

INSTALLATION ACTION PLAN

FOR THE

UNITED STATES MILITARY ACADEMY

1998

**UNITED STATES MILITARY ACADEMY
IRP SUMMARY**

1. STATUS: Non-NPL with RCRA corrective action
2. TOTAL NUMBER OF DSERTS SITES: 24 active sites; 10 Response Complete (RC):
3. DIFFERENT SITE TYPES:
 - 2 Tank Areas (4 USTs)
 - 1 OEW Site
 - 20 Landfills
 - 1 Wetland contaminated by former Skeet and Trap Range
4. MOST WIDESPREAD CONTAMINANTS OF CONERN:
 - Petroleum/Oil/Lubricants (POLs)
 - Heavy Metals
5. MEDIA OF CONCERN:
 - Groundwater
 - Soil
 - Surface Water
6. COMPLETED REM/IRA/RA:
 - REM - UST removals (FY 94) (WSTPT-49, \$50K)
 - IRA - Install Leachate Collection Systems at 3 Landfills (FY 89)
 - IRA - Consolidation of 1 Landfill (FY 95-6) (WSTPT - 15A, \$475K)
 - IRA - Landfill drainage improvements (FY 96) (WSTPT - 7a + 10, \$140K)
 - IRA - Upgrade Leachate Collection Systems (FY 96) (WSTPT - 7a +10, \$100K)
7. CURRENT IRP PHASE:
 - RC at 8 Sites
 - RA at 1 Site
 - RD at 6 Site
8. PROJECTED IRP PHASE:
 - RA at 4 Sites
 - IRA/REM at 1 Landfill Site
 - RD at 3 Landfills
9. IDENTIFIED POSSIBLE REM/IRA/RA:
 - REM at 1 Site
 - RA at 1 Site
10. FUNDING:

Prior Year Funds	\$5,886K
FY98 Funds	\$1,600K
Future Requirements (w/Project Management)	<u>\$7,098K</u>
Total	\$14,584K
11. DURATION:

Year of IRP Inception	1991
Year of RA Completion	2001
Year of IRP Completion (excluding LTO<Min)	2001

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1. INSTALLATION INFORMATION

A. **LOCALE:** The United States Military Academy (USMA) is located 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.

Stewart Army Subpost (STAS) is located approximately 13 miles northwest of the main post in New Windsor, New York. STAS has the primary mission of providing family housing for West Point and facility support for non-USMA functions. A separate Installation Action Plan has been prepared for STAS (DSERTS ID is SASP). STAS is undergoing divestiture.

Galeville Airport is located 30 miles northwest of the main post in Wallkill, New York. The land was leased to the FBI recently relocated. There are no current IRP sites at Galeville Airport and the property is in the process of being excessed.

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:**

Major Command - USMA, United States Military Academy.

Installation - USMA - Directorate of Housing and Public Works (DHPW) Environmental Management Division

Installation Restoration Program Executing Agency:

Investigation Phase Executing Agency: Center for Health Protection and Preventive Medicine 1990 (CHPPM) (Formerly Army Environmental Hygiene Agency)

Site Investigation/Remedial Investigation/Feasibility Study, and Remedial Design: U.S. Army Corps of Engineers, North Atlantic Division; Baltimore District.

Remedial Action: Upon completion of Remedial Design, the New York District Corps of Engineers will oversee project supervision and administration

Interim Remedial Action: Omaha District Corps of Engineers

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

Regulatory Status - Non-NPL with RCRA Corrective Action

Major Changes to Action Plan From Previous Year (FY97)

Closeout bumped up to FY 01 vs FY 03

2. INSTALLATION DESCRIPTION

A. 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.

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 (u). 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.

The Stewart Army Subpost is undergoing an Environmental Baseline Study to permit the excess of the property. An additional landfill investigation and underground storage tank removals may require future inclusion in the USMA IRP.

3. CONTAMINATION ASSESSMENT

A. OVERVIEW: USMA has 24 sites (5 additional sites listed under DSERTS are not active) grouped into 6 projects under the IRP. Landfills account for 20 of these sites in three projects which are at different stages in the remedial process (Table 1). 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 Skeet and Trap Range 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 (WSPT-46 and 47).

Site locations are presented in Figures 1 and 2. A description of each site is summarized in section B. Table 2 lists the previous studies completed at USMA.

**TABLE I
INSTALLATION RESTORATION PROGRAM LANDFILL PROJECTS 1997**

PROJECT	STATUS
6 Landfill Investigation	
<ul style="list-style-type: none"> o Organic Compost Landfill (WSTPT-16) o Post School Landfill (WSTPT-10) o Ski Lot Landfill (WSTPT-9) o Motor Pool Landfill (WSTPT-11) o Michie Stadium Lots D (WSTPT-05) & F (WSTPT-7A) 	<p>Subsurface Investigation completed in 1994</p> <p>Phase II Investigation Shall be completed in FY 96</p> <p>IRA completed in FY 96 at WSTPT-10&7A</p>
10 Landfill Investigation	
<ul style="list-style-type: none"> o PX Landfill (WSTPT-01) o Michie Stadium Lots A (WSTPT-02), B (WSTPT-03), C (WSTPT-04) and E (WSTPT-06) o Professor Row Landfill (WSTPT-08) o Morgan Farm Road Landfill (WSTPT-15A) o High School Landfill (WSTPT-15B) o Camp Buckner Landfill (WSTPT-35A) o Village Farm Landfill (WSTPT-13) 	<p>RCRA Facility Assessment Finalized in June 96. State regulator requested (NYSDEC) RCRA Facility Investigation completed in June 1997. IRA completed at WSTPT-15A in FY 96. State Regulator (NYSDEC) requested follow-up study in FY 98.</p>
4 Landfill Investigation	
<ul style="list-style-type: none"> o Washington Gate Landfill (WSTPT-12) o ASP Landfill (WSTPT-47) o Motor Pool-East Landfill (WSTPT-11A) o No. 706 Parking Lot Landfill (WSTPT-48) 	<p>RCRA Facility Assessment of Four Landfills was finalized in FY 96</p> <p>Response complete on all but Motor-pool East which is under RD.</p>
Michie Lot Remediation	
<ul style="list-style-type: none"> o Michie Stadium Lots - C (WSTPT-04), E (WSTPT-06), F (WSTPT-07a) 	<p>Remedial design initiated in late FY 96 to provide drainage controls; capping leachate collection. Construction planned for 2nd Qtr FY99</p>
Post School Landfill Closure	
<ul style="list-style-type: none"> o WSTPT-10 	<p>Remedial design to install, cap, improve drainage and provide leachate collection, completed in July 1997. RA awarded in FY 97.</p>
Motorpool, Ski Slope and Motorpool East Landfills Closure(WSTPT-11, 09 & 11A)	
	<p>Remedial Design initiated in late FY 97 to provide drainage controls; capping and leachate collection.</p>

TABLE 2

PREVIOUS STUDIES AT USMA

1. Dames and Moore, April 1982 Final Environmental Impact Statement Ongoing Operations of the USMA, West Point, Stewart Army Subpost and Galeville Training Site.
2. Design and Planning Associates and Aerial Mapping Services Inc., January 1976, Topographic Survey of USMA compiled by Photogrammetric Methods from Aerial Photos taken 6 Jan 76, Middletown, New York
3. Environmental Science and Engineering, 1984, USMA Installation Assessment (Report No. 346).
4. Paulus, Sokolowski and Sartor, 1985, Draft Analysis of Existing Facilities, USMA, Environmental Assessment Report.
5. AEHA, November 1990, Evaluation of Solid Waste Management Units, at USMA, Aberdeen Proving Ground, MD.
6. LAW Engineering and Environmental Services, July 1994, FINAL - Subsurface Investigation Report of 6 Landfills, Kenesaw, GA
7. Woodward Clyde Federal Services, January 1994, Work Plan and Chemical Data Acquisition Plan, RCRA Facility Assessment of Ten Landfills, Wayne, NJ
8. EA Engineering, Science, and Technology, August 1993, Site Inspection Report Camp Buckner Skeet and Trap Range, Newburgh, New York
9. EA Engineering, Science, and Technology, January 1994, Work Plan/Sampling and Analysis Plan Phase II Site Investigation Camp Buckner Skeet and Trap Range, Newburgh, New York
10. Human Factors Applications, Inc., May 23, 1994, Unexploded Ordnance Site Survey Report for Crow's Nest, Indian Head, Maryland
11. Woodward Clyde Federal Services, June 1995, RCRA Facility Assessment (RFA) of Ten Landfills Report, Wayne, N.J.
12. EA Engineering, Science and Technology, November 1995, Phase II Site Investigation Camp Buckner Skeet and Trap Range, Newburgh, N.Y.
13. EA Engineering, Science and Technology, September 1996, Expanded RCRA Facility Assessment of Four Landfills, Newburgh, N.Y.

TABLE 2 (Cont)

14. EA Engineering, Science and Technology, August 1996, Phase II Investigation Report of Six Landfills, Newburgh, N.Y.

15. EA Engineering, Science and Technology, August 1995, Remedial Investigation at Building 2228 Fuelling Facility, Newburgh, N.Y.

16. International Technology Corporation, September 1996, U.S. Military Academy Landfill Remediation, Rochester, N.Y.

17. Malcolm Pirnie, Inc., June 1997, Final RCRA Facility Investigation of Ten Landfills, White Plains, N. Y.

18. Malcolm Pirnie, Inc., July 1997, Post School Landfill Closure Design, Design Analysis Report, White Plains, N. Y.

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. Additional investigation of this site requested by State Regulator (NYSDEC) in March 1998.

CONTAMINANT OF CONCERN: Metals
MEDIA OF CONCERN: Groundwater, Soil, Surfacewater
RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE TO DATE: RFI (expanded)
FUTURE IRP PHASE TO DATE: CMS

RECOMMENDATION FOR FUTURE RESPONSE: Long term monitoring of groundwater wells and leachate seep.

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, Surface Water
RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE: RFI (expanded)
FUTURE IRP PHASE: CMS, CMI

Recommendations: Upgrade cover system and improve drainage to reduce leachate seeps.

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.

CONTAMINANT OF CONCERN: Metals
RRSE Rating: 1B
MEDIA OF CONCERN: Groundwater, Soil, Surface Water
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE: RFI (expanded)
FUTURE IRP PHASE: CMS, CMI

Recommendations: Update cover system and improve drainage to reduce leachate generation.

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 gas have been identified at this site. Lot C is currently under Remedial Design to improve drainage and reduce leachate generation.

CONTAMINANT OF CONCERN: Metals
RRSE Rating: 1B
MEDIA OF CONCERN: Groundwater, soil, surface water
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE: CMS
FUTURE IRP PHASE: CMI

Recommendation: Upgrade cover system and improve drainage to reduce leachate generation

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, surface water
COMPLETED IRP PHASE TO DATE: Phase II RI
CURRENT IRP PHASE: RC
FUTURE IRP PHASE: LTM

Recommendations: Long term monitoring

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 gas have been identified at this site. A cap and drainage improvement design was initiated in FY 96. Construction is planned for FY 99.

CONTAMINANT OF CONCERN: Metals

RRSE Rating: 1B

MEDIA OF CONCERN: Groundwater, soil, surface water

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

CURRENT IRP PHASE: CMS

FUTURE IRP PHASE: CMI

Recommendation: Upgrade cover system and improve drainage to reduce leachate generation. Install gas vents.

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 gas have been identified at this site. A leachate collection tank has been installed downgradient of this site, and was recently upgraded. A cap and drainage improvement design was initiated in FY 96.

CONTAMINANT OF CONCERN: Metals

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: CMS

FUTURE IRP PHASE: CMI

Recommendations: Upgrade cover system and improve drainage to reduce leachate generation. Upgrade Leachate Collection Systems and install gas vents.

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

Recommendations: 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 two 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, Surface Water
RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: Phase I RI, Phase II RI
CURRENT IRP PHASE: CMS
FUTURE IRP PHASE: CMI

Recommendation: Cap and Install Leachate Collection System

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 unuseable. 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. Construction is planned in FY 98.

CONTAMINANT OF CONCERN: Metals
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: CMI
FUTURE IRP PHASE: LTM/LTO

Recommendations: Upgrade cover systems and improve drainage to reduce leachate generation.

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 gas have been observed at this site.

CONTAMINANT OF CONCERN: Metals; Suspected: POL
MEDIA OF CONCERN: Groundwater, Soil, Surface Water

WSPT - 11 - MOTOR POOL LANDFILL (Cont)

RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: Phase I RI, Phase II RI
CURRENT IRP PHASE: CMS
FUTURE IRP PHASE: CMI

Recommendation: Upgrade cover system and improve drainage to reduce leachate generation. Install gas vents.

WSPT - 11A - MOTOR POOL - EAST LANDFILL

WSPT - 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, Surface Water
RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: RFA
CURRENT IRP PHASE: CMS
FUTURE IRP PHASE: CMI

Recommendation: Sample seep and monitor groundwater. Improve drainage and upgrade cap.

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: 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.

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
CURRENT IRP PHASE: IRA
FUTURE IRP PHASE: LTM

Recommendation: Consolidate landfill into Subtitle D Landfill (WSTPT-14) undergoing closure.

WSTPT - 14 CRAGSTON LANDFILL (DERA INELIGIBLE)

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

CONTAMINANT OF CONCERN: Metals
MEDIA OF CONCERN: Surface Water, Groundwater, Soil
COMPLETED IRP PHASE TO DATE: DERA Ineligible
CURRENT IRP PHASE TO DATE:
FUTURE IRP PHASE TO DATE:

Recommendation: 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, Surface Water
RRSE Rating: 1B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, IRA
CURRENT IRP PHASE: None
FUTURE IRP PHASE: Response Complete
Recommendations: 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, surface water
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE: None
FUTURE IRP PHASE: NFRAP
Recommendations: 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 1/2 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: LTM
Recommendations: 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. Additional investigation requested by State Regulatory (NYSDEC) in March 1998.

CONTAMINANT OF CONCERN: Metals
MEDIA OF CONCERN: Groundwater, soil, surface water
RRSE Rating: 2 B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA, RFI
CURRENT IRP PHASE: RFI (expanded)
FUTURE IRP PHASE: CMS, CMI
Recommendations: Capping and LTM

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, Arsenic
MEDIA OF CONCERN: Surface Water, Ground Water, 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

Recommendations: 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 has 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

Recommendations: 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.

WSTPT - 46 UST REMOVAL (Cont)

CONTAMINANT OF CONCERN: POL
MEDIA OF CONCERN: Soil, Ground Water
RRSE Rating: N/A
CURRENT IRP PHASE: None
FUTURE IRP PHASE: None Anticipated

Recommendation: 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 material (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, soil
RRSE Rating: 3 B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA
CURRENT IRP PHASE: RC
FUTURE IRP PHASE: None

Recommendation: 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 1 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, soil
RRSE Rating: 2B
COMPLETED IRP PHASE TO DATE: PA/SI, RFA
CURRENT IRP PHASE: RC
FUTURE IRP PHASE: NFRAP

Recommendation: 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, Groundwater
RRSE Rating: N/A
COMPLETED IRP PHASE TO DATE: IRA
CURRENT IRP PHASE: RC
FUTURE IRP PHASE: NFRAP

Recommendation: No further response action planned.

4. IRP SUMMARY CHARTS

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

- o Phase Summary Report
- o Risk Installation Action Plan Report
- o RAB Report

Defense Site Environmental Restoration Tracking System

Phase Summary Report

03-13-1998

Installation: UNITED STATES MILITARY ACADEMY

Programs: IRP

NPL Options: NO

Site count for Programs and NPL 29

Phase / Status / Sites

PA				SI			
C	U	F	RC	C	U	F	RC
29	0	0	4	22	0	0	7
RI / FS				RD			
C	U	F	RC	C	U	F	
16	0	0	3	2	6	3	
RA(C)				RA(O)			
C	U	F	RC	C	U	F	RC
3	2	10	2	0	0	8	0

LTM			
C	U	F	N
0	0	16	13

Remedy / Status / Sites (Actions)

IRA					
C		U		F	
5 (	6)	1 (	1)	0 (	0)
FRA					
C		U		F	
3 (	3)	2 (	2)	9 (	10)

RIP Total: 0

RC Total: 16

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

03-12-1998

-20-

UNITED STATES MILITARY ACADEMY
 NY214620915
 USMA

Site	A106 Project #	RRSE	Media Evaluated	Phase(s) Completed	Phase(s) Underway	Phase(s) Future	#IRA Completed	#IRA Underway	#IRA Future	LTM Status	Est. RC Date	Act. RC Date	RIP Date
USMA-12	UMA093F009	3B	SE (Human)	PA			0	0	0	N		199610	
			SW (Human)										
WSTPT-01	UMA089F027	1B	GW (Human)	PA		LTM	0	0	0	F		199710	
			SW (Human)	RI									

RRSE - Relative Risk Site Evaluation; Risk Category - 1-High, 2-Medium, 3-Low;
 Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

03-12-1998

WSTPT-01				SI									
WSTPT-02	UMA089F027	1B	GW (Human)	PA		LTM	0	0	0	F	200109		
			SW (Human)	RI		RA (C)							
				SI		RD							
WSTPT-03	UMA089F027	1B	GW (Human)	PA		LTM	0	0	0	F	200309		
			SW (Human)	RI		RA (C)							
				SI		RD							
WSTPT-04	UMA089F027	1B	GW (Human)	PA	RD	LTM	0	0	0	F	203006		
	UMA096F014		SW (Human)	RI		RA (C)							
				SI		RA (O)							
WSTPT-05	UMA089F017	2B	GW (Human)	PA			0	0	0	N		199701	
				RI									
				SI									
WSTPT-06	UMA089F027	1B	GW (Human)	PA	RD	LTM	0	0	0	F	203006		
	UMA096F014		SW (Human)	RI		RA (C)							
				SI		RA (O)							
WSTPT-07A	UMA089F017	1B	GW (Human)	PA	RD	LTM	2	0	0	F	203006		
	UMA096F014		SW (Human)	RI		RA (C)							
				SI		RA (O)							
WSTPT-07B		NE		PA			0	0	0	N		198412	
WSTPT-07C		NE		PA			0	0	0	N		199011	
				SI									
WSTPT-08	UMA089F027	NE		PA			0	0	0	N		199506	
				SI									
WSTPT-09	UMA089F017	1B	GW (Human)	PA	RD	LTM	1	0	0	F	203307		
			SW (Human)	RI		RA (C)							
				SI		RA (O)							
WSTPT-10	UMA089F017	1B	GW (Human)	PA	RA (C)	LTM	1	0	0	F	202905		
	UMA096F015		SW (Human)	RD		RA (O)							
				RI									
				SI									

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;

Legal Agreement - A = with agreement, B = without agreement, C = Complete, U = Underway, F = Future, N = Not Applicable

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

03-12-1998

WSTPT-11	UMA089F017	1B	GW (Human)	PA	RD	LTM	0	0	0	F	201004		
			SW (Human)	RI		RA(C)							
				SI		RA(O)							
WSTPT-11A	UMA093F009	1B	GW (Human)	PA	RD	LTM	0	0	0	F	200709		
			SW (Human)	RI		RA(C)							
						RA(O)							
WSTPT-12		NE		PA			0	0	0	N		198412	
				SI									
WSTPT-13	UMA089F027	1B	GW (Human)	PA	RA(C)	LTM	0	0	0	F	199809		
			SW (Human)	RI									
				SI									
WSTPT-14		NE		PA			0	0	0	N		199104	
WSTPT-15A	UMA089F027	1B	GW (Human)	PA		LTM	0	0	0	F	200711		
			SW (Human)	RA(C)		RA(O)							
				RI									
				SI									
WSTPT-15B	UMA089F027	1B	GW (Human)	PA		LTM	0	0	0	F		199603	
			SW (Human)	SI									
WSTPT-16	UMA089F017	1B	GW (Human)	PA		LTM	1	0	0	F		199609	
			SW (Human)	SI									
WSTPT-23A		NE		PA			0	0	0	N		198412	
				SI									
WSTPT-35A	UMA089F027	1B	SW (Ecol)	FSH PA		LTM	0	0	0	F	200109		
			GW (Human)	RI		RA(C)							
				SI		RD							
WSTPT-44	UMA090S001	1B	SE (Ecol)	MAR PA		LTM	0	1	0	F	200009		
			SW (Ecol)	FSH RD		RA(C)							
			GW (Human)	RI									
			SO (Human)	SI									
WSTPT-45	UMA090F001	NE		PA			1	0	0	N		199404	
				RI									

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;

Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

03-12-1998

WSTPT-45				SI									
WSTPT-47	UMA093F009	3B	GW (Human)	PA		0	0	0	N			199703	
				SI									
WSTPT-48	UMA093F009	2B	GW (Human)	PA		0	0	0	N			199609	
WSTPT-49	S10092F002	NE		PA		0	0	0	N			199412	
				RA (C)									
WSTPT-50		NE		PA		0	0	0	N			199409	
				RA (C)									

-23-

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;
 Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RAB REPORT

03-13-1998

Command: USMA

SubCommand:

Installation: UNITED STATES MILITARY ACADEMY

RAB Established date:

Reason RAB not Established LACK OF CLEANUP ISSUES

RAB Disestablished date:

Reason RAB disestablished:

TRC date:

RAB Members:

RAB Activities:

RAB Funding:

FY	Tech. Assist.	Expenditures

RAB Advice:

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
IRP Phase		
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 and Motorpool, Ski Slope East Landfills (WSTPT-11, 09, 11A)	Sep 97

B. PROJECTED PHASE COMPLETION MILESTONES

<u>IRP PHASE</u>	<u>SITES</u>	<u>COMPLETION DATES</u>
CMI	Begin at Motorpool Landfill (WSTPT-11)	Jan 99

B. PROJECTED PHASE COMPLETION MILESTONES (CONT)

<u>IRP PHASE</u>	<u>SITES</u>	<u>COMPLETION DATES</u>
CMI	Complete at Post School (WSTPT-10)	Nov 98
CMI	Complete at Motorpool Landfills	Sep 00
CMI	Complete at Ski Slope (WSTPT-09)	Sep 01
CMS	Initiate at Camp Buckner Landfill (WSTPT-35A)	Nov 99
CMI	Complete at Camp Buckner Landfill (WSTPT-35A)	Sep 01
CMS	Initiate at Michie Lots A(WSTPT-02), B (WSTPT-03)	Nov 99
CMI	Complete Michie Lots A(WSTPT-02), B (WSTPT-03)	Sep 01
LTM	Monitoring of Select Landfills	97 - 17
LTO	Long term operations at select landfills	99 - 17

Projected completion date of all CMI (C): September 2001

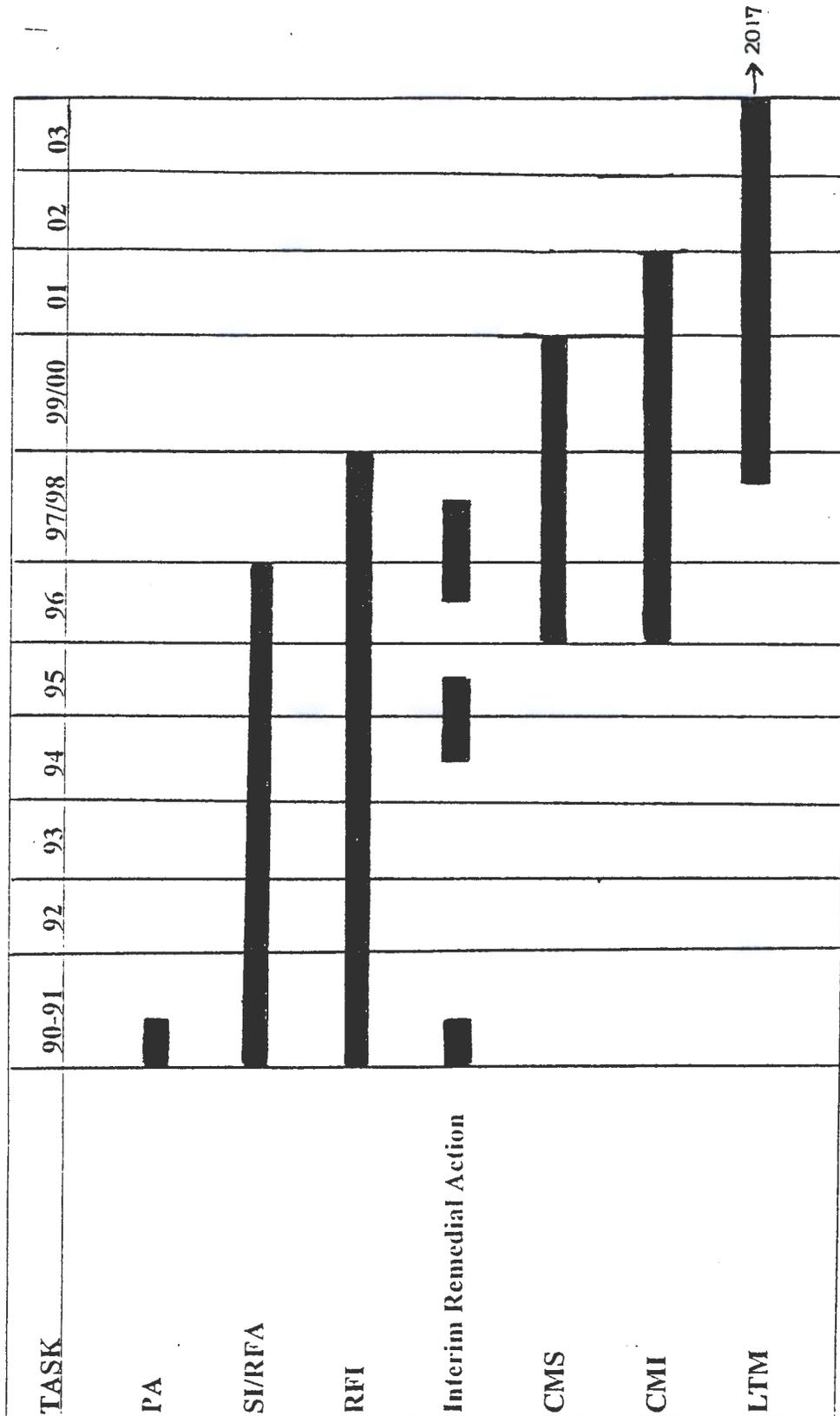
Projected deletion from the National Priorities List is not applicable to USMA.

Projected completion date of IRP: September 2017

USMA

IRP SCHEDULE

FY



6. REMOVAL/INTERIM REMEDIAL/REMEDIAL ACTION ASSESSMENT

As previously mentioned, the 20 landfill sites are 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.

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.

Past REM/IRA/RA/LTM:

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

Current REM/IRA/RA/LTM:

- o Perform removal action at WSTPT-13 and consolidate waste into Cragston Landfill which is undergoing RCRA Subtitle D closure.

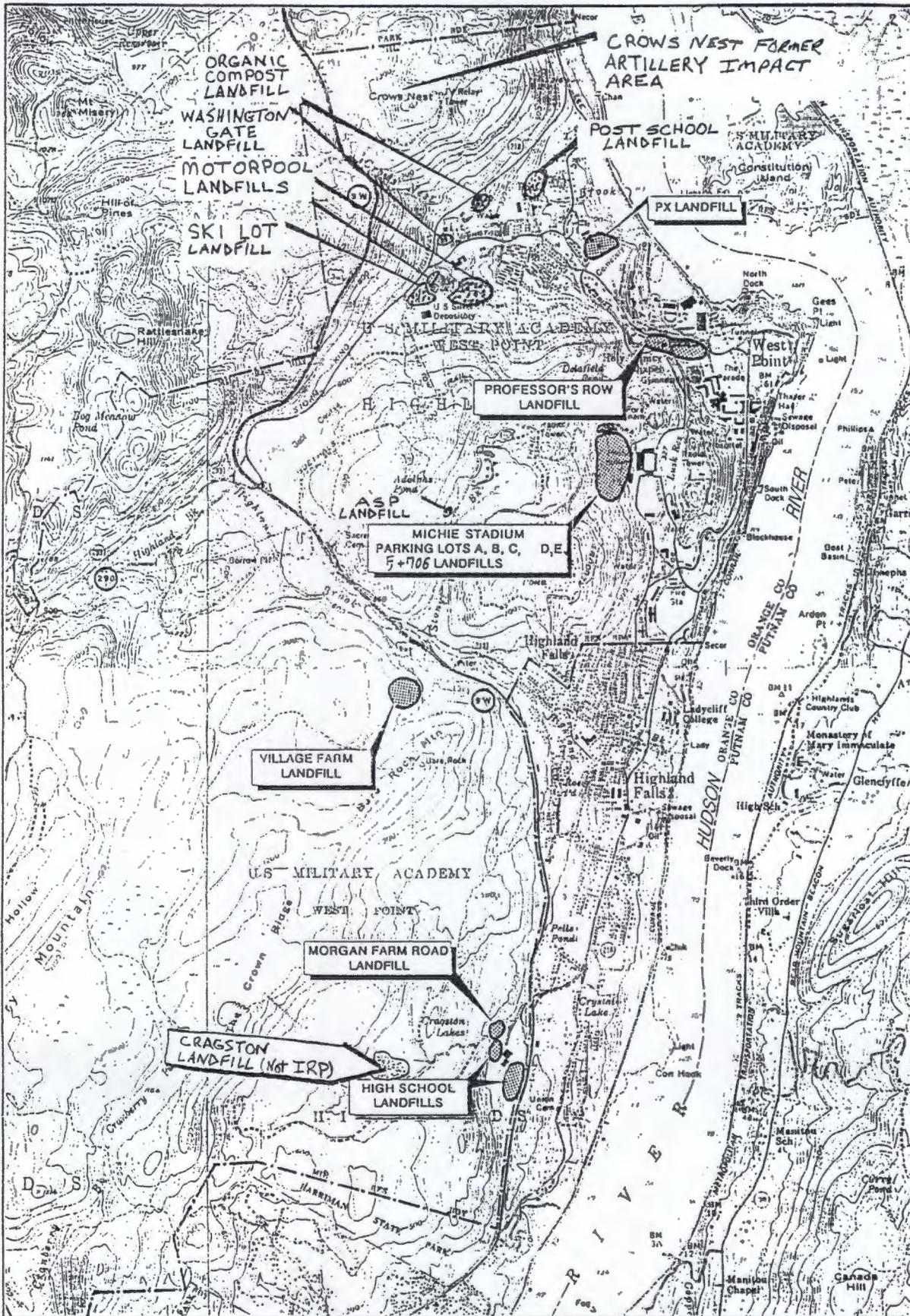
Possible Future REM/IRA/RA/LTM:

- o Michie Lots A & B (WSTPT 02 + 03) and Camp Buckner (WSTPT-35A) Landfills capping

Potential Sites for Accelerated Action

- o USMA IRP accelerated because low construction bid for CMI at WSTPT-10 permitted early award of CMS for WSTPT-09, 11 and 11A.

FIGURES



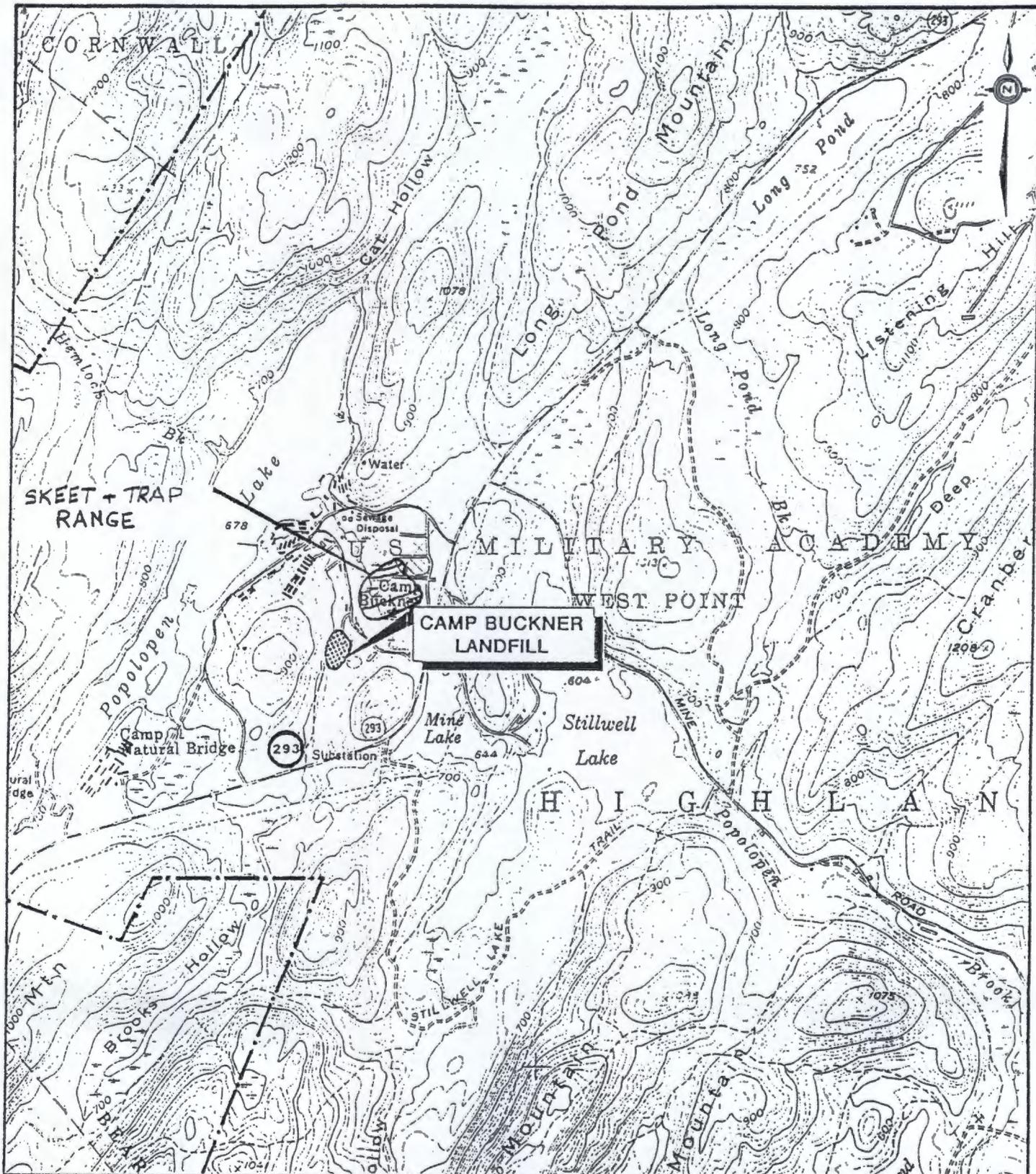
LEGEND:
 --- USMA RESERVATION BOUNDARY

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



0 2000 4000 FT



SCALE

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

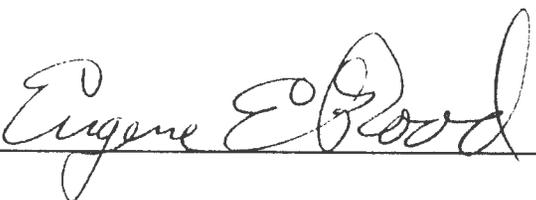
FIG. 2

APPROVAL/CONCURRENCE

Regulator and Public Involvement

The Central Office of 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.

EUGENE E. ROOD
Chief, Environmental
Management Division



ROBERT P. KANE
Colonel, FA
Garrison Commander



Attachment 1

Attachment 1

COST

Prior year DERA funds received by USMA and estimates of current and projected funding have been broken down by phase and fiscal year.

Prior Year Funds:

FY 91 RI/FS (WSTPT-46 14 USTs)		
Phase I RI (6 Landfill)		\$46K
		<u>\$130K</u>
	FY91 Total	\$176K
FY 92 Phase I RI (Skeet and Trap Range)		\$212K
Phase I RI (6 Landfill)		
		\$96K
Phase I RI (10 Landfill)		
		\$282K
RI/FS (USTs at USMA and STAS)		
		<u>\$25K</u>
FY 93	FY92 Total	\$615K
	<u>Phase I RI</u>	<u>Funds Received</u>
	Skeet/Trap Range	170K
	<u>RA</u>	
	USTs USMA/STAS	<u>378K</u>
	FY 93 Total	548K
<u>FY 94</u>	<u>Phase I RI</u>	<u>Funds Received</u>
	Crow's Nest	85K
	4 Landfill	245K
	10 Landfill	314K

FY 94 (Cont):

Phase II RI

Skeet and Trap Range 25K

IRD/FS

6 Landfill 428K

Program Management 150K

FY 94 Total \$1,247K

FY 95

RFA

4 Landfill 56K

10 Landfill 27K

Phase II RI

Skeet and Trap Range 18K

6 Landfill 145K

IRA

6 Landfill/10 Landfill 391K

Program Management 95K

FY95 Total \$732K

FY 96

Funding

RFA

4 Landfill 16K

RFI

10 Landfill 135K

FY 96 (CONT)

RFI (Cont)

6 Landfill 16K

IRA

10 Landfill/ 665K
6 Landfill

CMS

Michie Lots 174K
Post School 137K
Landfill

Bulk Funding (S&R) 14K

Program Management:

95K
FY96 Total \$1,252K

FY 97

Funding

RFI

10 Landfill 37K

IRA

6 Landfill (Lot F) 35K
10 Landfill 312K

CMS

Motorpool Landfill 134K
Motorpool East Landfill 84K
Post School Landfill 116K
Michie Lot Landfills 26K
Ski Slope Landfills 98K
Skeet & Trap Range 25K

CMI

Post School Landfill 362K

Program Management:

87K
FY97 Total \$1,316K
Total Prior Year DERA Funds \$5,886K

CURRENT YEAR FUNDS (FY 98):

FY 98

Corps S&R for Motorpool Landfill	25K
Michie Lots C,E & F CMS mod w/Corps S&R	130K
Corps S&R for Motorpool East Landfill	15K
Corps S&R Ski Slope Landfill	25K
Post School Landfill CMI Cors S&A	60K
Michie Lots C, E, & F Landfills CMI	1190K

LTM

10 Landfill	60K
-------------	-----

Program Management: 95K

Total Current Year Requirements: \$1600K

Funds Required to Completion:

See Attached Constrained Cost to Complete Sheet

TOTAL FUTURE REQUIREMENTS \$7,098K

Total Funding from Inception to Completion \$14,584K

INSTALLATION	DSERTS	DESCRIPTION	PHASE	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08+	TOTAL
UNITED STATES MILITARY ACADEMY	WSTPT-01	PX LANDFILL	LTM	12	0	12	0	12	0	12	0	0	120	168
	WSTPT-01 Total			12	0	12	0	12	0	12	0	0	120	168
UNITED STATES MILITARY ACADEMY	WSTPT-02	PARKING LOT A LANDFILL	LTM	9	0	9	9	9	9	9	0	0	90	144
UNITED STATES MILITARY ACADEMY	WSTPT-02	PARKING LOT A LANDFILL	RA	0	0	150	0	0	0	0	0	0	0	150
UNITED STATES MILITARY ACADEMY	WSTPT-02	PARKING LOT A LANDFILL	RD	0	40	0	0	0	0	0	0	0	0	40
	WSTPT-02 Total			9	40	159	9	9	9	9	0	0	90	334
UNITED STATES MILITARY ACADEMY	WSTPT-03	PARKING LOT B LANDFILL	LTM	10	0	10	10	10	10	10	0	0	95	152
UNITED STATES MILITARY ACADEMY	WSTPT-03	PARKING LOT B LANDFILL	RA	0	0	150	0	0	0	0	0	0	0	150
UNITED STATES MILITARY ACADEMY	WSTPT-03	PARKING LOT B LANDFILL	RD	0	40	0	0	0	0	0	0	0	0	40
	WSTPT-03 Total			10	40	160	10	10	10	10	0	0	95	342
UNITED STATES MILITARY ACADEMY	WSTPT-04	PARKING LOT C LANDFILL	LTM	10	10	10	10	10	10	10	10	10	95	181
UNITED STATES MILITARY ACADEMY	WSTPT-04	PARKING LOT C LANDFILL	LTO	0	7	7	10	7	7	10	7	7	147	209
	WSTPT-04 Total			10	17	17	20	17	17	20	17	17	242	390
UNITED STATES MILITARY ACADEMY	WSTPT-05	PARKING LOT D LANDFILL	LTM	10	0	10	0	10	0	10	0	0	150	190
	WSTPT-05 Total			10	0	10	0	10	0	10	0	0	150	190
UNITED STATES MILITARY ACADEMY	WSTPT-06	PARKING LOT E LANDFILL	LTM	10	10	10	10	10	10	10	10	10	200	290
UNITED STATES MILITARY ACADEMY	WSTPT-06	PARKING LOT E LANDFILL	LTO	0	7	7	10	7	7	10	7	7	240	302
	WSTPT-06 Total			10	17	17	20	17	17	20	17	17	440	592
UNITED STATES MILITARY ACADEMY	WSTPT-07A	PARKING LOT F LANDFILL	LTM	10	10	10	10	10	10	10	10	10	200	290
UNITED STATES MILITARY ACADEMY	WSTPT-07A	PARKING LOT F LANDFILL	LTO	0	10	10	15	10	10	15	10	10	350	440
	WSTPT-07A Total			10	20	20	25	20	20	25	20	20	550	730
UNITED STATES MILITARY ACADEMY	WSTPT-09	SKI SLOPE PARKING LOT LANDFILL	LTM	10	0	10	10	10	10	10	10	10	200	280
UNITED STATES MILITARY ACADEMY	WSTPT-09	SKI SLOPE PARKING LOT LANDFILL	LTO	0	0	4	4	4	4	4	4	4	40	68
UNITED STATES MILITARY ACADEMY	WSTPT-09	SKI SLOPE PARKING LOT LANDFILL	RA	0	350	0	0	0	0	0	0	0	0	350
	WSTPT-09 Total			10	350	14	14	14	14	14	14	14	240	698
UNITED STATES MILITARY ACADEMY	WSTPT-10	POST SCHOOL LANDFILL	LTM	12	12	12	12	12	12	12	12	12	314	422
UNITED STATES MILITARY ACADEMY	WSTPT-10	POST SCHOOL LANDFILL	LTO	28	10	10	28	10	10	28	10	10	480	624
	WSTPT-10 Total			40	22	22	40	22	22	40	22	22	794	1046
UNITED STATES MILITARY ACADEMY	WSTPT-11	MOTORPOOL LANDFILL	LTM	12	0	12	12	12	12	12	12	12	120	216
UNITED STATES MILITARY ACADEMY	WSTPT-11	MOTORPOOL LANDFILL	LTO	0	14	5	5	14	5	5	14	5	240	307
UNITED STATES MILITARY ACADEMY	WSTPT-11	MOTORPOOL LANDFILL	RA	820	0	0	0	0	0	0	0	0	0	820
	WSTPT-11 Total			832	14	17	17	26	17	17	26	17	360	1343
UNITED STATES MILITARY ACADEMY	WSTPT-11A	MOTORPOOL EAST LANDFILL	LTM	8	0	8	8	8	8	8	0	0	0	48
UNITED STATES MILITARY ACADEMY	WSTPT-11A	MOTORPOOL EAST LANDFILL	RA	0	300	0	0	0	0	0	0	0	0	300
	WSTPT-11A Total			8	300	8	8	8	8	8	0	0	0	348
UNITED STATES MILITARY ACADEMY	WSTPT-13	VILLAGE FARM LANDFILL	LTM	10	0	10	10	10	10	10	0	0	95	152
	WSTPT-13 Total			10	0	10	10	10	10	10	0	0	95	152
UNITED STATES MILITARY ACADEMY	WSTPT-15A	MORGAN FARM ROAD LANDFILL	LTM	3	0	3	0	3	0	0	0	0	0	9
	WSTPT-15A Total			3	0	3	0	3	0	0	0	0	0	9
UNITED STATES MILITARY ACADEMY	WSTPT-15B	HIGH SCHOOL LANDFILL	LTM	3	0	3	0	3	0	0	0	0	15	24
	WSTPT-15B Total			3	0	3	0	3	0	0	0	0	15	24
UNITED STATES MILITARY ACADEMY	WSTPT-35A	CAMP BUCKNER LANDFILL	LTM	10	0	10	10	10	10	10	0	0	95	152
UNITED STATES MILITARY ACADEMY	WSTPT-35A	CAMP BUCKNER LANDFILL	RA	0	0	300	0	0	0	0	0	0	0	300
UNITED STATES MILITARY ACADEMY	WSTPT-35A	CAMP BUCKNER LANDFILL	RD	0	80	0	0	0	0	0	0	0	0	80
	WSTPT-35A Total			10	80	310	10	10	10	10	0	0	95	532
UNITED STATES MILITARY ACADEMY	WSTPT-44	SKEET & TRAP	IRA	200	0	0	0	0	0	0	0	0	0	200
	WSTPT-44 Total			200	0	0	0	0	0	0	0	0	0	200
	Grand Total			1185	900	780	181	189	152	203	116	107	3286	7098

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**USMA
FUNDING PROFILE (In Thousands)
FY**

Task	91	92	93	94	95	96	97	98	99	00	01 - 07	Total
RFA	130	590	170	644	83	16						1633
RFI	46	25		25	163	151	37					447
CMS				428		325	483	195		80		1511
IRA					391	665	347					1403
CMI			378				362	1250	923	650	600	4163
LTM								60	139	42	2539	2780
O&M									28	48	1874	1950
PM				150	95	95	87	95	95	80		697
TOTAL	176	615	548	1247	732	1252	1316	1600	1185	900	5013	\$14,584K

Attachment 2

Installation Action Plan

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 10,196 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.

Recently a Community Relations Council has been formalized where any future planned remedial actions can be presented. The Engineering/Public Works Subcommittee of this 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 presenting 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 communities 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

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
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.
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

Acronyms and Abbreviations (Cont)

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
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

Acronyms and Abbreviations (Cont)

RD	Remedial Design
up,	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.
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.
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.
SWMU	Solid Waste Management Unit
TBD	To Be Determined
USAEC	U.S. Army Environmental Center (formerly USATHAMA)
UST	Underground Storage Tank