

FY2015

WEST POINT MIL RESERVATION
Army Defense Environmental Restoration Program
Installation Action Plan

Printed 30 October 2015

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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 (RAs).

In an effort to coordinate planning information between the restoration manager, the Installation Management Command (IMCOM), the US Army Environmental Command (USAEC), the US Army Garrison - West Point (USAG-WP), the executing agencies, the 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-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirement
BD	Blanket Drain
BRAC	Base Realignment and Closure
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operation)
CMS	Corrective Measure Study
COC	Contaminant of Concern
CR	Compliance Restoration
CS	Confirmatory Sampling
CTT	Closed, Transferred or Transferring
DD	Decision Document
DERP	Defense Environmental Restoration Program
DES	Design
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army
FRA	Final Remedial Action
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GWQS	Groundwater Quality Standards
HE	High Explosives
HRR	Historical Records Review
IAP	Installation Action Plan
IM	Interim Measures
IMCOM	Installation Management Command
in	inch
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
K	thousand
LTM	Long-Term Management
LUC	Land Use Control
MC	Munitions Constituent
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MIL	Military
mm	millimeter
MMRP	Military Munitions Response Program
MR	Munitions Response

Acronyms

MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
N/A	Not Applicable
NFA	No Further Action
NPL	National Priorities List
NYCRR	New York Codes Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
ODUSD(I&E)	Office of the Deputy Under Secretary of Defense for Installations and Environment
OE	Ordnance and Explosives
PA	Preliminary Assessment
PAO	Public Affairs Office
PBA	Performance-Based Acquisition
POL	Petroleum, Oil and Lubricants
PX	Post Exchange
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
STAS	Stewart Army Subpost
STR	Skeet and Trap Range
SWMU	Solid Waste Management Unit
TAL	Target Analyte List
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TD	Transferred
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USAEHA	US Army Environmental Hygiene Agency
USAG	US Army Garrison
USEPA	US Environmental Protection Agency
USMA	US Military Academy
USMAPS	US Military Academy Preparatory School
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Acronyms

VOC Volatile Organic Compound
WP West Point
WWI World War I
WWII World War II

Acronym Translation Table

CERCLA

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

RCRA

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

Installation Information

Installation Locale

Installation Size (Acreage): 15974

City: West Point

County: Orange

State: New York

Other Locale Information

The USAG-WP is located in Orange County in the state of New York, on the west bank of the Hudson River, approximately 45 miles north of New York City. It consists of 15,974 acres, with the main post comprising 2,520 acres. It is bounded by New York State Route 218, the Hudson River, the village of Highland Falls, and US Route 9W. USAG-WP is crossed by the Hudson Highlands, a belt of steep-walled, knobbed ridges, irregular hills and mountains, and it is a registered National Historic Landmark.

Installation Mission

The mission of the US Military Academy (USMA) at West Point is to educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of duty, honor, and country, and prepared for a career of professional excellence and service to the nation as an officer in the United States Army. The USAG-WP supports the USMA mission by providing base operations, community support programs and facilities while maintaining a safe and secure environment to enhance the well-being of the West Point community.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USAG-WP Directorate of Public Works/Environmental Division

IMCOM

USAEC

Regulator Participation

Federal US Environmental Protection Agency (USEPA), Region II

State New York State Department of Environmental Conservation (NYSDEC) Central Office in Albany, New York

National Priorities List (NPL) Status

WEST POINT MIL RESERVATION is not on the NPL

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

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

Installation Program Summaries

IRP

Primary Contaminants of Concern: Metals, Nitrate/Nitrite, Petroleum, Oil and Lubricants (POL)

Affected Media of Concern: Groundwater, Surface Water

MMRP

Primary Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

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

CR

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

Affected Media of Concern: Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	201010	201209	2012
Complete	200510	200510	2006
Underway	201407	201509	2015

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
MOTORPOOL LANDFILL	WSTPT-11
Michie Lot Landfills C,E&F	WSTPT-04, WSTPT-06, WSTPT-07A
Michie Lots A & B	WSTPT-02, WSTPT-03
Motorpool East	WSTPT-11A
POST SCHOOL LANDFILL	WSTPT-10
Ski Lot Landfill	WSTPT-09

Results NYSDEC concurred with results of 5 year review but disagreed with proposed sampling reduction.

Actions West Point is submitting new proposal to reduce LTM for next 5 year period.

Plans Next 5 year review is planned for 2015.

Recommendations and Implementation Plans:

N/A

Land Use Control (LUC) Summary

LUC Title: LUCIP Michie Stadium MRS

Site(s): WSTPT-022-R-01

ROD/DD Title: Michie Stadium Munitions Response Site

Location of LUC

Michie Stadium

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Education programs, Notations in Master Plan

Date in Place: 201501

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201501

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: Unexploded Ordnance(UXO)

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

West Point is an active US Army installation officially established in 1778. The USMA was established at West Point on March 16, 1802. The initial purpose of the academy was to obtain military technicians for all branches of the military service, to encourage the study of military art nationally, to raise the level of training of the militia, and to encourage the practical study of every science.

Lands formerly known as Stewart Army Subpost (STAS) are located approximately 14 miles northwest of West Point, in Orange County, in the town of New Windsor, New York. STAS provided overflow family housing for West Point and included facility and community support to residents and tenants. The divestiture of the STAS site occurred as follows: on Sept. 29, 1999, 40.4 acres were transferred to the 77th Regional Support Command (Army Reserve); in November 1999, West Point transferred 263.86 acres to the town of New Windsor, in Orange County, New York; on Feb. 3, 2000, 78.63 acres and 11.69 acres (easement) were transferred to the US Marine Corps Reserve Marine Aircraft Group 49, Detachment B.

In 1961, West Point was designated as a National Historical Landmark included in the National Register of Historic Places and protected by Executive Order 11593.

Installation Program Cleanup Progress

IRP

Prior Year Progress: A five-year review report will be completed in 2015. Inspections, minor maintenance, and groundwater monitoring were conducted at WSTPT-01, WSTPT-02, WSTPT-03, WSTPT-04, WSTPT-05, WSTPT-06, WSTPT-07A, WSTPT-09, WSTPT-10, WSTPT-11, WSTPT-15B, WSTPT-16, WSTPT-35A, WSTPT-48 through a performance-based acquisition (PBA) awarded in 2013.

Future Plan of Action: Annual inspections, minor maintenance, and groundwater monitoring at sites WSTPT-01, WSTPT-02, WSTPT-03, WSTPT-04, WSTPT-05, WSTPT-06, WSTPT-07A, WSTPT-09, WSTPT-10, WSTPT-11, WSTPT-15B, WSTPT-16, WSTPT-35A, WSTPT-48.

MMRP

Prior Year Progress: A remedial investigation (RI) was completed at WSTPT-001-R-01, WSTPT-004-R-02, WSTPT-008-R-01, WSTPT-010-R-01, WSTPT-011-R-01, WSTPT-013-R-01, WSTPT-015-R-01, WSTPT-017-R-01, WSTPT-019-R-01, WSTPT-020-R-01, WSTPT-022-R-01. A contract for a feasibility study (FS) at these sites will be awarded in 2015. Work begins in 2015 on an RI for site WSTPT-023-R-01.

Future Plan of Action: Begin work on an FS at multiple sites. Complete the RI at site WSTPT-023-R-01. Begin the FS for site WSTPT-023-R-01. Begin an RI for sites WSTPT-004-R-01 and WSTPT-016-R-01.

CR

Prior Year Progress: Contaminated soil will be excavated and removed from the site.

Future Plan of Action: No further actions are planned.

WEST POINT MIL RESERVATION
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 30/16

Installation Site Types with Future and/or Underway Phases

14 Landfill

(WSTPT-01, WSTPT-02, WSTPT-03, WSTPT-04, WSTPT-05, WSTPT-06, WSTPT-07A, WSTPT-09, WSTPT-10, WSTPT-11, WSTPT-15B, WSTPT-16, WSTPT-35A, WSTPT-48)

Most Widespread Contaminants of Concern

Metals, Nitrate/Nitrite, Petroleum, Oil and Lubricants (POL)

Media of Concern

Groundwater, Surface Water

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

Site ID	Site Name	Action	Remedy	FY
WSTPT-16	ORGANIC COMPOST LOT	IRA	DRAINAGE CONTROLS	1991
WSTPT-45	CROW'S NEST AREA	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994
WSTPT-49	USTS AT BUILDING 505	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994
WSTPT-50	BLDG. 632 NAPHTHA TANKS	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994
WSTPT-07A	STADIUM LOT F LANDFILL	IRA	DRAINAGE CONTROLS	1996
WSTPT-09	SKI SLOPE LANDFILL	IRA	DRAINAGE CONTROLS	1996
WSTPT-10	POST SCHOOL LANDFILL	IRA	DRAINAGE CONTROLS	1996
WSTPT-15A	MORGAN FARM LANDFILL	FRA	REMOVAL	1996
WSTPT-07A	STADIUM LOT F LANDFILL	IRA	DRAINAGE CONTROLS	1997
WSTPT-13	VILLAGE FARM LANDFILL	FRA	REMOVAL	1998
WSTPT-44	SKEET AND TRAP RANGE	FRA	NATURAL ATTENUATION	1998
WSTPT-04	STADIUM LOT C LANDFILL	FRA	CAPPING	1999
WSTPT-06	STADIUM LOT E LANDFILL	FRA	CAPPING	1999
WSTPT-07A	STADIUM LOT F LANDFILL	FRA	CAPPING	1999
WSTPT-10	POST SCHOOL LANDFILL	FRA	DRAINAGE CONTROLS	1999
WSTPT-04	STADIUM LOT C LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-06	STADIUM LOT E LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-07A	STADIUM LOT F LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-09	SKI SLOPE LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-09	SKI SLOPE LANDFILL	FRA	CAPPING	2001
WSTPT-11	MOTORPOOL LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-11A	MOTORPOOL EAST LANDFILL	FRA	DRAINAGE CONTROLS	2001
WSTPT-11A	MOTORPOOL EAST LANDFILL	FRA	CAPPING	2001
WSTPT-02	STADIUM LOT A LANDFILL	FRA	DRAINAGE CONTROLS	2002
WSTPT-02	STADIUM LOT A LANDFILL	FRA	CAPPING	2002
WSTPT-03	STADIUM LOT B LANDFILL	FRA	CAPPING	2002
WSTPT-03	STADIUM LOT B LANDFILL	FRA	DRAINAGE CONTROLS	2002

Duration of IRP

Date of IRP Inception: 198404

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 200207/200207

Date of IRP completion including Long Term Management (LTM): 204509

IRP Contamination Assessment

Contamination Assessment Overview

In November 1988 USAG-WP submitted a Resource Conservation and Recovery Act (RCRA) Part B permit application to the USEPA for hazardous waste storage and a Subpart X permit for an open burn/open detonation site. In December 1988 the application for the container storage facility was rescinded by USAG-WP and the container storage sites underwent closure inspection and testing by the USEPA under "Closure Prior to Loss of Interim Status." Although the Part B permit had been rescinded, the corrective action provisions remain per the 1984 Hazardous and Solid Waste Amendments section 3004 (h). Therefore, USAG-WP remains under interim status while long-term management (LTM) is being conducted.

USAG-WP has 29 IRP sites, 15 of which are currently in LTM. The other 14 sites require no further action.

There are currently 14 former landfills in LTM. These landfills were used from the 1940s to the 1960s to dispose of municipal solid waste, construction and demolition debris, and land clearing debris. Analytical results for the leachate samples from several of the landfills have exhibited heavy metals constituents. In 2012 the NYSDEC reduced the monitoring requirements at 13 of the sites (WSTPT-01, 02, 03, 04, 05, 06, 07A, 09, 10, 15B, 16, 35A, and 48) to annual inspections and groundwater monitoring every five years. The sampling frequency will be increased at a site to once every 2.5 years if a sample exhibits a regulatory exceedance of non-nutrient target analyte list (TAL) metals. Five-year reviews were completed in 2005 and 2012. Another five-year review is scheduled for 2015.

The Motorpool Landfill (WSTPT-11) requires annual monitoring and inspections. In 2008 West Point was selected as the location of the US Military Academy Prep School (USMAPS). USMAPS was previously located at Ft Monmouth which was selected for closure as part of Base Realignment and Closure (BRAC). The new location chosen for the USMAPS was the former WP motor pool and site of the Motorpool Landfill (WSTPT-11) and Motorpool East Landfill (WSTPT-11A). Additional investigations of these landfills were conducted during design of the new USMAPS. Information from these studies determined that the Motorpool East LF was composed only of clean fill. The NYSDEC concurred with the findings requiring no further action at the site. To facilitate construction of the USMAPS barracks, classrooms, and athletic facilities, a new landfill cap was designed and installed on the Motorpool landfill. A new post-closure monitoring and maintenance plan was implemented requiring annual groundwater monitoring, vapor monitoring, and inspections.

The last active Installation Restoration Program (IRP) site is the former Skeet and Trap Range (STR) (WSTPT-44). A decision document (DD) was completed in 1997. The study found the site to pose a low risk and recommended institutional controls and monitoring. Monitoring is limited to an annual sample of surface water downstream from the site to test for lead.

The remaining IRP sites are no longer active. The South Fill (WSTPT-12), the Hospital Parking Lot (WSTPT-23A), and the Stadium Lots G (WSTPT-07B) and H (WSTPT-07C) were investigated but records indicate they were used for clean construction and demolition debris and no releases are evident. Cragston Landfill (WSTPT-14) is a sanitary landfill that underwent RCRA Subtitle D closure outside the IRP. Since the landfill was active into the late-1980s it was ineligible for the IRP. The Village Farm Landfill (WSTPT-13) and the Morgan Farm Landfill (WSTPT-15A) were small landfills that were removed and consolidated into the Cragston Landfill. The Washington Gate Landfill (WSTPT-12A) and ASP Landfill (WSTPT-47) were investigated as part of the Four Landfills project. The sites were found to contain clean fill and were found to pose no human health or environmental risk. The Professors Row Landfill (WSTPT-08) was entered as a site when a records search found references to a landfill in the area of Quarters 103. An investigation of the area failed to find evidence of a landfill.

The Crow's Nest Artillery Impact Area (WSTPT-45) was identified as an IRP site in 1991. A preliminary assessment (PA) was initiated prior to the replacement of a natural gas line that crossed the Crow's Nest area of Storm King Mountain. Research for the project revealed that the Crow's Nest area had been an artillery impact area. The project to replace the gas line was terminated following the discovery of ordnance and explosive (OE) waste along the proposed gas line. An RI limited surface sweep discovered 75 suspect OE wastes; 15 were on adjacent park property. The Army safety office assigned the site a risk assessment code ranking of two, which dropped its priority on the IRP work plan. Eventually, program guidance changed making munitions sites ineligible for IRP funding. This site was added to the Military Munitions Response Program (MMRP) in 2013.

Site WSTPT-49 and WSTPT-50 were underground storage tanks (UST) that were removed.

Cleanup Exit Strategy

The LTM and cap maintenance will continue under the PBA as will five-year data reviews.

IRP Previous Studies

Year	Title	Author	Date
1988	Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F)	Louis Berger & Associates, Inc.	JUL-1988
1994	Draft Work Plan and Chemical Data Acquisition Plan, RCRA Facility Assessment of Ten Landfills	Woodward Clyde Federal Services	JAN-1994
	Subsurface Investigation Report of 6 Landfills	LAW Engineering and Environmental Services	JUL-1994
	Remedial Investigation at Building 2228 Fueling Facility	EA Engineering, Science and Technology	AUG-1994
1995	Project Plans for Expanded RCRA Facility Assessment of Four Landfills	EA Engineering, Science and Technology	MAR-1995
	RCRA Facility Assessment (RFA) of Ten Landfills Report	Woodward Clyde Federal Services	JUN-1995
	Project Plans for the Phase II Remedial Investigation and Leachate Management Analysis of Six Landfills	EA Engineering, Science and Technology	JUN-1995
1996	Decision Document Camp Buckner Skeet and Trap Range	EA Engineering, Science and Technology	JAN-1996
	Phase II Investigation Report of Six Landfills	EA Engineering, Science and Technology	AUG-1996
	Phase II Leachate Management Analysis of Six Landfills	EA Engineering, Science and Technology	AUG-1996
	Quality Control Summary Report of Six Landfills	EA Engineering, Science and Technology	AUG-1996
	Expanded RCRA Facility Assessment of Four Landfills	EA Engineering, Science and Technology	SEP-1996
	Quality Control Summary Report of Four Landfills	EA Engineering, Science and Technology	SEP-1996
	USMA Landfill Remediation Contract No. DACAW45-94-D-0054 Delivery Order No. 19	IT Corporation	SEP-1996
	Design Concept for Post School Landfill Closure	Malcolm Pirnie, Inc.	OCT-1996
1997	Decision Document for the Village Farm Landfill	DHPW EMD	APR-1997
	RCRA Facility Investigation of Ten Landfills	Malcolm Pirnie, Inc.	JUN-1997
	Post School Landfill Closure Design, Design Analysis Report	Malcolm Pirnie, Inc.	JUL-1997
	Post School Landfill Closure Design Contract Specifications	Malcolm Pirnie, Inc.	JUL-1997
1998	Contract Specifications for Michie Stadium Parking Lot Landfills (C, E & F)	Malcolm Pirnie, Inc.	JUL-1998
	Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F)	Malcolm Pirnie, Inc.	JUL-1998
	Design Analysis Report for Motor Pool Landfill Closure	EA Engineering, Science and Technology	AUG-1998
1999	The Final Report Addendum for Village Farm Landfill Remediation	IT Corporation	JAN-1999
	Decision Document for the Motorpool Landfill	DHPW EMD	JAN-1999

IRP Previous Studies

Year	Title	Author	Date
1999	Decision Document for the Post School Landfill	DHPW EMD	JAN-1999
	Decision Document for Lots C, E, and F	DHPW EMD	JAN-1999
	100% Completion Phase Design Analysis Report, Construction Cost Estimate and Contract Specifications for Michie Stadium Parking Lot Landfills (C, E, & F)	Unknown	FEB-1999
	Design Analysis Report Ski Lot Landfill Closure	Sparks, EA Engineering, Science and Technology	JUN-1999
	Design Analysis Report Motor Pool East Landfill Closure	EA Engineering, Science and Technology	JUN-1999
	Decision Document for the Motorpool East Landfill	DHPW EMD	OCT-1999
	Ten Landfills RCRA Facility Investigation Phase II Groundwater Monitoring Draft Final Report	Malcolm Pirnie, Inc.	DEC-1999
2000	Contract Specifications for Michie Stadium Parking Lot Landfills (C, E, & F)	Malcolm Pirnie, Inc.	FEB-2000
2001	Sampling and Analysis Plan for Long-Term Monitoring and Maintenance Program at 15 Landfills	EA Engineering, Science and Technology	DEC-2001
2002	Decision Document for the 12,000 Gallon UST at STAS	DHPW EMD	MAR-2002
	Data Summary Sheet Report for Year 2001 LTM Maintenance Project at 15 Landfills	EA Engineering, Science and Technology	MAR-2002
	Engineering Inspection Study for the Year 2002 LTM Maintenance Project at 15 Landfills	EA Engineering, Science and Technology	JUN-2002
	Data Summary Sheet Report for Year 2002 LTM Maintenance Project at 15 Landfills	EA Engineering, Science and Technology	JUL-2002
2003	Data Summary Sheet Report for Year 2003 LTM Maintenance Project at 15 Landfills	EA Engineering, Science and Technology	JUL-2003
	USMA Installation Action Plan	DHPW EMD	NOV-2003
2004	Monitoring Well Repairs at Multiple Landfill Locations and Landfill Maintenance	EA Engineering, Science and Technology	AUG-2004
2005	Five-Year Review Data Summary Report for the Long-Term Monitoring and Maintenance Program at 15 Landfills	EA Engineering, Science and Technology	SEP-2005
2008	Landfill Constructability Report, Relocation of US Military Academy Preparatory School	Ewing Cole	AUG-2008
2012	2nd 5 Year Review	Plexus	MAY-2012
	2011 Annual Inspection Report	Plexus Scientific	JUN-2012
2013	2012 Annual Inspection Report	Plexus Scientific	JAN-2013
2014			

IRP Previous Studies

2014

Title	Author	Date
Project Activities Report, Landfill Maintenance	USACE Baltimore and Bay West	MAR-2014
Project Activities Report	USACE Baltimore and Bay West	MAR-2014
2013 Annual Inspection Report	Plexus Scientific	MAY-2014

WEST POINT MIL RESERVATION
Installation Restoration Program
Site Descriptions

Site ID: WSTPT-01
Site Name: PXLANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
Contaminants of Concern: Metals
Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199912
LTM.....	200109.....	204509

RIP Date: N/A
RC Date: 199912

SITE DESCRIPTION

The Post Exchange (PX) Landfill is part of the Ten Landfills RCRA Facility Investigation (RFI) Phase II Groundwater Monitoring Report (1999) and is a 2.5-acre landfill located under the parking lot at the former PX. During the 1940s this was the installation's landfill for domestic waste. The pit and area methods of landfilling were used here. The landfill is closed, covered and paved. A parking lot and the former PX service station now cover part of the site. Although leachate seeps were observed at this site in the past, recent engineering inspections have not detected any.

In March 1998, the NYSDEC requested additional sampling of this site. The additional sampling was performed as a supplement to the monitoring at the 10 landfills and in January 2000 the results of an investigation were submitted to the NYSDEC. The supplement recommended no further action (NFA) at the landfill based on sample results. A DD was not prepared because an RA was not required. The PX Landfill has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. In fiscal year (FY)07 USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

In FY08, the landfill was recapped with improved drainage and curbing. In addition to minor annual maintenance it is expected the cap will require periodic resurfacing.

The remedy is functioning as intended by reducing infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal Applicable or Relevant and Appropriate Requirements (ARAR) have been met, with the exception of iron, magnesium, selenium, and sodium (PXMW-03). The historic exceedances of iron and sodium are not increasing in concentration, although current conditions at PXMW-01 are unknown at this time. In addition, the elevated iron and sodium could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the contaminants of concern (COC) and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
Contaminants of Concern: Metals
Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199706
DES.....	199809.....	200010
CMI(C).....	200109.....	200207
LTM.....	200208.....	204509
RIP Date:	N/A	
RC Date:	200207	

SITE DESCRIPTION

The Michie Stadium Lot A Landfill is part of the 10 landfill investigation and is located west of Michie Stadium. This 2.1-acre landfill was used from about 1952 to 1954. The pit and trench methods were used. The landfill is closed and completely paved. In FY02 cap and drainage system improvements were constructed. The site is now used as a parking lot. Although leachate seeps were observed at this site in the past, recent engineering inspections have not detected any. The LTM includes maintaining the cap, drainage system and monitoring wells and performing annual groundwater monitoring. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

Based on the data collected in 2011, sodium, chromium, and iron are the only analytes that exceed NYSDEC groundwater quality standards (GWQS). The exceedances of iron and sodium are not increasing in concentration. In addition, elevated iron concentrations could be attributed to naturally occurring conditions due to detections found in the upgradient well. Based on these criteria, the remedy is functioning as intended to reduce infiltration and leachate generation; however, chromium levels should be monitored as the sampling program continues to determine if any trends are developing.

It is anticipated that the landfill will require periodic re-grading and resurfacing.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-03
Site Name: STADIUM LOT B LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
 Contaminants of Concern: Metals
 Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199706
DES.....	199809.....	200010
CMI(C).....	200109.....	200207
LTM.....	200208.....	204509
RIP Date:	N/A	
RC Date:	200207	

SITE DESCRIPTION

Site WSTPT-03, which was part of the 10 landfill project, is located west of Michie Stadium, adjacent to site WSTPT-02; access is from Stony Lonesome Road. This 0.3-acre landfill reportedly received refuse in 1954. The pit and trench methods were used. The landfill is closed and completely paved. In FY02 cap and drainage system improvements were constructed. The site is now used as a parking lot. Although leachate seeps were observed at this site in the past, recent engineering inspections have not detected any seepage. The LTM for this site includes cap and drainage maintenance. The site does not require annual groundwater monitoring; however, the downgradient well from Lot A will be sampled to verify there is no contamination from Lot B.

As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

Based on the data collected in 2011, sodium, chromium, and iron are the only analytes that exceed NYSDEC GWQS. The exceedances of iron and sodium are not increasing in concentration. In addition, elevated iron concentrations could be attributed to naturally occurring conditions due to detections found in the upgradient well. Based on these criteria, the remedy is functioning as intended to reduce infiltration and leachate generation. However, chromium levels should be monitored as the sampling program continues to determine if any trends are developing.

It is anticipated that the landfill will require periodic re-grading and resurfacing.

This is a zero cost site. Costs for this site are tracked in site WSTPT-02.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-04
Site Name: STADIUM LOT C LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
Contaminants of Concern: Metals
Media of Concern: Groundwater

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199707
DES.....	199609.....	200004
CMI(C).....	199901.....	200107
LTM.....	200109.....	204509
RIP Date:	N/A	
RC Date:	200107	

SITE DESCRIPTION

Site WSTPT-04 was part of the 10 landfill project and is located west of Michie Stadium; access is from Stony Lonesome Road. This 1.8-acre landfill was used from about 1955 through 1956. The pit and trench methods were used. The landfill is closed and undergoing LTM. An asphalt cap was installed in 2007 and drainage improvements were made to prevent infiltration and reduce leachate generation. The site is now used as a parking lot. Although leachate seepage has been identified at this site in the past, recent engineering inspections have not detected any. It is anticipated that the landfill will require annual maintenance and periodic re-grading and resurfacing.

This site has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of sodium. The exceedance of sodium is not increasing in concentration and could be attributed to the use of salt during the winter months. This is the first time that arsenic and cadmium have been detected and levels should be watched to determine what trends, if any, are surfacing as the sampling program continues. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-05
Site Name: STADIUM LOT D LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: MEDIUM
Contaminants of Concern: Metals
Media of Concern: Groundwater

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199407
RFI/CMS.....	199408.....	199608
LTM.....	200109.....	204509
RIP Date:	N/A	
RC Date:	199701	

SITE DESCRIPTION

Site WSTPT-05, part of the six-landfill project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 2.25-acre landfill was active between 1956 and 1958. The pit and trench methods were used. The site is now used as a parking lot. The site was paved and a perimeter drain was installed to reduce infiltration and leachate generation. Although leachate seeps have been identified at this site in the past, recent engineering inspections have not detected any. It is anticipated that the landfill will require annual maintenance and periodic re-grading and resurfacing. The LTM includes groundwater monitoring, drainage swale cleaning, and cap maintenance.

In 2012, as a result of the 2010 five-year review, West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron, manganese, and sodium. The exceedances of iron, manganese, and sodium, are not increasing in concentration and the elevated levels of iron could be attributed to naturally occurring conditions due to detections found in the upgradient well. In addition, elevated sodium concentrations are most likely attributable to the use of salt during the winter months. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-06
Site Name: STADIUM LOT E LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
Contaminants of Concern: Metals
Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199706
DES.....	199609.....	200004
CMI(C).....	199901.....	200107
LTM.....	200109.....	204509
RIP Date:	N/A	
RC Date:	200107	

SITE DESCRIPTION

Site WSTPT-06, part of the 10 landfill project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 4.5 acre landfill was used from about 1952 through 1954. The pit and trench methods were used. The landfill is closed, paved, and used for parking. In FY02 cap and drainage system improvements were constructed. Leachate seeps have been identified at this site in the past and a leachate collection system was installed in FY01. The site was re-graded and resurfaced in 2013. The leachate collection system was also cleaned and repaired.

Site WSTPT-06 has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. The LTM includes groundwater monitoring, cap and monitoring well maintenance, and drainage swale cleaning. In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron, magnesium, manganese, and sodium. The historic exceedances of iron, magnesium, manganese, and sodium are not increasing in concentration. In addition, the elevated iron, manganese, and sodium concentrations could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-07A
Site Name: STADIUM LOT F LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: MEDIUM
 Contaminants of Concern: Metals
 Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199407
RFI/CMS.....	199408.....	199608
DES.....	199609.....	200004
IRA.....	199510.....	199707
CMI(C).....	199901.....	200107
LTM.....	200109.....	204509
RIP Date:	N/A	
RC Date:	200107	

SITE DESCRIPTION

The Michie Stadium Lot F Landfill, part of the six-landfill investigation report, is located southwest of Michie Stadium; access is from Stony Lonesome Road. This 2.8-acre landfill was used primarily in 1965. The pit and trench methods were used. The landfill is closed, paved and used for parking. A storm water upgrade project and leachate collection was completed in FY01. In FY03 leachate seep investigations and repair of blanket drains (BD), BD-1 and BD-2, were completed. The site was partially resurfaced in 2013.

The Michie Stadium Lot F Landfill has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and annual groundwater sampling was required at this site.

As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical condition of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron, manganese, and sodium. The historic exceedances of iron, manganese, and sodium appear to be decreasing in concentration and could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-09

Site Name: SKI SLOPE LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Metals

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199407
RFI/CMS.....	199408.....	199608
DES.....	199709.....	199905
IRA.....	199604.....	199604
CMI(C).....	200009.....	200107
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 200107

SITE DESCRIPTION

The Ski Slope Landfill, WSTPT-09, part of the six-landfill project, is located adjacent to the ski lodge; access is from New York State Route 218. This 1.9-acre landfill was used from about 1965 through 1974. The pit and area methods were used for disposal of sanitary and construction wastes. The landfill is closed, paved, and used as a parking lot. Although leachate seeps have been identified at this site in the past, recent engineering inspections have not detected any.

In FY01, cap and drainage system improvements were constructed and completed. In FY05 a seepage collection pipe was installed to reduce seepage emanating to the surface. The site was resurfaced in 2013.

WSTPT-09 has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron, manganese, and sodium. The exceedances of iron, manganese, and sodium, are not increasing in concentration and could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-10
Site Name: POST SCHOOL LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199407
RFI/CMS.....	199408.....	199608
DES.....	199609.....	199708
IRA.....	199603.....	199604
CMI(C).....	199709.....	199905
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 199905

SITE DESCRIPTION

The Post School Landfill, which was part of the six-landfill investigation report, is located adjacent to the West Point Elementary School. Access is from the school parking lot or Barry Road. This 2.8-acre landfill was used from about 1964 through 1969. The pit and area methods were used. The landfill is closed and vegetated. The site is used as a playing field for the school and youth activities center. Although leachate seeps have been identified at this site in the past, recent engineering inspections have not detected any.

A cap and drainage improvement design was finalized in FY97 and implemented in FY98. The landfill surface was graded to promote runoff, drainage swales were installed, and the leachate collection system was upgraded.

The Post School Landfill has been included in USAG-WP's sampling and analysis plan for LTM, and maintenance is conducted at this site. LTM includes groundwater monitoring, drainage swale cleaning, and cap and monitoring well maintenance.

In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron and manganese. The exceedances of iron and manganese are not increasing in concentration and the elevated iron could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199407
RFI/CMS.....	199408.....	199807
DES.....	199709.....	199808
CMI(C).....	199902.....	200103
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 200103

SITE DESCRIPTION

The Motor Pool Landfill is part of the six-landfill investigation report. Originally the site of West Point's motor pool, the USMAPS was relocated to the site from Fort Monmouth in 2010. This 4.5-acre landfill was used from about 1964 through 1969. The pit and fill method was used for disposal of sanitary refuse. Originally capped with asphalt and used as a parking lot, a new synthetic cap with leachate and gas collection was installed in 2010 to allow construction of the USMAPS. There are now barracks and academic buildings along the boundary with athletic fields on the landfill. All costs associated with the new cap were funded by Environmental Restoration, Army (ER,A). The new cap meets final closure requirements in accordance with New York Codes Rules and Regulations (NYCRR) 360 regulations.

Leachate seeps have been identified at this site in the past. In FY01 a leachate collection system was installed to remedy a seep downgradient of the landfill. Engineering inspections identified that the seep in the vicinity of monitoring well LS-02 increased and in FY03 additional investigation into the source of the seep was performed. The results of the investigation confirmed that the existing leachate collection system was inadequate and in FY06 the leachate collection system was upgraded.

In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. Since a new cap was installed in 2010 the NYSDEC required compliance with standard quarterly municipal landfill monitoring requirements for the first five years after the cap is installed; however, since USAG-WP has a history of groundwater monitoring results for this landfill the NYSDEC agreed to only require groundwater monitoring once per year. The four groundwater wells at the site must be analyzed for baseline parameters. One leachate sample must be collected from the leachate collection system at the toe of the landfill slope and analyzed for expanded parameters. This is an increase over the previous requirement to sample one well every five years at this site.

The remedy is functioning as intended to reduce infiltration and leachate generation. Physical conditions or land use at the site that would result in the development of new exposure pathways to human or ecological receptors include the removal of the asphalt parking lot and construction of athletic fields for the college preparatory school being built. Metal ARARs have been met, with the exception of iron, magnesium, manganese, and sodium. The exceedances of iron, magnesium, manganese, and sodium are not increasing in concentration. In addition, the elevated iron and sodium concentrations could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Annual groundwater monitoring is conducted at this landfill for routine, baseline, and expanded parameters at six NYCRR 360-2.11.

Site ID: WSTPT-11
Site Name: MOTORPOOL LANDFILL

Perform annual inspections and site maintenance.

Site ID: WSTPT-15B
Site Name: HIGH SCHOOL LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199408.....	199509
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 199603

SITE DESCRIPTION

The High School Landfill, which was part of the 10 landfill investigation report, is located on land deeded to the Highland Falls School District (approximately five miles from the main post). Access is from Morgan Farm Road and Route 9W. The landfill consists of two separate fill areas: the playing field, west of the school building, and the track, southeast of the school building.

Although the landfill is located on land deeded to the Highland Falls School District, West Point, as the primary responsible party for disposal of waste at the landfill, is required to maintain the site in the IRP LTM program. In FY04, due to settling, half the landfill was brought back up to grade. Negotiations with the state resulted in an agreement to terminate groundwater monitoring at this site in FY07. Inspections are conducted annually.

The remedy is functioning as intended. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have all been met, and the High School Landfill has subsequently been removed from the groundwater sampling program with the approval of the NYSDEC. There have been no changes in the toxicity factors for the COC since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections and site maintenance.

Site ID: WSTPT-16
Site Name: ORGANIC COMPOST LOT

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Metals, Nitrate/Nitrite

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199107.....	199609
IRA.....	199103.....	199103
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 199609

SITE DESCRIPTION

The Organic Compost Landfill was part of the six-landfill investigation report and is located northwest of Building 743; access is from Garrard Road. This half-acre landfill was used in the 1960s to dispose of construction debris. More recently, the site was used for composting organic material including leaves, mulch, tree limbs and grass cuttings. The landfill is closed and is currently used as a lumber storage yard. The landfill cover was initially tar and chip, but was resurfaced with asphalt in FY05. Although leachate seeps have been identified at this site in the past, recent engineering inspections have not detected any. Erosion damage on the top and slope of the landfill was repaired in 2013.

Groundwater monitoring was originally required annually. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of chromium (III), iron and sodium. The exceedances of chromium (III), iron and sodium are not increasing in concentration. In addition, the elevated iron and sodium could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-35A
Site Name: CAMP BUCKNER LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Metals

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199011.....	199104
CS.....	199208.....	199506
RFI/CMS.....	199604.....	199912
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 199912

SITE DESCRIPTION

The Camp Buckner Landfill was part of the 10 landfill investigation report and is located in the reservation area of the installation, at Camp Buckner. Access is from Patton Road, the main road into Camp Buckner, which intersects with Route 293. This 1.3-acre landfill was used in the 1970s and was composed of construction and demolition debris. There are two small ponds north of the landfill; one is adjacent to the landfill and the other is approximately 150 feet away. The landfill is closed and covered with packed gravel and stone. The site is now used as a parking lot. In FY04, due to settling, the landfill was brought back up to grade.

The Camp Buckner Landfill has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however sampling, would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Metal ARARs have been met, with the exception of iron and manganese. The exceedances of iron and manganese are not increasing in concentration and could be attributed to naturally occurring conditions due to detections found in the upgradient well. There have been no changes in the toxicity factors for the COCs and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site ID: WSTPT-48

Site Name: BLDG.706 PARKING LOT LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Groundwater, Surface Water

Phases	Start	End
RFA.....	199409.....	199609
LTM.....	200109.....	204509

RIP Date: N/A

RC Date: 199609

SITE DESCRIPTION

The Building 706 Parking Lot Landfill, which was part of the four-landfill investigation report, is located next to Building 706 (maintenance facility); access is from Stony Lonesome Road. The period of use is unknown, but based on surrounding sites (Michie Stadium Lots A-C) it is probably between 1952 and 1956. The one-acre landfill is now closed, paved and used as a parking lot. In FY01 the landfill was resurfaced. The Building 706 Parking Lot Landfill has been included in USAG-WP's sampling and analysis plan for LTM and maintenance, and groundwater sampling is conducted at this site. In FY06 slope and embankment stabilization was accomplished. In FY07, USAG-WP proposed, and the state agreed to, a sampling frequency reduced to every five years. As a result of the 2010 five-year review, in 2012 West Point proposed reducing sampling of all West Point IRP landfills to every five years. The NYSDEC agreed; however, sampling would be conducted at the halfway point (2.5 years) if the five-year sample showed a regulatory exceedance of non-nutrient TAL metals. Inspections are required annually.

The remedy is functioning as intended to reduce infiltration and leachate generation. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. Based on data collected during the last five-year review, sodium, chromium, and iron are the only analytes that exceed screening levels. The elevated iron could be attributed to naturally occurring conditions due to detections found in the upgradient well and elevated sodium concentrations are most likely attributable to the use of salt during the winter months. Chromium has been detected three times since monitoring began. Chromium levels will be monitored to determine what trends, if any, are surfacing as the sampling program continues. There have been no changes in the toxicity factors for the COC and chemicals with exceedances since 2004, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

CLEANUP/EXIT STRATEGY

Perform annual inspections, groundwater monitoring every five years, and site maintenance.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
PBA@USMA	PBA at USMA	201303	PBA fully funded
WSTPT-07B	STADIUM LOT G LANDFILL	198412	Landfill (LF) contains clean construction fill from a nearby highway construction project per geotechnical exploration. Reference Report of Geotechnical Exploration -Indoor Tennis Facility. Leo A. Daly 1/27/98.
WSTPT-07C	STADIUM LOT H LANDFILL	199011	LF contains clean construction fill. No cleanup required. Fill material consists of 1)construction spoil material from construction of Stony Lonesome Road interchange at Route 9W (1970); 2) construction spoil from hospital (1974-75); & 3) engineered earth fill from construction of athletic fields (1980) reference Environmental Assessment Stony Lonesome Community Center, Sverdrup, 1/22/96.
WSTPT-08	PROFESSOR'S ROW LANDFILL	199506	Landfill was found to contain only clean fill. RCRA Facility Assessment of 10 Landfills, Woodward Clyde, June 1995.
WSTPT-11A	MOTORPOOL EAST LANDFILL	201109	Letter received from NYSDEC May 18, 2010 concurring that site is not a solid waste area based on borings and test pit that found only clean fill.
WSTPT-12	SOUTH FILL	198412	No contamination found during confirmatory sampling (CS).
WSTPT-12A	WASHINGTON GATE LANDFILL	199610	No contamination found during RCRA Facility Assessment. Final Expanded RCRA Facility Assessment of Four Landfills, EA Engineering, Science, and Technology, September 1996.
WSTPT-13	VILLAGE FARM LANDFILL	199809	Contaminated soil removal completed in 1998. Final Report Addendum, USMA Village Farm Landfill Remediation, West Point, NY. IT Corporation, January 1999.
WSTPT-14	CRAGSTON LANDFILL	199104	Not eligible for ER,A funding. This site was closed using Installation Operation and Maintenance Account Environmental funding.
WSTPT-15A	MORGAN FARM LANDFILL	199605	Site consolidated into WSTPT-14.
WSTPT-23A	HOSPITAL PARKING LOT LANDFILL	198412	LF contains clean construction fill. No cleanup required.
WSTPT-44	SKEET AND TRAP RANGE	199801	Final Decision Document Camp Buckner Skeet and Trap Range, EA Engineering, Science, and Technology, July 1997.
WSTPT-45	CROW'S NEST AREA	199404	Drums, tanks and bulk containers removed in 1994.
WSTPT-47	ASP LANDFILL	199703	No contamination found during CS.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
WSTPT-49	USTS AT BUILDING 505	199412	Based on Tank Closure Report for USTs Across from Building 505, USAMA 1994; UST removal completed in 1994.
WSTPT-50	BLDG. 632 NAPTHA TANKS	199409	UST removal completed in 1994.

IRP Schedule

Date of IRP Inception: 198404

Past Phase Completion Milestones

1985

CS (WSTPT-12 - SOUTH FILL, WSTPT-23A - HOSPITAL PARKING LOT LANDFILL, WSTPT-45 - CROW'S NEST AREA)
RFA (WSTPT-07B - STADIUM LOT G LANDFILL, WSTPT-07C - STADIUM LOT H LANDFILL, WSTPT-12 - SOUTH FILL, WSTPT-23A - HOSPITAL PARKING LOT LANDFILL, WSTPT-44 - SKEET AND TRAP RANGE, WSTPT-45 - CROW'S NEST AREA)

1991

IRA (WSTPT-16 - ORGANIC COMPOST LOT)
CS (WSTPT-07C - STADIUM LOT H LANDFILL)
RFA (WSTPT-01 - PXLANDFILL, WSTPT-02 - STADIUM LOT A LANDFILL, WSTPT-03 - STADIUM LOT B LANDFILL, WSTPT-04 - STADIUM LOT C LANDFILL, WSTPT-05 - STADIUM LOT D LANDFILL, WSTPT-06 - STADIUM LOT E LANDFILL, WSTPT-07A - STADIUM LOT F LANDFILL, WSTPT-08 - PROFESSOR'S ROW LANDFILL, WSTPT-09 - SKI SLOPE LANDFILL, WSTPT-10 - POST SCHOOL LANDFILL, WSTPT-11 - MOTORPOOL LANDFILL, WSTPT-13 - VILLAGE FARM LANDFILL, WSTPT-14 - CRAGSTON LANDFILL, WSTPT-15A - MORGAN FARM LANDFILL, WSTPT-15B - HIGH SCHOOL LANDFILL, WSTPT-16 - ORGANIC COMPOST LOT, WSTPT-35A - CAMP BUCKNER LANDFILL, WSTPT-47 - ASP LANDFILL)
PA (PBA@USMA - PBA at USMA)

1993

CS (WSTPT-44 - SKEET AND TRAP RANGE)
ISC (WSTPT-50 - BLDG. 632 NAPHTHA TANKS)

1994

IMP(C) (WSTPT-49 - USTS AT BUILDING 505, WSTPT-50 - BLDG. 632 NAPHTHA TANKS)
RFI/CMS (WSTPT-45 - CROW'S NEST AREA)
IRA (WSTPT-45 - CROW'S NEST AREA)
ISC (WSTPT-49 - USTS AT BUILDING 505)
CS (WSTPT-05 - STADIUM LOT D LANDFILL, WSTPT-07A - STADIUM LOT F LANDFILL, WSTPT-09 - SKI SLOPE LANDFILL, WSTPT-10 - POST SCHOOL LANDFILL, WSTPT-11 - MOTORPOOL LANDFILL)

1995

RFI/CMS (WSTPT-15A - MORGAN FARM LANDFILL)
DES (WSTPT-15A - MORGAN FARM LANDFILL)
CS (WSTPT-01 - PXLANDFILL, WSTPT-02 - STADIUM LOT A LANDFILL, WSTPT-03 - STADIUM LOT B LANDFILL, WSTPT-04 - STADIUM LOT C LANDFILL, WSTPT-06 - STADIUM LOT E LANDFILL, WSTPT-08 - PROFESSOR'S ROW LANDFILL, WSTPT-13 - VILLAGE FARM LANDFILL, WSTPT-15B - HIGH SCHOOL LANDFILL, WSTPT-35A - CAMP BUCKNER LANDFILL)

1996

IRA (WSTPT-09 - SKI SLOPE LANDFILL, WSTPT-10 - POST SCHOOL LANDFILL)
RFA (WSTPT-11A - MOTORPOOL EAST LANDFILL, WSTPT-12A - WASHINGTON GATE LANDFILL, WSTPT-48 - BLDG.706 PARKING LOT LANDFILL)
CS (WSTPT-16 - ORGANIC COMPOST LOT, WSTPT-47 - ASP LANDFILL)
CMI(C) (WSTPT-15A - MORGAN FARM LANDFILL)
RFI/CMS (WSTPT-05 - STADIUM LOT D LANDFILL, WSTPT-07A - STADIUM LOT F LANDFILL, WSTPT-09 - SKI SLOPE LANDFILL, WSTPT-10 - POST SCHOOL LANDFILL, WSTPT-44 - SKEET AND TRAP RANGE)

1997

RFI/CMS (WSTPT-02 - STADIUM LOT A LANDFILL, WSTPT-03 - STADIUM LOT B LANDFILL, WSTPT-04 - STADIUM LOT C LANDFILL, WSTPT-06 - STADIUM LOT E LANDFILL, WSTPT-13 - VILLAGE FARM LANDFILL)
DES (WSTPT-10 - POST SCHOOL LANDFILL, WSTPT-44 - SKEET AND TRAP RANGE)
IRA (WSTPT-07A - STADIUM LOT F LANDFILL)

1998

RFI/CMS (WSTPT-11 - MOTORPOOL LANDFILL)

CMI(C)	(WSTPT-13 - VILLAGE FARM LANDFILL, WSTPT-44 - SKEET AND TRAP RANGE)
DES	(WSTPT-11 - MOTORPOOL LANDFILL, WSTPT-13 - VILLAGE FARM LANDFILL)
1999	
RFI/CMS	(WSTPT-11A - MOTORPOOL EAST LANDFILL)
CMI(C)	(WSTPT-10 - POST SCHOOL LANDFILL)
DES	(WSTPT-09 - SKI SLOPE LANDFILL)
2000	
RFI/CMS	(WSTPT-01 - PXLANDFILL, WSTPT-35A - CAMP BUCKNER LANDFILL)
DES	(WSTPT-04 - STADIUM LOT C LANDFILL, WSTPT-06 - STADIUM LOT E LANDFILL, WSTPT-07A - STADIUM LOT F LANDFILL)
2001	
CMI(C)	(WSTPT-04 - STADIUM LOT C LANDFILL, WSTPT-06 - STADIUM LOT E LANDFILL, WSTPT-07A - STADIUM LOT F LANDFILL, WSTPT-09 - SKI SLOPE LANDFILL, WSTPT-11 - MOTORPOOL LANDFILL, WSTPT-11A - MOTORPOOL EAST LANDFILL)
DES	(WSTPT-02 - STADIUM LOT A LANDFILL, WSTPT-03 - STADIUM LOT B LANDFILL, WSTPT-11A - MOTORPOOL EAST LANDFILL)
2002	
CMI(C)	(WSTPT-02 - STADIUM LOT A LANDFILL, WSTPT-03 - STADIUM LOT B LANDFILL)
2011	
LTM	(WSTPT-11A - MOTORPOOL EAST LANDFILL)
2013	
LTM	(PBA@USMA - PBA at USMA)

Projected Phase Completion Milestones

See attached schedule

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

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 200207

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of IRP at Installation (including LTM phase): 204509

WEST POINT MIL RESERVATION IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-01	PXLANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-02	STADIUM LOT A LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-03	STADIUM LOT B LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-04	STADIUM LOT C LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-05	STADIUM LOT D LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-06	STADIUM LOT E LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-07A	STADIUM LOT F LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-09	SKI SLOPE LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-10	POST SCHOOL LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-11	MOTORPOOL LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-15B	HIGH SCHOOL LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-16	ORGANIC COMPOST LOT	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-35A	CAMP BUCKNER LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-48	BLDG.706 PARKING LOT LANDFILL	LTM						

WEST POINT MIL RESERVATION
Army Defense Environmental Restoration Program
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 22/8

Installation Site Types with Future and/or Underway Phases

14 Unexploded Munitions/Ordnance
(WSTPT-001-R-01, WSTPT-004-R-01, WSTPT-004-R-02, WSTPT-008-R-01, WSTPT-010-R-01, WSTPT-011-R-01, WSTPT-013-R-01, WSTPT-015-R-01, WSTPT-016-R-01, WSTPT-017-R-01, WSTPT-019-R-01, WSTPT-020-R-01, WSTPT-022-R-01, WSTPT-023-R-01)

Most Widespread Contaminants of Concern

Munitions and explosives of concern (MEC), Munitions constituents (MC)

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
PBA@MR USMA	PBA for MMRP at USMA	IRA	INSTITUTIONAL CONTROLS	2012
WSTPT- 022-R-01	MICHIE STADIUM	FRA	INSTITUTIONAL CONTROLS	2014

Duration of MMRP

Date of MMRP Inception 200212

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 202010/202010

Date of MMRP completion including Long Term Management (LTM): 205009

MMRP Contamination Assessment

Contamination Assessment Overview

In 2003 the Closed, Transferred or Transferring (CTT) Range Inventory was completed at West Point. The CTT inventory identified 10 closed ranges and two transferred ranges associated with former artillery and small arms ranges. The ranges were used from the Revolutionary War up until the start of World War II (WWII). Most sites were confined to the installation cantonment, but two sites included portions of the Hudson River and property to the east of the Hudson River that was never owned by the government. A historical records review (HRR) was completed in 2006. The HRR identified an additional five munitions response sites.

A site inspection (SI) was completed in 2007 of the 17 sites identified in the CTT and HRR. The SI recommended three sites to be renamed as munitions response areas with two separate sites (Battery Knox TD, Fort Clinton, and Siege Battery TD). The SI also recommended seven sites for NFA (Battery Knox, Buffalo Soldier Field, Fort Clinton East, Post Outdoor Pistol Range, Siege Battery TD-Land, Range No. 1, and Rifle Range). The SI identified 13 sites requiring further study (Artillery Firing Range, Battery Knox TD River, Battery Knox TD Land, Ft Clinton West, Grey Ghost Housing, North Athletic Field, Seacoast Battery, Siege Battery, Siege Battery TD River, Target Hill, Lusk Reservoir, Redoubt #2, and Michie Stadium).

In 2010 a contract was awarded to conduct an RI of 11 sites with a period of performance of 2015. The two sites in the Hudson River (Battery Knox TD River, Siege Battery TD River) were not included in this contract due to concerns with the limited technology and experience contractors had working in deep water sites.

In 2013 the West Point Range Control determined to close the former Crow's Nest Impact Area and training areas G1, G2, and J1 that surround the impact area. Crow's Nest was West Point's original impact area and the target for most of the ranges included in the MMRP. Once closed, these sites were included in the MMRP and identified as the Crow's Nest Impact Area munitions response site (MRS).

Cleanup Exit Strategy

See individual sites for the cleanup exit strategies.

MMRP Previous Studies

	Title	Author	Date
2003	Phase 3 Army Closed, Transferring & Transferred Ranges/Sites Inventory for West Point Military Reservation	Malcolm Pirnie, Inc.	AUG-2003
2006	Final Historical Records Review Report United States Military Academy West Point, New York	TLI Solutions	MAR-2006
	Work Plan for the Historical Records Review, United States Military Academy West Point, New York	TLI Solutions	APR-2006
2007	Final Site Inspection Report United States Military Academy West Point, New York	TLI Solutions	JAN-2007
2012	Final Remedial Investigation Report Michie Stadium	Weston Solutions	MAR-2012
2013	Final Feasibility Study Michie Stadium	Weston Solutions	FEB-2013
2014	Final Remedial Investigation Target Hill	Weston Solutions	JUN-2014
	Final Remedial Investigation North Athletic Field	Weston Solutions	JUN-2014
	Final Remedial Investigation Battery Knox TD-Land	Weston Solutions	JUN-2014
	Final Remedial Investigation Seacoast Battery	Weston Solutions	JUN-2014
	Remedial Investigation Report Redoubt No. 2	Weston Solutions	OCT-2014
	Remedial Investigation Report Grey Ghost	Weston Solutions	OCT-2014

WEST POINT MIL RESERVATION
Military Munitions Response Program
Site Descriptions

Site ID: WSTPT-001-R-01
Site Name: ARTILLERY FIRING RANGE

STATUS

Regulatory Driver: CERCLA
MRSPP Score: 05
 Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)
 Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	201004.....	201705
IRA.....	201205.....	201705
LTM.....	201706.....	204705
RIP Date:	N/A	
RC Date:	201705	

SITE DESCRIPTION

The Artillery Firing Range consists of 172.4 acres and is comprised of three overlapping former artillery ranges: Sacred Heart Cemetery Range, the Silver Depository Range, and the Adolphs Pond Range. The MRS includes three parcels of land located to the south and west of the main campus. The two northern parcels of the MRS are adjacent to each other and the third is a noncontiguous parcel located to the south. The northeastern portions of the historic artillery ranges extend beyond the installation boundary into the Crow's Nest Impact Area MRS. In addition, a portion of the eastern edges of the Sacred Heart Cemetery Range and the Adolphs Pond Range are located within the Fort Clinton and Siege Battery MRS and their northeastern corners extend over the Hudson River and make up a portion of the Siege Battery-Transferred (TD) MRS. Portions of the firing fans associated with the Lusk Reservoir and Redoubt No. 2 MRS are also contained within the Artillery Firing Range MRS. Recovered items from an intrusive investigation of this area conducted during an engineering evaluation/cost analysis (EE/CA) in July 2002 included unexploded ordnance (UXO), OE scrap, and non-OE scrap. Items found included 75 millimeter (mm) projectiles, six-inch (in) MK 34 projectiles, 16-in cannon balls, inert powder train time fuse 1907-M fuses, 75mm high explosives (HE), and ejection rounds and fuses.

In support of a BRAC action to relocate the USMAPS from Fort Monmouth to USAG-WP, a removal action was executed on four acres of this site. The motor pool was demolished and replaced with barracks and academic and athletic facilities. Construction support was provided during the intrusive ground work phase of this project.

During the removal action, no MEC items were discovered and no samples were collected to test for MC. A total of four practice grenades and approximately 90 M1909 cartridge cases, one each expended ground signal, a parachute, one-third of a 37mm, LE practice projectile, and a nose piece (fragment) from a projectile were located.

During construction of the new USMAPS, a three-in Stokes mortar and eight-in projectile circa 1851 were discovered and disposed of by explosive ordnance disposal (EOD).

An SI was completed in 2007 recommending further investigation for MEC due to extensive munitions debris (MD) and a subsurface anomaly density of 240 per acre. Further evaluation of munitions constituents (MC) was not recommended. An RI was completed in 2015.

It is assumed that the FS will recommend LTM for this site and the other nine original land-based MRS. For ease of tracking, LTM for these sites is tracked on this site (WSTPT-004-R-02, WSTPT-008-R-01, WSTPT-010-R-01, WSTPT-011-R-01, WSTPT-013-R-01, WSTPT-015-R-01, WSTPT-017-R-01, WSTPT-019-R-01, WSTPT-020-R-01). Since the RI/FS for Michie was completed before the other sites, LTM for that site will be tracked separately. Costs for the river sites and Crow's Nest will also be tracked separately.

CLEANUP/EXIT STRATEGY

Site ID: WSTPT-001-R-01
Site Name: ARTILLERY FIRING RANGE

An RI is underway and an FS will be completed.

Site ID: WSTPT-004-R-01

Site Name: BATTERY KNOX-TD-RIVER MRS

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 05

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Sediment, Surface Water

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	201610.....	202009
LTM.....	202010.....	205009

RIP Date: N/A

RC Date: 202009

SITE DESCRIPTION

The Battery Knox-TD-River MRS encompasses 73 acres on the Hudson River. Battery Knox contained six gun positions and ammunition magazines. The battery was established sometime between 1836 and 1850. In 1874 the battery was redesigned, with modifications made to the armament and the orientation of the guns to improve their defensibility and their ability to cover the river with firepower. By 1892, Battery Knox was armed with one 100-pounder Parrott 6.4-in caliber rifle, one 300-pounder Parrott 10-in caliber rifle, one eight-in converted rifle, and four 10-in Rodman rifles. Firing from the battery was conducted to the east towards targets that were placed in the Hudson River. The battery was demolished during the WWII era.

An SI was completed in 2007 and recommended the site for further investigation because no previous investigations into the presence of MEC or MC within the Hudson River have been conducted.

It is assumed that the FS will recommend LTM for this site and the other water-based MRS (WSTPR-016-R-01). For ease of tracking, LTM for these two sites is tracked on this site.

CLEANUP/EXIT STRATEGY

The RI/FS phase is planned.

Site ID: WSTPT-004-R-02

Site Name: BATTERY KNOX-TD-LAND MRS

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	201004.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Battery Knox-TD-Land MRS encompasses 141 acres located across the Hudson River on the eastern bank in Putnam County. Battery Knox contained six gun positions and ammunition magazines. The battery was established sometime between 1836 and 1850 and in 1874 it was redesigned with modifications to the armament and the orientation of the guns to improve their defensibility and their ability to cover the river with firepower. By 1892, Battery Knox was armed with one 100-pounder Parrott 6.4-in caliber rifle, one 300-pounder Parrott 10-in caliber rifle, one eight-in converted rifle, and four 10-in Rodman rifles. Firing from the battery was conducted to the east towards targets that were placed in the Hudson River; however, projectiles that overshot the targets may have impacted the eastern bank of the Hudson River, which encompasses the land portion of the Battery Knox-TD MRS. The battery was demolished during the WWII era. The eastern bank of the Hudson River includes bluffs and low-lying wetlands.

During the SI, no evidence of military activities, including MEC, was identified in the Battery Knox-TD-Land MRS and no MC was identified in the samples at levels above the screening criteria; however, trace amounts of explosives were identified in the samples. Because an explanation for the presence of these trace explosives could not be determined, the stakeholders requested further investigation of the site, including additional soil sampling and geophysical investigation. An RI was completed in 2014. The RI found no evidence of MEC or MC and recommended the site for no further action. Future actions may include the preparation of a NFA proposed plan for public review followed by the issuance of a DD.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

The RI/FS phase for this site is currently underway.

Site ID: WSTPT-008-R-01
Site Name: FORT CLINTON-WEST

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 03

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Fort Clinton-West site is comprised of 14.4 acres and extends from the western side of the USAG-WP cemetery, through the Lee Housing Area, to Highway 218 and the Crow's Nest Impact Area MRS. Construction of Fort Clinton began on March 12, 1778, on the eastern portion of USAG-WP. The fort was designed to provide fortification for the chain that was placed across the Hudson River. Practice firings were routinely conducted from the fort, which was equipped with brass four-pounder, brass mortars, iron 12-pounder, iron 18-pounder, and 75mm guns. Through the 1830s the fort was used for artillery training, with firing conducted to the northwest across the Hudson River. From the mid-1800s until 1927, the fort was used for the practice firing of 75mm guns towards Crow's Nest. As of 1927, the site has been a monument and a national historic site.

The firing point of Fort Clinton was located on the top of the bluff to the southwest of Gees Point within the Fort Clinton-East MRS. The direction of fire was to the northwest towards the Crow's Nest Area. There are no known impact or target areas within the Fort Clinton MRS. The western portion of the Fort Clinton site includes a part of the Lee Housing Area as well as undeveloped, heavily-wooded terrain. The remainder of the historic range fan is included with Siege Battery, Target Hill and the North Athletic Field. A previous geophysical survey conducted in April 2001 encompassed a portion of the Fort Clinton-West, as well as portions of the Artillery Firing Range and Siege Battery MRS. Approximately 1,539 subsurface anomalies were identified during this survey. Although the study did not specify how many of these anomalies were located within the Fort Clinton-West MRS, anomalies are assumed to be present within the site.

An SI was completed in 2007 recommending further investigation for MEC due to extensive MD and subsurface anomalies. Additional evaluation of MC was not recommended. An RI was completed in 2015. An FS will be awarded in 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

The RI/FS phase for this site is currently underway.

Site ID: WSTPT-010-R-01
Site Name: GREY GHOST HOUSING AREA

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 05

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Grey Ghost Housing Area MRS of approximately 24 acres is located in the central campus, west of the batteries and athletic fields. The area is comprised of a range complex that includes a 1,000-in machine gun range and a rifle and pistol range. The firing points for the ranges were located at the northern end of the MRS and the direction of fire was towards the southwest. The targets for the ranges were located within the MRS near the base of a steep, heavily-wooded hill. Operations conducted at the machine gun range occurred from about 1920 to 1940. During this time, the area was used by cadets for small arms training with a variety of weapon types, including .22 and .30 caliber machine guns. In addition, a rifle range was located in the area as early as 1939. After 1950, the area was developed as a housing complex.

An SI was completed in 2007 recommending further investigation for MEC. Although no MEC was identified, MD from a Stoke's mortar was identified during the visual survey. Additional evaluation of MC was not recommended. An RI was completed in 2014. An FS will be awarded in 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

The RI/FS phase for this site is currently underway.

Site ID: WSTPT-011-R-01
Site Name: NORTH ATHLETIC FIELD

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 04

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The North Athletic Field MRS is comprised of 14 acres located just to the southwest of the western shore of the Hudson River, within the central campus area of USAG-WP. Maps from 1903 to 1935 delineate the location of target butts assumed to be associated with a rifle range in this area. The 1935 map delineates the target butts located within the area of the North Athletic Field MRS, as well as a 1,000-yard butt located north of the area along the shore of the Hudson River. The location of the firing points for the rifle range is unknown, but probably was in the North Dock area with the direction of firing to the northwest along the shoreline of the Hudson River.

In 1937 the Army started the expansion of the North Athletic Field by removing Target Hill so that the dirt could be used to fill out toward the river and create necessary fields. The removal of dirt from Target Hill began in 1944 and was completed in 1945. Approximately 60,000 square yards of level ground were added to the area comprising the North Athletic Field. Because the North Athletic Field was constructed with fill dirt from Target Hill, the area may contain ordnance that was fired into the hill from the early-1800s until the late-1930s. Target Hill served as the impact area for artillery test-fired from the Cold Spring Foundry and heavy guns located in batteries on the north side of USAG-WP. Munitions associated with training at Target Hill include large caliber HE and practice rounds. In addition, there may be ammunition in the area from the former rifle range at the North Athletic Field. The North Athletic Field MRS currently encompasses several athletic fields including the softball field complex, a track, and a football field. The northern edge of the site is bounded by railroad tracks, a road, and the Hudson River.

An SI was completed in 2007 recommending further investigation for MEC due to a subsurface anomaly density of 262 per acre and the uncovering of a munition during a previous construction project. Further evaluation of MC was not recommended. An RI completed in 2014 recommended the site for an FS. An FS is planned for 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An RI is underway and anticipated to be complete in 2016.

Site ID: WSTPT-013-R-01
Site Name: SEACOAST BATTERY

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 05

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Seacoast Battery MRS is comprised of two acres of land within the boundaries of USAG-WP on Constitution Island. The location of the Seacoast Battery in the North Dock area and the majority of the range fan are incorporated into the Siege Battery and Siege Battery-TD MRS. Activities that took place on the installation that are associated with the Seacoast Battery MRS included live firing conducted from the Seacoast Battery toward the bluffs on Constitution Island. Munitions used at the Seacoast Battery included large caliber HE and practice rounds, and mortar rounds. The battery also included two brick buildings that contained instruments for measuring the velocity of projectiles and the recoil of guns. The shots were fired from the battery through parallel line wires at the west end of the battery. West of the battery, a small stone structure set into the hillside was used as a bursting chamber in which explosives were tested. The Seacoast Battery was established sometime between 1836 and 1850 and demolished sometime during WWII. The Seacoast Battery MRS is the land area on Constitution Island where the impact of projectiles may have occurred.

An SI completed in 2007 recommended the site for further investigation for MEC due to the identification of MD nearby. Additional evaluation of MC was not recommended. An RI completed in 2014 recommended the site for an FS. An FS is planned for 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An FS is underway and anticipated to be completed in 2016.

Site ID: WSTPT-015-R-01
Site Name: SIEGE BATTERY

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 03

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Siege Battery MRS is comprised of 179.3 acres and includes two noncontiguous areas. The western portion of the site includes land located on the slope of the hill below the Battle Monument, at what is now called Trophy Point, and extends to the northwest. The eastern portion of the site is located on Constitution Island. A portion of the Siege Battery firing fan overlaps the firing fans of the Seacoast Battery, the Rifle Range, the Artillery Firing Range, and Fort Clinton, as well as the location of the firing point of the Seacoast Battery. Activities that took place on the installation that are associated with the Siege Battery included live firing conducted from the Siege Battery and ammunition storage. Target butts for a 1,000-yard rifle range were also located within the Siege Battery MRS.

During the latter part of the 19th century, the Siege Battery was renamed Battery Schofield and was used for training with Parrott rifles. Various munitions were used at the Siege Battery including a 4.5-in rifled gun, 30-pounder Parrott guns, 10-in smooth bore siege mortars, eight-in smooth bore siege mortars, five-in steel breech-loading guns, seven-in steel breech-loading howitzers, seven-in steel breech-loading mortars, and 3.2-in guns. The targets for the guns used at the Siege Battery were on Crow's Nest, approximately 2,000 yards distant. Full charges were not used in any of the guns. The targets for the mortars were anchored in the Hudson River.

The Siege Battery was constructed sometime between 1836 and 1860. The Siege Battery was not used after 1906 and 1910, when Battery Schofield came into service. A map from 1939 indicates the Siege Battery and Battery Schofield had been replaced by an amphitheatre. No traces of the Siege Battery survive, but the locations of the two, six-inch disappearing carriage guns are prominent east of Trophy Point. The Siege Battery and its associated firing fan cover 179 acres within the installation's boundaries. There have not been any documented UXO findings or UXO responses in this area.

An SI was completed in 2007 recommending further investigation for MEC due to a subsurface anomaly density of 361 per acre. Additional evaluation of MC was recommended due to an exceedance of iron believed to be related to the presence of MD. An RI is underway and expected to be complete in 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An RI is underway and anticipated to be complete in 2016.

Site ID: WSTPT-016-R-01
Site Name: SIEGE BATTERY-TD-RIVER

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 04

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Sediment, Surface Water

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	201409.....	201906

RIP Date: N/A

RC Date: 201906

SITE DESCRIPTION

The Siege Battery-TD-River encompasses 848 acres within the Hudson River. Activities that took place on the installation that are associated with the Siege Battery include live firing conducted from the Siege Battery and ammunition storage. There are no known impact areas within the Siege Battery MRS; however, projectiles that overshot the targets located in the Hudson River may have impacted the Constitution Island portion of the MRS. In addition, target butts for a 1,000-yard rifle range were also located within the Siege Battery MRS. Projectiles that overshot the targets located in the river may have impacted the shore of the Hudson River to the north of the village of Cold Spring.

During the latter part of the 19th century, the Siege Battery was renamed Battery Schofield and was used for training with Parrott rifles. Various munitions were used at the Siege Battery including a 4.5-in rifled gun, 30-pounder Parrott guns, 10-in smooth bore siege mortars, eight-in smooth bore siege mortars, five-in steel breech-loading guns, seven-in steel breech-loading howitzers, seven-in steel breech-loading mortars, and 3.2-in guns. The targets for the guns used at the Siege Battery were on Crow's Nest, approximately 2,000 yards distant. Full charges were not used in any of the guns. The targets for the mortars were anchored in the Hudson River. Use of the Siege Battery ended between 1906 and 1910, when Battery Schofield came into service. A map from 1939 indicates the Siege Battery and Battery Schofield had been replaced by an amphitheatre.

A site inspection was completed in 2007 recommending further investigation due to the fact that no previous investigations of MEC and MD have been conducted in the Hudson River.

For ease of tracking LTM costs for this site are included in site WSTPT-004-R-01.

CLEANUP/EXIT STRATEGY

The RI/FS phase is planned.

Site ID: WSTPT-017-R-01
Site Name: TARGET HILL

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 05

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

The Target Hill MRS is comprised of 14 acres of land located within the USAG-WP campus area north of the athletic fields, near the western bank of the Hudson River. It is bounded on the east by the West Shore Railroad and the Hudson River. This site is surrounded by the Siege Battery and overlaps both the range fans for the Siege Battery and Fort Clinton. Artillery firing toward Target Hill may have begun as early as the War of 1812 with rounds being fired into the hill from the Cold Spring Foundry located across the Hudson River. By 1890, the hill was used as target practice for batteries located along the north side of the installation.

Target Hill continued to be used by USAG-WP cadets for short-range artillery training as an impact area until the late-1930s. Munitions associated with training at Target Hill include large caliber HE and practice rounds. In 1903, 1,000-yard target butts were identified on Target Hill. The firing point associated with these butts was located on Target Flats in the area of the North Athletic Field. Between 1944 and 1945, dirt was removed from Target Hill to level approximately 60,000 square yards of the North Athletic Field. This resulted in the removal of the impact area known as Target Hill. Construction of a new rugby center was completed in 2006 on the northern portion of the Target Hill MRS. The southern portion of the site has been developed with soccer fields. The eastern edge of the site is bordered by a road, railroad tracks, and the Hudson River.

An SI completed in 2007 recommended the site for further evaluation for MEC due to a subsurface anomaly density of 238 per acre. Further evaluation of MC was not recommended. An RI was completed in 2014 recommending the site for an FS. An FS is planned for 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An RI is underway and anticipated to be complete in 2016.

Site ID: WSTPT-019-R-01
Site Name: LUSK RESERVOIR

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 04

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

Lusk Reservoir occupies approximately 83 acres in the central portion of the USAG-WP campus. The firing point is located on the east side of Lusk Reservoir. Between 1909 and 1916, firing was in the direction of Crow's Nest. There are no known impact areas within the Lusk Reservoir MRS. The firing in 1915 and 1916 was described as subcaliber and service target practice. Weapons used at Lusk Reservoir are probably similar to those identified for use at the Artillery Firing Range and might include 2.95-in Mountain Howitzers, 75mm gun M1897, 75mm gun M1907, six-in high capacity gun, 15-in mortars, and 16-in mortars. The majority of the land within the Lusk Reservoir MRS is undeveloped and includes steep, heavily-wooded terrain. The western end of the site has been developed and includes a portion of the Grey Ghost Housing Area and West Point Elementary School. An anomaly investigation and UXO removal was conducted in 2001 and at that time three ordnance or ordnance-related items were identified at the site within the northwest corner of this MRS.

An SI was completed in 2007 recommending further investigation for MEC due to the identification of MEC in the past. Further evaluation of MD was not recommended. An RI was completed in 2015. An FS will be awarded in 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An RI is underway and anticipated to be complete in 2016.

Site ID: WSTPT-020-R-01
Site Name: REDOUBT NO. 2

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201705

RIP Date: N/A

RC Date: 201705

SITE DESCRIPTION

Redoubt No. 2 occupies approximately 20 acres east of the intersection of Highways 218 and 9W and west of Dassori Pond. The firing point is located in the vicinity of historic Redoubt No. 2 and the fan extends to the north to encompass land not addressed by other closed ranges or operational range areas. The range was used from about 1909 to 1916. In 1915 and 1916, field artillery target practice with service ammunition was fired at targets on Crow's Nest from a position near Redoubt No. 2. The direction of fire was to the north. There are no known impact areas within the Redoubt No. 2 MRS. Weapons used at Redoubt No. 2 are assumed to be similar to those identified for use at the Artillery Firing Range and might include 2.95-in Mountain Howitzers, 75mm gun M1897, 75mm gun M1907, six-in high capacity gun, 15-in mortars, and 16-in mortars. The Redoubt No. 2 MRS is primarily undeveloped and encompasses steep, heavily-wooded terrain. Several roads cross the site and a few buildings are spaced intermittently throughout. The firing point of the range is located south of the Stony Lonesome Housing Area and adjacent to the historic Redoubt No. 2, which is a cultural site. As a result of the geophysical survey, numerous subsurface anomalies were identified at this MRS; however, no MEC or munitions debris was identified during the SI visual survey. Therefore, the recommendation was made that further investigation of the anomalies be conducted at this site to determine if they are related to military munitions.

An SI completed in 2007 recommended the site be further investigated for MEC due to a subsurface anomaly density of 322 per acre. Further evaluation of MC was not recommended. An RI was completed in 2014. An FS will be awarded in 2015.

LTM costs for this site are tracked on-site WSTPT-001-R-01.

CLEANUP/EXIT STRATEGY

An RI is underway and anticipated to be complete in 2016.

Site ID: WSTPT-022-R-01
Site Name: MICHIE STADIUM

STATUS

Regulatory Driver: CERCLA
MRSPP Score: 04
 Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)
 Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200212.....	200308
SI.....	200405.....	200701
RI/FS.....	200910.....	201405
RD.....	201405.....	201405
RA(C).....	201405.....	201405
LTM.....	201406.....	204507
RIP Date: N/A		
RC Date: 201405		

SITE DESCRIPTION

The Michie Stadium site occupies approximately 14.1 acres in and around Michie Stadium, which is located near the center of the Main Post and west of Lusk Reservoir. The area originally identified in the SI was limited to 9.5 acres. However, the RI completed in March 2012 expanded the area to 14.1 acres to include additional area around the stadium that appears to contain fill. The stadium was constructed in 1924. There are several athletic complexes in the area surrounding Michie Stadium, including the Holleder Center, Howze Field, the Kimsey Athletic Center, and Randall Hall. During two separate construction projects completed around the stadium in 2001 and 2003, 14 Stokes mortar rounds were identified and disposed of by an EOD unit or the Range Control Office at USAG-WP. During 2001 a seismic upgrade was completed at the west stands of Michie Stadium. This project included adding pilings to the west stands to make them more stable. During this project, five three-in MI1 Stokes mortar rounds were found in the area. In September 2003 Randall Hall was constructed between the west stands of Michie Stadium and the Kimsey Athletic Center. During this construction nine additional nine-in MK1 Stokes mortar rounds were found.

Although several Stokes mortar rounds have been identified in the area around Michie Stadium, when or how the items were brought to the site is unknown. Stokes mortars were used by the Army during World War I (WWI) until just before the beginning of WWII. The mortar rounds found near Michie Stadium do not appear to have been fired; therefore, they are assumed to be discarded military munitions. They might have been discarded following training activities that might have occurred in the area or they may have been brought to the site in the fill dirt that was used during the construction of the stadium and surrounding structures. The Michie Stadium MRS has been extensively developed with athletic facilities, parking lots, and roads. A small area along the northern edge of the site includes wooded, hilly terrain.

An SI completed in 2007 recommended the site be further investigated for MEC due to MEC uncovered during construction projects. Further evaluation of MC was not recommended. An RI was completed in 2012. An FS completed in 2013 recommended the site for risk management. A DD and land use control (LUC) plan have been completed.

CLEANUP/EXIT STRATEGY

A DD is at the NYSDEC for review.

Site ID: WSTPT-023-R-01
Site Name: CROWS NEST IMPACT AREA

STATUS

Regulatory Driver: CERCLA

MRSPP Score: Evaluation pending

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200212.....	200308
RI/FS.....	201308.....	201709
RD.....	201710.....	201809
RA(C).....	201810.....	202009
LTM.....	202010.....	205009

RIP Date: N/A

RC Date: 202010

SITE DESCRIPTION

The Crow's Nest Impact area MRS is 615.45 acres. The site consists of the Crow's Nest impact area (350.29 acres) and three adjacent training areas J1 (130.40 acres), G1 (101.50 acres), and G2 (33.26 acres). The site is bounded to the north by Storm King State Park, to the west by Black Rock Forest, and to the south by the West Point cantonment.

Until the 1930s Crow's Nest was the installations main impact area. Most of the ranges in the MMRP were aimed at Crow's Nest. The site may also have been used by the former West Point Foundry in Cold Spring. Just prior to WWII, West Point acquired additional land to the west of Route 9W. Once training shifted to these new areas, the ranges on the Main Post were closed and the Crow's Nest impact area was no longer used.

Former training areas J1, G1, and G2 were included in this MRS because evidence of munitions use has been found in areas adjacent to the marked dud zone. Munitions contamination discovered in Storm King State Park in 1999 resulted in a cleanup project by USACE through the Formerly Used Defense Site (FUDS) program. A study completed under West Point's Environmental Restoration Program identified evidence of munitions use west of Crow's Nest in training area G1. An MMRP remedial investigation has identified munitions contamination on the Main Post adjacent and south of Crow's Nest. The installation of a new natural gas pipeline identified munitions contamination in area J1.

An SI and RI/FS are underway.

CLEANUP/EXIT STRATEGY

An RI/FS is underway and anticipated to be complete in 2016.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
PBA@MR USMA	PBA for MMRP at USMA	201303	PBA fully funded
WSTPT-003- R-01	BATTERY KNOX	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-007- R-01	BUFFALO SOLDIER FIELD	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-008- R-02	FORT CLINTON-EAST	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-012- R-01	POST OUTDOOR PISTOL RANGE	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-016- R-02	Siege Battery-TD-Land	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-018- R-01	RANGE NO. 1	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.
WSTPT-021- R-01	Rifle Range	200706	Based on the Final SI dated January 2007, this site was found to have no contamination.

MMRP Schedule

Date of MMRP Inception 200212

Past Phase Completion Milestones

2003

PA (WSTPT-001-R-01 - ARTILLERY FIRING RANGE, WSTPT-003-R-01 - BATTERY KNOX, WSTPT-004-R-01 - BATTERY KNOX-TD-RIVER MRS, WSTPT-004-R-02 - BATTERY KNOX-TD-LAND MRS, WSTPT-007-R-01 - BUFFALO SOLDIER FIELD, WSTPT-008-R-01 - FORT CLINTON-WEST, WSTPT-008-R-02 - FORT CLINTON-EAST, WSTPT-010-R-01 - GREY GHOST HOUSING AREA, WSTPT-011-R-01 - NORTH ATHLETIC FIELD, WSTPT-012-R-01 - POST OUTDOOR PISTOL RANGE, WSTPT-013-R-01 - SEACOAST BATTERY, WSTPT-015-R-01 - SIEGE BATTERY, WSTPT-016-R-01 - SIEGE BATTERY-TD-RIVER, WSTPT-016-R-02 - Siege Battery-TD-Land, WSTPT-017-R-01 - TARGET HILL, WSTPT-018-R-01 - RANGE NO. 1, WSTPT-019-R-01 - LUSK RESERVOIR, WSTPT-020-R-01 - REDOUBT NO. 2, WSTPT-021-R-01 - Rifle Range, WSTPT-022-R-01 - MICHIE STADIUM, WSTPT-023-R-01 - CROWS NEST IMPACT AREA)

2004

PA (PBA@MR USMA - PBA for MMRP at USMA)

2007

SI (PBA@MR USMA - PBA for MMRP at USMA, WSTPT-001-R-01 - ARTILLERY FIRING RANGE, WSTPT-003-R-01 - BATTERY KNOX, WSTPT-004-R-01 - BATTERY KNOX-TD-RIVER MRS, WSTPT-004-R-02 - BATTERY KNOX-TD-LAND MRS, WSTPT-007-R-01 - BUFFALO SOLDIER FIELD, WSTPT-008-R-01 - FORT CLINTON-WEST, WSTPT-008-R-02 - FORT CLINTON-EAST, WSTPT-010-R-01 - GREY GHOST HOUSING AREA, WSTPT-011-R-01 - NORTH ATHLETIC FIELD, WSTPT-012-R-01 - POST OUTDOOR PISTOL RANGE, WSTPT-013-R-01 - SEACOAST BATTERY, WSTPT-015-R-01 - SIEGE BATTERY, WSTPT-016-R-01 - SIEGE BATTERY-TD-RIVER, WSTPT-016-R-02 - Siege Battery-TD-Land, WSTPT-017-R-01 - TARGET HILL, WSTPT-018-R-01 - RANGE NO. 1, WSTPT-019-R-01 - LUSK RESERVOIR, WSTPT-020-R-01 - REDOUBT NO. 2, WSTPT-021-R-01 - Rifle Range, WSTPT-022-R-01 - MICHIE STADIUM)

2012

IRA (PBA@MR USMA - PBA for MMRP at USMA)

2013

RI/FS (PBA@MR USMA - PBA for MMRP at USMA)

2014

RD (WSTPT-022-R-01 - MICHIE STADIUM)

RA(C) (WSTPT-022-R-01 - MICHIE STADIUM)

RI/FS (WSTPT-022-R-01 - MICHIE STADIUM)

Projected Phase Completion Milestones

See attached schedule

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

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 202009

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of MMRP at Installation (including LTM phase): 205009

WEST POINT MIL RESERVATION MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-001-R-01	ARTILLERY FIRING RANGE	RI/FS						
		IRA						
		LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-004-R-01	BATTERY KNOX-TD-RIVER MRS	RI/FS						
		LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-004-R-02	BATTERY KNOX-TD-LAND MRS	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-008-R-01	FORT CLINTON-WEST	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-010-R-01	GREY GHOST HOUSING AREA	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-011-R-01	NORTH ATHLETIC FIELD	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-013-R-01	SEACOAST BATTERY	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-015-R-01	SIEGE BATTERY	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-016-R-01	SIEGE BATTERY-TD-RIVER	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-017-R-01	TARGET HILL	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-019-R-01	LUSK RESERVOIR	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-020-R-01	REDOUBT NO. 2	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-022-R-01	MICHIE STADIUM	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
WSTPT-023-R-01	CROWS NEST IMPACT AREA	RI/FS						
		RD						
		RA(C)						
		LTM						

WEST POINT MIL RESERVATION
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 2/1

Installation Site Types with Future and/or Underway Phases

1 Soil Contamination After Tank Removal
(CCUST1230)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern

Soil

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

Site ID	Site Name	Action	Remedy	FY
CC719Remed	Remediate 719	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	2011

Duration of CR

Date of CR Inception: 199408

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201609/201609

Date of CR completion including Long Term Management (LTM): 201510

CR Contamination Assessment

Contamination Assessment Overview

Environmental restoration activities include the IRP and MMRP. On Dec. 29, 2008, the Office of the Deputy Under Secretary of Defense for Installations and Environment, [ODUSD(I&E)], issued an interim policy for Defense Environmental Restoration Program (DERP) eligibility that rescinded the 1986 eligibility date for the IRP and the 2002 eligibility date for the MMRP. This made many sites previously addressed in the Army's CC program eligible for the DERP. Sites that are now eligible for the Munitions Response (MR) program have been migrated from Army Environmental Database-Compliance-related Cleanup (AEDB-CC) and given the naming convention of other MR sites. The newly eligible non-MR type sites are considered to be Installation Restoration (IR) sites; however, the newly eligible sites are being coded as Compliance Restoration (CR) in AEDB-R to distinguish them from the original IR sites and IR metrics.

Cleanup Exit Strategy

See individual site for the cleanup exit strategy.

CR Previous Studies

Title

Author

Date

There are no Previous Studies

WEST POINT MIL RESERVATION

Compliance Restoration

Site Descriptions

Site ID: CCUST1230
Site Name: Golf Course UST

STATUS

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

Phases	Start	End
ISC.....	200404.....	200405
INV.....	200603.....	200608
IMP(C).....	201310.....	201510

RIP Date: N/A
RC Date: 201609

SITE DESCRIPTION

Confirmatory sampling (CS) following the removal of a 1,000-gallon No. 2 fuel oil tank at the Golf Course Clubhouse (Bldg. 1230) on April 18, 2004 indicates the presence of residual fuel oil contamination and for unknown reasons, possible gasoline contamination. The Golf Course Clubhouse (Bldg. 1230) is located just east of Route 9W near the Route 218/293 interchange. The removed UST exhibited holes and approximately 12 tons of contaminated soils were removed during the tank closure. The leaking tank was reported to the NYSDEC on April 8, 2004 who assigned it Spill No. 0400254. The UST was replaced with a fully compliant aboveground tank. A closure report was prepared and submitted to the NYSDEC on May 12, 2004. Sample analytical results exceed the NYSDEC guideline values. A second phase of the investigation entailed performing geo-probe soil sampling around the former UST which determined contamination was limited. Unfortunately, the existing building and utilities prevent removal of the remaining contamination. A project has been proposed to demolish the existing clubhouse and replace it with a new facility. If this project is funded the remaining contamination can be removed. This project has been entered as a zero cost site until funding for a new clubhouse is programmed.

CLEANUP/EXIT STRATEGY

Soil excavation will be used to remove the remaining contamination.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CC719Remed	Remediate 719	201012	Closure report

CR Schedule

Date of CR Inception: 199408

Past Phase Completion Milestones

1994

ISC (CC719Remed - Remediate 719)

2004

ISC (CCUST1230 - Golf Course UST)

2006

INV (CCUST1230 - Golf Course UST)

2011

IMP(C) (CC719Remed - Remediate 719)

Projected Phase Completion Milestones

See attached schedule

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

To Be Determined

Final RA(C) Completion Date: 201510

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of CR at Installation (including LTM phase): 201510

WEST POINT MIL RESERVATION CR Schedule

 = phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCUST1230	Golf Course UST	IMP(C)						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201101

Restoration Advisory Board (RAB): No

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

Community Interest Solicited on: 201101

Efforts Taken to Determine Interest

The West Point IRP is in LTM and is no longer required to solicit interest in a RAB. The MMRP solicited interest in a RAB in 2011.

Results

No interest was expressed by the local community.

Follow-up Procedures

West Point will solicit interest in 2015.

Additional Community Involvement Information

A community relations plan was developed for the MMRP RI in January 2011. The USAG-WP community consists of approximately 10,000 military personnel and their family members, civilian personnel, and cadets. The town of Highlands, which adjoins USAG-WP to the south, has a population of 13,600.

During the investigation phase of an off-post landfill on the village of Highland Falls property, initial communication led to a project briefing to the school board concerning the impact on O'Neill High School. The presentation offered the reasons for performing the investigation, described the field techniques, and addressed the school board members' questions and concerns. The presentation was well received and established an excellent working relationship with the school board. Notification to the school board of subsequent remedial activities was provided through telephone calls, information papers and informal meetings.

In 2005 USAG-WP initiated a public affairs plan to release the results of the MMRP draft HRR. During this effort the superintendent personally contacted local elected representatives regarding the report. The public affairs office (PAO) made announcements in local media outlets, contacted local environmental advocacy groups, and sent copies to regulatory agencies. The PAO also contacted each resident in areas affected across the river.

In 2006 USAG-WP conducted a technical project planning meeting with stakeholders to discuss the results of the SI. USAG-WP again initiated a public affairs plan to publicize the results of the MMRP SI. The PAO again made announcements through local media outlets, contacted local environmental advocacy groups, and sent copies to regulatory agencies. A public meeting was held but no members of the public attended.

A community relations council has been formalized where any future planned RAs can be presented. The Engineering/Public Works Subcommittee of the community relations council is chaired by the USAG-WP Director of Public Works and consists of local village and town officials, the town historian, and interested citizens. This committee provides the ideal forum for representing planned remedial activities which could affect the community.

On the post, USAG-WP has established residential mayors' meetings. Each residential area has an elected mayor who represents that community's interest and conveys its concerns to the local command. These community meetings also provide an excellent forum for presenting and discussing future remedial activities that may affect the local community.

Administrative Record is located at

Environmental Management Division of USAG-WP
USAG West Point
ATTN: IMNE-MIL-PWE-M
667A Ruger Road
West Point, New York 10996-1592

Community Involvement

(845) 938-5041

Information Repository is located at

West Point Community Library
622 Swift Road
West Point, New York 10996-1592
845-938-2974

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

TAPP Title: N/A

Potential TAPP: N/A

