

FORT MOORE

Army Cleanup Program

Installation Action Plan Final
June 2024

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STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

INSTALLATION OVERVIEW

Installation Name: FORT MOORE

Installation City: FORT MOORE

Installation County: CHATTAHOOCHEE (GA), MUSCOGEE (GA), and RUSSELL (AL)

Installation State: Georgia and Alabama

Regulatory Participation - Federal: US Environmental Protection Agency (USEPA)

Regulatory Participation - State: Georgia Environmental Protection Division (GAEPD) and Alabama Department of Environmental Management (ADEM)

ACRONYMS

Acronym	Definition
AST	Aboveground Storage Tank
bgs	Below Ground Surface
BRA	Baseline Risk Assessment
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CAP	Corrective Action Plan
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CMI(C)	Corrective Measures Implementation-Construction
CMI(O)	Corrective Measures Implementation-Operation
CMS	Corrective Measures Study
COC	Contaminants of Concern
COPC	Chemicals of Potential Concern
CRL	Cleanup Restoration & Liabilities
CS	Confirmation Sampling
DDT	Dichlorobiphenyl-Trichloroethane
DES	Design
DPE	Dual Phase Extraction
ENV	Environmental
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army
FS	Feasibility Study
FY	Fiscal Year
FYR	Five-Year Review
GAEPD	Georgia Environmental Protection Division
HRC	Hydrogen Releasing Compound
HRS	Hazard Ranking Score
IAP	Installation Action Plan
ID	Identification
ICM	Interim Corrective Measure
IM	Interim Measure
IMP(O)	Implementation (Operations)
IR	Installation Restoration
IRA	Interim Remedial Action

Acronym	Definition
IRP	Installation Restoration Program
ISCO	In Situ Chemical Oxidation
LAAF	Lawson Army Airfield
LNAPL	Light Non-Aqueous Phase Liquid
LTM	Long-Term Management
LUC	Land Use Control
MCL	Maximum Contaminant Levels
MNA	Monitored Natural Attenuation
MPE	Multiple-Phase Extraction
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NFA	No Further Action
NPL	National Priorities List
ORC	Oxygen-Releasing Compound
OWS	Oil Water Separator
PA	Preliminary Assessment
PAH	Ploycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
PFAS	Per- and Polyfluoroalkyl Substances
POL	Petroleum, Oil, and Lubricants
PR	Periodic Review
RA	Remedial Action
RAB	Restoraction Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RG	Remediation Goals
RI	Remedial Investigation
RIP	Remedy-In-Place
RRSE	Relative Risk Site Evaluation
SC	Site Closeout

Acronym	Definition
SI	Site Inspection
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
USAEHA	US Army Environmental Hygiene Agency
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UE	Unrestricted Exposure
UU	Unlimited Use
VOC	Volatile Organic Compound

PHASE TRANSLATION TABLE

CERCLA Phase	RCRA Phase	RCRA UST Phase
Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
Remedial Design (RD)	Design (DES)	Design (DES)
Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

PROGRAM SUMMARY

Number of Open Sites with Response Complete/Total Open IR Sites: 3/13

Number of Open Sites with Response Complete/Total Open MR Sites: 1/1

Number of Open Sites with Response Complete/Total Open CC Sites: 0/2

SITE-LEVEL INFORMATION

13025.1001_FBSB-26_FIXED LAUNDRY (BLDG 2500)

Env Site ID: FBSB-26

Cleanup Site: FIXED LAUNDRY (BLDG 2500)

Alias: FBSB-26

Regulatory Driver: RCRA-C

RIP Date: 9/30/2005

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	1/31/1982	7/31/1982
CS:	5/31/1997	10/31/1997
RFI/CMS:	1/31/1998	9/30/2005
DES:	--	--
IRA:	--	--
CMI(C):	7/15/2005	9/30/2005
CMI(O):	9/30/2005	9/30/2054
LTM:	--	--

Site Narrative: Buildings 2500 (Solid Waste Management Unit (SWMU) 26C) and 2501 (SWMU 26A) were located at the intersection of Indianhead Road and Marchant Street on the main post. The buildings were demolished in January 1994. The area, approximately 250 feet by 250 feet, is now covered with asphalt and grass.

This site was first mentioned in the 1982 installation assessment of Fort Moore. Unfortunately, the document did not address the potential for past contamination at the site. The single reference to this facility on page 2-2 of that document states Bldg. 2500 houses a laundry in which no dry cleaning is performed. Additionally, the study gave no information about how the site was evaluated. According to installation personnel who were interviewed, from the 1940s until 1984 all installation laundry and dry cleaning was processed at this site. Dry cleaning solvents previously used at the facility were stored in 20- to 50-gallon tanks inside the building. These tanks were removed when the operations ceased in 1984. No spills have been reported at the facility.

In December 1993, a site visit by Fort Moore personnel revealed what appeared to be three pipes coming out of the ground which may indicate the presence of underground storage tanks (UST). A search of as-built construction drawings failed to confirm the presence of USTs. A geophysical survey conducted in 1999 failed to detect any USTs or associated piping. Results of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) indicated groundwater contamination in the form of chlorinated solvents in several upgradient wells.

Because of the proximity of this site to FBSB-64, closed Landfill 2, both sites required additional investigation to determine the actual source of the contamination. Since similar groundwater contaminants were detected in wells at FBSB-64 and FBSB-99, a supplemental RFI was completed in 2005.

The supplemental RFI and baseline risk assessment (BRA) report was submitted to Georgia Environmental Protection Department (GAEPD) and approved. In August 2006, a Corrective Action Plan

(CAP) recommending natural attenuation was submitted to GAEPD and approved. The first, second, and third CAP progress reports were submitted to GAEPD. The results demonstrated that the detected concentrations of trichloroethylene (TCE) in groundwater have been declining.

At the request of GAEPD, the CAP progress reports for FBSB-26 and FBSB-99 were combined into one report beginning with the submission of the third CAP progress report. Sampling results indicated that overall chlorinated solvent concentrations are still decreasing. 17 CAP progress reports have been submitted to GAEPD. Sampling reports showed a continued overall reduction in total chlorinated solvent concentrations.

When a spike in concentrations of TCE occurred in three groundwater monitoring wells during the sixth and seventh sampling events a re-application of hydrogen releasing compound (HRC) took place in the summer of 2010. HRC injections also took place in 2013, 2014, and 2016. As a result, concentrations of TCE decreased in all groundwater monitoring wells from 2013 to 2016.

In 2021, only three wells had exceedances of TCE above the remediation goals (RG). The cleanup strategy includes indefinite performance monitoring of groundwater. Once all wells have been below remediation goals confirmatory sampling will take place for a period of three years. After confirmatory sampling has been completed, all groundwater monitoring wells at this site will be left in place until the upgradient site (FBSB-99) has reached its remediation goals. After no further action (NFA) for both sites are reached, all groundwater monitoring wells will be abandoned. Periodic reviews and limited land use controls (LUC) restricting the use of groundwater for drinking purposes are in place until NFAs have been achieved at all sites.

13025.1003_FBSB-39_ENG FIELD MAIN SHOP (BLDG 377)

Env Site ID: FBSB-39

Cleanup Site: ENG FIELD MAIN SHOP (BLDG 377)

Alias: FBSB-39

Regulatory Driver: RCRA-C

RIP Date: 9/15/2007

RC Date: 11/23/2020

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	1/31/1982	7/31/1982
CS:	5/31/1997	10/31/1997
RFI/CMS:	7/31/2000	4/30/2005
DES:	--	--
IRA:	--	--
CMI(C):	5/31/2005	9/15/2007
CMI(O):	3/31/2006	11/23/2020
LTM:	11/23/2020	9/30/2054

Site Narrative: Building 377 is a very large L-shaped building located at the west end of Tenth Division Road on the main post. Hazardous waste storage and operational practices were changed in 1986 to meet new environmental regulatory requirements. Based on practices prior to 1986, spills of diesel fuel, motor gasoline, antifreeze, waste oil, polychlorinated biphenyls (PCB), and cleaning solvents may have occurred. In June 1993, two 10,000-gallon capacity USTs containing diesel and motor gasoline were removed from the northeast corner of the site. All waste is presently sent to the post boiler plant for energy recovery. Staining was noted in the vicinity of the waste fuel area as well as throughout the vehicle parking lot.

The 1982 preliminary site assessment addressed all sites at Fort Moore generating hazardous waste, but it did not address specific sites. Building 377 was never mentioned by name though the study generally evaluated petroleum, oil, and lubricants (POL) handling facilities.

Results of an RFI conducted in FY01 indicated petroleum-related groundwater contamination in the vicinity of the washrack and UST adjacent to Building 377. Pesticide contamination above risk-based levels was also detected in the soil near Building 377. Arsenic and thallium were detected above background levels in the soil. In FY01, additional groundwater monitoring wells were installed and sampled to delineate upgradient and downgradient groundwater contamination. Additional soil samples were collected to delineate the extent of pesticide contamination in the soil. RFI results confirmed that pesticides, and the metals arsenic and thallium are not contaminants of concern (COC).

A supplemental RFI report and a BRA were submitted and approved by GAEPD. A CAP for monitored natural attenuation (MNA) was submitted and approved by GAEPD. An amended CAP was approved by GAEPD in 2007 for in situ bioremediation. Nineteen CAP progress reports have been submitted to the state. As a result of a significant reduction in concentration of the COCs due to MNA, GAEPD approved a recommendation to reduce the number of wells in the monitoring program from 14 to nine.

In June 2007, an oxygen-releasing compound (ORC) injection was completed at this site to expedite the rate of bioremediation. The eighth progress report showed a slight rebound of concentrations of 1,3,5-trimethylbenzene and naphthalene above remediation goals, and the ninth and tenth CAP progress reports showed that the overall trend is a reduction in the concentration of petroleum hydrocarbons in the groundwater. These progress reports also indicated that the areal extent of COCs in groundwater has also declined since the source of groundwater contamination was removed. To address the slight rebound of concentrations of 1,2,4-trimethylbenzene in wells FBSB-39-GW-2 and FBSB-GW-3 an ORC injection took place in the vicinity of these wells in FY09.

A targeted reapplication of the ORC was performed for selected areas in FY11, FY12, FY14, FY15, and FY16. Groundwater sampling results from recent CAP progress reports (2021) indicate that concentrations of 1,2,4-Trimethylbenzene and naphthalene have been declining steadily since ORC was injected. However, in the September 2016 sampling event 1,2,4-trimethylbenzene was detected above the RG in one well. Significantly, no other groundwater samples contained concentrations of COCs that exceeded the RGs. Periodic reviews were completed in FY13, FY18 and FY23 and will continue indefinitely. Groundwater sampling in 2019 was non-detect for COCs. Therefore, upon receiving and reviewing the report Fort Moore submitted a request for NFA to GAEPD. Long-term management (LTM) will be handled in-house by government employees and will continue indefinitely.

13025.1015_FBSB-68_LANDFILL NO. 6

Env Site ID: FBSB-68

Cleanup Site: LANDFILL NO. 6

Alias: FBSB-68

Regulatory Driver: RCRA-C

RIP Date: 3/15/2011

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	8/31/1986	1/31/1992
CS:	8/31/1986	1/31/1992
RFI/CMS:	1/31/2002	4/30/2005
DES:	--	--
IRA:	--	--
CMI(C):	5/31/2005	3/15/2011
CMI(O):	9/30/2006	9/30/2054
LTM:	--	--

Site Narrative: Landfill No. 6 covers approximately 14 acres in a wooded area one mile south of the main post and east of Lawson Army Airfield (LAAF) on Dixie Road. This solid waste trench-and-fill landfill was operated from 1954 to 1958. The US Environmental Hygiene Agency (USAEHA) Geohydrologic Study (No. 38-26-0602-87) prepared for Landfill No. 5 and Landfill No. 6 detected elevated levels of volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) in groundwater samples.

A 1991 USAEHA investigation concluded that Landfill No. 6 was not the source of the groundwater contamination in this area; however, supplemental investigations have determined that Landfill No.6 is the probable contamination source in some of the downgradient wells. An RFI report has been submitted to the GAEPD. Comments were received and the installation responded to them.

In FY03 supplemental sampling of soil and groundwater was conducted. The RFI was performed concurrently with FBSB-88 (Old Fire Training Area) and FBSB-67 (closed Landfill 5), which border this site. The GAEPD requested additional delineation for FBSB-68, and in 2003 a supplemental RFI was performed.

The supplemental RFI and BRA report were submitted to the GAEPD, and comments received. The GAEPD requested the collection of additional soil samples plus the installation of an additional monitoring well to provide additional delineation. This additional work was performed in the fall of 2005. The supplemental RFI report and BRA report were again submitted to the GAEPD and approved in 2006.

Additionally, a CAP recommending natural attenuation was submitted to GAEPD in September 2006 and revised in August 2007. Comments on the revised CAP were responded to in September 2007 and in December 2007. The CAP was approved in 2008.

Since the CAP was approved detections of benzene and TCE have fluctuated but remained basically at the same level. The first semiannual CAP progress report was submitted in September 2008. Sampling results indicated that benzene concentrations were still declining while concentrations of TCE and tetrachloroethylene (PCE) had not changed significantly. The CAP was approved in November 2008.

In 2010, GAEPD approved the installation of an in situ system to accelerate bioremediation through the subsurface mass transfer of dissolved oxygen directly to the groundwater. Initial sampling results indicated an increase in petroleum hydrocarbons which was an expected result of the addition of oxygen to the subsurface groundwater. The in situ system (a bio barrier) was completed in 2011. A total of 21 devices have been installed to provide a continuous downgradient barrier for the groundwater contamination to pass through. This barrier is designed to reduce the levels of contaminants in the groundwater and prevent the migration of groundwater contamination further downgradient of the landfill. Recent groundwater sampling (May and November 2021) indicated that no COCs were detected above their RGs.

Enhanced attenuation with semiannual groundwater monitoring will continue if the source of the contamination remains in the landfill. A periodic review was conducted in FY13, FY18 and FY23. Once remediation goals are met, three years of semiannual confirmatory sampling will be conducted or until unlimited use (UU)/unrestricted exposure (UE) is achieved. After NFA is reached, site closeout and groundwater monitoring well abandonment will occur. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1017_FBSB-70_LANDFILL NO. 8

Env Site ID: FBSB-70

Cleanup Site: LANDFILL NO. 8

Alias: FBSB-70

Regulatory Driver: RCRA-C

RIP Date: 8/15/2013

RC Date: 8/15/2013

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	6/30/1991	1/31/1992
CS:	6/30/1991	1/31/1992
RFI/CMS:	8/31/1999	8/15/2013
DES:	--	--
IRA:	--	--
CMI(C):	10/31/2005	8/15/2013
CMI(O):	10/31/2006	8/15/2013
LTM:	9/15/2013	9/30/2054

Site Narrative: Landfill No. 8 is located west of the veterinary hospital and occupies 14 acres. The landfill was operated from 1961 to 1966 as a trench and fill area. It is situated in a potentially sensitive area, as it drains into the Upatoi Creek. The slope of the landfill is within 50 meters of the east bank of the river.

Documentation detailing waste disposed at this site is not available. The landfill has eroded to the point that garbage is recognizable on the surface and slope of the landfill. Landfill No. 8 is listed in the installation RCRA Part B permit along with all other Fort Moore SWMUs. Although various contaminants were detected in soil and groundwater, all were below their respective screening levels.

A geophysical study was conducted, and the monitoring of inclinometers for three years (1999 to 2002) has indicated that the landfill is relatively stable with little movement indicated. The June 1986 Geohydrologic Study by the USAEHA (No.38-26-0905-87) recommended that measures be taken at the landfill to control erosion and include groundwater monitoring. Limited groundwater monitoring by the USAEHA revealed that levels of contamination were well within the National Secondary Drinking Water Regulations levels.

An RFI was conducted in FY99, and results were submitted to GAEPD in FY00. The RFI report was approved by GAEPD and called for continued groundwater monitoring and slope stabilization monitoring. The pesticide storage formulation area, which is adjacent to Landfill No. 8, was a continuing source of pesticide contamination in the groundwater. In 1997, contaminated soil removal was completed at the pesticide storage formulation area, and this has reduced the levels of pesticide contamination in Landfill No. 8 groundwater. The primary groundwater contaminant was VOCs, which were below maximum contaminant levels (MCL) but above screening levels. VOCs were detected in only one of 10 monitoring wells.

Access to this site is highly restricted and controlled. A locked fence gate prevents access, and the landfill is situated on a high elevation bluff, bounded by a river. The locked gate is the only access to the site.

In FY03, steps were taken to control surface erosion by establishing a vegetative cover on the landfill and direct the flow of surface water runoff on the landfill. Also, in FY03 a supplemental RFI sampling of soil, sediment, surface water, and groundwater were conducted.

In FY05, the supplemental RFI and BRA reports were submitted and approved by the regulator in FY06. GAEPD requested submittal of a CAP to address detections of iron and manganese that were above MCLs in groundwater. A CAP was submitted in August 2007. The CAP proposed permanent LUCs to maintain the integrity of the landfill. The GAEPD had expressed concern about one detection of lead above MCLs in two monitoring wells during previous sampling events. The installation proposed sampling all the groundwater monitoring wells for detections of lead; however, GAEPD stated only two groundwater monitoring wells with previous detections of lead would be required to be re-sampled.

The two wells were re-sampled in the summer of 2011 and sampling results for lead were non-detect in both wells. As a result, the CAP was approved in January 2013, and did not include a requirement for groundwater monitoring. Periodic reviews were completed in 2013, 2018, and 2023. As of 1Q 2020, Fort Moore requested and received a NFA determination from GAEPD for FBSB-70. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1022_FBSB-75_LANDFILL NO. 13

Env Site ID: FBSB-75

Cleanup Site: LANDFILL NO. 13

Alias: FBSB-75

Regulatory Driver: RCRA-C

RIP Date: 9/30/2005

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	6/30/1991	1/31/1992
CS:	6/30/1991	1/31/1992
RFI/CMS:	5/31/1997	2/28/2005
DES:	--	--
IRA:	--	--
CMI(C):	5/15/2005	9/30/2005
CMI(O):	9/15/2005	9/30/2054
LTM:	--	--

Site Narrative: Landfill No. 13 is an 85-acre landfill located near the intersection of Marne Road and Cusseta Road. Operations at this landfill were initiated in 1965 and continued until 1983. This landfill was operated as an area fill sanitary landfill and was closed according to its permit. Documentation detailing disposed waste at this site is not available though it is thought that household garbage and industrial wastes (solvents) may have been discarded here.

A December 1987 Groundwater Study by USAEHA (No.38-26-0000875-88) indicated groundwater contamination at the site, recommending that an RFI be performed. In 1991, an RFI recommending the preparation of a CAP was prepared and submitted to GAEPD. The plan recommended that a RCRA cap was needed to contain the soil contamination unit. No action was recommended to specifically address groundwater contamination.

In 1995, construction of a RCRA composite cap was begun and completed in 1996. An RFI to investigate groundwater contamination was completed in May 1997. The recommendation from the RFI was to monitor the groundwater for three to five years to evaluate performance of the RCRA cap with respect to impacts on groundwater contamination. The GAEPD's comments required preparation and submittal of a CAP.

Groundwater monitoring since 1998 has consistently shown a low level of two contaminants- vinyl chloride and benzene. Both contaminants slightly exceed MCLs in two wells out of a total of 24. A plume is localized in an area of less than an acre. Surface water sampling has not detected any contaminants above regulatory criteria since the start of the monitoring program.

The installation has conducted a risk assessment and submitted a risk assessment report to GAEPD. The report, approved by the GAEPD, recommended continued groundwater monitoring. Results of the risk assessment were used in preparation of the groundwater CAP. Runoff from the major catchment areas is controlled by berms and rock flumes.

In FY03, an engineering study was conducted to determine the sources and extent of landfill seepage areas, the subsidence of the landfill cap, and the integrity of the synthetic liner and methane vents. While the results of the study showed no current impact to the integrity of the cap, it recommended maintenance actions to prevent any future degradation. The recommendations were implemented in FY07.

In FY04, the CAP was finalized, and the remedy included long-term groundwater monitoring and institutional controls for the landfill. In October 2007, a CAP progress report was submitted. Sampling results indicated that concentrations of benzene were below the MCL in all monitoring wells except for one, where the concentration was slightly above the MCL.

During the May 2021 sampling event, vinyl chloride was detected above the RG in Monitoring Well FBSB75-MW6. A periodic review was conducted in 2018 and 2023.

Long-term sedimentation has created erosion issues at the northwest corner rock flume and at the rock flume near the Marne Road entrance. A surface hydrology and erosion study were initiated in 2023 and is currently underway to specifically address these issues.

Cleanup/Exit Strategy - Maintenance of the landfill cap and fencing along with groundwater monitoring will continue. Three years of annual confirmatory sampling will be conducted or until UU/UE is reached. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1031_FBSB-86_FORMER PEST MIXING STOR AREA (BLDG 1396)

Env Site ID: FBSB-86

MRSPP: N/A

Cleanup Site: FORMER PEST MIXING STOR AREA (BLDG 1396)

Alias: FBSB-86

Regulatory Driver: RCRA-C

RIP Date: 12/31/1998

RC Date: 12/31/1998

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

Phase	Start	End
RFA:	9/30/1989	3/31/1990
CS:	9/30/1989	3/31/1990
RFI/CMS:	3/31/1990	1/15/1999
DES:	2/28/1995	1/15/1999
IRA:	2/28/1997	12/31/1998
CMI(C):	2/15/1997	12/31/1998
CMI(O):	--	--
LTM:	1/16/1999	9/30/2054

Site Narrative: The Former Pesticide Mixing and Storage Area (Buildings 1396 and 267), located west of the intersection of Anderson Avenue and Tenth Division Road on the main post, was the central location for pesticide mixing and storage for all of Fort Moore. As early as 1945, pesticides including dichlorobiphenyl-trichloroethane (DDT), mirex, chlordane, and lindane were mixed at this site. According to installation personnel mixing at this facility was discontinued in the late-1980s, though pesticides were stored inside the building until as late as 1993.

Sampling and analysis efforts were conducted between 1988 and 1994 by USAEHA. Elevated concentrations of pesticides in the soil surrounding buildings were found. Due to GAEPD comments on the remedial investigation (RI)/feasibility study (FS) in 1994, Fort Moore initiated an interim corrective measure (ICM) to remove contaminated soils. The ICM was completed in March 1998 with the demolition and removal of Building 1396, and the removal of 6003 tons of pesticide contaminated soil. A small amount of contaminated soil had to be left in place under a building foundation (Building 267). Should the building be demolished, the small number of pesticides will be removed.

The final remedy is described in the CAP dated 1998 and includes excavation of contaminated soils (completed through ICM), institutional controls and performance monitoring of the groundwater. The CAP has been modified a few times. Semiannual groundwater sampling and reporting has been underway since 2006.

The state approved Fort Moore's request to transfer three downgradient monitoring wells, located within project FBSB-70 (Landfill No. 8), to the FBSB-86 groundwater monitoring network. The reason for this transfer was the detection of similar pesticide compounds in one or more of these downgradient wells which is related to the pesticide site. Groundwater sampling results confirmed there was a reduction in the total amount of pesticides detected in groundwater. All detections were below the preliminary remediation goals and MCLs for all sampling events.

The 2013 sampling results indicated that only two compounds, dieldrin and heptachlor epoxide, were detected. Both compounds were below remediation goals and MCLs which agree with previous monitoring results. Continued groundwater sampling is required by GAEPD due to the presence of residual pesticides in the soil under Building 267. The eleventh Corrective Action Plan Annual Report was submitted in January 2016. All COCs remain below remediation goals and do not exceed US Environmental Protection Agency (USEPA) MCLs. During submission of the tenth CAP Progress Report, Fort Moore recommended removing two monitoring wells from the well monitoring program and that future sampling events after the eleventh CAP Progress Report be performed every five years until the residual contaminated soils are removed. GAEPD approved both proposals. Periodic reviews were completed in 2013, 2018, and 2023.

Cleanup/Exit strategy - Currently, the Army is evaluating alternative remedial approaches for FBSB-86. Once the contaminated soil has been removed or capped, groundwater will be monitored for one year. If after sampling concentrations of COCs remain below remediation goals and do not exceed USEPA MCLs, a request for NFA will be submitted to GAEPD. Once an NFA is approved by the state, all groundwater monitoring wells will be abandoned. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1038_FBSB-93_INSTALL TANK RPR/VEH MAINT SHOPS

Env Site ID: FBSB-93

Cleanup Site: INSTALL TANK RPR/VEH MAINT SHOPS

Alias: FBSB-93

Regulatory Driver: RCRA-C

RIP Date: 11/15/2008

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	1/31/1991	1/31/1992
CS:	5/31/1997	10/31/1997
RFI/CMS:	8/31/1998	8/15/2008
DES:	--	--
IRA:	4/30/2005	11/30/2006
CMI(C):	9/15/2006	10/15/2008
CMI(O):	11/15/2008	9/30/2054
LTM:	--	--

Site Narrative: The Installation Tank Repair/Vehicle Maintenance Shop consists of approximately two to three- fenced acres located approximately 400-feet east of the intersection of 11th Airborne Division Road and 187th Infantry Regiment Street in the Sand Hill area. In addition to Building 3716 the area contains seven separate maintenance shops, an abandoned washrack, an abandoned oil change and grease rack, the foundation of a former large vehicle maintenance shop, and an unpaved military equipment park. Prior to implementation of the installation waste recycling program, waste segregation and proper disposal methods were not implemented.

RFI activities occurred between 1998 and 2003. In 2006, a BRA work plan was submitted as a supplement to the RFI report and approved by GAEPD. In March 2007, a CAP was prepared and submitted to GAEPD. The corrective action includes in situ chemical oxidation (ISCO) using an ozone sparging system along with institutional controls and MNA. Since 2008, the installation has received and responded to several sets of comments from the state concerning the CAP. The installation received formal approval of the CAP in 2011.

In 2006, an interim remedial action (IRA) was conducted during which dual phase extraction was used for free-product removal. Following this action, the free-product levels did not change appreciably. Construction of the ozone sparging system was complete in 2008; operations began October 2008. The sparging system includes a total of 82 sparge points. Between 2008 and 2012, 36,000 pounds of ozone were injected.

Semiannual CAP progress reports have been submitted to the state. An initial decline in concentrations in the monitoring wells had been noted from the first quarterly sampling event (February 2009) to the November 2012 sampling event. In 2011, a slight rebound was noted in two wells with a sheen of free-product detected in the well which previously had free-product removed. In addition to performance monitoring and continued ozone sparging dual phase extraction (DPE) events have been scheduled to

address the re-occurrence of free-product in the affected groundwater monitoring well. The system will be run until remedial goals are obtained.

Since operation of the remediation system in 2009, overall concentrations of COCs have been declining and the size of the plume has been shrinking significantly. Wells located in the core of the plume have shown a rebound that fluctuates in concentrations over time. The fluctuations are believed to be related to changes in the subsurface conditions of a perched aquifer. Changing groundwater elevations allow the release of COCs from soils to the dissolved phase in the groundwater.

In FY12, an upgradient groundwater monitoring well was installed to ensure there was not an additional upgradient contamination source. Several upgradient soil borings were also obtained to determine if there was evidence of additional contamination in the soil. No evidence of a secondary upgradient source was detected. Concurrent with the additional monitoring well installation, the ozone system was overhauled, and the ozone generator replaced distribution of the ozone to sparge points was targeted to concentrate on the sparge points located in the plume core. A periodic review of the system was conducted in 2018 and 2023.

In 2014 ten additional sparging wells were added to the sparge system. These additional wells were used to inject calcium persulfate into the subsurface to enhance remediation. In FY14 20 damaged sparging wells were replaced. Semiannual CAP progress reports have been submitted to the state since the treatment system was put in operation. The system will continue to run until UU/UE is obtained.

Cleanup/Exit Strategy - Once remediation goals are met; three years of semiannual confirmatory sampling will be conducted. After NFA is reached, site closeout and groundwater monitoring well abandonment will occur. Periodic reviews will continue indefinitely.

13025.1044_FBSB-99_ORDNANCE SHOP

Env Site ID: FBSB-99

Cleanup Site: ORDNANCE SHOP

Alias: FBSB-99

Regulatory Driver: RCRA-C

RIP Date: 10/31/2006

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	1/31/1982	7/31/1982
CS:	5/31/1997	10/31/1997
RFI/CMS:	1/31/1999	4/15/2006
DES:	--	--
IRA:	3/15/2004	6/15/2004
CMI(C):	10/15/2005	9/30/2006
CMI(O):	10/31/2006	9/30/2054
LTM:	--	--

Site Narrative: Building 223 (Ordnance Shop), located on Kilgore Street, was in use from the 1950s to the 1990s. The site is surrounded by a security fence. The 1982 installation assessment of Fort Moore reported that approximately 60 liters per month of solvents from Building 223 were being taken to the main heating plant for use as a fuel. The solvent was used to clean weapons. Approximately 300 to 380 liters of solvent were disposed into the sanitary sewer per month. There was a high potential for leakage of contaminants from the sewer into the groundwater and soil.

RFI activities were conducted between 1999 and 2006 and detected soil and groundwater contamination in the form of chlorinated solvents. PCE, TCE, and cis-1,2-dichloroethene were detected above USEPA risk-based screening levels for tap water; TCE was also greater than its MCL. Concentrations of toluene and the above listed compounds were also found above regulatory levels in the subsurface soils.

FBSB-99 was determined to be a primary source of groundwater contamination at two downgradient sites (FBSB-26 and FBSB-64). The CAP was approved by GAEPD in 2006. The selected corrective actions were in situ groundwater treatment using HRC at hotspots, MNA of groundwater, and institutional controls. ICMs and removal and replacement of about 2,100 cubic yards of contaminated soil were complete in FY04. This effectively removed the source of contamination for this site as well as FBSB-64 and FBSB-26.

There have been five HRC injection events; March 2006, June 2010, April 2013, October 2014, and in the spring of 2016. The overall trend in groundwater contamination levels since the source (soil) was removed in 2004 is a reduction in concentration of COCs. At the request of GAEPD, the CAP progress reports for FBSB-26 and FBSB-99 were combined into one report beginning with the submission of the third CAP progress report. In 2021, only three wells exceed the TCE above the RGs. A periodic review was completed in FY13, FY18 and FY23.

Cleanup/Exit Strategy - The cleanup strategy includes indefinite performance monitoring of groundwater. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1048_FBSB-101_TWO ASTS AT SAND HILL

Env Site ID: FBSB-101

Cleanup Site: TWO ASTS AT SAND HILL

Alias: FBSB-101

Regulatory Driver: RCRA-C

RIP Date: 12/15/2011

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	5/31/2004	9/30/2005
CS:	--	--
RFI/CMS:	3/15/2007	9/15/2011
DES:	--	--
IRA:	7/15/2007	9/15/2008
CMI(C):	1/15/2011	12/15/2011
CMI(O):	9/30/2007	9/30/2054
LTM:	--	--

Site Narrative: This site was discovered during the RFI for the tank automotive shop (FBSB-93) which is nearby. Two abandoned and rusty 30000-gallon aboveground storage tanks (AST) were discovered along with the cement foundation remnants of an adjacent pump house and associated piping. The ASTs were in dense woods next to a railroad siding and could not easily be seen from the road. The tanks were evidently used to refuel trains and were overlooked during the installation survey for potential sites for the Installation Restoration Program (IRP) in the late-1980s.

A groundwater sample taken adjacent to the ASTs from a location downgradient to them was found to contain benzene, toluene, ethylbenzene, and xylenes (BTEX). Benzene levels in the groundwater were detected at 220 parts per billion. The state of Georgia required that the ASTs be investigated as a separate SWMU, and they also requested that the ASTs and piping be removed as a source of continuing groundwater contamination.

RFI sampling in FY07 identified VOCs in groundwater and light non-aqueous phase liquid (LNAPL) in some wells. An IRA completed in June 2008 removed the two ASTs, the pump house, and the associated piping. The RFI was sent to the state in November 2010.

The September 2011 CAP recommended a multiple-phase extraction (MPE) system, MNA, and LUCs. Construction of the remediation system was completed in December 2011, and the MPE system became operational. Since startup in December 2011, 3,778,783 gallons of groundwater and 5,402 gallons of free-product have been extracted and treated through the MPE remediation system. The CAP was approved by GAEPD in FY12. The remediation system has been in operation for twelve years.

Concentrations of benzene and other petroleum hydrocarbons have been declining along with a reduction of free-product. The results of a sampling event in October 2014 indicated that for the first time no free-product was detected. In 2016, an optimization proposal was submitted by the contractor and approved by GAEPD. The purpose of the optimization was to increase the speed and efficiency of corrective action operations. This optimization included replacing the single MPE system with two MPE

systems, the addition of a soil vapor extraction (SVE) system, and the inclusion of surfactant injections in eight injection wells in the source area. Periodic reviews were completed in FY13, FY18 and FY23.

Cleanup/Exit Strategy - Corrective action will continue until the concentrations of benzene and other petroleum hydrocarbons are below the remediation goals in all monitoring wells for a period of three years. At that point, a request for NFA will be submitted to GAEPD. In September 2023, GAEPD approved turning off the remediation system and beginning the three-year semi-annual post remediation monitoring period. Periodic reviews will continue indefinitely. Once NFA status is approved all groundwater monitoring wells will be properly abandoned.

13025.1051_CC-FBSB-102_FORMER SKEET RANGE

Env Site ID: CC-FBSB-102

Cleanup Site: FORMER SKEET RANGE

Alias: #

Regulatory Driver: RCRA-C

RIP Date: 4/3/2023

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: High

MRSPP: N/A

Phase	Start	End
RFA:	1/31/2009	7/31/2009
CS:	--	--
RFI/CMS:	2/28/2011	9/15/2018
DES:	--	--
IRA:	--	--
CMI(C):	10/15/2018	4/3/2023
CMI(O):	4/3/2023	9/30/2054
LTM:	--	--

Site Narrative: This former skeet range site occupied 70 acres in the Harmony Church area of Fort Moore and consisted of several skeet ranges and one trap range. It was operated for more than 30 years and is being considered as a potential construction site.

An RCRA facility assessment (RFA) was conducted in 2009 with confirmatory sampling. Twenty soil samples were collected from the area of the former skeet ranges. Eighteen of the soil samples were surface soil samples from less than one foot below ground surface. And two were collected from a depth of four feet below ground surface in areas of considerable skeet debris. It is estimated that four Skeet ranges and one Trap range were operated on this site in the past.

Lead was detected in all 20 samples during the RFA, but no detections exceeded USEPA screening criteria for residential use of 400 micrograms per kilogram. Polycyclic aromatic hydrocarbons (PAH) were detected in 13 of the 20 samples. These detections exceeded various USEPA soil screening levels for residential land use in nine of the samples. Because of the exceedances, further delineation and removal of the skeet remnants were recommended.

Between August 2011 and March 2014 an RFI was conducted on the site. Soil samples from surface depths to one foot below ground surface (bgs) and subsurface (up to five feet below ground surface) were collected and submitted for analysis of lead and PAHs. The baseline human health risk assessment identified lead and six PAHs as COCs in the site surface soils. No chemicals were identified as COCs in groundwater and no contaminant migration chemicals of potential concern were identified.

A CAP was prepared and submitted following GAEPD RCRA guidance to evaluate remediation alternatives for removal of the soils that contain pieces of clay pigeons and/or visible lead shot as well as soils that are identified as exceeding an industrial clean up level calculated during the risk assessment. No groundwater related cleanup issues were identified. The CAP included removal of the lead and PAH contaminated soil with replacement with clean soil and the removal of the skeet debris. Confirmatory

sampling was conducted on soils that are remaining in place after the removal action. GAEPD accepted the completion report for the he excavation, transport, and disposal of contaminated soil, and restoration of the site and the recommendation to move to long-term maintenance in April 2023. LUCs were implemented because the remedial levels do not allow for UU/UE to the site.

Cleanup/Exit Strategy – A corrective action plan and subsequent quality assurance project plan involving removal of both contaminated soil and skeet debris has been approved by GAEPD. Fieldwork for the remediation of contaminated soil is complete. LTM consists of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1052_CC-FBSB-103_Former Pumphouse and Fuel Dispenser

Env Site ID: CC-FBSB-103

Cleanup Site: Former Pumphouse and Fuel Dispenser

Alias: #

Regulatory Driver: RCRA-C

RIP Date: 10/30/2019

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
RFA:	1/31/2010	5/31/2010
CS:	--	--
RFI/CMS:	9/30/2011	9/15/2019
DES:	--	--
IRA:	--	--
CMI(C):	9/6/2019	10/29/2019
CMI(O):	10/30/2019	9/30/2054
LTM:	--	--

Site Narrative: This site is located south of the intersection of 2nd Armored Division Road and 16th Infantry Regiment Street in the Sand Hill area of Fort Moore. The dispenser island was identified as Building 3251. The site was initially identified on an installation map as the location of a former area fueling system which was operated from the late 1940s until the 1950s. A schematic drawing of the site indicated that two, 25,000-gallon ASTs containing fuel occupied the site. Additionally, a pump house and numerous dispensing units along with 850 feet of piping were included. The only remaining structures are several concrete dispensing islands and the pump house.

The RFA/confirmatory sampling found VOCs, SVOCs, and lead above standards. RFI planning began in FY13 and the contract to conduct the RFI was awarded in December 2013. Based on the results of the RFI, corrective action and long-term monitoring will be required. The sampling results of the RFI indicated the presence of VOC contaminants above regulatory limits in groundwater.

Cleanup/Exit Strategy – Remedial fieldwork has commenced in FBSB-103 in accordance with the CAP. Once the groundwater remediation goals are met, and three years of confirmatory sampling have been conducted a request for NFA will be submitted to GAEPD. Once the request for NFA has been approved, all groundwater monitoring wells will be abandoned. LTM will consist of LUC inspections and will continue indefinitely. Periodic reviews will continue indefinitely.

13025.1053_CC-FBSB-104_A Former fuel dispensing facility

Env Site ID: CC-FBSB-104

Cleanup Site: A Former fuel dispensing facility

Alias: #

Regulatory Driver: RCRA-C

RIP Date: 3/29/2027

RC Date: 3/29/2027

RC Reason: Not assigned

SC Date: 3/30/2027

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
RFA:	1/31/2010	5/31/2010
CS:	--	--
RFI/CMS:	9/30/2011	3/29/2027
DES:	--	--
IRA:	--	--
CMI(C):	--	--
CMI(O):	--	--
LTM:	--	--

Site Narrative: This site is located at the intersection of 2nd Armored Division Road and Second Street in the Sand Hill area of Fort Moore. When operational it consisted of a 25,000-gallon AST, a pump house, and a fuel dispensing unit. The site was active during the 1940s.

The RFA/confirmatory sampling found VOCs, SVOCs, and lead above standards. The results of the RFI indicated the presence of contaminants above regulatory limits. A revised RFI Report is currently under development. Further actions will be determined after the RFI/CMS phase and will continue until such time that UU/UE is obtained.

13025.1097_FBSB-102_PFAS

Env Site ID: FBSB-102

Cleanup Site: PFAS

Alias: #

Regulatory Driver: CERCLA

RIP Date: 1/29/2028

RC Date: 1/29/2028

RC Reason: Not assigned

SC Date: 1/29/2028

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	9/30/2017	6/24/2019
SI:	6/25/2019	9/30/2022
RI/FS:	10/1/2022	1/29/2028
RD:	--	--
IRA:	--	--
RA(C):	--	--
RA(O):	--	--
LTM:	--	--

Site Narrative: Per direction from Headquarters Department of the Army Deputy Chief of Staff G-9 Environmental, this site was created to account for all Per- and polyfluoroalkyl substances (PFAS) costs at the installation. The Preliminary Assessment (PA) / Site Inspection (SI) Report for Fort Moore identified PFAS areas of potential interest and was finalized and closed in FY22. The RI is underway. Further actions will be determined after the RI/FS phase and will continue until the time that UU/UE is obtained.

13025.1045_FTBN-001-R-01_GRENADE MUNITIONS BURIAL SITE

Env Site ID: FTBN-001-R-01

Cleanup Site: GRENADE MUNITIONS BURIAL SITE

Alias: #

Regulatory Driver: RCRA-C

RIP Date: 9/15/2017

RC Date: 9/15/2017

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 10

Phase	Start	End
RFA:	2/4/2002	5/1/2003
CS:	9/30/2003	4/30/2005
RFI/CMS:	2/15/2010	9/15/2017
DES:	--	--
IRA:	--	--
CMI(C):	--	--
CMI(O):	--	--
LTM:	9/15/2017	9/30/2054

Site Narrative: The 28.8-acre Grenade Munitions Burial Site is in the southwestern portion of the installation, east of the LAAF. It was previously identified in the Military Munitions Response Program SI historic records review as a 44.7-acre area; however, a determination was made that the site should be reduced to encompass only the portion of the area on which removal actions and explosive ordnance disposal (EOD) responses have been conducted. Thus, the site boundaries were changed, and the acreage reduced to 28.8. The site is currently overlain by the new Ranger Barracks Complex and a portion of the Whole Barracks Renewal Complex.

From the 1920s to the 1950s the Grenade Munitions Burial Site was used as a disposal area for grenades and various other munition types. Buried munitions originated from an ammunition storage area adjacent to the northern edge of the site. Three separate removal actions and five EOD response calls uncovered burial pits containing over 1,500 grenades and other munitions. All the burial pits were discovered during construction activities at the site between May 1998 and August 2000. Munitions removed from the Grenade Munitions Burial Site include Mk2 hand grenades, M19 smoke rifle grenades, 4-inch smokes white phosphorus mortar, M21 practice landmine, 37-millimeter projectiles, blasting caps, time fuses, igniters, bulk explosives, and small arms ammunition.

An SI of the Ranger Barracks Complex was conducted in 2005. Based on the results of the SI, 3.4 acres of the 28.8-acre complex were recommended for NFA because they were occupied by recently constructed buildings. The SI also recommended that 25.4 acres be included in an RFI. A geophysical survey of the site was completed in 2010, and a contract to conduct the RFI and an optional corrective measures study was awarded September 2012. The RFI fieldwork was completed in 2013. The RFI report and BRA report have been submitted to GAEPD and approved. A periodic review was completed in FY18 and FY23.

Cleanup/Exit Strategy - Since there was no MEC detected during the RFI, the RFI report recommended NFA with LUCs. GAEPD requested that a CMS and CAP be prepared and submitted to the state in FY16. A corrective action with LUCs was submitted to the state and approved in December 2017. LUC inspections

are conducted by Fort Moore Environmental Management Division to comply with the CAP. An SI of the Ranger Barracks Complex was conducted in 2005. Based on the results of the SI, 3.4 acres of the 28.8-acre complex were recommended for NFA because they were occupied by recently constructed buildings. The SI also recommended that 25.4 acres be included in an RFI. A geophysical survey of the site was completed in 2010, and a contract to conduct the RFI and an optional corrective measures study was awarded September 2012. The RFI fieldwork was completed in 2013. The RFI report and BRA report have been submitted to GAEPD and approved. A periodic review was completed in FY18 and FY23. LTM with LUCs and periodic reviews will continue indefinitely.

13025.1074_CCFTBN34AJ_Washracks FTBN-034AJ,034AK,& BEN-2

Env Site ID: CCFTBN34AJ

Cleanup Site: Washracks FTBN-034AJ,034AK,& BEN-2

Alias: AJ,AK,BEN2

Regulatory Driver: RCRA-C

RIP Date: 3/29/2027

RC Date: 3/29/2027

RC Reason: Not assigned

SC Date: 3/30/2027

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	4/30/1994	12/31/1994
CS:	--	--
RFI/CMS:	7/31/1999	3/29/2027
DES:	--	--
IRA:	--	--
CMI(C):	--	--
CMI(O):	--	--
LTM:	--	--

Site Narrative: These three sites are all located at the western side of Kelly Hill just north of Marne Road within a large active motor pool. Within the boundaries of this motor pool are three large wash racks, associated grit chambers and oil/water separators (OWS), and four grease racks that surround Buildings 9035, 9034, 9033, and 9032 and are enclosed by a fence.

All three sites were investigated together. CC-FTBN-034AK consists of Washrack #1 and four grease racks which were disposal units used to manage waste wash water from the cleaning of wheeled vehicles. Historical records indicate the discharge from these wash racks went to the sanitary sewer. Discharge from the grease racks was to the ground surface. The grease racks are still in use.

CC-FTBN-34AJ is a set of five small concrete wash racks within the motor pool connected by a common drain to an OWS located outside of the fenced motor pool. The dates of usage are unknown. The washracks have been closed by filling the drains with concrete and disconnecting the piping. The OWS was removed.

CC-BEN-2 is a stilling well located approximately 500 feet north of Building 9032. The stilling well is believed to function as an OWS. The stilling well is not a well, but a three-to-four feet diameter corrugated steel pipe mounted vertically in the ground. It is situated above the ground surface and stands about six feet high. Storm water from the motor pool is discharged via storm drains and piping into a stilling well to alleviate erosion around the discharge area of the storm drain.

Phase one RFIs were completed in 2000. A supplemental RFI and risk assessment were completed in 2006 and 2007 following the conditions outlined in the Fort Moore RCRA Permit. Since all sites are in the same motor pool and the stilling well was connected to them, they were all included in the same investigation and report. The supplemental RFI report was submitted in 2008 and GAEPD provided comments in 2009. A revised report and response to comments was submitted in 2010. GAEPD sent comments again in 2012, and Fort Moore responded in 2013.

For CC-FTBN-34AJ and 34-AK, one COC was identified in the surface soil for both current and future receptors that was site related. All risk levels quantified were $< 1 \times 10^{-4}$ for all receptors. Detections of COCs that exceeded the screening criteria were infrequent and spotty (two samples out of 13). The areas where these were detected can be described as small areas of grass interspersed between areas with concrete and gravel and metal storage sheds. Potential exposure to current installation workers is limited only to mowing the area each week.

For CC-BEN-2, there were no chemicals of potential concern (COPC) identified in groundwater or soils and but four COPCs were identified in sediment at SWMU Site BEN-2. The four COPCs identified in sediment were evaluated for potential risk to human health. The results of the risk assessment indicated that the risks calculated for the COPCs at SWMU Site CC-BEN-2 are well below the acceptable risk level (1×10^{-6}) as established by the USEPA.

NFA was recommended for this site based on the results of the supplemental RFI. A revised RFI Report is currently under development.

Cleanup/Exit Strategy – Fort Moore is currently in the process of responding to GAEPD review comments from 2017. Responses to GAEPD will continue until such time that UU/UE is obtained.

13025.1084_CCFTBN-030_CLOSED RUBBLE DISPOSAL AREA

Env Site ID: CCFTBN-030

Cleanup Site: CLOSED RUBBLE DISPOSAL AREA

Alias: BEN-01-013

Regulatory Driver: RCRA-C

RIP Date: 9/30/2025

RC Date: 9/30/2025

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	5/31/1994	9/30/1994
CS:	--	--
RFI/CMS:	4/30/2003	9/29/2024
DES:	--	--
IRA:	--	--
CMI(C):	9/30/2024	9/30/2025
CMI(O):	--	--
LTM:	9/30/2025	9/30/2054

Site Narrative: The closed rubble disposal area (9C), approximately four acres in size, is located on Moyer Road between Wildcat Road and Second Armored Div. Road in Sand Hill. It is believed to have been a disposal area for inert and construction/demolition debris. Dates of usage are unknown, and the site is closed to current usage. A bluff at the back of the landfill overlooks a small pond.

US Army Center for Health Promotion and Preventive Medicine identified the site during their 1993 RFA. A RFI was performed in 2003, and SVOCs and metals exceeding USEPA screening levels were detected in the surface soils and groundwater samples.

The RFI in March FY03 was followed by a Supplemental RFI in September 2004 to further delineate organic constituents detected in soils. Pesticides were detected in surface and subsurface soils in addition to Lead and Mercury in soil and water samples. To effectively perform the Second Level Ecological Risk Assessment re-sampling of some of the previous locations, as well as additional sampling was proposed. A workplan for the additional sampling was submitted in February 2006 and accepted by GAEPD. Additional sampling was performed in November 2007.

A revised screening level ecological risk assessment was completed and submitted in FY10 to GAEPD for review. DDT was detected in the subsurface and surface soils have been delineated. The results of the Risk Assessment show no excessive risks for human receptors, however, the results of the screening level ecological risk assessment show a potential risk to robins from the surface soils.

The RFI recommended removing the area of soils and rubble containing the elevated DDT concentrations. The source of the DDT is unknown but is believed to be the result of past disposal activities in the rubble area.

Comments were received from GAEPD in 2013 and 2014 and Fort Moore responded to those comments. As a result of the 2014 comments Fort Moore provided additional sampling and delineation. After receiving this information, GAEPD requested that a Corrective Action Plan be prepared. A CAP was submitted to GAEPD in September of 2016. GAEPD provided comments on the CAP in November 2017

and additional comments in April 2019. A revised CAP is underway, followed by implementation of LTM LUCs.

The LTM phase will consist only of LUCs in the form of Fencing and Signage. Maintenance of the sign and fencing will be performed by the Fort Moore Installation. The fencing and signage will be inspected annually by Installation personnel and a brief letter report will be submitted to the state.

Cleanup/Exit Strategy- Based on the results of the RFI groundwater is not expected to be impacted. The exit strategy is limited to LUCs. LUCs will continue indefinitely.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
13025.1002	FBSB-29_GENERAL PURPOSE MAG (PARKS RANGE	1/31/1992
13025.1004	FBSB-41_EXCHANGE SERVICE OIL(BLDG 1624 &	7/31/1982
13025.1005	FBSB-52_AMMO STORAGE (BLDG 5962 THRU 598	1/31/1992
13025.1006	FBSB-54_INSTALLATION PAINT FACILITIES (8	9/30/2007
13025.1007	FBSB-60_PESTICIDE MIXING STORAGE (BLDG 2	1/31/1992
13025.1008	FBSB-61_BLDG 492- PCB SPILL	1/31/1992
13025.1009	FBSB-62_BATTERY RESTORATION (BUILDING 17	7/31/1982
13025.1010	FBSB-63_LANDFILL NO. 1	1/31/1992
13025.1011	FBSB-64_LANDFILL NO. 2	11/23/2020
13025.1012	FBSB-65_LANDFILL NO. 3	1/31/1992
13025.1013	FBSB-66_LANDFILL NO. 4	9/30/2007
13025.1014	FBSB-67_LANDFILL NO. 5	9/30/2004
13025.1016	FBSB-69_LANDFILL NO. 7	2/28/2013
13025.1018	FBSB-71_LANDFILL NO. 9	3/31/1988
13025.1019	FBSB-72_LANDFILL NO. 10	7/31/2001
13025.1020	FBSB-73_LANDFILL NO. 11	6/30/1989
13025.1021	FBSB-74_LANDFILL NO. 12	8/31/1987
13025.1023	FBSB-76_LANDFILL NO. 14	8/31/1987
13025.1024	FBSB-77_LANDFILL NO. 15	8/31/1987
13025.1025	FBSB-78_LANDFILL NO. 16	11/30/1987
13025.1026	FBSB-80_LANDFILL NO. 18	3/31/1988
13025.1027	FBSB-81_LANDFILL NO. 19	11/30/1987
13025.1028	FBSB-82_LANDFILL NO. 20	3/31/1988
13025.1029	FBSB-83_LANDFILL NO. 21	5/31/1987
13025.1030	FBSB-85_LANDFILL NO. 23	6/30/1989
13025.1032	FBSB-87_CHEMICAL AGT BURIAL SITE(HARMONY	3/31/2008
13025.1033	FBSB-88_OLD FIRE TRAINING AREA	6/30/2008
13025.1034	FBSB-89_LF ADJACENT TO TOXIC AGENT BURIA	6/30/1995
13025.1035	FBSB-90_LF, NORTH END AT MASSEY RD	6/30/1995
13025.1036	FBSB-91_INSTALLATION MOTOR REPAIR SHOP	5/31/2005
13025.1037	FBSB-92_INSTALLATION FLAM MATL STGE	7/31/1982
13025.1039	FBSB-94_INSTALLATION GAS STATIONS	9/30/2013
13025.1040	FBSB-95_LEAKING USTS	10/31/2007
13025.1041	FBSB-96_MAIN MALL SERVICE STATION	3/31/2004
13025.1042	FBSB-97_ABANDONED DRUM DISPOSAL SITE	9/30/2005
13025.1043	FBSB-98_SOIL CONTAMINATION AT STOCKADES	3/31/2004
13025.1047	FBSB-100_Athletic Field in Sand Hill	4/30/2016
13025.1049	CC-2485_Lawson AAF UST (Bldg 2485)	11/30/2017

CRL ID	Site Name	Site Closeout Date
13025.1050	CC-1622_Main Post AAFEES Gas Station, BL	9/30/2013
13025.1096	CC-FBSB-105_FORMER FIRE TRAINING AREA	1/15/2015
13025.1046	FTBN-002-R-01_GRENADE AND BAYONET COURT	4/30/2005
13025.1054	CCFB-03_FOUR GREASERACKS DSU MOTORPOOL	3/31/2006
13025.1055	CCFB-06_Closed Landfill # 22 Lawson Army	11/30/2006
13025.1056	CCBEN-7_CHEMICAL SPILL NORTH OF DIXIE RD	11/30/2006
13025.1057	CCFTBN-024_CLOSED MASSEY ROAD LANDFILL	9/30/2006
13025.1058	CCFTBN-043_WASTEWATER SERVICA AREA #3	11/30/2006
13025.1059	CCBEN-03_FORMER FUEL TANK FARM AT AIRFIE	7/31/2008
13025.1060	CCBEN-10_AST SITE AT BUILDING 3815	7/31/2008
13025.1061	CCFTBN34A_CLOSED VEHICLE WASHRACK- BLDG	9/30/2004
13025.1062	CCBEN-024_Latrine leach field at closed	12/31/1994
13025.1063	CCFTBN-34F_Former Washrack Bldg 1704, Ma	8/31/2009
13025.1064	FTBN-034G_CLOSED VEHICLE WASHRACK BLDG 1	8/31/2009
13025.1065	CCFTBN-34H_CLOSED VEHICLE WASHRACK BLDG	8/31/2010
13025.1066	CCFTBN-34J_CLOSED VEHICLE WASHRACK BLDG	6/30/2012
13025.1067	CCFTBN-34N_CLOSED VEHICLE WASHRACK BLDG	4/30/2011
13025.1068	CCFTBN-34V_CLOSED VEHICLE WASHRACK BLDG	4/30/2011
13025.1069	CCFTBN-34W_CLOSED VEHICLE WASHRACK BLDG	6/30/2012
13025.1070	CCFTBN-34Y_CLOSED VEHICLE WASHRACK BLDG	10/31/2007
13025.1071	CCFTBN34AB_CLOSED VEHICLE WASHRACK BLDG	1/31/2008
13025.1072	CCFTBN34AH_CLOSED VEHICLE WASHRACK BLDG	6/30/2012
13025.1073	CCFTBN-034_CLOSED VEHICLE WASHRACK BLDG	9/30/2005
13025.1075	CCBEN-4_PUMP HOUSE AREA AT FORMER STEAM	1/31/2007
13025.1076	CCBEN-5_AST AREA AT FORMER STEAM PLANT	1/31/2007
13025.1077	CCFTBN-038_CENTRAL BOILER AT FORMER STEA	11/30/2006
13025.1078	CCFTBN-025_CHEMICAL AGENT DISPOSAL AREA	12/31/2006
13025.1079	CCFTBN-33G_SLUDGE APPLICATION SITE XIV	11/30/2004
13025.1080	CCFTBN-33I_SLUDGE APPLICATION SITE XVI	4/30/2004
13025.1081	CCFTBN-070_WEAPON POOL EMERGENCY USTS	11/30/2006
13025.1082	CCFTBN-012_LANDFILL #12	7/31/2005
13025.1083	CCFTBN-014_LANDFILL #14	7/31/2005
13025.1085	CCBEN-30_POL CATCH BASIN AT DRMO	9/30/2005
13025.1086	CCFTBN-048_EQUIPMENT STORAGE YARD AT DRM	9/30/2005
13025.1087	CCFTBN-047_FORMER WASHRACK GRIT STORAGE	9/30/2005
13025.1088	CC-FTBN-70_Former Hazardous Waste Storg	7/31/2005
13025.1089	CCFTBN-35R_Former Washrack Bldg 1706, Ma	3/31/2010
13025.1090	CCFTBN-33H_Sewage Sludge Application Sit	7/31/2005
13025.1091	CCFTBN-35L_Septic Drain Sys Facility M63	7/31/2008
13025.1092	CCFTBN-064_Open Detonation (OD) Grounds	9/30/2012

CRL ID	Site Name	Site Closeout Date
13025.1093	CCAOC-1_Fuel Leak in Utility Vault, Bldg	12/31/2006
13025.1094	CCFB-08_Old ASTs in Sand Hill	6/30/2004
13025.1095	CCFB-09_TCE Plume near FBSB-93	3/31/2005

COMMUNITY INVOLVEMENT

Community Involvement Plan (Date Last Reviewed):	3/1/2016
Technical Review Committee Establishment Date:	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Reasons for Not Establishing RAB:	No sufficient, sustained community interest in a RAB has been expressed by the community
RAB Date of Solicitation from Community:	8/1/2023
RAB Results of Solicitation:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A
Administrative Record Location:	Meloy Hall, Bldg 6, Room 310, Fort Benning, GA 31905-5122
Information Repository Location:	Columbus Public Library, 3000 Macon Rd., Columbus, GA 31906

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Completed	PR	4/1/2022	9/1/2023	N/A	Installation concurred with report.	All remedies found to be protective.
Planned	PR	4/1/2027	9/1/2028	N/A	N/A	N/A