

**FY2012**

**FORT BRAGG**

**Army Defense Environmental Restoration Program**

**Installation Action Plan**

Printed 24 January 2013

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## Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the Installation Management Command (IMCOM), the US Army Environmental Command (USAEC), Fort Bragg (FTBR), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

## Acronyms

AAFES	Army and Air Force Exchange Service
ACSIM	Assistant Chief of Staff for Installation Management
AEDB-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
ASP	Ammunition Supply Point
AST	Aboveground Storage Tank
Bldg	Building
BMP	Base Master Plan
C&D	Construction and Demolition
CC	Compliance-related Cleanup
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operations)
CMI(P)	Corrective Measures Implementation (Plan)
CMS	Corrective Measures Study
CS	Confirmatory Sampling
CSA	Comprehensive Site Assessment
cy	cubic yard
DD	Decision Document
DEH	Directorate of Engineering and Housing
DPW	Directorate of Public Works
ENRD	Environmental and Natural Resources Division
ER,A	Environmental Restoration, Army
FRA	Final Remedial Action
FS	Feasibility Study
FTBR	AEDB-R Designation for Fort Bragg
FY	Fiscal Year
GIS	Geographical Information System
HRC	Hydrogen-Release Compound
IAP	Installation Action Plan
IMCOM-SE	Installation Management Command-Southeast
IRA	Interim Remedial Action
IRP	Installation Restoration Program
kg	kilogram
LSA	Limited Site Assessment
LTM	Long-Term Management
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
mg	milligram
MILCON	Military Construction
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MSW	Municipal Solid Waste
N/A	Not Applicable
NCDENR	North Carolina Department of Environment and Natural Resources

## Acronyms

NFA	No Further Action
NPL	National Priorities List
O&M	Operations and Maintenance
OU	Operable Unit
OWS	Oil/Water Separator
PAH	Polycyclic Aromatic Hydrocarbon
PBA	Performance-Based Acquisition
PBC	Performance-Based Contract
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
POL	Petroleum, Oils, and Lubricants
RA	Remedial Action
RA(O)	Remedial Action (Operations)
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SAR	Soil Assessment Report
SCM	Site Conceptual Model
SI	Site Inspection
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAL	Target Analyses List
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USEPA	US Environmental Protection Agency
USGS	US Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound
VTTA	Vocational Technical Training Area
WWTP	Wastewater Treatment Plant

## Acronym Translation Table

### CERCLA

Preliminary Assessment(PA)  
Site Inspection(SI)  
Remedial Investigation/Feasibility Study(RI/FS)  
Remedial Design(RD)  
Remedial Action (Construction)(RA(C))  
Remedial Action (Operation)(RA(O))  
Long Term Management(LTM)  
Interim Remedial Action(IRA)

### RCRA

= RCRA Facility Assessment(RFA)  
= Confirmation Sampling(CS)  
= RCRA Facility Investigation/Corrective Measures Study(RFI/CMS)  
= Design(DES)  
= Corrective Measures Implementation (Construction)(CMI(C))  
= Corrective Measures Implementation (Operation)(CMI(O))  
= Long Term Management(LTM)  
= Interim Measure(IM)

## Site Alias List

### AEDB-R Site ID to Alias List

<b>AEDB-R #</b>	<b>Alias</b>
CC PBC@Bragg	PBC@CR
CCFTBR0011	
CCFTBR0013	FW12902-9
CCFTBR0015	
CCFTBR0016	
CCFTBR0017	
CCFTBR0021	
CCFTBR0022	
CCFTBR0037	
CCFTBR0038	
CCFTBR0039	
CCFTBR0042	
CCFTBR0044	
CCFTBR0046	
CCFTBR0067	
CCFTBR0074	
CCFTBR0080	
CCFTBR0089	
CCFTBR0090	
CCFTBR0095	
CCFTBR0096	
CCFTBR0097	
CCFTBR0098	
CCFTBR0099	
CCFTBR0309	
CCFTBR0310	TU506
CCFTBR0311	
CCFTBR0312	TU508
CCFTBR0313	TU500
CCFTBR0314	TU5001
CCFTBR0315	
CCFTBR0316	
CCFTBR0317	
CCFTBR0318	TU527
CCFTBR0321	TU517
CCFTBR0322	TU504
CCFTBR0323	
FTBR-001	SWMU 1
FTBR-001-R-01	Old ASP
FTBR-004	SWMUs 4&18
FTBR-005	SWMU 5
FTBR-008	SWMUs8abcd
FTBR-009	SWMU 9

## Site Alias List

FTBR-012	SWMU 12
FTBR-014	SWMU2,14ab
FTBR-063	SWMU 63
FTBR-069	SWMU 69
FTBR-103	SWMU 103
FTBR-300	LF005
FTBR-301	LF006
FTBR-302	LF010
FTBR-303	LF012
FTBR-304	SS009
FTBR-305	SS018
FTBR-306	FT001
FTBR-307	PL505
FTBR-308	SS007
FTBR-310	SS019
FTBR-311	SS020
FTBR-312	SS516
FTBR-313	ST002
FTBR-314	ST008
PBC @ Ft Bragg	PBA

# Installation Information

## Installation Locale

**Installation Size (Acreage):** 162000

**City:** Fayetteville

**County:** Cumberland, Hoke, Harnett, Moore

**State:** North Carolina (NC)

## Other Locale Information

Fort Bragg is located on 162,000 acres of land in south-central NC; it is approximately 50 miles south of Raleigh. The facility is part of Cumberland, Hoke, Harnett, and Moore Counties, and abuts the cities of Fayetteville and Spring Lake.

## Installation Mission

Fort Bragg is an active US Army installation serving as the major logistics, training, and mobilization deployment center for the XVIII Airborne Corps and the 82d Airborne Division, which are part of the Army's mobile infantry, assault and armored forces. Fort Bragg's primary mission is the training of airborne troops. Broadly categorized, ongoing operations at Fort Bragg include general maintenance and repair, land management, utility systems operation and commercial activities.

## Lead Organization

### Lead Executing Agencies for Installation

USAEC

### Regulator Participation

**Federal**

US Environmental Protection Agency (USEPA), Region IV

**State**

North Carolina Department of Environment and Natural Resources (NCDENR)

### National Priorities List (NPL) Status

FORT BRAGG is not on the NPL

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

The community has expressed no sufficient, sustained interest in a RAB.

## Installation Program Summaries

### IRP

**Primary Contaminants of Concern:** Explosives, Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC), Volatiles (VOC)

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

### MMRP

**Primary Contaminants of Concern:** Metals, Munitions constituents (MC)

**Affected Media of Concern:** Groundwater, Soil

### CR

**Primary Contaminants of Concern:** Petroleum, Oil and Lubricants (POL)

**Affected Media of Concern:** Groundwater, Soil

## 5-Year / Periodic Review Summary

### 5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	200810	200904	2009
Planned	201210	201309	2013

### Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
FTBR-001 Decision Document	FTBR-001
FTBR-004 Decision Document	FTBR-004
FTBR-005 Decision Document	FTBR-005
FTBR-008 Decision Document	FTBR-008
FTBR-009 Decision Document	FTBR-009
FTBR-012 Decision Document	FTBR-012
FTBR-014 Decision Document	FTBR-014
FTBR-063 Decision Document	FTBR-063
FTBR-069 CMS/CMIP	FTBR-069
FTBR-103 CMS/CMIP	FTBR-103

**Results** Monitoring requirements were reviewed during the 5-year assessment. Decision Documents were revised and signed by the installation commander & the State. Sampling frequency & the number of analytes was reduced for several sites.

**Actions** Revised decision documents issued.

**Plans** Implement new sampling/monitoring requirements. Another 5 yr review assessment is scheduled for FY14.

#### Recommendations and Implementation Plans:

No five-year review report was prepared. These sites operate under Resource Conservation and Recovery Act (RCRA) permits. A set of revised decision documents (DDs) for RCRA corrective measures implementation-operations [CMI(O)] at eight solid waste management units (SWMUs 1, 4, 5, 8, 12, 14, 18 and 63) was reviewed in lieu of a five-year review report. The documents reduced the long-term monitoring requirements at each SWMU, and were signed in 2009. The optimized long-term monitoring program was implemented in 2009.

Each document stated that the remedy was protective of human health and the environment. Each referred to an annual certification of institutional controls that will be documented as part of the RCRA permit.

## Land Use Control (LUC) Summary

**LUC Title:** Groundwater use restrict

**Site(s):** FTBR-069

**ROD/DD Title:** FTBR-069 CMS/CMIP

**Location of LUC**

The LUC is for the area within the isoconcentration line above the North Carolina 2L standard for chlorinated solvents.

**Land Use Restriction:** Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200803

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200803

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** VOC

**Additional Information**

N/A

**LUC Title:** LUC at SWMU 8, FTBR-008

**Site(s):** FTBR-008

**ROD/DD Title:** FTBR-008 Decision Document

**Location of LUC**

Located in the cantonment area, generally bounded on the east by Knox Street, on the west by the All American Freeway, on the south by Gruber Road, and on the north by the railroad marshalling yard.

**Land Use Restriction:** Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Restrict activities in surface water that result in contact with contaminated bottom sediments such as boating, diving, and swimming, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200411

**Modification Date:** N/A

**Date Terminated:** N/A

## Land Use Control (LUC) Summary

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200411

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** PAH, PETROLEUM HYDROCARBON, VOC

**Additional Information**

N/A

**LUC Title:** LUC at SWMU 9, FTBR-009

**Site(s):** FTBR-009

**ROD/DD Title:** FTBR-009 Decision Document

**Location of LUC**

Located in the cantonment area, bounded on the north by the railroad marshalling yard, on the west by Honeycutt Road, and on the south and east by stormwater drainage features.

**Land Use Restriction:** Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Restrict activities in surface water that result in contact with contaminated bottom sediments such as boating, diving, and swimming, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200411

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200411

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** INORGANICS, METALS, PCBs, PETROLEUM HYDROCARBON, VOC

**Additional Information**

N/A

**LUC Title:** LUC for FTBR-063

**Site(s):** FTBR-063

**ROD/DD Title:** FTBR-063 Decision Document

**Location of LUC**

Located within the Directorate of Public Works (DPW) compound.

**Land Use Restriction:** Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for

## Land Use Control (LUC) Summary

agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

**Date in Place:** 200411

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200411

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** METALS, PESTICIDES, PETROLEUM HYDROCARBON, VOC

**Additional Information**

N/A

**LUC Title:** LUC for SWMU 1

**Site(s):** FTBR-001

**ROD/DD Title:** FTBR-001 Decision Document

**Location of LUC**

Located in the cantonment area on the south side of Gruber Road near the intersection of Gruber and Zabitosky. The SWMU is bordered on the east by a north-south drainage ditch and on the south by an intermittent northwest-southwest tributary to Big Branch Creek.

**Land Use Restriction:** Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200306

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200306

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** METALS, VOC

**Additional Information**

N/A

**LUC Title:** LUC for SWMU 103

## Land Use Control (LUC) Summary

**Site(s):** FTBR-103

**ROD/DD Title:** FTBR-103 CMS/CMIP

**Location of LUC**

The site is located west of South Lucas Street, and bordered on the north by Honeycutt Road. The restrictions apply to groundwater and surface water.

**Land Use Restriction:** Media specific restriction - Prohibit fishing except for recreational purposes (catch and release), Media specific restriction - Prohibit groundwater extraction that interferes with Remedial Action system, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Restrict activities in surface water that result in contact with contaminated bottom sediments such as boating, diving, and swimming, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

**Date in Place:** 200803

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200803

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** VOC

**Additional Information**

N/A

**LUC Title:** LUC for SWMU 5

**Site(s):** FTBR-005

**ROD/DD Title:** FTBR-005 Decision Document

**Location of LUC**

Abandoned landfill located in the cantonment area of Fort Bragg in the vicinity of Knox and Honeycutt Road, north and east of the Earth Terminal complex.

**Land Use Restriction:** Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200306

**Modification Date:** N/A

**Date Terminated:** N/A

## Land Use Control (LUC) Summary

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200306

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** METALS, VOC

**Additional Information**

N/A

**LUC Title:** LUC for SWMUs 2 & 14

**Site(s):** FTBR-014

**ROD/DD Title:** FTBR-014 Decision Document

**Location of LUC**

Abandoned landfills 2 and 14 are located south and west of the intersection of Cook Drive and Knox Street near the south border of the cantonment area.

**Land Use Restriction:** Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200312

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200312

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** METALS, VOC

**Additional Information**

N/A

**LUC Title:** LUC for SWMUs 4 & 18

**Site(s):** FTBR-004

**ROD/DD Title:** FTBR-004 Decision Document

**Location of LUC**

Located in the cantonment area, south of Fire Station #1 on Knox Street. The SWMU is bounded on the east and south by Beaver Creek, on the west by Knox Street, and on the north by Honeycutt Road.

**Land Use Restriction:** Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict

## Land Use Control (LUC) Summary

drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200411

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200411

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** METALS, PESTICIDES, PETROLEUM HYDROCARBON, VOC

**Additional Information**

N/A

**LUC Title:** LUC of SWMU 12, FTBR-012

**Site(s):** FTBR-012

**ROD/DD Title:** FTBR-012 Decision Document

**Location of LUC**

Located in the cantonment area, generally bounded on the north and west by Young Lake and on the south by Jacob Devers School.

**Land Use Restriction:** Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit fishing except for recreational purposes (catch and release), Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Restrict activities in surface water that result in contact with contaminated bottom sediments such as boating, diving, and swimming, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

**Date in Place:** 200309

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200309

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Other

**Contaminants:** VOC

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## Land Use Control (LUC) Summary

### Additional Information

N/A

# Cleanup Program Summary

## Installation Historic Activity

Approximately 11,000 acres (17 square miles) of Fort Bragg comprise the cantonment area, which is located in the eastern part of the installation; this area includes approximately 5,168 buildings. Almost all military maintenance and commercial facilities, supply facilities, operation and training facilities, various community facilities, and family and troop housing are located in this cantonment area. Fort Bragg currently supports a combined military and civilian population of about 65,000. The bulk of the installation's acreage is dedicated to operational areas for field maneuvers, exercises, firing ranges, impact areas, and parachute drop zones.

On Aug. 21, 1918, Camp Bragg was established as a temporary field artillery cantonment on land that was leased with an option to purchase. The design of the initial cantonment area was based on the requirements of two artillery brigades with a total troop strength of around 6,000. In 1922, the Field Artillery Board was transferred from Fort Sill, OK, and Camp Bragg was redesignated Fort Bragg with a primary mission to train troops in the use of artillery. From 1941 to 1946, Fort Bragg was heavily involved in training artillery and airborne troops for World War II. Troop strength reached over 100,000 during this period. In 1943 Camp Mackall, located in Richmond and Scotland Counties and approximately 10 miles west of the southwestern corner of Fort Bragg on approximately 6,600 acres, was purchased and developed as an airborne troop training post. From 1946 to 1951, the 82d Airborne Division was the only large unit at Fort Bragg. During this postwar period, most of Fort Bragg was not in use. Additional purchases of land increased the installation to its present size of approximately 162,000 acres. In 1973 Fort Bragg was assigned to Headquarters, US Army Forces Command, Fort McPherson, Georgia.

In 1988, Fort Bragg applied for a RCRA hazardous waste permit, and as part of the permit process, a RCRA Facility Assessment (RFA) was completed in 1988. This original RFA identified many of the solid waste management units (SWMU) still active today, as well as many others that have been closed out or not investigated due to no evidence of a release. New sites are added as Fort Bragg continues to remove underground storage tanks (UST), oil/water separators (OWS), washracks, grease racks, etc.

## Installation Program Cleanup Progress

### IRP

- Prior Year Progress:** The performance-based acquisition (PBA) contractor continued the required monitoring for the following sites:  
FTBR-001 FTBR-004 FTBR-005  
FTBR-008 FTBR-009 FTBR-012  
FTBR-014 FTBR-063 FTBR-069  
FTBR-103  
Based on the PBA contractor's evaluation of monitoring data, the monitoring network and frequency of sampling were reduced. For SWMUs 69 and 103, CMI(O)] began. Installation remedy-in-place/response complete [RIP/RC] was achieved in fiscal year (FY) 2008.
- Future Plan of Action:** Performance monitoring will continue at all required sites every two years (more often at FTBR-069 and -103). The surface water treatment design at FTBR-103 appears to be functioning as designed and additional surface water treatment implementations are not planned at this time.

### MMRP

- Prior Year Progress:** A site investigation is underway at FTBR-001-R-01, to be complete by January 2013, and follow-on investigation will follow if appropriate.
- Future Plan of Action:** The US Army Corps of Engineers (USACE) will complete the site investigation by January 2013. At this point, no additional investigation is anticipated.

### CR

- Prior Year Progress:** Six notices of residual petroleum (NRP) were successfully filed this year, resulting in six NFA decisions. The draft RFI was completed at CCFTBR0074, with additional well installation underway in March 2012 to address comments from the NCDENR. Additional wells are also being installed at CCFTBR0039 to investigate a solvent release at that site.
- Future Plan of Action:** The PBA contractor has an aggressive schedule towards RC and/or SC for most of the Compliance-related Cleanup (CC) sites by 2013. There are a few RCRA projects that will achieve RIP or RCRA Facility Investigation (RFI) by 2015.

**FORT BRAGG**  
**Army Defense Environmental Restoration Program**  
**Installation Restoration Program**

# IRP Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 60/35

## Installation Site Types with Future and/or Underway Phases

- 1 Above Ground Storage Tank  
(FTBR-313)
- 1 Fire/Crash Training Area  
(FTBR-306)
- 12 Landfill  
(FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014, FTBR-300, FTBR-301, FTBR-302, FTBR-303, PBC @ Ft Bragg)
- 1 Maintenance Yard  
(FTBR-069)
- 1 POL (Petroleum/Lubricants) Lines  
(FTBR-307)
- 1 Soil Contamination After Tank Removal  
(FTBR-103)
- 2 Spill Site Area  
(FTBR-304, FTBR-305)
- 1 Storage Area  
(FTBR-063)
- 3 Underground Storage Tank  
(FTBR-311, FTBR-312, FTBR-314)
- 2 Underground Tank Farm  
(FTBR-308, FTBR-310)

## Most Widespread Contaminants of Concern

Explosives, Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC), Volatiles (VOC)

## Media of Concern

Groundwater, Sediment, Soil, Surface Water

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

Site ID	Site Name	Action	Remedy	FY
FTBR-306	FT001 Fire Training Area #4	IRA	WASTE REMOVAL - SOILS	1993
FTBR-102	VOCATIONAL TECHNICAL TRAINING AREA	IRA	WASTE REMOVAL - SOILS	1996
FTBR-063	DEH STORAGE COMPOUND	IRA	WASTE REMOVAL - SOILS	2000
FTBR-306	FT001 Fire Training Area #4	IRA	FREE PRODUCT RECOVERY	2002
FTBR-001	ABANDONED LANDFILL 1	FRA	NATURAL ATTENUATION	2003
FTBR-035	OIL/WATER SEPARATORS	IRA	REMOVAL	2003
FTBR-012	ABANDONED LANDFILL 12	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2004
FTBR-012	ABANDONED LANDFILL 12	FRA	INSTITUTIONAL CONTROLS	2004
FTBR-008	ABANDONED LANDFILL 8	FRA	NATURAL ATTENUATION	2005
FTBR-008	ABANDONED LANDFILL 8	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-009	ABANDONED LANDFILL 9	FRA	PASSIVE TREATMENT WELLS	2005
FTBR-009	ABANDONED LANDFILL 9	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-014	ABANDONED LANDFILLS 2 & 14	FRA	INSTITUTIONAL CONTROLS	2005
FTBR-014	ABANDONED LANDFILLS 2 & 14	FRA	OTHER	2005

## IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
FTBR-014	ABANDONED LANDFILLS 2 & 14	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-306	FT001 Fire Training Area #4	FRA	SOIL VAPOR EXTRACTION	2005
FTBR-314	ST008 Base-wide USTs	IRA	FREE PRODUCT RECOVERY	2006
FTBR-308	SS007 Blue Ramp JP-4 Spill Site	FRA	FREE PRODUCT RECOVERY	2007
FTBR-312	SS516 Building 390 Golf Course Mntc	FRA	FREE PRODUCT RECOVERY	2007
FTBR-069	JEEP DISMANTLING AREA, BLDG 8-3612	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2008
FTBR-103	MALLONEE VILLAGE GAS STATION	FRA	GROUND WATER TREATMENT	2008
FTBR-309	SS014 Morale, Welfare, and Recreati	FRA	INSTITUTIONAL CONTROLS	2008
FTBR-310	SS019 Pumphouse Building 822	IRA	FREE PRODUCT RECOVERY	2008
FTBR-311	SS020 Silver Ramp Spill Site	FRA	INSTITUTIONAL CONTROLS	2008
PBC @ Ft Bragg	PBA	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2008
FTBR-307	PL505 Building 164 Hydrant Fuel Lin	FRA	FREE PRODUCT RECOVERY	2009
FTBR-313	ST002 POL Bulk Fuel Storage Area	FRA	INSTITUTIONAL CONTROLS	2009
FTBR-300	LF005 Hardfill Number 2	FRA	INSTITUTIONAL CONTROLS	2011
FTBR-301	LF006 Hardfill Number 8	FRA	NATURAL ATTENUATION	2011
FTBR-302	LF010 Hardfill Number 1	FRA	INSTITUTIONAL CONTROLS	2011
FTBR-303	LF012 Hardfill Number 7	FRA	INSTITUTIONAL CONTROLS	2012
FTBR-304	SS009 3rd Aerial Port Squadron Spil	FRA	NATURAL ATTENUATION	2012
FTBR-305	SS018 Liquid Oxygen Area Spill Site	FRA	NATURAL ATTENUATION	2012

#### Duration of IRP

**Date of IRP Inception:** 198410

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 201309/205209

**Date of IRP completion including Long Term Management (LTM):** 205209

# IRP Contamination Assessment

## Contamination Assessment Overview

Over time Fort Bragg's diversified activities (vehicle maintenance and repair, land management, utility operations, and commercial processes) resulted in a variety of wastes being generated. These wastes consist primarily of the following:

- Petroleum products
- Pesticides/herbicides
- Paint products
- Antifreeze
- Radiological wastes
- Construction/demolition debris
- Waste acids
- Solvents
- Medical wastes
- PCB, and
- Metals

In 1988 a RFA was conducted at Fort Bragg and Camp Mackall. Forty-six SWMUs and seven AOCs were identified as having the potential for release of contaminants to the environment. As a consequence of this 1988 RFA report, 31 SWMUs and seven AOCs were listed in Part I of the RCRA Part B permit as requiring RFI studies to characterize these sites for the nature, amount, and extent of contamination. In accordance with the RCRA Part B permit, Fort Bragg identified and evaluated an additional site at the vocational technical training area (VTTA), FTBR-102 and Mallonee Village gas station, FTBR-103, and the Abandoned ammunition supply point (ASP), FTBR-104. No SWMUs or AOCs were identified at Camp Mackall.

Currently, there are 10 active sites. Two sites (FTBR-069 and FTBR-103) are in the corrective measures investigation phase, and eight sites are RIP with long-term management (LTM) under the installation restoration program (IRP) with 34 RC without LTM sites. The AOC-A site will be addressed using non- Environmental Restoration, Army (ER,A) funds.

Fort Bragg has no known off-post contamination. Groundwater underlying Fort Bragg has been shown to be contaminated with solvents, POL, metals, and pesticides primarily at FTBR-069 and FTBR-103. Groundwater at Fort Bragg is not currently used as a source for drinking water.

There are seven IRP sites which include 11 landfills and/or cells. The contents of the abandoned landfills are believed to be solid waste, incinerator ash, and/or construction debris. Typical operation activities at the landfills included the trench and area methods. In the trench method, soil is excavated to create a trench, the wastes are compacted into the trench, and the excavated soil is used to cover the waste. The maximum depths of disposal trenches were usually 15 feet below land surface.

The sites listed in this IAP are divided into 10 operable units (OU) and five independent sites (FTBR-003, FTBR-004, FTBR-005, FTBR-103, and FTBR-104). ER,A funds are or were used to address sites included in OU1 and OU5. Non-ER,A funds are used to address the sites included in OU 6 and OU 10. The five independent sites included in each OU are defined below following the OU definitions.

OU 1 (FTBR-007, FTBR-030, FTBR-031, and FTBR-B)

These are located near the 82d Airborne Division heating plant. In January 1999 OU1 received no further action (NFA).

OU 2 (FTBR-012 and FTBR-102)

These sites are included in the same OU because of their proximity. In 1996 an RFI was completed at OU 2. In 1996 the remedial investigation (RI)/feasibility study (FS) (RFI) report was submitted to the federal and state regulators and it was approved in 1997. On Sept. 14, 2001 NFA for SWMU 102 was received. In January 2004, monitored natural attenuation (MNA) for SWMU 12 began. Groundwater and surface water monitoring is underway.

OU 3 (FTBR-014, -008, and -009)

FTBR-014 consists of the former FTBR-002 since FTBR-014 overlies part of FTBR-002, which is near Beaver Creek. FTBR-008 and FTBR-009 are included because of their proximity to each other and to Beaver Creek. In 1996 the RFI for OU 3 was submitted to regulatory agencies. A corrective measures study (CMS)/remedial design (RD) was completed and an RA was completed in FY2005. LTM is in progress.

OU 4 (FTBR-063, -069, E, F, and G)

These sites are in the north central portion of the cantonment area. In June 1999 the final RI/FS (RFI) report for OU 4 was submitted to the regulatory agencies. An interim remedial action (IRA) of soil removal was completed at FTBR-063 in FY2000. In

# IRP Contamination Assessment

## Contamination Assessment Overview

FY2004 a supplemental RFI at FTBR-063 was completed. Remedial action (operations) (RA(O)) began in FY2005 and is in progress. An extended RI/FS at FTBR-069 began in FY2000. In 2007 the CMS was completed; on Sept. 2, 1999 NFA was granted for FTBR-E and for FTBR-G on Sept. 17, 2003. FTBR-F has yet to be investigated.

### OU 5 (FTBR-001 and FTBR-077)

FTBR-001 is an abandoned landfill encompassing approximately 94 acres. FTBR-077 is the 782d battery shop neutralization sump. NFA for FTBR-077 was received in FY2001. A CMS for FTBR-001 was completed in FY2003. In September 2003 LTM began and is currently underway.

### OU 6 (FTBR-016, -086, -088, C, and D)

These are funded under the CC program.

### OU 7 [10 sites at the current wastewater treatment plant (WWTP)]

These include FTBR-038 through -040, -042 through -046, -050, and AOC-A. They are funded under the CC program.

### OU 8 (170 used oil UST)

These USTs are located throughout the cantonment area (FTBR-033). This OU is considered NFA under the IRP; any future action will be addressed under the CC program.

### OU 9 (FTBR-35)

FTBR-35 consists of 235 OWS located throughout the cantonment area. It is funded under the CC program.

### OU 10 (FTBR-036)

FTBR-36 consists of 74, washracks, which are located throughout the cantonment area. The washracks will be sampled with AEDB-CC funds.

## OTHER SITES

### FTBR-003, FTBR-004, and FTBR-005

These consist of abandoned landfills. An RFI was completed for each site. Based on the results of the RFIs, in FY194 NFA for FTBR-003 was approved by the NCDENR, and a CMS was required for FTBR-004 and -005. In FY2004 and FY2003, respectively, the CMS for FTBR-004 and -005 were completed. LTM was recommended for groundwater [for VOCs, semi-SVOCs, and POL] and land use controls (LUC). LTM of groundwater began in FY2005.

### FTBR-103

This is the former Mallonee Village gas station. The RFI was completed in FY2004. A CMS was completed in FY2007. Chlorinated solvents are present in the groundwater.

### FTBR-104

This site was not identified until FY2003; it consists of an abandoned ASP. In FY2004 white phosphorous grenades were discovered, and in FY2004 a hazardous waste removal action (to remove soils and contamination from the white phosphorous) was completed. An RFI was completed in FY2006 and in January 2007 NFA was received from the NCDENR.

## Cleanup Exit Strategy

At each of the eight sites where groundwater monitoring is in progress, a ramp-down strategy will be implemented. All sites in LTM will have a periodic review to determine future LTM requirements. FTBR-069 and FTBR-103 will require corrective measures implementation (construction) (CMI(C)) and corrective measures implementation (operations) (CMI(O)) beginning in FY2008 with CMI(O) following. Installation RIP/RC was achieved in FY2008, and CMI(O) will continue.

## IRP Previous Studies

Year	Title	Author	Date
1994	RCRA Facility Investigation. Operable Unit #2 Fort Bragg, North Carolina Volumes I-V	Unknown	AUG-1994
1995	RCRA Facility Investigation, Operable Unit 3	Unknown	FEB-1995
	RCRA Facility Investigation, Operable Unit 2 (Final)	Unknown	JUN-1995
	US Geological Survey Progress Report	Unknown	JUL-1995
	RCRA Facility Investigation, Operable Unit #4 USGS	USGS	AUG-1995
	Baseline Risk Assessment for 525th, Military Intelligence Brigade Barracks	USGS	OCT-1995
	Geohydrologic Study: Investigation of Groundwater, Contamination at AAFES and VTTA	Unknown	NOV-1995
1996	US Army Base Realignment Closure 95 Program, Environmental Baseline Survey Report, Rec Ctr #2	Unknown	APR-1996
	Groundwater Sampling Low-Producing Wells--Fort Bragg, Installation Restoration Program (IRP), North Carolina	Unknown	MAY-1996
	Groundwater Sampling Low-Producing Wells--Fort Bragg, Installation Restoration Program (IRP), North Carolina	Unknown	MAY-1996
	Final RCRA Facility Investigation Report and letter report, addendum for SWMU 3	Unknown	AUG-1996
	Solid Waste Management Unit 5, Final Report and Letter Rpt, Addendum with analytical data	Unknown	AUG-1996
	Solid Waste Management Unit 3 -- Fort Bragg, Concurrence w/USGS recommendation for NFA for SWMU 3	Unknown	SEP-1996
	Final RCRA Facility Investigation Report with letter report addendum for SWMU 5, Fort Bragg, NC	Unknown	SEP-1996
	Corrective Action Management Plan (CAMP) FY 1996	Unknown	SEP-1996
	RCRA Facility Investigation at Operable Unit 3, Fort Bragg	Unknown	DEC-1996
1997	AOC G - UST Closure Report - Request NFA	Earth Tech	JAN-1997
	RCRA Facility Investigation Final Report -- Operable Unit 2 from US EPA	Unknown	FEB-1997
	Corrective Action Plan, Faith Barracks Energy Plant, Fort Bragg, North Carolina	USACE Savannah	APR-1997
1998	RFI at SWMUs 4 and 18 - Final Report. Comments requested for RFI extension	Unknown	DEC-1998
1999	AOC E&F Closure Report, Environmental Division	Unknown	JAN-1999
	RFI Final Report, OU5	USGS	AUG-1999
	RCRA Facility Investigation at Operable Unit 5, Final Report	USGS	AUG-1999
2000			

## IRP Previous Studies

Year	Title	Author	Date
2000	RFI Work Plan for OU6	USACHPPM	JUN-2000
2001	Baseline Risk Assessment for Administrative Closure of Range 70	URS	APR-2001
	Final Letter Report, A-2058 Oil/Water Separator Removal	Horne Engineering Services	MAY-2001
2002	Final CMS for Abandoned Landfill, SWMU 12	SAIC	MAR-2002
	Revised Final CMS for Abandoned Landfill, SWMU 12, Within OU2	SAIC	JUN-2002
2003	Final Letter Report, Supplemental Soil Sampling for Oil/Water Separator Removal at 2-3357	USACE	JAN-2003
	Final Supplemental RFI/CMS at SWMU 5	SAIC	MAR-2003
	Final Corrective Measures Studies at OU3, Volumes 1 through 4	SAIC	APR-2003
	Final Supplemental RFI/CMS at SWMU 1	Zapata	APR-2003
	Final Remedial Design Analysis for Abandoned Landfill, SWMU 12, Volumes 1, 2, and 4	SAIC	APR-2003
2004	Final Corrective Measures Study for SWMUs 4 & 18	SAIC	MAR-2004
	Final RCRA Facility Investigation for the Former Mallonee Village Gas Station (SWMU 103)	SAIC	SEP-2004
	Revised Final Site Conceptual Model Report for Former Mallonee Village Gas Station (SWMU 103) and Vicinity that Includes SWMUs 4 and 18 and SWMU 5	SAIC	SEP-2004
2005	Compliance Monitoring Report, Sampling Event 1, for Remedial Action/Long Term Monitoring for SWMU 8	BHATE	JAN-2005
	Phosphorus Practice Grenade Material Removal near SWMU 104, Volumes I and II	Zapata	FEB-2005
	Phosphorus Practice Grenade Material Removal near SWMU 104, Volumes I and II	Zapata	FEB-2005
	Final RCRA Facility Investigation (RFI) Report for the Wastewater Treatment Plant (WWTP) and AOC A	Zapata	AUG-2005
	Final RCRA Facility Investigation (RFI) Report for the Wastewater Treatment Plant (WWTP) and AOC A	Zapata	AUG-2005
	Final Compliance Monitoring Report (Second Sampling Event) for Remedial Action for SWMU 12 Within Operable Unit 2	JJ Sosa	AUG-2005
	Final Field Documentation and Closure Reports for FY05 Oil Waster Separator Removals	JJ Sosa	AUG-2005
	Final Compliance Monitoring Report (Third Sampling Event) for Remedial Action for SWMU 12 Within Operable Unit 2, JJ Sosa	JJ Sosa	OCT-2005
	Letter Report for RCRA Facility Investigation (RFI) at Solid Waste Management Unit (SWMU) 104	Zapata	DEC-2005
2006	Compliance Monitoring Report, Second Sampling	BHATE	JAN-2006

## IRP Previous Studies

2006

Title	Author	Date
Event, SWMU 9		
Compliance Monitoring Report, Sampling Event 2, SWMU 8	BHATE	JAN-2006
Final Compliance Monitoring Report, Sampling Event 1, for SWMUs 4&18	BHATE	JAN-2006
Final Compliance Monitoring Report, Sampling Event 1, for SWMU 5	BHATE	JAN-2006
Compliance Monitoring Report, Sampling Event 1, for SWMU 14	BHATE	JAN-2006
Compliance Monitoring Report, Sampling Event 2, SWMUs 8, 9	BHATE	JAN-2006
Supplemental Information for RFI at SWMU 104	Zapata	FEB-2006
Final Report on the Fourth Sampling Event for Long Term Ground-Water Monitoring at SWMU 1	USACE- Savannah	MAY-2006
Final Addendum #7 to the Sampling and Analysis Plan to Support the Corrective Measures Study at Mallonee Village Gas Station (SWMU 103)	SAIC	JUN-2006
Corrective Measures Study for SWMU 69, Volumes I & II	USACE- Savannah	JUN-2006
Draft Report for 2nd LTM Groundwater Monitoring Event at SWMU 63	USACE- Savannah	JUL-2006
Letter Report-Supplemental Arsenic Information for SWMU 104	Zapata	JUL-2006
Final Compliance Monitoring Report, 4th Sampling Event, Remedial Action for SWMU 12	USACE- Savannah	AUG-2006
Final Compliance Monitoring Report, 4th Sampling Event, Remedial Action for SWMU 12	USACE- Savannah	AUG-2006
Draft Final Corrective Measures Study for SWMU 103	SAIC	AUG-2006
Letter Addendum-Final Work Plan for Additional Soil Sampling at SWMU 104	Zapata	AUG-2006
Letter Addendum-Final Work Plan for Additional Soil Sampling at SWMU 104	Zapata	AUG-2006
Revised pages for the Final 2nd LTM Groundwater Monitoring Event at SWMU 63	USACE- Savannah	SEP-2006
Construction Project Request for SWMU 1	Fort Bragg	OCT-2006
Final Construction Report for FY05-1 Heating Oil Tank Removals/Replacements	Aerostar	NOV-2006
Addendum Letter Report for RCRA Facility Investigation for SWMU 104	Zapata	DEC-2006
Draft Report on the Fifth Sampling Event for Long Term Monitoring at SWMU 1	USACE- Savannah	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 14, Sampling Event 2	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 9, Sampling Event 3	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 8, Sampling Event 3	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMUs 4 & 18, Sampling Event 2	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 5, Sampling Event 2	BHATE	DEC-2006

2007

## IRP Previous Studies

2007	Title	Author	Date
	Draft First Long-Term Monitoring Report for OU6	USACE- Savannah	FEB-2007
	Final Accident Prevention Plan for Remediation Services at Ft. Bragg	Parsons	FEB-2007
	Final Project Management Plan for the Performance Based Contract	Parsons	MAR-2007
	Final Corrective Measures Study for SWMU 69 Jeep Dismantling Area, fort Bragg, NC	Parsons	MAY-2007
	Final Corrective Measures Study For SWMU 103, Ft. Bragg, NC	Parsons	AUG-2007
	Final Long-Term Monitoring Report, SWMU 63, Third Sampling Event (March 2007), Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 8, Fourth Sampling Event (March 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 9, Fourth Sampling Event (March 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 14, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 4/18, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 5, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
2008	Final Corrective Measures Implementation Plan for SWMU 103, Ft Bragg, NC	Parsons	JAN-2008
	Final Corrective Measures Implementation Plan for SWMU 69, Jeep Dismantling Area, Ft. Bragg, NC	Parsons	JAN-2008
	Final LTM Report for SWMU 4/18, 5, 14, and 63, July 2008 Sampling Event	Parsons	DEC-2008
2009	Final Corrective Measures Implementation Report for SWMU 69	Parsons	JAN-2009
	Final Corrective Measures Implementation Report for SWMU 103	Parsons	JAN-2009
	FTBR-001 Decision Document	Parsons	FEB-2009
	FTBR-004 Decision Document	Parsons	FEB-2009
	FTBR-005 Decision Document	Parsons	FEB-2009
	FTBR-008 Decision Document	Parsons	FEB-2009
	FTBR-009 Decision Document	Parsons	FEB-2009
	FTBR-012 Decision Document	Parsons	FEB-2009
	FTBR-014 Decision Document	Parsons	FEB-2009
	FTBR-063 Decision Document	Parsons	FEB-2009
	Final Long Term Monitoring Report	Parsons	AUG-2009

# **FORT BRAGG**

## **Installation Restoration Program**

### **Site Descriptions**

**Site ID: FTBR-001**  
**Site Name: ABANDONED LANDFILL 1**  
**Alias: SWMU 1**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199902.....	200309
CMI(C).....	200309.....	200309
CMI(O).....	200309.....	204209

**RIP Date:** 200309

**RC Date:** 204209

**SITE DESCRIPTION**

FTBR-001 is an abandoned solid waste landfill located on the south side of Gruber Road near the intersection of Gruber and Zabitosky in the cantonment area. The landfill is bordered on the east by a north-south drainage ditch, and on the south by an intermittent northwest-southeast tributary to Big Branch Creek. The 94 acre unlined landfill operated from the early-1940s to 1951. Three vehicle maintenance facilities, including motor pools and paved parking lots, were constructed on top of most of the site.

Because of an erosion control project in Big Branch Creek near the site, the state agreed that surface water/stream bed sediment samples would not be required.

Early stages of the RFI revealed metals, pesticides, and VOCs in the soil; low levels of solvents were found in the groundwater. In late FY199 the final RFI was submitted. The CMS was completed in FY2003, recommended groundwater monitoring.

In FY2003 a DD was signed. Groundwater monitoring was required. Institutional controls were implemented, and geographic information system (GIS) layers showing the LUC were included in the base master plan (BMP). Annual certification of the institutional controls will be documented for the RCRA permit.

Groundwater sampling as part of CMI(O) began in 2003. Fifteen groundwater wells are at the site; eight of them were monitored for VOCs, SVOCs, and RCRA metals every nine months. Six rounds of sampling were completed (June 2003, April 2004, February 2005, December 2005, August 2006, and November 2007) and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed from annually to biennially. Five wells will be sampled in odd-numbered years for VOCs, SVOCs, and RCRA metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect the changes in the groundwater monitoring network and schedule and was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 Army Environmental Database - Restoration (AEDB-R) site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-004**  
**Site Name: LANDFILL 4 & FIRE TRAINING PITS 18**  
**Alias: SWMUs 4&18**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199110.....	200409
CMI(C).....	200410.....	200411
CMI(O).....	200409.....	204209

**RIP Date:** 200411

**RC Date:** 204209

**SITE DESCRIPTION**

FTBR-004 is an abandoned landfill; fire training pits (formerly FTBR-018) are collocated within the site. The area is just southeast of the intersection of Honeycutt Road and Knox Street in the central part of the cantonment area. The 10-acre landfill was active between 1961 and 1966. No known records indicate the types of waste that were disposed there.

Two fire training pits were constructed on the northern half of FTBR-004. Use of the fire pits began in 1966; the pits were lined with sand until 1978 when they were lined with concrete and drainage was directed to an OWS located between the pits. Investigation of FTBR-018 has been incorporated into FTBR-004.

In 1998 an RFI report was submitted. Elevated levels of some contaminants indicated the need for additional sampling. In FY2001 to 2002 the wells were sampled and the results indicated that metals, VOCs, SVOCs, and petroleum hydrocarbons were above North Carolina 2L groundwater standards. The CMS completed in FY2004 recommended continued monitoring of groundwater only.

In FY2004 a DD was signed. Institutional controls were implemented, and GIS layers showing the LUCs were included in the BMP and were implemented thereafter. Annual certification of the institutional controls will be documented for the RCRA permit.

In July 2005 groundwater sampling as part of CMI(O) was begun. There are 15 groundwater wells; 13 were monitored for VOCs, SVOCs, and RCRA metals every nine months. Samples collected through 2008 continued to show exceedances of NC 2L standards. Data through 2008 were evaluated for optimization of the monitoring network and sample analyses. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed from annually to biennially. Five wells will be sampled in odd-numbered years for VOCs, SVOCs, pesticides and RCRA metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect the changes in the groundwater monitoring network and schedule and was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-005**  
**Site Name: ABANDONED LANDFILL 5**  
**Alias: SWMU 5**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199301.....	200306
CMI(C).....	200410.....	200410
CMI(O).....	200409.....	204209

**RIP Date:** 200410

**RC Date:** 204209

**SITE DESCRIPTION**

FTBR-005 is an abandoned solid waste landfill in the vicinity of Knox and Honeycutt Roads, east of the Earth Terminal Complex. It covers about seven acres in the central portion of the cantonment area. The unlined landfill was active between 1966 and 1967.

Results of sampling and analysis indicate the presence of contaminants of concern exceeding NC groundwater standards. The CMS was completed in FY2003 and recommended CMI(O) for groundwater only. The DD was signed in FY2003. Institutional controls were implemented and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls will be documented for the RCRA permit.

In July 2005 groundwater sampling as part of CMI(O) was begun. Ten wells were sampled for VOCs, SVOCs, and RCRA metals every nine months through 2008. The site continued to show exceedances of NC 2L groundwater standards. Data collected through 2008 were evaluated for optimization of the monitoring network and sample analyses. Based on the data evaluation, the sampling network was reduced to four wells and the sampling frequency was changed from annually to biennially. The wells will be sampled in odd-numbered years for VOCs, SVOCs, and RCRA metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect the changes in the groundwater monitoring network and schedule and was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-008**  
**Site Name: ABANDONED LANDFILL 8**  
**Alias: SWMUs8abcd**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Other (Surface Water), Sediment

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200305
CMI(C).....	200403.....	200503
CMI(O).....	200509.....	204209

**RIP Date:** 200509

**RC Date:** 204209

**SITE DESCRIPTION**

FTBR-008 consists of four solid waste landfill cells (8A, 8B, 8C, and 8D, totaling 50 acres) located near the intersection of Knox and Kedenburg Streets in the south-central portion of the cantonment area. These unlined landfills were reportedly active for sludge, debris, and other unknown wastes between 1967 and 1970.

Previous inspections at FTBR-008 revealed the presence of leachate in Beaver Creek and exposed debris at several eroded locations in landfill cells 8B and 8C. Chemical analysis during the RFI revealed PCBs, petroleum hydrocarbons, VOCs, and SVOCs in soil. Groundwater constituents included VOCs, SVOCs, petroleum hydrocarbons, pesticides, and metals.

In 1996, the final RFI report was approved. In FY198 the CMS/corrective measures implementation plan (CMI(P)) was started. Sampling found low levels of methane at multiple locations. In FY2003 the CMS/CMI(P) was completed and it was determined that soil exposure concerns would be addressed by limiting site access.

In FY2003, the DD was signed. Institutional controls were implemented and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls will be documented for the RCRA permit. In FY2004 fencing and signs to limit site access and to implement LUCs were funded. The operations and maintenance (O&M) plan will be funded with non-ER,A funds.

In October 2004, groundwater sampling as part of CMI(O) was begun. Seventeen wells were monitored and sampled for pesticides, PCBs, VOCs, SVOCs, and RCRA metals. Sampling continued every nine months through 2008. The site continued to show exceedances of NC 2L groundwater standards. Data collected through 2008 were evaluated for optimization of the monitoring network and sample analytes. Based on the data evaluation, the sampling network was reduced to seven wells and the sampling frequency was changed from annually to biennially. The wells will be sampled in odd-numbered years for VOCs, SVOCs, and RCRA metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect changes in the groundwater monitoring network, schedule and analyses. The DD was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-009**  
**Site Name: ABANDONED LANDFILL 9**  
**Alias: SWMU 9**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200309
DES.....	200008.....	200309
CMI(C).....	200403.....	200503
CMI(O).....	200503.....	204209
<b>RIP Date:</b>	200503	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

FTBR-009 is an abandoned construction and demolition (C&D) debris and municipal solid waste (MSW) landfill that was active between 1970 and 1975. It is located on about 30 acres of wetlands southeast of the intersection of Honeycutt Road and All American Freeway in the south-central portion of the cantonment area. It is bounded on the north by a railroad yard, on the east and the south by tributaries to Beaver Creek, and by Honeycutt Road on the west. The All American Freeway runs through the western third of the landfill.

Chemical analysis of soil and groundwater samples collected during the RFI indicated several chemicals of concern: VOCs, SVOCs, petroleum hydrocarbons, and metals. Trace levels of explosives were also detected in groundwater during the RFI. Contaminants that exceeded NC regulatory levels are addressed in the cleanup strategy.

Sampling found high levels of methane in multiple locations. In FY2003 the CMS was completed and it was determined that soil exposure concerns would be addressed by limiting site access.

In FY2003 the DD was signed. Institutional controls were implemented, and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls will be documented for the RCRA permit. Fencing, signs and the passive methane venting system were funded in FY2004. The O&M plan will be funded with non-ER,A funds.

In October 2004, groundwater sampling as part of CMI(O) was begun. Ten wells are monitored and sampled for pesticides, PCBs, VOCs, SVOCs, and RCRA metals every nine months. Methane will be monitored at methane sample points. Sampling continued every nine months through 2008. The site continued to show exceedances of NC 2L groundwater standards. Data collected through 2008 were evaluated for optimization of the monitoring network and sample analyses. Based on the data evaluation, the sampling network was reduced to five wells and the sampling frequency was changed from annually to biennially. The wells will be sampled in odd-numbered years for VOCs, SVOCs, and RCRA metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect changes in the groundwater monitoring network, schedule and analytes. The DD was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-009**  
**Site Name: ABANDONED LANDFILL 9**  
**Alias: SWMU 9**

Methane will be monitored at methane sample points. The O&M plan will be implemented with non-ER,A funds.

**Site ID: FTBR-012**  
**Site Name: ABANDONED LANDFILL 12**  
**Alias: SWMU 12**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Pesticides, Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Other (Surface Water)

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199709.....	200209
DES.....	200010.....	200306
CMI(C).....	200306.....	200409
CMI(O).....	200409.....	204209
<b>RIP Date:</b>	200409	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

FTBR-012 is an abandoned C&D debris landfill located north of Butner Road in the northeast corner of the cantonment area. The unlined landfill was active from 1975 to 1985.

The RFI showed the landfill size to be about nine acres. The site is bounded on the north and the west by Young Lake, on the south by the former VTTA, FTBR-102, and on the east by a stream and power line right-of-way.

The RFI identified SVOCs, pesticides, metals, and petroleum hydrocarbons as constituents in soil, groundwater, and stream bed sediment samples.

The CMS, completed in April 2002, recommended fencing and CMI(O) for groundwater and surface water. The DD was signed in FY2003. Institutional controls were implemented and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls will be documented for the RCRA permit.

The CMI(C) (fencing and signs) was completed in FY2004. The O&M plan will be funded with non-ER,A funds.

In January 2004 groundwater sampling as part of CMI(O) was begun. All five wells were sampled for pesticides and metals every nine months. Surface water samples are collected at three points for metals, pesticides, VOCs, and SVOCs. Methane was monitored at methane sample points. Groundwater was sampled every nine months through 2008. The site continued to show exceedances of NC 2L groundwater standards. Data collected through 2008 were evaluated for optimization of the monitoring network and sample analytes. Based on the data evaluation the sampling network was reduced to four wells and the sampling frequency was changed from annually to biennially. The wells will be sampled in odd-numbered years for target analyte list (TAL) metals.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect changes in the groundwater monitoring network, schedule and analytes. The DD was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

Methane will be monitored at methane sample points. The O&M plan will be implemented with non-ER,A funds.

**Site ID: FTBR-014**  
**Site Name: ABANDONED LANDFILLS 2 & 14**  
**Alias: SWMU2,14ab**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200203
CMI(C).....	200403.....	200506
CMI(O).....	200506.....	204009

**RIP Date:** 200506

**RC Date:** 204009

**SITE DESCRIPTION**

FTBR-014 (three acres) and former FTBR-002 (59 acres) are collocated west of the intersection of Cook Drive and Knox Street near the south border of the cantonment area. The RFA identified two landfills at this site; however, the RFI revealed no evidence of a landfill at the location identified as "Abandoned Landfill 2". (The MSW/C&D landfill 14 was operated from 1985 to 1986.)

The state of NC and the USEPA approved an NFA option for Abandoned Landfill 2 (June 6, 1996). Because FTBR-002 was incorporated into FTBR-014, FTBR-002 was deleted from the AEDB-R.

Chemical analysis of FTBR-14 samples identified low levels of petroleum hydrocarbons and dieldrin in the soil and low levels of tetrachloroethylene (PCE) and metals in the groundwater. Concentrations of dieldrin and petroleum hydrocarbons were below state levels; however, high levels of methane were detected in the soil at Landfill 14. The CMS was completed in FY2003. Partial CMI(C) was funded in FY2004 (methane alarms in buildings as well as building warning signs). Fencing and signs were installed in FY2005. The O&M plan will be funded with non-ER,A funds.

The DD was signed in FY2003. Institutional controls were implemented and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls will be documented for the RCRA permit.

In June 2005 groundwater sampling as part of CMI(O) was begun. Ten wells were sampled for pesticides, PCBs, VOCs, SVOCs, and RCRA metals every nine months. Methane was also monitored at methane sample points. Sampling continued through 2008. The site continued to show exceedances of NC 2L groundwater standards. Data collected through 2008 were evaluated for optimization of the monitoring network and sample analytes. Based on the data evaluation, the sampling network was reduced to eight wells and the sampling frequency was changed from annually to biennially. The groundwater wells will be sampled in odd-numbered years for VOCs, SVOCs, and RCRA metals and methane will also be monitored at methane sampling points.

This site was included in the PBA awarded in FY2007. The 2003 DD was revised in 2009 to reflect changes in the groundwater monitoring network, schedule and analytes. The DD was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Monitoring is required as long as waste remains in the landfill. Monitoring data will be evaluated for additional ramp-down during the five-year reviews.

**Site ID: FTBR-063**  
**Site Name: DEH STORAGE COMPOUND**  
**Alias: SWMU 63**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** HIGH

Contaminants of Concern: Pesticides, Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199304.....	200407
IRA.....	200001.....	200006
CMI(C).....	200410.....	200410
CMI(O).....	200411.....	204209
<b>RIP Date:</b>	200411	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

FTBR-063 is the site of the former RCRA hazardous waste storage shed that was used between 1977 and 1982. It was located in the DPW compound northwest of the intersection of Butner and Reilly roads. Stored wastes included PCB wastes, acids, caustics, solvents, paint wastes, used oil, photographic wastes, and insecticides. The unit was closed in 1982 because it was replaced with a RCRA-compliant generator storage area.

Chemical analysis of soil and groundwater samples collected during the RFI identified pesticides, VOCs, and metals. Pesticides and VOCs were detected above regulatory levels. An IRA (soil removal) was completed in FY2000. The removal reduced the contamination levels in soil to below NC regulatory levels.

In March 2004 the CMS was completed and monitoring of groundwater for pesticides and VOCs, which exceeded NC groundwater standards was recommended.

The DD was signed in FY2004. Institutional controls were implemented, and GIS layers showing the LUCs were included in the BMP. Annual certification of the institutional controls was documented for the RCRA permit.

In August 2005 groundwater sampling as part of CMI(O) began. Eighteen wells were monitored; 13 of the wells were sampled for VOCs and pesticides every nine months. Four consecutive sampling events with no exceedances of NC groundwater standards are required prior to requesting an NFA. As of FY2008, the site groundwater continues to show exceedances of the NCDENR groundwater standards.

Data collected through 2008 were evaluated for optimization of the monitoring network and sample analyses. Based on the data evaluation the sampling network was reduced to five wells and the sampling frequency was changed from annually to biennially. The wells will be sampled in odd-numbered years for VOCs, and pesticides. Based on low contaminant concentrations and source removal it is estimated that contaminant concentrations will reach 2L standards in 2020 and monitoring will no longer be required.

This site was included in the PBA awarded in FY2007. The 2004 DD was revised in 2009 to reflect changes in the groundwater monitoring network, schedule and analyses. The DD was signed by both the Army and the state of NC. The 2009 DD also calls for the continuation of institutional controls and GIS layers showing the LUCs included in the BMP.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Four consecutive sampling events with no exceedances of NC groundwater standards are required prior to requesting an NFA. It

**Site ID: FTBR-063**  
**Site Name: DEH STORAGE COMPOUND**  
**Alias: SWMU 63**

is estimated that contaminant concentrations will be below NC 2L standards in 2020. The data will be evaluated during the five-year reviews.

**Site ID: FTBR-069**

**Site Name: JEEP DISMANTLING AREA, BLDG 8-3612**

**Alias: SWMU 69**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** MEDIUM

Contaminants of Concern: Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Other (Surface Water)

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199409.....	200707
DES.....	200611.....	200801
CMI(C).....	200807.....	200809
CMI(O).....	200809.....	202809
<b>RIP Date:</b>	200809	
<b>RC Date:</b>	202809	

**SITE DESCRIPTION**

FTBR-069 is located southeast of the intersection of Woodruff and Knox streets. This mostly unpaved four-acre area has been used to dismantle Army vehicles and store impounded vehicles. The site is currently used to store Army vehicles.

Chemical analysis of soil and groundwater samples collected during the RFI identified VOCs, SVOCs, pesticides, PCBs, metals, and petroleum hydrocarbons. Chlorinated compounds exceed the state regulatory limits in groundwater.

The Phase I RFI was started in FY196. In late FY2000 the extended RFI was started and was completed in FY2004. Levels of chlorinated compounds were detected above NC groundwater standards over 1,000 feet downgradient from the original Jeep Dismantling Yard footprint.

In 2005, as part of a pilot study, injection of hydrogen-release compounds (HRC) was conducted for hot spot treatment. In March 2006, surface water samples were collected; lab data from the surface water indicated no exceedances of NC standards in surface water.

This site was included in the PBA awarded in FY2007. A CMS was finalized in FY2007 and the selected remedies included groundwater treatment, MNA and LUCs. In situ hot spot treatment of groundwater was conducted in FY2008. MNA of groundwater [CMI(O)] was also started in FY2008. MNA will continue until contaminant concentrations are below NC 2L standards, estimated to take at least 30 years.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Performance monitoring began in FY2008. The corrective actions will be reviewed every five years to evaluate effectiveness and develop an exit/ramp-down strategy.

**Site ID: FTBR-103**  
**Site Name: MALLONEE VILLAGE GAS STATION**  
**Alias: SWMU 103**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** MEDIUM

Contaminants of Concern: Metals, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater, Other (Surface Water)

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200008.....	200009
CS.....	200008.....	200009
RFI/CMS.....	200202.....	200706
DES.....	200703.....	200710
CMI(C).....	200807.....	200809
CMI(O).....	200809.....	204209
<b>RIP Date:</b>	200809	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

This site is located west of South Lucas Street, and bordered on the north by Honeycutt Road. It was formerly occupied by a commercial vehicle maintenance facility and gas station that was operated since the 1940s. The area is larger than six acres. A solvent tank was abandoned in place in the 1940s. In the late-1990s the tank was rediscovered and removed along with about 300 cubic yards (cy) of contaminated soil.

In February 2000, the RFI was started. High levels of chlorinated solvents and gasoline constituents were detected in the sediment, surface water and groundwater. A plume of contaminated groundwater extends under family housing and a Fort Bragg elementary school. The plume is not stable; its size is increasing and it is moving downgradient. Contaminant concentrations in groundwater exceed NC 2L standards.

In FY2002, the preliminary site conceptual model (SCM) was developed. The extended RFI was complete in FY2004 and the SCM was updated in FY2006.

In March 2006, surface water samples were taken in Holbrook Tributary and Beaver Creek. Contaminant concentrations in surface water exceeded the NC surface water standards in the tributary behind the elementary school. There are sensitive areas that include jurisdictional wetlands and sensitive habitats along the creeks.

Eighteen permanent soil gas sampling points were installed and sampled around the Holbrook Elementary School in the third quarter of FY2006.

This site was included in a PBA awarded in December 2006. The contract runs through FY2016. A CMS was completed in FY2007 and a CMI(P) was completed in FY2008. Corrective measures implemented in FY2008 included groundwater treatment and source area reduction. Roughening the stream bottom at select locations to reduce contaminant concentrations in surface water was completed in FY2008. Soil gas monitoring near the elementary school was also conducted. Performance monitoring commenced in FY2009 and groundwater will be sampled on an annual basis.

Installation-wide five-year reviews, including the correction of deficiencies, will tracked under this site. The installation-wide five-year review schedule will begin in FY2014 and will continue in future years in multiples of five (FY2019, FY2024, etc). Future costs for these reviews will be forecast based on a rolling 30-year time period, through FY2042.

**CLEANUP/EXIT STRATEGY**

Performance monitoring will be conducted and corrective actions will be reviewed every five years to evaluate the groundwater treatment effectiveness and develop an exit/ramp-down strategy. Five-year reviews and correction of remedy deficiencies for the installation will be tracked under this site. Anticipate five-year reviews and deficiency corrections in FY2018, FY2023, FY2028,

**Site ID: FTBR-103**  
**Site Name: MALLONEE VILLAGE GAS STATION**  
**Alias: SWMU 103**

FY2033, and FY2038.

**Site ID: FTBR-300**  
**Site Name: LF005 Hardfill Number 2**  
**Alias: LF005**

**STATUS**

**Regulatory Driver:** CERCLA  
**RRSE:**  
Contaminants of Concern: Metals  
Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199510.....	200609
RD.....	200710.....	201009
RA(C).....	201010.....	201109
RA(O).....	201110.....	204209
<b>RIP Date:</b>	201110	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

LF005 was a construction debris hardfill area on Pope Army Airfield, located north of Hurst Drive and south of the Airfield runway. It consisted of an area along Tank Creek of approximately four acres, and was in operation from the 1950s through the late 1980s. A record of decision (ROD) was completed in July 2010 and recommended LUCs with long term monitoring. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as well as five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

This site has a ROD and associated LUCs with biennial sampling. Sampling will be conducted for at least the next 30 years, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-301**  
**Site Name: LF006 Hardfill Number 8**  
**Alias: LF006**

**STATUS**

**Regulatory Driver:** CERCLA  
**RRSE:**  
 Contaminants of Concern: Metals  
 Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199510.....	200609
RD.....	200710.....	201009
RA(C).....	201010.....	201109
RA(O).....	201110.....	204209
<b>RIP Date:</b>	201110	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

LF006 was a construction and industrial debris hardfill area on Pope Army Airfield, located north of Hurst Drive and west of Surveyor Street. It consisted of an approximately four (4) acre area, and was in operation from 1960 through the 1980s. A ROD was completed in September 2010 and recommended LUCs with long term monitoring. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two (2) years for the first five (5) years, as well as five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

This site has a ROD and associated LUCs with biennial sampling. Sampling will be conducted for at least the next 30 years, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-302**  
**Site Name: LF010 Hardfill Number 1**  
**Alias: LF010**

**STATUS**

**Regulatory Driver:** CERCLA  
**RRSE:** NOT EVALUATED  
 Contaminants of Concern: Metals  
 Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199610.....	200409
RD.....	200810.....	201009
RA(C).....	201010.....	201309
RA(O).....	201110.....	201609
<b>RIP Date:</b>	201309	
<b>RC Date:</b>	201609	

**SITE DESCRIPTION**

LF010 was a demolition debris hardfill area located between Reilly and Armistead Streets on Pope Army Airfield. It consisted of an approximately 6.5 acre area on the Pope Willow Lakes Golf Course. The hardfill was possibly in operation prior to 1950 through until at least 1970. A ROD was completed in July 2009 and recommended LUCs. The LUCs were increased larger than the determined hardfill area. The LUC area encompasses 21 acres. NCDENR approval has been given to reduce the LUC area from 21 acres to 6.5 acres as long as access measures are implemented. Fort Bragg must maintain the LUCs contained in the ROD and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract. Additional work to be done at the site include: resurveying new decreased LUCs; refile with County Deed Office; and install perimeter fencing to enclose and secure new LUC area.

**CLEANUP/EXIT STRATEGY**

This site has a ROD and associated LUCs. LUCs will be maintained according to the ROD, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-303**  
**Site Name: LF012 Hardfill Number 7**  
**Alias: LF012**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:**

Contaminants of Concern: Metals

Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	199310.....	199409
SI.....	199310.....	199409
RI/FS.....	199310.....	201009
RD.....	201010.....	201109
RA(C).....	201110.....	201203
RA(O).....	201203.....	201609
<b>RIP Date:</b>	201203	
<b>RC Date:</b>	201609	

**SITE DESCRIPTION**

LF012 was a construction debris hardfill area on Pope Army Air Force (AAF), located on the corner of Booster Street and Thunderbolt Road, northeast of Building 715. It consisted of an approximately 8.5 acre area, and was in operation from the late 1960s through the early 1970s. A ROD has been drafted and is currently undergoing Installation signatures. The ROD will recommend LUCs. Fort Bragg must maintain the LUCs contained in the ROD, and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

This site has a ROD forthcoming, with associated LUCs. LUCs will be maintained according to the ROD, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-304**  
**Site Name: SS009 3rd Aerial Port Squadron Spil**  
**Alias: SS009**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:** LOW

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	199010.....	200409
SI.....	200410.....	200609
RI/FS.....	200910.....	201009
RA(C).....	201110.....	201202
RA(O).....	201203.....	205209

**RIP Date:** 201203

**RC Date:** 205209

**SITE DESCRIPTION**

SS009 contains several source sites and contaminates, and is located on the Green Ramp of the Airfield at Pope AAF, bounded by Hurst Drive and Surveyor Street. The site covers approximately 20 acres, and was designated an IRP site in 1991. A ROD has been drafted and is currently undergoing Installation signatures. The ROD will recommend LUCs with MNA. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as well as five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

This site has a ROD forthcoming, with associated LUCs and biennial sampling planned. LUCs will be maintained according to the ROD, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-305**  
**Site Name: SS018 Liquid Oxygen Area Spill Site**  
**Alias: SS018**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:** MEDIUM

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198410.....	199409
SI.....	199410.....	200209
RI/FS.....	199510.....	200909
RA(C).....	201110.....	201202
RA(O).....	201203.....	205209

**RIP Date:** 201203

**RC Date:** 205209

**SITE DESCRIPTION**

SS018 contains several source sites and contaminates, and is located north of Surveyor Street along the Base boundary. The site was administratively combined with SS004 in 2005 and covers approximately forty-nine (49) acres. A ROD has been drafted and is currently undergoing Installation signatures. The ROD will recommend LUCs with MNA. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling annually for the first five years, as well as five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

This site has a ROD forthcoming, with associated LUCs and annual sampling planned. LUCs will be maintained according to the ROD, accompanied by a five-year Review in 2013 and at five year increments beyond that.

**Site ID: FTBR-306**  
**Site Name: FT001 Fire Training Area #4**  
**Alias: FT001**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198810.....	198909
RI/FS.....	199710.....	199809
IRA.....	199010.....	200209
RA(C).....	200410.....	200509
RA(O).....	200510.....	200809
<b>LTM.....</b>	<b>200810.....</b>	<b>203809</b>
<b>RIP Date:</b>	200510	
<b>RC Date:</b>	200809	

**SITE DESCRIPTION**

FT001 was a fire training area on Pope AFB, located southwest of the intersection of Hurst Drive and Aldish Road. It consisted of an unlined pit of approximately six acres, and was in operation from the 1950s through 1989. The site was given NFA with a NRP in August 2009. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-307**  
**Site Name: PL505 Building 164 Hydrant Fuel Lin**  
**Alias: PL505**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200610.....	200709
INV.....	200710.....	200809
IMP(C).....	200810.....	200909
IMP(O).....	200910.....	201309

**RIP Date:** 200910

**RC Date:** 201309

**SITE DESCRIPTION**

Building 164 is a general maintenance and storage facility, located at the intersection of Boxcar and Ethridge Streets on Pope AAF. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area. Pope AAF and Yellow Ramp is just to the west.

Utility trenching at this site uncovered stained soil. Gasoline range organics (GRO) and VOCs were found above action levels during confirmatory sampling (CS). The contamination is suspected to be JP-8 jet fuel associated with an abandoned jet fuel transfer line located at Building 164. There are no USTs associated with this building. One year of aggressive fluid vapor recovery (AFVR) and sampling has occurred. CS showed elevated levels of benzene and naphthalene. NCDENR had request one additional year of AFVR and sampling. A NFA is anticipated for this site. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

After additional AFVR and sampling, the site is anticipated to be closed with an unrestricted NFA.

**Site ID: FTBR-308**  
**Site Name: SS007 Blue Ramp JP-4 Spill Site**  
**Alias: SS007**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199710.....	199809
INV.....	199810.....	200209
CAP.....	200110.....	200509
DES.....	200510.....	200609
IMP(C).....	200610.....	200709
IMP(O).....	200710.....	201309
<b>RIP Date:</b>	200710	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

SS007 originated from a spill at the former refueling hydrant system, located on the blue ramp of the Airfield at Pope AAF. The Blue Ramp Hydrant System consisted of eighteen 50,000-gallon USTs at three buildings and an extensive underground hydrant line delivery system located under the ramps on the northern portion of the Pope Airfield. The hydrant system was in operation from 1956 through the 1990s. The site covers approximately 27 acres across Blue Ramp and north across Surveyor Street. The site is currently undergoing active remediation. Site close-out will be obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-310**  
**Site Name: SS019 Pumphouse Building 822**  
**Alias: SS019**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** MEDIUM

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199010.....	199109
INV.....	199110.....	200409
CAP.....	200410.....	200509
DES.....	200510.....	200609
IRA.....	200710.....	200809
IMP(C).....	201110.....	201309
IMP(O).....	200610.....	201309
<b>RIP Date:</b>	201309	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

Former Building 822 was a part of the Blue Ramp Hydrant System located in the central portion of Pope AAF Airfield, between Blue Ramp and the Pope runway. The Blue Ramp Hydrant System consisted of eighteen 50,000-gallon USTs at three buildings and an extensive underground hydrant line delivery system located under the ramps on the northern portion of Pope Airfield. The hydrant system was in operation from 1956 through the 1990s. Surrounding land use is highly industrial, with the site located in the middle of the flight line at shark ramp.

Dissolved phase petroleum hydrocarbons were found in the groundwater during a 1991 sampling activity at the adjacent IRP Site SS007. A 2005 comprehensive site assessment (CSA) discovered free-product in groundwater wells at the site. Subsequently, the six 50,000-gallon jet fuel USTs were removed in 2008 by Weston Solutions, Inc. Diesel range organics (DRO) and GRO were found above action levels during CS during site closure. The site is currently undergoing active remediation and sampling since 2005. It is anticipated that product removal will continue until 2013, at which the site is expected to receive a NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated RA is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-311**  
**Site Name: SS020 Silver Ramp Spill Site**  
**Alias: SS020**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200010.....	200109
INV.....	200310.....	200609
IMP(C).....	200710.....	200809
IMP(O).....	200810.....	201309

**RIP Date:** 200810

**RC Date:** 201309

**SITE DESCRIPTION**

Building 704 was a part of a former 1940s-era aqua fuel delivery system located south of Surveyor Street and Thunderbolt Road at Pope AAF. Surrounding land use is highly industrial, with the site located just north of the flight line at Silver Ramp.

During a Dec 04 records review, aerials and photographs from 1942-1944 depicted four (4) USTs between Buildings 704 and 708. Closure reports or removal documentation for the four 25,000-gallon underground aviation fuel tanks could not be located. A limited site assessment (LSA) was conducted in 2005 to determine if any residual contamination may exist due to the system that historical records show was in place. The LSA did not reveal impact to soil or groundwater in excess of gross contaminant levels, but some petroleum analytes were detected in excess of unrestricted use criteria. The site was given NFA by use of a NRP in September 2008. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-312**  
**Site Name: SS516 Building 390 Golf Course Mntc**  
**Alias: SS516**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199010.....	200309
INV.....	200310.....	200409
CAP.....	200510.....	200609
IMP(C).....	200610.....	200709
IMP(O).....	200710.....	201309

**RIP Date:** 200710

**RC Date:** 201309

**SITE DESCRIPTION**

Building 390 is a former golf maintenance facility located north of the Willow Lakes Golf Course at Maverick and Academy Streets on Pope AAF. Surrounding land use is mixed-use residential, recreational, and administrative. Prior operations at the site include a golf course equipment storage and maintenance facility, and an auto hobby/repair shop.

In 1992, two on-site USTs (a 280-gallon UST and a 550-gallon UST) were removed by IT Corporation (IT) after failing leak tests. A remaining fuel oil UST released an estimated 1,000-gallons of No. 2 fuel oil in 1997. A reported release in 2002 of an unknown quantity also occurred from an on-site OWS. Releases from these two incidents resulted in subsurface contamination that includes fuel oil free-product as well as dissolved phase fuel and solvents. In August 2002, MWH Americas, Inc. removed both 550-gallon OWSs, the 1000-gallon UST, and the 500-gallon AST. During this effort, 21 cy of contaminated soil was also removed, and a free-product recovery system was installed. A CSA field investigation was performed in 2004. An AFVR effort was initiated at the site. The site is currently undergoing active remediation (AFVR) and sampling since 2004. CS during the March 2011 event showed elevated levels of benzene and naphthalene. NCDENR had request one additional year of AFVR and sampling. A NFA is anticipated for this site. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated RA is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-313**  
**Site Name: ST002 POL Bulk Fuel Storage Area**  
**Alias: ST002**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:**

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	198410.....	198909
INV.....	198910.....	200209
IMP(C).....	200810.....	200909
IMP(O).....	200910.....	201409
<b>RIP Date:</b>	200910	
<b>RC Date:</b>	201409	

**SITE DESCRIPTION**

ST002, located between Hurst Drive and Interceptor Road at Pope AAF, originated from spills and leaks from on-site aboveground storage tanks (AST) between the 1960s and the 1980s. This approximately seven acre site serves as a jet fuel storage and distribution facility. In addition to associated components of the POL yard (railroad unloading area, underground piping, and two operations buildings); the site consists of four JP-4 ASTs with a combined capacity of over three million gallons. Additional, tank bottom sludge was disposed of in a trench adjacent to the facility following storage tank maintenance operations, from the mid-1950s until 1975. Sludge burial results in soil and groundwater contamination above the NC SSLs. Approximately 630 cy (228 tons) of contaminated soils were removed and disposed of off-site. The excavation was backfilled with clean soil. Contaminate constituents exceeding NC 2L were found in the groundwater, but are expected to diminish over time through natural attenuation. Due to the groundwater contamination, NCDENR classified the site as low risk and LUCs were put in place to restrict the use of groundwater in the area of ST002. NFA status has been achieved by use of an NRP in August 2009. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. The five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: FTBR-314**  
**Site Name: ST008 Base-wide USTs**  
**Alias: ST008**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** LOW

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	198910.....	199009
INV.....	199010.....	200209
CAP.....	200210.....	200309
DES.....	200310.....	200509
IRA.....	200510.....	200609
IMP(C).....	201110.....	201209
IMP(O).....	201209.....	204209
<b>RIP Date:</b>	201209	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

ST008 originated from leaks from former USTs located between Boxcar Street and Taxiway Bravo on the Pope Airfield. The site formerly contained four 25,000-gallon USTs and was used as a No. 2 fuel oil storage and distribution center from 1954 to 1985. As part of a 1990 Base-wide UST evaluation program, the USTs were precision tested and one failed. In November 1992, the four tanks, ancillary piping, and fuel dispensers were excavated and removed. During excavation, fuel oil-contaminated soil was encountered and free-product was observed on water that accumulated in the open excavation. Fuel oil-contaminated soil excavated during the UST system removal was reportedly placed back into the excavation on top of a layer of plastic sheeting. The volume of No. 2 fuel oil released during the life of the USTs is not known. A corrective action plan (CAP) was completed in 2004 and recommended a bioventing system along with a passive skimming and AFVR. This treatment proved effective and the site achieved RIP. A pilot study was initiated in 2011 to remove the small amounts of remaining product on the groundwater through biological degradation. The site is currently undergoing active remediation and sampling. It is anticipated that product removal will continue until 2013, at which point the site will achieve NFA status by the use of a NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct five-year reviews on this site in the future. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: PBC @ Ft Bragg**  
**Site Name: PBA**  
**Alias: PBA**

## STATUS

**Regulatory Driver:** RCRA  
**RRSE:** LOW

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	199809.....	199909
RFI/CMS.....	200210.....	200711
CMI(C).....	200711.....	200809
CMI(O).....	200809.....	201609
<b>RIP Date:</b>	200809	
<b>RC Date:</b>	201609	

## SITE DESCRIPTION

This site was created to address funding information for the PBA that was awarded in December 2006. The PBA includes all IRP sites that require funding.

## CLEANUP/EXIT STRATEGY

Refer to individual sites for cleanup strategy information.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-003	LANDFILL 3	199401	NFA granted by NCDENR in 19 Nov 1996.
FTBR-007	ABANDONED LANDFILL 7	199506	NFA granted by NCDENR in 29 Jul 1994.
FTBR-011	SANITARY LANDFILL 11	199006	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-013	COOLYCONCH MT DEMO LANDFILL	199006	Not eligible for IRP. Permitted landfill under Solid Waste rules.
FTBR-016	ABANDONED LANDFILL 16	199703	NFA granted by NCDENR in 24 Apr 2003.
FTBR-020	82 DIV HEATING PLANT	199006	Not eligible for IRP.
FTBR-024	18TH EOD DEMO AREA	199006	Not eligible for IRP.
FTBR-026	WTP ABANDONED LAGOON & DRYING BEDS	199006	Not eligible for IRP.
FTBR-030	LOADING/UNLOADING AREA	199703	NFA granted by NCDENR in 1 Dec 1997.
FTBR-031	ASH TANK SITE	199606	NFA granted by NCDENR in 29 Jul 1994.
FTBR-035	OIL/WATER SEPARATORS	200310	Not eligible for IRP. Site is still active.
FTBR-036	WASHRACKS	200005	Not eligible for IRP. Site is still active.
FTBR-038	GRIT CHAMBER	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-039	PRIMARY SEDIMENTATION TANKS	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-040	BIOFILTERS	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-042	SECONDARY SEDIMENTATION TANKS	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-043	CHLORINATION FLASH MIX TANK	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-044	CHLORINATION CONTACT TANK	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-045	RECIRCULATION TANK	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-046	STEPPED CASCADE	199703	NFA granted by NCDENR in 24 Oct 2005.
FTBR-050	WWTP SLUDGE DRYING BEDS	199401	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-077	782D BATTERY SHOP NEUTRALIZATION TANK	199703	NFA granted by NCDENR in 11 Aug 2000.
FTBR-086	659TH BATTERY NEUTRALIZATION TANK	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program. LTM is planned.
FTBR-088	659TH USED OIL PIT	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program. LTM is planned.
FTBR-102	VOCATIONAL TECHNICAL TRAINING AREA	200112	NFA granted by NCDENR in 14 Sept 2001.
FTBR-104	Old ASP Site	200609	NFA Letter from NCDENR 11 Jan 2007.
FTBR-309	SS014 Morale, Welfare, and Recreati	200809	
FTBR-33	USED OIL USTS (OU8)	199903	Not eligible for IRP. All tanks were closed after 1986.
FTBR-A	WTP FUEL TANK SPILL (AOC A)	199703	Not eligible for IR. NFA granted by NCDENR in 2005 under CC Program.
FTBR-B	CLASSIFIED PAPER FUEL TANK SPILL (AOC B)	199609	NFA granted by NCDENR in 17 Mar 1997.
FTBR-C	BLDG P-3262, FUEL SPILL (AOC C)	199703	NFA granted by NCDENR in 17 Sept 2003.
FTBR-D	BLDG. M-7951, FUEL SPILL (AOC D)	199703	NFA granted by NCDENR in 17 Sept 2003.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-E	BLDG. 8-4606, FUEL SPILL (AOC E)	199703	NFA granted by NCDENR in 26 Sept 2000.
FTBR-F	VET CLINIC INCIN. UST SPILL (AOC F)	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-G	LEE FIELDHOUSE UST SPILL (AOC G)	199703	NFA granted by NCDENR in 17 Sept 2003.

# IRP Schedule

Date of IRP Inception: 198410

## Past Phase Completion Milestones

### 1987

CS (FTBR-020 - 82 DIV HEATING PLANT, FTBR-024 - 18TH EOD DEMO AREA)  
SI (FTBR-013 - COOLYCONCH MT DEMO LANDFILL)  
PA (FTBR-013 - COOLYCONCH MT DEMO LANDFILL)  
RFA (FTBR-020 - 82 DIV HEATING PLANT, FTBR-024 - 18TH EOD DEMO AREA)

### 1988

PA (FTBR-016 - ABANDONED LANDFILL 16, FTBR-036 - WASHRACKS , FTBR-086 - 659TH BATTERY NEUTRALIZATION TANK, FTBR-088 - 659TH USED OIL PIT, FTBR-C - BLDG P-3262, FUEL SPILL (AOC C), FTBR-D - BLDG. M-7951, FUEL SPILL (AOC D), FTBR-E - BLDG. 8-4606, FUEL SPILL (AOC E), FTBR-F - VET CLINIC INCIN. UST SPILL (AOC F), FTBR-G - LEE FIELDHOUSE UST SPILL (AOC G))  
CS (FTBR-026 - WTP ABANDONED LAGOON & DRYING BEDS)  
ISC (FTBR-33 - USED OIL USTS (OU8))  
RFA (FTBR-001 - ABANDONED LANDFILL 1, FTBR-003 - LANDFILL 3, FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-007 - ABANDONED LANDFILL 7, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-026 - WTP ABANDONED LAGOON & DRYING BEDS, FTBR-030 - LOADING/UNLOADING AREA, FTBR-031 - ASH TANK SITE, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND, FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-077 - 782D BATTERY SHOP NEUTRALIZATION TANK, FTBR-A - WTP FUEL TANK SPILL (AOC A), FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))

### 1989

RFA (FTBR-011 - SANITARY LANDFILL 11)  
CS (FTBR-011 - SANITARY LANDFILL 11)  
ISC (FTBR-313 - ST002 POL Bulk Fuel Storage Area )  
PA (FTBR-306 - FT001 Fire Training Area #4)

### 1990

ISC (FTBR-314 - ST008 Base-wide USTs)  
SI (FTBR-016 - ABANDONED LANDFILL 16, FTBR-036 - WASHRACKS , FTBR-086 - 659TH BATTERY NEUTRALIZATION TANK, FTBR-088 - 659TH USED OIL PIT, FTBR-C - BLDG P-3262, FUEL SPILL (AOC C), FTBR-D - BLDG. M-7951, FUEL SPILL (AOC D), FTBR-E - BLDG. 8-4606, FUEL SPILL (AOC E), FTBR-F - VET CLINIC INCIN. UST SPILL (AOC F), FTBR-G - LEE FIELDHOUSE UST SPILL (AOC G))  
INV (FTBR-33 - USED OIL USTS (OU8))  
CS (FTBR-001 - ABANDONED LANDFILL 1, FTBR-003 - LANDFILL 3, FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-007 - ABANDONED LANDFILL 7, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-030 - LOADING/UNLOADING AREA, FTBR-031 - ASH TANK SITE, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND, FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-077 - 782D BATTERY SHOP NEUTRALIZATION TANK, FTBR-A - WTP FUEL TANK SPILL (AOC A), FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))

### 1991

RFA (FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)  
ISC (FTBR-310 - SS019 Pumphouse Building 822)  
CS (FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)

### 1992

PA (FTBR-038 - GRIT CHAMBER, FTBR-039 - PRIMARY SEDIMENTATION TANKS, FTBR-040 - BIOFILTERS)

### 1993

SI (FTBR-038 - GRIT CHAMBER, FTBR-039 - PRIMARY SEDIMENTATION TANKS)  
PA (FTBR-042 - SECONDARY SEDIMENTATION TANKS, FTBR-043 - CHLORINATION FLASH MIX TANK,

## IRP Schedule

	FTBR-044 - CHLORINATION CONTACT TANK, FTBR-045 - RECIRCULATION TANK, FTBR-046 - STEPPED CASCADE, FTBR-050 - WWTP SLUDGE DRYING BEDS)
<b>1994</b>	
SI	(FTBR-040 - BIOFILTERS, FTBR-042 - SECONDARY SEDIMENTATION TANKS, FTBR-043 - CHLORINATION FLASH MIX TANK, FTBR-044 - CHLORINATION CONTACT TANK, FTBR-045 - RECIRCULATION TANK, FTBR-046 - STEPPED CASCADE, FTBR-050 - WWTP SLUDGE DRYING BEDS, FTBR-303 - LF012 Hardfill Number 7)
RFI/CMS	(FTBR-003 - LANDFILL 3, FTBR-007 - ABANDONED LANDFILL 7, FTBR-031 - ASH TANK SITE, FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))
PA	(FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8, FTBR-302 - LF010 Hardfill Number 1, FTBR-303 - LF012 Hardfill Number 7, FTBR-305 - SS018 Liquid Oxygen Area Spill Site)
<b>1995</b>	
SI	(FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8, FTBR-302 - LF010 Hardfill Number 1)
<b>1996</b>	
IRA	(FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)
<b>1998</b>	
RI/FS	(FTBR-306 - FT001 Fire Training Area #4)
ISC	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site)
<b>1999</b>	
RFA	(PBC @ Ft Bragg - PBA)
<b>2000</b>	
IRA	(FTBR-063 - DEH STORAGE COMPOUND)
CS	(FTBR-103 - MALLONEE VILLAGE GAS STATION)
RFA	(FTBR-103 - MALLONEE VILLAGE GAS STATION)
<b>2001</b>	
ISC	(FTBR-311 - SS020 Silver Ramp Spill Site)
<b>2002</b>	
IRA	(FTBR-306 - FT001 Fire Training Area #4)
INV	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-313 - ST002 POL Bulk Fuel Storage Area , FTBR-314 - ST008 Base-wide USTs)
SI	(FTBR-305 - SS018 Liquid Oxygen Area Spill Site)
RFI/CMS	(FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)
<b>2003</b>	
DES	(FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12)
CAP	(FTBR-314 - ST008 Base-wide USTs)
IRA	(FTBR-035 - OIL/WATER SEPARATORS )
ISC	(FTBR-312 - SS516 Building 390 Golf Course Mntc)
CMI(C)	(FTBR-001 - ABANDONED LANDFILL 1)
RFI/CMS	(FTBR-001 - ABANDONED LANDFILL 1, FTBR-005 - ABANDONED LANDFILL 5, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9)
<b>2004</b>	
INV	(FTBR-310 - SS019 Pumphouse Building 822, FTBR-312 - SS516 Building 390 Golf Course Mntc)
RFI/CMS	(FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND)
RFA	(FTBR-104 - Old ASP Site)

## IRP Schedule

RI/FS	(FTBR-302 - LF010 Hardfill Number 1)
CMI(C)	(FTBR-012 - ABANDONED LANDFILL 12)
PA	(FTBR-304 - SS009 3rd Aerial Port Squadron Spil)
<b>2005</b>	
RA(C)	(FTBR-306 - FT001 Fire Training Area #4)
DES	(FTBR-314 - ST008 Base-wide USTs)
CMI(C)	(FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-063 - DEH STORAGE COMPOUND)
CAP	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-310 - SS019 Pumphouse Building 822)
ISC	(FTBR-309 - SS014 Morale, Welfare, and Recreati)
<b>2006</b>	
CAP	(FTBR-312 - SS516 Building 390 Golf Course Mntc)
CS	(FTBR-104 - Old ASP Site)
SI	(FTBR-304 - SS009 3rd Aerial Port Squadron Spil)
IRA	(FTBR-314 - ST008 Base-wide USTs)
DES	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-310 - SS019 Pumphouse Building 822)
RI/FS	(FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8)
INV	(FTBR-311 - SS020 Silver Ramp Spill Site)
<b>2007</b>	
ISC	(FTBR-307 - PL505 Building 164 Hydrant Fuel Lin)
IMP(C)	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-312 - SS516 Building 390 Golf Course Mntc)
INV	(FTBR-309 - SS014 Morale, Welfare, and Recreati)
RFI/CMS	(FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-103 - MALLONEE VILLAGE GAS STATION)
<b>2008</b>	
INV	(FTBR-307 - PL505 Building 164 Hydrant Fuel Lin)
IMP(C)	(FTBR-309 - SS014 Morale, Welfare, and Recreati, FTBR-311 - SS020 Silver Ramp Spill Site)
IRA	(FTBR-310 - SS019 Pumphouse Building 822)
DES	(FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-103 - MALLONEE VILLAGE GAS STATION)
RA(O)	(FTBR-306 - FT001 Fire Training Area #4)
RFI/CMS	(PBC @ Ft Bragg - PBA)
CMI(C)	(FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-103 - MALLONEE VILLAGE GAS STATION, PBC @ Ft Bragg - PBA)
IMP(O)	(FTBR-309 - SS014 Morale, Welfare, and Recreati)
<b>2009</b>	
IMP(C)	(FTBR-307 - PL505 Building 164 Hydrant Fuel Lin, FTBR-313 - ST002 POL Bulk Fuel Storage Area )
RI/FS	(FTBR-305 - SS018 Liquid Oxygen Area Spill Site)
<b>2010</b>	
RI/FS	(FTBR-303 - LF012 Hardfill Number 7, FTBR-304 - SS009 3rd Aerial Port Squadron Spil)
RD	(FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8, FTBR-302 - LF010 Hardfill Number 1)
<b>2011</b>	
RD	(FTBR-303 - LF012 Hardfill Number 7)
RA(C)	(FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8)

# IRP Schedule

## Projected Phase Completion Milestones

See attached schedule

## Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 201309

Schedule for Next Five-Year Review: 2013

Estimated Completion Date of IRP at Installation (including LTM phase): 205209

## FORT BRAGG IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-001	ABANDONED LANDFILL 1	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-004	LANDFILL 4 & FIRE TRAINING PITS 18	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-005	ABANDONED LANDFILL 5	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-008	ABANDONED LANDFILL 8	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-009	ABANDONED LANDFILL 9	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-012	ABANDONED LANDFILL 12	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-014	ABANDONED LANDFILLS 2 & 14	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-063	DEH STORAGE COMPOUND	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-069	JEEP DISMANTLING AREA, BLDG 8- 3612	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-103	MALLONEE VILLAGE GAS STATION	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-300	LF005 Hardfill Number 2	RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-301	LF006 Hardfill Number 8	RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-302	LF010 Hardfill Number 1	RA(C)						
		RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-303	LF012 Hardfill Number 7	RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-304	SS009 3rd Aerial Port Squadron Spil	RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-305	SS018 Liquid Oxygen Area Spill Site	RA(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-306	FT001 Fire Training Area #4	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-307	PL505 Building 164 Hydrant Fuel Lin	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-308	SS007 Blue Ramp JP-4 Spill Site	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-310	SS019 Pumphouse Building 822	IMP(C)						
		IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-311	SS020 Silver Ramp Spill Site	IMP(O)						

## FORT BRAGG IRP Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-312	SS516 Building 390 Golf Course Mntc	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-313	ST002 POL Bulk Fuel Storage Area	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-314	ST008 Base-wide USTs	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
PBC @ Ft Bragg	PBA	CMI(O)						

**FORT BRAGG**  
**Army Defense Environmental Restoration Program**  
**Military Munitions Response Program**

# MMRP Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 1/0

**Installation Site Types with Future and/or Underway Phases**

1 Storage Area  
(FTBR-001-R-01)

**Most Widespread Contaminants of Concern**

Metals, Munitions constituents (MC)

**Media of Concern**

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY
FTBR-001-R-01	Former Munitions Storage Facility	IRA	UXO CLEARANCE	2012

**Duration of MMRP**

**Date of MMRP Inception** 201005

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 201309/201309

**Date of MMRP completion including Long Term Management (LTM):** 201309

# MMRP Contamination Assessment

## **Contamination Assessment Overview**

FTBR-001-R-01, a munitions storage facility, was used since the 1950s to store conventional munitions used by units which were stationed and trained at Fort Bragg. Buried munitions were discovered during military construction (MILCON) activity in 2010.

## **Cleanup Exit Strategy**

The munitions and explosives of concern (MEC) in place will be removed by the USACE to remove the safety hazard to the MILCON workers. Once the MEC removal is complete, if required, an RI/FS will be developed for this site.

## MMRP Previous Studies

**Title**

**Author**

**Date**

There are no Previous Studies

# **FORT BRAGG**

## **Military Munitions Response Program**

### **Site Descriptions**

**Site ID: FTBR-001-R-01**  
**Site Name: Former Munitions Storage Facility**  
**Alias: Old ASP**

**STATUS**

**Regulatory Driver:** CERCLA  
**MRSPP Score:** Evaluation pending  
**Contaminants of Concern:** Metals, Munitions constituents (MC)  
**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	201005.....	201006
SI.....	201007.....	201309
IRA.....	201007.....	201209
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

This munitions storage facility was used since the 1950s to store conventional munitions used by units which were stationed and trained at Fort Bragg. Buried munitions were discovered during MILCON activity in 2010.

MEC removal and characterization in Area 1 began in November 2010. Items found so far include Mk-2 hand grenades, M-26 hand grenades, and M-67 hand grenades. All of these items have been unfuzed. Fieldwork has wrapped up and general site cleanup is all that remains. No further work at this specific project site is anticipated.

The SI for the former ASP is underway, with completion expected in late 2012 or early 2013. No further activities are expected at this time after the SI is completed.

**CLEANUP/EXIT STRATEGY**

The MEC in place will be removed by the USACE to remove the safety hazard to the MILCON workers. Once the MEC removal is complete, and if required, an RI/FS will be developed for this site.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
There are no NFA sites			

## MMRP Schedule

**Date of MMRP Inception** 201005

### **Past Phase Completion Milestones**

**2010**

PA (FTBR-001-R-01 - Former Munitions Storage Facility)

### **Projected Phase Completion Milestones**

See attached schedule

### **Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates**

To Be Determined

**Final RA(C) Completion Date:**

**Schedule for Next Five-Year Review:** 2013

**Estimated Completion Date of MMRP at Installation (including LTM phase):** 201309

## FORT BRAGG MMRP Schedule

  = phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTBR-001-R-01	Former Munitions Storage Facility	SI						

**FORT BRAGG**  
**Army Defense Environmental Restoration Program**  
**Compliance Restoration**

## CR Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 78/41

### Installation Site Types with Future and/or Underway Phases

3	Above Ground Storage Tank (CCFTBR0038, CCFTBR0044, CCFTBR0099)
2	Contaminated Ground Water (CCFTBR0011, CCFTBR0074)
1	Oil Water Separator (CCFTBR0039)
1	POL (Petroleum/Lubricants) Lines (CC PBC@Bragg)
29	Underground Storage Tank (CCFTBR0013, CCFTBR0015, CCFTBR0016, CCFTBR0017, CCFTBR0021, CCFTBR0022, CCFTBR0042, CCFTBR0046, CCFTBR0067, CCFTBR0080, CCFTBR0089, CCFTBR0090, CCFTBR0095, CCFTBR0096, CCFTBR0097, CCFTBR0098, CCFTBR0309, CCFTBR0310, CCFTBR0311, CCFTBR0312, CCFTBR0313, CCFTBR0314, CCFTBR0315, CCFTBR0316, CCFTBR0317, CCFTBR0318, CCFTBR0321, CCFTBR0322, CCFTBR0323)
1	Underground Tank Farm (CCFTBR0037)

### Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL)

### Media of Concern

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY
CCFTBR001 1	HW SITE INVESTIGATION (RFI) OU 6	FRA	OTHER	2007
CCFTBR004 4	AST Remediation Fluoride Spill	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2008
CCFTBR004 4	AST Remediation Fluoride Spill	FRA	IN-SITU SOIL TREATMENT	2008
CCFTBR003 7	UST Remediation - SAAF Hydrant System	FRA	FREE PRODUCT RECOVERY	2009
CCFTBR003 8	RCRA Investigation - AST BLDG A-2709	FRA	NATURAL ATTENUATION	2009
CC PBC@Bragg	PBA@CR	FRA	OTHER	2010
CCFTBR002 7	UST REMEDIATION, PHASE II BLDG M-2125	FRA	NATURAL ATTENUATION	2010
CCFTBR001 6	UST REMEDIATION, PHASE II 8-3004 POL #2	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2011
CCFTBR002 4	UST REMEDIATION, PHASE II BLDG D-2340-A	FRA	NATURAL ATTENUATION	2011
CCFTBR002 5	UST REMEDIATION, PHASE II BLDG H-2260-B	FRA	NATURAL ATTENUATION	2011
CCFTBR004 0	UST Remediation, 2-4717A	FRA	NATURAL ATTENUATION	2011
CCFTBR004 3	UST Remediation, D-1402	FRA	NATURAL ATTENUATION	2011
CCFTBR004 8	UST Investigation, 2-3627-A/B	FRA	NATURAL ATTENUATION	2011

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## CR Summary

### Duration of CR

**Date of CR Inception:** 198801

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 201510/204609

**Date of CR completion including Long Term Management (LTM):** 204609

# CR Contamination Assessment

## Contamination Assessment Overview

Over time, Fort Bragg's diversified activities (vehicle maintenance and repair, land management, utility operations, and commercial processes) resulted in a variety of wastes being generated. These wastes consist primarily of the following:

- Petroleum products
- Pesticides/herbicides
- Paint products
- Antifreeze
- Radiological wastes
- Construction/demolition debris
- Waste acids
- Solvents
- Medical wastes
- PCBs
- Metals

As Fort Bragg modernizes its infrastructure, storage tanks, washracks, grease racks, OWSs, etc, are removed and sampled. Currently, there are 43 active Compliance Restoration (CR)-related sites.

Fort Bragg has no known off-post contamination. Groundwater underlying Fort Bragg has been shown to be contaminated with solvents, POL, metals, and pesticides. Groundwater at Fort Bragg is not currently used as a source for drinking water.

## Cleanup Exit Strategy

Twenty-five of the open CR sites are included in a PBA contract, which takes many sites to RIP/RC or full site closure. Eighteen of the open CR sites, which are not included in a PBA contract, will follow conventional funding cycles.

## CR Previous Studies

**Title**

**Author**

**Date**

There are no Previous Studies

**FORT BRAGG**  
**Compliance Restoration**  
**Site Descriptions**

**Site ID: CC PBC@Bragg**  
**Site Name: PBA@CR**  
**Alias: PBC@CR**

**STATUS**

**Regulatory Driver:** RCRA

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200909.....	200912
INV.....	200909.....	200912
IMP(C).....	201001.....	201009
IMP(O).....	201010.....	201109
LTM.....	201110.....	201503
<b>RIP Date:</b>	201010	
<b>RC Date:</b>	201109	

**SITE DESCRIPTION**

This site was created to address funding information for the PBA that was awarded in March 2010. This PBA (W91ZLK-05-D-0016-0004, awarded to Parsons) includes all CR sites that require funding.

**CLEANUP/EXIT STRATEGY**

Refer to individual sites for cleanup strategy information.

**Site ID: CCFTBR0011**  
**Site Name: HW SITE INVESTIGATION (RFI) OU 6**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
 Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	198802.....	198803
RFI/CMS.....	199703.....	200509
CMI(C).....	200509.....	200612
CMI(O).....	200701.....	204209
<b>RIP Date:</b>	200701	
<b>RC Date:</b>	204209	

**SITE DESCRIPTION**

This site is located at/near Building F-3040. Historic use at this site includes a construction/demolition landfill (SWMU 16), a waste oil disposal pit (SWMU 86), and a battery neutralization sump (SWMU 88). The site has been investigated since 1996. SWMU 16 has received a NFA decision from NC, but SWMUs 86 and 88 remain under an LTM program.

OU 6 includes SWMUs 16, 86 and 88. Initial investigation began at SWMU 16 in FY196, and continued in FY197 and FY198 in accordance with the requirements in the Fort Bragg RCRA Part B permit. Additional sampling was required based on regulatory requirements.

The RFI at OU6 was completed in FY2001. The results of the RFI recommended NFA for SWMU 16 and further investigation for SWMUs 86 and 88. Elevated levels of contaminants (VOCs and SVOCs) were noted in samples, which required further investigation. The primary media of concern is groundwater, and contamination consists primarily of petroleum compounds. The potential for off-site migration is relatively low, limited to the direction and rate of natural groundwater flow.

Groundwater sampling, which began in FY2003, was initially conducted every nine months. In FY2006, LTM was selected as the final remedy for SWMUs 86 and 88, with a sampling interval of every two years, for five sampling events. Current contamination is very low (PCE in the 1.0-1.5 micrograms per liter [ug/L] range), but still exceeding state groundwater standards.

This site is included as part of the CC performance-based contract (PBC)@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Strategy for this site is MNA. Anticipate performing sampling every two years until NFA is achieved.

**Site ID: CCFTBR0013**

**Site Name: UST REMEDIATION, CSA POL Point #1**

**Alias: FW12902-9**

**STATUS**

**Regulatory Driver:** RCRA  
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
 Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200301.....	200310
INV.....	200310.....	200808
CAP.....	201010.....	201109
IMP(C).....	200710.....	201503
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201503	

**SITE DESCRIPTION**

POL Point 1 (and former associated building 2-4040) is a former central fuel dispensing site for the Fort Bragg installation. At least 13 USTs, ranging in size from 5,000 gallons to 20,000 gallons, were removed from the site in 1997. Fuel was suspected to be stored in these tanks, downloaded from fuel tankers from a nearby railroad track. No prior environmental history on the site is known.

The site is under consideration for further development of a nearby military communications unit, but plans for development have been slowed because of existing contamination at this site.

The closure reports for the 13 removed USTs indicated releases to the soil and groundwater at the site. A Phase I LSA was conducted in 1998 and 1999 to determine the amount and type of contamination in the soil, and it was followed by a Phase II LSA in 2000 and 2001. The Phase II LSA indicated free-product in one of the monitoring wells (MW), and a groundwater plume containing benzene, ethylbenzene, and total xylene.

A CSA report was developed in 2003, and further delineated the plume and soil contamination. Those constituents exceeding the state groundwater standards (15A NCAC 2L) include benzene, ethylbenzene, and naphthalene. As a result of the CSA, a Supplemental CSA was completed in 2007; it included membrane interface probe (MIP) sampling in addition to free-product removal.

The most recent document is the CAP for the free-product. The CAP for the free-product recommends active free-product removal at this site (previous efforts were utilizing passive bailers) with three new free-product removal wells. In addition, soil excavation will be conducted to remove the source at the location of the former UST pit. Four free-product removal events are planned, and as of February 2009, two events have been conducted. Once free-product removal efforts are complete, the site is expected to be closed with a NRP.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Once free-product removal efforts are complete, the site is expected to be closed with a NRP.

Site ID: CCFTBR0015

Site Name: UST REMEDIATION, PHASE II BLDG 6-9344

Alias: None

**STATUS**

Regulatory Driver: RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)  
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200403.....	200809
CAP.....	201010.....	201109
IMP(C).....	200309.....	201503
RIP Date:	N/A	
RC Date:	201503	

**SITE DESCRIPTION**

This site is located at Building (Bldg) 6-9344, the former Mallonee Village Commissary; the seven tanks were removed in 1993. The tanks provided fuel for boilers in the building. The CS done during removal indicated that soil levels of petroleum hydrocarbons exceeded state standards requiring further assessment.

The USACE-Savannah District completed a CSA in 2007 that was submitted to the state. During this time, passive free-product removal (with a bailer) was occurring due to a low recharge rate in the one free-product well.

Further investigative actions using a MIP were completed in February 2008, and indicate that additional free-product wells may be helpful to more aggressively remove the product from this site. Based on the MIP sampling, a draft work plan for free-product removal has been developed (in August 2008).

The work plan recommended the installation of three free-product recovery wells with a large (four-inch) diameter and to a depth of 35 feet, and those wells have been installed. A vacuum truck is used to extract groundwater and free-product from these wells on a monthly basis.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site is included in the CC PBA contract, and future work is being completed as part of that contract. Current work includes free-product removal. Further action can occur only after all product is removed from the ground.

Site ID: CCFTBR0016

Site Name: UST REMEDIATION, PHASE II 8-3004 POL #2

Alias: None

### STATUS

Regulatory Driver: RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200310.....	200809
CAP.....	200810.....	200909
IMP(C).....	200910.....	201109
IMP(O).....	201110.....	201503

RIP Date: 201110

RC Date: 201503

### SITE DESCRIPTION

This site is located at Bldg 8-3004, which was associated with a fuel farm containing 11 tanks. As a result of Base Realignment and Closure (BRAC) 2005, this is the proposed site for US Army Forces Command Headquarters (FORSCOM HQ). The tanks were removed in 1994 and site closure reports indicated that additional investigation was required.

The Phase I and Phase II LSAs were completed in 1999 and 2000, respectively. The reports confirmed releases to soil and groundwater above the NCDENR standards. A CSA and a CAP were funded in FY2008. No free-product has been detected, but petroleum constituents (benzene, ethylbenzene, toluene, xylene, etc) have been detected at more than 10 times the state groundwater standards (15A NCAC 2L).

The CSA revealed that the site is not yet fully delineated; contamination extends further west than was originally anticipated, and it generally follows the direction of groundwater flow. The decision was made to use funding earmarked for the CAP to do some additional delineation before beginning development of the CAP -- since the site was not yet fully characterized. The additional delineation work included twenty sampling locations (MIP points) as well as three additional monitoring well installations. The resulting data indicate a rather concentrated area of contamination near monitoring well 8-3004-MW, though free-product has still not yet been detected.

In addition, the FORSCOM HQ construction project requested removal of a number of monitoring wells. The NCDENR concurred with the removal of six monitoring wells (MW-7, MW-12, MW-14, MW-15, MW-16, and MW-17), leaving a total of 11 in place. The contractor (SpecPro Environmental Services) has already removed three of the wells (MW-14, MW-15, and MW-16).

The injection has been completed. Though with initial good results, one well still shows hits of benzene at levels above its gross contamination limits (GCL). This site will be monitored every six months to see if the levels will gradually decline so that closure with a NRP would be possible. At this time, we anticipate closing this site with a NRP/NFA after a few more years of sampling.

Five-year reviews will be captured in the FTBR-103 AEDB-R site.

### CLEANUP/EXIT STRATEGY

The injection has been completed with initial good results. One well still shows hits of benzene at levels above its GCL. This site will be monitored every six months to see if the levels gradually decline so that closure with an NRP would be possible. At this time, closure of this site is anticipated with an NRP/NFA after a few more years of sampling.

Site ID: CCFTBR0017

Site Name: UST REMEDIATION, PHASE II BLDG 8-5476

Alias: None

**STATUS**

Regulatory Driver: RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200401.....	200809
CAP.....	200810.....	200909
IMP(C).....	200304.....	201503

RIP Date: N/A

RC Date: 201503

**SITE DESCRIPTION**

This site is located at Bldg 8-5476, an active Army and Air Force Exchange Service (AAFES) Commissary. The two tanks (A and B, 10,000- and 270-gallon diesel tanks, respectively) provided heat and hot water to the building. Free-product of diesel has been identified in groundwater. Free-product removal is underway using in-house labor under an IRA phase. No funding is required under the IRA phase at this site.

Soil samples were collected during the initial UST removal action, and indicated that GROs and DROs exceed the state soil screening levels. Soil samples taken during the Phase I LSA indicated that naphthalene, and C10-C22 aromatics exceeded the soil-to-groundwater maximum soil constituent contamination (MSCC) levels at 15 feet below grade. No soil samples were taken during the Phase II LSA or during the CSA.

Groundwater samples taken during the Phase I LSA indicated that benzene and C9-C22 aromatics exceeded the state groundwater quality standard (15A NCAC 2L) by 10 times. Ethylbenzene and xylene also exceed the 2L standard, but not by 10 times. Chloroform was found in one well during the sampling for the Phase II LSA, but some wells could not be sampled due to the presence of free-product in the wells. Three additional wells (for a total of nine) were installed during the CSA, and a number of constituents (previously listed) exceeded their 2L standards by more than 10 times.

This is a complex site that includes at least one perched zone and an almost-stationary perched water table. In addition, a new AAFES gasoline retail facility is scheduled for construction on the northwest side of the commissary building, so the locations for soil samples and one monitoring well were pushed a bit further out to confirm that no contamination exists at the planned retail facility area.

Free-product is still present in the area, and the groundwater contamination lies primarily in the shallow and perched zones. The deeper (regional) water table is free of regulatory contamination, with no constituents exceeding levels allowable by 2L.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site is included in the CC PBA contract, and future work is being completed as part of that contract. Current work includes free-product removal. Further action can occur only after all product is removed from the ground.

**Site ID: CCFTBR0021**

**Site Name: UST REMEDIATION, PHASE II BLDG C-3515**

**Alias: None**

## STATUS

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200201.....	200211
INV.....	200401.....	200809
CAP.....	200810.....	200910
IMP(C).....	200203.....	201503

**RIP Date:** N/A

**RC Date:** 201503

## SITE DESCRIPTION

This site is located at building C-3515, a division artillery motor pool. Two USTs there provided gasoline and diesel fuels to military vehicles, and a third provided storage for used oil (from a series of grease racks). The closure activities for C-3515-A (the 4,000-gallon used oil tank) were completed in July 1998. The land use in the area was and still is primarily industrial. A Phase I and Phase II LSA were completed and submitted to the NCDENR; the Phase I in 2000 and the Phase II in 2003. Both reports identify soil and groundwater contamination, as well as free-product in the wells. Benzene, ethylbenzene, naphthalene, toluene, C5-C8 aliphatics, and C9-C10 aromatics are the primary constituents of concern.

Two intermediate risk factors apply at this site. The first, free-product has been detected. Secondly, both benzene and naphthalene exceed their respective human health standards by a factor of 10 times or more. Aquatic receptors do not apply at this site.

Because free-product exists at the site, a large diameter (four-inch) free-product extraction well for aggressive free-product removal was installed. Free-product continues to be recovered on a regular basis as directed in the CAP.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 site.

## CLEANUP/EXIT STRATEGY

This site is included in the CC PBA contract, and future work is being completed as part of that contract. Current work includes free-product removal. Further action can occur only after all product is removed from the ground.

**Site ID: CCFTBR0022**

**Site Name: UST REMEDIATION, PHASE II BLDG C-9229**

**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200201.....	200304
INV.....	200401.....	200910
CAP.....	201010.....	201109
IMP(C).....	200910.....	201503

**RIP Date:** N/A

**RC Date:** 201503

**SITE DESCRIPTION**

C-9229 is a small out-building near a washrack and OWS in a large motor pool off Yorktown Victor Road. There used to be at least two USTs at the site.

A Phase I LSA was completed on C-9229-B in June 2001. Contamination was such that a Phase II LSA was recommended. The Phase II was completed in August 2005, and again, further work was recommended: a soil assessment report (SAR).

Fieldwork for the SAR was done in the spring of 2008. During the fieldwork, an underground object was believed to have been punctured, and fieldwork ceased. Subsequent digging discovered that nothing appears to have been punctured. Still, free-product exists in one of the monitoring wells, and is being recovered on a periodic basis, as directed by the CAP.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site was included as part of the CR PBA contract in FY2010, and all future work at this site (further investigation, remediation, LTM, etc) will be handled under this contract, including free-product removal. Further action can occur only after all product is removed from the ground.

**Site ID: CCFTBR0037**

**Site Name: UST Remediation - SAAF Hydrant System**

**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200405.....	200407
INV.....	200407.....	200709
CAP.....	200710.....	200905
IMP(C).....	200906.....	200906
IMP(O).....	200906.....	201503

**RIP Date:** 200906

**RC Date:** 201503

**SITE DESCRIPTION**

This site was a former airport hydrant system (AHS) for Simmons Army Airfield (SAAF), Building P-6718, Tanks A, B, C, D, and E. The AHS is a fueling system for aircraft. Site was closed and AHS was removed in 2004 when the new contractor owned/contractor operated (COCO) aboveground site was built.

The CS done at closure indicates soil and groundwater contamination of petroleum (JP-8) exceeds NC standards. Approximately 345 linear feet of underground piping and five 48,000-gallon USTs associated with the hydrant system were removed in 2005. In addition, two 5,000-gallon USTs [Tanks F (motor gasoline (MOGAS) and G (diesel)] were removed in 1998. These two tanks were associated with a gasoline station directly adjacent to the hydrant system USTs.

The NCDENR reviewed the closure report and requested a priority site cleanup at this site. The hydrant system is approximately two miles from the installation boundary and 2.5 miles from a public drinking water source for the city of Fayetteville. Free-product was documented on the groundwater. The plume appears to be static.

CSA and supplemental CSA reports were developed to examine the surrounding area adjacent to the property boundary and public water source. Most of the wells associated with this site have been abandoned because of the NCDOT I-295 project. Free-product removal is conducted on a periodic basis as directed by the CAP.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site was included as part of the CR PBA contract in FY2010, and all future work at this site (further investigation, remediation, LTM, etc) will be handled under this contract. Free-product removal is conducted on a periodic basis as directed by the CAP.

**Site ID: CCFTBR0038**

**Site Name: RCRA Investigation - AST BLDG A-2709**

**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198801.....	198809
RFI/CMS.....	200009.....	200809
CMI(C).....	200810.....	200909
CMI(O).....	200910.....	204209

**RIP Date:** 200910

**RC Date:** 204209

**SITE DESCRIPTION**

The A-2709 site served as the 82d Division Support Command fuel point for gasoline and diesel military vehicles. The two 25,000 gallon above ground storage tanks (AST) were removed in May of 1997, as well as the fueling dispensers, pumps, and islands.

The final closure report was submitted by Earth Tech in 1997 and documents the removal of the two 25,000 gallon ASTs, the fueling equipment, the islands, and the piping. Though the final closure report does indicate that the piping was removed, a recent construction project in the area uncovered a large (eight to 10-inch diameter) pipe assumed to be part of this former fueling system. During the removal, approximately 1000 cy of soil was reportedly removed from the site before the effort was ceased. CS indicates that total petroleum hydrocarbons (TPH) existed in the soil at levels of almost 12,000 parts per million (ppm), which far exceeds the allowable limits.

The Phase I LSA was conducted by the Environmental Enterprise Group, and the report was submitted in 2000, and recommended that further investigation be conducted.

The CSA report was submitted in 2004 by the USACE. Again, a variety of constituents were detected in the soil, including aliphatic and aromatic hydrocarbons, naphthalene, benzene, ethylbenzene, toluene, xylene, etc. In the groundwater, PCE, aromatics, ethylbenzene, benzene, and chloroform were all detected above their respective allowable levels. Recommendations included additional soil sampling in the vicinity of MW-3 and two additional monitoring wells upgradient to provide background data.

Periodic monitoring is all that is required at this site moving forward (every two years).

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

Strategy for this site is MNA. Anticipate performing sampling every two years until NFA is achieved.

**Site ID: CCFTBR0039**

**Site Name: HW Investigation - OWS BLDG 2-1251**

**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	198801.....	198809
RFI/CMS.....	200810.....	201503
CMI(C).....	201110.....	201509
CMI(O).....	201510.....	204209

**RIP Date:** 201510

**RC Date:** 204209

**SITE DESCRIPTION**

This site was formerly an OWS and a washrack for an artillery unit at building 2-1251. This site is part of SWMUs 35 and 36, respectively. The building was demolished in 2004. The OWS and washrack were removed in April 2005.

A closure report for this OWS removal was submitted in 2005. The report indicated soil constituents exceed NC soil-to-groundwater levels for VOCs and SVOCs. An RFI and CMS was initially required for this site by the NCDENR, but after further discussion, the team had agreed that a single DPT groundwater sample will be taken to assess any impacts to the aquifer. The sample was taken, but further investigation was required by the NCDENR. Three monitoring wells were subsequently installed and each of the three groundwater samples contained about 80 ppb of TCE. It appears that the RFI and CMS will be required after all, which will be performed under the current PBA contract.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site was included as part of the CR PBA contract in FY2010, and all future work at this site (further investigation, remediation, LTM, etc) will be handled under this contract. Current plans include an RFI/CMS. Post-PBA work may include a RD and implementation of a remedy.

**Site ID: CCFTBR0042**  
**Site Name: UST Remediation, C-8727-A**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199710.....	199809
INV.....	200410.....	200809
CAP.....	201010.....	201109
IMP(C).....	200810.....	201503

**RIP Date:** N/A

**RC Date:** 201503

**SITE DESCRIPTION**

The tank was likely used as a fuel source for a boiler or other mechanical equipment in building C-8727-A. This CC project number was opened during the spring 2008 data call. C-8727-A was a 270-gallon diesel fuel tank located near the mechanical room of building C-8727. The tank was removed in March 1998, and the soil samples collected at the time indicate that a release has occurred from the tank.

A Phase I LSA was completed in May 2005, and indicated that a Phase II LSA was needed. The Phase II LSA report was submitted in December 2007, and indicates that further delineation is required. The report recommends two additional wells about 100 feet downgradient of the original UST location. If high levels of VOCs exist this far downgradient, the report suggests an active treatment using oxygen release compound or similar method.

In 2011 a CAP was developed which specifies free-product removal until levels are low enough to close the site with a NRP.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site was included as part of the CR PBA contract in FY2010, and all future work at this site (further investigation, remediation, LTM, etc) will be handled under this contract. A path forward has not yet been determined, and is pending further investigation.

**Site ID: CCFTBR0044**  
**Site Name: AST Remediation Fluoride Spill**  
**Alias: None**

**STATUS**

**Regulatory Driver:** OTHER  
 Contaminants of Concern: Other (Fluoride, pH)  
 Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200710.....	200809
SI.....	200710.....	200809
RI/FS.....	200710.....	200809
RD.....	200710.....	200809
RA(C).....	200808.....	200809
RA(O).....	200910.....	201409
<b>RIP Date:</b>	200910	
<b>RC Date:</b>	201409	

**SITE DESCRIPTION**

A leak in the fluorosilicic acid (hereafter referred to as FS acid) tank was discovered in 2007, and was immediately repaired; however, an inventory reconciliation was performed, and it is estimated that approximately 7,000 gallons of a 22.8 percent solution of FS acid had been released from the tank. Since the release, the FS acid tank has been dismantled and removed, and the fluoridation of the drinking water is occurring with a different process. An initial site assessment was performed by Terracon, which advanced eight soil borings to evaluate soil quality. Based on the findings of the soil assessment, Terracon returned to the site to install two temporary monitoring wells. The fieldwork has been done under the direction of Arcadis, which has developed the site investigation and RA evaluation report.

This CC project number was opened during the fall 2008 data call.

An AST at Fort Bragg's water treatment plant leaked approximately 7,000 gallons of a 22.8 percent solution of fluorosilicic acid into the ground. Both soil and groundwater in the vicinity of the tank require immediate remediation. The plume extends downgradient of the former tank location about 200 to 300 feet.

Contaminants of concern include the fluoride and the pH of the soil and the groundwater. Fluoride concentrations exceed the 2L standard and the pH is in the two to four range. Both are in exceedance of the state 2L (groundwater) standards. The potential for migration is limited, but the Little River is immediately downgradient of the plume and of the site, so quick remediation schedules have been requested by the NCDENR.

Action to date includes initial response actions and preliminary investigation. Two permanent monitoring wells have been installed, and various soil borings have been completed. A CAP includes three phases of future work, one year of active remediation, and two following years of performance monitoring. The first phase (remediation) is already funded. The remedy appears to be in place, and the NCDENR has been satisfied so far with the progress. MNA seems to be the best path forward for this site.

CCFTBR0044 is for the post-contract sampling of this site. Five-year reviews (if required at this site) will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

The LSA data indicate that site closure with a NRP for groundwater is the optimal path forward. This site is included in the CR PBA contract, and RC using a NRP will be achieved under the contract.

**Site ID: CCFTBR0046**  
**Site Name: UST Investigation, 2-1549**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)  
 Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200710.....	200809
INV.....	201003.....	201309
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

Building 2-1549 is a parachute packing warehouse in the historic district of Fort Bragg. Surrounding land use is mixed industrial/residential, with some single family homes [Department of Defense (DoD) housing] about 200 feet north of the site. The 6,000-gallon heating oil UST was closed in place and filled with foam in April 2008. CS during site closure included six soil samples taken in the vicinity of the UST. In general, C9-C22 aromatics, C9-C18 aliphatics, benzene constituents, naphthalene, and xylene were found at levels above the NC state soil standards. Sample depths were from two to six feet below grade.

An LSA and an SAR were completed in 2010. The investigation identified C9-C18 aliphatics and C9-C22 Aromatics at levels above their respective soil-to-groundwater MSCCs and residential MSCCs. Benzene, 2- methyl naphthalene, naphthalene, C9-C18 aliphatics, and C9-C22 aromatics were detected in groundwater at concentrations exceeding their respective NC 2L standards.

Soil removal is planned for the area closest to the former tank pit, not to come within four to five feet of the adjacent building. Groundwater remediation is not planned at this time.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site was included as part of the CR PBA contract in FY2010, and all future work at this site (further investigation, remediation, LTM, etc.) will be handled under this contract. Soil removal is planned for the area closest to the former tank pit, not to come within four to five feet of the adjacent building. Groundwater remediation is not planned at this time.

**Site ID: CCFTBR0067**  
**Site Name: UST Monitoring, C-9224**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200610.....	200709
INV.....	200710.....	200909
IMP(C).....	201003.....	201309

**RIP Date:** N/A

**RC Date:** 201309

**SITE DESCRIPTION**

Building C-9224 was a fueling station pump house in a motor pool complex off Yorktown Victor Road on Fort Bragg. Surrounding land use is primarily industrial. The two 25,000-gallon USTs contained JP-8 and were removed in October 1998 by the environmental detachment in Charleston, SC.

This CC project number was opened during the spring 2009 data call.

The CS during site closure included nine soil samples taken in the vicinity of the UST. TPHs for DROs were found at levels above the NC state soil standards. Sample depths were at 15 feet below grade (plus one from the soil stockpile).

A Phase I LSA Report was developed by the USACE in 2005. The Massachusetts Department of Environmental Protection (MADEP) aromatics and some PAHs exceeded residential levels.

The NCDENR has notified Fort Bragg that groundwater sampling data is sufficient enough for site closure, but soil samples need to be taken to properly assess the soil. This will be done under the PBA contract.

This site is included as part of the CC PBC@Bragg contract through FY2015. Five-year reviews, if required at this site, will be captured in the FTBR-103 AEDB-R site.

**CLEANUP/EXIT STRATEGY**

This site is included in the CR PBA contract, and RC using a NRP will be achieved under the contract.

**Site ID: CCFTBR0074**

**Site Name: Cook Street Warehouse Complex**

**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	200812.....	200812
CS.....	200901.....	200909
RFI/CMS.....	200910.....	201309
CMI(C).....	201310.....	201409
CMI(O).....	201410.....	204609

**RIP Date:** 201410

**RC Date:** 204609

**SITE DESCRIPTION**

PCE has historically been detected at SWMU 14 at concentrations exceeding the NC Subchapter 2L groundwater standard of 0.7 ug/L. Long-term groundwater monitoring at SWMU 14 has established that the wells with the greatest PCE concentrations are located upgradient of SWMU 14. For instance, a concentration of 279 ug/L was measured in 14MW2 during the February 2009 monitoring event at SWMU 14. Monitoring well 14MW2 is the most upgradient well at SWMU 14, and the closest well to the Cook Street warehouse complex. In addition, the 2003 DD for SWMU 14 states that the source of PCE is not believed to be SWMU 14, as wastes contained within SWMU 14 were reported as general construction debris. Based on these data, an SI was conducted to isolate a potential source(s) of PCE located upgradient of SWMU 14.

The SI fieldwork was completed in September and October of 2009, and the letter report is dated December 2009. Activities supporting a RFI were completed between June 2010 and July 2011.

The SCM for this site indicates that the nature of contamination is a PCE release with the highest concentrations (326 ug/L) currently located adjacent to the northeast side of Building J-2844 in the Cook Street warehouse complex.

Additionally, the RFI recommends that a CMS be prepared to address the PCE contamination in groundwater at this site.

**CLEANUP/EXIT STRATEGY**

A RFI will be completed by the end of FY2012 as part of the CR PBA contract. Post-PBA work is likely to include a CMS and RD, along with implementation of a remedy.

**Site ID: CCFTBR0080**  
**Site Name: UST Investigation, 4-3124-A**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199710.....	199809
INV.....	201010.....	201309

**RIP Date:** N/A

**RC Date:** 201309

**SITE DESCRIPTION**

Building 4-3124 was part of a former heating plant at Fort Bragg but has been demolished since about 2002. Surrounding land use is mixed use, with Womack Army Medical Center directly to the north and Albritton Junior High School directly to the south.

The 280 gallon heating oil UST was removed in 1998 by the Environmental Detachment in Charleston, SC. Although the tank was small, it was a regulated tank used to fuel a generator. Fuel odors were detected during the UST removal, and petroleum constituents were found during the confirmatory sampling, necessitating need for further investigation.

A Phase I Limited Site Assessment report was completed by the Savannah District, USACE, in 2011. The soil analysis identified several VOC, SVOC, and MADEP volatile petroleum hydrocarbons (VPH)/extractable petroleum hydrocarbons (EPH) compounds above laboratory reporting levels. No detected compounds were present at concentrations exceeding NC MSCC Levels. The groundwater analysis identified several VOC, SVOC, and MADEP VPH/EPH compounds. Analytes that were detected above NC 2L standards were benzene (13 ug/L, vs. 1 ug/L NC 2L), chloromethane (21 ug/L, vs. 3 ug/L NC 2L), and naphthalene (180 ug/L, vs. 6 ug/L NC 2L) from the VOCs analysis and naphthalene (130 ug/L, vs. 6 ug/L NC 2L) from the SVOCs analysis. All other detections in the temporary well were below NC regulatory standards. Free product has not been detected at this site.

The recommendations are that the site be characterized as low risk. Neither soil nor groundwater remediation are proposed at this time. Fort Bragg will pursue closure of this site with a Notice of Residual Petroleum.

**CLEANUP/EXIT STRATEGY**

A Phase II investigation has been recommended to delineate groundwater contamination. The need for future work will be determined by the results of the investigation.

**Site ID: CCFTBR0089**  
**Site Name: UST Investigation, J-1303**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
**Contaminants of Concern:** Volatiles (VOC)  
**Media of Concern:** Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	199710.....	199809
CS.....	200810.....	201409
RFI/CMS.....	200810.....	201409

**RIP Date:** N/A  
**RC Date:** 201409

**SITE DESCRIPTION**

Building J-1303 is an industrial warehouse at Fort Bragg. Surrounding land use is industrial, and a recreation storage facility does exist to the north of the building. A large undeveloped wetland area is located immediately to the west and south of the site.

The 6,000 gallon heating oil UST was removed in 1998 by GulfStream Environmental, Inc. Petroleum constituents were found above action levels during site closure. A Limited Site Assessment report was completed in 2009 by Terranear PMC, and discovered chlorinated solvents in the groundwater.

A Phase II Limited Site Assessment report was completed in 2011 by the Savannah District of the US Army Corps of Engineers. The conclusions of this assessment are that soil contamination was very limited and the detected compounds were well below the soil to groundwater MSCC. The groundwater sampling indicates that the only contaminant exceeding the NC 2L standard and USEPA National Criteria is the chlorinated VOC, PCE (Tetrachloroethane).

This site is included in a new Performance Based Acquisition contract and further site delineation will be completed under that contract.

**CLEANUP/EXIT STRATEGY**

An RFI/CMS investigation has been recommended to delineate solvent contamination in the groundwater. The need for future work will be determined by the results of the investigation.

**Site ID: CCFTBR0090**  
**Site Name: UST Investigation, Varsity A/B**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Soil

Phases	Start	End
ISC.....	199210.....	199309
INV.....	200810.....	201309

**RIP Date:** N/A

**RC Date:** 201309

**SITE DESCRIPTION**

The history of the Varsity A/B tanks is clouded. The tanks are believed to have been associated with a fueling depot/station along Varsity Drive, and were historically noted as containing both MOGAS and diesel, though the closure report notes them as containing No. 6 fuel oil at the time of removal. Surrounding land use is mostly residential and open space.

The two 5,000 gallon fuel oil USTs were removed in 1993 by Environmental Technology of North America, Inc. Petroleum constituents were found above action levels during site closure.

A Phase I Limited Site Assessment report was completed in 2009 by Terranear PMC. Though some soil contamination was noted in the 20 to 21 foot depth, the report recommended No Further Action. The NCDENR subsequently requested a Soil Assessment Report.

A Soil Assessment Report was completed in 2011 by the Savannah District of the US Army Corps of Engineers. Soil sample analytical results for Varsity A/B-SB1, at the northwest corner of the tank pit, indicated C5-C8 aliphatics at concentrations exceeding the NC Soil to Groundwater MSCCs. Soil sample analytical results for Varsity A/B-SB3, at the southeast corner of the tank pit, indicated n-butylbenzene, sec-butylbenzene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-methylnaphthalene, C9-C18 aliphatics, and C9-C22 aromatics at concentrations exceeding the NC soil to groundwater MSCCs. Additionally, C5-C8 aliphatics exceeded the NC Residential MSCCs. Both samples had additional detections above laboratory detection levels, but were below NC MSCCs. Analytical results for Varsity A/B-SB2, associated SB-DUP8, and Varsity A/B-SB4 were all below laboratory reporting levels. The area directly surrounding the former tank location is housing to the north, wooded area to the east, and open field and roadways to the south and west. The area directly above the former tank pit is currently a landscaped shrub and tree bed. A walkway to the south connects two separate areas of the Ardennes housing area. The groundwater flow in this area is generally to the southwest. The land use for this area is residential. The area can be considered low risk due to the depth at which the contaminants were found.

Further action was recommended by the Soil Assessment Report to further delineate the soil contamination. However, the NCDENR issued a No Further Action letter on May 2, 2012.

Corrections to future cost estimates for this site (\$16K for INV in FY13) could not be corrected/removed during this Data Call. Will correct during Spring 2013 Data Call.

**CLEANUP/EXIT STRATEGY**

A SAR has been recommended to delineate groundwater contamination. The need for future work will be determined by the results of the investigation.

**Site ID: CCFTBR0095**  
**Site Name: UST Investigation, 1-1460-F**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200910.....	201009
INV.....	201201.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 1-1460 is an historic industrial building at Fort Bragg. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area. FORSCOM/US Army Reserve Center (USARC) headquarters is just to the east, across Knox Street.

The 10,000 gallon No. 6 fuel oil UST was removed in 2010 by Zebra Environmental and Industrial Services, Inc. Total Petroleum Hydrocarbons were found above action levels during site closure. A notice of regulatory requirement (NORR) letter dated January 2011 requires submittal of a LSA report.

This work will be completed under a new Performance Based Acquisition contract through the US Army Corps of Engineers.

**CLEANUP/EXIT STRATEGY**

A Phase I investigation has been recommended to delineate groundwater contamination. The need for future work will be determined by the results of the investigation.

**Site ID: CCFTBR0096**  
**Site Name: UST Investigation, 2-1559**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	201010.....	201109
INV.....	201201.....	201309
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

Building 2-1559 is a former warehouse building at Fort Bragg. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area. A family medical clinic is currently (FY2012) being constructed on this site.

The 6,000 gallon No. 2 fuel oil UST was removed in 2011 by Terracon Consultants, Inc. Extractable Petroleum Hydrocarbons were found above the laboratory detection limit. NCDENR does not currently have a soil-to-water maximum contaminant concentration (MCC) or industrial MCC for EPH. A Soil Assessment Report is required at this site to determine the amount of soil contamination present.

This work will be completed under a new Performance Based Acquisition contract through the US Army Corps of Engineers.

**CLEANUP/EXIT STRATEGY**

A SAR has been recommended to delineate groundwater contamination. The need for future work will be determined by the results of the investigation.

**Site ID: CCFTBR0097**  
**Site Name: UST Investigation, 2-1731**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200210.....	200309
INV.....	200810.....	201009
LTM.....	201201.....	201309
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201009	

**SITE DESCRIPTION**

Building 2-1731 is an historic administration building at Fort Bragg. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area.

The 6,000 gallon No. 2 fuel oil UST was removed in 2003, but a closure report is not available. A Limited Site Assessment was performed by Terranear, PMC, in 2009. Napthalene and EPH/VPH were detected at levels above the NCDENR 2L groundwater quality standard, but at levels below their respective GCLs.

A Notice of Residual Petroleum for groundwater is required to close this site, and will be completed under a new Performance Based Acquisition contract through the US Army Corps of Engineers.

**CLEANUP/EXIT STRATEGY**

Site closure via a NRP is expected for this site.

**Site ID: CCFTBR0098**  
**Site Name: UST Investigation, C-8727-B**  
**Alias: None**

**STATUS**

Regulatory Driver: RCRA

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	201101.....	201112
INV.....	201201.....	201409
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201409	

**SITE DESCRIPTION**

Former UST C-8727-B was a 15,000 gallon heating oil tank, closed in place in December 2011. The UST, servicing a large boiler in this motor pool facility, was replaced by a 6,000 gallon AST. Land use surrounding this tank is mostly industrial, consisting of a large multi-tenant vehicle maintenance complex.

Soil analysis during tank closure identified one constituent above North Carolina's Maximum Soil Contaminant Concentration (MSCC): C9-C22 aromatics. A number of other constituents were identified in soil, but at levels below the MSCC. A number of constituents were identified in groundwater via a temporary monitoring well. Each of the following exceeded its respective 15A NCAC 2L groundwater standard: C9-C18 aliphatics, C9-C22 aromatics, benzene, naphthalene, and 2-methylnaphthalene.

The NCDENR issued a Notice of Regulatory Requirement (NORR) on June 14, 2012, requiring the completion of a Limited Site Assessment report. This work will be completed under a new Performance Based Acquisition contract through the US Army Corps of Engineers.

**CLEANUP/EXIT STRATEGY**

**Site ID: CCFTBR0099**  
**Site Name: AST Investigation, J-1138**  
**Alias: None**

**STATUS**

Regulatory Driver: RCRA

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	201101.....	201112
CS.....	201101.....	201112
RFI/CMS.....	201201.....	201409
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201409	

**SITE DESCRIPTION**

Former AST J-1138 was a 150,000 gallon heating oil tank, demolished in April 2011. Land use surrounding this tank is mostly industrial, consisting of a large multi-tenant materials processing facility to the northwest and warehouses to the southwest. A golf course lies 250 feet to the northeast.

A few constituents were identified in groundwater via a temporary monitoring well. Each of the following exceeded its respective 15A NCAC 2L groundwater standard: C9-C18 aliphatics, C9-C22 aromatics, and chrysene.

The NCDENR is requiring the completion of a Limited Site Assessment report via an email to Fort Bragg. This work will be completed under a new Performance Based Acquisition contract through the US Army Corps of Engineers.

**CLEANUP/EXIT STRATEGY**

**Site ID: CCFTBR0309**  
**Site Name: Building 289 UST Investigation**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199310.....	199409
INV.....	199510.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 289 is located along Reilly Road on Pope Army Airfield. This site is surrounded by administrative offices and industrial operations. The Pope Airfield is to the north.

The 15,000-gallon No. 2 fuel oil was removed in August 1994 by Earth Tech Remediation Services, Inc. DRO were detected above the NCDENR action levels. Soils were excavated and disposed of at Earth Tech bioremediation facility. An LSA was performed in May 1996 by Parsons Engineering Science, Inc. No VOCs or SVOCs were detected in the groundwater, and lead was below NC 2L. NCDENR is recommending an additional LSA to determine extent of soil contamination and whether it has migrated to impact groundwater in the 16 years since the original tank closure and LSA. Site expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0310**  
**Site Name: TU506 Building 322 Ethridge Street**  
**Alias: TU506**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199610.....	199709
INV.....	200710.....	201309
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

Building 322 is a historic Military family housing unit, located along Ethridge Street at Pope Army Airfield. Surrounding land use is residential and recreational in nature, with Willow Lakes Golf Course to the southeast.

One 500-gallon heating oil UST was removed in 1997. Visibly impacted soils were observed during the tank closure. CS revealed TPH concentrations exceeding the NC soil action levels for protection of groundwater. An LSA performed in February 2008 by CH2M Hill. Aromatics were detected in soils above residential maximum soil contamination concentrations (MSCC) and benzene was detected in the groundwater at 2L. A limited site and groundwater investigation was performed in November 2010 by the USACE, Savannah District. Benzene was detected above maximum contaminate levels in groundwater and naphthalene was detected in soils above MSCCs. A NCDENR letter, dated November 2011, requests a SAR be conducted. The site is expected to be closed with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0311**  
**Site Name: Building 324 Ethridge Street UST**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199610.....	199709
INV.....	201010.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 324 is a historic Military family housing unit, located along Ethridge Street at Pope Army Airfield. Surrounding land use is residential and recreational in nature, with Willow Lakes Golf Course to the southeast.

One 275-gallon heating oil UST was removed in 1997 by Envirotech, Inc. A limited site and groundwater investigation was performed in November 2010 by the USACE, Savannah District. Bis(2-ethylhexyl)phthalate was detected above detection limits in groundwater. Since the location of the UST is unknown, the samples from the 2010 assessment may not have been accurately located. A North NCDENR letter, dated November 2011, requests a LSA be conducted. The site is expected to close with a NRP. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: CCFTBR0312**  
**Site Name: Building 334 Ethridge Street UST**  
**Alias: TU508**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199610.....	199709
INV.....	200710.....	201205
LTM.....	201206.....	201309
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201205	

**SITE DESCRIPTION**

Building 334 is a historic Military family housing unit, located along Ethridge Street at Pope Army Airforce. Surrounding land use is residential and recreational in nature, with Willow Lakes Golf Course to the southeast.

One 550-gallon heating oil UST was removed in 1997 by Envirotech, Inc. Visibly impacted soils were observed during the tank closure and removed from the site for disposal. Analytical testing showed petroleum contamination in the soils removed during tank closure. An LSA was performed in February 2008 by CH2M Hill. TPH were detected in soils exceeding NC soil action levels for protection of groundwater. Groundwater results showed the presence of SVOCs and aromatics above NC 2L. A NC monitoring report was performed in December 2011 by the USACE, Savannah District. VOCs, SVOCs, and VPHs/EPHs were detected above NC 2L. A Phase II LSA is being requested. This site is expected to close with a NRP. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: CCFTBR0313**  
**Site Name: TU500 Building 415 AAFES Gas Statio**  
**Alias: TU500**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200010.....	200209
INV.....	200210.....	201309
LTM.....	201310.....	201409
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201309	

**SITE DESCRIPTION**

Building 415 is a current AAFES Service Station, located along Armistead Street at Pope Army Airfield. Surrounding land use is a mix use of administrative, residential, and recreational facilities.

Three 10,000-gallon gasoline USTs are currently being used at the site. Following observed free-product in the groundwater wells surrounding the tanks, a LSA was performed in 2003 by Environmental Hydrogeological Consultants, Inc. TPH-DRO were discovered in soils above the NC soil residential standards and benzene, toluene, ethylbenzene, and xylene; methyl tert-butyl ether and isopropyl ether were above NC 2L in groundwater. The fuel lines for the three USTs were removed by Toltest, Inc. in December 2003 and replaced. Contaminated soils were removed from site during line removal and disposed of off-site. TPH-GRO were detected in the soils above detected limits. A NCDENR, dated November 2011, requests a LSA be conducted. This site is expected to close with a NRP. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: CCFTBR0314**  
**Site Name: Building 707 UST Investigation**  
**Alias: TU5001**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199810.....	199909
INV.....	200310.....	201109
LTM.....	201110.....	201309

**RIP Date:** N/A

**RC Date:** 201109

**SITE DESCRIPTION**

Building 707 is a current electrical power station, located along Survey Street on Pope Army Airfield. Surrounding land use is administrative and industrial facilities, with the Pope Airfield to the south.

One 200-gallon diesel UST was removed in 1999 by Westar Corporation. VOCs were detected above detection limits in excavated soils. An LSA was performed in January 2004 by Environmental Hydrogeological Consultants, Inc. Ethylbenzene was detected in groundwater above NC 2L and C5-C8 Aliphatics and C9-C10 aromatics were detected above Interim groundwater standards. An additional groundwater water investigation was performed in November 2010 by the USACE, Savannah District. Lead was detected exceeding maximum contaminate levels. A NCDENR letter, dated October 2011, issued an NRP for the site. A land survey is being requested for completion of the NRP. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Continuing LUCs will be maintained as prescribed.

**Site ID: CCFTBR0315**  
**Site Name: Building 761 UST Investigation**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199310.....	199409
INV.....	199510.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 761 is a former building located along Surveyor Street at Pope Army Airfield. Surrounding land use is administrative and industrial in nature, with Pope Airfield to the southeast.

One 2,000-gallon diesel UST was removed in 1994 by Earth Tech Remediation Services. Analytical testing showed TPH-GRO and TPH-DRO was present in the soils removed during tank closure. A UST site characterization report was performed in 1996 by Parsons Engineering Science, Inc. TPH concentrations in the soils exceeded the site sensitivity evaluation final cleanup levels and TCE levels in groundwater were at (slightly below) NC 2L. An NCDENR letter, dated November 2011, requests a LSA be conducted. The site is expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0316**  
**Site Name: Building 766 UST Investigation**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199510.....	199609
INV.....	199610.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A

**RC Date:** 201309

**SITE DESCRIPTION**

Building 766 is a current office building, located along Hurst Drive at Surveyor Street on Pope Army Airfield. Surrounding land use is administrative and industrial facilities, with the Pope Airfield to the southeast.

One 1,000-gallon heating oil UST was removed in 1996 by TerraTech Engineers, Inc. TPH-GRO and TPH-DRO were detected in the soils in the tank pit above site sensitivity evaluation levels. CS was performed one month later, resulting in evidence of USEPA Method 3550 VPH contamination. These soils were removed from the pit and disposed of off-site. Final sampling was performed one month later and was below quantifiable limits for Method 3550. Final investigation is being request by the NCDENR through a LSA, per letter dated November 2011. This site is expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0317**  
**Site Name: Building 820 UST Investigation**  
**Alias: None**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199610.....	200809
INV.....	200810.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 820 is a former building that was part of the Blue Ramp hydrant system, located between Blue Ramp and the Pope Airfield runway at Pope Army Airfield.

Nine USTs have been removed from the site: six 50,000-gallon JP-8, two 2,000-gallon used oil, and one 5,000-gallon OWS tank. The 2,000-gallon used oil tanks were removed in 1997 and 2001, and operated as spill prevention collection tanks for the 50,000-gallon tanks (removed in 2008). The removal date for the 5,000-gallon OWS tank is unknown. A 1997 closure reports for one of the 2,000-gallon used oil tanks revealed TPH-GRO and TPH-DRO contamination. Soils were overexcavated and disposed of off-site. The 2001 Closure Report for the remaining 2,000-gallon tank showed the presence of petroleum hydrocarbons in excess of NC risk based corrective action soil-to-groundwater MSCC levels in soils. Pesticides were also found in the soils removed from the tank pit. A 2004 LSA was performed in the area of the 2,000-gallon tanks. Soil contamination was detected in the form of: benzo(a)anthracene, benzo(b) fluorathane, C5-C8 aliphatics, and C9-C22 Aromatics above NC residential soil standards.

Constituents found in groundwater above NC 2L include: benzene, toluene, ethylbenzene, total xylenes, isopropylbenzene, 1,2,4-trimethylbenzene, lead, and chromium. C11-C22 aromatics were also found above interim groundwater standards.

A closure report, conducted in 2003, for the 5,000-gallon OWS UST found no tanks and no evidence of soil contamination. No samples were taken.

The six 50,000-gallon JP-8 USTs were removed as part of the Blue Ramp hydrant system demolition project. Phase I efforts capped the hydrant lines in-place in 2007 and the USTs were removed in 2008 under Phase II. TPH-DRO and TPH-GRO was detected in the tank pits and fuel lines. Benzo(a)pyrene was found exceeding the industrial/commercial soil cleanup levels (ICSCl) in the stockpile soils removed from the tank pit. The stock pile soils were removed and disposed of off-site. The tank pits were overexcited and resampled. Results showed no contaminates above ICSCl). A site assessment report/LSA is being requested by the NCDENR. This site is expected to close with a NRP. Five-year reviews will be tracked under FTBR-103. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete. Any continuing LUCs will be maintained as prescribed.

**Site ID: CCFTBR0318**  
**Site Name: TU527 Building 900 UST Inv.**  
**Alias: TU527**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199810.....	199909
INV.....	200310.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 900 is a current administrative office along Hurst Drive and Green Ramp Loop at Pope Army Airfield. Surrounding land use is administrative and industrial facilities, with the Pope Airfield to the east.

Two USTs (one 500-gallon diesel and one 1,500-gallon heating oil) were removed in 1999 by Westar Corporation. VOCs and USEPA Method 3550 VPHs were detected in soils from the tank removal. Contaminated soils were removed during tank removal and disposed of off-site. An LSA was performed in 2004 by Toltest, Inc. All results were below detection limits or below NC Interim Groundwater Standards. Final investigation is being request by the NCDENR through a LSA, per letter dated November 2011. This site is expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0321**  
**Site Name: Building 650 UST Investigation**  
**Alias: TU517**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199610.....	200209
INV.....	200210.....	201309
LTM.....	201310.....	201409

**RIP Date:** N/A  
**RC Date:** 201309

**SITE DESCRIPTION**

Building 650 is a current administrative office, located at Surveyor Street and Reilly Road on Pope Army Airfield. Surrounding land use is a mixture of administrative and industrial facilities, with Pope Airfield to the southeast.

One 4,000-gallon UST was reportedly located at Building 650. A multi-site UST removal and LSA investigation was performed in June 2004 by Toltest, Inc. Excavation activities occurred at the site in June 2003. No tank was found during the investigation. Actual removal date of the tank is unknown. No soil samples were taken during this investigation. An SAR is being requested by the NCDENR. This site is expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0322**  
**Site Name: Building 805 UST Investigation**  
**Alias: TU504**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	200210.....	200309
INV.....	200310.....	201309

**RIP Date:** N/A

**RC Date:** 201309

**SITE DESCRIPTION**

Building 805 is a former building located along on the Pope Airfield at Green Ramp, along Hurst Drive at Pope Army Airfield. Surrounding land use is administrative and industrial facilities, with the Pope Airfield to the southeast.

One 5,000-gallon heating oil UST was removed in 2003 by Toltest, Inc. An LSA/closure report was also conducted by Toltest, Inc. in 2004. No soil samples were taken. A SAR is being requested by the NCDENR. This site is expected to close with a NFA. Future work will be included in a new Performance Based Contract.

**CLEANUP/EXIT STRATEGY**

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

**Site ID: CCFTBR0323**  
**Site Name: Building 708 UST Investigation**  
**Alias: None**

**STATUS**

Regulatory Driver: RCRA

Phases	Start	End
ISC.....	199310.....	199409
INV.....	199510.....	201509
LTM.....	201310.....	201409
RIP Date:	N/A	
RC Date:	201509	

**SITE DESCRIPTION**

Building 708 is a current building located along Surveyor Street at Pope Army Airfield. Surrounding land use is administrative and industrial in nature, with Pope Airfield to the south-southwest.

One 6,000-gallon fuel oil UST was removed in 1994 by Earth Tech Remediation Services. Analytical testing showed TPH-DRO was present in the soils removed during tank closure. A UST Site Investigation report was performed in 1996 by Parsons Engineering Science, Inc. TPH-DRO concentrations in soils exceeded State initial action levels for soil. Contaminates in groundwater that exceeded the NC 2L standards included lead and BTEX. An NCDENR letter, dated November 2011, request a LSA be conducted. The site is expected to be closed with a NFA.

**CLEANUP/EXIT STRATEGY**

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCFTBR0019	UST REMEDIATION, PHASE II @ A-3686 AAFES	201107	
CCFTBR0024	UST REMEDIATION, PHASE II BLDG D-2340-A	201109	
CCFTBR0025	UST REMEDIATION, PHASE II BLDG H-2260-B	201109	
CCFTBR0027	UST REMEDIATION, PHASE II BLDG M-2125	201107	
CCFTBR0040	UST Remediation, 2-4717A	201010	
CCFTBR0041	UST Remediation, 2-3621A	201003	
CCFTBR0043	UST Remediation, D-1402	201109	
CCFTBR0047	UST Investigation, 1-1526	201011	
CCFTBR0048	UST Investigation, 2-3627-A/B	201109	
CCFTBR0050	UST Remediation, D-2340-B	201109	
CCFTBR0051	UST Investigation, 1-2336-A	201011	
CCFTBR0052	UST Investigation, 1-4157-A	201011	
CCFTBR0053	UST Investigation, 1-5132-A	201011	
CCFTBR0055	UST Investigation, 4-2472-A	201011	
CCFTBR0059	UST Investigation, M-2651-A	201011	
CCFTBR0060	UST Investigation, N-5505	201011	
CCFTBR0061	UST Investigation, O-9001-A	201109	
CCFTBR0062	UST Investigation, P-2936-C	201011	
CCFTBR0063	UST Investigation, 8-5303-A	201011	
CCFTBR0064	UST Investigation, 8-5306-A	201011	
CCFTBR0065	UST Investigation, 8-5703-A	201011	
CCFTBR0066	UST Investigation, 8-7006-A	201109	
CCFTBR0068	UST Investigation, D-1926-A	201109	
CCFTBR0069	UST Investigation, M-5040	201011	
CCFTBR0071	UST Investigation, G-6849-A	201011	
CCFTBR0072	UST Investigation, 1-1242-A	201109	
CCFTBR0073	UST Investigation, A-4664	201011	
CCFTBR0075	UST Investigation, F-3121-A	201109	
CCFTBR0076	UST Investigation, C-7549	201109	
CCFTBR0077	UST Investigation, 2-1361-A	201109	
CCFTBR0078	UST Investigation, 5-5250	201109	
CCFTBR0079	UST Investigation, 2-1249	201109	
CCFTBR0081	UST Investigation, 6-4641-B	201109	
CCFTBR0082	UST Investigation, 6-8018-D	201109	
CCFTBR0083	UST Investigation, 6-8308	201109	
CCFTBR0085	UST Investigation, A-2207-A	201109	
CCFTBR0086	UST Investigation, B-3811-C	201109	

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCFTBR0088	UST Investigation, B-7013-C/D	201109	
CCFTBR0092	UST Investigation, M-7238	201109	
CCFTBR0093	UST Investigation, M-7240	201109	
CCFTBR0094	JIB Soil Removal Project	201209	

## CR Schedule

**Date of CR Inception:** 198801

### Past Phase Completion Milestones

#### 1988

RFA (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6, CCFTBR0038 - RCRA Investigation - AST BLDG A-2709, CCFTBR0039 - HW Investigation - OWS BLDG 2-1251)

#### 1993

ISC (CCFTBR0043 - UST Remediation, D-1402, CCFTBR0085 - UST Investigation, A-2207-A , CCFTBR0086 - UST Investigation, B-3811-C , CCFTBR0088 - UST Investigation, B-7013-C/D , CCFTBR0090 - UST Investigation, Varsity A/B , CCFTBR0092 - UST Investigation, M-7238)

#### 1994

ISC (CCFTBR0309 - Building 289 UST Investigation, CCFTBR0315 - Building 761 UST Investigation, CCFTBR0323 - Building 708 UST Investigation)

#### 1996

ISC (CCFTBR0316 - Building 766 UST Investigation)

#### 1997

ISC (CCFTBR0310 - TU506 Building 322 Ethridge Street , CCFTBR0311 - Building 324 Ethridge Street UST, CCFTBR0312 - Building 334 Ethridge Street UST)

#### 1998

RFA (CCFTBR0089 - UST Investigation, J-1303 )

ISC (CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0071 - UST Investigation, G-6849-A, CCFTBR0072 - UST Investigation, 1-1242-A, CCFTBR0080 - UST Investigation, 4-3124-A, CCFTBR0081 - UST Investigation, 6-4641-B , CCFTBR0082 - UST Investigation, 6-8018-D , CCFTBR0083 - UST Investigation, 6-8308 )

#### 1999

ISC (CCFTBR0041 - UST Remediation, 2-3621A, CCFTBR0048 - UST Investigation, 2-3627-A/B, CCFTBR0314 - Building 707 UST Investigation, CCFTBR0318 - TU527 Building 900 UST Inv.)

#### 2002

ISC (CCFTBR0313 - TU500 Building 415 AAFES Gas Statio, CCFTBR0321 - Building 650 UST Investigation)

#### 2003

ISC (CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125, CCFTBR0097 - UST Investigation, 2-1731, CCFTBR0322 - Building 805 UST Investigation)

#### 2004

ISC (CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0037 - UST Remediation - SAAF Hydrant System, CCFTBR0050 - UST Remediation, D-2340-B)

#### 2005

RFI/CMS (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6)

ISC (CCFTBR0040 - UST Remediation, 2-4717A)

#### 2007

CMI(C) (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6)

INV (CCFTBR0037 - UST Remediation - SAAF Hydrant System, CCFTBR0040 - UST Remediation, 2-4717A)

ISC (CCFTBR0067 - UST Monitoring, C-9224)

#### 2008

RA(C) (CCFTBR0044 - AST Remediation Fluoride Spill)

RI/FS (CCFTBR0044 - AST Remediation Fluoride Spill)

RFI/CMS (CCFTBR0038 - RCRA Investigation - AST BLDG A-2709)

ISC (CCFTBR0046 - UST Investigation, 2-1549, CCFTBR0047 - UST Investigation, 1-1526, CCFTBR0051 - UST Investigation, 1-2336-A, CCFTBR0052 - UST Investigation, 1-4157-A, CCFTBR0053 - UST Investigation, 1-

	5132-A, CCFTBR0055 - UST Investigation, 4-2472-A, CCFTBR0059 - UST Investigation, M-2651-A, CCFTBR0060 - UST Investigation, N-5505, CCFTBR0061 - UST Investigation, O-9001-A, CCFTBR0062 - UST Investigation, P-2936-C, CCFTBR0063 - UST Investigation, 8-5303-A, CCFTBR0064 - UST Investigation, 8-5306-A, CCFTBR0065 - UST Investigation, 8-5703-A, CCFTBR0066 - UST Investigation, 8-7006-A, CCFTBR0068 - UST Investigation, D-1926-A, CCFTBR0069 - UST Investigation, M-5040, CCFTBR0073 - UST Investigation, A-4664, CCFTBR0077 - UST Investigation, 2-1361-A, CCFTBR0317 - Building 820 UST Investigation)
RD	(CCFTBR0044 - AST Remediation Fluoride Spill)
INV	(CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125, CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0043 - UST Remediation, D-1402, CCFTBR0050 - UST Remediation, D-2340-B)
SI	(CCFTBR0044 - AST Remediation Fluoride Spill)
PA	(CCFTBR0044 - AST Remediation Fluoride Spill)
<b>2009</b>	
CS	(CCFTBR0074 - Cook Street Warehouse Complex)
CAP	(CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125, CCFTBR0037 - UST Remediation - SAAF Hydrant System)
IMP(C)	(CCFTBR0037 - UST Remediation - SAAF Hydrant System)
ISC	(CCFTBR0075 - UST Investigation, F-3121-A, CCFTBR0076 - UST Investigation, C-7549, CCFTBR0078 - UST Investigation, 5-5250, CCFTBR0093 - UST Investigation, M-7240 )
RFA	(CCFTBR0074 - Cook Street Warehouse Complex)
INV	(CCFTBR0048 - UST Investigation, 2-3627-A/B, CCFTBR0067 - UST Monitoring, C-9224)
CMI(C)	(CCFTBR0038 - RCRA Investigation - AST BLDG A-2709)
<b>2010</b>	
ISC	(CC PBC@Bragg - PBA@CR, CCFTBR0079 - UST Investigation, 2-1249 , CCFTBR0094 - JIB Soil Removal Project, CCFTBR0095 - UST Investigation, 1-1460-F)
CAP	(CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0043 - UST Remediation, D-1402, CCFTBR0094 - JIB Soil Removal Project)
INV	(CC PBC@Bragg - PBA@CR, CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0041 - UST Remediation, 2-3621A, CCFTBR0097 - UST Investigation, 2-1731)
IMP(C)	(CC PBC@Bragg - PBA@CR, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125)
<b>2011</b>	
ISC	(CCFTBR0096 - UST Investigation, 2-1559)
IMP(O)	(CC PBC@Bragg - PBA@CR, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125)
CAP	(CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0042 - UST Remediation, C-8727-A)
IMP(C)	(CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0040 - UST Remediation, 2-4717A, CCFTBR0043 - UST Remediation, D-1402, CCFTBR0048 - UST Investigation, 2-3627-A/B, CCFTBR0050 - UST Remediation, D-2340-B)
INV	(CCFTBR0047 - UST Investigation, 1-1526, CCFTBR0051 - UST Investigation, 1-2336-A, CCFTBR0052 - UST Investigation, 1-4157-A, CCFTBR0053 - UST Investigation, 1-5132-A, CCFTBR0055 - UST Investigation, 4-2472-A, CCFTBR0059 - UST Investigation, M-2651-A, CCFTBR0060 - UST Investigation, N-5505,

CCFTBR0061 - UST Investigation, O-9001-A, CCFTBR0062 - UST Investigation, P-2936-C, CCFTBR0063 - UST Investigation, 8-5303-A, CCFTBR0064 - UST Investigation, 8-5306-A, CCFTBR0065 - UST Investigation, 8-5703-A, CCFTBR0066 - UST Investigation, 8-7006-A, CCFTBR0068 - UST Investigation, D-1926-A, CCFTBR0069 - UST Investigation, M-5040, CCFTBR0071 - UST Investigation, G-6849-A, CCFTBR0072 - UST Investigation, 1-1242-A, CCFTBR0073 - UST Investigation, A-4664, CCFTBR0075 - UST Investigation, F-3121-A, CCFTBR0076 - UST Investigation, C-7549, CCFTBR0077 - UST Investigation, 2-1361-A, CCFTBR0078 - UST Investigation, 5-5250, CCFTBR0079 - UST Investigation, 2-1249 , CCFTBR0081 - UST Investigation, 6-4641-B , CCFTBR0082 - UST Investigation, 6-8018-D , CCFTBR0083 - UST Investigation, 6-8308 , CCFTBR0085 - UST Investigation, A-2207-A , CCFTBR0086 - UST Investigation, B-3811-C , CCFTBR0088 - UST Investigation, B-7013-C/D , CCFTBR0092 - UST Investigation, M-7238, CCFTBR0093 - UST Investigation, M-7240 , CCFTBR0314 - Building 707 UST Investigation)

### **Projected Phase Completion Milestones**

**See attached schedule**

### **Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates**

To Be Determined

**Final RA(C) Completion Date:** 201509

**Schedule for Next Five-Year Review:** 2013

**Estimated Completion Date of CR at Installation (including LTM phase):** 204609

## FORT BRAGG CR Schedule

█ = phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CC PBC@Bragg	PBA@CR	LTM	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0011	HW SITE INVESTIGATION (RFI) OU 6	CMI(O)	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0013	UST REMEDIATION, CSA POL Point #1	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0015	UST REMEDIATION, PHASE II BLDG 6-9344	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0016	UST REMEDIATION, PHASE II 8-3004 POL #2	IMP(O)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0017	UST REMEDIATION, PHASE II BLDG 8-5476	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0021	UST REMEDIATION, PHASE II BLDG C-3515	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0022	UST REMEDIATION, PHASE II BLDG C-9229	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0037	UST Remediation - SAAF Hydrant System	IMP(O)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0038	RCRA Investigation - AST BLDG A-2709	CMI(O)	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0039	HW Investigation - OWS BLDG 2-1251	RFI/CMS	█	█	█			
		CMI(C)	█	█	█			
		CMI(O)				█	█	█
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0042	UST Remediation, C-8727-A	IMP(C)	█	█	█			
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0044	AST Remediation Fluoride Spill	RA(O)	█	█				
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0046	UST Investigation, 2-1549	INV	█					
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0067	UST Monitoring, C-9224	IMP(C)	█					
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0074	Cook Street Warehouse Complex	RFI/CMS	█					
		CMI(C)		█				
		CMI(O)			█	█	█	█
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0080	UST Investigation, 4-3124-A	INV	█					
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0089	UST Investigation, J-1303	CS	█	█				
		RFI/CMS	█	█				

## FORT BRAGG CR Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0090	UST Investigation, Varsity A/B	INV						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0095	UST Investigation, 1-1460-F	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0096	UST Investigation, 2-1559	INV						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0097	UST Investigation, 2-1731	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0098	UST Investigation, C-8727-B	INV						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0099	AST Investigation, J-1138	RFI/CMS						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0309	Building 289 UST Investigation	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0310	TU506 Building 322 Ethridge Street	INV						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0311	Building 324 Ethridge Street UST	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0312	Building 334 Ethridge Street UST	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0313	TU500 Building 415 AAFES Gas Statio	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0314	Building 707 UST Investigation	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0315	Building 761 UST Investigation	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0316	Building 766 UST Investigation	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0317	Building 820 UST Investigation	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0318	TU527 Building 900 UST Inv.	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0321	Building 650 UST Investigation	INV						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0322	Building 805 UST Investigation	INV						

## FORT BRAGG CR Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTBR0323	Building 708 UST Investigation	INV						
		LTM						

## Community Involvement

**Technical Review Committee (TRC):** None

**Community Involvement Plan (Date Published):** 201102

**Restoration Advisory Board (RAB):** No

**Reason Not Established:** The community has expressed no sufficient, sustained interest in a RAB.

**Community Interest Solicited on:** 200602

### **Efforts Taken to Determine Interest**

A public involvement survey was conducted in February 2006.

### **Results**

The survey conducted in 2006 indicated there is not enough interest from the community to form a RAB.

### **Follow-up Procedures**

Request for participation in a RAB is continually posted at Fort Bragg's IRP website (<http://www.bragg.army.mil/envbr/irp.htm>).

### **Additional Community Involvement Information**

A community involvement plan was finalized in FY2007.

### **Administrative Record is located at**

Building 3-1137, Butner Road  
Environmental Compliance Branch  
Environmental Sustainment Division  
Directorate of Public Works  
Fort Bragg, NC 28310  
(910) 396-7432

### **Information Repository is located at**

Building 3-1137, Butner Road  
Environmental Compliance Branch  
Environmental Sustainment Division  
Directorate of Public Works  
Fort Bragg, NC 28310  
(910) 396-7432

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

**TAPP Title:** N/A

**Potential TAPP:** N/A

