PLEXUS scientific

June 30, 2017 8255-005-039

Mr. Jeff Sanborn
U.S. Army Garrison West Point
ATTN: IMML-PWE
667A Ruger Road
West Point, New York 10996-1592

RE: Final Proposed Plan for Seacoast Battery MRS (WSTPT-013-R-01), and
Final Proposed Plan for Seven No Further Action MRSs
14 MRSs, FS, PP, DD, LUCP at the West Point Military Academy
West Point, New York
W912DR-12-D-0009-0005

Mr. Sanborn:

Plexus Scientific Corporation (Plexus) is pleased to submit the Final Proposed Plan for Seacoast Battery Munitions Response Site (MRS) (WSTPT-013-R-01) and the Final Proposed Plan for seven MRSs (Artillery Firing range [WSTPT-001-R-01], Battery Knox TD Land [WSTPT-004-R-02], Fort Clinton West [WSTPT-008-R-01], Grey Ghost Housing Area [WSTPT-010-R-01], Siege Battery [WSTPT-015-R-01], Lusk reservoir [WSTPT-019-R-01], and Redoubt No. 2 [WSTPT-020-R-01])for the 14 MRSs, FS, PP, DD, LUCP project at the West Point Military Academy. At your request, hard copies of the documents are being provided to the U.S. Environmental Protection Agency, New York State Department of Environmental Conservation, and the New York State Department of Health

Should you have any questions concerning this submittal, I can be reached via email at preilley@plexsci.com, by cell phone at (703) 989-8405, or in the office at (571) 527-1225.

Respectfully,
Plexus Scientific Corporation,

Patrick K. Reilley
Project Manager

Cc: T. McCoun – USACE (cover letter only)
K. Gross – USACE (1 hardcopy +CD)
M. Maly – AEC (CD only)
D. Crosby – NYSDEC (1 hardcopy +CD)
S. Karpinski – NYSDOH (1 hardcopy +CD)
D. Pocze – USEPA (1 hardcopy +CD)
Plexus File (electronic only)

Encl: Final PP Seacoast Battery (4 hardcopy +CD)
Final PP Seven NFA MRSs (4 hardcopy +CD)

Responses to New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) Comments (Dated May 4, 2017) for the Draft Final Proposed Plan for Seacoast Battery Munitions Response Site (MRS), West Point Military Reservation, dated April 2017 DEC Site No. 336041 West Point, Orange County West Point Military Reservation, West Point, New York

The responses to the NYSDEC's and NYSDOH's comments for the Draft Final Proposed Plan for the Seacoast Battery MRS are presented below. The NYSDEC and NYSDOH comments are presented first (in *italics*) followed by the responses (in **bold**).

Comment 1: *Page 3, Site Background, second paragraph, third sentence: The description, that at first MEC was not found then later in the same paragraph the plan states MEC was found, is confusing. It is suggest that the third sentence be removed or the paragraph be more descriptive of the timing.*

Response 1: The paragraph was revised to include additional timing detail. The third sentence in the second paragraph on Page 3 was revised as follows, "*The visual survey **in 2006** did not find MEC or munitions debris, and soil sampling did not find munitions constituents.*" The penultimate sentence in the second paragraph on Page 3 was revised as follows, "*The handheld metal detector survey **in 2011** found MEC and munitions debris below ground, but determined that munitions constituents were not present at the Seacoast Battery MRS.*"

Comment 2: *Page 4, Summary of Remedial Alternatives, Alternative 2: The plan indicates that the remedy will be implemented in 2 years but this does not appear to take into account the long term efforts and costs (Site Management) necessary to make alternative 2 protective. It is the Departments understanding that for alternative 2 to be protective the elements listed would have to occur in perpetuity as MEC is not being removed from the MRS. Please clarify.*

Response 2: The implementation time frame of 2 years is the estimated time it would take for the remedy to achieve protectiveness. Long term efforts and costs are accounted for in the "Estimated Annual Operations and Maintenance Cost" of $48,244 and the "Estimated Periodic Cost" of $35,167. The five-year review, in accordance with CERCLA, would evaluate the long-term effectiveness of the remedy.

Comment 3: *Does alternative 2 include the development of or the modification to, the Land Use Control Plan? A Land Use Control Implementation Plan was developed for the Michie Stadium MRS.*

Response 3: The development of a Land Use Control Implementation Plan was included in Alternative 2. This Plan will be separate from the Plan developed for the Michie Stadium MRS.

PUBLIC NOTICE

U.S. ARMY INVITES PUBLIC COMMENT ON PROPOSED PLANS FOR EIGHT MUNITIONS RESPONSE SITES AT THE U.S. ARMY GARRISON WEST POINT

SUMMARY

The U.S. Army invites the public to comment on Proposed Plans for final remedies for eight sites that were investigated under the Military Munitions Response Program to address any potential explosives hazards and human health and environmental issues resulting from past use. At these eight sites, comprehensive investigations were conducted, including visual surveys, soil sampling, locating and digging surveys, and digital geophysical mapping. At seven of the eight sites, no munitions or explosives of concern were found and the Proposed Plan for these seven sites recommends No Further Action as the Preferred Alternative. At the eighth site, one munitions item was discovered during investigation activities. The U.S. Army evaluated three alternatives for addressing munitions at this one site: 1) No Action, 2) Risk Management, and 3) Removal of Munitions and Explosives of Concern to Qualify for Unlimited Use and Unrestricted Exposure. Based on the evaluation of alternatives, the U.S. Army has identified Risk Management as the Preferred Alternative recommended in the Proposed Plan. Risk Management includes site use limitations, training for site workers, and the production of brochures to inform the public about the site. The Preferred Alternative will reduce the explosive hazard posed to human receptors by potential munitions located at the site and allow for the current and future use of the site without causing potential damage to the environment and to historic artifacts.

SITES INVESTIGATED

Six of the seven sites recommended for No Further Action are located within the Main Post Area in Orange County: Artillery Firing Range, Fort Clinton West, Grey Ghost Housing Area, Siege Battery, Lusk Reservoir, and Redoubt No. 2. One site, Battery Knox-TD Land, is located south of Constitution Island in Putnam County. The eighth site, which is recommended for Risk Management, Seacoast Battery, is located on Constitution Island, which is part of West Point located in Putnam County.

PUBLIC COMMENT PERIOD & MEETING

The U.S. Army welcomes the public's comments on all of the alternatives listed above. The recommendations contained in the Proposed Plans may be modified based on public input or new information. The final decision will be documented in Decision Documents that will include a summary of public comments received during the comment period and the U.S. Army's responses to those comments.

A public meeting will be held to discuss the Proposed Plans:

September 5, 2017, 6:30 p.m.
Highland Falls Library
298 Main Street,
Highlands Falls, NY, 10928

A copy of the Proposed Plans, along with reports of the comprehensive investigations, are available for review at the Highland Falls Library, 298 Main Street, Highland Falls, NY 10928, the Julia L. Butterfield Memorial Library, 10 Morris Avenue, Cold Spring, NY 10516, and the Alice Curtis Desmond and Hamilton Fish Library, 472 Route 403, Garrison, NY 10524.

The public may submit written comments during the 30-day comment period (August 21, 2017 – September 21, 2017). Comments must be postmarked by (September 21, 2017), and sent to Mr. Jeff Sanborn, US Army Garrison West Point, ATTN: IMML-PWE, 667A Rugar Road, West Point, NY 10996-1592 or emailed to Jeff.Sanborn@usma.edu by midnight on (September 21, 2017).

Proposed Plan for the Military Munitions Response Program

Seacoast Battery Munitions Response Site (WSTPT-013-R-01)

U.S. Army Garrison West Point

West Point
The United States Military Academy

West Point, New York

June 2017

INTRODUCTION

Bold terms were included in the glossary of terms.

The U.S. Department of the Army (Army) identified "Risk Management" as the **preferred alternative** for the Seacoast Battery **Munitions Response Site** (MRS). The Seacoast Battery MRS is located at the U.S. Army Garrison West Point (West Point) as shown on **Figure 1**. The preferred alternative is designed to protect human health and the environment from the explosive hazards posed by **munitions and explosives of concern** (MEC) potentially located at the Seacoast Battery MRS.

Congress established the **Military Munitions Response Program** (MMRP) in 2001 to evaluate areas used in the past for military training. These areas are known as MRSs. If information indicates that munitions may have been used during training in these MRSs, environmental studies are conducted at the MRSs under the MMRP. The study results are used to determine if MEC and/or **munitions constituents** are present and if MEC and munitions constituents could potentially harm human health and the environment. If there is potential harm, then some type of action may be needed to reduce or eliminate the harm. If there is no harm, then no action may be needed. The decision of whether or not to take action is proposed to the public for review and comment in a **Proposed Plan** like this one. The Army is the lead agency for West Point under the **Comprehensive Environmental Response, Compensation, and Liability Act** (CERCLA), also known as "Superfund." The U.S. Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) are the supporting regulatory agencies.

This Proposed Plan is to facilitate public involvement in the remedy selection process by providing background information regarding West Point and the Seacoast Battery MRS. It presents why the preferred alternative was selected, and summarizes other remedial alternatives considered to address the Seacoast Battery MRS. This Proposed Plan is being issued as part of the public participation responsibilities under Section 300.430(f)(2) of the **National Oil and Hazardous Substauces Pollutiou Coutiugeucy Plau** (NCP) and Section 117(a) of CERCLA. The Army is conducting a public comment period (see box) on the Proposed Plan to encourage public participation in the selection of a **final remedy** for the Seacoast Battery MRS. Although West Point is not on the CERCLA **National Priorities List**, under the **Defense Environmental Restoration Program**, MRSs follow the CERCLA process.

This Proposed Plan summarizes information presented in the **Remedial Investigation**, **Feasibility Study**, and other documents located in the **project information repository**. The project information repository (see box for locations) provides copies of documents included in the **Administrative Record** (see Glossary of Terms for location).

The Army will select a final remedy for the MRS after reviewing and considering all information during the public comment period. Based on new information or public comments, the Army may change the preferred alternative identified in this Proposed Plan. Therefore, the public is encouraged to review and comment on all the remedial alternatives presented in this Proposed Plan. Information about how to submit comments may be found in the "Community Participation" section of this Proposed Plan.

After the public comment period, the Army will prepare a **Decision Document** describing the final remedy for the Seacoast Battery MRS. All significant comments received during the public comment period will be considered and responded to in the **Responsiveness Summary** of the Decision Document.

MARK YOUR CALENDAR!

The Army will hold a public comment period prior to final remedy selection. During the comment period, your questions or comments on the Proposed Plan and the preferred alternative can be submitted to the Army as noted below:

Public Comment Period
August 21, 2017 – September 21, 2017

You can comment, in writing, by mail to:

Mr. Jeff Sanborn
U.S. Army Garrison West Point
ATTN: IMML-PWE
667A Ruger Road
West Point, NY 10996-1592
Jeff.Sanborn@usma.edu

Comments must be postmarked or e-mailed by midnight of September 21, 2017

Public Meeting
September 5, 2017, 6:30 p.m.

A public meeting to explain the Proposed Plan will be held if requested by the public.

Project Information Repositories

The **project information repositories** contain copies of technical reports and other information available in the Administrative Record prepared for the Seacoast Battery MRS. The project information repository is located at the Highlands Falls Library, 298 Main Street, Highland Falls, NY 10928, the Julia L. Butterfield Memorial Library, 10 Morris Avenue, Cold Spring, NY 10516, and the Alice Curtis Desmond and Hamilton Fish Library 472 Route 403, Garrison, NY 10524.

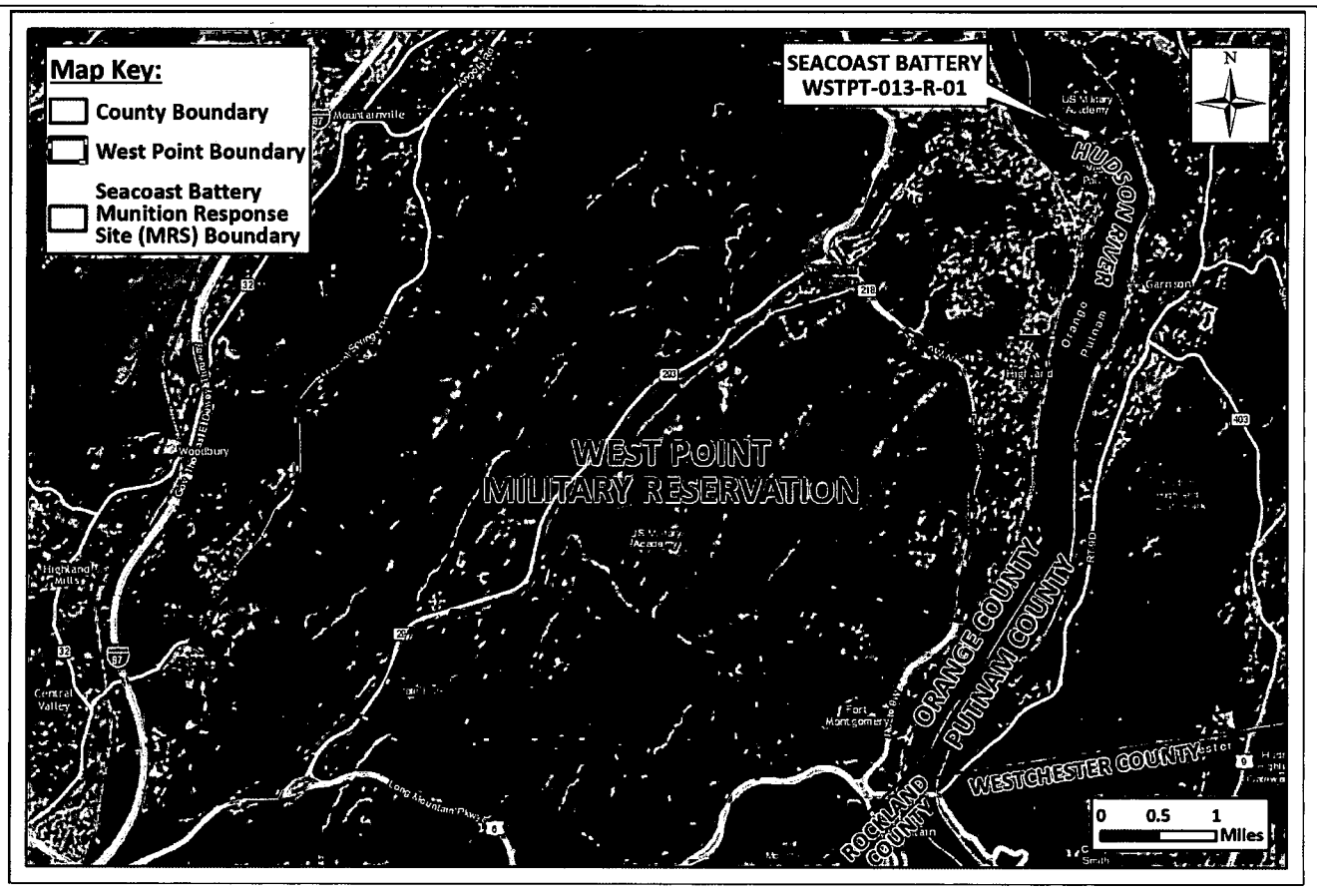


FIGURE 1: WEST POINT AND THE LOCATION OF THE SEACOAST BATTERY MRS

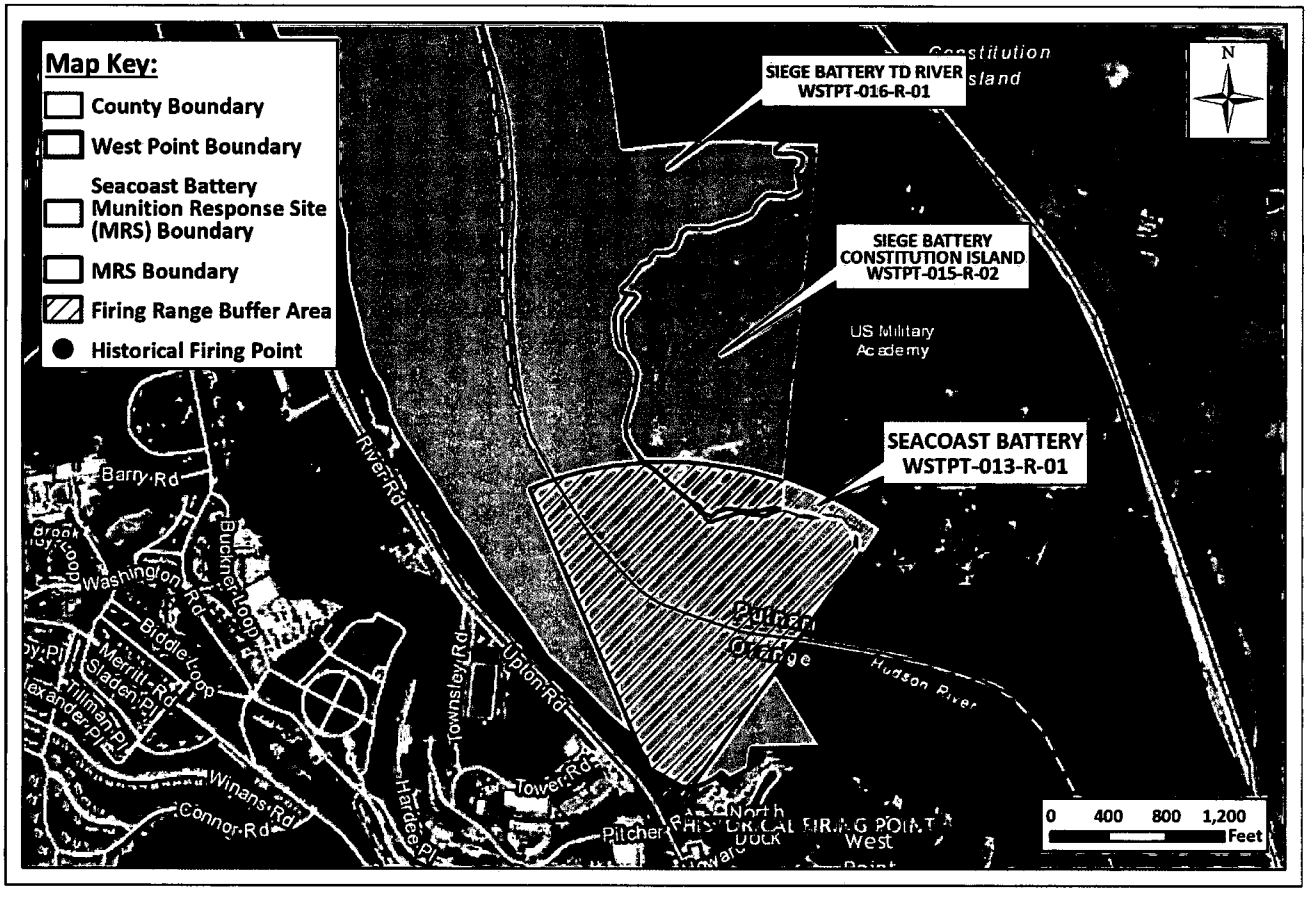


FIGURE 2: THE SEACOAST BATTERY MRS AND ADJACENT MRSS

SITE BACKGROUND

West Point is located on the Hudson River approximately 50 miles north of New York City. A **battery** of guns, the "Seacoast Battery" was established at West Point on the western shore of the Hudson River (see **Figure 2**). The battery was used for Army cadet training from approximately 1836 until 1940. During Army cadet training, **projectiles** were fired from the historical **firing point** at targets in the Hudson River and at the bluffs on Constitution Island (which is part of West Point and is Army property). The battery's **firing range buffer area** is the "pie shaped" area shown in **Figure 2** where projectiles fired from the battery may have landed. The Seacoast Battery MRS is a two-acre portion of the battery's firing range buffer area located on Constitution Island. The Seacoast Battery MRS is located only on Army property at West Point (see **Figure 2**). The rest of the battery's firing range buffer area is included in other MRSs (Siege Battery TD River and Siege Battery – Constitution Island). The Army is also conducting environmental studies at these other MRSs. When the Army finishes their studies, the Army will prepare Proposed Plans for these MRSs to provide study results and identify a preferred alternative for each MRS. The public will be provided an opportunity to review and comment on these additional Proposed Plans at a later date.

In 2006 and 2011, the Army conducted activities to determine if MEC and munitions constituents were present at the Seacoast Battery MRS. The activities conducted in 2006, referred to as the "**Site Inspection**," included a **visual survey** and the collection of soil samples. The visual survey in 2006 did not find MEC or **munitions debris**, and soil sampling did not find munitions constituents. Even though no evidence of munitions was found, the Site Inspection recommended that the Army conduct a Remedial Investigation to continue searching for MEC because the Seacoast Battery MRS is located next to another MRS (see **Figure 2**) where MEC and munitions debris were found. The Remedial Investigation conducted in 2011, included a handheld metal detector survey. The handheld metal detector survey searched all accessible areas of the Seacoast Battery MRS for munitions. The handheld metal detector survey in 2011 found MEC and munitions debris below ground, but determined that munitions constituents were not present at the Seacoast Battery MRS. Because MEC was found, the Remedial Investigation recommended that a Feasibility Study be prepared for the Seacoast Battery MRS.

SITE CHARACTERISTICS

Current and future use of the Seacoast Battery MRS is for recreational activities. Its location on Constitution Island is mostly forested with thick brambles and steep slopes. Constitution Island contains historical artifacts dating back to the Revolutionary War. These artifacts are also present within the Seacoast Battery MRS.

The munitions related items found at the Seacoast Battery MRS, included one MEC (a 37-mm projectile) and munitions debris (a sand-filled 3-inch Stokes mortar and pieces of other munitions). The MEC and munitions debris were found below ground, and no munitions related items were found on the ground surface.

SCOPE AND ROLE OF REMEDIAL ACTION

The Army identified multiple MRSs at West Point to comply with the MMRP. The Seacoast Battery MRS is one of the multiple MRSs that the Army identified at West Point. This Proposed Plan identifies the preferred alternative for only the Seacoast Battery MRS. The other MRSs are being addressed separately and will be included in other Proposed Plans. The Army selected the preferred alternative identified in this Proposed Plan to prevent MEC from harming human health and the environment at the Seacoast Battery MRS.

SUMMARY OF SITE RISKS

The Army did not find munitions constituents at the Seacoast Battery MRS. Because munitions constituents were not found, a **risk screening** was not conducted. Therefore, the only remaining risk at the MRS is an **explosive safety hazard** associated with MEC potentially located on or below the ground. The potential explosive safety hazard to human **receptors** posed by MEC was determined using the MEC Hazard Assessment. The MEC Hazard Assessment was created by USEPA and the Department of Defense.

MEC Hazard Assessment

A MEC Hazard Assessment used information from the Remedial Investigation to determine the potential explosive safety hazard to human receptors posed by MEC at the Seacoast Battery MRS.

The MEC Hazard Assessment determined the Seacoast Battery MRS is a Hazard Level 3 MRS. A Hazard Level 1 MRS represents the highest hazard, and a Hazard Level 4 MRS represents the lowest hazard. A Hazard Level 3 MRS is the second lowest of the four potential hazard levels.

Because an explosive safety hazard may exist at this MRS, the Army believes the preferred alternative identified in this Proposed Plan is necessary to protect human health and the environment from any harm caused by MEC potentially located on or below the ground.

REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives are MRS-specific goals for protecting human health and the environment from the explosive hazards posed by MEC. Because the Remedial Investigation found MEC at the Seacoast Battery MRS, the following Remedial Action Objectives were created:

- Reduce or eliminate direct contact of contractor personnel, installation personnel, recreational users, and site visitors with the potential future explosive hazards

posed by MEC located on the ground surface or MEC migrating from below ground to the surface.

- Reduce or eliminate direct contact of contractor personnel and installation personnel with the explosive hazards posed by potential MEC located below ground.

SUMMARY OF REMEDIAL ALTERNATIVES

The following is a summary of the information that was provided in the Feasibility Study for the Seacoast Battery MRS. The Feasibility Study presented three remedial alternatives developed to reduce or eliminate the potential explosive hazard posed by MEC to human receptors at the Seacoast Battery MRS:

- Alternative 1: **No Action**
- Alternative 2: **Risk Management**
- Alternative 3: Removal of MEC to Qualify for **Unlimited Use and Unrestricted Exposure**

Of these remedial alternatives, the Army identified Alternative 2 as the preferred alternative for the Seacoast Battery MRS. All three remedial alternatives are summarized below.

Alternative 1: No Action

Estimated **Capital Cost**: $0
Estimated Annual Operation and Maintenance Cost: $0
Estimated **Periodic Cost**: $0
Estimated **Present Worth Cost**: $0

This alternative was included for comparison as required by CERCLA and Department of Defense policy. Under this alternative there would be no **munitions response**.

Alternative 2: Risk Management

Estimated Capital Cost: $57,418
Estimated Annual Operation and Maintenance Cost: $48,244
Estimated Periodic Cost: $35,167
Estimated Present Worth Cost: $123,427
Estimated Time to Implement Alternative: < 2 Years
Estimated Time to Achieve Remedial Action Objectives: < 2 Years

This alternative includes the use of Land Use Controls to reduce the potential explosive hazard posed to human receptors by MEC located at the Seacoast Battery MRS. The following Land Use Controls make up Alternative 2:

- Use of the MRS for residential purposes, daycare facilities, hospitals, or schools would not be allowed without prior approval from West Point;
- Emergency calls (911) involving MEC will be recorded on a map so West Point can keep track of where explosive hazards are found.
- Any below ground activity conducted at the MRS would require a **dig permit** and **MEC safety/awareness training** as well as **on-call construction support**.
- Brochures and fact sheets, like the 3Rs pamphlet attached to the end of this Proposed Plan, would be provided to the public to educate them about the explosive hazards associated with MEC. The brochures and fact sheets provide instructions regarding what to do if someone finds MEC or an item that looks like MEC.
- A system to review the Land Use Controls to ensure that they remain protective.

Alternative 3: Removal of MEC to Qualify for Unlimited Use and Unrestricted Exposure

Estimated Capital Cost: $446,706
Estimated Annual Operation and Maintenance Cost: $0
Estimated Periodic Cost: $0
Estimated Present Worth Cost: $446,706
Estimated Time to Implement Alternative: < 1 Year
Estimated Time to Achieve Remedial Action Objectives: < 1 Year

This alternative would find and destroy all of the MEC located at the Seacoast Battery MRS, and would consist of the following components:

- Establishing an **exclusion zone** around the MRS to prevent unauthorized access during clearcutting and MEC removal.
- Clearcutting of the MRS.
- On-site storage and mulching of the cleared vegetation on the MRS. The mulch would be used on Constitution Island by West Point.
- On-site destruction of MEC. The explosive hazards posed to human receptors during on-site MEC destruction would be reduced by using trained workers, a **work plan**, and **engineering controls**.
- Munitions debris found during the search for MEC and any munitions debris created by on-site MEC destruction would be taken off-site for recycling.

Table 1 – CERCLA Nine Criteria Summary

Threshold Criteria

1) **Overall Protection of Human Health and the Environment:** Does the alternative protect human health and the environment from the explosive hazards posed by MEC?
2) **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs):** Does the alternative comply with the identified ARARs?

For an alternative to be selected, it must meet the two Threshold Criteria.

Balancing Criteria

3) **Long-Term Effectiveness and Permanence:** Is the alternative effective and permanent in addressing the explosive hazards at the site?
4) **Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment:** Does the alternative reduce the toxicity, mobility, volume of the explosive hazards?
5) **Short-Term Effectiveness:** What is the risk to the community, workers, and the environment during implementation of the **remedial action**?
6) **Implementability:** How difficult is it to implement the alternative?
7) **Cost:** What are the relative costs associated with the alternative?

The balancing criteria are used to evaluate important differences between the remedial alternatives.

Modifying Criteria

8) **State / Support Agency Acceptance:** Whether the State agrees with the analyses and recommendations, as described in the RI/FS and Proposed Plan.
9) **Community Acceptance:** Does the community agree with the analyses and preferred alternative? Comments received on the Proposal Plan are an important indicator of community acceptance.

Modifying criteria will be evaluated in a Decision Document based on any new information and public comments on the Proposed Plan.

EVALUATION OF REMEDIAL ALTERNATIVES

The following information was provided in the Feasibility Study for the Seacoast Battery MRS. To select a preferred alternative, the Army used nine criteria to evaluate the different remedial alternatives, both individually and against each other. The nine criteria are presented in **Table 1**. The following summarizes the remedial alternative evaluation, noting how each remedial alternative compares to the other remedial alternatives under consideration:

- Alternative 2 protects human health and the environment from harm by changing human behavior. Alternative 3 protects human health and the environment by removing the explosive hazard. Alternative 1 is not protective of human health and the environment, so is not considered further for implementation at the Seacoast Battery MRS.
- Alternative 2 and Alternative 3 would equally comply with ARARs.
- Alternative 3 would provide the greatest long-term effectiveness and permanence because it intentionally reduces MEC toxicity, mobility, and volume, and the residual hazard. Alternative 2 does not intentionally reduce MEC toxicity, mobility, and volume, or the residual hazard. However, because Alternative 3 would require clearcutting and may require **in-place detonation** if MEC is discovered, it could damage artifacts dating back to the Revolutionary War.
- Alternative 2 would require a five-year review in accordance with CERCLA to evaluate the long-term effectiveness of the remedy because Alternative 2 would not eliminate the explosive hazard posed to human receptors by MEC located at the Seacoast Battery MRS.
- Alternative 2 would be most effective in the short-term because MEC would not be intentionally destroyed on site. Short-term effects to human receptors during on-site MEC destruction required for Alternative 3 would be reduced by using trained workers, a work plan, and engineering controls.
- Alternative 3 would be less implementable than Alternative 2 because the required clearcutting could damage artifacts dating back to the Revolutionary War. Because of this damage, West Point may not approve of Alternative 3.
- Alternative 2 would cost less than Alternative 3.

The results of the alternative evaluation are summarized in **Table 2**. The final remedy will be selected based on the results of the nine criteria evaluation, and any public comments received during the public comment period for the Proposed Plan.

Table 2 – Alternative Evaluation Summary for the Seacoast Battery MRS

Screening Criterion		Alternative 1— No Action	Alternative 2— Risk Management	Alternative 3— Removal of MEC to Qualify for Unlimited Use and Unrestricted Exposure
Threshold	Overall Protectiveness of Human Health and Environment	Fail	Pass	Pass
	Compliance with Applicable or Relevant and Appropriate Requirements	Pass	Pass	Pass
Balancing	Long-Term Effectiveness and Permanence	Not Analyzed[1]	Least Favorable	Most Favorable
	Reduction of Toxicity, Mobility, or Volume through Treatment	Not Analyzed[1]	Least Favorable	Most Favorable
	Short-Term Effectiveness	Not Analyzed[1]	Most Favorable	Least Favorable
	Implementability	Not Analyzed[1]	Most Favorable	Least Favorable
	Cost	$0	$123,427	$446,706
Modifying	Regulatory Agency Acceptance	To Be Determined		
	Community Acceptance	To Be Determined		

1) Balancing criterion not analyzed because alternative did not pass a threshold screening criteria.

PREFERRED ALTERNATIVE

Alternative 2, Risk Management, is the Army's preferred alternative for the Seacoast Battery MRS.

Alternative 2 is preferred because it will reduce the explosive hazard posed to human receptors by MEC located at the MRS, and will allow for the current and future land use, which is recreational. Potential damage from clearcutting to the environment and to historical artifacts is minimal under Alternative 2. Alternative 2 is also preferred because it is easily implemented, effective in the short-term, and very cost effective.

Based on information currently available, the Army, as the lead agency, believes the preferred alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternative with respect to the balancing and modifying criteria. The Army expects the preferred alternative to satisfy the following statutory requirements of CERCLA §121(b): (1) be protective of human health and the environment; (2) comply with ARARs (or justify a waiver); and (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Alternative 2 would not satisfy the statutory requirement of preference for treatment as a principal element because MEC would only be treated when discovered.

COMMUNITY PARTICIPATION

Detailed information regarding the preferred alternative, Alternative 2, Risk Management, is available in the Administrative Record or in a project information repository located at: Highlands Falls Library, 298 Main Street, Highland Falls, NY 10928, the Julia L. Butterfield Memorial Library, 10 Morris Avenue, Cold Spring, NY 10516, or the Alice Curtis Desmond and Hamilton Fish Library 472 Route 403, Garrison, NY 10524.

An announcement of the availability of this Proposed Plan was published in the *Putnam County News*, *News of the Highland*, and the *Pointer View*, in accordance with CERCLA requirements.

The Army is seeking comments on the preferred alternative in this Proposed Plan. The public comment period is open from August 21, 2017 – September 21, 2017. All significant comments received by the Army will be considered before a final remedy is selected for the Seacoast Battery MRS. In addition, a public meeting will be held at Highland Falls Library, 298 Main Street, Highlands Falls, NY, 10928 on September 5, 2017. A comment form has been included at the end of this Proposed Plan to submit input on the Proposed Plan.

For additional information, please contact:

Jeff Sanborn, U.S. Army Garrison West Point by email at: Jeff.Sanborn@usma.edu

Or by mail at:
Jeff Sanborn
U.S. Army Garrison West Point
ATTN: IMML-PWE
667A Ruger Road
West Point, NY 10996-1592

GLOSSARY OF TERMS

Administrative Record	A collection of the documents used to make a decision on the selection of a remedial (cleanup) action under CERCLA. The Administrative Record contains the information and reports generated throughout the entire investigation and site remediation (cleanup). The Administrative Record is to be available for public review and a copy maintained near the MRS. The official Administrative Record for the Seacoast Battery MRS is located in Building 667, within the Environmental Engineering Branch, and is maintained by the Army. The point of contact for the Administrative Record is Jeff Sanborn (667A Ruger Road, West Point, New York, 10996).
Battery	A unit of guns, cannons, rockets, or missiles grouped together to make their use easier and more effective.
Capital Cost	A fixed one-time expense incurred on the purchase of equipment and/or services during the installation of a final remedy.
Comprehensive Environmental Response, Compensation, and Liability Act	Commonly known as the Superfund; enacted by Congress on December 11, 1980, and modified in 1986 by the Superfund Amendments and Reauthorization Act, authorizes federal action to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.
Decision Document	The Department of Defense has adopted the term Decision Document to refer to a legal public document, similar to a Record of Decision completed for National Priority List sites. The Decision Document certifies that the **remedial action** selection process was carried out in accordance with CERCLA, and to the extent practical, the NCP; provides a substantive summary of the technical rationale and background information in the Administrative Record; provides information necessary in determining the conceptual engineering components to achieve the Remedial Action Objectives established for an MRS. The Decision Document serves as a key communication tool for the public that explains the identified hazards that the selected remedial action will address, and the rationale for remedial alternative selection. The Decision Document will be maintained in the Administrative Record.
Defense Environmental Restoration Program	This program manages the Department of Defense's environmental restoration program for active installations, closed or closing installations. It provides for the identification, investigation, and removal of contamination and military munitions associated with past activities at Department of Defense facilities to ensure potential threats to public health and the environment are appropriately assessed and addressed.
Dig Permit	A permit required when conducting work below ground at West Point. These permits are reviewed by West Point to determine if an explosive safety hazard exists at the location where below ground work is being conducted.
Discarded Military Munitions	Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include **unexploded ordnance**, military munitions being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations (10 United States Code [USC] 2710(e)(2)).
Engineering Controls	Physical item or items, such as, sand bags, designed to protect workers from the explosive hazards posed by MEC.
Exclusion Zone	An area that is established around an activity that may accidentally result in the detonation (explosion) of MEC to prevent harming people not directly involved in the activity. The size of the exclusion zone is based on the munition or munitions that have been found or are suspected of being present within the area where the activity is occurring.

GLOSSARY OF TERMS

Explosive Safety Hazard	The probability (likelihood) for MEC to detonate (explode) and potentially cause harm to people, property, or the environment as a result of human activities. An explosive safety hazard exists if a person can come into contact with an MEC item and cause it to detonate or explode. The potential for an explosive safety hazard depends on the presence of three critical elements: a source (presence of MEC), a receptor or person, and an interaction between the source and the receptor (such as picking up the item or disturbing the item by plowing). There is no explosive safety hazard if any one element is missing.
Feasibility Study	A study required for the CERCLA process that identifies and evaluates remedial alternatives for an MRS. The remedial alternatives are made of remedial actions, and are designed to protect people from harm at an MRS.
Final Remedy	The final remedial action selected by site after reviewing and considering all information submitted during the 30-day public comment period, which will be documented in a Decision Document or Record of Decision (NCP §300.430(f)(4)(i)). A final remedy is selected after reviewing and considering all information submitted during the public comment period.
Firing Point	The location from which a projectile, grenade, ground signal, rocket, guided missile, or other device is to be ignited, propelled, or released.
Firing Range Buffer Area	An area associated with munitions training where MEC may be present.
In-Piace Detonation	This activity refers to the disposal of MEC in the exact same place where it was found without moving it. The disposal is accomplished by detonating (exploding) another explosive charge near the discovered MEC.
Military Munitions Response Program	A program developed by the Department of Defense to address munitions-related concerns, including explosive safety, and environmental and health hazards from MEC at locations other than operational ranges on active installations such as West Point and on closed installations.
Munitions Constituents	Any materials originating from unexploded ordnance, **discarded military munitions**, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions (10 USC 2710(e)(4)).
Munitions Debris	Pieces and parts of munitions (e.g., fragments, projectiles, shell casings) that remain after munitions have broken apart or exploded.
Munitions and Explosives of Concern	This term includes specific types of military munitions that may pose unique explosive safety risks, including: unexploded ordnance as defined in 10 USC 101(e)(5)(A) through (C) and 40 Code of Federal Regulations [CFR] 266.201, discarded military munitions as defined in 10 USC 2710(e)(2), and munitions constituents - explosives such as trinitrotoluene present in high enough concentrations to pose an explosive hazard as defined in 10 USC 2710(e)(3).
Munitions and Explosives of Concern Safety/Awareness Training	This is training provided to workers conducting below ground work at an MRS where there is a low-probability of finding MEC. This training will help workers identify suspected MEC and tell them what to do if they find suspected MEC.
Munitions Response	This is another term for a remedial action, but is more specific to the activities conducted at an MRS to reduce or eliminate the explosive hazards posed to human health and the environment by MEC.
Munitions Response Site	A specific area on a defense site known or expected to contain munitions requiring investigation to determine whether munitions or munitions constituents are present.
National Oil and Hazardous Substances Pollution Contingency Plan	The Federal regulation that implements CERCLA. The NCP was revised in February 1990. The purpose of the NCP is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, or contaminants.

GLOSSARY OF TERMS

National Priorities List	A list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The National Priorities List is intended primarily to guide the USEPA in determining which sites warrant further investigation.
On-call Construction Support	A requirement when conducting work below the ground at a MRS where there is a low-probability of finding MEC. Specially trained workers must be made aware of the below ground work and available to go to the MRS if suspected MEC is found. The specially trained workers are trained to safely identify and destroy MEC when found.
Periodic Cost	An expense incurred on the purchase of equipment and/or services after the installation of a final remedy that does not occur on an annual basis.
Preferred Alternative	The remedial alternative selected by the Army and presented in the Proposed Plan that would be protective of human health and the environment, would comply with ARARs, would be cost-effective, and would utilize solutions and alternative treatment technologies to the maximum extent practicable. The preferred alternative can change in response to public comment or new information.
Present Worth Cost	A method of evaluation of expenditures that occur over different time periods. By discounting all costs to a common base year, the costs for different remedial action alternatives can be compared on the basis of a single figure for each alternative. When calculating present worth cost, total operations and maintenance costs are to be included.
Projectile	An object projected by an applied force (e.g., fired or shot) and continuing in motion by its own inertia, such as a bullet, bomb, shell, or grenade.
Project Information Repository	A file containing current information, technical reports, and reference documents duplicated from the Administrative Record maintained for a site. The project information repository is usually located in a public building convenient for local residents, such as a public school, city hall, or library. There are project information repositories located at the Highlands Falls Library, 298 Main Street, Highland Falls, NY, 10928, the Julia L. Butterfield Memorial Library, 10 Morris Avenue, Cold Spring, NY 10516, and the Alice Curtis Desmond and Hamilton Fish Library 472 Route 403, Garrison, NY 10524.
Proposed Plan	A document that presents a proposed remedial (cleanup) alternative, including rationale for selection, and requests the public to provide comments regarding the preferred alternative.
Receptor	Includes both humans and biota (plants or animals) that may come into contact with a hazardous substance, including munitions and munitions constituents, either directly (e.g., picking an item up) or indirectly (e.g., through ingestion).
Remedial Action	An action taken to remove munitions or chemicals from the environment that may pose a risk to humans, animals, or other potential receptors, or to prevent these munitions or chemicals from entering the environment and causing risk. The term includes, but is not limited to, actions such as covering or capping, excavation and disposal, chemical treatment, incineration, transportation, storage, or any other actions necessary to protect the public health or welfare and the environment, such as land use and institutional controls.
Remedial Action Objective	Objectives established for remedial actions to guide the development of remedial alternatives and focus the comparison of acceptable remedial alternatives, if warranted. Remedial Action Objectives also assist in clarifying the goal of minimizing risk and achieving an acceptable level of protection for human health and the environment.
Remedial Investigation	A study of a site that provides information regarding the location and concentration of chemicals and munitions in soil, surface water, groundwater, and/or sediment, and whether these chemicals and munitions pose a risk to human health and the environment.
Responsiveness Summary	This summary includes an Army response to all public comments received during the public comment period held for the Proposed Plan.
Risk Management	The process of analyzing, selecting, implementing, and evaluating actions to reduce risk.

GLOSSARY OF TERMS

Risk Screening	A study that determines if enough munitions constituents, such as lead, are present to cause harm to humans and plants/animals that use or live at an MRS. The results from these studies are used by the Army to help determine what action or actions should be taken to prevent humans and plants/animals from being hurt at an MRS.
Site Inspection	A study of a site that determines if munitions constituents or MEC are present at an MRS, and if a Remedial Investigation should be conducted.
Unexploded Ordnance	Includes military munitions that have been primed, fuzed, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material; and remain unexploded either by malfunction, design, or any other cause. 10 USC 101(e)(5)(A) through (C) and 40 CFR 266.201.
Unlimited Use and Unrestricted Exposure	The selected remedy does not include a restriction on land or groundwater use to be protective. (DoDM 4715.20, Definitions).
Visual Survey	An activity conducted by specially trained workers that looks for MEC located on the ground. This activity is often assisted by a handheld metal detector.
Work Plan	A document that outlines the scope, procedures, and goals of a project to help ensure that the project is done safely and correctly.

ACRONYMS AND ABBREVIATIONS

ARARs	Applicable or Relevant and Appropriate Requirements
Army	U.S. Department of the Army
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MRS	Munitions Response Site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NYSDEC	New York State Department of Environmental Conservation
USC	United States Code
USEPA	U.S. Environmental Protection Agency
West Point	U.S. Army Garrison West Point

USE THIS FORM TO WRITE YOUR COMMENTS

Your input on this Proposed Plan is important to the Army. The comments that the Army receives will be used to select the remedial alternative for the Seacoast Battery MRS. Changes to the preferred alternative can be made based on comments made by the public.

Please use the space below to submit your comments on the Proposed Plan. If you need more space for your comments, attach additional pages.

After you have completed the form, e-mail to:
Jeff Sanborn, U.S. Army Garrison West Point
Jeff.Sanborn@usma.edu

Or by mail to:
Jeff Sanborn
U.S. Army Garrison West Point
ATTN: IMML-PWE
667A Ruger Road
West Point, NY 10996-1592

If you have any questions about the public comment process, please contact Jeff Sanborn at (845) 938-5041.

Comments must be postmarked or e-mailed by September 21. 2017.

Name_____

Affiliation_____

Address_____

City, State, Zip_____

Follow the 3Rs

Recognize

Recognize when you may have encountered a munition.

Recognizing when you may have encountered a munition is the most important step in reducing the risk of injury or death. Munitions may be encountered on land or in the water. They may be easy or hard to identify.

To avoid risk of injury or death:

- Never move, touch, or disturb a munition or suspect munition.
- Be aware that munitions do not become safer with age, in fact, they may become more dangerous.
- Don't be tempted to take or keep a munition as a souvenir.

Munitions come in many sizes, shapes, and colors. Some may look like bullets or bombs, while others look like pipes, small cans or even a car muffler. Whether whole or in parts, new or old, shiny or rusty, munitions can still explode.

Retreat

Do not touch, move, or disturb it; but carefully leave the area.

Avoid death or injury by recognizing that you may have encountered a munition and promptly retreating from the area.

If you encounter what you believe is a munition, do not touch, move, or disturb it. Instead, immediately and carefully leave the area by retracing your steps, leaving the same way you entered. Once safely away from the munition, mark the path (e.g., with a piece of clothing or global positioning system (GPS) coordinates) so response personnel can find the munition.

CALL!

On-post Military Police....845-938-3333

845-938-3312

Off-post.....911

Report

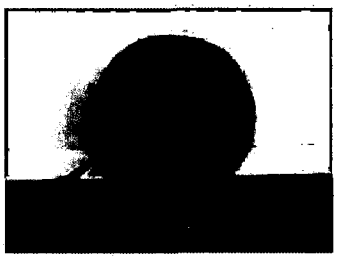
Immediately notify the police.

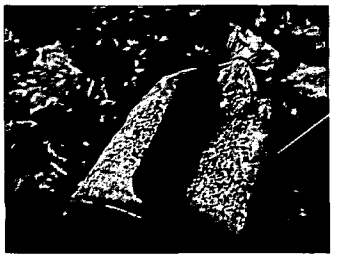
Protect yourself, your family, your friends, and your community by immediately reporting munitions or suspected munitions to the police.

Help the police by providing as much information as possible about what you saw and where you saw it. This information will help the police and the military or civilian explosives ordnance disposal personnel find, evaluate, and address the situation.

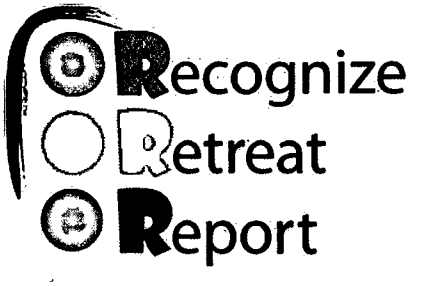
If you believe you may have encountered a munition, call and report the following information:

- The area where you encountered it.
- Its general description. Remember: do not approach, touch, move, or disturb it.
- When possible, provide:
  - Its estimated size
  - Its shape
  - Any visible markings, including coloring





3-inch Stokes Mortars and related debris



New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9662 • **Fax:** (518) 402-9679
Website: www.dec.ny.gov

Joe Martens
Commissioner

(via email and US mail)

November 25, 2014

Mr. Jeff Sanborn
United States Army Garrison West Point
ATTN: IMNE-MIL-PWE-M
667A Ruger Road
West Point, NY 10996-1592

Dear Mr. Sanborn:

Re: Michie Stadium MRS - Decision Document May 2014
West Point Military Reservation, Site No. 336041
West Point, Orange County

The New York State Department of Environmental Conservation (Department) in conjunction with the New York State Department of Health, has reviewed the Decision Document prepared for the USACE by Weston Solutions and dated May 2014 for Michie Stadium. The recommendations of the Feasibility Study were used to select a preferred alternative, which was documented in a Proposed Plan finalized in February 2014 and was submitted with an opportunity for public comment from February 17, 2014 through March 20, 2014. All public comments were considered prior to selection of the final remedy.

We understand that this site will be managed under a Land Use Control (LUC) plan that will describe restrictions for land use and procedures for contractors or other parties that may need to work on the site. There will be long-term management though 5 year reviews and maintenance of LUC components.

The Department concurs with the Decision Document conclusion that no further action is needed for soil at Michie Stadium.

If you have any questions on the above, please feel free to contact Paul Patel at (518) 402-9662.

Sincerely,

George W. Heitzman, P. E.
Director
Remedial Bureau C
Division of Environmental Remediation

ec: W. Roach, EPA Reg. 2
D. Crosby
G. Heitzman
S. Karpinski, NYSDOH