAHs

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS, RA

FUTURE IRP PHASE: LTM

LTM

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS	5	145					
RD							
RA(C)							
RA(O)							
IRA	10						
LTM		90	45	45	90	5	

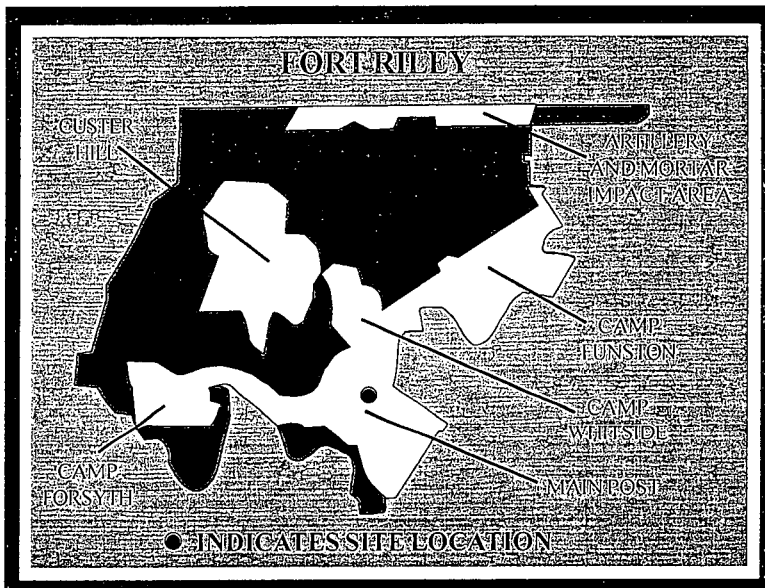
PROJECTED TOTAL: \$435,000

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, high levels of BTEX in groundwater. Soil contamination is limited. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. USTs removal April 1998. LTM initiated.



PROPOSED PLAN

Conduct Free Product Recovery.
 Evaluate recovery units versus passive recovery.
 Long Term Monitoring for 5 years starting FY98.
 After the 5 year site review, no further action is anticipated.

IRP STATUS

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

CONSTRAINED COST TO COMPLETE

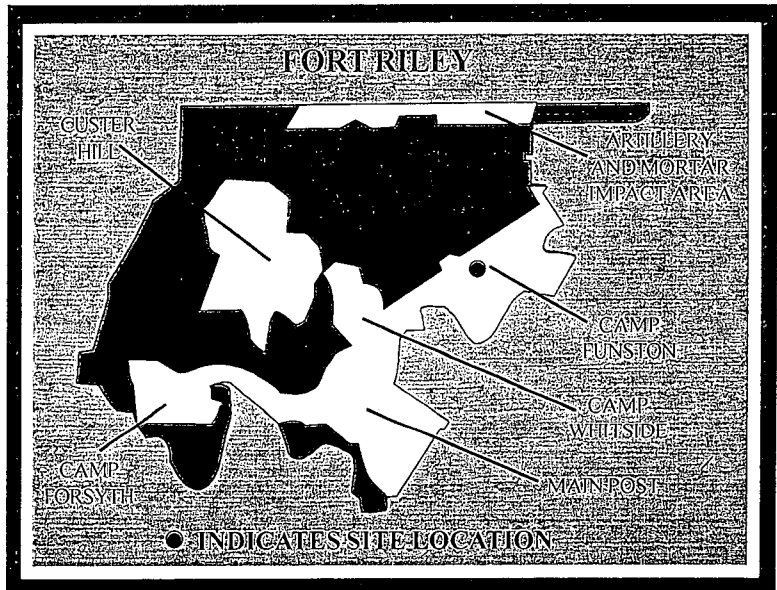
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA	10	5	5	5			
LTM	20	15	15	15			

PROJECTED TOTAL: \$90,000

FTRI-063 FORMER BUILDING 1044 DISPENSING AREA

SITE DESCRIPTION

This site is located in the northwest portion of Camp Funston. The dispensing stations dated from WWII and were used through the 1970's and 80's. The tanks were removed in early 1990's. Site investigations have found soil and groundwater contamination, including a limited amount of free product. KDHE has approved the Remedial Action Plan (RAP) for long term monitoring. LTM started in FY98.



PROPOSED PLAN

Conduct Free Product Recovery.

Evaluate recovery units versus passive recovery.

Long Term Monitoring for 5 years starting FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

IRA, LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA	10	5	5	5			
LTM	20	15	15	15			

PROJECTED TOTAL: \$90,000

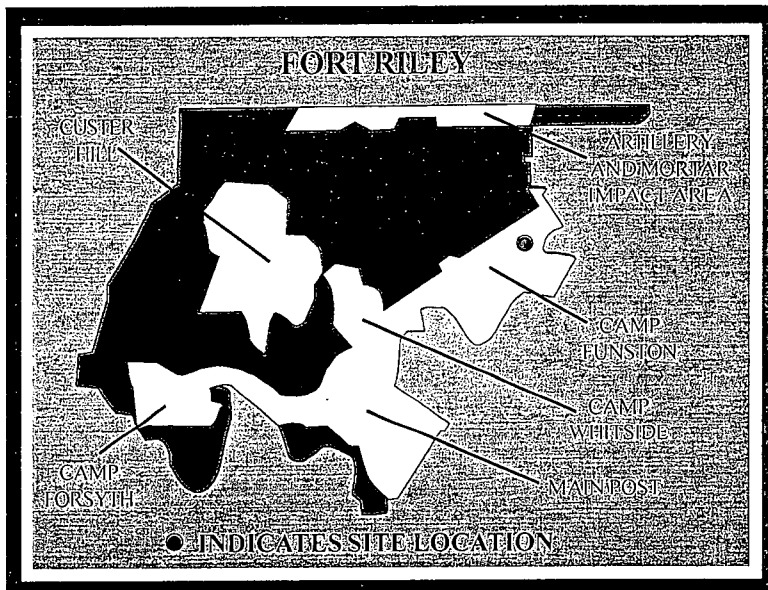
FTRI-066

FORMER BUILDING 1245 DISPENSING STATION

SITE DESCRIPTION

This site is located near the eastern boundary of Camp Funston. The city of Ogden is approximately 4000 feet east of this site. Five USTs were removed in the early 1990's. Site investigation results indicate 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.



PROPOSED PLAN

Long Term Monitoring for 5 years started in FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

TPH, Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

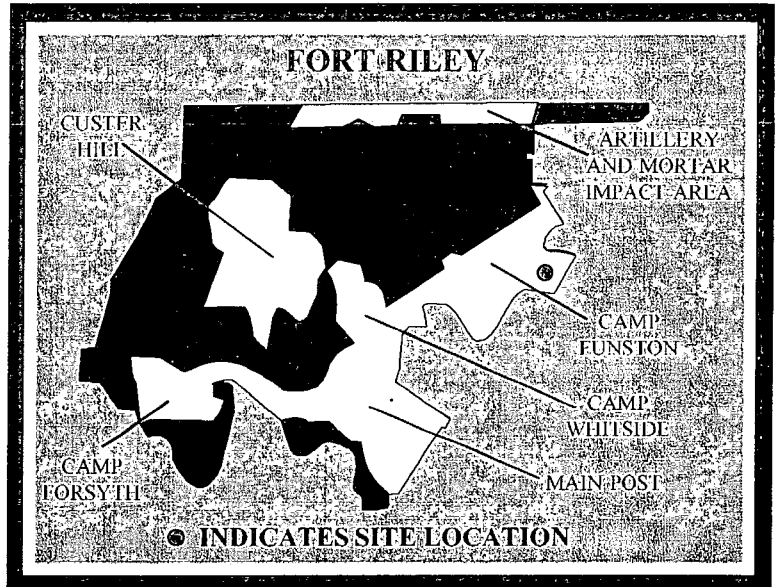
PHASE	1999	2000	2001	2002	2003	2004	2005+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	25	20	20	20			

PROJECTED TOTAL: \$85,000

FTRI-068 FORMER BUILDING 1637 DISPENSING AREA

SITE DESCRIPTION

This site is located in the eastern portion of Camp Funston. The dispensing stations dated from WWII and were used through the 1970's and 80's. The tanks were removed in early 1990's. Site investigations have identified moderate BTEX groundwater contamination. Migration does not appear to be occurring. Soil contamination is low (BTEX). KDHE has approved the Remedial Action Plan (RAP) for long term monitoring.



PROPOSED PLAN

Long Term Monitoring for 5 years started in FY98.

After the 5 year site review, no further action is anticipated.

IRP STATUS

RRSE RATING: High Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Soils, Groundwater

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

LTM

FUTURE IRP PHASE:

Response Complete

CONSTRAINED COST TO COMPLETE

PHASE	1999	2000	2001	2002	2003	2004	2005+
R/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	25	20	20	20			
PROJECTED TOTAL:					\$85,000		

FTRI-069

FORMER BUILDING 1890 DISPENSING STATION

SITE DESCRIPTION

This site is located in southwest portion of Camp Funston. The dispensing stations dated from WWII through 70's and 80's. The tanks were removed in the early 1990's. Site investigations have found low levels of BTEX in groundwater. Soil contamination is minimal. A Remedial Action Plan for No Further Action was approved by KDHE.

PROPOSED PLAN

No further action is required.

IRP STATUS

RRSE RATING: Medium Risk

CONTAMINANTS OF CONCERN:

Benzene, Toluene, Xylene

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI/FS

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

FTRI-060

MAIN POST PX GAS STATION / 218

SITE DESCRIPTION

This site is located on Main Post. Low levels of POL contamination were detected at the time of tank and piping replacement. Site investigations have identified limited amounts of BTEX and lead contaminants in ground water.

PROPOSED PLAN

No further action will be conducted under the IRP. However, this site is active and site closure will be conducted under the OMA program.

IRP STATUS

RRSE RATING: Not Applicable

CONTAMINANTS OF CONCERN:

TPH, Benzene, Toluene, Xylene, Lead

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

Tank Removal, PA/SI, RI

CURRENT IRP PHASE:

Response Complete

FUTURE IRP PHASE:

Response Complete

FTRI-059, FTRI-064, FTRI-065, FTRI-070, FTRI-071, FTRI-072, FTRI-073

SITE DESCRIPTION

Dispensing stations dating from WWII through 70's and 90's. Tanks were removed in the early 1990's. Site investigations have been completed. No further action is required at the following sites:

- FTRI-059 Remove USTs
- FTRI-064 Former Building 1090 Dispensing Station
- FTRI-065 Former Building 1190 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

PROPOSED PLAN

No further action is required at these sites.

IRP STATUS

RRSE RATING: Not Evaluated
CONTAMINANTS OF CONCERN:
TPH, Benzene, Toluene, Xylene
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
Tank Removal, PA/SI, RI
CURRENT IRP PHASE:
Response Complete
FUTURE IRP PHASE:
Response Complete

SCHEDULE

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 Signature

IAG - Fort Riley Signature

1991

IAG - EPA Region VII Signature

IAG - KDHE Signature

IAG Effective Date

1993

PA/SI - Installation Wide Site Assessment

SI/SA - FTRI-032, Impact Zone

SI/SA - FTRI-001, Custer Hill Landfill

RI/FS - FTRI-030, Pesticide Storage Facility

PA/SI - FTRI-027, Dry Cleaning Facilities

1994

RI/FS Reports Completed - FTRI-003, SW Funston Landfill (SFL)

REM - FTRI-035 (Excavation of lead contaminated soils, Colyer Manor)

REM - FTRI-030 PSF (Excavation of pesticide contaminated soils)

IRA - FTRI-003 SFL (River bank stabilization and cover repair/improvements) (FY 94-96)

IRA - FTRI-027 DCF (Sewer line replacement- OMA funded) (FY 94-96)

1995

REM - FTRI-019 MAAF-FFTA (Soil vapor extraction & bioventing pilot study)

REM - FTRI-027 (Soil vapor extraction pilot study)

RI/FS - FTRI-019 MAAF-FFTA Site Investigation Report

1996

ROD - FTRI-003, SW Funston Landfill

1997

RI/FS Work Plan - FTRI-019 (MAAF-FFTA)

RI Addendum - FTRI-030, Pesticide Storage Facility

PP - FTRI-030 (PSF)

NFA - FTRI-067 and FTRI-069

RAB formation

ROD - FTRI-030, Pesticide Storage Facility

SI - FTRI-006 (DRMO & Wherry)

IRA - FTRI-019 (MAAF-FFTA) Exposure Control EE/CA

RAP - FTRI-054, -063, -066, -068

LTM/LTO - Institutional Control Plan SFL (FTRI-003)

1998

DD - FTRI-various (Multi-Sites and DRMO)

RI Addendum/FS - FTRI-027 Dry Cleaning Facilities

RI/FS - IFI Former Building 354 Solvent Detection (FTRI-031)

LTM - FTRI-054, -063, -066, -068

RA - FTRI-019 (FFTA-MAAF) Exposure Control EE/CA

SI - Addendum Report FTRI-009 (OB/OD)

SI - Addendum Report FTRI-029 (SEFL)

1998

RA- EE/CA, Design SEFL (FTRI-029 & FTRI-036)
PP - DCF (FTRI-027)
RA - FTRI-038 (Forsyth) Bank Stabilization, EE/CA, Design, Action Memo (FY98-99)
DD - FTRI-004 (MPLF), -051 (727), and multiple UST sites
LTM - Annual Report SFL (FTRI-003)
RI - Annual Report Camp Funston GW (FTRI-011)

FUTURE MILESTONES**1999**

LTM - FTRI-003 Southeast Funston Landfill
RI/FS - FTRI-009 OB/OD
RI/FS - FTRI-011 Camp Funston GW Detections
RI/FS - FTRI-019 Old Fire Training Area-Marshall Army Airfield
RI/FS - FTRI-027 Dry Cleaning Facilities Area
RI/FS, RA - FTRI-029 Old Incinerator Site SE-Camp Funston
RI/FS - 031 Building 354 Area Solvent Detections
RA - FTRI-036 Southeast Funston Landfill
RI/FS, IRA - FTRI-038 Forsyth Landfill(s)
RI/FS - FTRI-053 POL Tank Farm
LTM - FTRI-054 Custer Hill PX USTs
RI/FS, IRA - FTRI-057 6200 Area UST
IRA, LTM - FTRI-062 TMP Gas Station (Bldg 388)
IRA, LTM - FTRI-063 Former Building 1044 Dispensing Area
LTM - FTRI-066 Former Building 1245 Dispensing Station
LTM - FTRI-068 Former Building 1637 Dispensing Area

2000

LTM - FTRI-011 Camp Funston GW Detections
LTM - FTRI-027 Dry Cleaning Facilities Area
LTM - FTRI-057 6200 Area UST

2001

RD - FTRI-027 Dry Cleaning Facilities Area
LTM - FTRI-053 POL Tank Farm
RA, LTM - FTRI-056 Abandoned Gasoline Line

2002

RA - FTRI-27 Dry Cleaning Facilities Area
RA(O) - FTRI-036 Southeast Funston Landfill

2003

RD - FTRI-019 Old Fire Training Area-Marshall Army Airfield
LTM - FTRI-031 Building 354 Area Solvent Detections

2004

RA - FTRI-019 Old Fire Training Area-Marshall Army Airfield

2005

LTM - FTRI-019 Old Fire Training Area-Marshall Army Airfield

NO FURTHER ACTION SITES

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

FTRI-001	CUSTER HILL SANITARY LANDFILL
FTRI-002	WHITSIDE CONSTR. DEBRIS LANDFILL-ACTIVE
FTRI-004	MAIN POST LANDFILL
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP
FTRI-006	DRMO STORAGE AREA

NO FURTHER ACTION SITES (continued)

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-IRWIN ACH
FTRI-015	FORMER DRMO LOCATION (DRMO AREA 2)
FTRI-016	WASTE OIL AST-3RD BATTERY
FTRI-017	WASTE OIL AST-4TH BATTERY
FTRI-018	ACTIVE FIRE TRAINING AREA
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	FRMR DSGS - BLDG 1693 AND ADJACENT AREAS
FTRI-047	FORMER LIVESTOCK DIPPING FACILITY
FTRI-048	FORMER PESTICIDES FACILITIES
FTRI-049	MERCURY CONTAMINATION AREAS
FTRI-050	PCB SPILL AREAS /TRANSFORMER SITES
FTRI-051	BUILDING 727 FORMER SERVICE PIT
FTRI-052	INACTIVE LANDFILLS - CAMP WHITSIDE
FTRI-055	MILFORD LAKE CAMPGROUND/MARINA WELLS
FTRI-059	REMOVE USTS
FTRI-060	MAINPOST PX GAS STATION / 218
FTRI-061	FORMER GAS SERVICE STATION BLDG 354
FTRI-064	FMR BLDG 1090 DISPENSING STATION
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

Fort Riley IRP Schedule

(Based on current funding constraints)

		Completed Phase		Underway Phase			Future Phase	
		FY99	FY00	FY01	FY02	FY03	FY04	FY05+
FTRI-003	LTM							
	LTO							
FTRI-009	RI/FS							
FTRI-011	RI/FS							
	LTM							
FTRI-019	RI/FS							
	RD							
	RA							
	LTM							
FTRI-027	RI/FS							
	RD							
	RA							
	RA(O)							
	LTM							
FTRI-029	RI/FS							
	RA							
FTRI-030	LTM							
FTRI-031	RI/FS							
	LTM							
FTRI-036	RA							
	RA(O)							
FTRI-038	RI/FS							
	IRA							
	RA(O)							
FTRI-053	RI/FS							
	LTM							
FTRI-054	LTM							

Fort Riley IRP Schedule

(Based on current funding constraints)

		Completed Phase		Underway Phase			Future Phase	
		FY99	FY00	FY01	FY02	FY03	FY04	FY05+
FTRI-056	RI/FS							
	RA							
	LTM							
FTRI-057	RI/FS							
	IRA							
	LTM							
FTRI-062	IRA							
	LTM							
FTRI-063	IRA							
	LTM							
FTRI-066	LTM							
FTRI-068	LTM							

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Installation Phase Summary Report

12/16/98

Installation: FORT RILEY

Programs:

BRAC I, BRAC II, BRAC III, BRAC IV, IRP

Subprograms:

Compliance, Restoration

Installation count for Programs:

1

NPL Options:

Delisted, No, Proposed, Yes

Installations count for Programs and NPL:

1

Site count for Programs and NPL:

71

Phase / Status / Sites

	PA				SI			
C	U	F	RC		C	U	F	RC
71	0	0	4		65	0	0	16
	RI / FS				RD			
C	U	F	RC		C	U	F	
33	9	0	27		4	2	3	
	RA(C)				RA(O)			
C	U	F	RC		C	U	F	RC
13	0	6	12		0	1	3	0
	LTM							
			C	U	F	N		
			0	6	7	58		

Remedy / Status / Sites (Actions)

	IRA				
C		U		F	
	14 (18)		1 (1)		1 (1)
	FRA				
C		U		F	
	16 (13)		0 (0)		6 (7)

RIP Total: 1
RC Total: 59

Reporting Period End Date: 09/30/1998

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM
RISK INSTALLATION ACTION PLAN REPORT**

12/16/199

Installation: FORT RILEY
Major Command: FORSCOM
SubCommand:

Site	RRSE	Media Evaluated	Phase (s) Completed	Phase (s) Underway	Phase #IRA (s) Future	#IRA Completed	#IRA Underway	#IRA Future	LTM Status	Est. RC	Act. RC	RIP
										Date	Date	Date
FTRI-001	NE		PA						N	199308		
FTRI-002	3A	GW	RI SI PA						N	199803		
FTRI-003	1A	GW	RI SI PA	RAO					U	201409		199709
FTRI-004	3A	GW	SH SL RAC RD RI SI PA						N	199712		
FTRI-005	NE		RI SI PA						N	199305		
FTRI-006	3A	SL	PA						N	199809		
FTRI-007	NE		RI SI PA						N	198909		
FTRI-008	NE		SI PA						N	199012		

FTRI-009	2A	GW	RAC RD SI PA	RI	N	200509
		SH SL WH	SI			
FTRI-010	NE		PA		N	199204
			RAC RD SI PA			
FTRI-011	1A	GW	PA	RI	F	200009
			SI PA			
FTRI-012	3A	GW	PA		N	199509
			RI SI PA			
FTRI-013	NE		PA		N	199202
			RAC RD SI PA			
FTRI-014	NE		PA		N	198909
			SI PA			
FTRI-015	2A	GW	PA		N	199509
			RI SI PA			
FTRI-016	NE		PA		N	198909
			SI PA			
FTRI-017	NE		PA		N	198909
			SI PA			
FTRI-	NE		PA		N	198909

018			SI									
FTRI-019	1A	GW	PA	RI	RAC	2	1	1	F	201309	201210	
		SL	SI		RAO							
		RD										
FTRI-020	2A	GW	PA						N	199803		
			RI									
			SI									
FTRI-022	NE		PA						N	199305		
			SI									
FTRI-023	NE		PA						N	199305		
			SI									
FTRI-024	NE		PA						N	199305		
			SI									
FTRI-025	NE		PA						N	199305		
			SI									
FTRI-026	NE		PA						N	199305		
			SI									
FTRI-027	1A	GW	PA	RI	RAC	1			F	200712	200302	
		WH	SI		RAO							
			RD									
FTRI-028	NE		PA						N	199309		
			RAC									
			RI									
			SI									
FTRI-029	2A	SL	PA	RD	RAC				N	199912		
			RI									
			SI									
FTRI-	3A	GW	PA			1			N	199803		

030									
FTRI-031	1A	SH SL GW	RI SI PA	RI			F	200209	
FTRI-032	2A	SL GW	SI PA				N	199309	
FTRI-033	NE	WH	RI SI PA				N	199305	
FTRI-034	NE		SI PA				N	199612	
FTRI-035	2A	SL	SI PA			1	N	199503	
FTRI-036	2A	GW	RI SI PA	RD	RAC		N	199912	
FTRI-037	2A	SL	RI SI PA				N	199507	
FTRI-038	2A	GW SL	RI SI PA SI	RI	RAC RAO RD		N	201204	200203
FTRI-039	NE		PA				N	199305	
FTRI-040	NE		SI PA				N	199305	
FTRI-041	NE		PA				N	199507	

FTRI-042	NE		RI SI PA	N	199305
FTRI-043	NE		PA	N	199305
FTRI-044	NE		PA	N	199509
FTRI-045	3A	SL	SI PA	N	199507
FTRI-046	2A	GW	RI SI PA	N	199507
FTRI-047	3A	SL	RI SI PA	N	199507
FTRI-048	NE		RI SI PA	N	199507
FTRI-049	NE		RI SI PA	N	199305
FTRI-050	3A	SL	RAC PA	N	199803
FTRI-051	3A	SL	RI SI PA	N	199809
FTRI-052	NE		RI SI PA	N	199507
			RI		

FTRI-053	1B	GW	SI PA	RI			F	200108
FTRI-054	3B	SL GW	SI PA			1	U	199709
FTRI-055	3A	GW	RI SI PA				N	199507
FTRI-056		2B GW	SI PA	RI	RAC		F	200112
FTRI-057		3B SL	SI PA	RI		1	F	200010
FTRI-059		NE	SI PA RAC				N	199012
FTRI-060		3B GW	PA			1	N	199506
FTRI-061		2B GW	SI PA			2	N	199510
FTRI-062		1B GW	SI PA			1	U	199710
FTRI-063		1B GW	RI SI PA			2	U	199710
FTRI-064		NE	RI SI PA RAC				N	199504
FTRI-065		NE	RI SI PA RAC				N	199504
FTRI-066		1B GW	RI SI PA			1	U	199708

FTRI-067	2B GW SL	PA RI SI	1	N	199708
FTRI-068	1B GW SL	PA RI SI	2	U	199708
FTRI-069	2B GW SL	PA RI SI	1	N	199708
FTRI-070	NE	PA RAC SI		N	199502
FTRI-071	NE	PA RAC SI		N	199508
FTRI-072	NE	PA RAC SI		N	199508
FTRI-073	NE	PA RAC SI		N	199504

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;

Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

Reporting Period End Date: 09/30/1998

REM/IRA/RA ASSESSMENT

PAST REM/IRA/RA

Dry Cleaning Facility (FTRI-024) - 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 VOC's. 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, pilot test removed much of the soil contamination.

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

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

Marshall Army Airfield -Former Fire Training Area (FTRI-019) - FY94/95

Total Construction Cost = \$900,000

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

Numerous UST Removals

Total Construction Cost = \$1,500,000

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

Southwest Funston Landfill Landfill (FTRI-003) - FY94/96

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 Q 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 and RA(O) were initiated at the site in FY96.

Pesticide Storage Facility (FTRI-030) - FY94

Total Construction Cost = \$788,000

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

PAST REM/IRA/RA (continued)

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)

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.

CURRENT REM/IRA/RA

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

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

Another EE/CA is being prepared to evaluate technologies and develop alternatives appropriate to address the high concentrations in the groundwater plume as an interim action.

Forsyth Landfill Area 2 (FTRI-038) - FY98

An IRA is being conducted and includes river bank stabilization and erosion control (eroding material has included UXO).

Southeast Funston Landfill (FTRI-036) - FY98

Due to subsidence of the fill material, an IRA will be conducted to repair the cover.

USTs - FY98

LTM will be conducted at five POL UST sites.

Old Incinerator Site SE-Camp Funston (FTRI-029) - FY99

RA

Southeast Funston Landfill - Inactive (FTRI-036) - FY99

RA

Forsyth Landfill(s) (FTRI-038) - FY99

IRA

6200 Area (Fuel Oil) UST (FTRI-057) - FY99

IRA

FUTURE REM/IRA/RA

Camp Funston GW Detections (FTRI-011) - FY00

LTM to monitor potential migration to the City of Ogden's municipal well field.

Marshall Army Airfield - Former Fire Training Area (FTRI-019) - FY03-10

Options being considered include in-situ treatment (i.e. air sparging, potassium permanganate, treatment wall, etc.). LTM is expected to be necessary until 2034.

Dry Cleaning Facilities Area (FTRI-027) - FY01-07

LTM for assessing natural attenuation of the contaminants in the ground water.

Abandoned Gasoline Line (FTRI-056) - FY01

INNOVATIVE MEANS TO EXPEDITE THE STUDY PROCESS TO RA PHASE

- **Partnering with the regulators and the RAB Community co-chair through an IAP Development Workshop.**
- **With concurrence between the signatories of the IAG, perform Removal Actions as "Time Critical" when actions are simple, straightforward, and quickly implementable. Example: "Sensitive Receptor Lead Sites"**
- **Again, with concurrence between the signatories of the IAG, perform response actions as either "Time Critical" or "Non-Time Critical" Removal Actions rather than initiating RI/FS's. This approach is planned for all sites identified under the IWSA for site investigations. Time and resources will be saved through streamlined study, documentation and decision-making processes.**
- **For "Non-time Critical" Removal Actions, initiate and perform design and contract documents concurrent with EE/CA preparation, public comment period, and Decision Document preparation and staffing. Procurement actions can be initiated as well, although the Notice-to-Proceed would not be issued until Decision Document signatures have been obtained. There is some risk that re-design and/or contract modifications may be required due to public comment.**
- **Transfer projects to other on-going regulatory programs to reduce IAG administrative requirements. Example: Custer Hill Landfill**
- **Use of field screening and other data collection methods such as automated data collection platforms with satellite telemetry, soil gas surveys, "geo-probe" groundwater sampling, cone-penetrometer, geo-physical surveys.**
- **Use of risk-based corrective action evaluations - particularly helpful in addressing UST sites to avoid costly cleanups where little or no risk exists to receptors.**

DSERTS			SITE								DISCRIPTION	
#	SITE TITLE	PHAS	FY99	FY00	FY01	FY02	FY03	FY04	FY05+	TOTAL		
FTRI-003	Southwest Funston Landfill	LTM	155	170	195	300	75	75	1180		Monitoring, 5 year reviews, reduce after each review	
FTRI-003	Southwest Funston Landfill	LTO	20	10	40	10	485	55	880	3650	Inspection of cover and repairs	
FTRI-009	OB/OD Grounds (RANGE 16)	RI/FS	240	85	85	85	85	105	10	695	PY S&R (25) KSU (40) USGS (45), 2 Auto stream samplers, with 6 samples & report	
FTRI-011	Camp Funston GW Detections	RI/FS	155	95							GW modeling, report, DD	
FTRI-011	Camp Funston GW Detections	LTM		160	100	265				775	Monitoring(70), 5 year review, update model, USGS database	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RI/FS	1015	1255	985	730	655				Monitoring, NA Study, Reports	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RD					550	560			design of 'reative wall'?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RA	0					1580	2430		alternate water supply (1000), 'reative wall'?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RA(O)									reative wall' maintenance?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	LTM							4615	14375	semi-annual, 20 wells?	
FTRI-027	Dry Cleaning Facilities Area	RI/FS	165								PP/ROD	
FTRI-027	Dry Cleaning Facilities Area	RD			150						Design of 'reative wall'?	
FTRI-027	Dry Cleaning Facilities Area	RA				1500					Instaul of 'reative well'?	
FTRI-027	Dry Cleaning Facilities Area	RA(O)					200	200	600		reative wall' maintenance?	
FTRI-027	Dry Cleaning Facilities Area	LTM		160	115	115	115	115	1620	5055	Well Abandonment, LTM	
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS	25								DM, Institutional Controls	
FTRI-029	Old Incinerator Site SE-Camp Funston	RA	210							235	Soil Removal(185), UXO sweep (25)	
FTRI-030	Pesticide Storage Facility (Mixing)	LTM				10				40	50	5 year reviews, and sampling
FTRI-031	Building 354 Area Solvent Detections	RI/FS	300	700	50	50						Soil & GW investigation
FTRI-031	Building 354 Area Solvent Detections	LTM					50	50	960	2160	semi annual -2024, 5 year review	
FTRI-036	Southeast Funston Landfill -Inactive	RA	350									Cover improvements
FTRI-036	Southeast Funston Landfill -Inactive	RA(O)				5	50		70	475	5 year reviews, repairs (50)	
FTRI-038	Forsyth Landfill(s)	RI/FS	10									Action Memo
FTRI-038	Forsyth Landfill(s)	IRA	800	50								Bank stabilization
FTRI-038	Forsyth Landfill(s)	RA(O)				10			20	890	5 year reports	
FTRI-053	POL Tank Farm	RI/FS	320	50								Soil and GW investigation
FTRI-053	POL Tank Farm	LTM		50	60	60	60	60	360	1020	Free product recovery, LTM	
FTRI-054	Custer Hill PX USTS BLDG 5320	LTM	2	2	2	2	2			10	one well	
FTRI-056	Abandoned Gasoline Line	RI/FS	300									soil and GW investigation
FTRI-056	Abandoned Gasoline Line	RA		400								remove pipeline?
FTRI-056	Abandoned Gasoline Line	LTM		50	50	40	40	50		930	1 year quarterly, 4 years annually	
FTRI-057	6200 Area Fuel Oil LINE	RI/FS	150									GW investigation
FTRI-057	6200 Area Fuel Oil LINE	IRA	10									Report review
FTRI-057	6200 Area Fuel Oil LINE	LTM		90	45	45	45	50		435	1 year quarterly, 4 years annually	
FTRI-062	TMP Gas Station (Bldg 388)	IRA	10	5	5	5						Free product recovery
FTRI-062	TMP Gas Station (Bldg 388)	LTM	20	15	15	15				90	Annually, 5 wells	
FTRI-063	Former Building 1044 Dispensing Station	IRA	10	5	5	5						Free product recovery
FTRI-063	Former Building 1044 Dispensing Station	LTM	20	15	15	15				90	Annually, 5 wells	
FTRI-066	Former Building 1245 Dispensing Station	LTM	25	20	20	20				85	Annually, 6 wells	
FTRI-068	Former Building 1637 Dispensing Station	LTM	25	20	20	20				85	Annually, 4 wells	
TOTALS IN THOUSANDS OF DOLLARS			4337	3407	1957	3307	2412	2900	12785	31105		

31105

DSERTS			SITE									DISCRIPTION
#	SITE TITLE	PHASE	FY99	FY00	FY01	FY02	FY03	FY04	FY05+	TOTAL		
FTRI-003	Southwest Funston Landfill	LTM	155	170	195	300	75	75	1180		Monitoring, 5 year reviews, reduce after each review	
FTRI-003	Southwest Funston Landfill	LTO	20	10	40	10	485	55	880	3650	Inspection of cover and repairs	
FTRI-009	OB/OD Grounds (RANGE 16)	RI/FS	127	253	85	85	110	80	10	750	PY S&R (25) KSU (40) USGS (45), 2 Auto stream samplers, with 6 samples & report	
FTRI-011	Camp Funston GW Detections	RI/FS	155	95							GW modeling, report, DD	
FTRI-011	Camp Funston GW Detections	LTM		160	100	265				775	Monitoring(70), 5 year review, update model, USGS database	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RI/FS	1015	1255	1249	483	638				Monitoring, NA Study, Reports	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RD					1110	0			design of 'reative wall'?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RA						1175	2835		alternate water supply (1000), 'reative wall'?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	RA(O)									reative wall' maintenance?	
FTRI-019	FORMER Fire Training Area (FFTA-MAAF)	LTM							4615	14375	semi-annual, 20 wells?	
FTRI-027	Dry Cleaning Facilities Area	RI/FS	133								PP/ROD	
FTRI-027	Dry Cleaning Facilities Area	RD			150						Design of 'reative wall'?	
FTRI-027	Dry Cleaning Facilities Area	RA				1500					Instaual of 'reative well'?	
FTRI-027	Dry Cleaning Facilities Area	RA(O)					380	20	600		reative wall' maintenance?	
FTRI-027	Dry Cleaning Facilities Area	LTM		160	115	115	115	115	1620	5023	Well Abandonment, LTM	
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS	25								DM, Institutional Controls	
FTRI-029	Old Incinerator Site SE-Camp Funston	IRA	210							235	Soil Removal(185), UXO sweep (25)	
FTRI-030	Pesticide Storage Facility (Mixing)	LTM				10			40	50	5 year reviews, and sampling	
FTRI-031	Building 354 Area Solvent Detections	RI/FS	91	839	120	50					Soil & GW investigation	
FTRI-031	Building 354 Area Solvent Detections	LTM					50	50	960	2160	semi annual -2024, 5 year review	
FTRI-036	Southeast Funston Landfill -Inactive	RA	427								Cover improvements	
FTRI-036	Southeast Funston Landfill -Inactive	RA(O)				5	50		70	552	5 year reviews, repairs (50)	
FTRI-038	Forsyth Landfill(s)	RI/FS	10								Action Memo	
FTRI-038	Forsyth Landfill(s)	IRA	500	50					200		Bank stabilization	
FTRI-038	Forsyth Landfill(s)	RA(O)				10			20	790	5 year reports	
FTRI-053	POL Tank Farm	RI/FS	5	6	359						Soil and GW investigation	
FTRI-053	POL Tank Farm	LTM		0	110	60	60	60	360	1020	Free product recovery, LTM	
FTRI-054	Custer Hill PX USTS BLDG 5320	LTM	2	2	2	2	2			10	one well	
FTRI-056	Abandoned Gasoline Line	RI/FS			300						soil and GW investigation	
FTRI-056	Abandoned Gasoline Line	RA			400						remove pipeline?	
FTRI-056	Abandoned Gasoline Line	LTM			50	40	85	5	50	930	1 year quarterly, 4 years annually	
FTRI-057	6200 Area Fuel Oil LINE	RI/FS	5	145							GW investigation	
FTRI-057	6200 Area Fuel Oil LINE	IRA	10								Report review	
FTRI-057	6200 Area Fuel Oil LINE	LTM		90	45	45	90	5		435	1 year quarterly, 4 years annually	
FTRI-062	TMP Gas Station (Bldg 388)	IRA	10	5	5	5					Free product recovery	
FTRI-062	TMP Gas Station (Bldg 388)	LTM	20	15	15	15				90	Annually, 5 wells	
FTRI-063	Former Building 1044 Dispensing Station	IRA	10	5	5	5					Free product recovery	
FTRI-063	Former Building 1044 Dispensing Station	LTM	20	15	15	15				90	Annually, 5 wells	
FTRI-066	Former Building 1245 Dispensing Station	LTM	25	20	20	20				85	Annually, 6 wells	
FTRI-068	Former Building 1637 Dispensing Station	LTM	25	20	20	20				85	Annually, 4 wells	
TOTALS IN THOUSANDS OF DOLLARS			3000	3315	3400	3060	3250	1640	13440	31105		
POM			3000	3315	3400	3060	3250	1640		31105		
Difference			0	0	0	0	0	0				

PRIOR YEAR FUNDING

FY98

FTRI-003	IRA	\$	8,216.32
FTRI-003	LTM	\$	245,000.00
FTRI-003	LTO	\$	40,000.00
FTRI-006	RI/FS	\$	26,282.40
FTRI-009	RI/FS	\$	208,501.69
FTRI-011	RI/FS	\$	270,027.00
FTRI-019	IRA	\$	1,555,999.60
FTRI-019	RI/FS	\$	1,149,997.30
FTRI-027	LTM	\$	143,000.00
FTRI-027	RI/FS	\$	158,049.08
FTRI-029	RI/FS	\$	62,000.00
FTRI-031	RI/FS	\$	150,000.00
FTRI-036	IRA	\$	60,000.00
FTRI-038	IRA	\$	71,000.00
FTRI-051	RI/FS	\$	10,000.00
FTRI-053	RI/SR	\$	65,000.00
FTRI-056	RI/FS	\$	54,500.00
FTRI-057	RA	\$	71,926.59
FTRI-062	LTM	\$	12,500.00
FTRI-063	LTM	\$	12,500.00
FTRI-066	LTM	\$	12,500.00
FTRI-068	LTM	\$	12,500.00
	Restoration Advisory Board	\$	40,000

FY97 TOTAL: \$ 3,040,000

COMMUNITY INVOLVEMENT

TECHNICAL REVIEW COMMITTEE

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

FORMATION OF FORT RILEY'S RESTORATION ADVISORY BOARD

Fort Riley held its orientation meeting September 30, 1997 for members of the community who may be interested in participating on a Restoration Advisory Board (RAB). Adjacent landowners, local environmental groups, local college professors, mayors and other public officials, members of the local Chambers of Commerce, and select individuals recommended to the Directorate of Environment and Safety (DES) were invited to the orientation meeting by direct mail. Newspaper advertisements, television and radio announcements were additional methods used to announce the formation of Fort Riley's RAB.

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

RAB MEMBERSHIP

The current members include representatives from Northern Flint Hills Audobon Society, Fort Riley military communities, local Environmental businesses, private business, Kansas Water Office, Unified School District 475, Geary County Extension Office, Geary County Health Department, Riley County Planning, Geary County (Commissioner), Clay County (Commissioner), Kansas State University, Kansas Geological Survey, City of Ogden (Mayor), EPA, and KDHE.

RAB ACTIVITIES

The RAB members have been reviewing projects and funding plans and providing input concerning project priorities. A Public Awareness Education Program was implemented over the past year by holding meetings in the surrounding communities.

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.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**RAB REPORT**

12/16/1998

Command: FORSCOM **SubCommand:****Installation:** FORT RILEY**RAB Established Date:** 199709**Reason RAB Not Establish:****RAB Adjourned Date:****Reason RAB Adjourned:****TRC Date:** 199201**RAB Community Members:****Total RAB Community
Members:**

8

Business Community

Local Environmental Groups/Activists

Local Residents

RAB Government Members:**Total RAB Government
Members:**

10

Environmental Protection Agency

Local Government Officials

State Regulators

RAB Activities:

Participated In/Reviewed Risk Evals

Provided Comments Or Advice

Received Training

Reviewed Plans And Technical Docs

RAB Advice

Future Land Use

Other

Site Priorities

Study Of Cleanup Schedule

TAPP Application**Approval Date:****TAPP Project Title:****TAPP Project****Description:****Award
Number****Purchase Order
Award Date****Completion Date****Reporting Period End Date: 09/30/1998**