

FY2012

FOREST GLEN

Army Defense Environmental Restoration Program

Installation Action Plan

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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 restoration manager, the US Army Environmental Command (USAEC), Forest Glen, 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

AEDB-R	Army Environmental Database-Restoration
AFIP	Armed Forces Institute of Pathology
BRAC	Base Realignment and Closure
CMI(C)	Corrective Measures Investigation - Construction
CMS	Corrective Measures Study
CRP	Community Relations Plan
CS	Confirmatory Sampling
EFR	Enhanced Fluid Recovery
ER,A	Environmental Restoration, Army
FGA	Forest Glen Annex
FRA	Final Remedial Action
FTGL	AEDB-R abbreviation for Forest Glen site
FY	Fiscal Year
GWETER	Groundwater Extraction and Treatment Effectiveness Review
IRA	Interim Remedial Action
K	thousand
LTM	Long-Term Management
LUC	Land Use Control
MDE	Maryland Department of the Environment
MEDCOM	Medical Command
mg/kg	milligrams per kilogram
NFA	No Further Action
NMRC	Naval Medical Research Center
NPL	National Priority List
NPS	National Park Seminary
PA	Preliminary Assessment
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RC	Response Complete
RD	Remedial Design
RFI	RCRA Facility Investigation
RIP	Remedy-in-Place
RRSE	Relative Risk Site Evaluation
SVOC	Semi-Volatile Organic Compound
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TPH	Total Petroleum Hydrocarbon
TRC	Technical Review Committee
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound
WRAIR	Walter Reed Army Institute of Research
WRAMC	Walter Reed Army Medical Center
WWII	World War II

Installation Information

Installation Locale

Installation Size (Acreage): 127

City: Silver Spring

County: Montgomery

State: Maryland

Other Locale Information

The Forest Glen Annex (FGA) is a 127-acre property located in Silver Spring, Maryland.

Installation Mission

The Forest Glen Annex is an Army facility under command of Fort Detrick. The primary missions include biomedical research and development and retail services for military personnel and retired military personnel of the Washington area.

Current tenants at the Forest Glen Annex include the Walter Reed Army Institute of Research (WRAIR), the Naval Medical Research Center (NMRC), and the Armed Forces Institute of Pathology (AFIP). Other activities that directly support the hospital include a motor pool, a vaccine preparation facility, a simulation center for training medical professionals under virtual combat conditions, and the Fisher House, for providing temporary housing to family members of wounded warriors. Additionally, there is a child care facility, several ball fields, a fitness center, a commissary, and a post exchange.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USAEC

Fort Detrick US Army Garrison

Regulator Participation

Federal	US Environmental Protection Agency (USEPA) Region III, Federal Facilities
State	Maryland Department of the Environment (MDE) Federal Facilities Division

National Priorities List (NPL) Status

FOREST GLEN is not on the NPL

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

RAB established 201207

Installation Information

Installation Program Summaries

IRP

Primary Contaminants of Concern: Metals, Other (Fuels), Polychlorinated Biphenyls (PCB), Volatiles (VOC)

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

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Planned	201606	201804	2018

5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
Bldg 500 Corrective Action Plan	FTGL-01

Cleanup Program Summary

Installation Historic Activity

In order to provide convalescent care and rehabilitative care to wounded soldiers injured in combat during World War II (WWII), the Department of the Army purchased approximately 174 acres in 1942 to form the Forest Glen Annex. The acquired acreage included, in part, the buildings and grounds of the National Park College, which was the former site of the National Park Seminary (NPS), a finishing school for young ladies. After the end of WWII, the use of the property changed, and over time permanent buildings were constructed by the Army, generally in direct support of the WRAMC mission. The NPS has been listed as an historic district on the National Register of Historic Places since 1972 and was the first historic district to be designated by Montgomery County in 1979.

In the fall of 2002, two peripheral parcels were declared excess. Approximately 20 acres of property were conveyed to the Maryland-National Capital Park and Planning Commission and are now part of Rock Creek Park. The second transfer of property included approximately 30 acres containing most of the buildings from the former NPS. This parcel was conveyed to Montgomery County and was subsequently sold to National Park Seminary Venture, who is commercially redeveloping the property for residential purposes. It is now known that waste disposal activities had occurred on both of these excess properties.

The remaining 127 acre parcel has been significantly redeveloped for support of the WRAMC mission.

Although the exact dates are uncertain, the Army used portions of the property for solid waste disposal. There were at least two incinerators and at least five separate areas where solid waste was disposed. Additionally, at one time, the Diamond Ordnance Research Facility operated a nuclear reactor on the property. There are anecdotal reports of waste in lead caskets being disposed in one of the on-site disposal areas. The reactor building is currently in the process of being decommissioned.

Until Oct. 1, 2008, the Forest Glen Annex was a satellite installation of the WRAMC. On Oct. 1, 2008, as a direct result of the Defense Base Realignment and Closure (BRAC) Commission recommendation, command and control of the Forest Glen Annex passed from the WRAMC to Fort Detrick.

Installation Program Cleanup Progress

IRP

Prior Year Progress: The Army continued to collect RI data at sites FTGL-01, 02, 03, 04 and 05. A workplan for the investigation of FTGL-06 will be final by the end of Sep 12.

Future Plan of Action: In FY13, the Army expects to complete the investigation of FTGL-06; complete the Phase 1 RI report for sites FTGL-01, 02, 03, 04, 05 and 06; finalize a Corrective Action Plan for FTGL-01; conduct a feasibility study for sites FTGL-02, 03, 04, 05, and 06; and prepare an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate the feasibility of moving the fence at FTGL-02 so that it totally encompasses the waste material present at the site.

FOREST GLEN
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 6/0

Installation Site Types with Future and/or Underway Phases

- 1 Contaminated Ground Water
(FTGL-01)
- 1 Contaminated Sediments
(FTGL-05)
- 3 Landfill
(FTGL-02, FTGL-03, FTGL-04)
- 1 Spill Site Area
(FTGL-06)

Most Widespread Contaminants of Concern

Metals, Other (Fuels), Polychlorinated Biphenyls (PCB), 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
FTGL-06	PCB Cont. North of Linden Ln	IRA	REMOVAL	2007

Duration of IRP

Date of IRP Inception: 198901

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201704/202307

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

IRP Contamination Assessment

Contamination Assessment Overview

Until Oct. 1, 2008, the Forest Glen Restoration Program was a subset of the Walter Reed Restoration Program. Please refer to the 2008 Walter Reed IAP for information regarding prior investigations and the contamination assessment. A remedial investigation (RI) is underway at all Defense Environmental Restoration Account (DERA) eligible sites. Data developed during the RI was used to update the FY12 IAP.

Cleanup Exit Strategy

Complete the RI, Feasibility Study (FS), and appropriate decision documents (DDs) for all sites. Implement selected remedies.

IRP Previous Studies

Year	Title	Author	Date
1984	Installation Assessment of Headquarters, Walter Reed Army Medical Center, Wash. DC and noncontiguous sections, Forest Glen, Silver Spring and Glen Haven, Wheaton, MD, Report no. 341, June 1984	Environmental Science and Engineering, Inc.	JUN-1984
1989	Groundwater Quality Study No. 38-26-0354-90, Forest Glen Section, Walter Reed Army Medical Center, Washington, DC, 19-30 June 1989	United States Army Environmental Hygiene Agency	JUN-1989
1990	Report No CETHA-IR-CR-90174 Preliminary Assessment Report for the Forest Glen Annex of Walter Reed Army Medical Center, October 30, 1990	Roy F. Weston, Inc.	OCT-1990
2000	Preliminary Assessment No. 38-EH-4949-00, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, Maryland, 27-31 March 2000	US Army Center for Health Promotion and Preventive Medicine	MAR-2000
2001	Site Inspection No. 38-EH-3039-01, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, Maryland, 5-17 March 2001	US Army Center for Health Promotion and Preventive Medicine	MAR-2001
2002	Phase II Site Inspection No. 38-EH-2995-02, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, Maryland, 10-17 June 2002	US Army Center for Health Promotion and Preventive Medicine	JUN-2002
	A Review of the Groundwater Extraction and Treatment System Effectiveness Review Walter Reed Army Medical Center Forest Glen Section, June 2002	C.C. Johnson & Malhoira	JUN-2002
	Geohydrologic Study No. 38-EH-6184-02, Fuel Recovery Area, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, Maryland, 26-28 August and 3 September 2002	US Army Center for Health Promotion and Preventive Medicine	DEC-2002
2004	Expanded Site Inspection No. 38-EH-035M-05, Forest Glen Annex, Silver Spring, Maryland, 15-17 November 2004	US Army Center for Health Promotion and Preventive Medicine	NOV-2004
2005	Risk Assessment Data Collection Report for the Proposed RCI Parcel at Walter Reed Army Medical Center, Forest Glen Annex	US Army Corps of Engineers, Mobile District	MAY-2005
	Geohydrologic Study No. 38-EH-045J-05, Former Leaking Underground Storage, Tank, Building 156, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, Maryland, 29-30 June 2005	US Army Center for Health Promotion and Preventive Medicine	JUN-2005
2006	Ambient Air Quality Assessment No. 43-EL-058Q-06, Soil Gas Sampling, Walter Reed Army Medical Center, Forest Glen Annex, Washington, DC, 12 July 06	US Army Center for Health Promotion and Preventive Medicine	JUL-2006
2008	Groundwater Monitoring Report No. 38-EH-09SA-08, Forest Glen Annex, Walter Reed Army Medical Center, Silver Spring, MD, 10-11 and 17-24 June 2008	US Army Center for Health Promotion and Preventive Medicine	JUN-2008

IRP Previous Studies

	Title	Author	Date
2008	Stream, Sediment And Groundwater Characterization And Action Plan, National Park Seminary, Hume Drive, Silver Spring, Maryland, ECS project no. 12014-A - July 2008	ECS MID-ATLANTIC, LLC	JUL-2008
2009	Interim Response Implementation Report For PCB Characterization And Self-Implementing On-Site Clean-Up And Disposal Actions National Park Seminary, Hume Drive, Silver Spring, Maryland, January 2009	ECS MID-ATLANTIC, LLC	JAN-2009
	Historic Open Dump Characterization Summary Report, Final Document, July 2009	Shaw Environmental, Inc.	JUL-2009
	Groundwater Quality Report #38-EH-0C2U-09, 9-17 September and 17 December 2009	CHPPM	DEC-2009

FOREST GLEN

Installation Restoration Program

Site Descriptions

Site ID: FTGL-01
Site Name: Building 500

STATUS

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Other (Fuels)

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199001.....	199202
INV.....	199804.....	200909
CAP.....	200908.....	201304
IRA.....	199401.....	201307
IMP(C).....	201107.....	201307
IMP(O).....	201307.....	202307
LTM.....	202307.....	203307

RIP Date: 201307

RC Date: 202307

SITE DESCRIPTION

FTGL-01, formerly known as WRAMC-05, is located adjacent to Building 500 in the southern portion of Forest Glen, near the intersection of Brookville Road and Research Drive. According to Hydrogeologic Investigation No. 38-EH-8209-98, 11-14 May 1998, conducted by the US Army Center for Health Promotion and Preventive Medicine to investigate contamination of the soil and groundwater, in May 1988, a thin film of oil was observed on the groundwater in an excavation located 25 feet west of the north corner of Building 512. The WRAMC staff notes, dated September 1988, indicate that a 50,000-gallon UST, located near Building 500, failed the tightness testing conducted in June 1988.

Ten monitoring wells were installed in June 1989, and the concentrations of groundwater contamination were minimal. In December 1992, a 12,000-gallon UST, located near Building 500, was removed. Roughly, 5,000 gallons of free-product was pumped from the excavation. Ten monitoring wells were installed in December 1992 and February 1993. Two 50,000-gallon USTs located near Building 500 were removed in January 1993. A bailing program was initiated in November 1993. A pump-and-treat system was installed in March 1994.

In 1999, two of the monitoring wells were converted to recovery wells. In 2001, two more monitoring wells were installed across the street from the site to determine whether the fuel oil was migrating. One of the monitoring wells contained at least six inches of free-product. In April 2002, the active pumping system was shut off based on the Groundwater Extraction and Treatment Effectiveness Review (GWETER), because only limited quantities could be recovered from the saprolite. Three monitoring wells were installed to attempt to further delineate the plume. Free-product is being recovered by absorbent material suspended in eleven wells. In addition, detergent assisted vacuum Enhanced Fluid Recovery (EFR) has been periodically performed in the six wells that have regularly contained significant free-product.

A contract was awarded in FY09 with AECOM (contractor for Forest Glen) to complete the RCRA Facility Investigation (RFI) data collection effort and complete a data report. The contract also includes the completion of a corrective action plan (CAP) for FTGL 01. The MDE Oil Control's approved the Building 500 site (FTGL-01) Site Assessment Work Plan on Jan. 12, 2011. The plan includes the installation of new monitoring wells and additional sampling data. The results of the sampling will be used to complete the CAP. Until the CAP is finalized a separate contract has been awarded with ARC Environmental to perform passive free-product removal and waste handling, monitoring well gauging, groundwater sampling, enhanced fluid recovery, and monthly reporting. The final CAP is anticipated in April 2013.

CLEANUP/EXIT STRATEGY

Per the MDE Oil Control Program requirements, a corrective action plan (CAP) is required and will be completed. The CAP documents the remedial action that will be taken at the site. The exit strategy assumes the interim action will become the final action (product recovery, monitoring and LUCs).

Site ID: FTGL-02

Site Name: Ballfield/Helipad/Rubble Dump Site

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals, Volatiles (VOC)

Media of Concern: Soil

Phases	Start	End
PA.....	198901.....	199001
SI.....	199002.....	200003
RI/FS.....	200901.....	201411
RD.....	201408.....	201506
RA(C).....	201506.....	201606
LTM.....	201606.....	204609

RIP Date: N/A

RC Date: 201606

SITE DESCRIPTION

Previous environmental investigations at FGA identified a waste disposal site in the area of the installation baseball/softball fields. Waste disposal activities may have occurred between 1942 and 1966. Materials reportedly disposed included construction debris, medical waste, incinerator ash, and household and office waste. Streams located downgradient of FTGL-02 have been identified as being impacted by iron precipitation. Metal debris can be seen in the ground along the hillside topographically upgradient from the streams. A Historic Open Dump (HOD) was investigated along the northern boundary of the landfill.

A site-wide preliminary assessment (PA) was completed at FGA in 2000. The purpose of the PA was to conduct site reconnaissance to determine the potential threats to human health and the environment, and to identify any waste sites needing further investigation (i.e., an SI) or emergency response action. The PA indicated that the landfills operated from 1942 until 1966 and two ballfields and several buildings are currently located on the former landfill sites. Wastes buried in the landfills were identified as construction debris, medical waste, incinerator ash, household waste, and office waste. The PA also identified that two incinerators were constructed north of Building 511. Papers, contaminated wastes, animal bodies, bedding and garbage were incinerated, and ash from the incinerators was buried in the landfills. Lastly, the PA identified some exposed waste and construction debris in the wooded area north of the ballfields. Recommendations made in the PA concerning the landfills included sampling of the groundwater downgradient of the former landfills to determine if there is contaminant leaching and the removal of surficial waste and construction debris near the ballfields.

Anecdotal information indicates medical testing was done on large animals which were then buried in lead caskets in the landfill. Streams located downgradient are being impacted by iron precipitation. Metal debris can be seen in the ground near the discharge points.

Risk Assessment Data Collection Report for the Proposed RCI Parcel was prepared by Tetra Tech in 2005. Soil and groundwater samples were collected immediately northeast of FTGL-02 during this investigation and analyzed for VOCs, SVOCs, pesticides, metals, and total petroleum hydrocarbons- diesel-range organics (TPH-DRO). A total of 10 soil borings were conducted and 10 direct-push samples (DPS) were collected (DPS-5 through -14). Soil sampling results indicated multiple arsenic and one benzo(a)pyrene detection above USEPA industrial risk based concentrations (RBCs). The highest level of contaminants was found in the parking lot located west of Building 156. These higher contamination levels correspond to the soil logs documenting visible construction waste material as opposed to soils located north and south of the parking lot which were generally reworked native material with only trace amounts of debris. Perched water was sampled in one boring and all analytes were detected at levels below groundwater screening levels. Based on this investigation and prior borings (B1-B4) and test pits (11-13), fill material was found in most of the investigation area ranging in thickness from two to 10 feet at the northern end of the parcel and parking lot to 22 feet at the most southern boring, B4.

In 2008 to 2009, an investigation of the rubble dump adjacent to the ball fields was completed. Based on the results, buried waste was determined to be present past the ballfield site. Additional site delineation work will be needed to determine the nature and extent of landfill and its impacts.

Site ID: FTGL-02

Site Name: Ballfield/Helipad/Rubble Dump Site

A contract was awarded in FY09 with AECOM to complete the Remedial Investigation data collection effort and to complete a data report.

CLEANUP/EXIT STRATEGY

A final data report is expected by November 2012. A new contract will be needed in 2013 to complete the RI/FS/proposed plan(PP)and DD and complete the recommended remedial action. The anticipated remedy is landfill capping, monitoring and LUCs. Groundwater contamination is not anticipated to be a problem at this site.

Site ID: FTGL-03

Site Name: Commissary Landfill

STATUS

Regulatory Driver: CERCLA

RRSE: HIGH

Contaminants of Concern: Metals, Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198901.....	199001
SI.....	199903.....	200003
RI/FS.....	200901.....	201411
RD.....	201408.....	201506
RA(C).....	201506.....	201606
LTM.....	201606.....	204609

RIP Date: N/A

RC Date: 201606

SITE DESCRIPTION

The Center for Health Promotion and Preventive Medicine (CHPPM) Preliminary Assessments dated 1990 and 2000 identified several waste disposal sites. One site is located in the area of the installation's commissary. Disposal occurred between 1942 and 1966. Materials disposed included construction debris, medical waste, incinerator ash, household and office waste.

Prior to construction of the WRAIR Building 503, the USACE performed an investigation of the 8-acre WRAIR Building 503 site located immediately south of FTGL-03 and covering a portion of FTGL-04. The purpose of the characterization was to help determine soil disposal methods and environmental safety requirements since significant soil removal was a component of the building construction. A total of 120 test borings, 60 test pits, and three temporary monitoring wells were installed to sample landfill materials and groundwater. Additionally, a surface water sample was collected from South Ireland Creek (just west of Stephen Sitter Ave) which drains a system of storm sewers and a small watershed underlying the FTGL-03 and - 04 landfills. This sample location was selected since this stream is the only available source of surface water that has been exposed to the landfills. The soil and water samples were analyzed for VOCs, SVOCs, PCBs, pesticides, and metals. The surface water sample results obtained from the South Ireland Creek which is fed by storm sewers and the watershed underlying the upgradient landfills had detections of 1,1,2,2- tetrachloroethane (28 ug/L) and of tetrachloroethylene (PCE) (17 ug/L). Fill types identified during the investigation included: large pieces of mortared bricks and concrete, steel reinforcing rod, sheet metal, pipes, incinerator waste, and medical waste.

During SI Phase II, one new monitoring well (FG213) was installed upgradient of FTGL-03 to help better define the chlorinated solvent contamination found in FG203 in Phase I. This new well as well as the Phase I wells (FG203, FG204, FG205, and FG206) were sampled. Groundwater results show beryllium, chromium, lead and nickel concentrations detected in existing wells exceeded Maximum Contaminant Levels (MCLs) in multiple samples; however, dissolved levels of these metals did not exceed MCLs. PCE, trichloroethylene (TCE), cis-1,2-dichloroethene, and vinyl chloride (VC) were detected in existing monitoring well FG203 at concentrations above MCLs. PCE and TCE were detected in new monitoring well FG213 at concentrations above MCLs. PCE has been detected at concentrations over 17,000 ppb.

Topography and groundwater contours are inconclusive if the source of the VOC contamination is on-site or off-site.

An environmental site investigation was conducted in 2009 to help determine soil disposal methods and environmental safety requirements for construction of the National Museum of Health and Medicine overtop the northeast portion of FTGL-03. Three environmental borings (EB1-EB3) were conducted within the footprint of the future building to collect subsurface soil and groundwater samples. Two groundwater samples were collected from two of the open borings (EB1 and EB3) for VOC analysis. Soil samples were collected at each borehole up to 22 feet below the ground surface and analyzed for VOCs, SVOCs, metals, pesticides and PCBs. PCE was detected above the drinking water MCL in the groundwater samples collected from borings EB1 (38 ug/L) and EB3 (150 ug/L). For soils, only arsenic and chromium were detected at concentrations above industrial screening values. The subsurface investigation indicates that fill material was found at depths to 21 feet. The fill material consisted of mainly demolition materials such as brick.

Site ID: FTGL-03
Site Name: Commissary Landfill

A contract was awarded in FY09 with AECOM to complete the remedial investigation data collection effort and complete a data report.

CLEANUP/EXIT STRATEGY

A final data report is expected by November 2012. A new contract will be needed in 2013 to complete the RI/FS/PP and DD and complete the recommended remedial action. The anticipated remedy is landfill capping, monitoring and LUCs. Groundwater contamination is not anticipated to be a problem at this site. Groundwater contamination is present at this site but is thought to be from an off-site source. A groundwater remedy is therefore not anticipated.

Site ID: FTGL-04
Site Name: Bldg 511 Landfill

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
Contaminants of Concern: Metals, Volatiles (VOC)
Media of Concern: Soil

Phases	Start	End
PA.....	198903.....	199903
SI.....	199903.....	200003
RI/FS.....	200901.....	201411
RD.....	201408.....	201506
RA(C).....	201506.....	201606
LTM.....	201606.....	204609
RIP Date:	N/A	
RC Date:	201606	

SITE DESCRIPTION

Previous environmental investigations at FGA identified a waste disposal site in the area of Building 511. Waste disposal activities may have occurred between 1942 and 1966. Wastes buried in this landfill may include construction debris, medical waste, incinerator ash, and household and office waste. A significant investigation effort occurred in 1989 in the northern portion of this landfill prior to the construction of the WRAIR Building in which medical and other wastes were encountered. It has been reported anecdotally that approximately 1,700 truckloads of waste were removed and transported to the landfill at Fort Meade. The amount and location of fill material ultimately removed during the construction of Building 503 is unknown.

A characterization and qualitative risk assessment was conducted of the WRAIR Building 503 site which covered a portion of the northern end of FTGL-04. Additionally, a surface water sample was collected from South Ireland Creek which drains a system of storm sewers and a small watershed underlying the FTGL-03 and -04 landfills. Results of soil and water sampling found elevated levels of VOCs in the South Ireland Creek downgradient surface water sample and only low VOC concentrations in groundwater. In soils, elevated concentrations of acetone, polynuclear aromatic hydrocarbons (PAHs), lead, and mercury were detected in one or more sample locations.

A 2000 PA site reconnaissance identified the FTGL-04 landfill and indicated it operated from 1942 to 1966. Wastes buried in the landfills were identified as construction debris, medical waste, incinerator ash, household waste, and office waste. Medical wastes were reportedly uncovered during excavation in the parking lot southwest of the WRAIR Building.

During an SI Phase I, groundwater monitoring wells were installed to intercept groundwater after it passed under the landfills. Two monitoring wells (FG201 and FG202) were installed downgradient of FTGL-04. Sampling results indicated monitoring well FG201 exhibited the highest contaminant levels with beryllium, chromium, lead and nickel above MCLs. Only lead exceeded MCLs in FG202.

A contract was awarded in FY09 with AECOM to complete the remedial investigation data collection effort and complete a data report.

CLEANUP/EXIT STRATEGY

A final data report is expected by November 2012. A new contract will be needed in 2013 to complete the RI/FS/PP and DD and complete the recommended remedial action. The anticipated remedy is landfill capping, monitoring and LUCs. Groundwater contamination is not anticipated to be a problem at this site.

Site ID: FTGL-05

Site Name: Bldg 607 Washdown Rack

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Sediment, Surface Water

Phases	Start	End
PA.....	198901.....	199001
SI.....	199903.....	200003
RI/FS.....	200901.....	201401

RIP Date: N/A

RC Date: 201401

SITE DESCRIPTION

The Building 607 washrack was formerly located in the motor pool near Building 605. The washrack was enclosed on three sides and had a concrete floor. From 1975 until 1979, the washrack discharged directly to the storm water sewer. The storm water then discharged to the downgradient stream (Stream E) south of Building 606. In 1979, an oil/water separator was reportedly connected to the washrack. At some point after 1979, use of the Building 607 washrack was terminated and a newer bus wash (which is also no longer in use) was reportedly constructed at the location. Site Inspection (SI) sampling results from downgradient Stream E indicated elevated on-site lead concentrations at one sediment and one surface water sample location.

The finished grade in the area of former Building 607 is relatively flat at approximately 315 feet above msl. The rinsate is collected in the storm sewer from the former washrack and reportedly discharged to Stream E. The topography of the stream channel slopes from approximately 295 feet above msl at the storm sewer outfall near Building 606 to 240 feet above msl where the stream runs off-site. Based on aerial photographs, it appears that Stream E flows into an underground culvert shortly after running off-site, resurfaces after passing under an area of industrial use, and then discharges to Rock Creek.

Based on the PA findings, the Phase I SI investigation for FTGL-05 included surface water and sediment sampling in Stream E that historically received the storm sewer discharge from the Building 607 washrack. Two co-located surface water and sediment samples (FGS1/FGSED1 and FGS2/FGSED2) were obtained from Stream E. Sediment samples were analyzed for total metals, TPH-DRO, pesticides, PCBs, and SVOCs. Surface water samples were analyzed for the same chemicals except for pesticides and PCBs. Sample results indicated that only lead was detected above screening levels in one sediment sample (FGSED02) and one surface water sample (FGS1) in Stream E. The source of these elevated lead levels was identified as unknown but potentially from runoff from the motor pool.

A contract was awarded in FY09 with AECOM to complete the remedial investigation data collection effort and complete a data report.

CLEANUP/EXIT STRATEGY

The RI report for FTGL-05 will be final in FY13. The Army expects that no remedial action will be required at this site. Therefore, a no further action decision document will be prepared. Army expects to close this site with no further action in FY14.

Site ID: FTGL-06

Site Name: PCB Cont. North of Linden Ln

STATUS

Regulatory Driver: TSCA

RRSE: HIGH

Contaminants of Concern: Polychlorinated Biphenyls (PCB)

Media of Concern: Sediment, Soil

Phases	Start	End
RFA.....	200601.....	200612
CS.....	200601.....	200612
RFI/CMS.....	201001.....	201509
DES.....	201504.....	201603
IRA.....	200701.....	200709
CMI(C).....	201504.....	201704
LTM.....	201704.....	202204

RIP Date: N/A

RC Date: 201704

SITE DESCRIPTION

PCBs contamination has been detected on active Army and formerly owned Army property. This site includes a portion known as the NPS. The NPS consists of 32 acres of land located in Silver spring, Maryland south of Interstate I-95/I-495 and north of Linden Lane. The property is improved with several residential structures constructed circa late 1800s to 1920s. The property was originally occupied by a hotel and later by National Park College, an all-girls school through the early-1940s. The property was occupied by the Walter Reed Army Medical Annex from the 1940s to recent times until it was excecuted to Montgomery County, Maryland and in turn sold to private developer, National Park Seminary Venture, LLC. The owner is currently redeveloping the property for residential use.

In 2005 the MDE performed a brownfields site-specific assessment of the property which included sampling surface soil, subsurface soil, sediment, and the stream. The MDE revealed, in part, the presence of 1,2,4-trichlorobenzene at an estimated concentration of 15,000 ppm in one subsurface soil sample collected behind (i.e. to the north of) Building 138. Follow-up sampling performed during a voluntary cleanup program (VCP) study on the property confirmed the presence of trichlorobenzene and revealed the presence of PCB in the soil at each of the seven direct-push boring north of Building 138. PCBs were detected at depths extending to 12 feet below ground and at concentrations ranging up to 7,090 ppm.

Based on the results of that testing, an intensive sampling program was performed to delineate the extent of contamination. Soil, groundwater and stream sediments were sampled during the investigation. Soil sampling results were reported to the USEPA, Region III in the Sept. 21, 2006 report titled "Notification of Intent to Perform Self-Implemented On-Site Clean-up and Disposal of PCB Remediation Waste." A 1.1 million dollar Environmental Services Cooperative Agreement was signed in 2006 to remediate the area north of Building 138. Contaminated soils were removed and disposed off-site during 2006 and 2007.

Six stream sediment samples in 2006 revealed that five of the sediment samples contained PCBs at concentrations ranging from 0.721 to 19.2 ppm. PCBs have been discovered in downgradient stream sediments above regulatory limit of one ppm, potentially extended beyond the NPS property and onto county property.

In 2009, additional PCB contamination was discovered on the active army land parcel north of Linden Lane near the salt dome. The extent of contamination is not known. Additional characterization is needed for the entire site, active and former Army property, to determine extent of contamination and source(s).

A contract was awarded in FY09 with AECOM to complete the remedial investigation data collection effort and complete a data report.

CLEANUP/EXIT STRATEGY

Site ID: FTGL-06
Site Name: PCB Cont. North of Linden Ln

Groundwater and sediment sampling to determine the nature and extent of PCB contamination and identify potential additional sources will be conducted in FY13. The data will be used to develop a corrective measures study (CMS) to identify the appropriate remedy. Removal of PCB contaminated sediment is possible. Follow - on monitoring of the sediment will likely be required to ensure PCB concentrations do not rebound.

Site Closeout (No Further Action) Summary

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

IRP Schedule

Date of IRP Inception: 198901

Past Phase Completion Milestones

1990

PA (FTGL-02 - Ballfield/Helipad/Rubble Dump Site, FTGL-03 - Commissary Landfill, FTGL-05 - Bldg 607 Washdown Rack)

1992

ISC (FTGL-01 - Building 500)

1999

PA (FTGL-04 - Bldg 511 Landfill)

2000

SI (FTGL-02 - Ballfield/Helipad/Rubble Dump Site, FTGL-03 - Commissary Landfill, FTGL-04 - Bldg 511 Landfill, FTGL-05 - Bldg 607 Washdown Rack)

2007

CS (FTGL-06 - PCB Cont. North of Linden Ln)

RFA (FTGL-06 - PCB Cont. North of Linden Ln)

IRA (FTGL-06 - PCB Cont. North of Linden Ln)

2009

INV (FTGL-01 - Building 500)

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
FTGL-01	Building 500	Bldg 500 Corrective Action Plan	20130130

Final RA(C) Completion Date: 201704

Schedule for Next Five-Year Review: 2018

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

FOREST GLEN IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGL-01	Building 500	CAP						
		IRA						
		IMP(C)						
		IMP(O)						
		LTM						
FTGL-02	Ballfield/Helipad/Rubble Dump Site	RI/FS						
		RD						
		RA(C)						
		LTM						
FTGL-03	Commissary Landfill	RI/FS						
		RD						
		RA(C)						
		LTM						
FTGL-04	Bldg 511 Landfill	RI/FS						
		RD						
		RA(C)						
		LTM						
FTGL-05	Bldg 607 Washdown Rack	RI/FS						
FTGL-06	PCB Cont. North of Linden Ln	RFI/CMS						
		DES						
		CMI(C)						
		LTM						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): TBD

Restoration Advisory Board (RAB): RAB established 2012/07

RAB Adjournment Date: N/A

RAB Adjournment Reason: None

Additional Community Involvement Information

A draft final Community Relations Plan (CRP) has been developed and will be finalized in FY13. A RAB was formed in FY 12.

Administrative Record is located at

The Administrative Record for Forest Glen is located at: Fort Detrick Installation Restoration Program Office, Building 262, Fort Detrick, MD 21702-5000

Information Repository is located at

The Information Repository is located at:
Silver Spring Public Library
8901 Colesville Road
Silver Spring, MD 20910

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

TAPP Title: N/A

Potential TAPP: N/A

