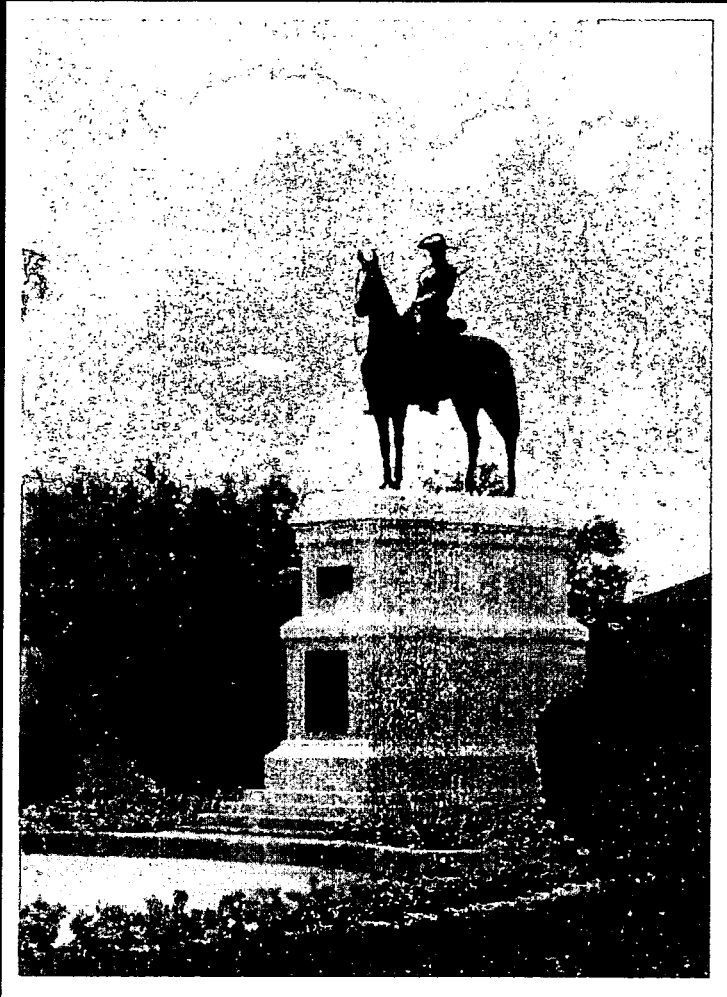


# INSTALLATION RESTORATION PROGRAM INSTALLATION ACTION PLAN



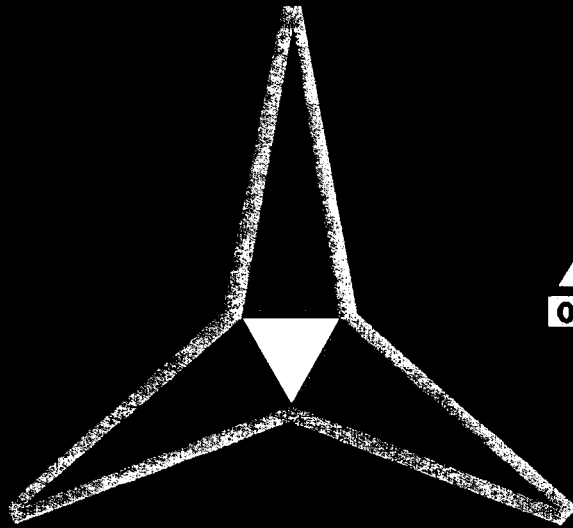
## FORT RILEY



Pub 13 2 002

# FORT RILEY INSTALLATION ACTION PLAN

AMERICA'S



ARMY

MARCH 1998

# 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 tentative budgets for all major Army installation restoration programs.

This Fort Riley Installation Action Plan (IAP), was principally developed in November 1997 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.

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, all remedial actions will be completed at Fort Riley by the end of 2005.

# CONTRIBUTORS TO THIS YEAR'S IAP

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# ACRONYMS & ABBREVIATIONS

<b>AEC</b>	Army Environmental Center
<b>AOC</b>	Area of Concern
<b>AR</b>	Administrative Record
<b>AST</b>	Aboveground Storage Tank
<b>BTEX</b>	Benzene, Toluene, Ethylbenzene, and Xylene
<b>CA</b>	Corrective Action
<b>CAP</b>	Corrective Action Plan
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation and Liability Act of 1980
<b>CENWK</b>	U.S. Army Corps of Engineers, Kansas City District
<b>CMI</b>	Corrective Measure Investigation
<b>CMS</b>	Corrective Measure Study
<b>CY</b>	Cubic Yards
<b>DA</b>	Department of Army
<b>DCF</b>	Dry Cleaning Facilities
<b>DD</b>	Decision Document
<b>DERA</b>	Defense Environmental Restoration Account
<b>DERP</b>	Defense Environmental Restoration Program
<b>DES</b>	Directorate of Environmental Safety
<b>DOD</b>	Department of Defense
<b>DOL</b>	Directorate of Logistics
<b>DPW</b>	Directorate of Public Works
<b>DRMO</b>	Defense Reutilization and Marketing Office
<b>DSERTS</b>	Defense Site Environmental Restoration Tracking System
<b>EECA</b>	Engineer Evaluation/Cost Analysis
<b>EPA</b>	United States Environmental Protection Agency
<b>FORSCOM</b>	U.S. Army Forces Command
<b>FS</b>	Feasibility Study
<b>FY</b>	Fiscal Year
<b>GW</b>	Groundwater
<b>HW</b>	Hazardous Waste
<b>IAP</b>	Installation Action Plan
<b>IAG</b>	Interagency Agreement
<b>IR</b>	Information Repositories
<b>IRA</b>	Interim Remedial Action
<b>IRP</b>	Installation Restoration Program
<b>IWSA</b>	Installation Wide Site Assessment
<b>JP-4</b>	Jet Propellant Number Four
<b>JP-8</b>	Jet Propellant Number Eight
<b>KDHE</b>	Kansas Department of Health and Environment
<b>LTM</b>	Long Term Monitoring
<b>LTO</b>	Long Term Operation
<b>MAAF-FFTA</b>	Marshall Army Airfield - Former Fire Training Area
<b>MATES</b>	Mobilization and Training Equipment Site
<b>MCL</b>	Maximum Contaminant Level
<b>NCP</b>	National Oil and Hazardous Substances Pollution Contingency Plan
<b>NE</b>	Not Evaluated
<b>NFA</b>	No Further Action
<b>NFRAP</b>	No Further Remedial Action Planned
<b>NOV</b>	Notice of Violation

# ACRONYMS & ABBREVIATIONS

## *LIST OF ACRONYMS AND ABBREVIATIONS CONTINUED...*

<b>NPL</b>	National Priorities List
<b>OB/OD</b>	Open Burning / Open Detonation
<b>OMA</b>	Operations and Maintenance - Army
<b>OWS</b>	Oil and Water Separator
<b>POL</b>	Petroleum, Oil and Lubricants
<b>PA</b>	Preliminary Assessment
<b>PCB</b>	Polychlorinated Biphenyls
<b>PCE</b>	Perchloroethylene (Tetrachloroethylene)
<b>PPB</b>	Parts Per Billion
<b>PPM</b>	Parts Per Million
<b>PSF</b>	Pesticide Storage Facility
<b>PY</b>	Prior Year
<b>RA</b>	Remedial Action
<b>RA(C)</b>	Remedial Action - Construction
<b>RA(O)</b>	Remedial Action - Operation
<b>RAB</b>	Restoration Advisory Board
<b>RAP</b>	Remedial Action Plan
<b>RC</b>	Response Complete
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RD</b>	Remedial Design
<b>REM</b>	Removal
<b>RI</b>	Remedial Investigation
<b>RIP</b>	Remedy in Place
<b>ROD</b>	Record of Decision
<b>RRSE</b>	Relative Risk Site Evaluation
<b>S&amp;A</b>	Supervision and Administration
<b>SFL</b>	Southwest Funston Landfill
<b>SEFL</b>	Southeast Funston Landfill
<b>SI</b>	Site Inspection
<b>S&amp;R</b>	Supervision and Remediation
<b>STP</b>	Sewage Treatment Plant
<b>SVOC</b>	Semi-Volatile Organic Compounds
<b>SWMU</b>	Solid Waste Management Unit
<b>TCE</b>	Trichloroethylene
<b>TCLP</b>	Toxicity Characteristic Leachate Procedure
<b>TPH</b>	Total Petroleum Hydrocarbons
<b>TRC</b>	Technical Review Committee
<b>USACE</b>	United States Army Corps of Engineers
<b>USACHPPM</b>	United States Army Center for Health Promotion and Preventive Medicine (replaced AEHA)
<b>USAEC</b>	United States Army Environmental Center
<b>USATHMA</b>	United States Army Toxic and Hazardous Material Agency (replaced by AEC)
<b>UST</b>	Underground Storage Tank
<b>UXO</b>	Unexploded Ordnance
<b>VOC</b>	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
- 20 Active DERA Eligible Sites
  - 2 Response Complete Expected DERA Eligible Sites
  - 46 Response Complete DERA Eligible Sites
  - 3 Response Complete Non-DEIRA 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:**

SI (1 site)	RI/FS (15 sites)	IRA (2 sites)	RA(O) (1 site)
LTM (7 sites)	RC (49 sites)		

**PROJECTED IRP PHASES:**

RI (1 site)	IRA (3 sites)	RD (1 site)	RA (1 site)
RA (O) (1 site)	LTM (5 sites)	RC (63 sites)	

**IDENTIFIED POSSIBLE REM/IRA/RA:**

Off-post GW treatment, soil stabilization or removal, and landfill cover improvement

**FUNDING:**

PRIOR YEAR THROUGH 1997:	\$	41,500,000
FY 1998:	\$	3,000,000
FUTURE REQUIREMENTS:	\$	28,540,000
TOTAL:	\$	73,040,000

**DURATION:**

YEAR OF IRP INCEPTION:	1989
YEAR OF IRP COMPLETION EXCLUDING LTM:	2013
YEAR OF IRP COMPLETION INCLUDING LTM:	2034

# 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

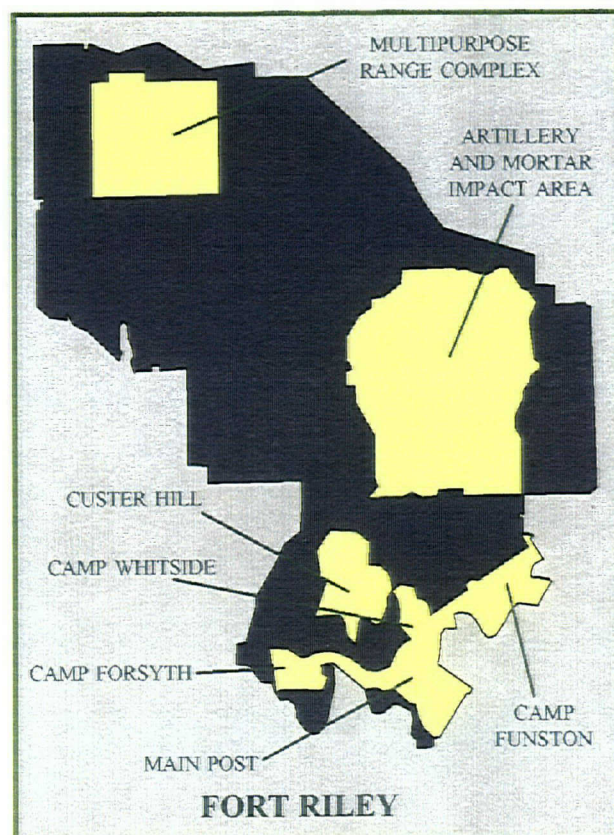
**STATE:** Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation

## 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 97)

- One RI/FS Completed (FTRI-030), One RI/FS initiated at FTRI-031
- Completed POL clean-up at housing area (FTRI-057)
- Prepared exposure control EE/CA for MAAF-FFTA (FTRI-019)
- Completed PSF (FTRI-030) ROD



# 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.

Since then, Fort Riley has continued to build a reputation of unparalleled stature within the Department of Defense (DoD). 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. From 1955 to 1995, Fort Riley was home to the 1st Infantry Division.

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 and an engineer group.

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 three 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 were re-negotiated in December 1996 and May 1997 based on available resources.

Fort Riley has been assessed stipulated penalties under the IAG for the late submittal of a Remedial Investigation Report, a primary document. The payment of the penalty was made in FY97. 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 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, accompanied by 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. Additional groundwater investigations were conducted in FY97 and under way in FY98 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 the single identified property owner. An additional EE/CA is underway to address high concentrations in the groundwater plume. A pilot study was conducted to address soil contamination in the vicinity of the Former Fire Training Area in FY94-95.

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 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 Document addressing many of the Multiple Sites is being 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.

# 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

## 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
Record of Decision	Law Environmental / Ft Riley DES	Sep-97



# PREVIOUS STUDIES

Title	Author	Date
<b>Dry Cleaning Facilities, OU 003</b>		
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
<b>Former Fire Training Area, Marshal Army Airfield, OU 004</b>		
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
<b>Building 354 Area Solvent Detection Site, OU 005</b>		
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
<b>Custer Hill Sanitary Landfill</b>		
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
<b>Camp Funston Area Groundwater</b>		
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
Site Investigation Report Addenda, Former Wherry Substation and DRMO Area 1 Drainage Ditch	Louis Berger & Associates	Feb-97
Draft Site Investigation Report Addendum, Southeast Funston Landfill Incinerator Area	Louis Berger & Associates	Jul-97

# PREVIOUS STUDIES

Title	Author	Date
<b>Petroleum / Underground Storage Tanks</b>		
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, and KDHE requirements for approved closure of the landfill required a groundwater monitoring program be implemented. Results of that program were used to score the installation for the NPL and the IAG required an RI/FS. The RI indicates sporadic hits of low level organic contamination. A Bank Stabilization action was accomplished in the winter/spring of 1994. Another action consisting of regrading 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, a 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.

## PROPOSED PLAN

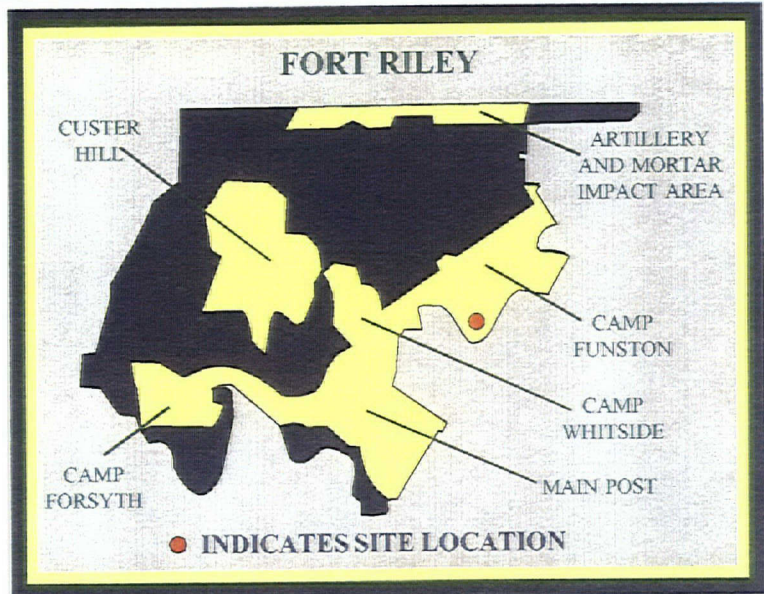
Groundwater monitoring is continuing on a semi-annual basis under an indefinite delivery contract. As of September 1997, semi-annual groundwater events through spring of 1999 have been contracted for.

The USGS will prepare annual monitoring reports including hydrogeologic evaluations.

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, some RI/FS monitoring wells and closure monitoring wells may be abandoned.



## IRP STATUS

**RRSE RATING:** High Risk

**CONTAMINANTS OF CONCERN:**

VOCs, 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	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)	40	20	10	40	10	800	750
IRA	4						
LTM	237	195	130	100	140	75	1340

**PROJECTED TOTAL: \$3,891,000**

# 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)

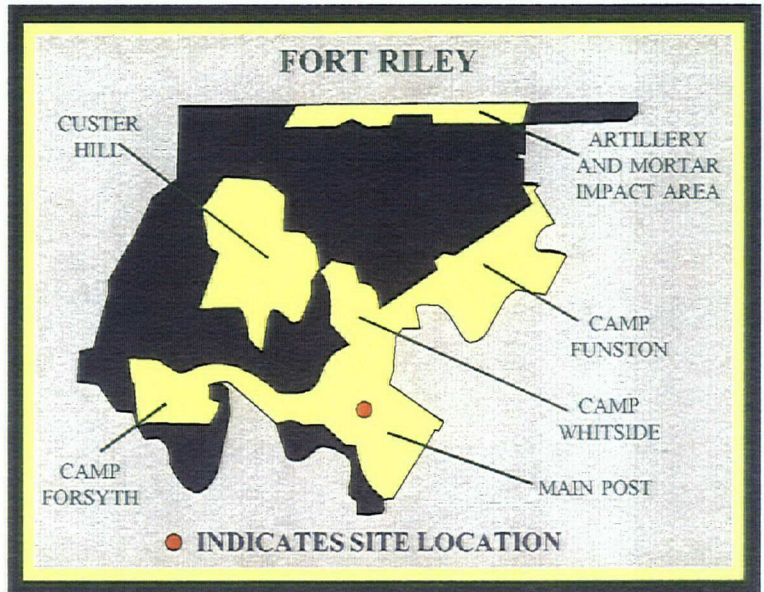
**CONTAMINANTS OF CONCERN:**  
Pesticides (Chlordane, DDT, Dieldrin, Heptachlor, PAHs, metals (arsenic))

**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	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM					10		40
<b>PROJECTED TOTAL:</b>					<b>\$50,000</b>		

# 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. Groundwater exposure pathway is not completed. 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. This is contracted for events through FY98.

The anticipated remedies are institutional controls, natural attenuation, and LTM. 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, Surface Water

**COMPLETED IRP PHASE:**

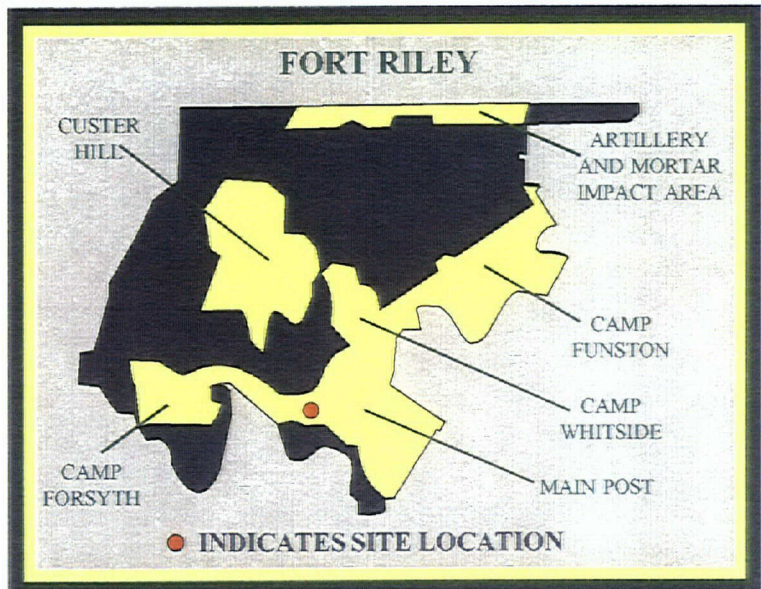
PA/SI

**CURRENT IRP PHASE:**

RI/FS

**FUTURE IRP PHASE:**

PP/ROD, LTM



## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	78	10					
RD							
RA(C)							
RA(O)							
IRA							
LTM	173		37	60	100	60	720

**PROJECTED TOTAL: \$1,238,000**

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

## SITE DESCRIPTION

This site consisted 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. Preliminary 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 leading edge of the groundwater plume.

A removal action is being conducted in FY97/FY98 to provide an alternate water supply to impacted property owners. This action consists of drilling wells outside the area of groundwater contamination and piping the water to the existing structures. In FY98, an Engineering Evaluation/Cost Analysis (EE/CA) is being developed to determine the best practical approach for addressing the "hot spot" groundwater contamination. Construction of this removal action is planned of FY99.

## PROPOSED PLAN

An interim removal action (replacement well outside of plume) will control exposure. A removal action to address plume migration will be conducted. An EE/CA is being prepared. Action costs must consider lack of 3-phase power at site.

A Natural Attenuation bench scale demonstration will be conducted in FY98.

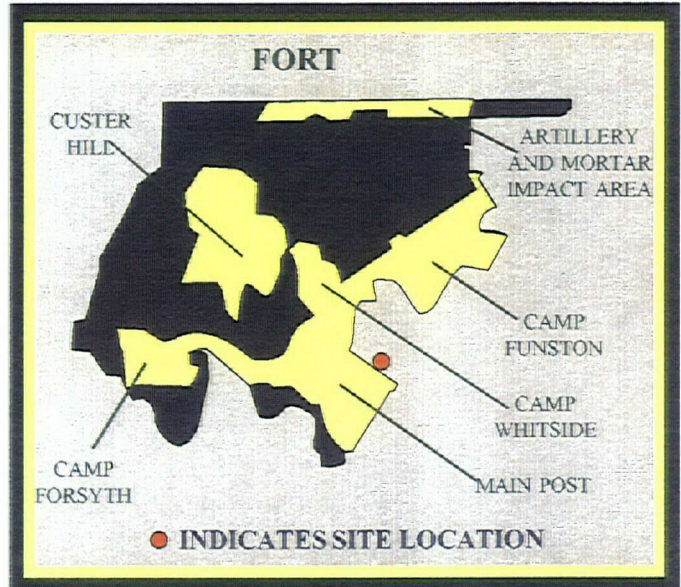
A groundwater model will be developed using GMS and integrated into the Kansas River valley model being prepared by USGS. Periodic Groundwater Monitoring to continue, estimated 3 times per year.

EE/CA will be conducted to evaluate expansion of the initial groundwater IRA or development of a new alternative. Design and construction to occur in FY02-03 as an IRA.

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

Remedial Design in FY04 and Remedial Action in FY05 will be conducted for the full implementation of the best technology demonstrated in the IRA.

CENWK tasked with Real Estate actions for off-post work.



## CONSTRAINED COST TO COM-

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/	850	420	250	250	205	30	
RD							300
RA(C)							2000
RA(O)							1100
IRA	75	1765	670	385	300	1900	500
LTM							3800

**PROJECTED TOTAL: \$14,800,000**

## IRP STATUS

**RRSE RATING:** High Risk

**CONTAMINANTS OF CONCERN:**

VOCs, TPH, Napthalene, Metals

**MEDIA OF CONCERN:**

Groundwater, Soil

**COMPLETED IRP PHASE:**

PA/SI, Pilot Study

**CURRENT IRP PHASE:**

RI/FS, IRA

**FUTURE IRP PHASE:**

IRA, 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 area. 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 it's breakdown products have been detected in the UST groundwater monitoring and in relatively close monitoring wells at PSF and Main Post Landfill sites. 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.

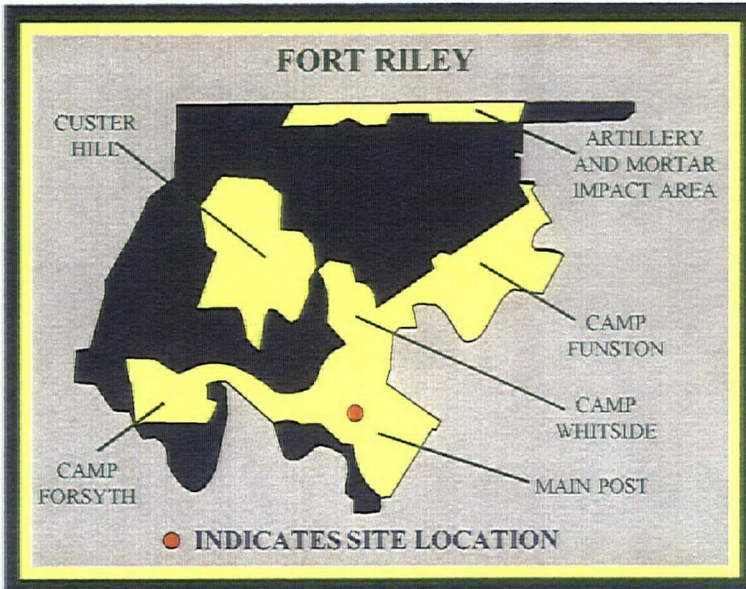
## PROPOSED PLAN

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

Perform quarterly monitoring for one year, and then semiannually through 2014.

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

Assumes 10 years of monitoring after the ROD (through 2014) and two five 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:**

LTM

## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	100	272	268	75	100		
RD							
RA(C)							
RA(O)							
IRA							
LTM					50	50	650

**PROJECTED TOTAL: \$1,565,000**



## 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 CHSL 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 GW 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:**

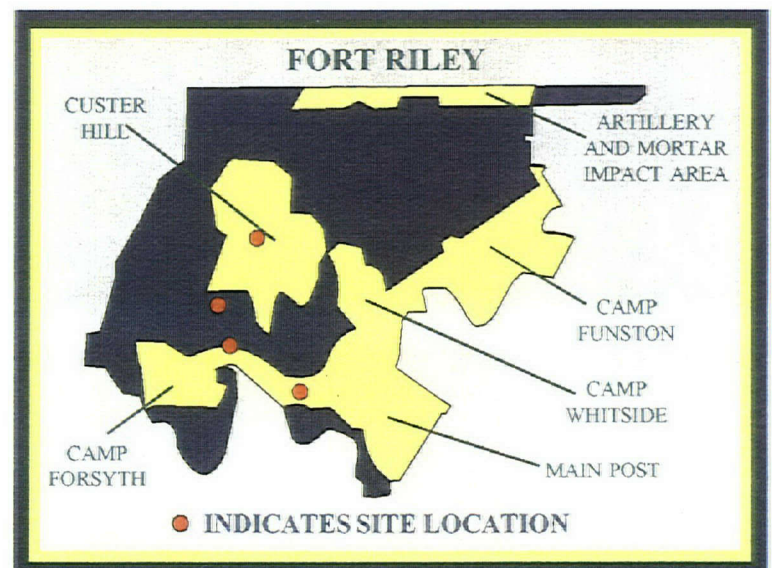
PA/SI, Removal, ROD

**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:**

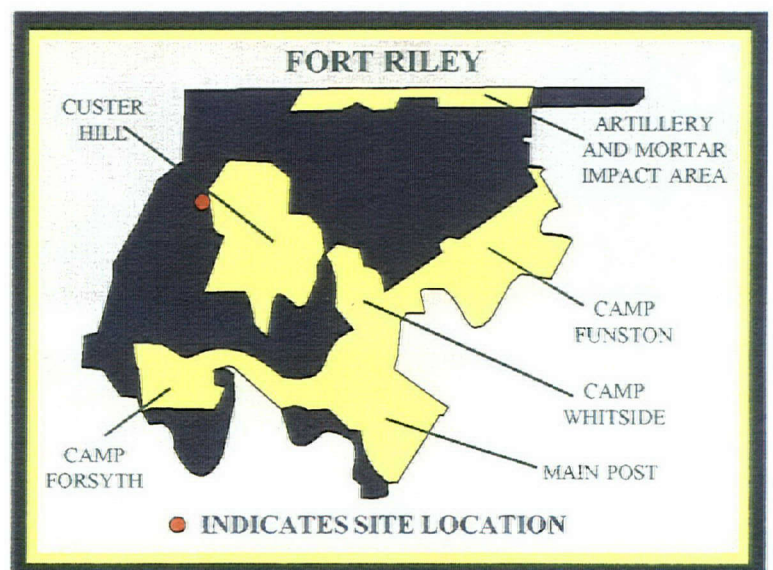
PA/SI, RI, ROD

**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:**

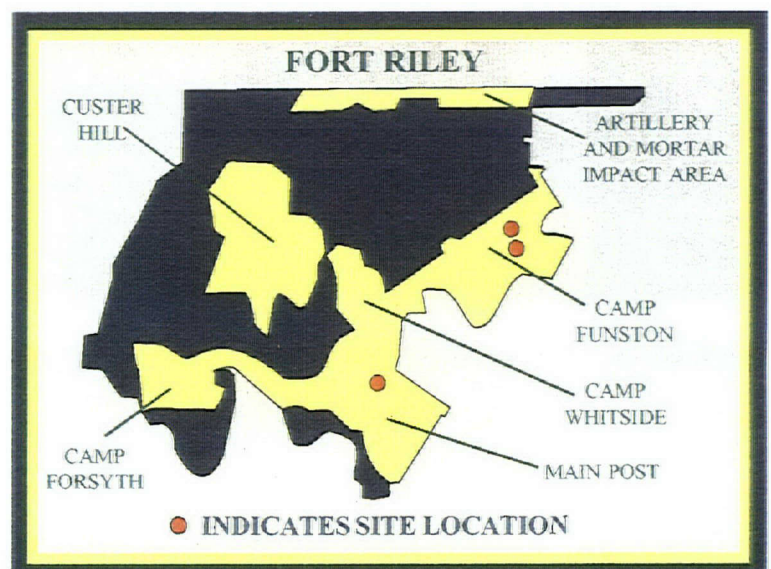
PA/SI, RI, ROD

**CURRENT IRP PHASE:**

Response Complete

**FUTURE IRP PHASE:**

Response Complete

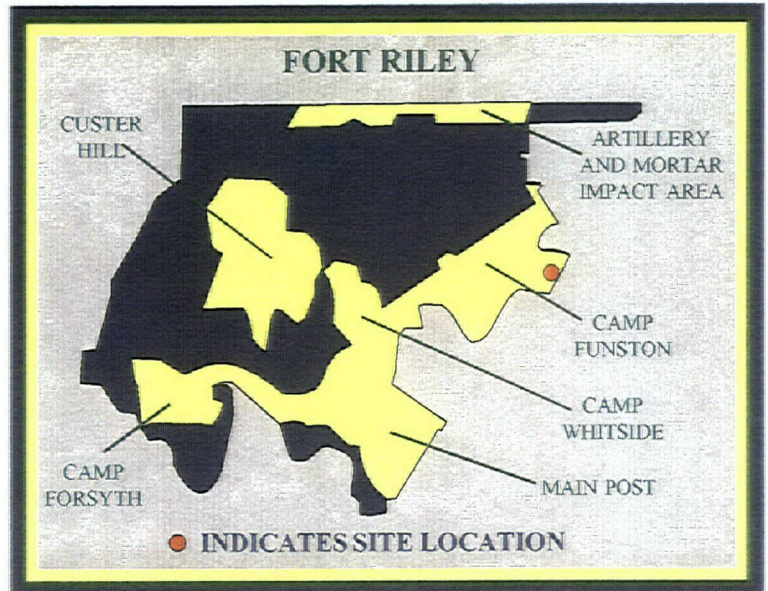


# FTRI-036

## 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. Laboratory analysis indicated low levels of 1,2 dichloroethylene, and low levels of lead exceeded MCL. (GW lab screening indicated low levels of several other VOC's, none over MCL except vinyl chloride). Confirmation sampling of groundwater in December 1995 indicates similar results to previous data. Organic contaminants were detected in the western portion of the landfill. Ten (10) of 78 surface soil sample locations analyzed by X-Ray Fluorescence (XRF) indicated high concentrations of lead (up to 5600 ppm) in the area of the former incinerator (FTRI-029).



### PROPOSED PLAN

Western (30+ acres) portion of the landfill needs cover repairs to correct for subsidence (expect to perform as IRA)

Prepare Decision Document / ROD

Groundwater concerns are being addressed under Camp Funston Groundwater site (FTRI-011).



### 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	1998	1999	2000	2001	2002	2003	2004+
RI/FS			10				
RD							
RA(C)							
RA(O)							
IRA	300						75
LTM							

**PROJECTED TOTAL: \$385,000**

# 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

Groundwater monitoring (for CERCLA hazardous substances) under Camp Funston Area Groundwater Contamination, FTRI-011.

## IRP STATUS

**RRSE RATING:** Medium Risk

**CONTAMINANTS OF CONCERN:**

VOCs

**MEDIA OF CONCERN:**

Groundwater

**COMPLETED IRP PHASE:**

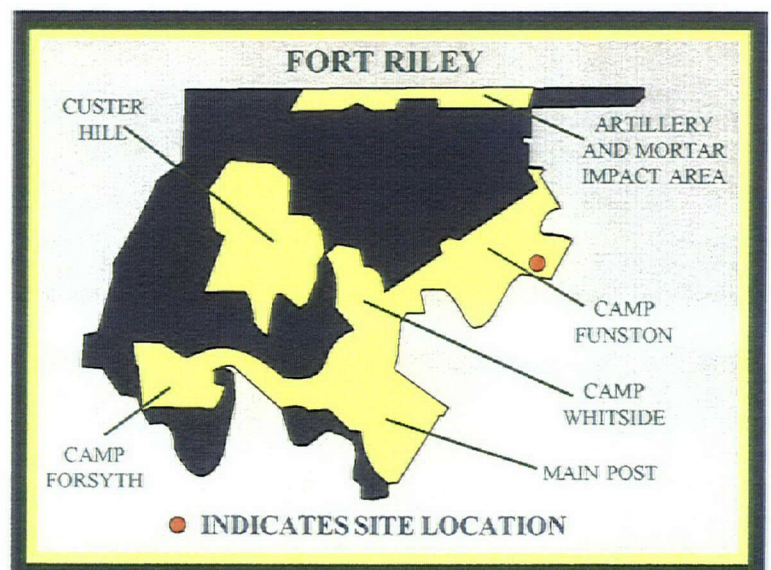
PA/SI, RI

**CURRENT IRP PHASE:**

ROD

**FUTURE IRP PHASE:**

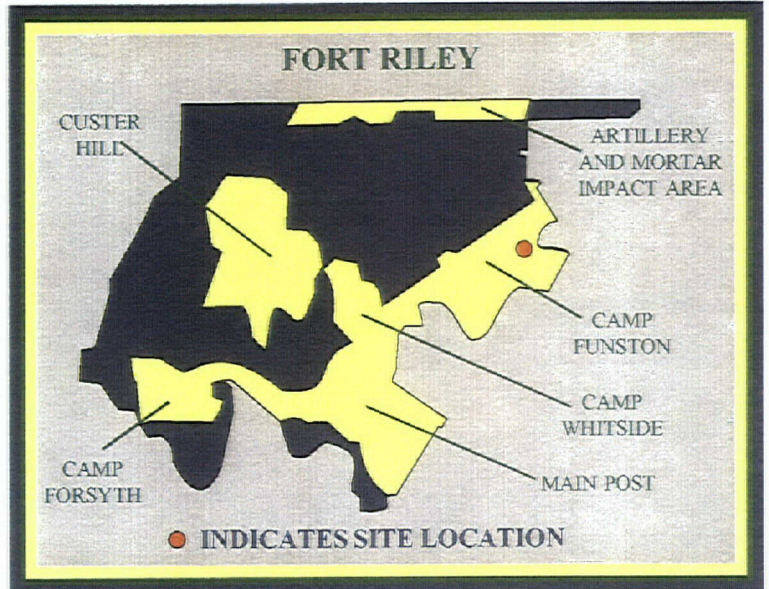
Response Complete



# 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.



## 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

## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
R/FS	15						
RD							
RA(C)							
RA(O)							
IRA							
LTM							

**PROJECTED TOTAL: \$15,000**



# 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:**

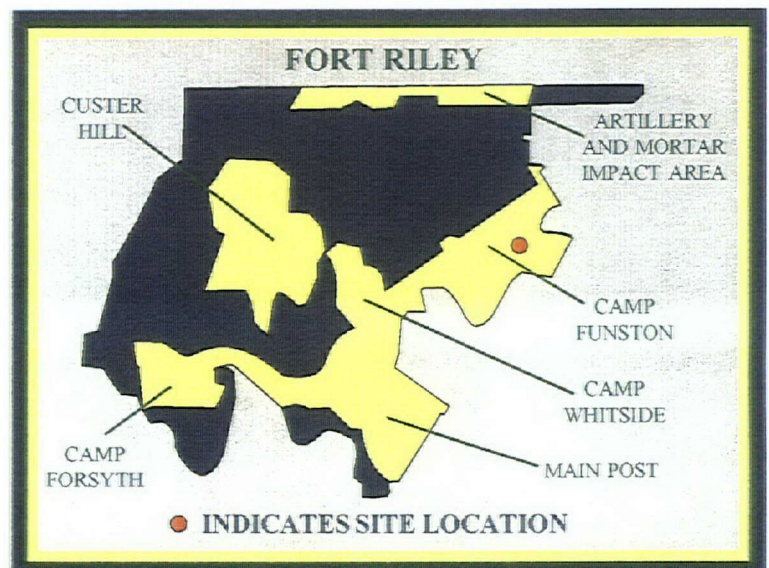
PA/SI, RI

**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:**

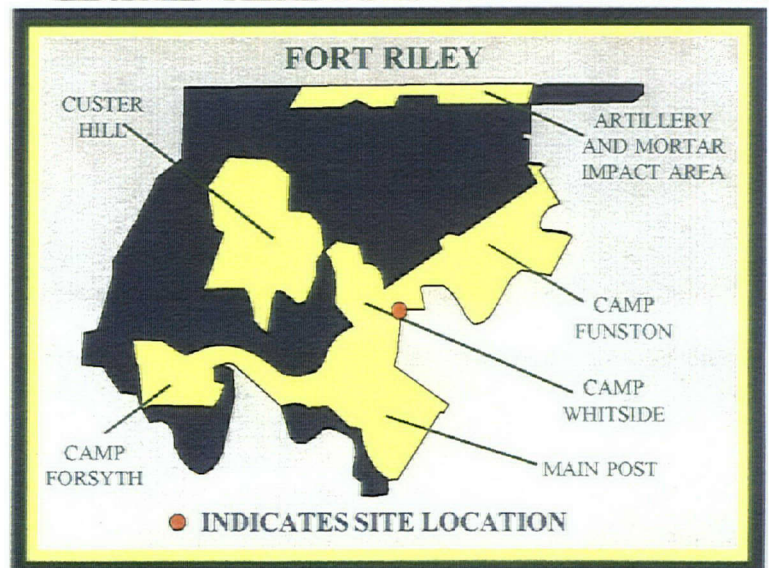
PA/SI, RI, ROD

**CURRENT IRP PHASE:**

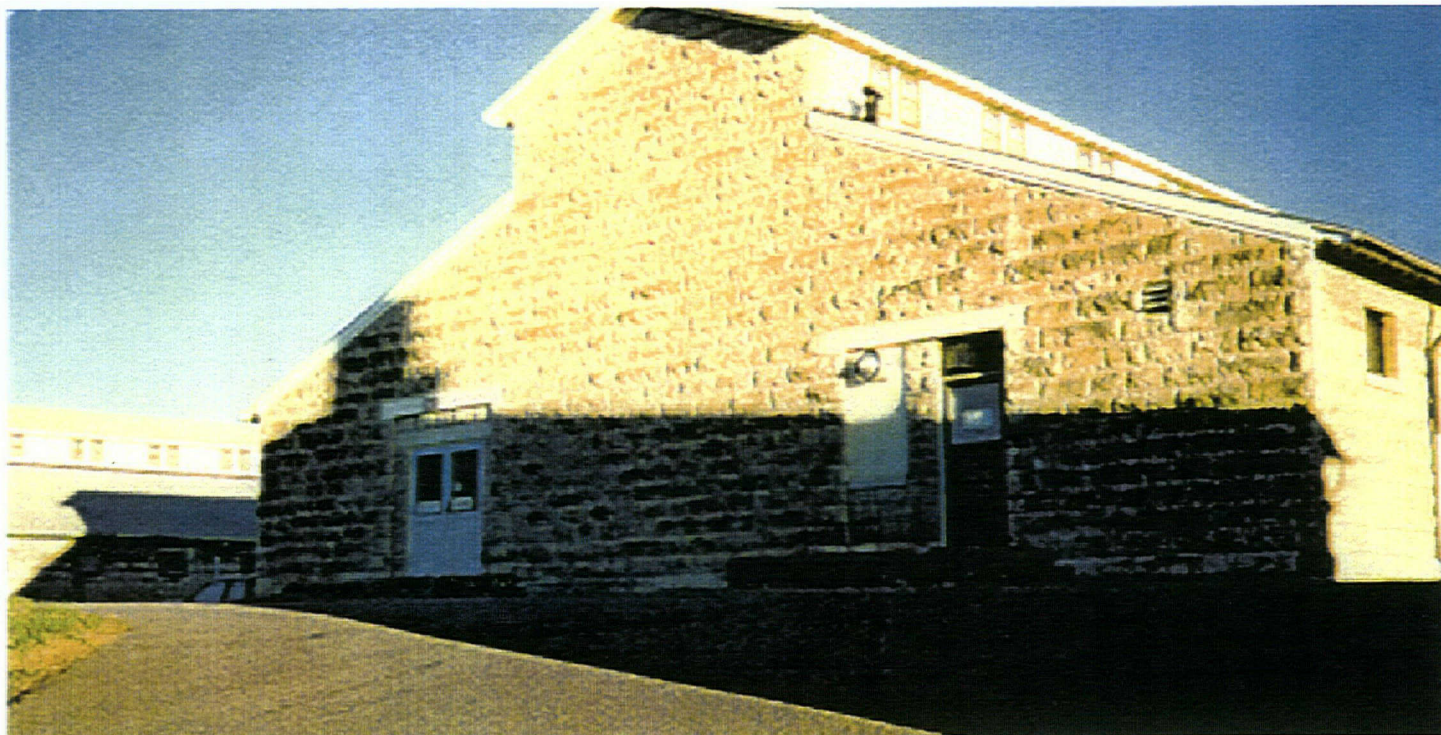
Response Complete

**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:**

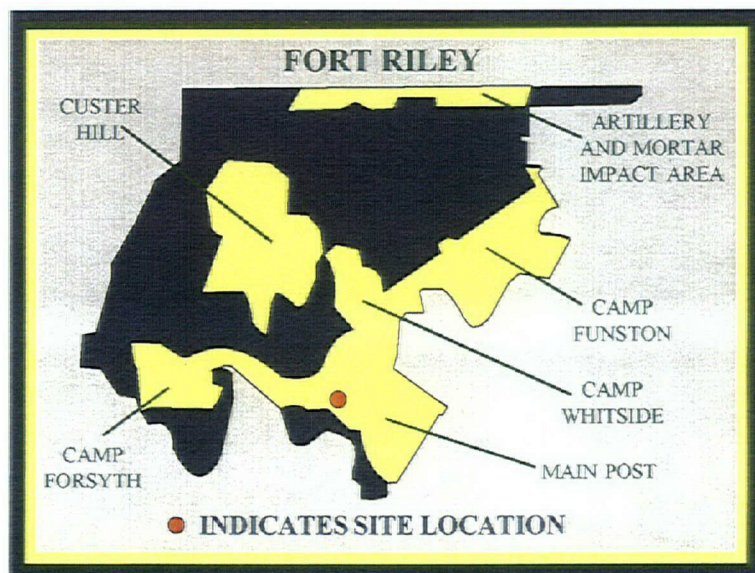
PA/SI, RI

**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

Groundwater monitoring under Camp Funston Area Groundwater Contamination, FTRI-011.

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:**

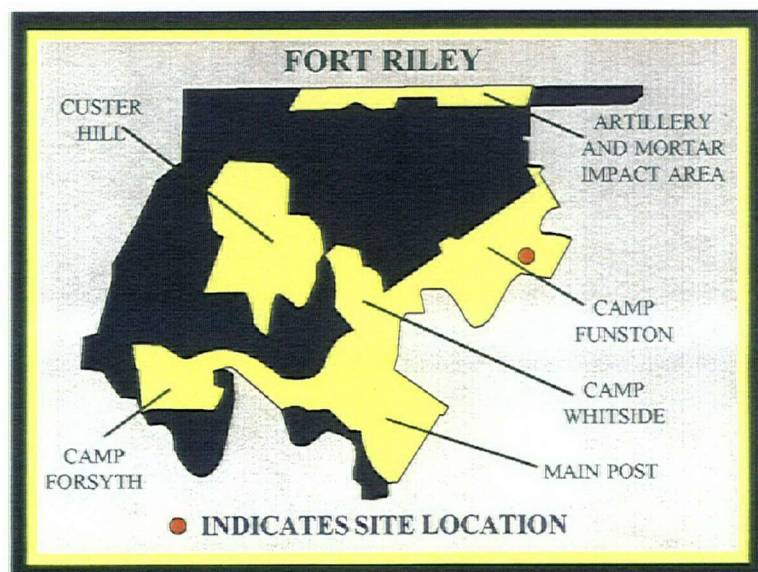
PA/SI, RI, ROD

**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:**

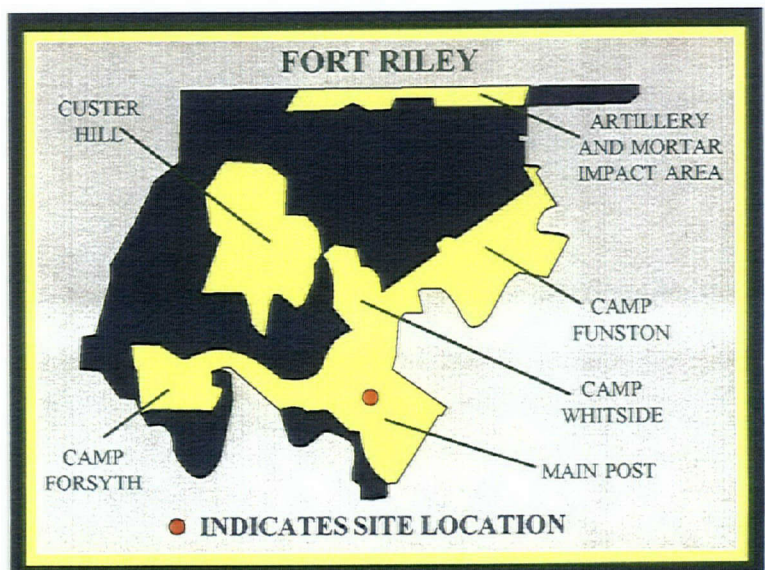
PA/SI, RI, ROD

**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:**

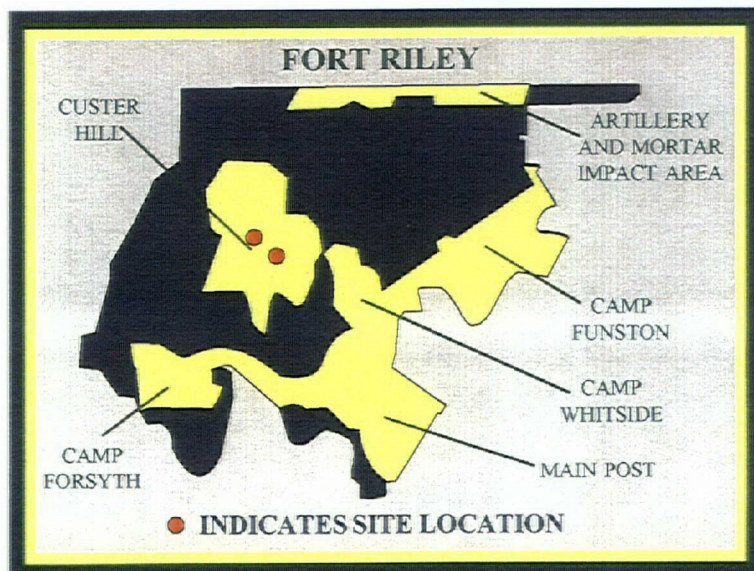
PA/SI, RI

**CURRENT IRP PHASE:**

Response Complete

**FUTURE IRP PHASE:**

Response Complete



# FTRI-050

## PCB SPILLS AREA/TRANSFORMER SITES



### SITE DESCRIPTION

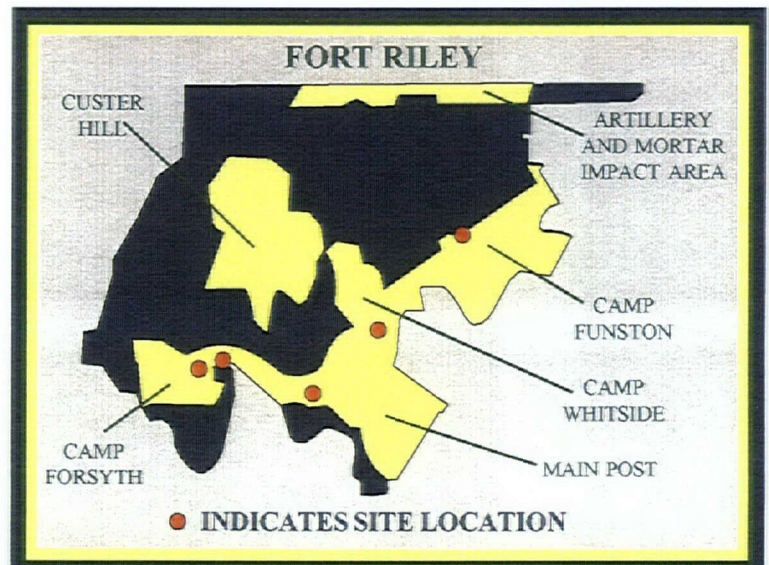
Five former substations have potential for PCB contamination. The locations of the substations have been located on historic maps, but some depicted have been demolished. Some were owned and operated by a private utility. Five sites have been sampled and no detections above TSCA levels were found. This 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:**

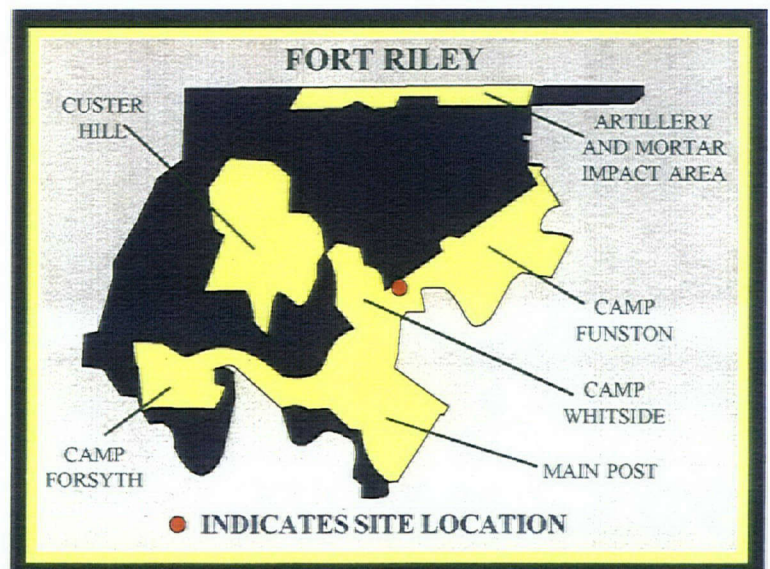
PA/SI, RI, ROD

**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:**

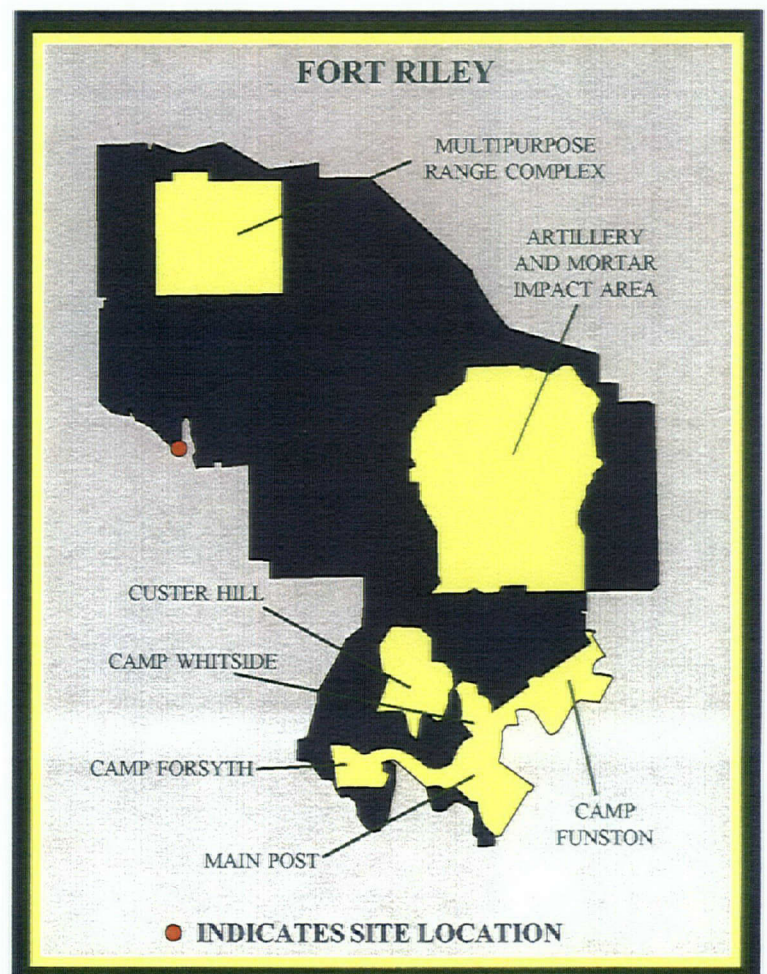
PA/SI, RI

**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**

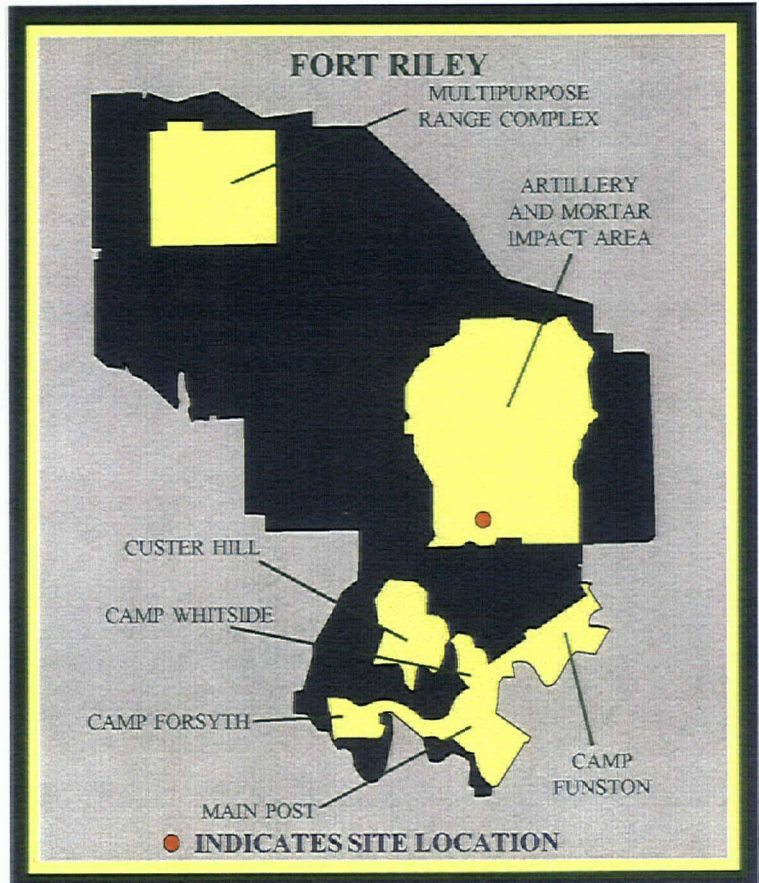
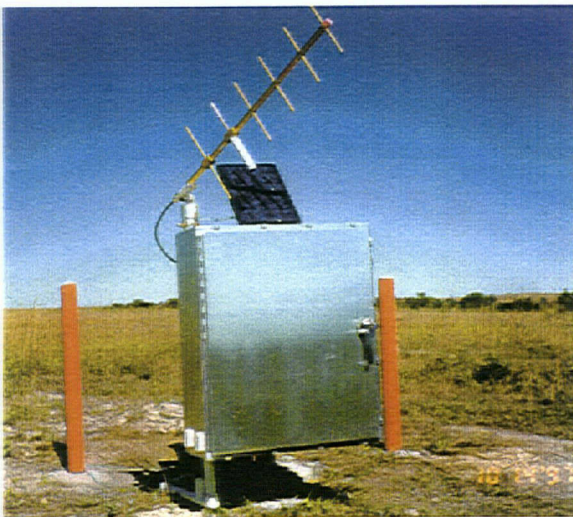
# FTRI-009

## 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. Sampling results indicate high VOC contamination.



### PROPOSED PLAN

Future closure of the OB/OD area (non-DERA)

Additional hydrogeologic characterization will be conducted.

SI addendum will be completed.

A preliminary human health and ecological risk screening will be developed.

### IRP STATUS

**RRSE RATING:** High Risk

**CONTAMINANTS OF CONCERN:**

VOCs

**MEDIA OF CONCERN:**

Soils, Groundwater

**COMPLETED IRP PHASE:**

PA

**CURRENT IRP PHASE:**

SI

**FUTURE IRP PHASE:**

RI

### CONSTRAINED COST TO COMPLETE

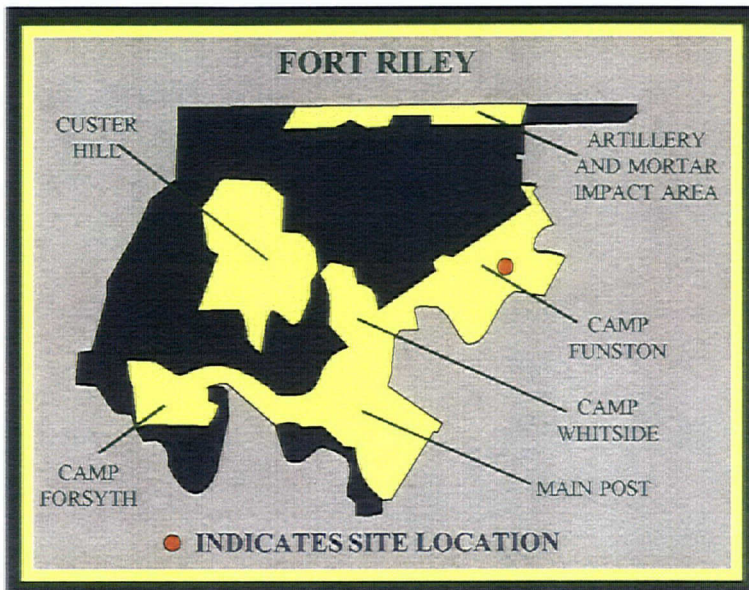
PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	300	300	250	250	250	250	650
RD							
RA(C)							
RA(O)							
IRA							
LTM							

**PROJECTED TOTAL: \$2,250,000**

# 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.



## PROPOSED PLAN

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

Develop GIS database & characterize hydrogeology of area as well as contamination

Additional groundwater monitoring wells will be installed to fill data gaps and replace abandoned monitoring wells. 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, CEMRK and the USGS. USGS is being utilized to plan and partially execute this effort. USGS will plan, coordinate execution in conjunction with CEMRK, evaluate data and issue reports. K-State inorganic tracing will assist in understanding of groundwater flow.

Chemical sampling and analyses will be performed by contractors through CEMRK. CEMRK & CEMRD 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

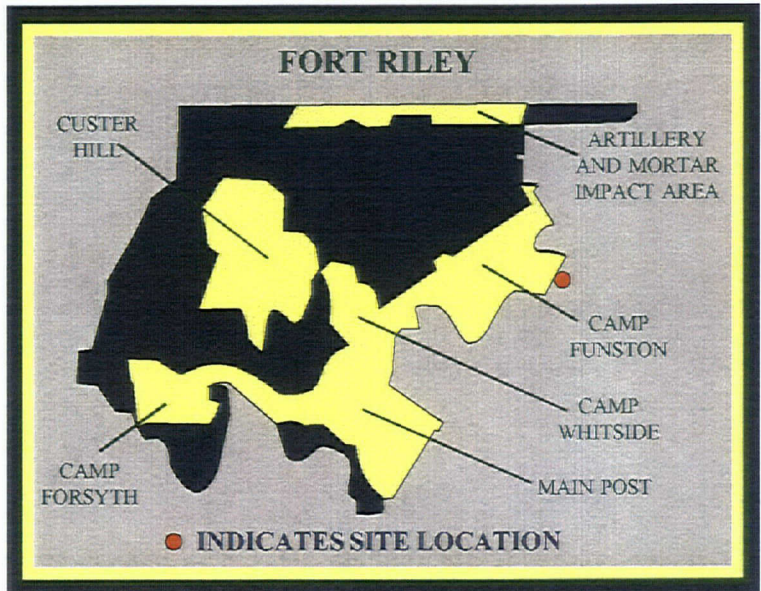
PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	255	140	80				
RD							
RA(C)							
RA(O)							
IRA							
LTM			80	80	155	10	240

**PROJECTED TOTAL: \$1,040,000**

# 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.



## PROPOSED PLAN

Conduct an Ecological Risk Assessment to develop a risk management plan.

Implement institutional controls with potential hot spot removal.

There is some limited potential for a site wide UXO clearance operation to meet KDHE requirements.



## IRP STATUS

**RRSE RATING:** Medium Risk

**CONTAMINANTS OF CONCERN:**

Metals

**MEDIA OF CONCERN:**

Soils, Groundwater

**COMPLETED IRP PHASE:**

PA/SI

**CURRENT IRP PHASE:**

RI

**FUTURE IRP PHASE:**

IRA, ROD

## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)	112	50					
IRA							
LTM			852	1632	600		

**PROJECTED TOTAL: \$3,246,000**

# FTRI-038 FORSYTH LANDFILL(S)

## SITE DESCRIPTION

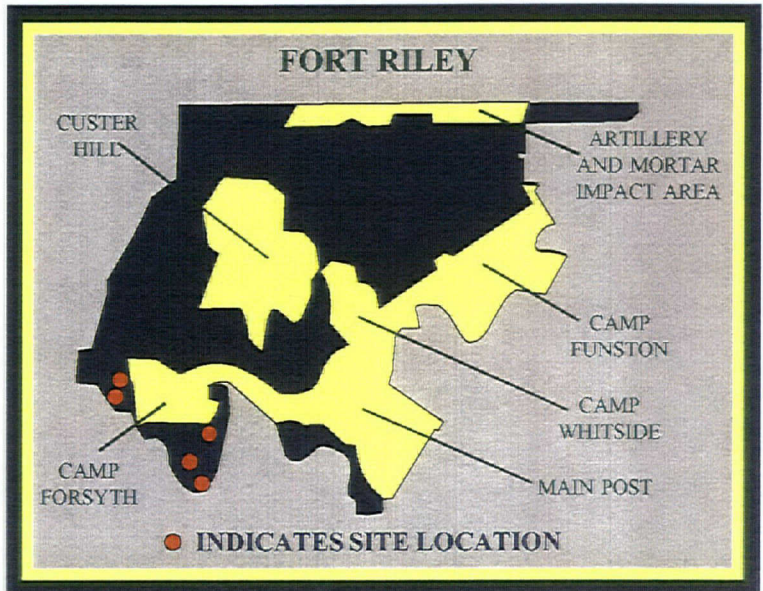
Located in areas south and west of Camp Forsyth, five separate areas have been identified as areas which have received dumping. One of these areas is present in the aerial photos taken in 1939. In 1994, soil gas and groundwater sampling did not detect any contaminants of concern. In Area 2, along the 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.

## PROPOSED PLAN

Bank stabilization project due to landfill material exposed and eroding out along the river bank - eroding material includes UXO.

Pre-design work to include surveying



## IRP STATUS

**RRSE RATING:** Medium Risk  
**CONTAMINANTS OF CONCERN:**  
 Metals, Explosives  
**MEDIA OF CONCERN:**  
 Soil, Groundwater  
**COMPLETED IRP PHASE:**  
 PA/SI  
**CURRENT IRP PHASE:**  
 RI, IRA  
**FUTURE IRP PHASE:**  
 ROD

## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA	166						
LTM							
<b>PROJECTED TOTAL: \$166,000</b>							



# 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.

## PROPOSED PLAN

A Decision Document will be prepared.  
No further remedial action is required.

## IRP STATUS

**RRSE RATING:** Low Risk

**CONTAMINANTS OF CONCERN:**

VOCs, Metals

**MEDIA OF CONCERN:**

Groundwater

**COMPLETED IRP PHASE:**

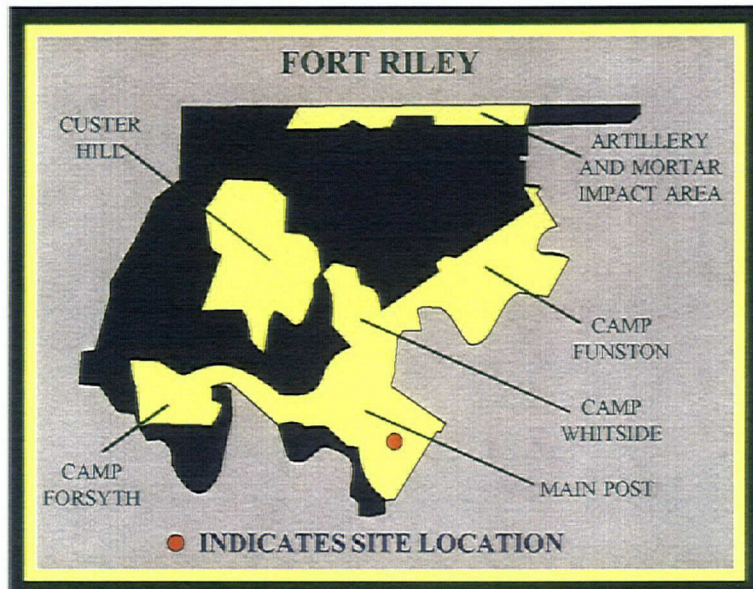
PA/SI

**CURRENT IRP PHASE:**

RI (DD)

**FUTURE IRP PHASE:**

Response Complete



## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	10						
RD							
RA(C)							
RA(O)							
IRA							
LTM							

**PROJECTED TOTAL: \$10,000**

# FTRI-004 MAIN POST LANDFILL



## SITE DESCRIPTION

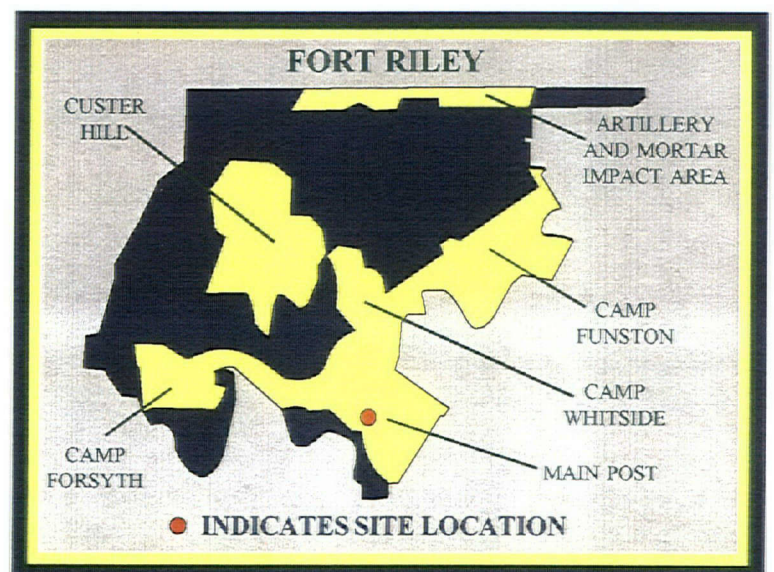
Located in the southern area of Main Post, these dumping areas were used intermittently from approximately 1880 to the late 1940's. Only the areas which received wastes after World War II are of concern. Typical municipal, non-hazardous waste is present. Site investigations indicated low levels (below 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.

## PROPOSED PLAN

FY98 Decision Document will be completed. 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

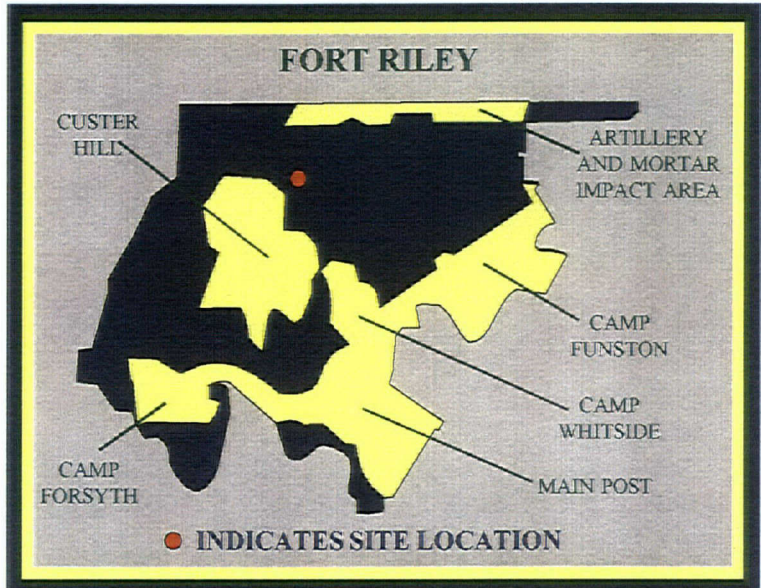


# **POL/UST SITES**

# 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. Ground-water contamination in the shale formation may be impractical to remediate because of relatively small amounts of ground-water in a fracture controlled formation.



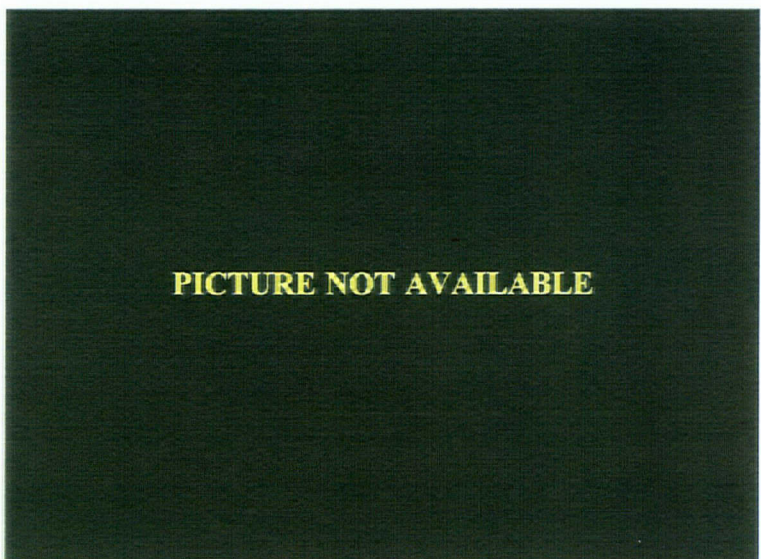
## PROPOSED PLAN

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

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

A Remedial Action Plan will be prepared and a recommendation of No Further Action will be submitted to KDHE.

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



## IRP STATUS

**RRSE RATING:** High Risk

**CONTAMINANTS OF CONCERN:**

BTEX, PAHs

**MEDIA OF CONCERN:**

Soils, Groundwater

**COMPLETED IRP PHASE:**

PA/SI

**CURRENT IRP PHASE:**

R/FS

**FUTURE IRP PHASE:**

LTM

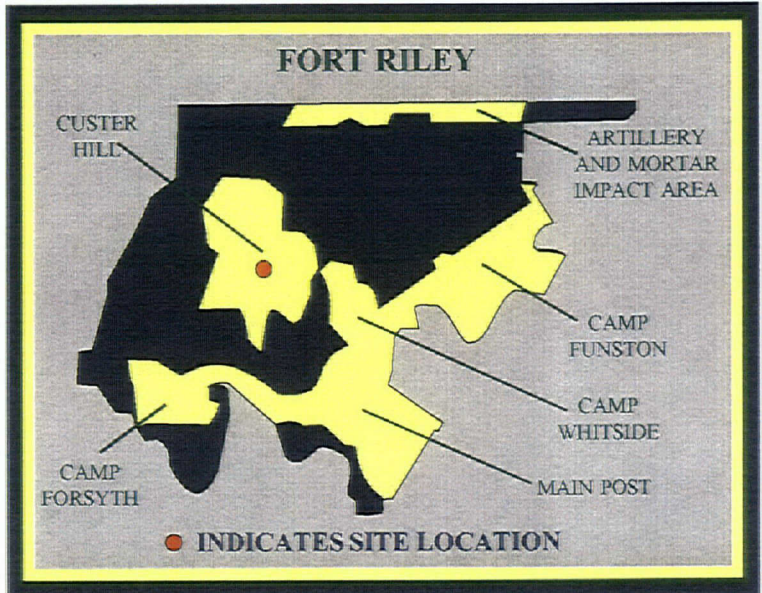
## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
R/FS	25		150	35			
RD							
RA(C)							
RA(O)							
IRA							
LTM				15	15	15	30
<b>PROJECTED TOTAL: \$285,000</b>							

# FTRI-054 CUSTER HILL PX USTS

## SITE DESCRIPTION

This site was a closed gasoline service station where 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".



PICTURE NOT AVAILABLE

## 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

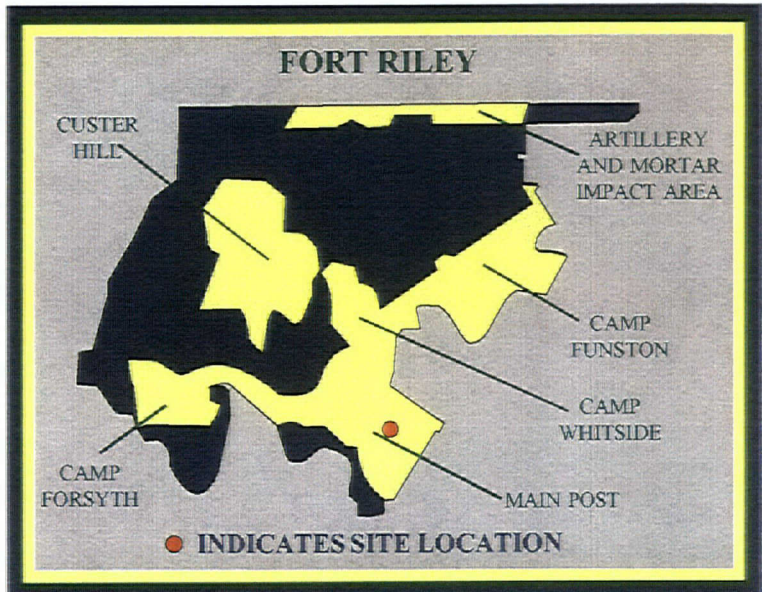
PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM					5		

**PROJECTED TOTAL: \$5,000**

# 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 ground-water contamination not expected.

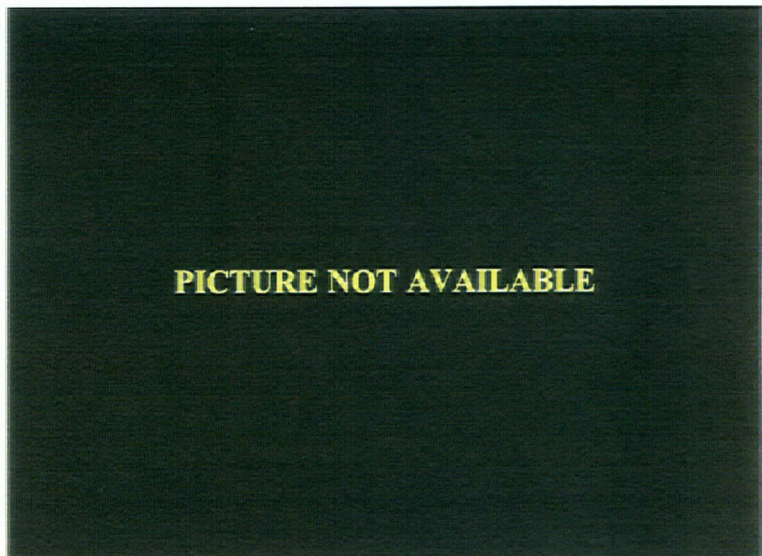


## PROPOSED PLAN

Site Data limited; complete RI/RAP.

Monitoring wells and additional soil gas points are planned.

Based upon additional site investigations, a remedial action plan will be developed.



## 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:**

LTM

## CONSTRAINED COST TO COMPLETE

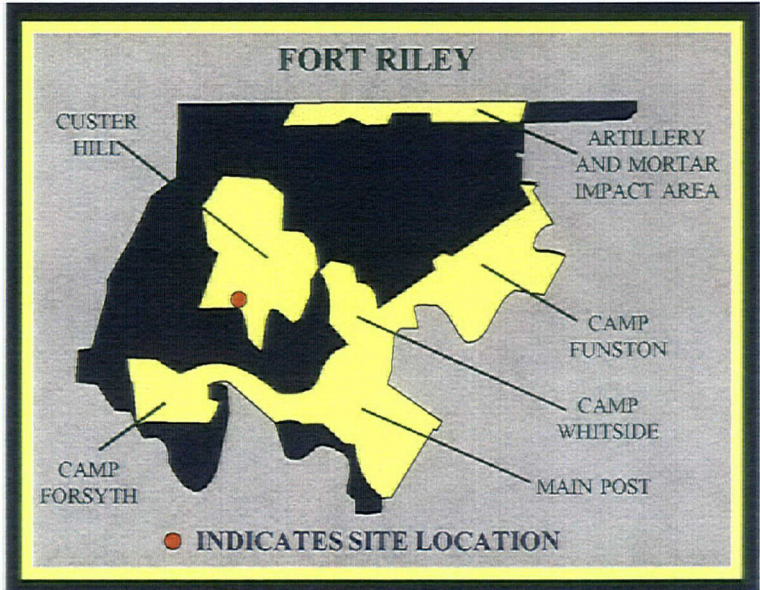
PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS	60		250	45			
RD							
RA(C)							
RA(O)							
IRA				300	3000		
LTM				30	30	30	60

**PROJECTED TOTAL: \$1,805,000**

# FTRI-057 6200 AREA (FUEL OIL UST)

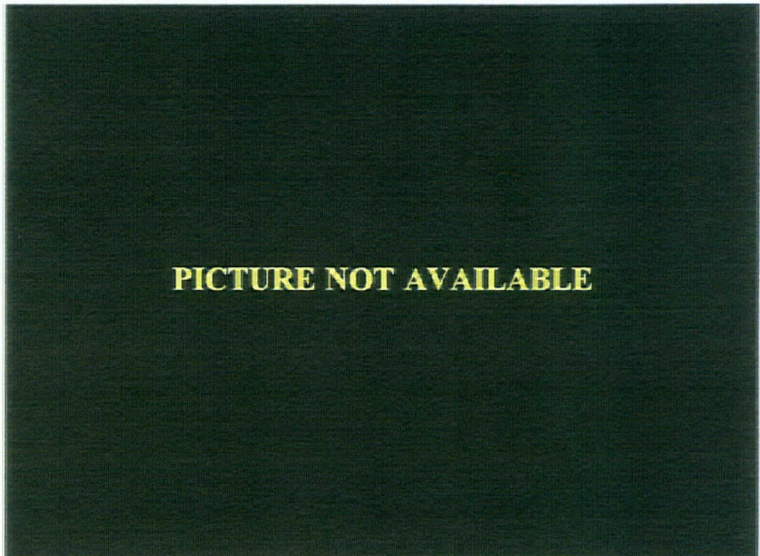
## SITE DESCRIPTION

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. Ground-water contamination in the limestone formation may be impractical to remediate because of relatively small amounts of groundwater in a fracture controlled formation.



## PROPOSED PLAN

A groundwater investigation will be performed. Based upon results, long term monitoring may be required.



## 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:**

R/FS

**FUTURE IRP PHASE:**

LTM

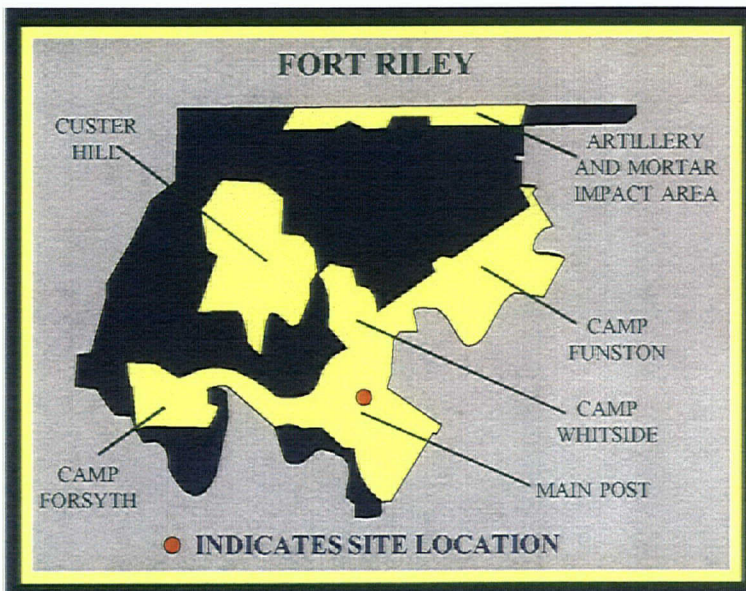
## CONSTRAINED COST TO COMPLETE

PHASE	1998	1999	2000	2001	2002	2003	2004+
R/FS	60		250	45			
RD							
RA(C)							
RA(O)							
IRA							
LTM				30	30	30	60
<b>PROJECTED TOTAL: \$505,000</b>							

# 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.



## PROPOSED PLAN

Long Term Monitoring for 5 years.

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

PICTURE NOT AVAILABLE

## 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	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	35	7	7	7	15		

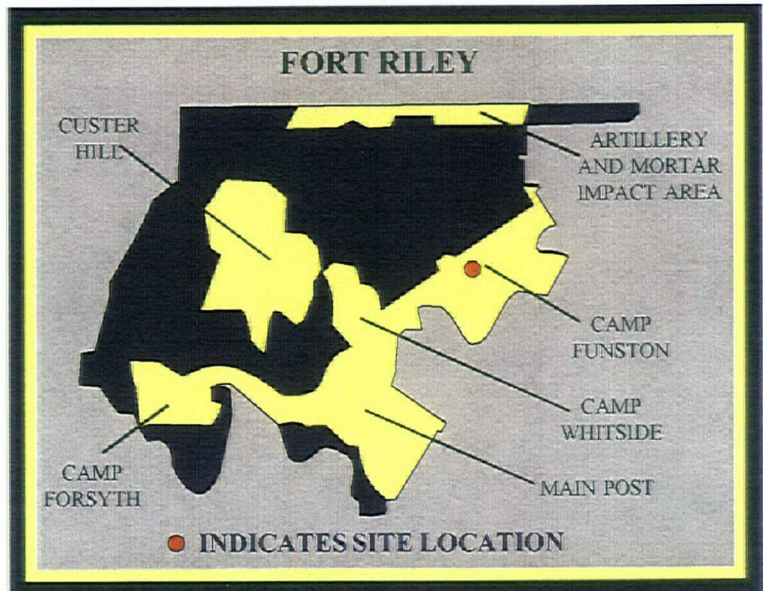
**PROJECTED TOTAL: \$71,000**



# 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.



## PROPOSED PLAN

Long Term Monitoring for 5 years.

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

PICTURE NOT AVAILABLE

## 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	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	35	7	7	7	15		

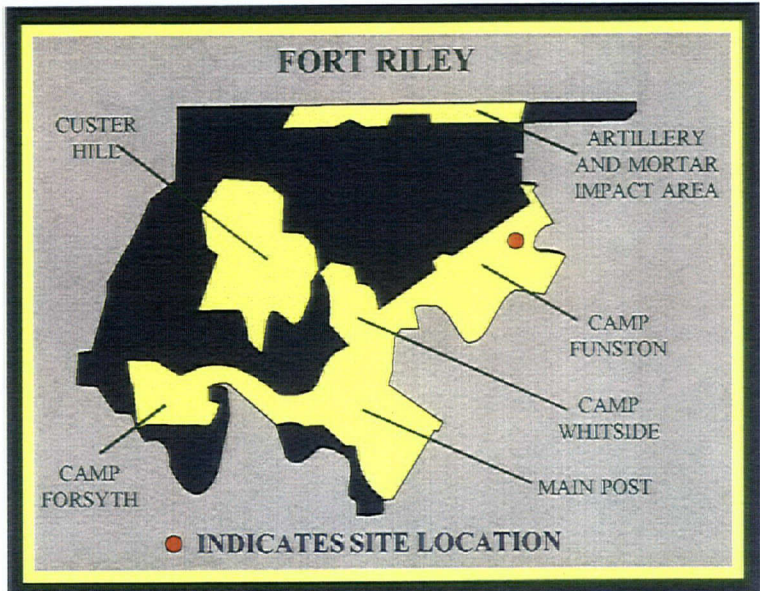
**PROJECTED TOTAL: \$71,000**

# 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.

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

PICTURE NOT AVAILABLE

## 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

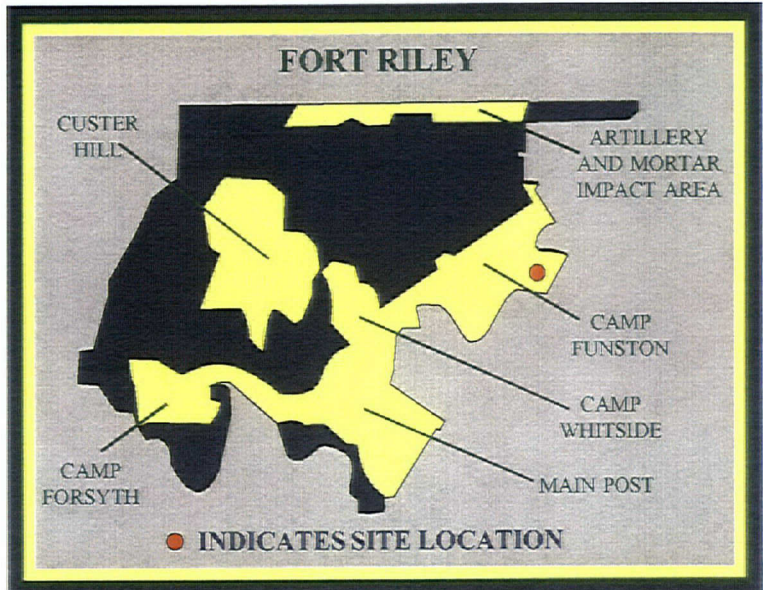
PHASE	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	35	7	7	7	15		

**PROJECTED TOTAL: \$71,000**

# FTRI-068 FORMER BUILDING 1637 DISPENSING AREA

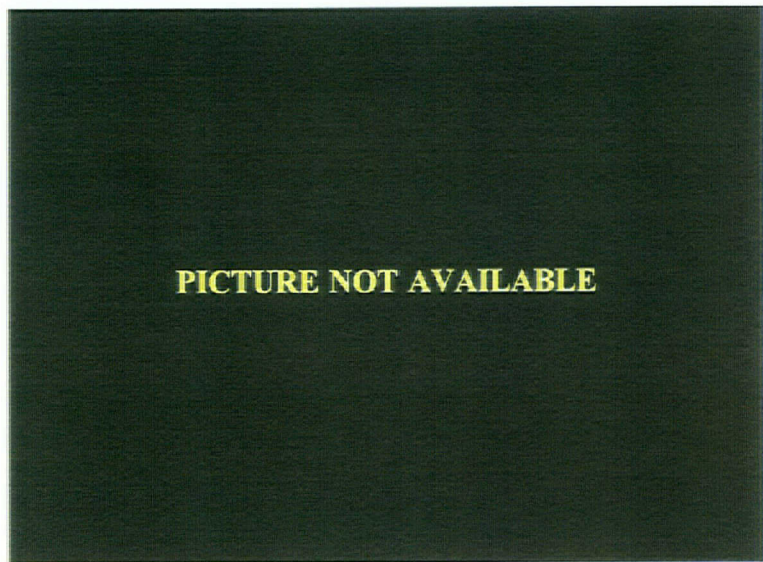
## SITE DESCRIPTION

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.  
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	1998	1999	2000	2001	2002	2003	2004+
RI/FS							
RD							
RA(C)							
RA(O)							
IRA							
LTM	35	7	7	7	15		

**PROJECTED TOTAL: \$71,000**

## 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-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

### 1998

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

RI Addendum/FS - FTRI-027 Dry Cleaning Facilities

IRA Construction - FTRI-019 (MAAF-FFTA) Exposure Control

## FUTURE MILESTONES

### 1998

IRA - FTRI-019 (FFTA-MAAF) GW Control EE/CA  
SI Report - FTRI-009 (OB/OD)  
PP - FTRI-027 (DCF)  
IRA - FTRI-038 (Forsyth) Bank Stabilization (FY98-99)  
DD - FTRI-004 (MPLF), -051 (727), and multiple UST sites

### 1999

RI/FS - FTRI-031 (354)  
ROD - FTRI-027 (DCF), FTRI-011 (CFGW), FTRI-029 (SEF Incin), FTRI-036 (SEFL), FTRI-038 (Forsyth Area 2 Bank)  
IRA - FTRI-036 (SEFL) Cover Improvement  
IRA - FTRI-019 (FFTA-MAAF) Focused GW Treatment

### 2000

IRA - FTRI-029 (SEF Incin) Soil abatement

### 2001

DD - FTRI-053, FTRI-056, and FTRI-057

### 2002

PP - FTRI-031 (Bldg 354 Area)  
ROD - FTRI-031 (Bldg 354 Area)  
PP - FTRI-019 (FFTA-MAAF)  
DD - FTRI-056 (AGL)  
LTM Completed - FTRI-054, FTRI-062, FTRI-063, FTRI-066, FTRI-068

### 2003

IRA - FTRI-019 (FFTA-MAAF) GW Treatment  
ROD - FTRI-019 (FFTA-MAAF)

### 2004

RA(O) Initiated - FTRI-019 (FFTA-MAAF)

### 2005

LTM Completed - FTRI-056 and FTRI-053

### 2006

ROD - FTRI-009 (OB/OD)  
LTM Completed - FTRI-057

### 2007+

RA - FTRI-029 (SEF Incinerator) (FY07-09)  
LTM Completed - FTRI-011 (FY08)  
RA(O) Completed and RC - FTRI-003 SFL (Final Cover Repairs) (FY09)  
LTM Completed - FTRI-031 (FY11)  
RA(O) Completed - FTRI-019 (FFTA-MAAF) (Treatment System Operation) (FY12)  
RC - FTRI-019 (FFTA-MAAF) (FY13)  
LTM Completed - FTRI-003 (FY26)  
LTM Completed - FTRI-027 (FY28)  
LTM Completed - FTRI-019 (FY34)

Projected NPL delisting (following RIP for FTRI-019):	2010
Projected completion date of all remedial actions (following completion of remedial action operations):	2013
Projected completion of all DERA IRP activities including LTM:	2034

## 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-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	
		FY98	FY99	FY00	FY01	FY02	FY03	FY04+
FTRI-003	IRA							
	RA(O)							
	LTM							
FTRI-006	RI/FS							
FTRI-009	RI/FS							
FTRI-011	RI/FS							
	LTM							
FTRI-019	RI/FS							
	IRA							
	RD							
	RA							
	RA(O)							
	LTM							
FTRI-027	RI/FS							
	LTM							
FTRI-029	RI/FS							
	IRA							
FTRI-030	LTM							
FTRI-031	RI/FS							
	LTM							
FTRI-036	RI/FS							
	IRA							
FTRI-038	IRA							
FTRI-051	RI/FS							
FTRI-053	RI/FS							
	LTM							

# Fort Riley IRP Schedule

(Based on current funding constraints)

		Completed Phase			Underway Phase		Future Phase	
		FY98	FY99	FY00	FY01	FY02	FY03	FY04+
<b>FTRI-054</b>	LTM							
<b>FTRI-056</b>	RI/FS							
	IRA							
	LTM							
<b>FTRI-057</b>	RI/FS							
	LTM							
<b>FTRI-062</b>	LTM							
<b>FTRI-063</b>	LTM							
<b>FTRI-066</b>	LTM							
<b>FTRI-068</b>	LTM							

# Defense Site Environmental Restoration Tracking System

Phase Summary Report

03-09-1998

Installation: FORT RILEY

Programs: IRP and OHW

NPL Options: NO, PROPOSED, YES, and DELISTED

Site count for Programs and NPL 71

### Phase / Status / Sites

PA				SI			
C	U	F	RC	C	U	F	RC
71	0	0	4	63	0	2	16

RI / FS				RD		
C	U	F	RC	C	U	F
28	10	2	24	4	1	2

RA(C)				RA(O)			
C	U	F	RC	C	U	F	RC
13	0	3	13	0	0	2	0

LTM			
C	U	F	N
0	2	15	54

### Remedy / Status / Sites (Actions)

IRA					
C		U		F	
13 (	16 )	3 (	4 )	1 (	1 )

FRA					
C		U		F	
13 (	16 )	0 (	0 )	2 (	2 )

RIP Total: 0

RC Total: 57

## DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

03-09-1998

FORT RILEY  
KS214020756  
FORC

Site	A106 Project #	RRSE	Media Evaluated	Phase(s) Completed	Phase(s) Underway	Phase(s) Future	#IRA Completed	#IRA Underway	#IRA Future	LTM Status	Est. RC Date	Act. RC Date	RIP Date
FTRI-001	FRY091S060	NE		PA			0	0	0	N		199308	
	FRY091S061			RI									
				SI									
FTRI-002	FRY091S060	3A	GW (Human)	PA			0	0	0	N		199803	
	FRY091S061		SO (Human)	RI									
	FRY096D009			SI									
FTRI-003	FRY089F042	1A	GW (Human)	PA	LTM		0	0	0	U		199712	
	FRY091S061		SE (Human)	RA(C)									
			SO (Human)	RD									
				RI									
FTRI-004	FRY091S060	3A	GW (Human)	PA	RI		0	0	0	N	199808		
	FRY091S061			SI									
	FRY096D009												
FTRI-005	FRY091S060	NE		PA		0	0	0	N		199305		
FTRI-006	FRY091S060	3A	SO (Human)	PA			0	0	0	N		199803	
	FRY091S061			RI									
	FRY096D008			SI									
FTRI-007		NE		PA			0	0	0	N		198909	
				SI									
FTRI-008		NE		PA			0	0	0	N		199012	
				RA(C)									
				RD									
				SI									

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FTRI-009	FRY091S060	1A	GW (Human)	PA	RI		0	0	0	N	199907		
	FRY091S061		SE (Human)	SI									
	FRY096D009		SO (Human)										
			SW (Human)										
FTRI-010		NE		PA			0	0	0	N		199204	
				RA(C)									
				RD									
				SI									
FTRI-011	FRY091S060	1A	GW (Human)	PA	RI	LTM	0	0	0	F	200009		
	FRY091S061			SI									
	FRY096D007												
FTRI-012	FRY091S060	3A	GW (Human)	PA			0	0	0	N		199509	
	FRY091S061			RI									
	FRY096D009			SI									
FTRI-013		NE		PA			0	0	0	N		199202	
				RA(C)									
				RD									
				SI									
FTRI-014		NE		PA			0	0	0	N		198909	
				SI									
FTRI-015	FRY091S060	2A	GW (Human)	PA			0	0	0	N		199509	
	FRY096D008			RI									
				SI									
FTRI-016		NE		PA			0	0	0	N		198909	
				SI									
FTRI-017		NE		PA			0	0	0	N		198909	
				SI									
FTRI-018		NE		PA			0	0	0	N		198909	
				SI									
FTRI-019	FRY091S061	1A	GW (Human)	PA	RI	LTM	2	2	0	F	203709		
	FRY093F013		SO (Human)	SI		RA(C)							

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**RISK INSTALLATION ACTION PLAN REPORT**

03-09-1998

FTRI-019						RA(O)							
						RD							
FTRI-020	FRY091S060	2A	GW (Human)	PA			0	0	0	N		199803	
	FRY091S061			RI									
	FRY096D008			SI									
FTRI-022		NE		PA			0	0	0	N		199303	
				SI									
FTRI-023		NE		PA			0	0	0	N		199305	
				SI									
FTRI-024		NE		PA			0	0	0	N		199305	
				SI									
FTRI-025		NE		PA			0	0	0	N		199305	
				SI									
FTRI-026		NE		PA			0	0	0	N		199305	
				SI									
FTRI-027	FRY091S061	1A	GW (Human)	PA	RI	LTM	1	0	0	F	200003		
	FRY091S063		SW (Human)	SI									
FTRI-028	FRY091S061	NE		PA			0	0	0	N		199309	
				RA(C)									
				RI									
				SI									
FTRI-029	FRY091S060	2A	SO (Human)	PA	RI		0	0	1	N	200012		
	FRY091S061			SI									
	FRY096D007												
FTRI-030	FRY089F031	3A	GW (Human)	PA			1	0	0	N		199803	
	FRY091S061		SE (Human)	RI									
	FRY094S001		SO (Human)	SI									
FTRI-031	FRY091S060	1A	GW (Human)	PA	RI	LTM	0	0	0	F	200612		
	FRY091S061		SO (Human)	SI									
	FRY096D010												
FTRI-032	FRY091S060	2A	GW (Human)	PA	RI	LTM	0	0	0	F	199809		

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**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**RISK INSTALLATION ACTION PLAN REPORT**

03-09-1998

FTRI-032	FRY091S061		SW (Human)	SI								
	FRY096D007											
FTRI-033		NE		PA			0	0	0	N		199305
				SI								
FTRI-034	FRY091S060	NE		PA			0	0	0	N		199612
	FRY091S061			SI								
	FRY096D009											
FTRI-035	FRY091S060	2A	SO (Human)	PA			1	0	0	N		199503
	FRY091S061			RI								
	FRY096D007			SI								
FTRI-036	FRY091S060	2A	GW (Human)	PA	RD	LTM	0	0	0	F	200306	
	FRY091S061			SI		RA(C)						
	FRY096D008											
FTRI-037	FRY091S060	2A	SO (Human)	PA			0	0	0	N		199507
	FRY091S061			RI								
	FRY096D008			SI								
FTRI-038	FRY091S060	2A	GW (Human)	PA	RI	RA(C)	0	0	0	N	202009	
	FRY091S061		SO (Human)	SI		RA(O)						
	FRY096D007					RD						
FTRI-039		NE		PA			0	0	0	N		199305
				SI								
FTRI-040	FRY091S061	NE		PA			0	0	0	N		199305
FTRI-041	FRY091S060	NE		PA			0	0	0	N		199507
	FRY091S061			RI								
				SI								
FTRI-042		NE		PA			0	0	0	N		199305
FTRI-043		NE		PA			0	0	0	N		199305
FTRI-044	FRY091S060	NE		PA			0	0	0	N		199509
	FRY091S061			SI								
FTRI-045	FRY091S060	3A	SO (Human)	PA			0	0	0	N		199507
	FRY091S061			RI								

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**RISK INSTALLATION ACTION PLAN REPORT**

03-09-1998

FTRI-045				SI								
FTRI-046	FRY091S060	2A	GW (Human)	PA		0	0	0	N		199507	
	FRY091S061		SO (Human)	RI								
	FRY096D008			SI								
FTRI-047	FRY091S060	3A	SO (Human)	PA		0	0	0	N		199507	
	FRY091S061			RI								
				SI								
FTRI-048	FRY091S060	NE		PA		0	0	0	N		199507	
	FRY091S061			RI								
				SI								
FTRI-049		NE		PA		0	0	0	N		199305	
				RA(C)								
FTRI-050	FRY091S060	3A	SO (Human)	PA		0	0	0	N		199803	
	FRY091S061			RI								
	FRY096D009			SI								
FTRI-051	FRY091S060	3A	SO (Human)	PA	RI	0	0	0	N	199809		
	FRY091S061			SI								
	FRY096D009											
FTRI-052	FRY091S060	NE		PA		0	0	0	N		199507	
	FRY091S061			RI								
				SI								
FTRI-053	FRY091S005	1B	GW (Human)	PA	RI	0	0	0	N	200012		
	FRY091S061		SO (Human)		SI							
	FRY096D011											
	FRY096D006											
FTRI-054	FRY091S005	3B	GW (Human)	PA	LTM	1	0	0	F		199709	
	FRY091S061		SO (Human)	RI								
	FRY096D013			SI								
FTRI-055	FRY091S060	3A	GW (Human)	PA		0	0	0	N		199507	
	FRY091S061			RI								
				SI								

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**RISK INSTALLATION ACTION PLAN REPORT**

03-09-1998

FTRI-056	FRY091S005	2B	GW (Human)	PA		LTM	0	0	0	F	200012		
	FRY091S061		SO (Human)			SI							
	FRY096D012												
FTRI-057	FRY091S020	3B	SO (Human)	PA		LTM	1	0	0	F	200101		
	FRY091S061			SI		RI							
	FRY096D006												
FTRI-059		NE		PA			0	0	0	N		199012	
				RA(C)									
FTRI-060	FRY091S005	3B	GW (Human)	PA			1	0	0	N		199506	
	FRY091S061		SO (Human)	SI									
	FRY096D013												
FTRI-061	FRY091S005	2B	GW (Human)	PA	LTM		2	0	0	U		199510	
	FRY091S061		SO (Human)	SI									
	FRY096D012												
FTRI-062	FRY091S005	1B	GW (Human)	PA		LTM	0	1	0	F		199709	
	FRY091S061		SO (Human)	RI									
	FRY096D011			SI									
	FRY096D006												
FTRI-063	FRY091S005	1B	GW (Human)	PA		LTM	1	1	0	F		199707	
	FRY091S061		SO (Human)	RI									
	FRY096D011			SI									
	FRY096D006												
FTRI-064	FRY091S005	NE		PA			0	0	0	N		199504	
	FRY091S061			RA(C)									
				RI									
				SI									
FTRI-065	FRY091S005	NE		PA			0	0	0	N		199504	
	FRY091S061			RA(C)									
				RI									
				SI									
FTRI-066	FRY091S005	1B	GW (Human)	PA		LTM	1	0	0	F		199708	

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**RISK INSTALLATION ACTION PLAN REPORT**

03-09-1998

FTRI-066	FRY091S061		SO (Human)	RI								
	FRY096D006			SI								
FTRI-067	FRY091S005	2B	GW (Human)	PA		LTM	1	0	0	F		199708
	FRY091S061		SO (Human)	RI								
	FRY096D012			SI								
FTRI-068	FRY091S005	1B	GW (Human)	PA		LTM	2	0	0	F		199708
	FRY091S061		SO (Human)	RI								
	FRY096D006			SI								
FTRI-069	FRY091S005	2B	GW (Human)	PA		LTM	1	0	0	F		199708
	FRY091S061		SO (Human)	RI								
	FRY096D012			SI								
FTRI-070	FRY091S005	NE		PA			0	0	0	N		199502
	FRY091S061			RA(C)								
				SI								
FTRI-071	FRY091S005	NE		PA			0	0	0	N		199508
	FRY091S061			RA(C)								
				SI								
FTRI-072		NE		PA			0	0	0	N		199508
				RA(C)								
				SI								
FTRI-073		NE		PA			0	0	0	N		199504
				RA(C)								
				SI								

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# 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.

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.

## **FUTURE REM/IRA/RA**

### **Camp Funston GW Detections (FTRI-011) - FY98**

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

### **Marshall Army Airfield - Former Fire Training Area (FTRI-011) - FY98-03**

Options being considered include in-situ treatment (i.e. air sparging, hydrogen peroxide, etc.) and extraction with various treatment alternatives (i.e. air stripper, GAC, spray irrigation). LTM is expected to be necessary until 2034.

### **Dry Cleaning Facilities Area (FTRI-027) - FY98**

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

### **Former Incinerator Site, Southeast Funston (FTRI-029) - FY00**

IRA for possible removal or in-situ stabilization of soils in "hot spot" area.

### **Building 354 Area Solvent Detections (FTRI-031) - FY02**

Following further characterization, LTM will be conducted through FY12.

### **OB/OD Ground (Range 16) (FTRI-009) - FY02**

Site Investigation results indicate the need for long-term monitoring.

## **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.

# PRIOR YEAR FUNDING

## FY97

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

**FY97 TOTAL: \$ 2,804,000**

## FORT RILEY - 1998 UNCONSTRAINED COST TO COMPLETE

DSERTS #	SITE TITLE	PHASE	FY98	FY99	FY00	FY01	FY02	FY03	FY04+	SITE TOTAL
FTRI-003	Southwest Funston Landfill	IRA RA(O) LTM	4 40 237	20 195	10 130	40 100	10 140	600 75	0 950 1340	3891
FTRI-006	DRMO Storage Area (DRMO Area 1)	RI/FS	15						0	15
FTRI-009	OB/OD	RI/FS	300	300	250	250	250	250	650	2250
FTRI-011	Camp Funston GW Detections	RI/FS LTM	255	140	80	80	155	10	0 240	1040
FTRI-019	Old Fire Training Area-Marshall Army Airfield	RI/FS IRA RD RA RA(O) LTM	850 75	420 2575	250 1000	250 750	205 600	30 595 300	0 0 0 2000 1100 400	14800
FTRI-027	Dry Cleaning Facilities Area	RI/FS LTM	78 173	10	37	60	100	60	0 720	1238
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS IRA	112	50	3084				0 0	3246
FTRI-030	Pesticide Storage Facility	LTM					10		40	50
FTRI-031	Building 354 Area Solvent Detections	RI/FS LTM	100	340	200	75	100	50	0 650	1565
FTRI-036	Southeast Funston Landfill -Inactive	RI/FS IRA		10					0 75	385
FTRI-038	Forsyth Landfill(s)	IRA	166						0	166
FTRI-051	Building 727 Former Service Pit	RI/FS	10						0	10
FTRI-053	POL Tank Farm	RI/FS LTM	25	150	35	15	15	15	0 30	285
FTRI-054	Custer Hill PX USTS	LTM					5		0	5
FTRI-056	Abandoned Gasoline Line	RI/FS IRA LTM	60	250	45	300	30	1000	0 0 60	1805
FTRI-057	6200 Area (Fuel Oil) UST	RI/FS LTM	60	250	45	30	30	30	0 60	505
FTRI-062	TMP Gas Station (Bldg 388)	LTM	35	7	7	7	15		0	71
FTRI-063	Former Building 1044 Dispensing Area	LTM	35	7	7	7	15		0	71
FTRI-066	Former Building 1245 Dispensing Station	LTM	35	7	7	7	15		0	71
FTRI-068	Former Building 1637 Dispensing Area	LTM	35	7	7	7	15		0	71
TOTALS IN THOUSANDS OF DOLLARS			\$ 3,000	\$ 4,738	\$ 5,274	\$ 2,008	\$ 2,760	\$ 2,445	\$ 11,315	\$ 31,540



## FORT RILEY - 1998 CONSTRAINED COST TO COMPLETE

DSERT'S #	SITE TITLE	PHASE	FY98	FY99	FY00	FY01	FY02	FY03	FY04+	SITE TOTAL
FTRI-003	Southwest Funston Landfill	IRA RA(O) LTM	4 40 237	20 195	10 130	40 100	10 140	800 75	0 750 1340	3891
FTRI-006	DRMO Storage Area (DRMO Area1)	RI/FS	15						0	15
FTRI-009	OB/OD	RI/FS	300	300	250	250	250	250	650	2250
FTRI-011	Camp Funston GW Detections	RI/FS LTM	255 255	140 140	80 80	80 80	155 155	10 10	0 240	1040
FTRI-019	Old Fire Training Area-Marshall Army Airfield	RI/FS IRA RD RA RA(O) LTM	850 75	420 1765	250 670	250 385	205 300	30 1900	0 500 300 2000 1100 3800	14800
FTRI-027	Dry Cleaning Facilities Area	RI/FS LTM	78 173	10	37	60	100	60	0 720	1238
FTRI-029	Old Incinerator Site SE-Camp Funston	RI/FS IRA	112	50	852	1632	600	0	0	3246
FTRI-030	Pesticide Storage Facility	LTM					10		40	50
FTRI-031	Building 354 Area Solvent Detections	RI/FS LTM	100	272	268	75	100 50	50	0 650	1565
FTRI-036	Southeast Funston Landfill -Inactive	RI/FS IRA	300		10				0 75	385
FTRI-038	Forsyth Landfill(s)	IRA	166						0	166
FTRI-051	Building 727 Former Service Pit	RI/FS	10						0	10
FTRI-053	POL Tank Farm	RI/FS LTM	25		150	35 15	15	15	0 30	285
FTRI-054	Custer Hill PX USTS	LTM					5		0	5
FTRI-056	Abandoned Gasoline Line	RI/FS IRA LTM	60		250	45 300 30	1000 30	30	0 0 60	1805
FTRI-057	6200 Area (Fuel Oil) UST	RI/FS LTM	60		250	45 30	30 30	30	0 60	505
FTRI-062	TMP Gas Station (Bldg 388)	LTM	35	7	7	7	15		0	71
FTRI-063	Former Building 1044 Dispensing Area	LTM	35	7	7	7	15		0	71
FTRI-066	Former Building 1245 Dispensing Station	LTM	35	7	7	7	15		0	71
FTRI-068	Former Building 1637 Dispensing Area	LTM	35	7	7	7	15		0	71
TOTALS IN THOUSANDS OF DOLLARS			\$ 3,000	\$ 3,200	\$ 3,315	\$ 3,400	\$ 3,060	\$ 3,250	\$ 12,315	\$ 31,540
POM CONSTRAINTS			3000	3200	3315	3400	3060	3250		
DIFFERENCE			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		

# 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, 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, Sierra Club, Kansas Geological Survey, City of Ogden (Mayor), EPA, and KDHE.

## *RAB ACTIVITIES*

The first scheduled meeting of the RAB was held November 25, 1997. Agenda items included the mission of Fort Riley and developing a charter. Activities planned are site visits, a visit from FORSCOM to discuss budget and funding procedures, and presentation of detailed information on the sites.

## *PROJECTIONS FOR THE RAB*

Over the next year, the members will begin to learn about the sites and site visits have been planned to acquaint the members with the Installation and the Restoration Program.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RAB REPORT

03-09-1998

Command: FORC

SubCommand:

Installation: FORT RILEY

RAB Established date: 199709

Reason RAB not Established:

RAB Disestablished date:

Reason RAB disestablished:

TRC date: 199201

RAB Members:

LOCAL RESIDENTS/COMMUNITY MEMBERS  
INSTALLATION RESIDENTS  
LOCAL ENVIRONMENTAL GROUPS/ACTIVISTS  
BUSINESS COMMUNITY  
LOCAL GOVERNMENT OFFICIALS

RAB Activities:

RECEIVED TRAINING  
EST. OPERATING PROCEDURES

RAB Funding:

FY	Tech. Assist.	Expenditures

RAB Advice: