



DEPARTMENT OF THE ARMY  
UNITED STATES MILITARY ACADEMY  
West Point, New York 10996

Patel

REPLY TO  
ATTENTION OF  
DIRECTORATE OF HOUSING AND PUBLIC WORKS

16 March 2000

Paul Patel  
State Of New York Department Of Environmental Conservation  
Division of Hazardous and Solid Materials  
Room 460  
50 Wolf Road  
Albany, New York 12233-7252

Dear Mr. Patel,

Annually USMA prepares an Installation Restoration Program (IRP) Action Plan. Enclosed please find two informational copies of the FY 00 IRP - Installation Action Plan (IAP) for USMA. Costs associated with the restoration program have been withheld.

Questions concerning this IAP should be directed to the Chief, Environmental Management Branch, Mr. Joseph Shandling at (914) 938-3224 or the IRP Remedial Project Manager, Ms. Jennifer Butkus at (914) 938-4459.

Sincerely,

*for: Robert C. Jones*

Eugene E. Rood, PE  
Chief of the Environmental Management Division

Enclosures

*cc M. Chen  
mailed it  
down on  
3/20/00*

RECEIVED  
NYSDEC

MAR 20 2000

BUREAU OF RADIATION &  
HAZARDOUS SITE MANAGEMENT  
DIVISION OF SOLID &  
HAZARDOUS MATERIALS

**SUMMARY SHEET**

**ROUTING**

Office	Date	Concur	Non-Concur	See Tab
1. GC	<u>10 Mar</u>	<u>KJZ</u>	_____	_____
2. DHPW	_____	_____	_____	_____

ACTION OFFICE: Environmental Management Branch  
 ACTION OFFICER/PHONE: Ms. Jennifer Butkus/Ext. 4459


7 March 2000

SUBJECT: The Defense Environmental Restoration Program (DERP) 2000 Installation Action Plan (IAP) for United States Military Academy (USMA)

**SUMMARY**

- PURPOSE:** To have the Garrison Commander sign the memorandum at Tab A forwarding the 2000 IAP for USMA and also to sign the IAP at Tab B.
- BACKGROUND:** DERP requires an annual IAP submittal. The IAP is the key document for overall management of the Installation Restoration Program.
- DISCUSSION:** The Installation Restoration Program is authorized by DERP. It is implemented consistent with the Comprehensive Environmental Response Compensation and Liability Act. USMA currently has 23 active IRP sites under various stages of remedial investigation and restoration. The sites include 20 landfills, metals contamination at the Camp Buckner Skeet and Trap Range and unexploded ordnance at Crow's Nest. A list of Acronyms and Abbreviations may be found in Attachment 3.
- RESOURCE IMPACT:** IAP maintains eligibility for DERP funding.
- RECOMMENDATION:** To have the Garrison Commander sign the memorandum forwarding the IAP for USMA and also to sign the documents at Tab B.

1 Encl  
as

  
 THOMAS G. LUEBKER  
 COL, EN  
 Engineer

**DECISION OFFICE**  
Garrison Commander

APPROVED  
 APPROVED AS MODIFIED  
 DISAPPROVED  
 SEE ME  
 Initials KJZ Date 10 Mar 00



DEPARTMENT OF THE ARMY  
UNITED STATES MILITARY ACADEMY  
WEST POINT, NEW YORK 10996

REPLY TO  
ATTENTION OF

MAEN-EV-M (200-1a)

MEMORANDUM FOR COMMANDER, U.S. ARMY ENVIRONMENTAL CENTER  
ATTN: SFIM-AEC-ERP  
ABERDEEN PROVING GROUND, MARYLAND 21010-5401

SUBJECT: United States Military Academy (USMA) FY 00 Installation Restoration Program -  
Installation Action Plan for the USMA.

1. Reference SFIM-AEC-ERP memorandum, dated 08 February 2000, Subject: Annual Installation Restoration Program (IRP) Action Plan Submission.
2. As requested in ref 1, please find enclosed two copies of the FY 00 IRP - Installation Action Plan (IAP) for USMA.
3. Questions concerning this IAP should be directed to the Chief, Environmental Management Branch, Mr. Joseph Shandling at (914) 938-3224 or the IRP Remedial Project Manager, Ms. Jennifer Butkus at (914) 938-4459.

2 Encls  
as

*Anthony J. Harrison*  
FOR ARNOLD SMITH  
COL, FA  
Garrison Commander



**INSTALLATION ACTION PLAN**

**FOR THE**

**UNITED STATES MILITARY ACADEMY**

**2000**

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Attachment 1 Costs

Attachment 2 Restoration Advisory Board Information

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## 1. INSTALLATION INFORMATION

### A. LOCALE

The United States Military Academy (USMA) 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. The military reservation at West Point consists of 15,974 acres with the main post comprising 2,520 acres of that. It is bounded by New York State Route 218, the Hudson River, the Village of Highland Falls and U.S. Route 9W. West Point is crossed by the Hudson Highlands, a belt of steep-walled knobbed ridges, irregular hills and mountains. USMA is a registered National Historic Landmark.

Lands formerly known as Stewart Army Subpost (STAS), are located approximately 14 miles northwest of the USMA, Orange County, Town of New Windsor, New York. STAS provided overflow family housing for West Point and included facility and community support to residents and tenants. STAS divestiture, as follows: a) 1 Nov 99, USMA transferred 263 acres to the Town of New Windsor, Orange County, New York; b) 15 Sep 99, USMA transferred 40 acres to the 77<sup>th</sup> Regional Support Command (Army Reserve); c) 3 Feb 00, 90 acres were transferred to the United States Marine Corps Reserve Mag 49, Det B; and d) Parcel 19 (10 acres) under excess approval to GSA on 30 Sep 00.

Formerly known as the Galeville Army Training Site, Galeville is located 30 miles northwest of the USMA, Ulster County, Town of Shawangunk, New York. There are no IRP sites at Galeville Airport. USMA is currently the landholding agency pending final GSA transfer to the Department of the Interior, United States Fish and Wildlife Service (approximately 566 acres), and the Town of Shawangunk (approximately 55 acres). Final disposal expected this Fiscal Year (00).

Constitution Island is located across the Hudson River from the main post. The Warner House museum, a National Registered Historic Site, is located on the island. The museum and grounds are kept in the tradition of the period. There are no IRP sites on Constitution Island.

### B. COMMAND ORGANIZATION

1. Major Command: USMA, United States Military Academy.
2. Installation: USMA - Directorate of Housing and Public Works (DHPW) Environmental Management Division
3. Lead IRP Executor:
  - a. Investigation Phase Executing Agency: Center for Health Protection and Preventive Medicine 1990 (CHPPM) (Formerly Army Environmental Hygiene Agency).
  - b. Site Investigation/Remedial Investigation/Feasibility Study, and Remedial Design: U.S. Army Corps of Engineers, North Atlantic Division; Baltimore District.
  - c. Remedial Action Phase Executing Agency: Upon completion of Remedial Design, the New York District Corps of Engineers construction supervision and administration.
  - d. Interim Remedial Action: Omaha District Corps of Engineers.

### C. REGULATOR PARTICIPATION

1. Federal: U.S. Environmental Protection Agency (USEPA), Region 2.
2. State: NYS Department of Environmental Conservation (NYSDEC) Region 3 and the Central Office in Albany, New York.

D. REGULATORY STATUS: Non-NPL with RCRA Corrective Action

E. SIGNIFICANT CHANGES TO IRP FROM PREVIOUS YEAR (FY99): none



## 2. INSTALLATION DESCRIPTION

USMA is an active U.S. Army Installation (MACOM). The USMA was officially established at West Point on 16 March 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, raise the level of training of the militia and to encourage the practical study of every science. The current mission of USMA is to "educate and train the Corps of Cadets so that each graduate shall have the attributes essential to professional growth as an officer of the Regular Army and to inspire each to a lifetime of service to the nation." In 1961, West Point was designated a National Historical Landmark included in the National Register of Historic Places and protected by Executive Order 11593.

## 3. CONTAMINATION ASSESSMENT

### A. OVERVIEW:

#### 1. Initiation of the IRP

In November 1988, the United States Military Academy submitted a RCRA Part B permit application to the USEPA for hazardous waste storage and a Subpart X permit for an open burn/open detonation (OB/OD) site. USMA is considered a large quantity generator. Accumulated hazardous waste is moved to a central storage area where it is staged prior to shipment for up to 90 days. In December 1988, the application for the container storage facility was rescinded by USMA and the container storage sites underwent closure inspection and testing by the EPA 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 (HSWA) Section 3004 (h). The Sub Part X permit application for the OB/OD site is still active. Negotiations to withdraw this permit have been made on the basis that OB/OD is performed during the course of training.

In November 1990, the US Army Environmental Hygiene Agency (USAEHA) conducted a survey of Solid Waste Management Units (SWMUs) at USMA pursuant to RCRA corrective action requirements. The USAEHA survey identified 16 inactive landfills at USMA. USMA subsequently identified four additional inactive landfills. The landfills are at various stages in the remedial process under the IRP.

In 1991, a Preliminary Assessment 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 was a former artillery impact area. The project to replace the gas line was terminated following the discovery of ordnance and explosive waste (OEW) along the proposed gas line. A Remedial Investigation (limited surface sweep) discovered 75 suspect OEW, 15 of which were on adjacent park property. The Army Safety Office assigned the site a RAC 2 ranking which dropped its priority on the IRP Workplan.

In 1992, four known abandoned tanks located at West Point were added to the inventory of abandoned tanks (WSTPT-46) slated for locating and removal at STAS.

In 1992, an investigation was initiated to assess the impact of lead deposition in a wetland from a formerly used Skeet and Trap Range (STR) at Camp Buckner.

Cragston Landfill (WSPT-14) is a sanitary landfill undergoing RCRA Subtitle D closure outside the IRP. The South Fill (WSTPT-12), Hospital Parking Lot (WSTPT-23A) and the Stadium Lots G (WSPT-07B)

and H (WSTPT-07C) landfills are listed on the DSERTS database but no further response action is planned, since records indicate they were used for clean construction and demolition debris and no releases are evident.

## 2. Description of major IRP concerns

USMA has 23 sites (5 additional sites listed under DSERTS are not active) grouped into 6 projects under the IRP. Landfills account for 20 of these sites. These landfills were used from the 1940's to 1980's for the disposal 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. The other projects include a former STR located in the Camp Buckner wetlands where lead deposits are of concern (WSTPT-44); a former impact area at Crow's Nest where OEW is present (WSTPT-45); and the closure of several abandoned underground storage tanks (USTs) (WSPT-46 and 47). Table 1 lists the active IRP projects at West Point, their associated DSERTS identification and the status.

Site locations are presented in Figures 1 and 2 (See Attachment 4). A description of each site is summarized in Section B. Table 2 lists the previous studies completed at USMA.



TABLE I  
INSTALLATION RESTORATION PROGRAM STATUS 2000

PROJECT	STATUS
6 Landfill Investigation	
➤ Organic Compost Landfill (WSTPT-16)	(RC)
➤ Post School Landfill (WSTPT-10)	(LTM)
➤ Ski Lot Landfill (WSTPT-9)	(CMI)
➤ Motor Pool Landfill (WSTPT-11)	(RIP)
➤ Michie Stadium Lot D (WSTPT-05)	(RC)
➤ Michie Stadium Lot F (WSTPT-7A)	(CMI)
10 Landfill Investigation	
➤ PX Landfill (WSTPT-01)	(RFI)
➤ Michie Stadium Lot A (WSTPT-02)	(DES)
➤ Michie Stadium Lot B (WSTPT-03)	(DES)
➤ Michie Stadium Lot C (WSTPT-04)	(CMI)
➤ Michie Stadium Lot E (WSTPT-06)	(CMI)
➤ Professor Row Landfill (WSTPT-08)	(RC)
➤ Morgan Farm Road Landfill (WSTPT-15A)	(RIP)
➤ High School Landfill (WSTPT-15B)	(RC)
➤ Camp Buckner Landfill (WSTPT-35A)	(RFI)
➤ Village Farm Landfill (WDTPT-13)	(RIP)
4 Landfill Investigation	
➤ Washington Gate Landfill (WSTPT-12)	(RC)
➤ ASP Landfill (WSTPT-47)	(RC)
➤ Motor Pool-East Landfill (WSTPT-11A)	(CMI)
➤ No. 706 Parking Lot Landfill (WSTPT-48)	(RC)
Other Projects	
➤ Skeet and Trap Range (WSTPT-44)	(RC)
➤ Crow's Nest Former Impact Area (WSTPT-45)	(RC)
➤ USTs at Building 505 (WSTPT 49)	(RC)

TABLE 2  
PREVIOUS STUDIES AT USMA

1. LAW Engineering and Environmental Services, July 1994, FINAL - Subsurface Investigation Report of 6 Landfills, Kenesaw, GA.
2. Woodward Clyde Federal Services, January 1994, Draft Work Plan and Chemical Data Acquisition Plan, RCRA Facility Assessment of Ten Landfills, Wayne, NJ.
3. Woodward Clyde Federal Services, June 1995, RCRA Facility Assessment (RFA) of Ten Landfills Report, Wayne, NJ.
4. EA Engineering, Science and Technology, September 1996, Expanded RCRA Facility Assessment of Four Landfills, Newburgh, NY.
5. EA Engineering, Science and Technology, August 1996, Phase II Investigation Report of Six Landfills, Newburgh, NY.
6. EA Engineering, Science and Technology, August 1995, Remedial Investigation at Building 2228 Fuelling Facility, Newburgh, NY.
7. Malcolm Pirnie, Inc., June 1997, Final RCRA Facility Investigation of Ten Landfills, White Plains, NY.
8. Malcolm Pirnie, Inc., July 1997, Post School Landfill Closure Design, Design Analysis Report, White Plains, NY.
9. Louis Berger & Associates, Inc., July 1998, Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F), Florham Park, NY.
10. Malcolm Pirnie, October 1996, Final Design Concept for Post School Landfill Closure, White Plains, NY.
11. EA Engineering Science and Technology, August 1996, Phase II Leachate Management Analysis of Six Landfills, Newburgh, NY.
12. EA Engineering Science and Technology, June 1995, Project Plans for the Phase II Remedial Investigation and Leachate Management Analysis of Six Landfills, Newburgh, NY.
13. EA Engineering Science and Technology, March 1995, Project Plans for Expanded RCRA Facility Assessment of Four Landfills, Newburgh, NY.
14. EA Engineering Science and Technology, September 1996, Quality Control Summary Report of Four Landfills, Newburgh, NY.
15. EA Engineering Science and Technology, August 1996, Quality Control Summary Report of Six Landfills, Newburgh, NY.

Table 2 (Cont)

16. EA Engineering Science and Technology, Decision Document Camp Buckner Skeet and Trap Range, Newburgh, NY.
17. Malcolm Pirnie Inc., July 1997, Post School Landfill Closure Design Contract Specifications, White Plains, NY.
18. Malcolm Pirnie, Inc., July 1998, Contract Specifications for Michie Stadium Parking Lot Landfills (C, E & F), White Plains, NY.
19. Malcolm Pirnie Inc., July 1998, Design Analysis Report for Michie Stadium Parking Lot Landfills (C, E & F), White Plains, NY.
20. EA Engineering Science & Technology, August 1998, Design Analysis Report for Motor Pool Landfill Closure, Newburgh, NY.
21. IT Corporation, January 1999, The Final Report Addendum for Village Farm Landfill Remediation, Rochester, NY.
22. EA Engineering, Science, and Technology, June 1999, Design Analysis Report Ski Lot Landfill Closure, Sparks, MD.
23. EA Engineering, Science, and Technology, June 1999, Design Analysis Report Motor Pool East Landfill Closure, Sparks, MD.
24. Malcolm Pirnie, Inc., December 1999, Ten Landfills RCRA Facility Investigation Phase II Groundwater Monitoring Draft Final Report, White Plains, NY.
25. Malcolm Pirnie, Inc., February 2000, 100% Completion Phase Design Analysis Report, Construction Cost Estimate and Contract Specifications for Michie Stadium Parking Lot Landfills (C, E, & F), White Plains, NY.



## B. SITE DESCRIPTIONS

### WSTPT-01 POST EXCHANGE (PX) LANDFILL

WSTPT-01 is part of the 10 Landfill Project and is a 2-3 acre landfill located under the parking lot at the Post Exchange. This was the installation landfill for domestic waste during the 1940s. The pit and area methods of landfilling were used at this location. The landfill is closed, covered and partially paved. A parking lot and the PX service station now cover part of the site. Leachate seeps have been observed at this site. State Regulator (NYSDEC) requested additional investigation of this site in March 1998.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

RRSE Rating: 1B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA, and RFI

CURRENT IRP PHASE TO DATE: None

FUTURE IRP PHASE TO DATE: RC

RECOMMENDATION FOR FUTURE RESPONSE: No further action required pending review of closure plans by state regulatory agency.

### WSPT-02 PARKING LOT A LANDFILL

WSPT-02 is part of the 10 Landfill Project and is located west of Michie Stadium. This 0.6-acre landfill was used approximately from 1952-1954. The pit and trench methods were used. The landfill is closed and partially paved. The site is now used as a parking lot. Leachate seeps have been observed at this site.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

RRSE Rating: 1B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI and CMS

CURRENT IRP PHASE: DES/CMI

FUTURE IRP PHASE: LTM/LTO

RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

### WSPT-03 PARKING LOT B LANDFILL

WSPT-03, which is part of the 10 Landfill Project, is located west of Michie Stadium; 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 partially paved. The site is now used as a parking lot. Leachate seeps have been observed at this site. Additional sampling of the leachate is recommended to confirm the presence of filtered and unfiltered metals.

CONTAMINANT OF CONCERN: Metals

RRSE Rating: 1B

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI and CMS

CURRENT IRP PHASE: DES/CMI

FUTURE IRP PHASE: LTM/LTO

RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

#### WSPT-04 PARKING LOT C LANDFILL

WSPT-04 is part of the 10 Landfill Project and is located west of Michie Stadium; access is from Stony Lonesome Road. This 0.8-acre landfill was used approximately between 1955 and 1956. The pit and trench methods were used. The landfill is closed and partially paved. The site is now used as a parking lot. Leachate seeps and landfill gases have been identified at this site. Lot C is currently undergoing CMI to improve drainage and reduce leachate generation.

CONTAMINANT OF CONCERN: Metals  
RRSE Rating: 1B  
MEDIA OF CONCERN: Groundwater, soil, and surface water  
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI, and CMS  
CURRENT IRP PHASE: CMI  
FUTURE IRP PHASE: LTM/LTO  
RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

#### WSPT-05 PARKING LOT D LANDFILL

WSPT-05, which is part of the 6 Landfill project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 3-acre landfill was active between 1956 and 1958. The pit and trench methods were used. The landfill is closed and has recently been resurfaced. A perimeter drain has been installed. The site is now used as a parking lot. Leachate seeps have been observed at this site.

CONTAMINANT OF CONCERN: Metals  
RRSE Rating: 1B  
MEDIA OF CONCERN: Groundwater, soil, and surface water  
COMPLETED IRP PHASE TO DATE: Phase II RI  
CURRENT IRP PHASE: RC  
FUTURE IRP PHASE: LTM/LTO  
RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

#### WSPT-06 PARKING LOT E LANDFILL

WSPT-06, which is part of the 10 Landfill Project, is located west of Michie Stadium; access is from Stony Lonesome Road. This 3-acre landfill was used approximately from 1952 - 1954. The pit and trench methods were used. The landfill is closed and partially paved. The site is now used as a parking lot. Leachate seeps and landfill gases have been identified at this site. A cap and drainage improvement design was initiated in FY 96 and was completed in FY 99. A Storm Water upgrade project will be complete in FY 00.

CONTAMINANT OF CONCERN: Metals  
RRSE Rating: 1B  
MEDIA OF CONCERN: Groundwater, soil, and surface water  
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI, and CMS  
CURRENT IRP PHASE: CMI  
FUTURE IRP PHASE: LTM/LTO  
RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

#### WSPT-07A PARKING LOT F LANDFILL

WSPT-07A, which is part of the 6 Landfill project, is located southwest of Michie Stadium; access is from Stony Lonesome Road. This 4-acre landfill was used primarily in 1965. The pit and trench methods were used. The landfill is closed and partially paved. The site is now used as a parking lot. Leachate seeps and landfill gases have been identified at this site. A leachate collection tank has been installed downgradient of this site, and was upgraded as an interim measure. Lot F is currently undergoing CMI to improve drainage and reduce leachate generation. Construction will be complete FY 00.

CONTAMINANT OF CONCERN: Metals  
MEDIA OF CONCERN: Groundwater, Soil, and Surface Water  
RRSE Rating: 1B  
COMPLETED IRP PHASE TO DATE: Phase I RI, IRA, Phase II RI, CMS  
CURRENT IRP PHASE: CMI  
FUTURE IRP PHASE: LTM/LTO  
RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM

#### WSPT-08 PROFESSOR'S ROW LANDFILL

This landfill, which is part of the 10 Landfill Investigation, was used approximately in 1954. The exact area of the fill site is unknown. Suspected sites are the Catholic Chapel and Jewish Chapel areas. Efforts to locate this landfill have been unsuccessful and no samples have been collected.

CONTAMINANT OF CONCERN: Unknown; Suspected: Metals  
RRSE Rating: Not Evaluated  
MEDIA OF CONCERN: Groundwater, Soil  
COMPLETED IRP PHASE TO DATE: PA/SI, RFA  
CURRENT IRP PHASE: None  
FUTURE IRP PHASE: RC  
RECOMMENDATION FOR FUTURE RESPONSE: No further response planned.

#### WSPT-09 SKI SLOPE PARKING LOT LANDFILL

This landfill which is part of the 6 Landfill project, is located adjacent to the ski lodge; access is from NYS Route 218. This 2-acre landfill was used approximately between 1965 and 1974. The pit and area methods were used for disposal of sanitary and construction wastes. The landfill is closed and partially paved. The site is now used as a parking lot. Leachate seeps have been observed at this site. Sediments in an adjacent stream have been discolored by leachate.

CONTAMINANT OF CONCERN: Metals  
MEDIA OF CONCERN: Groundwater, Soil, and Surface Water  
RRSE Rating: 1B  
COMPLETED IRP PHASE TO DATE: Phase I RI, Phase II RI, CMS  
CURRENT IRP PHASE: CMI  
FUTURE IRP PHASE: LTM/LTO  
RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

### WSPT-10 POST SCHOOL LANDFILL

WSTPT-10 is part of the 6 Landfill project and is located adjacent to the West Point Elementary School. Access is from the school parking lot or Barry Road. This 4-acre landfill was used approximately from 1964 - 1969. The pit and area methods were used. The landfill is closed and vegetated. The site was used as a playing field for the school and youth activities center. Leachate seeps have been observed at this site. A leachate collection tank has been installed and upgraded. Sediments in an adjacent stream have been discolored by leachate. Differential settling and poor drainage have made the field unusable. The perimeter drainage swale and leachate collection system have been upgraded as an interim remedial action. A cap and drainage improvement design was finalized in FY 97 and implemented in FY 98. The grass cover is currently insufficient, however the contractor will upgrade in the spring.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

RRSE Rating: 1B

COMPLETED IRP PHASE TO DATE: Phase I RI, IRA, Phase II RI, CMI

CURRENT IRP PHASE: RIP

FUTURE IRP PHASE: LTM/LTO

RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM

### WSPT - 11 MOTOR POOL LANDFILL

WSTPT - 11, which is part of the 6 Landfill project, is located east of the Motor Pool fuel distribution system; access is from Reynolds Road. This 5-acre landfill was used approximately from 1964 - 1969. The pit and fill method was used for disposal of sanitary refuse. The landfill is now used as a parking lot for motorpool vehicles. Leachate seeps and landfill gases have been observed at this site.

CONTAMINANT OF CONCERN: Metals; Suspected: POL

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

RRSE Rating: 1B

COMPLETED IRP PHASE TO DATE: Phase I RI, Phase II RI, CMS, CMI

CURRENT IRP PHASE: None

FUTURE IRP PHASE: LTM/LTO

RECOMMENDATION FOR FUTURE RESPONSE: Maintain cap and perform LTM.

### WSPT - 11A MOTOR POOL - EAST LANDFILL

WSTPT - 11A, which is part of the 4 Landfill project, is located west of the Motor Pool Maintenance Buildings (Building 793/795). This 2.5-acre landfill was operated from 1964 to 1969 and reportedly received construction and demolition debris on its north side and sanitary waste on its south side. The landfill is covered and paved. The site is now used as a parking lot by the Motor Pool. A leachate seep was observed emanating from the site.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, Soil, and Surface Water

RRSE Rating: 1B

COMPLETED IRP PHASE TO DATE: RFA, CMS

CURRENT IRP PHASE: CMI

FUTURE IRP PHASE: LTO/LTM

RECOMMENDATION FOR FUTURE Maintain cap and perform LTM.



### WSPT-12 WASHINGTON GATE LANDFILL

WSPT-12, which is part of the 4 Landfill project, is located near Washington Gate, southwest of Building 917; access is from Washington Road. This 0.4-acre landfill was used in the early 1960's for disposal of construction debris. The pit and area methods were used. The landfill is closed and partially paved. A parking lot and a warehouse partially occupy the site.

CONTAMINANT OF CONCERN: POL, Metals

MEDIA OF CONCERN: Surface water

RRSE Rating: 3B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: NFRAP

RECOMMENDATION FOR FUTURE RESPONSE: No further response action planned.

### WSTPT - 13 VILLAGE FARM LANDFILL

WSTPT - 13 is part of the 10 Landfill project and is located on Range 1 in the reservation area of the installation; access is from U.S. Route 9W. The landfill is less than 2-acres in size and was used from the 1950's to 1960's. The pit and area methods were used; wastes were also open-burned on the ground. The landfill is closed and partially vegetated. The site is now used as a grenade training area. Leachate seeps have been observed at this site. Removal action performed in 1998.

CONTAMINANT OF CONCERN: Metals; Suspected: POL

MEDIA OF CONCERN: Groundwater, soil, surface water

RRSE Rating: 1 B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI, IRA

CURRENT IRP PHASE: RIP

FUTURE IRP PHASE: LTM

RECOMMENDATION FOR FUTURE RESPONSE: Consolidate landfill into Subtitle D Landfill (WSTPT-14) undergoing closure.

### WSTPT - 14 CRAGSTON LANDFILL (ER,A INELIGIBLE)

WSTPT-14 is a formerly permitted sanitary landfill undergoing RCRA Part D closure. Therefore, this site is not eligible for ER,A funding.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Surface Water, Groundwater, and Soil

COMPLETED IRP PHASE TO DATE: ER,A Ineligible

CURRENT IRP PHASE TO DATE: None

FUTURE IRP PHASE TO DATE: None

RECOMMENDATION FOR FUTURE RESPONSE: No further action under IRP. Landfill may be beneficially used to consolidate waste removed from IRP landfills.

### WSTPT - 15A MORGAN FARM ROAD LANDFILL

WSTPT - 15A (10 Landfill Project) is located adjacent to Morgan Farm Road. This 2.5-acre landfill was used intermittently from the 1940's to the 1970's. The pit and area methods were used. The landfill is closed and partially vegetated. Leachate has been observed at this site. Based on results and recommendations of the initial RFA, the landfill was removed and consolidated into Cragston Landfill, which is undergoing RCRA Subtitle D closure.

CONTAMINANT OF CONCERN: Metals  
MEDIA OF CONCERN: Groundwater, Soil, and Surface Water  
RRSE Rating: 1B  
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, and IRA  
CURRENT IRP PHASE: RIP  
FUTURE IRP PHASE: Response Complete  
RECOMMENDATION FOR FUTURE RESPONSE: Site restored. NFRAP

### WSTPT - 15B HIGH SCHOOL LANDFILL

WSTPT - 15B (10 Landfill project) is located on land deeded to the Town of Highlands School District; access is from Morgan Farm Road and Route 9W. The landfill consists of two separate fill areas: (1) the playing field, west of the school building, and; (2) the track, southeast of the school building.

CONTAMINANT OF CONCERN: Metals  
RRSE Rating: 1B  
MEDIA OF CONCERN: Groundwater, soil, and surface water  
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, and RFI  
CURRENT IRP PHASE: None  
FUTURE IRP PHASE: NFRAP  
RECOMMENDATION FOR FUTURE RESPONSE: Continue to monitor seep.

### WSTPT - 16 ORGANIC COMPOST LANDFILL

WSTPT - 16, is part of the 6 Landfill project and is located northwest of Building 743; access is from Garrard Road. This 0.5-acre landfill was used in the 1960s for disposal of construction debris. More recently, the site had been used for composting of organic material including leaves, mulch, limbs and grass cuttings. The landfill is closed and currently used as a lumber storage yard. Leachate seeps have been observed at this site. A leachate tank was installed at the site, but is not operating properly. The landfill cover was tarred and chipped.

CONTAMINANT OF CONCERN: Metals; Nitrates  
MEDIA OF CONCERN: Groundwater, soil, surface water  
RRSE Rating: 1B  
COMPLETED IRP PHASE TO DATE: Phase I RI, IRA, Phase II RI  
CURRENT IRP PHASE: RC  
FUTURE IRP PHASE: NFRAP  
RECOMMENDATION FOR FUTURE RESPONSE: No further response action planned.

#### WSTPT - 35A CAMP BUCKNER LANDFILL

WSTPT - 35A is part of the 10 Landfill project 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 landfill was used in the 1970's. There are two small ponds north of the landfill; one is adjacent to the landfill and the other is approximately 150-feet from the landfill. The landfill is closed and covered with packed gravel and stone. The site is now used as a parking lot.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, soil, surface water

RRSE Rating: 2 B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA, and RFI

CURRENT IRP PHASE: None

FUTURE IRP PHASE: RC

RECOMMENDATION FOR FUTURE RESPONSE: No further action required pending review of closure plans by state regulatory agency.

#### WSTPT - 44 SKEET AND TRAP RANGE

WSTPT - 44 is located in the reservation area of the installation at Camp Buckner; access is from Patton Road. The site was used by the West Point Skeet and Trap Club from 1962 through 1992. Target fragments (clay pigeons) and lead shot have accumulated in a wetland. Phase I of the RI found elevated levels of lead in the sediments and surface water in the wetland. Phase II of the RI generated data for use in a qualitative risk assessment that considered impacts of the contamination on waterfowl and other wildlife and on personnel entering the site. The site is no longer in use. A tributary crossing the site feeds into a West Point water source. Decision Document recommended long term monitoring and natural attenuation.

CONTAMINANT OF CONCERN: Lead, Antimony, and Arsenic

MEDIA OF CONCERN: Surface Water, Ground Water, and Soil

COMPLETED IRP PHASE TO DATE: PA/SI, Phase I RI, Phase II RI, Decision Document

CURRENT IRP PHASE: Natural Attenuation

FUTURE IRP PHASE: IRA, LTM

RECOMMENDATION FOR FUTURE RESPONSE: Install access deterrents (e.g. posting) and allow natural attenuation to occur.

#### WSTPT - 45 CROW'S NEST AREA

WSTPT - 45 is located in the reservation area of the installation, north of the main post. Approximately 1 square mile, the site is bordered on the east and south east by Route 218, the west and southwest by Route 9W and by the northern edge of the reservation boundary. Crows Nest was used as an artillery impact area from the Civil War to the late 1930s. The site which is no longer in used abuts a parkland where OEW have been found. A limited site survey located 75 suspect OEW. A DA Safety Team Survey rated the site a RAC 2, hence dropping its funding priority. The adjacent park property will be handled as a FUDS site.

CONTAMINANT OF CONCERN: OEW, Metals

MEDIA OF CONCERN: Soil, Safety

COMPLETED IRP PHASE TO DATE: PA/SI, RI

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: IRA

RECOMMENDATION FOR FUTURE RESPONSE: Convert park property to FUDS, install property access deterrents.

### WSTPT - 46 UST REMOVAL

WSTPT - 46 formerly encompassed the locating, removal and cleanup of fourteen abandoned underground storage tanks (USTs) at Stewart Army Subpost (STAS) (11), and West Point (3). The tanks were removed or closed in place during April-May 1994. Each tank location is now separately identified in the DSERTS database for West Point and Stewart Army Subpost. WSTPT-46 has been deleted from the DSERTS database as being a duplicate listing.

CONTAMINANT OF CONCERN: POL

MEDIA OF CONCERN: Soil, Ground Water

RRSE Rating: N/A

CURRENT IRP PHASE: None

FUTURE IRP PHASE: None Anticipated

RECOMMENDATION FOR FUTURE RESPONSE: No further action required pending review of closure plans by state regulatory agency.

### WSTPT - 47 AMMUNITION STORAGE POINT (ASP) LANDFILL

WSTPT - 47, a part of the 4 Landfill project, is located behind building 1250, northwest of the commissary (Bldg 1200); access is from Stony Lonesome Road. Waste materials, including various metallic debris including 55-gal drum, 5-gal cans and bed frames, were encountered in a test pit excavated as part of a construction feasibility study. The landfill is about one acre in size. The site is partially vegetated and not in use. Test pits revealed ceramic and glass debris. No soil contamination was observed. Groundwater samples from existing wells showed no signs of degradation of groundwater.

CONTAMINANT OF CONCERN: Solid Waste, Scrap Metal, Ceramics, Glass

MEDIA OF CONCERN: Groundwater, and soil

RRSE Rating: 3 B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: None

RECOMMENDATION FOR FUTURE RESPONSE: No further response action planned pending review of RFA by state regulatory agency.

### WSTPT - 48 BLDG 706 PARKING LOT LANDFILL

WSTPT - 48, a 4 Landfill project, is located next to Building 706; access is from Stony Lonesome Road. The period of usage is unknown but is probably in the 1952-1956 time frame, based on surrounding sites (Parking Lot A-C). The one-acre landfill is now closed and partially paved. The site is now used as a parking lot. Building 706 is used as a maintenance facility.

CONTAMINANT OF CONCERN: Metals

MEDIA OF CONCERN: Groundwater, and soil

RRSE Rating: 2B

COMPLETED IRP PHASE TO DATE: PA/SI, RFA

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: NFRAP

RECOMMENDATION FOR FUTURE RESPONSE: No further response action planned pending review of RFA by state regulatory agency.



#### WSTPT - 49 USTs AT BUILDING 505

The 275 and 1000-gallon fuel oil tanks at this building were removed in April 1994. The tanks were 30+ years old. Forty-five cubic yards of soil was excavated and disposed of as part of the removal. The closure report for the tanks has been submitted to NYSDEC and no further action is anticipated.

CONTAMINANT OF CONCERN: POL

MEDIA OF CONCERN: Soil, and Groundwater

RRSE Rating: N/A

COMPLETED IRP PHASE TO DATE: IRA

CURRENT IRP PHASE: RC

FUTURE IRP PHASE: NFRAP

RECOMMENDATION FOR FUTURE RESPONSE: No further response action planned.

#### 4. IRP SUMMARY CHARTS

The following IRP Summary Charts (extracted from DSERTS) are included:

- Phase Summary Report
- Risk Installation Action Plan Report

# DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Site, 4. Installation Phase Summary Report

2/28/00

Installation: UNITED STATES MILITARY ACADEMY

Programs:

BRAC I, BRAC II, BRAC III, BRAC IV, IRP

Subprograms:

Compliance, Restoration, UXO

Installation count for Programs:

1

NPL Options:

Delisted, No, Proposed, Yes

Installations count for Programs and NPL:

1

Site count for Programs and NPL:

29

### Phase / Status / Sites

PA			
C	U	F	RC
29	0	0	4

SI			
C	U	F	RC
21	0	0	7

RI / FS			
C	U	F	RC
14	2	0	2

RD		
C	U	F
7	5	0

RA(C)			
C	U	F	RC
6	4	4	5

RA(O)			
C	U	F	RC
0	1	5	0

LTM			
C	U	F	N
1	1	11	14

### Remedy / Status / Sites (Actions)

IRA			
C	U	F	RC
5 (6)	0 (0)		0 (0)

FRA			
C	U	F	RC
8 (8)	4 (4)		4 (4)

RIP Total: 2

RC Total: 18

Reporting Period End Date: 03/31/2000

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Installation: UNITED STATES MILITARY ACADEMY

Site: USMA-12

Ph #: (914)938-4459

Rank: L

Description: WASHINGTON GATE LANDFILL

POC: WILLIAM J. KAVANAGH

Agreement: Z

SH	Concentration	Standard	Unit	Factor
1-Methyl-4-Hydroxybenzene	2.00	270.00	mg/kg	0.01
Anthracin	0.28	14,000.00	mg/kg	0.00
Benzo(a)Pyrene	0.69	5.60	mg/kg	0.12
Aluminum	5,780.00	75,000.00	mg/kg	0.08
Lead	25.00	400.00	mg/kg	0.06
Rank: LOW	MPF: POTENTIAL	RF: POTENTIAL	Total	0.27

MPF Rationale:

RF Rationale:

LANDFILL NEAR STREAM. NO SEEPS EVIDENT.

STREAM TRAVERSES POST.

WH	Concentration	Standard	Unit	Factor
Aluminum	863.00	37,000.00	ug/L	0.02
Lead	3.80	4.00	ug/L	0.95
Manganese and compounds	138.00	1,700.00	ug/L	0.08
Barium	17.40	2,600.00	ug/L	0.01
Cadmium and compounds	2.10	18.00	ug/L	0.12
Vanadium	6.70	260.00	ug/L	0.03
Zinc	107.00	11,000.00	ug/L	0.01
Rank: LOW	MPF: POTENTIAL	RF: POTENTIAL	Total	1.21

MPF Rationale:

RF Rationale:

FILL AREA IS NEAR A STREAM. NO SEEPS OBSERVED.

STREAM TRAVERSES POST WITH POTENTIAL RESIDENTIAL RECEPTORS.



DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-01  
Description: PXLANDFILL

Ph #: (914)938-4459  
POC: WILLIAM KAVANAGH

Rank: H  
Agreement: Z

GW	Concentration	Standard	Unit	Factor
Acetone	800.00	610.00	ug/L	1.31
Chloroform	5.00	16.00	ug/L	0.31
Lead	1,510.00	4.00	ug/L	377.50
Arsenic	52.00	4.50	ug/L	11.56
Cadmium and compounds	94.00	18.00	ug/L	5.22
Chromium	213.00	180.00	ug/L	1.18
Rank: HIGH	MPF: EVIDENT	RF: POTENTIAL	Total	397.09

MPF Rationale:

RF Rationale:

LEACHATE SEEPS EVIDENT TO TRIBUTARY TO HUDSON RIVER.  
WH

SEEPS ENTER TRIBUTARY OF RIVER USED FOR RECREATIONAL PURPOSES.

WH	Concentration	Standard	Unit	Factor
Chloroform	1.00	16.00	ug/L	0.06
Lead	51.80	4.00	ug/L	12.95
Barium	62.80	2,600.00	ug/L	0.02
Copper and compounds	14.00	1,400.00	ug/L	0.01
Rank: HIGH	MPF: EVIDENT	RF: POTENTIAL	Total	13.05

MPF Rationale:

RF Rationale:

LEACHATE SEEPS ENTERING STREAM.

STREAM TRAVERSES POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-02  
**Description:** STADIUM LOT A LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor	
Benzodioxathiepin-3-Oxide	0.13	220.00	ug/L	0.00	
Aluminum	4,080.00	37,000.00	ug/L	0.11	
Lead	8.00	4.00	ug/L	2.00	
Manganese and compounds	2,240.00	1,700.00	ug/L	1.32	
<b>Rank:</b> MEDIUM <b>MPF:</b> POTENTIAL	<b>RF:</b> POTENTIAL		<b>Total</b>		3.43

**MPF Rationale:**

**RF Rationale:**

DOWNGRADIENT WELLS EXCEED UPGRADIENT, FRACTURED ROCK UNDERLYING LANDFILL. GROUNDWATER MAY ENTER RESERVOIR.

WH	Concentration	Standard	Unit	Factor	
Manganese and compounds	156.00	1,700.00	ug/L	0.09	
Antimony and compounds	31.70	15.00	ug/L	2.11	
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> IDENTIFIED		<b>Total</b>		2.21

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS ENTER STREAM.

LEACHATE SEEPS EMANATE IN PUBLIC AREAS.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

Site: WSTPT-03  
 Description: STADIUM LOT B LANDFILL

Ph #: (914)938-4459  
 POC: WILLIAM KAVANAGH

Rank: H  
 Agreement: Z

GW		Concentration	Standard	Unit	Factor	
Benzodioxathiepin-3-Oxide		1.80	220.00	ug/L	0.01	
Di-n-Octyl Phthalate		39.00	730.00	ug/L	0.05	
Aluminum		4,400.00	37,000.00	ug/L	0.12	
Beryllium and compounds		2.20	73.00	ug/L	0.03	
Carbon Disulfide		20.00	1,000.00	ug/L	0.02	
Rank: LOW	MPF: POTENTIAL	RF: POTENTIAL		Total		0.23

MPF Rationale:

RF Rationale:

DOWNGRADIENT WELLS EXCEED UPGRADIENT. FRACTURED ROCK UNDERLYING LANDFILL.

GROUNDWATER MAY BE ENTERING RESEVOIR.

WH		Concentration	Standard	Unit	Factor	
Lead		4.50	4.00	ug/L	1.13	
Antimony and compounds		38.10	15.00	ug/L	2.54	
Rank: HIGH	MPF: EVIDENT	RF: IDENTIFIED		Total		3.66

MPF Rationale:

RF Rationale:

LEACHATE SEEPS EMANATE IN PUBLIC AREAS.

LEACHATE SEEPS ENTER STREAM WHICH TRAVERSES POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-04  
**Description:** STADIUM LOT C LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor	
Benzodioxathiepin-3-Oxide	0.14	220.00	ug/L	0.00	
1,2-Benzenedicarboxylic Acid, Bis(2-Ethylhexyl)Ester	8.00	480.00	ug/L	0.02	
Aluminum	17,800.00	37,000.00	ug/L	0.48	
Lead	16.30	4.00	ug/L	4.07	
Antimony and compounds	40.60	15.00	ug/L	2.71	
Arsenic	5.40	4.50	ug/L	1.20	
<b>Rank:</b> MEDIUM <b>MPF:</b> POTENTIAL	<b>RF:</b> POTENTIAL		<b>Total</b>	8.48	

**MPF Rationale:**

**RF Rationale:**

DOWNGRAIDENT WELLS EXCEED UPGRADIENT. FRACTURED ROCK UNDERLYING LANDFILL. GROUND WATER MAY ENTER RESEVOIR.

WH	Concentration	Standard	Unit	Factor	
2,4-Dimethylphenol	4.00	730.00	ug/L	0.01	
Aluminium	542.00	37,000.00	ug/L	0.01	
Lead	7.80	4.00	ug/L	1.95	
Manganese and compounds	9.30	1,700.00	ug/L	0.01	
Chromium	10.80	180.00	ug/L	0.06	
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL		<b>Total</b>	2.04	

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS EMANATING IN PUBLIC AREAS.

LEACHATE SEEPS ENTER STREAMS WHICH TRAVERSE POST.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-05  
 Description: STADIUM LOT D LANDFILL

Ph #: (914)938-4459  
 POC: WILLIAM KAVANAGH

Rank: M  
 Agreement: Z

GW	Concentration	Standard	Unit	Factor
Aldrin	0.02	0.40	ug/L	0.05
Lead	5.20	4.00	ug/L	1.30
Manganese and compounds	5,700.00	1,700.00	ug/L	3.35
Cadmium and compounds	23.00	18.00	ug/L	1.28
Rank: MEDIUM    MPF: POTENTIAL	RF: POTENTIAL		Total	5.98

MPF Rationale:

FRACTURED ROCK.

RF Rationale:

GROUNDWATER MAY ENTER RESEVOIR.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-06  
**Description:** STADIUM LOT E LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor
Benzene	6.00	39.00	ug/L	0.15
Aluminum	2,700.00	37,000.00	ug/L	0.07
Lead	10.80	4.00	ug/L	2.70
Barium	286.00	2,600.00	ug/L	0.11
Naphthalene	10.00	6.20	ug/L	1.61
<b>Rank:</b> MEDIUM <b>MPF:</b> POTENTIAL	<b>RF:</b> POTENTIAL	<b>Total</b>		4.65

**MPF Rationale:**

**RF Rationale:**

DOWNGRAIENT WELLS EXCEED UPGRADIENT. FRACTURED ROCK UNDERLYING LANDFILL.

GROUNDWATER MAY ENTER LUSK RESERVOIR.

WH	Concentration	Standard	Unit	Factor
Aluminum	867.00	37,000.00	ug/L	0.02
Lead	7.80	4.00	ug/L	1.95
Manganese and compounds	2,320.00	1,700.00	ug/L	1.36
Barium	45.70	2,600.00	ug/L	0.02
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL	<b>Total</b>		3.36

**MPF Rationale:**

**RF Rationale:**

LEACHATE EMANATES IN PUBLIC AREAS.

SEEPS ENTER STREAMS WHICH TRAVERSE POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-07A  
**Description:** STADIUM LOT F LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

<b>GW</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Acetone				33.00	610.00	ug/L	0.05
Lead				42.00	4.00	ug/L	10.50
Manganese and compounds				2,030.00	1,700.00	ug/L	1.19
Cadmium and compounds				13.00	18.00	ug/L	0.72
Chromium				19.00	180.00	ug/L	0.11
<b>Rank:</b>	MEDIUM	<b>MPF:</b>	POTENTIAL	<b>RF:</b>	POTENTIAL	<b>Total</b>	12.58

**MPF Rationale:**

**RF Rationale:**

DOWNGRADIENT WELLS EXCEED UPGRADIENT. FRACTURED ROCK UNDERLYING LANDFILL.

SEEPS ENTER STREAMS WHICH TRAVERSE POST.

<b>WH</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Lead				4.00	4.00	ug/L	1.00
Manganese and compounds				2,410.00	1,700.00	ug/L	1.42
Nickel (Soluble Salts)				51.00	730.00	ug/L	0.07
<b>Rank:</b>	HIGH	<b>MPF:</b>	EVIDENT	<b>RF:</b>	POTENTIAL	<b>Total</b>	2.49

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS EMANATE IN PUBLIC AREAS.

LEACHATE SEEPS ENTER STREAM WHICH TRAVERSE POST.



**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-09  
**Description:** SKI SLOPE LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

**GW**

	Concentration	Standard	Unit	Factor
Benzodioxathiepin-3-Oxide	0.10	220.00	ug/L	0.00
Aluminum	18,200.00	37,000.00	ug/L	0.49
Lead	14.80	4.00	ug/L	3.70
Manganese and compounds	2,180.00	1,700.00	ug/L	1.28
Boron	130.00	3,300.00	ug/L	0.04
<b>Rank:</b> MEDIUM <b>MPF:</b> POTENTIAL	<b>RF:</b> POTENTIAL		<b>Total</b>	5.51

**MPF Rationale:**

**RF Rationale:**

DOWNGRAIDENT WELLS EXCEED UPGRADIENT.

ARTESIAN WELL DISCHARGES TO STREAM.

	Concentration	Standard	Unit	Factor
Lead	490.00	4.00	ug/L	122.50
Manganese and compounds	3,360.00	1,700.00	ug/L	1.98
Arsenic	330.00	4.50	ug/L	73.33
Chromium	62.00	180.00	ug/L	0.34
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL		<b>Total</b>	198.15

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS EMANATE IN PUBLIC AREAS.

SEEPS ENTER STREAM WHICH TRAVERSE POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-10  
**Description:** POST SCHOOL LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

<b>GW</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Lead				4.80	4.00	ug/L	1.20
Manganese and compounds				9,090.00	1,700.00	ug/L	5.35
Cadmium and compounds				27.80	18.00	ug/L	1.54
Chromium				10.00	180.00	ug/L	0.06
Heptachlor				0.04	1.50	ug/L	0.03
<b>Rank:</b>	MEDIUM	<b>MPF:</b>	POTENTIAL	<b>RF:</b>	POTENTIAL	<b>Total</b>	8.17

**MPF Rationale:**

DOWNGRADIENT WELLS EXCEED UPGRADIENT.

<b>WH</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Cyanide (free)				6,600.00	730.00	ug/L	9.04
DDE				0.03	20.00	ug/L	0.00
Lead				4.00	4.00	ug/L	1.00
Arsenic				4.00	4.50	ug/L	0.89
<b>Rank:</b>	HIGH	<b>MPF:</b>	EVIDENT	<b>RF:</b>	IDENTIFIED	<b>Total</b>	10.93

**MPF Rationale:**

LEACHATE SEEP EVIDENT IN STREAM AND RESIDENTIAL AREAS.

**RF Rationale:**

GROUNDWATER CONNECTION WITH LEACHATE SEEPS SURMISED.

LEACHATE SEEP IN RESIDENTIAL AREA.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-11  
**Description:** MOTORPOOL LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

<b>GW</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Aluminum				19,700.00	37,000.00	ug/L	0.53
Lead				9.90	4.00	ug/L	2.47
Manganese and compounds				2,040.00	1,700.00	ug/L	1.20
Boron				240.00	3,300.00	ug/L	0.07
Heptachlor				0.14	1.50	ug/L	0.09
<b>Rank:</b>	LOW	<b>MPF:</b>	POTENTIAL	<b>RF:</b>	LIMITED	<b>Total</b>	4.37

**MPF Rationale:**

**RF Rationale:**

DOWNGRADIENT WILLS EXCEED UPGRADIENT, FRACTURED ROCK UNDERLYING LANDFILL. NO GROUNDWATER USE IN THE AREA.

<b>WII</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Lead				16.10	4.00	ug/L	4.03
Manganese and compounds				22,700.00	1,700.00	ug/L	13.35
Arsenic				30.70	4.50	ug/L	6.82
<b>Rank:</b>	HIGH	<b>MPF:</b>	EVIDENT	<b>RF:</b>	POTENTIAL	<b>Total</b>	24.20

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS DISCHARGE IN RESIDENTIAL AREA AND STREAM.

SEEPS ENTER RESIDENTIAL AREA AND STREAM WHICH TRAVERSES POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-11A  
**Description:** MOTORPOOL EAST LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM J. KAVANAGH

**Rank:** H  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor
Aluminum	33,000.00	37,000.00	ug/L	0.89
Lead	25.10	4.00	ug/L	6.28
Manganese and compounds	4,080.00	1,700.00	ug/L	2.40
Antimony and compounds	2.90	15.00	ug/L	0.19
Arsenic	15.50	4.50	ug/L	3.44
Chromium	60.80	180.00	ug/L	0.34
<b>Rank:</b> LOW <b>MPF:</b> POTENTIAL	<b>RF:</b> LIMITED		<b>Total</b>	13.54

**MPF Rationale:**

**RF Rationale:**

DOWNGRAIENT WELLS EXCEED UPGRADIENT.

NO GROUNDWATER USE IN THE AREA.

WH	Concentration	Standard	Unit	Factor
Ethylenebis(dithiocarbamic acid),manganese salt	8,730.00	110.00	ug/L	79.36
Aluminum	2,440.00	37,000.00	ug/L	0.07
Lead	3.70	4.00	ug/L	0.93
Chromium	11.70	180.00	ug/L	0.07
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL		<b>Total</b>	80.42

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEPS EMANATE TO STREAM WHICH TRAVERSES POST.

LEACHATE SEEPS ENTER STREAM WHICH TRAVERSE POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-13  
**Description:** VILLAGE FARM LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

<b>GW</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Toluene				3.00	720.00	ug/L	0.00
Xylene (Mixed)				4.00	1,400.00	ug/L	0.00
Lead				3,630.00	4.00	ug/L	907.50
<b>Rank:</b>	HIGH	<b>MPF:</b>	EVIDENT	<b>RF:</b>	IDENTIFIED	<b>Total</b>	907.51

**MPF Rationale:**

**RF Rationale:**

LEACHATE SEEP DISCHARGES TO DRAINAGE SWALE WHICH ENTERS DRINKING WATER SUPPLY FOR A DRINKING WATER SUPPLY IN DOWNGRADIENT AREA.

<b>WH</b>				<b>Concentration</b>	<b>Standard</b>	<b>Unit</b>	<b>Factor</b>
Chlorobenzene				3.00	39.00	ug/L	0.08
Aluminum				144.00	37,000.00	ug/L	0.00
Lead				12.70	4.00	ug/L	3.17
Barium				47.50	2,600.00	ug/L	0.02
<b>Rank:</b>	HIGH	<b>MPF:</b>	EVIDENT	<b>RF:</b>	IDENTIFIED	<b>Total</b>	3.27

**MPF Rationale:**

**RF Rationale:**

LEACHATE ENTERS DRAINAGE SWALE WHICH ENTERS DRINKING WATER SUPPLY FOR ADJACENT TOWSEEPS ENTER DRINKING WATER SUPPLY CHANNEL.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-15A  
 Description: MORGAN FARM LANDFILL

Ph #: (914)938-4459  
 POC: WILLIAM KAVANAGH

Rank: H  
 Agreement: Z

GW				Concentration	Standard	Unit	Factor
Aluminum				13,600.00	37,000.00	ug/L	0.37
Lead				150.00	4.00	ug/L	37.50
Manganese and compounds				755.00	1,700.00	ug/L	0.44
Vanadium				33.20	260.00	ug/L	0.13
Rank:	HIGH	MPF:	EVIDENT	RF:	POTENTIAL	Total	38.44

MPF Rationale:

SEEPS EVIDENT.

WH

WH				Concentration	Standard	Unit	Factor
Acetone				6.00	610.00	ug/L	0.01
Aluminum				28,700.00	37,000.00	ug/L	0.78
Lead				32.00	4.00	ug/L	8.00
Antimony and compounds				44.40	15.00	ug/L	2.96
Rank:	HIGH	MPF:	EVIDENT	RF:	POTENTIAL	Total	11.75

MPF Rationale:

LEACHATE SEEPS EVIDENT. SITE BORDERS A STREAM.

RF Rationale:

STREAM ENTERS RECREATIONAL LAKE.

RF Rationale:

STREAM ENTERS RECREATIONAL POND.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-15B  
 Description: HIGH SCHOOL LANDFILL

Ph #: (914)938-4459  
 POC: WILLIAM KAVANAGH

Rank: H  
 Agreement: Z

GW				Concentration	Standard	Unit	Factor
1,2-Benzenedicarboxylic Acid, Bis(2-Ethylhexyl)Ester				10.00	480.00	ug/L	0.02
Lead				4.10	4.00	ug/L	1.02
Manganese and compounds				727.00	1,700.00	ug/L	0.43
Rank:	LOW	MPF:	POTENTIAL	RF:	POTENTIAL	Total	1.47

MPF Rationale:

RF Rationale:

GROUNDWATER FLOW TOWARD HUDSON RIVER.

MOST RESIDENCES ON MUNICIPAL WATER SUPPLY IN DOWNGRADIENT FLOW DIRECTION.

WH				Concentration	Standard	Unit	Factor
Aluminum				102.00	37,000.00	ug/L	0.00
Lead				6.20	4.00	ug/L	1.55
Manganese and compounds				1,350.00	1,700.00	ug/L	0.79
Rank:	HIGH	MPF:	EVIDENT	RF:	IDENTIFIED	Total	2.35

MPF Rationale:

RF Rationale:

FLOW EASTWARD TOWARD HUDSON RIVER.

NO KNOWN RECEPTORE ALTHOUGH HIGH SCHOOL NEARBY.



DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-16  
Description: ORGANIC COMPOST LOT

Ph #: (914)938-4459  
POC: WILLIAM KAVANAGH

Rank: H  
Agreement: Z

GW	Concentration	Standard	Unit	Factor
Benzodioxathiepin-3-Oxide	0.01	220.00	ug/L	0.00
Acetone	25.00	610.00	ug/L	0.04
Chloroform	9.00	16.00	ug/L	0.56
Endrin	0.02	11.00	ug/L	0.00
Aluminum	16,800.00	37,000.00	ug/L	0.45
Manganese and compounds	47.00	1,700.00	ug/L	0.03
Zinc	19.00	11,000.00	ug/L	0.00
<b>Rank:</b> MEDIUM	<b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL	<b>Total</b>	1.09

MPF Rationale:

RF Rationale:

LEACHATE SEEPS EMANATE.

SITE UPGRADIENT OF POST.

WH	Concentration	Standard	Unit	Factor
Lead	200.00	4.00	ug/L	50.00
Manganese and compounds	3,100.00	1,700.00	ug/L	1.82
Arsenic	102.00	4.50	ug/L	22.67
Chromium	59.00	180.00	ug/L	0.33
<b>Rank:</b> HIGH	<b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL	<b>Total</b>	74.82

MPF Rationale:

RF Rationale:

LEACHATE SEEPS EMANATE.

SITE LOCATED UPGRADIENT OF POST.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-35A  
**Description:** CAMP BUCKNER LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** H  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor
DDT	0.12	20.00	ug/L	0.01
Aluminum	74,500.00	37,000.00	ug/L	2.01
Lead	212.00	4.00	ug/L	53.00
Manganese and compounds	4,340.00	1,700.00	ug/L	2.55
Arsenic	46.00	4.50	ug/L	10.22
Beryllium and compounds	6.00	73.00	ug/L	0.08
Chromium	101.00	180.00	ug/L	0.56
Zinc	500.00	11,000.00	ug/L	0.05
<b>Rank:</b> MEDIUM <b>MPF:</b> POTENTIAL	<b>RF:</b> POTENTIAL		<b>Total</b>	68.48

**MPF Rationale:**

**RF Rationale:**

SITE IS NEAR A WETLAND.  
**WEF**

SITE IS NEAR DRINKING WATER RECHARGE AREA.

WEF	Concentration	Standard	Unit	Factor
Phenol	3.00	2,560.00	ug/L	0.00
DDT	0.12	0.00	ug/L	120.00
Zinc	7.60	110.00	ug/L	0.07
<b>Rank:</b> HIGH <b>MPF:</b> EVIDENT	<b>RF:</b> POTENTIAL		<b>Total</b>	120.07

**MPF Rationale:**

**RF Rationale:**

STREAM ADJACENT TO FILL AREA.

FILL NEAR WETLAND AND DRINKING WATER RECHARGE AREA.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-44  
Description: SKEET AND TRAP RANGE

Ph #: (914)938-4459  
POC: WILLIAM KAVANAGH

Rank: H  
Agreement: Z

GW	Concentration	Standard	Unit	Factor
Lead	51.30	4.00	ug/L	12.82
Arsenic	11.90	4.50	ug/L	2.64
Rank: MEDIUM	MPF: POTENTIAL	RF: POTENTIAL	Total	15.47

MPF Rationale:

RF Rationale:

SITE IS IN A WETLAND.  
SEM

SITE IS NEAR DRINKING WATER RECHARGE AREA.

SEM	Concentration	Standard	Unit	Factor
Lead	0.00	35.00	mg/kg	0.00
Antimony	0.06	2.00	mg/kg	0.03
Arsenic	0.00	33.00	mg/kg	0.00
Rank: MEDIUM	MPF: POTENTIAL	RF: IDENTIFIED	Total	0.03

MPF Rationale:

RF Rationale:

SITE IN A WETLAND.  
SL

WATERFOWL AFFECTED.

SL	Concentration	Standard	Unit	Factor
Lead	41,600.00	400.00	mg/kg	104.00
Antimony and compounds	316.00	30.00	mg/kg	10.53
Arsenic	123.00	21.00	mg/kg	5.86
Rank: HIGH	MPF: POTENTIAL	RF: POTENTIAL	Total	120.39

MPF Rationale:

RF Rationale:

SITE IS IN WETLANDS.  
WEF

FISHERMAN USE AREA.

WEF	Concentration	Standard	Unit	Factor
Arsenic (III)	35.40	190.00	ug/L	0.19
Lead	331.00	3.20	ug/L	103.44
Antimony	5.40	30.00	ug/L	0.18
Rank: HIGH	MPF: EVIDENT	RF: IDENTIFIED	Total	103.80

MPF Rationale:

RF Rationale:

SITE IN A WETLAND.

WATERFOWL AFFECTED.

**DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM**

**Relative Risk, 4. RISK DATA REPORT**

02/28/2000

**Site:** WSTPT-47  
**Description:** ASP LANDFILL

**Ph #:** (914)938-4459  
**POC:** WILLIAM KAVANAGH

**Rank:** L  
**Agreement:** Z

GW	Concentration	Standard	Unit	Factor
Manganese and compounds	140.00	1,700.00	ug/L	0.08
<b>Rank:</b> LOW <b>MPF:</b> POTENTIAL	<b>RF:</b>	LIMITED	<b>Total</b>	0.08

**MPF Rationale:**

FRACTURED ROCK.

**RF Rationale:**

MUNICIPAL WATER SUPPLY.

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

Relative Risk, 4. RISK DATA REPORT

02/28/2000

Site: WSTPT-48  
 Description: BLDG.706 PARKING LOT LANDFILL

Ph #: (914)938-4459  
 POC: WILLIAM KAVANAGH

Rank: M  
 Agreement: Z

GW	Concentration	Standard	Unit	Factor
Dieldrin	0.02	0.42	ug/L	0.04
Aluminum	8,970.00	37,000.00	ug/L	0.24
Lead	18.10	4.00	ug/L	4.53
Arsenic	2.80	4.50	ug/L	0.62
Rank: MEDIUM    MPF: POTENTIAL	RF: POTENTIAL	Total		5.43

MPF Rationale:

GROUNDWATER MAY ENTER RESEVOIR.

RF Rationale:

GROUND WATER MAY ENTER RESEVOIR.

## 5. SCHEDULE

A schedule of IRP work completed to date (Schedule A) and planned through completion of all restoration work (Schedule B) at USMA has been detailed.

### A. PAST PHASE COMPLETION MILESTONES

USMA submitted RCRA Part B Application	Nov 88
USMA rescinded RCRA Application	Dec 88

<u>IRP PHASE</u>	<u>SITES</u>	<u>COMPLETION DATES</u>
PA/SI	SWMU Study by USAEHA	Nov 90
Phase I RI	6 Landfill Work Plans Issued	Jul 91
PA/SI	Crow's Nest Gas Line Survey	Sep 91
Phase I RI	Skeet and Trap Range Initiation	Jan 92
SI	10 Landfill RFA Initiation	Aug 92
Phase II RI	Skeet and Trap Range Initiation	Sep 93
RI	Crow's Nest Limited Sweep	May 94
IRA	Tank Closures of WSTPT 46&47	May 94
Phase I RI	6 Landfill Finalized	Jul 94
RFA	4 Landfill RFA Initiation	Sep 94
Phase II RI	6 Landfill Award	Sep 94
IRA	Rapid Response Contract Award through Omaha District	Sep 95
IRA, Phase I RI	10 Landfill RFA Finalized	Jun 95
IRA, Phase II RI	Skeet and Trap Range Finalized	Nov 95
IRA, RFI	Begin at 10 Landfill	Mar 96
DD	Begin at Skeet and Trap Range	Mar 96
RD	Begin at Post School	May 96
RFA	4 Landfill RFA Finalized	Sep 96
Phase II RI	6 Landfill Finalized	Aug 96
IRA	Complete at 6 Landfill	Mar 96
RD	Begin for Michie Lots C, E, &F	Aug 96
DD	Complete at Skeet/Trap Range (WSTPT-44)	Apr 97
RFI	Finalize at 10 Landfill	Jun 97
CMS	Finalize at Post School (WSTPT-10)	Jul 97
CMI	Begin at Post School (WSTPT-10)	Mar 98
CMS	Begin at Motorpool, Motorpool East and Ski Slope Landfills (WSTPT-11, 09, 11A)	Sep 97
CMS	Complete at Motorpool Landfill	Aug 98
IRA	Village Farm Landfill (WSTPT 13)	Nov 98
CMI	Begin at Motorpool Landfill (WSTPT-11)	Feb 99
CMI	Begin at Michie Lot Landfills C, E&F	Mar 99
CMI	Complete at Post School (WSTPT-10)	Nov 98
DES	Initiate at Michie Lots A (WSTPT-02), B (WSTPT-03)	Sep 98
CMI	Complete at Motorpool Landfill (WSTPT-11)	Sep 99
RFI	Response to Regulators Questions – 10 Landfill Report	Dec 99



B. PROJECTED PHASE COMPLETION MILESTONES

<u>IRP</u> <u>PHASE</u>	<u>SITES</u>	<u>COMPLETION</u> <u>DATES</u>
CMI	Complete at Motorpool East Landfill (WSTPT-11A)	Sep 00
CMI	Complete Michie Lots C, E & F (WSTPT-4, 5, 7A)	Sep 00
CMI	Complete at Ski Slope (WSTPT-09)	Sep 00
CMI	Complete Michie Lots A(WSTPT-02), B (WSTPT-03)	Sep 00
LTM	Monitoring of Select Landfills	1997 - 2017
LTO	Long term operations at select landfills	1997 - 2017

Projected completion date of all CMI (C): September 2000

Projected deletion from the National Priorities List is not applicable to USMA.

Projected completion date of IRP, LTM and LTO: September 2017

**TABLE 3  
USMA  
IRP SCHEDULE**

TASK	90-91	92	93	94	95	96	97/98	99/00	01	02-17
PA	██████									
SI/RFA	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████			
RFI	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████			
IRA	██████			████████	████████	████████				
CMS						████████	████████	████████		
CMI						████████	████████	████████		
LTM								████████	████████	████████

## 6. REMOVAL/INTERIM REMEDIAL/REMEDIAL ACTION ASSESSMENT

### A. TOTAL SITES ASSESSED

The 20 landfill sites were clustered into 3 separate projects. The 6 Landfill project, which is furthest along, has 3 sites with leachate collection systems established as an IRA in 1990. The collection systems, which are functioning, require monthly maintenance. The systems at WSTPT-07A and WSTPT -10 were upgraded in FY 96.

Two small landfills (WSTPT 13 and 15 A) were removed and consolidated under a Beneficial Use Determination into Cragston Sanitary Landfill which is undergoing RCRA Subtitle D Closure.

Fourteen abandoned USTs located at STAS and USMA were grouped together to execute the project more efficiently. Twelve of the tanks have been removed and two were closed in place. Closure reports have been submitted to the New York State Department of Environmental Conservation and no further action is planned pending their review.

### B. PAST REM/IRA/RA/LTM

- 6 Landfill - Install leachate collection systems at 3 sites. Improve perimeter drainage at WSTPT-07A and 10
- USTs - Remove or close in place 14 USTs.
- 10 Landfill - Consolidate waste materials removed from WSTPT 13 and WSTPT-15A into Cragston Landfill which is undergoing RCRA Subtitle D closure.
- 6 Landfill - IRA to upgrade existing leachate collection systems and install drainage controls at WSTPT-07A and WSTPT-10 (FY 96).

### C. ONGOING REM/IRA/RA/LTM

- Drainage improvements, capping, and leachate collection being performed at four landfills (WSTPT-2, 3, 4, 6, 9 and 11A)

### D. POSSIBLE FUTURE REM/IRA/RA/LTM

- LTM at the landfills.

### Potential Sites for Accelerated Action


- None.

7. APPROVAL AND CONCURRENCE


A. REGULATOR AND PUBLIC INVOLVEMENT

The Central Office of the New York State Department of Environmental Conservation will be provided a copy of this IAP. Issues involving the public are discussed during the USMA Community Relations Committee Meetings.

B. APPROVAL

*for*   
ARNOLD SMITH  
COL, FA  
Garrison Commander  
USMA

C. CONCURRENCE

*for*   
EUGENE E. ROOD, P.E.  
Chief, Environmental Management Division  
USMA

ATTACHMENT 1  
COSTS

ATTACHMENT 2  
RESTORATION ADVISORY BOARD INFORMATION

ATTACHMENT 2  
RESTORATION ADVISORY BOARD (RAB) INFORMATION

The United States Military Academy (USMA) has a relatively small installation restoration program without significant issues that warrant the establishment of a RAB. The West Point community consists of approximately 10,000 military personnel and their family members, civilian personnel, and cadets. The Town of Highlands, which adjoins West Point 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 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.

A Community Relations Council has been formalized where any future planned remedial actions can be presented. The Engineering/Public Works Subcommittee of the Community Relations Council is chaired by the USMA Director of Housing and Public Works and consists of local village and town officials, town historian and interested citizens. This committee provides the ideal forum for representing planned remedial activities, which could affect the community without establishing a RAB.

On post, West Point has established residential Mayor's Meetings. Each residential area has an elected mayor who represents that community's interest and conveys its concerns to local command. These community meetings also provide an excellent forum to present and discuss future remedial activities that may affect the local community. The availability of these two operating public forums and the limited remedial actions planned at USMA limit the need to establish a RAB at West Point.



ATTACHMENT 3  
ACRONYMS AND ABBREVIATIONS

ATTACHMENT 3  
ACRONYMS AND ABBREVIATIONS

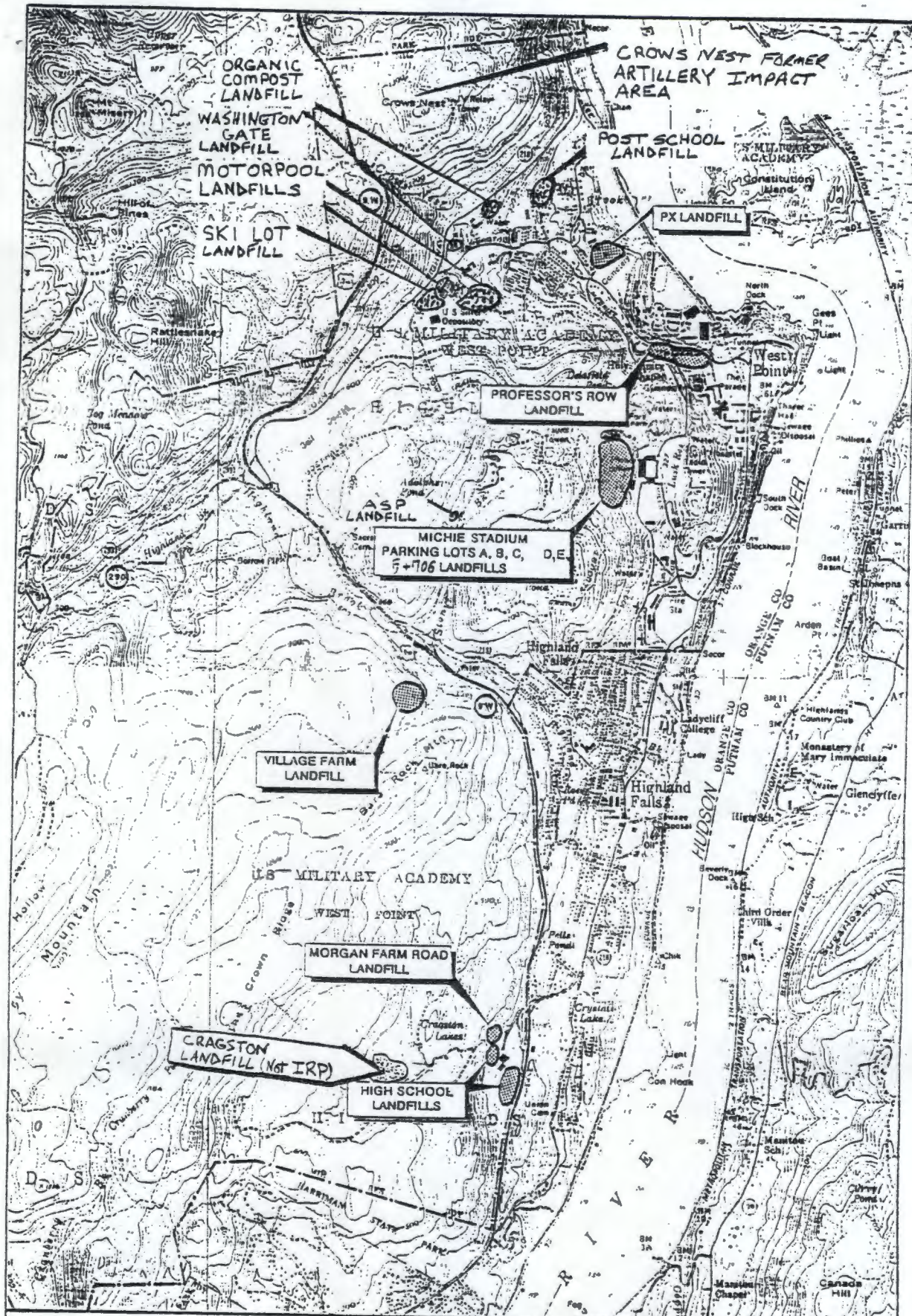
AEHA	Army Environmental Hygiene Agency (currently Center for Health Promotion and Preventive Medicine [CHPPM])
CERCLA	Comprehensive Environmental Response, Compensation, and Liabilities Act
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
DD	Decision Document
	An agreement to carry out an action.
DERA	Defense Environmental Restoration Account
	An Account used to fund DoD environmental clean-up activities.
DERP	Defense Environmental Restoration Program
	Program for environmental clean-up of DoD facilities.
DES	Remedial Design under RCRA
DoD	Department of Defense
DPM	Defense Priority Model
	A rating from 0.00 to 99.9 that represents the relative risk to human health and the environment, based on contaminant pathway, hazard, and receptors.
DSERTS	Defense Site Environmental Restoration Tracking System
	The DSERTS software application supports Army DERP management and automates data collection. DSERTS provides information to DoD and RMIS for reporting to Congress.
EPA	U.S. Environmental Protection Agency
IAP	Installation Action Plan
IRA	Interim Remedial Action
	The clean-up activity status, which includes removal and clean-up actions taken prior to decision on the final clean-up.

IRP	Installation Restoration Program
LTM	Long-Term Monitoring The continuous sampling and analysis of sites.
MACOM	Major Command
NFRAP	No Further Response Action Planned Indicates that the restoration process is complete and that the required regulatory agencies have been notified.
NPL	National Priority List The prioritized list of sites to be remediated established by the EPA.
NYSDEC	New York State Department of Environmental Conservation
OB/OD	Open Burn/Open Detonation
OEW	Ordinance and Explosive Waste
PA	Preliminary Assessment
POL	Petroleum, Oil and Lubricants
RA	Remedial Action An action that involves the construction, operation, and implementation of the final clean-up remedy or remedies.
RAOPS	Remedial Action Operation
RC	Response Complete The date, year and, month on which the restoration process is considered complete and by which all required regulatory agencies have been notified.
RCRA	Resource Conservation Recovery Act
RD	Remedial Design The development of the final design for the selected clean-up, including the preparation of technical drawings and specifications needed to implement the clean-up action.
RFI	Remedial Facility Investigation

RI/FS	Remedial Investigation/Feasibility Study
	A study undertaken to determine the nature and extent of the contamination at a site. Based on the RI data, options for the final clean-up actions are developed and evaluated in the FS.
RIP	Remedy in Place
RMIS	Restoration Management Information System
SARA	Superfund Amendments and Reauthorization Act
	This act establishes standards for clean-up activities and also stipulates the conditions for off-site disposal of waste.
SC	Site Closeout
	Indicates the date when site response complete concurrence was obtained from regulatory agencies.
SI	Site Inspection
	On-site validation and collection of additional data to categorize the contaminant sources and determine whether the contaminants are being released into the environment.
STR	Skeet and Trap Range
SWMU	Solid Waste Management Unit
TBD	To Be Determined
USAEC	U.S. Army Environmental Center (formerly USATHAMA)
UST	Underground Storage Tank

ATTACHMENT 4  
FIGURES





LEGEND:  
 --- USMA RESERVATION BOUNDARY

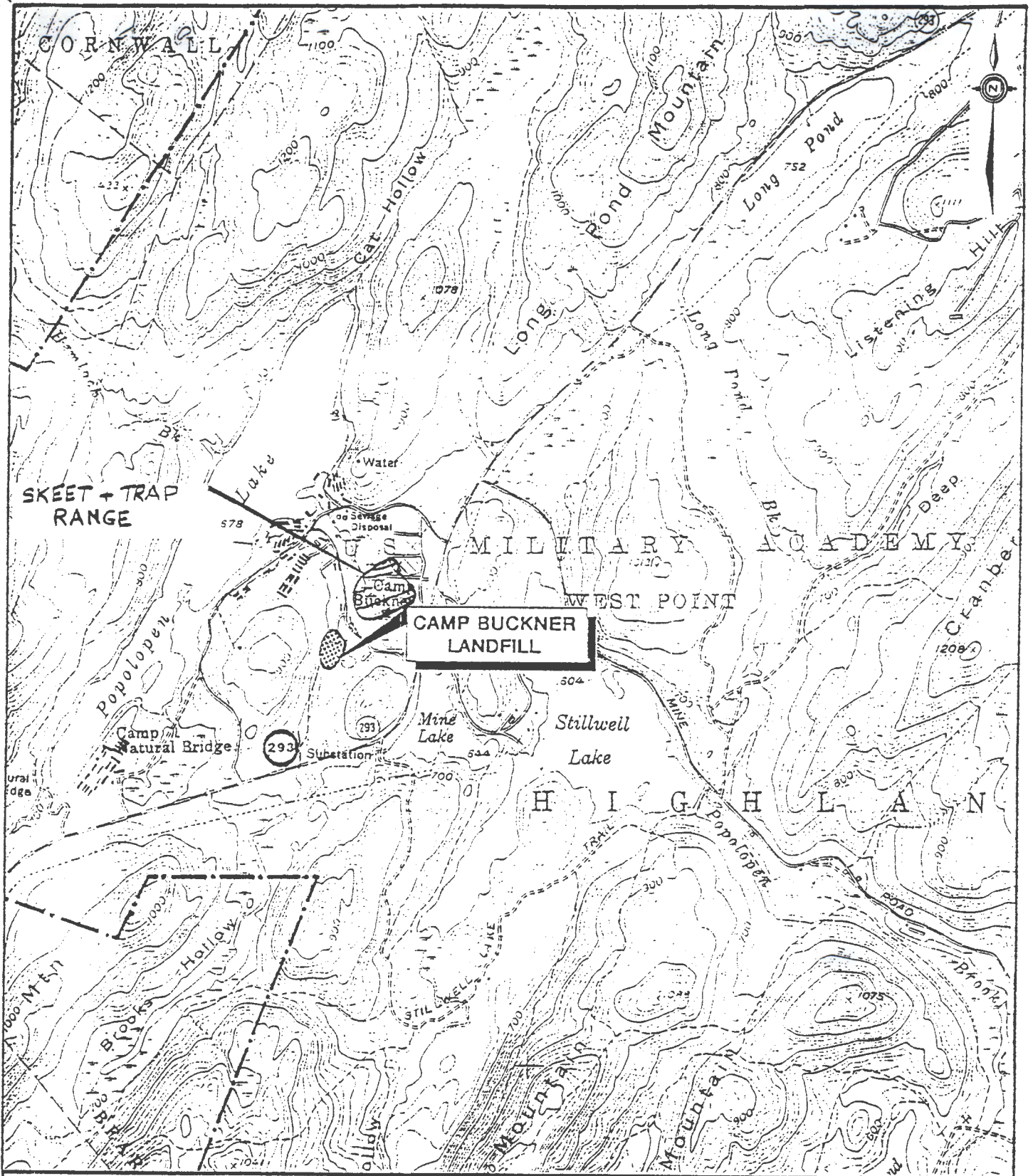
NOTE:  
 LOCATIONS AND EXTENT OF  
 LANDFILLS ARE APPROXIMATE.

MAP SOURCE:  
 USGS TOPOGRAPHIC MAPS: CORNWALL, PEESKILL, POPOLOPEN LAKE,  
 AND WEST POINT, NY QUADRANGLES: 1957, PHOTOREVISED 1981.

LOCATION MAP OF IRP SITES  
 UNITED STATES MILITARY ACADEMY  
 WEST POINT, NEW YORK  
 1994

FIGURE 1





**LEGEND:**

--- USMA RESERVATION BOUNDARY

**NOTE:**

LANDFILL LOCATION IS APPROXIMATE.

**MAP SOURCE:**

USGS TOPOGRAPHIC MAP; POPOLOPEN LAKE, NY QUADRANGLE; 1957, PHOTOREVISED 1981.

**LOCATION MAP OF IRP SITES  
UNITED STATES MILITARY ACADEMY  
WEST POINT, NEW YORK  
1994**

FIG. 2