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1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair; Julio Vazquez, EPA; Joseph White, NYSDEC; Charlotte Bethoney, NYSDOH

Government RAB Members Excused:

<u>Community RAB Members Present</u>: Karen Tackett, Community Co-Chair; Pat Jones; Fred Swain,

<u>Community RAB Members Not Present</u>: Robert McCann; Dave Schneider; Carmen Serrett; Frank Ives; David Wagner; Frankie Young-Long; Russell Miller.

Environmental Support Personnel and Guests Present: Chris Boes, USAEC; Kevin Healy, USACE-Huntsville; Scott Bradley, USACE-Huntsville; Randy Battaglia, USACE-Seneca, Tom Enroth, USACE-Seneca; Janet Fallo, USACE-Seneca; Todd Heino, Parsons; Jeff Adams, Parsons; Nancy Williamson, SEDA.

2. Mr. Absolom called the meeting to order at 7:00 p.m. He thanked everyone for coming and introductions were made.

3. Mr. Absolom asked for additions/corrections to minutes from the April 20, 2004 meeting. There being none, the minutes were signed into the record.

Mr. Absolom introduced Mr. Todd Heino, Parsons Engineering Science, to give a presentation on Soil Excavation Quantities - Sensitivity Analysis at the Munitions Washout Facility (SEAD-4). SEAD-4 operations involved the dismantling of munitions and removing the explosives by steam cleaning (See enclosed presentation handout, Parsons). The site consists of many drainage ditches, a 150-foot man-made pond and seven buildings. The soil is contaminated by heavy metals, for the most part, chromium.

The New York State Department of Environmental Conservation rejected the cleanup goals in the Draft Final Feasibility Study (January 2002) and requested a sensitivity analysis.

Parsons Engineering set up five cleanup goal scenarios balancing remediation costs versus amount of lead (Pb) and chromium (Cr) removed. The scenarios ranged from least costly to 100% contaminants removed. They calculated the volumes of soil removed under each scenario and determined average Cr and Pb concentration. They calculated mass of contaminant removed under each scenario and resulting remediation cost. Finally, they recommended Scenario A with 93% chromium and 70% lead removed at a cost of \$2.6 million. Doing a 100% removal of contaminants (Scenario B) would raise the cost to \$5.17 million.

Question: Scenario D (66% Cr and 70% Pb removed) is safe for humans. Why go further to level A protection of the environment (bugs and bunnies)?

Answer: If you clean up to "pre-release conditions", going with Scenario B instead of D, it's not cost effective. Scenario is a reasonable compromise.

Question: If the area were industrial, what level cleanup would be required? Answer: Building interiors have slight exceedances; no clean up required. Comment: SEAD-11 will go through the same thing. If there'' a possibility of this site going industrial, it would be important to know because it would change the cleanup goal.

5. Stephen Absolom presented next the updated Remediation Plan and Transfer Schedule. He discussed each site and gave the status and "optimistic" transfer dates. (Please consult attached handout.) K. Healy: What is the definition of "Remedy Complete"? Absolom: An agreement that no more action is needed.

F. Swain: Regarding SEAD-4 FS, did the Army ask IDA if any plans for all the sites had changed? If they have changed it could save money.

Absolom: We asked 9 months ago with regard to SEAD-4. We have not asked site by site because we have an accepted re-use plan. If IDA comes back with a change in re-use, the cleanup goal can be looked at.

F. Swain: How old is the Plan?
P. Jones: 1996-97.
Absolom: It was signed in 1999. IDA is looking at the airfield again with a new study for use as an airfield.
F. Swain: If we had known of a possible change, we

wouldn't have needed this. **P. Jones:** We are looking at the Conservation Area - a relook.

F. Swain: It will have to go to the town boards for approval, but it still might change.

K. Tackett: There will be an argument because lots of people expect there to be a Conservation Area to retain the deer.

Absolom: The Army will immediately react to any IDA change of use. For example, the railroad use constitutes industrial use. Therefore cleanup next to a railroad should not be to background levels.

6. The next meeting is scheduled for November 16, 2004 in Waterloo. Membership would be a good topic for the next meeting.

Mr. Absolom thanked everyone for coming. There being no further discussion or questions, the meeting was adjourned at 8:00 p.m.

Respectfully submitted,

(Manay Williamson

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED:

STEPHEN M. ABSOLOM U.S. Army Co-Chair

Karen Tackett Community Co-Chair

REMEDIATION PLAN AND TRANSFER SCHEDULE September 21, 2004

PID / WHSE Area

SEAD 59 & SEAD 71- PAINT DISPOSAL AREAS

Acreage: 9 acres Site History: Site consists of fill areas that debris was placed in. Risk: Potential Ground water contamination from petroleum contamination found in the soil. No risk remains from soils in fill areas. Status of Remediation: Removal action of the contaminated soil is complete. Evaluation

of GW is underway.

Funds: On Hand RIP/RC: April 2005 FOST: June 2005 Deed: September 2005

SEAD 16- ABANDONED DEACTIVATION FURNACE

Acreage: 3 acres.

Site History: This unit was used to destroy small arms ammunition. Risk. SEAD 16 Abandoned Deactivation Furnace: Facility has residual powder in piping and OE scrap that has potential for explosive residuals. There is heavy metals contamination in the soil. Status of Remediation: Final Proposed Remedial Action Plan has been agreed to. The Draft Record of Decision is under review.

Funds: November 04 RIP/RC Completion Date: August 2005 FOST: December 2005 Deed: September 2006

SEAD 17 - DEACTIVATION FURNACE

Acreage: 8 acres

Site History: This unit was used to destroy small arms ammunition. Risk. SEAD 17 Deactivation Furnace: Facility has OE scrap that has potential for explosive residuals. There is heavy metals contamination in the soil. Status of Remediation: Final Proposed Remedial Action Plan has been agreed to. The Draft Record of Decision is under review. Funds: November 04 RIP/RC Completion Date: August 2005 FOST: December 2005 Deed: September 2006

SEAD 25 - FIRE DEMONSTRATION AREA

Acreage: 3.5 acres. Site History: This site was used to demonstrate the installation fire fighting capability. Risk: Volatiles in the soil contributing to GW contamination. Semi- volatiles in ditch line poses limited long term risk to child resident of the ditch Status of Remediation: ROD is pending signature

Funds: April 2004 RIP/RC Completion Date: April 2005 FOST: May 2005 Deed: September 2005

SEAD 26 - FIRE TRAINING AREA

Acreage: 6.7 acres. Site History: This site was used to practice fire-fighting capability. Risk: Semi-volatiles in surface soil and ditch line along railroad pose limited long term risk to child resident of the ditch. Status of Remediation: ROD is pending signature

Funds: April 2004 RIP/RC Completion Date: April 2005 FOST: May 2005 Deed: September 2005

SEAD 121 - EBS SITE – INDUSTRIAL

Acreage: 23 Acres Site History: DRMO yard and cosmoline steam cleaning site. These sites have had a site investigation performed. PAHs (Semi-volatiles) have been found. Solvents have been found in the ground water around the DRMO yard. Risk: Soil contamination may pose threat to residential child. Status of Remediation: RI fieldwork is completed and reports being prepared. Funds: November 2004 RIP/RC Completion Date: December 2005 FOST: April 2006 Deed: September 2006

SEAD 50 - TANK FARM STORAGE SEAD 54 - ASBESTOS STORAGE

Acreage: 26 acres Sites History: These sites are where the Army stored material in above ground steel tanks. Movement of the material resulted in contamination of the soil. Status of Remediation: These two sites have a removal action underway. The action consists of excavation and disposal by land-filling the soil, which are contaminated with heavy metals. Status: ROD is being finalized

Funds: Available RIP/RC date: March 2005 FOST: Dec 2003 Deed: April 2004

SEAD 38 - BUILDING 2078 BOILER BLOW DOWN PIT SEAD 39 - BUILDING 121 BOILER BLOW DOWN PIT SEAD 40 - BUILDING 319 BOILER BLOW DOWN PIT

Acreage: 1 acre combined Site History: These sites consist of contamination resulting in the blow down of the central boilers, which was discharged to the ground. SEAD 38 is also included in the SEAD 4 Area of concern. Risk: Petroleum products may pose risk. Status of Remediation: A removal action is underway.

Funds: Available RIP/RC date: March 2005 FOST: June 2005 Deed: September 2005

SEAD 5 - SLUDGE PILES

Acreage: 2 acres

Site History: This site is a result of the storage of domestic sewage sludge from the sewer treatment plant drying beds. The investigation revealed that the sludge has elevated level of heavy metals in it.

Risk: Heavy metals may pose threat to resident.

Status of Remediation: Removal action is underway.

Site History: These sites are where the Army performed destruction of ammunition by detonation or discharge. The site investigation of these sites revealed contamination of MEC and heavy metals.

Risk: Sites have MEC scrap that has potential for explosive residuals. There is heavy metals contamination in the soil.

Status of Remediation: Field investigation has started.

Funds: November 2009 RIP/RC date: December 2011 FOST: May 2012 Deed: September 2012

SEAD 48 - PITCHBLENDE ORE STORAGE

Acreage: 55 acres

Site History: This site consists of 11 igloos that were used to store pitchblende ore. The igloos were decommissioned in the mid 1980s. Unrestricted access approval is on file from NRC, NYS and EPA. An extensive removal occurred during the decommissioning process however there is a concern for residuals under current standards. Further investigation will determine whether additional work is required.

Risk: Residual left from previous removal may have long term impact for residence. Status of Remediation: Fieldwork has been performed and report has been reviewed and comments are being addressed.

Funds: November 2005 RIP/RC date: December 2006 FOST: March 2007 Deed: September 2007

DECOMMISIONING SURVEYS (Conservation Area)

Size: 105 igloos and 4 buildings

Site History: Seneca has a NRC license that requires termination prior to allowing unrestricted access to the inside of the buildings. Field survey work completed. Final evaluation of risk is pending the final approval of the cleanup objectives. Evaluation of results will be completed and approved before final transfer.

Risk: Residual depleted uranium material could impact interior surface of structure (none was found during the fieldwork).

Status of Remediation: Fieldwork Complete. Final report has been reviewed commented on and resubmitted.

Funds: Available

Site Work Completion Date: N/A License Termination Date: December 2004

SEAD 63 - MISCELLANEOUS COMPONENTS BURIAL SITE

Acreage: 4 acres History of Site: This site was use by the Army to bury classified military unique components. Risk: Military unique items to be removed which have the potential to contain low-level radiological contamination. Some heavy metal contamination may be present. Status of Remediation: Removal action completed. NFA PRAP being prepared.

Funds: Available RIP/RC date: April 2005 FOST: May 2005 Deed: September 2005

SEAD 6 - ASH LANDFILL (including SEADs 3,8,14,15)

Acreage: 42 Acres Site History: Site is former municipal waste disposal area. Heavy metals remain in the soil. TCE (solvent) is found in the ground water. Risk: Ecological risk exists. Ground water wells will not be permitted. Status of Remediation: ROD is pending signature

Funds: Available RIP/RC date: April 2005 FOST: May 2005 Deed: September 2005

SEAD 11 - OLD LANDFILL

Acreage: 6 acres

History of Site: Construction debris and other unknown items were disposed of at this site.

A site investigation conducted revealed contamination and unknown anomalies.

Risk: Heavy metals and solvent in the soil, unknown items in the fill area.

Status of Remediation: An Interim removal action is planned so that a No Further Action Determination can be made.

Funds: January 2005 RIP/RC date: February 2007 FOST: June 2007 Deed: September 2007

SEAD 13 - INHIBITED RED FUMING NITRIC ACID (IRFNA)

Acreage: 11.5 acres

History of Site: This site was used by the Army to neutralize IRFNA, a liquid propellant constituent. The acid was poured into a trench filled with limestone and water and was neutralized. Process resulted in nitrogen compounds being introduced into the ground water. This site is expected to require land use controls only.

Risk: Has excess nitrates above drinking water standards

Status of Remediation: Field work for base line complete. Decision Document has been reviewed and comments are being addressed.

Funds: Available RIP/RC date: April 2005 FOST: May 2005 Deed: September 2005

SEAD 4 - MUNITIONS WASHOUT FACILITY

Size: 4 acres

Site History: This site was used by the Army to wash out shell casing to remove explosives. Heavy metal contamination has been found in the soil. Risk: None for industrial future use. Contaminants pose limited ecological concerns Status of Remediation: The project is in the FS has been prepared, commented on and responses being prepared.

Funds: November 2004 RIP/RC date: April 2006 FOST: May 2006 Deed: September 2006

SEAD 12 - RADIATION SITE

Size: 10.5 acres

History of Site: This site consists of the former Special Weapons Storage Area. Three areas where military unique items were buried and a localized groundwater plume contaminated with TCE was found during the remedial investigation. SEAD 72- Mixed

Waste Storage Bldg. regulated under the Interim Status Hazardous Waste Permit will be closed out and incorporated into the ROD of the SEAD 12. This has potential to accelerate cleanup upon completion of the additional work that required. Risk: Groundwater has localized TCE (solvent) plume Status of Remediation: The site is in the RI/FS process. Additional field investigation work is performed.

Funding: November 2008 RIP/RC date: December 2009 FOST: March 2010 Deed: September 2010

SEAD 23 - OPEN BURNING GROUNDS

Acreage: 30 acres

Site History: The Army used this site for burning propellant, explosives and pyrotechnics to destroy unstable items. This site is with in the boundary described by SEAD 115 Risk: See SEAD 115

Status of Remediation: The Record of Decision has been signed. The remedial action for this site will be completed this year.

Funds: Available RIP/RC date: September 2004 FOST: April 2012 Deed: September 2012

SEAD 118 - ORDNANCE AND EXPLOSIVE SITES

Acreage: 48 acres

Site History: This site represents 3 areas where MEC was found as a result of record search and site investigations. It is proposed to perform removal actions at the three locations and restrict the land use to surface activity.

Mission: site is actually 3 locations. Site A is a training range where 40 mm training grenades and 37 mm LAW sub-caliber training rounds were fired. Training rounds have

small explosive charge that create the "puff of smoke" to indicate the location of round. Site 2 and 3 are adjacent each other and were used by EOD units for training. These sites have MEC scrap that may have residual explosive contamination. Risk: Sites that have MEC scrap have potential for explosive residuals. Status of Remediation: Remedial Action is scheduled for funding in FY 05.

Funds: November 2004 RIP/RC date: January 2006 FOST: March 2006 Deed: September 2006

SEAD 24 - POWDER BURNING AREA

Acreage: 3.25 acres Site History: This site was used in the late 40s early 50s to burn black powder and propellants. Investigation shows heavy metal contamination in the soil. Risk: Soil contamination may pose a chronic risk to residents. Status of Remediation: A removal action at this site is ongoing.

Funds: Available RIP/RC date: March 2005 FOST: May 2005 Deed: September 2005

SEAD 115 - OPEN BURNING / OPEN DETONATION

Acreage: 400 acres Site History: This site is where the Army performed destruction of ammunition by detonation or discharge. The site investigation of this site revealed contamination of ordnance residual and heavy metals. Risk: Site has MEC scrap that has potential for explosive residuals. There is heavy metals contamination in the soil.

Status of Remediation: Work to reduce MEC boundary is on going.

Funds: November 2010 RIP/RC date: December 2006 FOST: April 2012 Deed: September 2012

SEAD 64B- GARBAGE DISPOSAL AREA

Acreage: 0.25 acres

Site History: This site is where the Army disposed of approximately 1 truckload of municipal garbage in the early 70's. The material is located under 10 feet of soil cover and requires closure as an inactive solid waste site.

Funds: Available RIP/RC date: April 2005 FOST: June 2005 DEED: September 2005

SEAD 64D- GARBAGE DISPOSAL AREA

Acreage: 0.25 acres Site History: This site is where the Army disposed of approximately 1 truckload of municipal garbage in the early 70's. The material is located under 10 feet of soil cover and requires closure as an inactive solid waste site.

Funds: Available RIP/RC date: April 2005 FOST: June 2005 DEED: September 2005

SEAD 70- CONSTRUCTION DEBRIS AREA

Acreage: 0.25 acres

Site History: This site is where the Army disposed of construction debris such as fencing posts, concrete etc.

Risk: Site has a single sample that should elevated arsenic in the soil. No other contaminates were at levels of concern.

Status of Remediation: The Army will perform a removal action on this site in Spring 2004 so a No Further Action determination may be made.

Funds: Available RIP/RC date: December 2006 FOST: August 2007 DEED: September 2007

Soil Excavation Quantities -Sensitivity Analysis

Munitions Washout Facility (SEAD-4)

Seneca Army Depot Activity September 21, 2004







\$EAD-4 Overview

- Munitions Washout Facility is located in the southwestern portion of SEDA
- Site features include:
 - numerous drainage ditches within the site
 - 150-ft. diameter man-made pond
 - seven remaining buildings
- Operations involved the dismantling of munitions and removing the explosives by steam cleaning
- Soils contaminated by heavy metals, principally chromium







Regulatory History

- Expanded Site Investigation completed in 1993
- Final RI completed in January 2001
- Draft Final FS submitted in January 2002
 - Excavation of soils and sediments exceeding soil cleanup goals
 - Ecological cleanup goals recommended [Cr > 324 mg/Kg, Pb > 167 mg/Kg]
 - EPA approved these goals; NYSDEC has rejected them
 - NYSDEC requested sensitivity analysis





Sensitivity Analysis

- Graph remediation costs vs. contaminant mass removed for five CUG scenarios
- Determine where "knee of curve" occurs
- Knee of curve shows where large increased remediation costs do not justify small increases in contaminant mass removed
- Balance remediation costs versus lead (Pb) and chromium (Cr) mass removed
- Select most appropriate cleanup goals for Pb and Cr





S Clea	ensitivity An anup Goal So	alysis cenarios
Scenario A:	Cr > 60 mg/Kg; P	b > 167 mg/Kg
Scenario B:	Cr > 30 mg/Kg; F (pre-activity condi	Pb > 30 mg/Kg tions)
Scenario C:	Cr > 60 mg/Kg; F	Pb > 400 mg/Kg
Scenario D:	Cr > 324 mg/Kg; F (ecological risk as	Pb > 167 mg/Kg sessment)
Scenario E:	Cr > 324 mg/Kg;	Pb > 400 mg/Kg
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Sensitivity Analysis Method

- Calculate volumes of soil to be removed under each scenario and determine average Cr and Pb concentration
- Calculate mass of contaminant removed under each scenario and resulting remediation cost
 - contaminant mass:

volume (cy) x 1.5 tons/cy x 2000 lbs/ton x 0.454 kg/lb x Cr conc. (mg/Kg) = Cr mass (mg)

 Determine percentage of contaminant removed based on 100% removed under most stringent CUG scenario





Excavation Areas (Scenario A)



Excavation Areas (Scenario B)



Excavation Areas (Scenario C)



904-15 LEGEND Cr and Pb Concentration (ppm) MW4-13 Cr < 324 and Pb < 167 N 9880 . Cr > 324 or Pb > 187 Section 1 1 ft out = 3594 cy Section 2 1 ft out = 3869 cy Section 28 4 ft out = 1041 cy Section 3 1 ft out = 1740 oy Section 3B 7 ft out = 950 cy Section 4 4 ft cut = 3080 cy Section 48 1 ft cut = 2344 oy Section 5 1 ft cut = 312 cy Section 0 1 ft out = 148 cy Section 7 1 ft out = 042 oy 384-97 Total volume to be removed 18020 oy N 100 300 Feet 200 + **Heri** PARSONS SENECA ARMY DEPOT ACTIVITY SE AD-4 Figure D Approximate Area of Excavation for Criteria - D Cr > 324, Pb > 167 1" = 200" AUGUST 2004 PARSONS 13

Excavation Areas (Scenario D)

Excavation Areas (Scenario E)



Mass Calculation

	Volume	Mas	s of soil		Mass of Cr	% Chromium	Mass of Pb	% Lead
	(cy)	(mil	ion Kg)	Cost (\$mill)	(Kg)	removed	(Kg)	removed
Scenario E	12,955		17.1	1.62	23,200	63.8%	3,700	57.7%
Scenario D	18,020		24.5	2.13	24,000	66.0%	4,500	70.3%
Scenario C	20,276		28.1	2.35	30,300	83.4%	4,100	64.3%
Scenario B	48,460		66.0	5.17	36,300	100.0%	6,400	100.0%
Scenario A	22,496		30.6	2.6	33,600	92.5%	4,400	69.4%
Notes: A: Cr > 60 Pt B: Cr> 30; Pt C: Cr> 60; Pt D: Cr > 324; E: Cr > 324,	<pre>> 167 > 30 > 400 Pb > 167 Pb > 167 Pb > 400</pre>							
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Sensitivity Analysis - Chromium









Conclusions

- Sensitivity analysis is conclusive
- Scenario A results in 93% chromium removed and 70% lead removed.
- Costs increase by 100% (\$2.6m to \$5.2m) to remove all contaminants (Scenario B)
- Army recommends Scenario A for cleanup goals based on analysis.
 - Pb < 167 ppm, Cr < 60 ppm
























SEAD-12 RI/FS Status	
 Investigation - Summer 1998 through Fall 2001 	
 Remedial Investigation Report: Revised Final February 2002 	
Feasibility Study Report: Draft May 2002	
 On-hold pending additional investigation 	











































MINUTES RESTORATION ADVISORY BOARD April 19, 2005

1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair

Government RAB Members Excused: Charlotte Bethoney, NYSDOH

Community RAB Members Present: Karen Tackett, Community Co-Chair; Pat Jones, SCIDA; Fred Swain

Community RAB Members Not Present: Robert McCann; Carmen Serrett

Environmental Support Personnel and Guests Present: Chris Boes, USAEC; Keith Hoddinott, USACHPPM; Randy Battaglia, USACE-Seneca, Todd Heino, Parsons; Nancy Williamson, SEDA.

2. Mr. Absolom called the meeting to order at 7:00 p.m. He thanked everyone for coming and introduced the agenda for the evening.

3. Mr. Absolom asked for additions/corrections to minutes from the November 16^{th} , 2004 and January 18, 2005 meetings. There being none, the minutes were signed into the record.

4. Mr. Absolom introduced Mr. Todd Heino, Parsons, who gave a presentation on Supplemental Remedial Investigation at SEAD-12 buildings 813 and 814.

Mr. Absolom reviewed the Finding of Suitability to Transfer (FOST) for the Airfield Parcel (see enclosure). Mr. Swain asked Ms. Jones if the airfield will continue to be used for State Police training and/or if it would be used as an airport.

Ms. Jones affirmed that the State Police would be using the airfield and that there would be no airport. Since significant financial support has been allocated in support of the Seneca County Airport, it is very doubtful FAA would approve a second airport. The State Police will also be using the firing range at the airfield.

Ms. Tackett asked Ms. Jones asked if the airfield couldn't be kept up to be used for emergencies.

Mr. Absolom and Ms. Jones responded that if the State Police used it any upkeep or restoration to the runway surface would be damaged.

4. Mr. Absolom next went over the draft Land Use Control (LUC) Remedial Design for SEAD 27, 66, and 64A (enclosure). He explained how the plan to implement LUC's on these areas involves several interdependent layers of responsibility between the Army, State and Federal regulators and town zoning boards.

5. The final topic for the meeting was membership. Public Notices were placed in the Finger Lakes Times, the Pennysaver and Reveille Between-the-Lakes to attract new members to the RAB. The result was one query from Waterloo. A survey of all members to gather opinions on what their RAB interest was elicited only 5 responses. Non-responders will be dropped.

Mr. Van Ness when surveyed proposed a different concept from bimonthly meetings. He suggested sending presentations in the mail and having each member contacted by Mr. Absolom for comments.

The Army will have other Public Meetings which RAB members are invited to attend. In lieu of bimonthly meetings we could have one or two formal RAB meetings a year.

Mr. Swain remarked that doing one-on-one phone calls would omit the interaction between members.

Ms. Jones suggested email as a possibility but Mr. Swain does not use email.

Mr. Absolom suggested going to quarterly meetings. He said he is open to suggestions.

The members agreed to try quarterly meetings with the next meeting set for August 16, 2005 in Waterloo.

Mr. Absolom said there may be a Public Meeting before the next RAB meeting.

There being no further business, the meeting was adjourned at 8:05 p.m.

Respectfully submitted,

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Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED:

<u>Stephen Mulado</u> STEPHEN M. ABSOLOM U.S. Army Co-Chair

Karen Tackett Community Co-Chair

DRAFT

FINDING OF SUITABILITY TO TRANSFER (FOST)

Seneca Army Depot Activity

Airfield Parcel

April 2005

DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) Seneca Army Depot Activity Airfield Parcel April 2005

1. PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) is to document the environmental suitability of certain parcels or property (the Property) at Seneca Army Depot Activity (SEDA) for transfer to the Seneca County Industrial Development Agency (SCIDA) consistent with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h) and Department of Defense (DOD) policy. In addition, the FOST includes the Environmental Protection Provisions (EPPs) necessary to protect human health or the environment after such transfer.

2. PROPERTY DESCRIPTION

The Property consists of 501.23 acres, which includes 11 buildings and numerous other land improvements (e.g., 7,000 ft. runway, taxiways, aircraft parking pads). The Property was previously used as an airfield. The Property is intended to be transferred as a training facility for police and emergency service personnel and is consistent with the intended reuse of the property as set forth in the SCIDA Reuse Plan. A site map of the Property is attached (Enclosure 1).

3. Environmental Documentation

A determination of the environmental condition of the property was made based upon the Community Environmental Response Facilitation Act (CERFA) Report, dated March 22, 1996 and as amended on December 6, 1996, and an Environmental Baseline Survey (EBS), dated March 22, 1996, and as revised on October 30, 1996. The information provided is a result of a complete search of agency files during the development of these environmental surveys.

A complete list of documents providing information on environmental conditions of the Property is attached (Enclosure 2).

4. Environmental Condition of Property

The DOD Environmental Condition of Property (ECP) categories for the Property are as follows:

- ECP Category 1: All areas and buildings (489.2 acres) except as identified below.
- ECP Category 2: Building 2310 (.25 acres), building 2305 (.25 acres), area west of building 2312 (7.43 acres), and a non-PCB oil release (.25 acres).

ECP Category 3: Small arms range (2.85 acres) and trap and skeet range (.8 acres).

A summary of the ECP categories for specific buildings, parcels, or operable units and the ECP category definitions is provided in Table 1 – Description of Property (Enclosure 3).

4.1. Environmental Remediation Sites

There is no evidence of groundwater contamination on the Property. There was one environmental remediation site located on the Property: SEAD 122B (Small Arms Range). This site was remediated to remove lead contamination from the soil. All environmental remediation activities on the Property have been completed. See the Revised Final Characterization Report Small Arms Range- Airfield (SEAD 122B), dated October 2004, for additional information. A summary of the environmental remediation site is provided in Table 2 – Notification of Hazardous substances Substance Storage, Release, or Disposal (Enclosure 4).

4.2. STORAGE, RELEASE, OR DISPOSAL OF HAZARDOUS SUBSTANCES

There was no evidence of hazardous substances being stored for 1 year or more and released or disposed of on the Property in excess of reportable quantities specified in 40 CFR Part 373. Hazardous substances were released in excess of the 40 CFR 373 reportable quantities at BRAC parcel 114(3)HR (SEAD 122B (Small Arms Range)). The release or disposal of these hazardous substances was remediated as part of the Installation Restoration Program (IRP). See Section 4.1 Environmental Remediation Sites for additional information. A summary of the buildings or areas in which hazardous substance activities occurred is provided in Table 2 - Notification of Hazardous Substance Storage, Release, or Disposal (Enclosure 3). The CERCLA 120(h)(3) Notice, Description, and Covenant at Enclosure 6 will be included in the Deed.

4.3. PETROLEUM AND PETROLEUM PRODUCTS

4.3.1. UNDERGROUND AND ABOVE-GROUND STORAGE TANKS (UST/AST)

• <u>Current UST/AST Sites</u> - There is one above-ground petroleum storage tank (AST) perty. There is no evidence of petroleum release from this tank. We generated add a on the Property. There is no evidence of petroleum release from this tank.

Former UST/AST Sites - There were six underground and one above-ground petroleum storage tanks (UST/AST) on the Property that have been removed. A petroleum product release occurred at Bldg 2310. The release of the petroleum product was remediated at the time of the release and as part of UST closure. See NYSDEC closeout letter dated 12/2/88 for additional information.

A summary of the UST/AST petroleum product activities is provided in Table 3 – Notification of Petroleum Products Storage, Release, or Disposal (Enclosure 5).

4.3.2. Non-UST/AST Storage, Release, or Disposal of Petroleum Products

There is no evidence that non-UST/AST petroleum products in excess of 55 gallons were stored for 1 year or more on the Property. There is evidence that petroleum product releases in excess of reportable quantities occurred in the following areas:

- A pole mounted electrical transformer, non-PCB oil, was knocked down spilling its contents. This oil was remediated at the time of the release.
- Two jet fuel spills on fueling pad near building 2305. The release of this jet fuel was remediated at the time of the releases.
- Jet fuel spill on fueling pad west of building 2312. The release of this jet fuel was remediated at the time of the release.

A summary of the non-UST/AST petroleum activities is provided in Table 3 – Notification of Petroleum Products Storage, Release, or Disposal (Enclosure 5).

4.4. POLYCHLORINATED BIPHENYLS (PCB)

There is no evidence that PCB-containing equipment is located or was previously located on the Property.

4.5. Asbestos

There is asbestos-containing material (ACM) in the following buildings: 2306, 2305, two skeet towers and the trap house. The ACM includes: transite shingles, transite wall board, and transite siding. See the asbestos inspection which occurred on February 28, 2001. The ACM does not currently pose a threat to human health or the environment as the material is in a non friable condition. The deed will include an asbestos warning and covenant (Enclosure 6).

4.6. LEAD-BASED PAINT (LBP)

Based on the age of the building and structures (constructed prior to 1978), LBP is presumed to be present in all of the buildings and structures covered by this FOST, except buildings 2307, 2310, 2311, 2312, 2314 and 2315 which were built after 1978. The Property was not used for residential purposes and the transferee does not intend to use the Property for residential purposes in the future. The deed will include a lead-based paint warning and covenant (Enclosure 6).

4.7. RADIOLOGICAL MATERIALS

There is no evidence that radioactive material or sources were stored or used on the Property.

4.8. RADON

Radon surveys were conducted in buildings 2301, 2305, 2306, and 2311 on the Property. Radon was not detected at above the EPA residential action level of 4 picocuries per liter (pCi/L) in any of these buildings.

4.9. Munitions and Explosives of Concern (MEC) $- \langle - \psi \chi \psi \rangle$

Based on a review of existing records and available information, there is no evidence that Munitions and Explosives of Concern (MEC) are present on the Property. A portion of the Property was used as a small arms range (2.85 acres) and a trap and skeet range (.8 acres). <u>Small arms</u> ammunition, which is defined as ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns, is not considered to present an explosive hazard. However, munitions constituents (i.e., lead bullets) that are normally associated with such ammunition may present a hazard to human health and the environment.

The Revised Final Characterization Report Small Arms Range - Airfield (SEAD 122B), dated October 2004, confirmed that no MEC was found during remediation of the small arms range. The remaining portions of the Property were used as an airfield and there was no record of munitions related activities at the airfield. The term "MEC" means military munitions that may pose unique explosives safety risks, including: (A) unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5); (B) discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or (C) munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. Given the Property's past use, the deed will include a Notice of the Potential Presence of MEC (Enclosure 6).

4.10. OTHER PROPERTY CONDITIONS

The Final Investigation of Environmental Baseline Survey Non-Evaluated Sites SEAD-199A, SEAD 122(A, B, C, D, E), SEAD-123 (A, B, C, D, E, F), SEAD-46, SEAD-68, SEAD-120 (A, B, C, D, E, F, G, H, I, J), and SEAD-121 (A, B, C, D, E, F, G, H, I) dated May 1999 found semi volatile organic compounds in surface soils. The levels found are expected from the past use of the parcel as a airfield. Subsequent evaluation shows the compounds found are within the Benzo (A) Pyrene toxicity equivalence calculations for acceptable risk. No further investigation is warranted.

5. Adjacent Property Conditions

The site is surrounded by privately owned land. SEDA has no knowledge of hazardous contamination on sites located on this adjacent property.

6. Environmental Remediation Agreements

The following environmental orders/agreements are applicable to the Property: Federal Facilities Agreement dated January 23,1993, with the USEPA and NYS DEC. All remediation activities on the Property, required by such agreement or order, are completed or in place and operating properly and successfully (See Section 4.1 Environmental Remediation Sites). The deed will include a provision reserving the Army's right to conduct remediation activities (Enclosure 6).

7. REGULATORY/PUBLIC COORDINATION

The U.S. EPA Region 2, the New York State Department of Conservation, and the public were notified of the initiation of this FOST. Regulatory/public comments received during the public comment period will be reviewed and incorporated, as appropriate. A copy of the regulatory/public comments and the Army Response will be included at Enclosure 7 and 8.

8. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts associated with the proposed transfer of the Property have been analyzed in accordance with the National Environmental Policy Act (NEPA). The results of this analysis are documented in the Environmental Impact Statement for BRAC 95 Disposal and Reuse of Property at the Seneca Army Depot Activity, dated March 1998. The NEPA analysis identified the need to encumber the parcel by notification of wetlands. The Environmental Protection Provisions will put the transferee on notice of identified wetlands.

9. FINDING OF SUITABILITY TO TRANSFER

Based on the above information, I conclude that all removal or remedial actions necessary to protect human health and the environment have been taken and the Property is transferable under CERCLA section 120(h)(3). In addition, all Department of Defense requirements to reach a finding of suitability to transfer have been met, subject to the terms and conditions set forth in the attached Environmental Protection Provisions that shall be included in the deed for the Property. The deed will also include the CERCLA 120(h)(3) Notice, Covenant, and Access Provisions and Other Deed Provisions. Finally, the hazardous substance notification (Table 2) shall be included in the deed as required under the CERCLA Section 120(h) and DOD FOST Guidance.

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JAMES R. DAVIDSON

Director, National Capital Region Field Office

8 Enclosures Encl 1 -- Site Map of Property Encl 2 -- Environmental Documentation Encl 3 -- Table 1 -- Description of Property

Encl 4 -- Table 2 -- Notification of Hazardous Substance Storage, Release, or Disposal

Encl 5 -- Table 3 -- Notification of Petroleum Product Storage, Release, or Disposal

Encl 6 -- Environmental Protection Provisions

Encl 7 -- Regulatory/Public Comments

Encl 8 -- Army Response



ENCLOSURE 2 ENVIRONMENTAL DOCUMENTATION

- SEDA's Asbestos Management Plan dated February 28, 2001.
- SEDA's radon surveys dated 1989,1991 and 1994.
- SEDA's Bulk Petroleum Storage registration dated January 31, 2001.
- SEDA's electrical transformer PCB survey dated February 1998.
- New York State Department of Environmental Conservation (NYSDEC) Region 8 spill list.
- SEDA Ordnance and Explosives Archives Search Report dated December 1998.
- Appendix H of SEDA's Spill Prevention Control and Countermeasure Plan dated May 1999.
- Final Investigation of Environmental Baseline Survey Non-Evaluated Sites SEAD-199A, SEAD 122(A, B, C, D, E), SEAD-123 (A, B, C, D, E, F), SEAD-46, SEAD-68, SEAD-120 (A, B, C, D, E, F, G, H, I, J), and SEAD-121 (A, B, C, D, E, F, G, H, I) dated February 1999.
- Revised Final Characterization Report Small Arms Range Airfield (SEAD –122B) Dated October 2004.

TABLE 1 – DESCRIPTION OF PROPERTY

	Table	e 1 Descr	iption of Property	
Building No.	BRAC	Condition	Environmental Condition of	
and Property	Parcel	Category *	Property and Remedial	
Description	Number		Actions	
All airfield areas	2(1)	1	No associated Environmental	
 not listed below.			conditions. SEAD 122E De-icing plane	
			rumor- the levels found are expected from the past use of the parcel as a airfield. Subsequent evaluation shows the compounds found are within the Benzo (A) Pyrene toxicity equivalence calculations for acceptable risk. No further investigation is warranted	
Bldg. 2301 Office administrative 4,877sq. ft.			Possible LBP exterior and interior.Heating fuel oil storage see table 3.	
Bldg. 2302 Storage 1,022 sq. ft.			• Possible LBP exterior and interior.	
 Bldg. 2303 Beacon light. Bldg. 2304 Generator 2,184 sq. ft. Bldg. 2307 Shelter 21ft. Diameter Bldg. 2311 guard Post 192 sq. ft. Bldg. 2312 			 Possible LBP exterior and interior. Possible LBP exterior and interior. Diesel fuel oil storage see table 3. No associated Environmental conditions. No associated Environmental conditions. 	
storage 2.401 sq. ft.			• No associated Environmental conditions.	

Bldg. 2314 Gas chamber 286 sq. ft.			 No associated Environmental conditions.
Bldg. 2315 Vehicle storage 5,100 sq. ft.			• No associated Environmental conditions.
Bldg.2306	7(1)PS	1	Possible LBP exterior and interior.
administration 8,744 sq. ft.			 Asbestos transite wall board and shingles. Heating fuel oil storage see table 3.
Metal Connex storage sq. ft.	107(1)PS	1	No associated Environmental conditions.
Bldg. 2310 fuel pump 144 sq. ft.	6(2)PS/PR	2	• Jet fuel storage see table 3.
Bldg. 2305 Operations office 5,589 sq. ft.	8(2)PS/PR	2	 Possible LBP exterior and interior. Asbestos transite board. Heating oil storage and petroleum product spills see table 3.

	Table 1 Description of Property		
Building No.	BRAC	Condition	Environmental Condition
and Property	Parcel	Category *	of Property and Remedial
Description	Number		Actions
Aircraft parking and fueling area west of building 2312. 7.43 acres.	56(2)PR	2	• SEAD 122D, Jet fuel spill. Based on Final Investigation dated February 1999. No further remediation required.
Pole mounted	143(2)PR	2	Non PCB oil smill see table 3
electrical transformer.			
Trap and skeet range .8 acres	115(3)HR	3	• Trap house and the two skeet towers asbestos transite wall board.
Small arms range 2.85 acres.	114(3)HR	4	SEAD 122B, remedial action required to remove lead bullet fragments and lead contamination in the soil from this small arms range. Approximately 500 cyds of lead contaminated soil was removed from the site. The lead bullets and fragments could not be separated at during the removal action. Soil was sifted with 1/2 in screen. Only
			small arms bullets and fragments were found.

NOTE: Enclosure 1 Airfield Site Map show locations of buildings.

The Environmental Condition Codes include:

Category 1: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). However, the area may have been used to store hazardous substances or petroleum products.

Category 2: Areas where only release or disposal of petroleum products (including migration of petroleum products from adjacent property).

Category 3: Areas where storage, release, disposal, or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.

Category 4: Areas where storage, release, disposal, or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken.

BRAC Parcel Number Definitions:

- PS Petroleum Storage
- PR Petroleum Release
- HS Hazardous Storage
- HR Hazardous Substance Release

TABLE 2 – NOTIFICATION OF HAZARDOUS SUBSTANCE STORAGE, RELEASE OR DISPOSAL

Building Number	Name of Hazardous Substance(s)	Date of Storage, Release, or Disposal	Remedial Actions	
 Small	Lead, in the	1957 to 1998.	SEAD 122B, remedial action required	
arms	form of bullet		to remove lead bullet fragments and	
range.	fragments		lead contamination in the soil from this	
Ŭ	0		small arms range. Approximately 500	
			cyds of lead contaminated soil was	
			removed from the site. The lead bullets	
			and fragments could not be separated at	
			during the removal action. Soil was	
			sifted with 1/2 in screen. Only small arms	
			bullets and fragments were found.	
* The info	rmation contained	l in this notice is required under	r the authority of regulations	
promulgat	ed under section 1	20(h) of the Comprehensive E	nvironmental Response, Liability, and	
Compensa	tion Act (CERCL	A or 'Superfund') 42 U.S.C. §	9620(h). This table provides information	
on the stor	age of hazardous	substances for one year or mor	e in quantities greater than or equal to	
1,000 kilos	grams or the haza	dous substance's CERCLA rep	portable quantity (which ever is greater).	
In addition	, it provides infor	mation on the known release of	f hazardous substances in quantities	
 greater tha	n or equal to the s	ubstances CERCLA reportable	e quantity. See 40 CFR Part 373.	
	1	*		

Table 3 – Notification of Petroleum Product Storage, Release and				
		Disposal	-	
Building	Name of	Date of Storage, Release,	Remedial Actions	
Number	Petroleum	or Disposal		
	Product(s)			
	PE	TROLEUM PRODUCT REL	EASE	
Bldg. 2905	Jet fuel # 4	On 4-17-91 a jet fuel spill	NYSDEC spill # 9100721.	
Aircraft		occurred on the aircraft	Area was remediated and	
		landing pad near building 2305.	spill was closed out 4-18-91.	
Bldg. 2305	Jet fuel # 4	On 3-23-92 a jet fuel spill	NYSDEC spill # 9112997.	
Aircraft		occurred on the aircraft	Area was remediated and	
landing pad		landing pad near building	spill was closed out 3-24-92.	
		2305.		
Aircraft	Jet fuel # 4	Sometime in 1990 a jet fuel	SEAD 122D, no spill	
parking		spill occurred on the aircraft	number. Site investigation	
and		parking and fueling pad	indicated that spill had been	
fueling		west of building 2312.	cleaned up. No evidence of	
Pad		6	spill was found. No further	
1 000			remedial action required.	
Pole mounted	Non PCB oil	On 11-3-92 utility pole	NYSDEC spill # 9210155.	
electrical transformer		#A1-4-8 was knocked over	Area was remediated and	
		spilling non PCB oil from	spill was closed out 7-19-94.	
		the electrical transformer		
which was mounted to it.				

		UST's and AST's (TABLE 3 continued)	
Building Number	Name of Petroleum Product(s)	Date of Storage, Release, or Disposal	Remedial Actions
2304	Diesel fuel	285 gallon AST operated from 1995 to present.	No known releases. A new tank was installed in 1995 and remains active.
2301	#2 fuel oil	1,000 gallon UST operated from 1957 to 1997.	No known releases. Tank was removed and not replaced 4-7-97
2306	#2 fuel oil	2,000 gallon UST operated between 1957 and 1996. 2000 Gallon AST operated between 1996 and 1997.	No known releases. UST was removed in 1996 and replaced with AST which was removed October 2004.
2305	#2 fuel oil	1,000 gallon UST operated from 1957 to 1997.	No known releases. Tank was removed and not replaced 4-7-97
2310	Jet fuel	17,000 gallon UST operated from 1981 to 1988. 30,000 Gallon UST operated from 1990 to 2004.	1988 tank discovered leaking and was removed 9-22-88. NYSDEC spill #8805363. Area was remediated and spill was closed out 12-2-88. Tank was replaced with a 30,000 gallon UST in 1990 and removed in Nov 2004

ENVIRONMENTAL PROTECTION PROVISIONS

The following CERCLA Notice, Covenant, and Access Provisions and Environmental Protection Provisions will be placed in the deed in a substantially similar form to ensure protection of human health and the environment and to preclude any interference with ongoing or completed remediation activities.

Federal Facility Agreement (FFA)

The Grantor acknowledges that Seneca Army Depot Activity (SEDA) has been identified as a National Priority List (NPL) Site under the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended (CERCLA). The Grantee acknowledges that the United States has provided it with a copy of the SEDA Federal Facility Agreement (FFA) entered into by the United States Environmental Protection Agency Region II, the State of New York, and the Department of the Army, effective January 23, 1993 and will provide the Grantee with a copy of any amendments thereto. The Grantee, its successors and assigns, further agrees that notwithstanding any other provisions of this Deed, the Grantor assumes no liability to the Grantee, its successors and assigns, should implementation of the FFA interfere with the their use of the Property. The Grantee, its successors and assigns, shall have no claim on account of any such interference against the Grantor or any officer, agent, employee or contractor thereof. The Grantor shall, however, comply with the provisions of Section II.B. below in the exercise of its rights under the FFA.

II. CERCLA Covenants and Notice

Pursuant to Sections 120(h)(3) and 120 (h)(4) of the CERCLA:

A. Notification and Covenants

1. The Grantor hereby notifies the Grantee that to the extent such information is available on the basis of a complete search of agency files, there was storage and release of hazardous substances, petroleum, petroleum products or their derivatives on certain portions of the Property. For the purpose of this Deed, "hazardous substances" shall have the same meaning as section 101(14) of CERCLA. Available information regarding the type, quantity and location of the hazardous substances found on the Property and action taken is contained in Exhibit D hereof. The information regarding said storage and release indicates that there is no threat to human health or the environment on the Property.

2. The Grantor hereby covenants that:

a. On those portions of the Property where there was the storage and release of hazardous substances, all remedial action necessary to protect human health and the environment
with respect to any such hazardous substances remaining on the Property has been taken before the date of conveyance hereunder; and

b. Any additional remedial, response or corrective action found to be necessary with regard to such hazardous substances remaining on the Property after the date of this Deed that resulted from past activities of the Grantor shall be conducted by the Grantor. This covenant shall not apply to the extent such remedial, response or corrective actions are caused by activities of the Grantee, its successors or assigns.

B. Access Rights and Easement

The Grantor reserves a right and easement for access to the Property in any case in which remedial action or corrective action is found to be necessary after the date of this Deed. In exercising these rights of access, except in case of imminent endangerment to human health or the environment, the Grantor shall give the Grantee, or the then record owner, at least thirty (30) days prior written notice of actions to be taken in remediation of the Property, and shall use reasonable means, without significant additional cost to the Grantor, to avoid and/or minimize interference with the use of the Property by the Grantee, its successors and assigns. Furthermore, any such actions undertaken by the Grantor pursuant to this Section II.B will, to the maximum extent practicable, be coordinated with a representative of the Grantee, its successors and assigns. Grantee agrees that, notwithstanding any other provisions of the Deed, that the Grantor assumes no liability to the Grantee, its successors and assigns, or any other person, should remediation of the Property interfere with the use of the Property by the Grantee, its successors and assigns.

C. Transfer Documents

The Grantee and its successors and assigns covenant and agree that all leases, transfers or conveyances of the Property occurring subsequent to the date of this Deed shall be made expressly subject to, and shall have the benefit of, the provisions contained in this Article II.

III. ENVIRONMENTAL BASELINE SURVEY ("EBS") AND FINDING OF SUITABILITY TO TRANSFER ("FOST")

The Grantee has received the technical environmental reports, including the EBS for the Property, dated March 22, 1996, and as revised on October 30, 1996 and the FOST for SEDA Planned industrial Development and Warehouse Area, dated July 2002, prepared by the Grantor, and agrees, to the best of the Grantee's knowledge, that they accurately describe the environmental condition of the Property. The Grantee has inspected the Property and accepts the physical condition and current level of environmental hazards on the Property and deems the Property to be safe for the Grantee's intended use. If an actual or threatened release of a hazardous substance or petroleum product is discovered on the Property after the date of the conveyance, whether or not such substance was set forth in the technical environmental reports, including the EBS, Grantee or its successors or assigns shall be responsible for such release or newly discovered substance was due to Grantor's activities, ownership, use, or occupation of the Property. Grantee, its successors and assigns, as consideration for the conveyance, agree to release Grantor from any liability or

responsibility for any claims arising solely out of the release of any hazardous substance or petroleum product on the Property occurring after the date of this Deed, where such substance or product was placed on the Property by the Grantee, or its successors, assigns, employees, invitees, agents or contractors, after the conveyance. This Article III shall not affect the Grantor's responsibilities to conduct response actions or corrective actions that are required by applicable laws, rules and regulations, or the Grantor's indemnification obligations under applicable laws.

IV. NOTICE OF THE PRESENCE OF ASBESTOS AND COVENANT

A. The Grantee is hereby informed and does acknowledge that friable and non-friable asbestos or asbestos-containing materials ("ACM") has been found in buildings and structures on the Property, as described in the EBS. The ACM in buildings and structures on the Property does not currently pose a threat to human health or the environment, and all friable asbestos that posed a risk to human health has either been removed or encapsulated.

B. The Grantee covenants and agrees that its use and occupancy of the Property will be in compliance with all applicable laws relating to asbestos; and that the Grantor assumes no liability for future remediation of asbestos or damages for personal injury, illness, disability, or death, to the Grantee, its successors or assigns, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Property, whether the Grantee, its successors or assigns, have properly warned or failed to properly warn the individual(s) injured. The Grantee agrees to be responsible for any future remediation of asbestos in buildings and structures found to be necessary on the Property.

C. Unprotected or unregulated exposures to asbestos in product manufacturing, shipyard, and building construction workplaces have been associated with asbestos-related diseases. Both the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) regulate asbestos because of the potential hazards associated with exposure to airborne asbestos fibers. Both OSHA and EPA have determined that such exposure increases the risk of asbestos-related diseases, which include certain cancers and which can result in disability or death.

D. The Grantee acknowledges that it has inspected the Property as to its asbestos content and condition and any hazardous or environmental conditions relating thereto. The Grantee shall be deemed to have relied solely on its own judgment in assessing the overall condition of all or any portion of the Property, including, without limitation, any asbestos hazards or concerns.

E. The Grantor assumes no liability for any damages to person or property, and gives no warranties, either express or implied, with regard to the presence or absence of asbestos or ACM in buildings and structures, or whether the Property is or is not suitable for a particular purpose. The Grantee further agrees to indemnify and hold harmless the Grantor, its officers, agents and employees, from and against all suits, claims, demands or actions, liabilities, judgments, penalties, costs and attorneys' fees arising out of, or in any manner predicated upon, future asbestos abatement or remediation from within buildings and structures on the Property; disposal of ACM or asbestos after conveyance to the Grantee; personal injury, death or property damages resulting

from, related to, caused by or arising out of exposure to asbestos within buildings or structures on the Property after the conveyance of such portion of the Property to the Grantee. The Grantee's obligation hereunder shall apply whenever the United States incurs costs or liabilities for actions giving rise to liability under this Section. The Grantee shall not be responsible for indemnifying or holding the Grantor harmless from any loss, claims, liabilities, judgments, penalties, costs, or damages arising out of exposure to asbestos that occurred prior to the date of the lease in furtherance of conveyance for the Property dated October 4, 1999.

V. NOTICE OF THE PRESENCE OF LEAD BASED PAINT AND COVENANT AGAINST THE USE OF THE PROPERTY FOR RESIDENTIAL PURPOSES.

A. The Grantor covenants that the Property was not used as "Residential Real Property". The Grantee covenants that the Property is not intended to be used a "Residential Real Property" or occupied by children under 6 years of age. "Residential Real Property" means any housing constructed prior to 1978, except housing for the elderly (households reserved for and composed of one or more persons 62 years of age or more at the time of initial occupancy) or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing) or any 0-bedroom dwelling).

B. The Grantee is hereby informed and does acknowledge that all buildings on the Property, which were constructed or rehabilitated prior to 1978, are presumed to contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. The Grantee is notified that the Property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. Under federal law, the seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards.

C. Available information concerning known lead-based paint and/or lead-based paint hazards, the location of lead-based paint and/or lead-based paint hazards, and the condition of painted surfaces is contained in the Environmental Baseline Survey dated March 22, 1996. The Grantee hereby acknowledges receipt of all of the Environmental Baseline Survey. In addition, the Grantee acknowledges that it has received the opportunity to conduct its own risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this document.

D. The Grantee further agrees to indemnify and hold harmless the Army, its officers, agents and employees, from and against all suits, claims, demands, or actions, liabilities, judgments, costs and attorney's fees arising out of, or in a manner predicated upon personal injury, death or property damage resulting from, related to, caused by or arising out of lead-based paint or lead-based paint hazards on the Property if used for Residential Real Property. The Grantee shall not be responsible for indemnifying or holding the Grantor harmless from any suits, claims, demands, actions, liabilities, judgments, costs and attorney's fees arising out of exposure to lead-based paint occurring prior to the date of the lease in furtherance of conveyance for the Property dated October 4, 1999.

E. The Grantee, its successors and assigns, covenants that it will include the LBP notice set forth in paragraph V.B. in all subsequent transfers, leases, or conveyance documents that include Residential Real Property.

VI. NOTIFICATION OF THE PRESENCE OF RADON AND COVENANT

Available and relevant radon assessment data pertaining to the Property is located in the Environmental Baseline Survey (EBS), dated March 22,1996. According to said radon assessment data, those structures shown as Buildings 2301, 2305, 2306, and 2311 were tested and radon was not detected at above the EPA residential action level of 4 picocuries per liter (pCi/l). The Grantee, its successors and assigns, covenant that they will include this radon notice in all subsequent conveyance documents that include said untested buildings and/or structures, or any portion thereof.

VII. MUNITIONS AND EXPLOSIVES OF CONCERN NOTICE

A. The Grantee, its successors and assigns, are hereby notified that the Property was previously part of the Seneca Army Depot. Seneca Army Depot was used for military munitions storage from 1941 to 2000. Based upon a comprehensive archive records search, the Grantor has determined that there is no evidence of munitions and explosives of concern on the Property. However, there are munitions response sites (MRS) adjacent to the Property that are being retained by the U.S. Army. No unauthorized public access to these adjacent MRS is permitted. The term "MEC" means military munitions that may pose unique explosives safety risks, including: (A) unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5); (B) discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or (C) munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. Areas with MEC are identified in Deed Exhibit

B. Notwithstanding the comprehensive archive records search, the parties acknowledge that because of the Property's former use as an active military installation there is a possibility that MEC may exist on the Property. If the Grantee, any subsequent owner, or any other person should find any MEC on the Property, they shall immediately stop any intrusive or ground-disturbing work in the area or in any adjacent areas and shall not attempt to disturb, remove or destroy it, but shall immediately notify the Local Police Department so that appropriate explosive ordnance disposal personnel can be dispatched to address such MEC as required under applicable law and regulations.

C. The Grantee acknowledges receipt of the Seneca Army Depot Activity Ordnance and Explosives Archive Search Report dated December 1998 and the Revised Final Characterization Report Small Arms Range - Airfield (SEAD 122B) dated October 2004.

VIII. INDEMNIFICATION

Notwithstanding any other provision of this Deed, the Grantor recognizes its obligation to comply with Section 330 of the Department of Defense Authorization Act of 1993, as amended.

ENCLOSURE 7 REGULATORY AND PUBLIC COMMENTS ENCLOSURE 8 ARMY RESPONSE

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DRAFT Land Use Control Remedial Design

For SEAD 27,66,and 64A Seneca Army Depot Activity Romulus, New York

Prepared by Seneca Army Depot Activity

(April 2005)

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Land Use Control Remedial Design For SEAD 27,66,and 64A Seneca Army Depot Activity Romulus, New York (April 2005)

1. Site Description:

This plan describes the Institutional Controls (ICs) that have been applied as part of the remedy for SEAD 27, 66, and 64A. The institutional controls were chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. These institutional controls are intended to be protective of human health and the environment under the current and anticipated future land use of the site.

2. Land Use Control (LUC) Objectives:

The LUC Objectives for SEAD 27, 66, and 64A are as follows:

- Prevent residential housing, elementary and secondary schools, childcare facilities and playgrounds activities at the SEAD 27, 64a, and 66 sites.
- Prevent access to or use of the groundwater at the SEAD 27, 64a, and 66 sites until Class GA Groundwater Standards are met.
- Prevent unauthorized excavation at the SEAD 64A site.

A map showing the location of SEAD 27, 66, and 64A and the land use restrictions location is attached Land Use Restriction Map (Enclosure 1). The land use restrictions will be imposed and maintained on all the property within the PID and Warehouse Area. The area-wide land use restrictions will simplify IC implementation by having a single set of land use restrictions for the entire Parcel. In addition, area-wide restrictions are consistent with the future anticipated land use of the property.

3. LAND USE CONTROL (LUC) MECHANISMS:

The following LUC Mechanisms will be implemented to prevent future violation of the LUC restrictions:

A. Deed restriction - The former Seneca Army Depot Activity was transferred with the above LUC Restrictions. These LUC Restrictions will be set forth in the deed for the property. The deeds will be recorded at Seneca County Clerk Office 1DiPronio Drive, Waterloo, NY.

B. Environmental Easement. The Army will prepare an environmental easement consistent with N.Y. Code Env. Section 27-1318(b) which will be recorded immediately prior to the property's transfer outside the federal government's control. The environmental easement will

runs w/deed or part q deed & recended w/it at SC Clerk office

DRAFT

ensure the NYSDEC's ability to enforce the LUC Restrictions in the future. The environmental easement will be incorporated into the deed for the property transfer.

C. Zoning - The former Seneca Army Depot Activity property is subject to the Town of Romulus Zoning regulations. The zoning establishes land uses for conservation/recreation, residential, commercial/ industrial activity. The property addressed under this plan is zoned commercial/industrial. See Romulus Zoning Map (figure 2).

Note – The Zoning section is provided for information purposes only since the Town of Romulus is responsible for the local zoning regulations.

D. Annual Certification – On or before June 1st of each year, the Army or future property will annually submit a written statement in accordance with N.V. Code Error Contraction $\mathcal{A}^{(\mathcal{A})}$ owners will annually submit a written statement in accordance with N.Y. Code Env. Section 27-1318(c). The statement will be prepared by a professional engineer or other environmental professional that the institutional and engineering controls put in place are unchanged and from the previous certification and nothing has occurred that would impair the ability of the control to protect human health and the environment or constitute a violation of failure to comply with any operation and maintenance or site management plan.

 \int F. Five Year Review - The Army will review the LUC remedy as part of the 5 year review and report. The report will address the effectiveness of the of the LUC remedy and whether any LUC Mechanism should be modified.

4. LAND USE CONTROLS (LUC) ENFORCEMENT

A. Army and EPA LUC Enforcement. If a LUC Objective violation is discovered by the Army or EPA, the Army or EPA will attempt to resolve the matter informally with party responsible for the violation (i.e., the property owner or occupant). If the matter is resolved, the Army or EPA will notify the other parties (i.e., the Army, EPA, or NYSDEC) of LUC Objective violation and corrective action. If the LUC Objective violation cannot be resolved informally, the Army, EPA, and NYSDEC reserve the right to take appropriate enforcement measures against the responsible party.

B. NYSDEC LUC Enforcement. If a LUC Objective violation is discovered by the NYSDEC, the NYSDEC will attempt to resolve the matter accordance with the enforcement procedures set forth in the Environmental Easement. If the matter is resolved, the NYSDEC will notify the other parties (i.e., the Army and EPA) of LUC Objective violation and corrective action. If the LUC Objective violation cannot be resolved informally, the Army, EPA, and NYSDEC reserve the right to take appropriate enforcement measures against the responsible party.

5. LAND USE CONTROLS MODIFICATION/TERMINATION

This RD may be modified and/or terminated by the Army or future owner by requesting a modification of the LUC Mechanisms (e.g., frequency of the annual certification, etc.) in writing to the EPA/NYSDEC. If the Army and EPA/NYSDEC determine that it is appropriate to modify the LUC Mechanism, the Army will revise the RD accordingly.

Note – the Environmental Easement may be amended only by an amendment executed by the NYSDEC Commissioner and filed with the office of the recording officer for the county or counties where the Property is situated.

6. LUC RD TERMINATION

This LUC RD shall remain in effect such time as the Army and EPA/NYSDEC agree concentrations of hazardous wastes or hazardous constituents have been reduced to levels that allow for unrestricted use of the property (e.g., the groundwater contamination levels are below the Maximum Contaminant Level (MCL) and the soil contamination levels are below levels that equate to an excess lifetime cancer risk of 1 x 10-6 and a Hazard Index of 1.0). If the results of inspections indicate that the remedial objectives are nearing completion and that specific LUC mechanisms may no longer be needed, Army will request a meeting with the EPA/NYSDEC to determine whether the terms of this LUC RD may be modified.







DRAFT DATED 11 April 2005

ENVIRONMENTAL EASEMENT

This Easement is made this _____day of ______, 20 ___, between The United States of America, acting by and through The Department of Army, (the "Grantor"), and the State of New York (the "Grantee."), acting through the New York State Department of Environmental Conservation ("NYSDEC" or "Department") with its headquarters located at 625 Broadway, Albany, New York 12233. The Grantor is currently the Property Owner and holder of fee to the Controlled Property. After transfer of the fee interest to this Controlled Property, the transferee(s), as well as their successors and assigns, will become the Property Owner(s).

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of environmental easements as an enforceable means of ensuring the performance of maintenance, monitoring or operation requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to be effective, or which requires groundwater use restrictions; and

WHEREAS, the Legislature of the State of New York has declared that environmental easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of the site remedial program or eliminate potential exposure pathways to the hazardous waste or petroleum; and;

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36;and

NOW THEREFORE, in consideration of the covenants and mutual promises contained herein and the terms and conditions of the Record of Decision entitled, "Sites Requiring Institutional Controls in the Planned Industrial/Office Development or Warehousing Areas" dated July 2004 Grantor grants, conveys and releases to Grantee an Environmental Easement that is enforceable

DRAFT DATED JULY 14, 2004

against the Property Owner(s), its successors and assigns in perpetuity pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. <u>Purposes</u>. The Parties acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a <u>specific use while ensuring the performance of maintenance, monitoring or operation</u> requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. <u>Institutional and Engineering Controls</u>. The following controls apply to the use of the Controlled Property, run with the land are binding on the Property Owner(s), its successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:

A. The Controlled Property may be used for commercial/industrial use as long as the following the long-term Institutional controls are employed:

(1) Commercial/Industrial Use Restriction

The Controlled Property shall be used solely for commercial and industrial purposes and not for residential purposes, the Property having been remediated only for <u>commercial and industrial uses</u>. Commercial and industrial uses include, but are not limited to, administrative/office space, manufacturing, warehousing, restaurants, hotels/motels, and retail activities. Residential use includes, but is not limited to, housing, day care facilities, schools excluding education and training programs for persons over 18 years of age, assisted living facilities, and outdoor recreational activities excluding recreational activities by employees and their families incidental to authorized commercial and industrial uses on the Property.

(2) Ground Water Restriction

There shall be no access the ground water on the Controlled Property or use of the underlying ground water for any purpose without the prior written approval of the Grantee, EPA Region 2, and the United States Army. However, any owner, lessees, or other person using the Controlled Property are authorized to install monitoring wells with the prior written approval of the Grantee, EPA Region 2, and the United State Army which approval shall not be unreasonably withheld. For the purpose of this restriction, "ground water" shall have the same meaning as in section 101(12) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

DRAFT DATED JULY 14, 2004

(3) Excavation Restriction

The controlled property parcel identified as SEAD 64A as shown in exhibit B shall have no digging or excavation permitted without written approval of the Grantee, EPA Region 2 and the United States Army.

B. The Controlled Property may not be used for a higher level of use such as residential use and the above-stated institutional controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. Grantor and future Property Owner(s), successors and assigns, covenant and agree that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

D. Grantor, and the Property Owner(s), its successors and assigns, covenant and agree that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

E. The Property Owner, its successors and assigns, covenant and agree that it shall annually, or as such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. <u>Right to Enter and Inspect.</u> Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. <u>Reserved Rights</u>.

DRAFT DATED JULY 14, 2004

A. Reserved Grantor's Rights: All rights retained by the Grantor in the property transfer deed or other agreements that are not inconsistent with this Environmental Easement are retained by the Grantor. This includes the right of the Grantor and its agents, employees or other representatives, to enter the Controlled Property to maintain the CERCLA remedy and other required activities.

B. Reserved Property Owner Rights: The Property Owner reserves for itself, and its successors and assigns, with respect to the Property, all rights as fee owner of the Controlled Property, including:

1. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

2. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement; and

3. All other rights retained not inconsistent with this Easement.

5. Enforcement.

A. This environmental easement is enforceable in law or equity in perpetuity by Grantor, the Grantor's successors and assigns, the Grantee, or any affected local government, as defined in ECL Section 71-3603, against the Property Owner, its successors and assigns, as well as any tenants, lessees, contractor(s) and any person(s) using the Controlled Property. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this environmental easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. Grantee shall notify Property Owner, its successors and assigns of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Property Owner, its successors and assigns can cure such breach or suspected breach and give Property Owner, its successors and assigns a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Property Owner, its successors and assigns of any failure to adequately cure the breach or suspected breach. The Property Owner, its successors and assigns shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement. C. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. <u>Notice</u>. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall address its correspondence to:

Division of Environmental Enforcement Office of General Counsel New York State Department of Environmental Conservation 625 Broadway Albany New York 12233-5500

U.S. Environmental Protection Agency Emergency & Remedial Response Division 290 Broadway, 18th Floor, E-3 New York, New York 10007-1866

U.S Army Engineer District New York Chief, Real Estate Division 26 Federal Plaza New York, NY 10278-0090

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. <u>Recordation</u>. Grantor shall record this instrument, upon transfer of fee ownership from the Grantor to the transferee(s) with the Grantee's approval of the language contained herein, in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law of the State of New York.

8. <u>Amendment</u>. This environmental easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. <u>Extinguishment.</u> This environmental easement may be extinguished only by a release executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. <u>Grantor and EPA Region II Opportunity to Review and Comment</u>. The Grantee shall provide Grantor and the EPA Region II with a notice of and a reasonable opportunity to review and comment upon requested approvals or actions under this environmental easement, including without limitation requests for Amendment (Paragraph 8) and Extinguishment (Paragraph 9).

11. <u>Joint Obligation</u>. If there are two or more parties identified as the Property Owner's successors and assigns, herein, the obligations imposed by this instrument upon them shall be joint and several.

12. <u>Costs and Liabilities</u>. The Property Owner, its successors and assigns shall retain all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate liability insurance coverage.

13. <u>Taxes</u>. The Property Owner, its successors and assigns shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority.

14. <u>Terms.</u> The term "Grantor", wherever used herein, shall mean the United States Army while the Controlled Property remains in federal ownership. The term "Property Owner", and its "successors and assigns", shall mean the transferee(s) who receive fee possession of the Controlled Property, as well as their future owners, and heirs of the Controlled Property. The Property Owner will be responsible for maintaining the provisions of this Easement as regards to tenant(s), lessees, contractor(s), and other property users.

15. <u>Compliance with Law</u>. This environmental easement shall not remove the necessity of Grantor or the Property Owner, its successors and assigns to obtain any permit and/or approval from any governmental agency having jurisdiction over any activity conducted or to be conducted on the Controlled Property.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor's Name

Ву:_____

Title:

Date:

STATE OF NEW YORK)) ss: COUNTY OF)

On the _____ day of _____, in the year 200_, before me, the undersigned, personally appeared ______, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Signature and Office of individual taking acknowledgment

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation

By: Commissioner, NYSDEC
Grantee's Acknowledgment
STATE OF NEW YORK)
COUNTY OF)
On the day of, in the year 200, before me, the undersigned,
personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within
instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as
Commissioner of the State of New York Department of Environmental Conservation, and that by
his/her/ signature on the instrument, the individual, or the person upon behalf of which the

Notary Public - State of New York

individual acted, executed the instrument.

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Caretaker Office

Mr. Julio Vazquez U.S. Environmental Protection Agency Emergency & Remedial Response Division 290 Broadway, 18th Floor, E-3 New York, New York 10007-1866

Dear Mr. Vazquez:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

Enclosed is the following:

Agenda for the meeting Minutes for Meeting of August 16, 2005 Handouts for Meeting of August 16, 2005

Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Kuldeep K. Gupta New York State Department of Environmental Conservation Division of Environmental Remediation

Remedial Bureau A 625 Broadway, 11th Floor Albany, New York 12233-7015

Dear Mr. Gupta:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Sincerely,

Enclosure

Caretaker Office

Ms. Charlotte Bethoney New York State Department of Health Bureau of Environmental Exposure Investigation 547 River Street

Troy, New York 12180-2216

Dear Ms. Bethoney:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Sincerely,

Enclosure

Caretaker Office

Ms. Vickie Swinehart Public Health Director Seneca County Health Deparment 31 Thurber Drive Waterloo, New York 13165

Dear Ms. Swinehart:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Sincerely,

Enclosure

Caretaker Office

Ms. Patricia Jones Seneca County Industrial Development Agency 1 DiPronio Drive Waterloo, New York 13165

Dear Ms. Jones:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Carmen Serrett Labor Unions Local 103 PO Box 571 Geneva, New York 14456

Dear Mr. Serrett:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

Enclosed is the following:

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Henry Van Ness 9695 Route 96 Trumansburg, New York 14886

Dear Mr. Van Ness:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Sincerely,

Enclosure

Caretaker Office

Mr. Robert McCann 5168 E. Lake Rd. Romulus, NY 14541

Dear Mr. McCann:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

Enclosed is the following:

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Ms. Karen Tackett Community Co-Chair P.O. Box 153 Romulus, New York 14541

Dear Ms. Tackett:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Fred Swain 2907 Swick Road Ovid, New York 14521

Dear Mr. Swain:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Dennis Money 4780 Deuel Road Canandaigua, NY 14424

Dear Mr. Money:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. John Sipos President Seneca County Federation of Sportsmen's Clubs, Inc. 4797 E. Lake Rd. Geneva, NY 14456

Dear Mr. Sipos:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

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Thank you for your continued support of the SEDA RAB. If you are unable to attend, contact Nancy Williamson at the Seneca Army Depot at 607/869-1494.

Sincerely,

Enclosure

Caretaker Office

Mr. Tom Bouchard PO Box 204 Willard, NY 14588

Dear Mr. Bouchard:

The next Restoration Advisory Board meeting is November 15, 2005 at 7:00 p.m. at the Seneca County Office Building, 1 Di Pronio Drive, Waterloo, NY, second floor.

Enclosed is the following:

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Sincerely,

Enclosure

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Pilot Study Objectives

- 1. Achieve results similar to ZVI wall
- 2. Reductions in total molar concentrations
- 3. Formation of treatment zones
- 4. No exceedances at the sentry well (MW-56)
- 5. Evaluate design criteria and constructability issues

Objective 1

Show mulch wall is as effective as ZVI wall



PRB Northern Transect



PRB Middle Transect





PRB Southern Transect



ZVI vs. Mulch Wall Comparison Contaminant Reductions Upgradient vs. Downgradient

	Northern Transect (Mulch)	Northern Transect (Iron)	Southern Transect (Mulch)		Southern Transect (Iron)
Trichloroethene	-97.8%	-68.2%	-96.6%		-21.4%
cis- Dichloroethene	-57.5%	-68.2%	+37.5%	D	+375.0%
Total Molar chlorinated ethenes concentration	-73.9%	-68.8%	-8.2%		+18.7%

Achieve reductions in total molar concentrations within walls and downgradient

Objective No. 2

Molar Reductions of Chlorinated Ethenes in Mulch Wall

	West Wall	Between Walls	East Wall	Downgrad No. 1	lient	Downgradient No. 2
Northern Transect	-72.8%	+3.7%	-88.3%	-72.0%		-73.9%
Southern Transect	-84.4%	+23.0%	-87.2%	+10.5%		-8.2%

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Create downgradient treatment zones

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Treatment Zone Indicator Parameters – Northern Transect

Up- gradient	East Biowall	Between	West Biowall	Down- gradier	nt	Reductive Dechlor. Indication
0	0	1.08	1.05	0.67		<0.5 mg/l
0	0	0	0	0.34		<1.0 mg/l
0.05	2.81	3.3	2.81	1.2		>1.0 mg/l
767	<2	69.9	<2	41		<20 mg/l
340	1,000	1,000	960	781		>2x background
27	-158	-252	-206	-101		<-100 mV
97	10,000	6,100	10,000	2,900		>500 ug/l
	Up- gradient 0 0 0.05 767 340 27 97	Up- gradientEast Biowall0000000.052.81767<2	Up- gradientEast BiowallBetween001.080000.052.813.3767<2	Up- gradientEast BiowallBetweenWest Biowall001.081.0500000.052.813.32.81767<2	Up- gradientEast BiowallBetween SiowallWest BiowallDown- gradient001.081.050.6700000.340.052.813.32.811.2767<2	Up- gradientEast BiowallBetween BiowallWest

Treatment Zone Indicator Parameters – Northern Transect

	Up- gradient	East Biowall	Between	West Biowall	Down- gradient		Reductive Dechlor. Indication
Volatile Fatty Acids	2.0	4,128	788	97	126		>100 ug/l
ТОС	4.9	1,310	432	267	158		>20 mg/l
Temperature	13.6	15.4	14.8	16.5	14.1		>20 degrees C
Alkalinity	800	2530	1450	1,900	1,152		>2x background
Chloride	37.7	13.2	65.9	6.5	22		>2x background

17

Treatment Zone Indicator Parameters – Southern Transect

	Up- gradient	East Biowall	Between	West Biowall	Down- gradient	Reductive Dechlor. Indication
Oxygen	0	0	0	1.07	1.05	<0.5 mg/l
Nitrates	0.98	0	0	0	0	<1.0 mg/l
Fe2+	0.17	2.51	3.3	3.3	3.0	>1.0 mg/l
Sulfate	390	<2	150	<2	22.6	<20 mg/l
CO2	222	980	602	434	442	>2x background
ORP	32	-177	-226	-212	-252	<-100 mV
Methane	11	14,000	1,100	13,000	2,600	>500 mg/l

PARSONS

Treatment Zone Indicator Parameters – Southern Transect

	Up- gradient	East Biowall	Between	West Biowall	Down- gradier	nt	Reductive Dechlor. Indication		
Volatile Fatty Acids	0.18	969	116	101	87		>100 ug/l		
тос	4	777	42	268	22		>20 mg/l		
Temperature	13.1	16.1	14.3	17.0	14.5		>20 degrees C		
Alkalinity	420	1,700	940	2,350	1,102		>2x background		
Chloride	37.7	4.2	70.7	31.3	82		>2x background		

			Northern Transact					
		Possible Points	Upgradient	Walls	Downgradient	Upgradient	Walls	Downgradient
Oxygen	<0.6mg/l	3	0	0	0	0	0	0
Oxygen	>5mg/l	-3						
Nitrate	<1mg/l	2	2	2	2	2	2	2
Iron It	>1mg/l	3	0	3	3	0	3	3
Sulfate	<20mg/l	2	0	2	2	0	2	a
Sulfide	>1mg/l	3	0	0	a	0	O	a
Methane	>0.5mg/l	з	0	3	3	0	0	З
ORP	<50mV	1	0	0	0	0	0	0
ORP	<-100mV	2	0	2	2	0	2	2
pH	5 <ph<9< td=""><td>-2</td><td></td><td></td><td></td><td></td><td></td><td>_</td></ph<9<>	-2						_
TOC	>20	2	0	2	2	0	2	2
Тетр	>20C	1	٥	0	0	0	0	0
CO2	>2x back	1	O	1	1	o	1	1
Alkalinity	>2x back	1	a	1	1	O	1	1
Chloride	>2x back	2	2	2	2	2	2	2
Hydrogen	>1nM	3						_
Volatile Fatty Acids	>0.1mg/L	2	2	2	2	2	2	2
BTEX	>0.1mg/L	2	0	0	0	O	0	0
DCE (if daughter product)		2	2	2	2	2	2	2
VC (if daughter product)		2	2	2	2	2	2	2
Ethene/Ethane	>0.01mg/L	2	a	0	0	O	0	0
Elhene/Elhane	>0.1mg/L	3	٥	0	0	0	0	0
								_
			10	24	24	10	21	202

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PARSONS

Objective No. 4

- No exceedance of GW standards at Farm House Well
 - There have been no exceedances at the farmhouse well
 - MW-56 sampled in October 2005 and no exceedances were found

- Evaluate biowall design criteria and constructability issues
 - Installation of pilot wall showed open cut method is appropriate
 - Refined groundwater flow direction has been gained
 - May need limestone in full-scale trenches to buffer pH

Preliminary Observations

- Very positive results
- 90% reduction in TCE/DCE in Northern Transect
- Lower reductions in Southern Transect need more results
- All indicator parameters are excellent

MINUTES RESTORATION ADVISORY BOARD November 15, 2005

1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair;

Government RAB Members Excused: None

<u>Community RAB Members Present</u>: Karen Tackett, Community Co-Chair; Pat Jones, SCIDA; Fred Swain,

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Parsons installed two reactive biowalls --upgradient and downgradient walls (see handout).

The pilot study objectives listed below were met or exceeded:

1) Achieve results similar to ZVI

2) Reduce total molar concentrations

3) Form treatment zones (within wall and outside walls in aguifer

- 4) No exceedances at sentry well MW-56
- 5) Evaluate design criteria and constructability issues

Q: What form is the iron in? Doesn't iron make rust? A: Filings. Ground up engine blocks.

Q: Is the iron wall on the edge of the property? A: It's 200 feet in.

Q: Can more mulch be added to extend the life of a mulch wall? Is activity higher in summer that in winter? A: Yes, bugs slow down in colder temperatures. Q: Down 15 feet the temperature is not too different? A: 22 degrees down to 14 degrees, but activity is creating heat.

Mr. Heino went into each objective in detail (see charts in handout). Preliminary observations indicate -very positive results -90% reduction TCE/DCE in northern transect -lower reduction in southern transect—need more results -all indicator parameters are excellent Now we must decide on how to construct larger biowalls.

Comment: Both State DEC and EPA have not ruled on this method until they can see the whole test.

5. Mr. Absolom presented Remediation Plan and Transfer Schedule update. See handout for site by site update of status and proposed completion dates.

Q: (With regard to SEAD 121E) Did you ever get a chemical formula for Cosmoline? A: No. It's grease preservative. Anything with a PRAP written, we'd like to transfer this year to SCIDA.

Comment: [Re the biowall study] Invasion of the microbes
generated. Don't create another problem.
A:The microbes will run out of food and die off and not
create a hazard.

6. Open Discussion. After some discussion, it was decided that the next meeting would be February 28, 2006 in Waterloo

7. The meeting was adjourned at 8:00 p.m. Mr. Absolom thanked everyone for coming and wished them safe holidays.

Respectfully submitted,

Maney Williamson

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: LON

STÉPHEN M. ABSOLOM U.S. Army Co-Chair

Han Kelachert

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APPROVED AS SUBMITTED: Xien7 sologn

STEPHEN M. ABSOLOM U.S. Army Co-Chair

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Karen Tackett Community Co-Chair

MINUTES RESTORATION ADVISORY BOARD February 28, 2006

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Q: When excavating did you find drainage tiles? A: No at this site, but we have at others.

Q: How many truckloads were taken to the landfill? A: 150.

Q: Didn't you plant the area?
A: Natural seeds will blow into the area.
A: Vegetation will appear, i.e. re-vegetation.

Q: SEAD 25 can't be a ball field again?
A: People who work there can use it as a ball field, but
no one could be invited in to use it.
Comment: Romulus School are always looking for practice
fields.

A: Land use controls would have to be changed.

5. Mr. Heino proceeded to a second presentation, the Proposed Plan for No Action/No Further Action sites SEAD 58 and SEAD 63. (See second handout.) (This Public Presentation was made even though EPA has yet to make its comments on the Proposed Plan.) He reiterated the purpose of a public meeting is to get feedback from the community.

SEAD-58 is a purported debris area. Expanded Site Investigations were done in 1994. Some contaminants were found above Cleanup Goals (CUGs). A Mini-Risk Assessment was done resulting in cancer risk of less than 1 of EPA limit and ecological risk less than the hazard quotients for a conservation/recreational area (pre-2005). The Army conclusion is that no action is required. SEAD-63 is a miscellaneous components burial site of classified parts. It consists of multiple pits 10 to 30 feet in length down to bedrock along a 200-foot line; an area 300 by 400 feet inside the "Q" area, and a 100 square foot crushed shale pad. Following a mini risk assessment, a removal action was done to remove buried debris, eliminate the source of residual materials in the soil, and reduce impact to human health and the environment. USEPA and NYSDEC accepted the removal action completion report. The Army proposes that no further action is required.

Next, EPA, NYSDEC and NYSDOH will review and accept the Proposed Plan. The Army will receive acceptance and/or response to comments from the regulators and public. Finally, a Record of Decision will be prepared, submitted, reviewed and approved.

Comment: SEAD-58 is transferred; SEAD-63 has not yet transferred.

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A: SEAD-25 was back filled with borrow. SEAD-26 had its edges smoothed.
Q: Where was the borrow material from?
A: It's from NYSEG excavation in the housing area on Rt
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Q: We are closing in on 10 years this August since the RAB was formed. How much longer will it exist? A: Four to six years, probably, in that neighborhood. We will continue the projects, moving from studies to completion. We are just waiting for funding. Comment: It's coming along pretty good. No big challenges. Nothing unexpected compared to other bases where there have been disasters.

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Pat Jones: The room is not available in May, but is available the 3rd Tuesday in June.

The next meeting will be June 20th at 7 p.m. in Waterloo.

Mr. Absolom: There may be another Public Presentation prior to the June meeting. Thanks everyone for coming and participating.

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Respectfully submitted,

nancy Williamson

Enclosures

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Karen Tackett Community Co-Chair

Proposed Plan Two No Action / No Further Action Sites SEAD-58 and SEAD-63

Presented to Restoration Advisory Board 02/28/06

Seneca Army Depot Activity U.S. Army Corps of Engineers Parsons Infrastructure & Technology Group Inc.

2/27/2006

Purpose of the Proposed Plan Presentation

- Inform the public of Army's preferred and recommended RA for sites.
 - No Action SEAD-58
 - No Further Action SEAD-63
- Presents and summarizes data supporting recommendation.
 - Data/information show no evidence of release.
 - Data/information show no evidence hazardous materials handled.
 - Analysis of sampling data indicate no contaminants identified, or if contaminants were identified, were not found above CUGs.
 - If contaminants are present above CUGs, risk assessment indicates that site suitable for unrestricted use
Community Role in the Selection Process

- Lead parties rely on public input to ensure that community concerns are considered in the Superfund process.
- > This public meeting is held.
 - Presentation of information made.
 - Comments accepted and responses are developed and incorporated.
- Lead parties encourage community review of pertinent documents at Information Repository.



2/27/2006

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SEAD-58: Site Background

Debris Area near Booster Station 2131

- Two distinct areas separated by an east-west drainage swale.
- North area ~ 300 ft diameter; South area ~ 125 ft by 175 ft in size.
- Relatively flat area with evidence of stressed vegetation.
- Interviews with historic employees indicated that unknown debris/waste, possibly including DDT, may have been dumped in area.
- No written evidence/reports exist.
- Booster Station 2131 is a pump house used to pump drinking water.

SEAD-58 Site Map



2/27/2006

SEAD-58: Previous Investigations

- Expanded Site investigations (ESI) in 1994.
 - 18 Soil, 4 GW, 6 SW, and 6 Sed samples collected.
 - Analyzed for TCL VOCs, SVOCs, Pest/PCBs, TAL Metals.
 - As, Cu, Mg, Na, and Zn slightly exceeded soil CUGs once each; K exceeded its CUG three times.
 - AI (2nd), Fe and Mn exceeded their GA or 2nd DW standards in all GW samples.
 - Al exceeded AWQS (5/6) SW samples; Fe exceeded (1/6).
 - Cd, Cr, & Zn (1/6); Mn (3/6); Cu, Fe & Ni (6/6) above LEL CUG.

SEAD-58: Mini Risk Assessment

- Data from the ESI used in Ecological and Human Health Risk Assessment (ERA and HHRA); Mini-Risk.
- Mini-Risk Assessment based on exposure to maximum concentrations detected at the site for human and ecological doses.

SEAD-58: Mini Risk Assessment Scenarios

- HHRA considered a Park Worker, a Recreational Visitor (child) and a Construction Worker.
- > Exposure Pathways included:
 - Inhalation of dust.
 - Ingestion of and dermal contact with soil.
 - Dermal contact with surface water.
 - Dermal contact with sediment.
- ERA conducted assuming SEAD-58 in conservation/recreational area (pre 2005).

SEAD-58: Mini Risk Assessment Results

Cancer Risk	Exposure EPA Value			CR
(CR) for all		1	.0	E ⁻⁰⁴ - E ⁻⁰⁶
three receptors	Park Worker	•	<1	6E ⁻⁰⁸
below EPA's		((DK)	
accepted	Visitor		-1	55-08
ranges (E ⁻⁰⁴ to	VISILOI	(
E ⁻⁰⁶); Hazard		()		
Indices (HI) all	Construction	¢	<1	3E ⁻¹⁰
less than 1.	Worker	((DK)	
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SEAD-58: Mini Risk Assessment Results

- Ecological Risk
 based on Hazard
 Quotients (HQs);
 - No effect HQ < 1;
 - Low effect 1 < HQ <10;
 - Moderate effect 10 < HQ < 100;
 - Severe effect HQ > 100.

Recept	or	HQ
Robir		1
Shrev	/	< 1
Mouse	Ð	< 1

SEAD-58: Conclusions

- Some contaminants found above CUGs.
- HHRA indicates no threat to expected receptors.
- ERA indicates no risk to receptors (one at limit).
- >No Action Required

SEAD-63: Site Background

- Miscellaneous Components Burial Site
 - 1950s to late 1980s disposal area for classified parts.
 - Multiple disposal pits dug along 200 ft long line.
 - Each pit 10 to 30 ft in length down to bedrock.
 - Approx 480 ft by 300 ft in size, and inside "Q" area.
 - Mostly undeveloped with grass
 - 100 ft by 100 ft crushed shale pad.

SEAD-63 Site Map



2/27/2006

SEAD-63: Previous Investigations

≻ESI in 1994; RI in 1997.

- 12 soils from test pits and 3 groundwater samples.
- Analyzed for TCL VOCs, SVOCs, Pest/PCBs, TAL Metals, and radionuclides.
 - Excavated material from test pits contained miscellaneous materials, but no evidence of radioactivity.
 - Cd (3x), Cr (2x), Cu (6x), Pb (3x), and Hg (1x) exceeded soil CUGs.
 - Phenol (1x), Fe (3x), Mn (3x) and Na (1x) exceeded their GA standards in GW samples. Gross alpha and Gross beta also found.

SEAD-63: Previous Investigations

≻ESI in 1994; RI in 1997 (cont).

- 22 ditch water and 22 sediment samples.
- Analyzed for TCL VOCs, SVOCs, Pest/PCBs, TAL Metals, and radionuclides.
 - Bis(2EH)phthalate, pentachlorophenol, aroclor 1260, heptachlor, heptachlor epoxide, AI, Co, Fe, Pb, Ag found in ditch water above AWQS.
 - Numerous cPAHs, Pest/PCBs, Metals found in sediment above CUGs.

SEAD-63: Mini Risk Assessment

Mini-Risk Assessment similar to SEAD-58.

Conducted prior to the removal action

SEAD-63: Mini Risk Assessment Scenarios

- HHRA considered a Park Worker, a recreational visitor (child) and a Construction Worker.
- > Exposure Pathways included:
 - Inhalation of dust.
 - Ingestion of and dermal contact with soil.
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 - Dermal contact with surface water.
 - Dermal contact with sediment.
- HHRA conducted assuming SEAD-63 in conservation/recreational area (pre 2005).

SEAD-63: N	1 i	ini Risk As Results	essment		
Cancer Risk (CR) for all three receptors below EPA's accepted ranges (E ⁻⁰⁴ to E ⁻⁰⁶); Hazard Indices (HIs) all less than 1.		Exposure EPA Value		HI 1.0	CR E ⁻⁰⁴ - E ⁻ 06
		Park Worker	((<1 DK)	5E ⁻⁰⁵
		Visitor	(0	<1 DK)	8E ⁻⁰⁵
		Construction Worker	(0	<1 DK)	9E ⁻⁰⁸
2/27/2006	-				19

SEAD-63: Min F	ni R Resi	isk Ass ults	essment		
Ecological Risk	ſ	Receptor	HQ		
based on Hazard	1 k				
Quotients (HQs); • No effect HQ < 1;	,	Robin	> 1000		
 Low effect 1 < HQ <10; Moderate effect 10 < HQ Severe effect HQ > 100 	< 100;	Dove	> 10		
> Bird risk due to phthalatos in soil		Mouse	> 1		
possible lab artifa	act	Shrew	> 10		
2/27/2006					

SEAD-63: Removal Action

- > Purpose of the removal action:
 - Removal of the buried debris (miscellaneous components
 - Eliminate the identified source of residual materials in the soil
 - Reduce impacts to human health and the environment at SEAD-63

SEAD-63: Removal Action

- > Army proposed removal action due to buried classified military items.
- Over 5,100 tons of soil and debris excavated from burial pits and disposed in non-hazardous landfill. Sediment removed from drainage ditches.
- > Burial pits and all soil excavated to bedrock.
- > Debris identified and segregated.
- > No radiological sources identified.
- Site backfilled used to fill excavations

SEAD-63: Removal Action

- Confirmatory soil samples collected and analyzed for VOCs, SVOCs, pest/PCBs, and metals. Site CUGs achieved.
- Confirmatory soil/sediment sampling showed cadmium results below 2.3 mg/Kg CUG.
- > Site backfill using fill from surrounding area.
- > Groundwater samples collected and analyzed.
- Downgradient groundwater below standards and radiological results less than background levels.

SEAD-63: Conclusions

- Removal Action removed all items and soil excavated to bedrock.
- Removal Action eliminated contaminants from soil and sediment above CUGs.
- Removal Action Completion Report accepted by USEPA and NYSDEC
- Acceptance that No Further Action Required

No Action versus No Further Action

- No Action means that site conditions found do not require any corrective or remedial action.
- No Further Action means that an action was required to eliminate some concern, and now that the action is completed, No Further Action is warranted.

Overall Conclusions

> SEAD-58: No Action Required. > SEAD-63: No Further Action Required.

Next Steps

- EPA, NYSDEC and NYSDOH review and approval of Proposed Plan.
- Acceptance/Response to comments from regulators and public on Proposed Plan.
- Preparation/Submittal/Review/Approval of Record of Decision.

Remediation Complete at SEADs-25/26

Presentation to the Restoration Advisory Board February 28, 2006









Regulatory Process

RI/FS

- PRAP/ROD
- Design
- Construction
- Operation and Maintenance
- Five-Year Reviews
- Project Close Out

Fire Training Areas SEADs-25/26 - Background

- SEAD-25
 - Late 1960s to 1980s
 - Fire control training and fire fighting demonstrations
 - Soils and groundwater impacted at SEAD-25 (BTEX, chlorinated solvents)
- SEAD-26
 - 1977 to 1994
 - Fire fighting training in a 75-foot pit
 - Pit was lined in 1982 or 1983
 - Soils impacted at SEAD-26 (PAHs)

SEAD-25 Site Plan













Remedial Action Objectives SEADs-25/26

- Minimize migration of hazardous contaminants from soils to groundwater Excavation
- Prevent ingestion of groundwater Land Use Controls
- Restore groundwater and soil to protective levels Groundwater remediation
- Prevent off-site migration Monitoring
- Clean up Goals
 - SEAD-25 –VOCs and SVOCs NYSDEC soil TAGMs and NYSDEC Class GA GW Standards
 - SEAD-26 PAHs in Soil are based on NYSDEC guidance 10 ppm Benzo(a)pyrene Toxicity Equivalence

ROD Remedy

- Mobilization/Staging
- Control of Run-on and Run-off Waters
- Erosion and Sedimentation Control
- Monitoring Well Protection/Abandonment
- Excavation and Disposal of Contaminated Materials (about 2,500 cy total)
- Groundwater Remediation at SEAD-25
- Backfilling
- Site Restoration
Soil Cleanup Goals

Compound		Cleanu	ıp Goal
1,1,1-Trichloroetha	ane	800 pp	b
1,1-Dichloroethane	9	200 pp	b
Benzene		60 ppb	
Chloroform		300 pp	b
Ethyl benzene		5,500	opb
Toluene		1,500	opb
Trichloroethene		700 pp	b
Xylene (total)		1,200	ppb
Total Carcinogenic	PAHs	10 ppr	n

Schedule for SEADs-25/26

Activity	Schedule
ROD Signed	9/29/2004 (done)
RD WP and Design Submitted	6/22/2005 (done)
Approval of RD WP and Design	10/31/2005 (done)
Remedial Action (start)	11/7/2005 (done)
Remedial Action (finish)	12/16/2005 (done)
Draft Closeout Report	2/13/2006 (done)
Closeout Report Approval	April 2006
Long Term Monitoring and 5-year Reviews	2006-2010

Pre-construction Activities

- Selected two borrow sources- on and off site
- Disposal facility selection
- Pre-construction meetings
- Staking/survey
- Utility clearance
- Air monitoring

Construction – SEAD-25 Ditch

- Objective: Remove ditch soil to meet sitespecific cleanup goals
- Work included:
 - Blocking water flow in ditch to allow excavation
 - Excavation of 761 cy of ditch soil down to bedrock
 - No confirmatory soil samples
 - Staging of excavated material at the \$EAD-25 Pad
 - Solidification of the wet material using lime
 - Transportation of solidified soil to Ontario County Landfill as non-hazardous soil



SEAD-25 Ditch Excavation



Construction – SEAD-25 Pad

- Objective: Remove 60ft by 100ft by 6ft section of pad to meet site-specific cleanup goals
- Work included:
 - Initial excavation of 848 cy of soil down to bedrock
 - Collected and analyzed 8 excavation sidewall samples; one sample failed CUGs
 - Additional excavation of 113 cy
 - Collected and analyzed 2 excavation sidewall samples; all samples met CUGs
 - Disposal of soil in Ontario County Landfill as non-hazardous soil
 - Surrounding groundwater allowed to infiltrate excavation; pumped out and transported to wastewater plant
 - Transportation of solidified soil to Ontario County Landfill as nonhazardous soil
 - Backfilling of excavation with borrow soils



SEAD-25 Pad Excavation

MW25-4D MW25-2

Loc: SEAD-25 Pad Date: Nov 15, 2005 Desc: SEAD-25 Pad looking S, excavation 90% complete, bedrock visible in excavated area, and monitoring wells MW25-2, MW25-3, and MW25-4D visible along the edge of the excavated area.

Construction – SEAD-26

- Objective: Remove PAH contaminated soils from five areas at SEAD-26
- Work included:
 - Removal of two A\$Ts, vehicles and storage containers from site
 - Initial excavation of 785 cy of soil from Areas A through E to a depth of one foot
 - Collected/analyzed 38 excavation bottom and perimeter samples from five areas; one sample failed PAH CUG
 - Additional excavation of 43 cy of soils from Area A
 - Collected/analyzed 4 excavation samples from Area A; all samples met CUGs
 - Disposal of soil in Ontario County Landfill as non-hazardous soil
 - No backfilling due to shallow nature of excavations



SEAD-26 Excavation Area E



Deviations from Work Plan

- SEAD-25 Pad excavation extended to 4 ft bgs vs. 6 ft due to bedrock
- No excavation bottom samples collected from SEAD-25 ditch and pad due to bedrock
- Four times more soil excavated from SEAD-25 ditch since ditch was wider than planned and excavation continued to bedrock

Excavation Quantities

				-	
Area	D	esign	Actual		Difference
		0			
SEAD-25 Ditch	-	175 cv	761	CV	+ 586 cv
SEAD-25 Pad		1.350 cv	961	CV	- 389 cv
		,			
SEAD-26		1.050 cv	828	CV	- 222 cy
		, ,			
Totals		2,575 cy	2,550	су	- 25 cy

Summary

- 3,841 tons of soil removed from SEAD-25/26 and disposed at Ontario County Landfill
- All remaining confirmatory samples met the CUGs
- Project objectives met; No Further Action is necessary for soils
- Draft Construction Completion Report submitted on 2/13/06
- LTM monitoring required at both sites for at least five years. First semi-annual round completed in February 2006.

Status of Remediation at the Ash Landfill and SEADs-25/26

Presentation to the Restoration Advisory Board August 16, 2005









Ash Landfill Remedy

- EPA signed ROD 1/21/05
- Remedy includes the following:
 - Excavation/disposal of Debris Piles
 - Vegetative soil cover Ash Landfill and NCFL
 - Three reactive barrier walls groundwater
 - Backfill Incinerator Cooling Water Pond
 - Land use controls

Regulatory Process

Biowall Pilot Study

- RI/FS
- PRAP/ROD
- Design
- Construction
- Operation and Maintenance
- Five-Year Reviews
- Project Close Out

Biowall Treatability Study

- Objective: Mulch = ZVI in destroying TCE
- Process Differences
 - ZVI wall chemical reaction (iron is electron donor)
 - Biowall biological reaction (hydrogen is electron donor)

Pilot Study Process

- Workplan (done)
- Installation (done)
- Monitoring baseline
- Progress Monitoring 3 rounds
- Report
- Full scale design
- Full scale installation

Enhanced Anaerobic Bioremediation of Chlorinated Solvents



-Hydrogen is the electron donor and is supplied by fermentation of organic substrates (mulch).

-Chlorinated compound is electron acceptor.

-Hydrogen replaces chlorine atom.







Biowall Performance

- Mulch biowalls successful degradation of TCE (e.g. Altus AFB, Ellsworth AFB)
- Predicted success at Seneca

Schedule for Ash Landfill Biowall Pilot Study and Final Remedy

Activity		Date
Work Plan	June 27, 2005	(done)
System Installation	July 22, 2005 (done)
Baseline Characterization	August 26, 200	5
Monitoring Event 1	October 21, 20	05
Monitoring Event 2	December 9, 2	005
Monitoring Event 3	January 27, 20	06
Remedial Design Work Plan/Report	April 15, 2006	
Full Scale Installation	September 28,	2006
		PARSONS



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Elements of the Remedial Design Report

- Plans/Specifications
- Sampling and Analysis Plan
 - Confirmatory, excavation water, fill material, disposal characterization
- Construction Quality Assurance Plan
 - Inspection and testing requirements
- Post Closure Monitoring and Maintenance Plan
 - 9 wells (SEAD-25); 5 wells (SEAD-26) annual sampling
- Land Use Control Remedial Design Plan
- Waste Management Plan
Schedule for SEADs-25/26

Activity		Sch	edule
ROD Signed		September 29	, 2004 (done)
RD WP and Design Submitted		June 22, 2005	(done)
Approval of RD WP and Design		October 31, 2	005
Remedial Action		November-De	cember, 2005
Close Out Report Finali	zed	May 19, 2006	
Long Term Monitoring a 5-year Reviews	and	2006-2010	
			PARSONS



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- Review Prior Work and Existing Master Plan Kickoff Meeting
 - Interview Stakeholders
- Evaluate Infrastructure Systems
 - Review Redevelopment Goals
 - Half Day Charrette
- Develop Alternative Conceptual Plans
 - Presentation to EDC
- Preferred Land Use Plan





Entities which Submitted Proposals - Potential Developers Other Starkeholders Board Members L FOLPIOI ٦

- Not-For-Profit



Redevelopment accomplished in a fiscally responsible Involve New York State in Depot redevelopment; and Focus on portions of Depot with greatest potential; Encourage participation of the private shotor, Creation of new employment opportunities; Cleanup hezardous waste sites related to Establish a wildlife conservation area, and prudent manner; ٦ 1 ٦ ٦

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Preferred Land Use Plan









Marketing and Development of Traditional - Pre-permitting of sites for largeted uses Program third phase expired in 2004 - Need to petition GORR Build Now New York

Work with ESDC to Market the Development Utility Parcel is Considered Most Important Work with NYSERDA on feasibility study Reserve Parce

- Very Imited number of large sites available in NY



Proposers must demonstrate financial viability - IDA/EDC can negotiate with qualified entities Maintain a right to reacquire the property - Create a competitive environment I ISSUE RFQ for Key Parcels -Green Energy

Conservation
 Residential/Resort



- IDAVEDC must have the ability to terminate for -If may be possible for some users to poexisi LUSES MUSI demonstrate inancial cagability Training Areas Present Special Issues Job creation benefits could justify infrastructure Must pursue grant funds as available for - Waller In the soluth, sewer in the north Inifrastiructure is critical, costly Infrastructure expansion

Jenel Beler

Estimated annual cost is \$150,000 +/- Specialized support of \$40,000 annually Staff is \$75,000 to \$90,000

Marketing budget could be wide-ranging \$30,000 annually for capital equipment

350,000 to \$400,000 annually



Rever 10 See 100

\$1 million or more, depending on density Sale of Residential/Resort Parcel

- \$1.2 million or annual franchise fee Sale of Lease of Unitiv Parcel

Conservation Parce

Outright sale to a conservation organization

Sale/redevelopment of Green Energy Parcel more Lease to conservation organization for fee-based uses Management by IDA/EDC for fee-base adimites

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Presence of joloos Increases costs

Freining users must demonstrate the north capability. ouration and amount of property to be used

MINUTES RESTORATION ADVISORY BOARD August 16, 2005

1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair;

Government RAB Members Excused: None

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2. Mr. Absolom called the meeting to order at 7:00 p.m. He welcomed everyone to the 3^{rd} quarter meeting, thanked everyone for coming, and introduced the agenda for the evening. Everyone introduced himself or herself.

3. Mr. Absolom asked for additions/corrections to minutes from the April 19, 2005 meeting. There being none, the minutes were signed into the record.

4. Mr. Absolom introduced Ms. Pat Jones, Seneca County Industrial Development Agency to about the Master Plan Proposal for reuse of the Seneca Army Depot Conservation Area. (Handouts enclosed.)Mr. Absolom indicated the plan was a "path forward for the SCIDA". Since the RAB is about clean-up, Ms. Jones' presentation will help the Army and RAB make informed decisions. She won't go into detail about the plan, just general overview. The RAB is to comment on environmental restoration not on merits of the plan.

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Status of SEAD-25 & 26 Fire Training Areas. The ROD was finalized late last year and signed early this year. Cleanup involves excavation to remove contaminants from soils and groundwater, land use controls to prevention ingestion, remediation to restore groundwater and soil to protective levels and long-term monitoring with 5-year reviews.

Q: Are biowalls used anywhere else to show how long they will last?
A: There are indications that they last 5-7 years so piping is added in for future use to enhance biological activity.
Q: ...so if you need to add mulch or dig up again?
A: Yes, if that was necessary.

[Q: Can a list of reserved sites be sent to J. Teichner?]
A: Yes.

Q: Where were other biowalls installed? A: Oklahoma and one other U.S. location.

Q: Will cold weather effect them?
A: It slows down activity, but not a significant factor.
A: The frost zone won't impact treatment. Mulch gets hot as it degrades.
Q: How many years is the biowall expected to take for

treatment?
A: 15 years. A function of how slow groundwater moves to
reach the trench. It's a very slow interactive process.
Q: How many acres?
A: 30-40 acres.

Q: What created the problem?
S. Absolom: It was a municipal waste incinerator. TCE
found its way into the ash landfill. The source was
removed in the 80's.
Q: Is it fenced in?

A: No. It's in the Conservation Area. You can walk over it without risk. Only risk is below in the groundwater. **Q:** Is there any part of the Area that is dangerous to walk over? A: Yes, and those areas are fenced. **O:** Are areas hazardous to humans controlled well? A: All areas are controlled areas. Q: Why is the public not allowed in under controlled areas? S. Absolom: The IDA tells us who can go in, no one can unless approved. Those who may, have to get a key from 115 Comment: If there were a bus tour, the driver would control the group. **O:** If it were a rail or bus tour, could you do it? A: The IDA has control and makes that determination. Q: So the IDA can let people enter in a controlled manner to raise money for the county? For the EDC? If the Army will let go. S. Absolom: The Army is ready to get out of the Conservation Area when possible. **Comment:** Some people here are not aware of the laws, EPA and DEC regulations, etc. and the extent to go through. It's not a fast process. S. Absolom: SEAD 25 & 26 are in the Industrial Area. Cleanup objectives remain industrial so the plan cetermine the appropriate remediation. **Comment:** The Advantage Group went in fast. S. Absolom: The environmental conditions around the warehouses was determined to be like use and suitable to lease. Q: How long did it take to clean the jail area? A: Time critical removal action took three years. **Q**: Are there any areas ready? A: The map has sites all across it like Swiss cheeseretained sites. **O:** How much is still in Army control? A: Down to 1800 acres after transfer. 800 acres retained sites.

P. Jones: Of the environmental sites, UXO sites are fenced, other sites should still not have people on them.

Q: How does the deer hunt work? Total access?
S. Absolom: Hunters are assigned certain stands and must
stay there. Guides check on them.
Q: How can you be a hunter?
A: Based on MWR [DoD Morale, Welfare and Recreation]
regulations: active duty military and their guests,
retired military, retired Seneca Army Depot civilian
employees, current Seneca Army Depot civilians.
Comment: Not much freedom for taxpayers.

Q: What percent of the depot does the IDA control? S. Absolom: Approximately three fourths.

Q: Why is the Army doing the hunt? P. Jones: The IDA asked the Army to manage the hunt until the cleanup is complete.

6. Mr. Absolom suggested November 15, 2005 as the next meeting since the RAB seems to now be meeting quarterly. Meeting date of Nov 15th at 7 p.m. in Waterloo, NY, at the Seneca County Office Building, was approved.

He introduced new member, Mr. Chuck Boehnke, of Waterloo. He suggested Mr. Boehnke come out for a tour that we'd be glad to show him the sites.

Q: Are you still soliciting members? If so, please send me an application.
A: Yes. We will mail out the application. [Mr. Patti]

S. Absolom: Thanks, everyone.

7. The meeting was adjourned at 8:35 p.m.

Respectfully submitted,

Maney Williamson

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: iphin / ihal on STEPHEN ABSOLOM Μ.

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Ray . ----> A Karen Tackett

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A: 30-40 acres.
Q: What created the problem?
S. Absolom: It was a municipal waste incinerator. TCE found its way into the ash landfill. The source was

removed in the 80's.

A: No. It's in the Conservation Area. You can walk over it without risk. Only risk is below in the groundwater. Q: Is there any part of the Area that is dangerous to walk over? A: Yes, and those areas are fenced. O: Are areas hazardous to humans controlled well? A: All areas are controlled areas. Q: Why is the public not allowed in under controlled areas? S. Absolom: The IDA tells us who can go in, no one can unless approved. Those who may, have to get a key from **Comment:** If there were a bus tour, the driver would control the group. Q: If it were a rail or bus tour, could you do it? A: The IDA has control and makes that determination. Q: So the IDA can let people enter in a controlled manner to raise money for the county? For the EDC? If the Army will let qo. S. Absolom: The Army is ready to get out of the Conservation Area when possible. Comment: Some people here are not aware of the laws, EPA and DEC regulations, etc. and the extent to go through. It's not a fast process. S. Absolom: SEAD 25 & 26 are in the Industrial Area. Cleanup objectives remain industrial so the plan determine the appropriate remediation. Comment: The Advantage Group went in fast. S. Absolom: The environmental conditions around the warehouses was determined to be like use and suitable to lease. Q: How long did it take to clean the jail area? A: Time critical removal action took three years. **Q**: Are there any areas ready? A: The map has sites all across it like Swiss cheeseretained sites. Q: How much is still in Army control? A: Down to 1800 acres after transfer. 800 acres retained sites.

P. Jones: Of the environmental sites, UXO sites are fenced, other sites should still not have people on them.

Q: How does the deer hunt work? Total access?
S. Absolom: Hunters are assigned certain stands and must
stay there. Guides check on them.
Q: How can you be a hunter?
A: Based on MWR [DoD Morale, Welfare and Recreation]
regulations: active duty military and their guests,
retired military, retired Seneca Army Depot civilian
employees, current Seneca Army Depot civilians.
Comment: Not much freedom for taxpayers.

Q: What percent of the depot does the IDA control? S. Absolom: Approximately three fourths.

Q: Why is the Army doing the hunt? P. Jones: The IDA asked the Army to manage the hunt until the cleanup is complete.

6. Mr. Absolom suggested November 15, 2005 as the next meeting since the RAB seems to now be meeting quarterly. Meeting date of Nov 15th at 7 p.m. in Waterloo, NY, at the Seneca County Office Building, was approved.

He introduced new member, Mr. Chuck Boehnke, of Waterloo. He suggested Mr. Boehnke come out for a tour that we'd be glad to show him the sites.

Q: Are you still soliciting members? If so, please send me an application. A: Yes. We will mail out the application. [Mr. Patti]

S. Absolom: Thanks, everyone.

7. The meeting was adjourned at 8:35 p.m.

Respectfully submitted,

Maney Williamsen

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: shin T ihre on ABSOLOM STEPHEN M.

U.S. Army Co-Chair

Kan Ke Cachel > Karen Tacl

Community Co-Chair

Overview of Munitions Response and CERCLA Closure Presentation to the Restoration Advisory Board October 17, 2006








Munitions Response Sites

- SEAD 57 Former EOD Range
- SEAD 46 3.5" Rocket Range
- SEAD 007-R-01 Practice Grenade Range
- SEAD 002-R-01 EOD #2 and EOD #3

Project Goals

- Investigate previously identified ferrous and non-ferrous anomalies
- Remove all MPPEH from five sites
- Demonstrate remaining soil meets cleanup goals
- Support No Further Action finding in Proposed Plan and Record of Decision
- CERCLA Closure







PARSONS



Towed Array Electronics

PARSONS



EM61-MKII Data Collection

Magnetometer Data Collection



Scope of Work Former EOD Range (SEAD-57)

- Geophysical surveys on remaining unsurveyed high density areas
- Mag and flag surveys on original woods transects
- Reacquire and intrusively investigate 4,183 anomalies previously identified
- Excavate and magnetically screen top 6 inches of soil from saturated anomaly areas (11,000 cy)
- Treat munitions debris and dispose
- Confirm screened soil has acceptable metals levels



Scope of Work

3.5-inch Rocket Range (SEAD-46)

- Mag and flag surveys on original woods transects and new wooded areas
- Intrusively investigate 1,563 anomalies previously identified
- Excavate and magnetically screen top 6 inches of soil from one saturated anomaly areas and the target perm face(1000 cy)
- Treat munitions debris and dispose
- Confirm screened soil has acceptable metals levels



PARSONS

Scope of Work EOD Areas 2 and 3 (SEAD-002)

- Perform geophysical surveys of 10 acres
- Reacquire and intrusively investigate selected anomalies
- Perform remedial investigation (RI) sampling of the two areas





Scope of Work Grenade Range (SEAD-007)

- Remove wooden targets and APCs
- Perform geophysical surveys of 25 acres
- Reacquire and intrusively investigate selected anomalies
- Perform remedial investigation (RI) sampling of the range



PARSONS

Investigation Results

SEAD 57 EM6-MKII DGM

- Total Anomalies
 Investigated- 5,723
 Munitions Debris –
- 2,786 Cultural Debris - 2,407
- MPPEH 8
- MEC 2
- QA/QC items 12



SEAD 57 Magnetometer DGM

- Total Anomalies
 Investigated- 679
 Munitione Debric 7
- Munitions Debris 75
 Cultural Debris 349
- MPPEH 0
- MEC 0



Soil Screening Results

- Mobilized and erected screening plant
- Screened 100 cy
- Decision to discontinue screening due to poor metal recovery

SEAD 46

- Anomalies Investigated -1582
- Munitions Debris 597
- Cultural Debris 827
- MPPEH 0
- MEC 0
- QA/QC Seed items 9



EOD Area #2

- Total Anomalies Identified 33 Munitions Debris 7 Cultural Debris 28 MPPEH 0

- MEC 0



Mag and Flag Survey only EOD #3

- Total Anomalies
 Identified 311
 Munitions Debris
- Cultural Debris -106
- MPPEH 0



Grenade Range

- Anomalies Investigated -1417
- Munitions Debris 701
- Cultural Debris 289
- MPPEH 182
- MEC 0
- QA/QC Seed item 65



Remaining Work

- RI Sampling at Grenade Range and EOD Areas 2 and 3
- Prepare completion report
- Prepare No Further Action Proposed Plan
- Prepare No Further Action Record of Decision

Armored Personnel Carrier Removal









PARSONS



Demolition of MPPEH

Perforators setup on MPPEH





PARSONS



PARSONS

PARSONS



75mm projectile

Questions?

Remediation at the Ash Landfill

Presentation to the Restoration Advisory Board October 17, 2006









Ash Landfill Operable Unit


Ash Landfill Remedy

- EPA signed ROD for selected remedy 1/21/05
- Remedy includes the following:
 - Excavation/disposal of Debris Piles
 - Installation of 12-inch vegetative soil cover on Ash Landfill and NCFL
 - Installation of three reactive wall systems for TCE destruction in groundwater
 - Backfilling of the Incinerator Cooling Water Pond
 - Implementation of land use controls
 - Groundwater monitoring

Regulatory Process

- RI/FS (completed)
- PRAP/ROD (completed)
- Design (completed)
- Construction

Completed 10/13/06

- Operation and Maintenance
- Five-Year Reviews
- Project Close Out

Construction Work





Reactive Wall (Biowall) Installation

- Installed three biowall pairs along TCE plume two near source, one further downgradient
- Total of 2,720 LF of biowall installed (6,750 cy)
- Backfilled with 50/50 sand/mulch mix with oil
- Depth ranged from 7 to 18 feet
- Trench width varied from 3 feet to 17.5 feet
- One foot cap placed over mulch backfill

Reactive Wall (Biowall) Installation (continued)

- Challenges
 - Trench stability increased trench excavation and backfill quantities
 - Greater trench depth than expected near source (up to 18 feet)
 - Installation around water line











Loc ID: Biowall B2 Date: September 19, 2006 Details: Excavator Scraping Bedrock in Biowall B2











NCFL and Ash Landfill Covers

- Cleared NCFL of heavy vegetation not required at Ash Landfill
- Placed 12 inch cover over Ash Landfill (2.5 Acres) (4,000 cy)
- Placed 12 inch cover over NCFL (3.5 Acres) (5,600 cy)
- Seeded with meadow mix to restore vegetation

Loc ID: NCFL Date: September 25, 2006 Details: Placing Fill on NCFL





NCFL Looking West Date: October 2, 2006 Details: First Lift of Fill – Measurement Stakes in View

Incinerator Ash Cooling Pond Backfilling

- Cleared pond and berm of trees
- Pushed berm soil into pond (100 cy)
- No additional fill was needed



Excavation of Debris Piles

- Cleared brush/trees to access piles
- Excavated 1,400 cy of ash and debris from three separate areas
- Disposed as non-hazardous soil at Seneca Meadows Landfill



Loc ID: East Debris Pile (SEAD-14) Date: 10/10/06 Details: East Debris Pile (SEAD-14) excavated Loc ID: Southwest Debris Pile (SEAD-14) Date: October 14, 2006 Details: Southwest Debris Pile (SEAD-14) excavated looking south.

Construction Results

- Width of biowalls varied from 3 to 17.5 feet wide
- MORE MULCH!! 6,750 CY of mulch/sand mixture installed (4,009 CY estimated)
- Minimum width of trench at any depth was 3 feet.
- Biowalls keyed to competent bedrock
- Single trenches were installed in one area due to minimum width of 6 feet for the first wall.
- Trench spoils below TAGMS for TCE used as cover for NCFL and Ash Landfill.

Next Step – O&M

- LTM Well Installation Scheduled for 10/30/06.
- If a Wells to be sampled quarterly to monitor wall performance and groundwater compliance.
- Quarterly Sampling to Begin 11/20/06.
- Annual Report after fourth quarterly event– January 2008



Questions?

State of New York, COUNTY OF ONTARIO CITY OF GENEVA

SS.

Seneca Army Depot Activity Restoration Advisory **Board Meeting** The next RAB meeting will take place at the Seneca County Office Building, on Tuesday, October 17, 2006 at 7:00 p.m. There will be a presentation regarding the status of the Ash Landfill Remedial Action. There will also be a presentation on on-going Munitions Response at various sites. All the meetings are open to the public and held on the third Tuesday of the month, bimonthly. The RAB was established to improve public involvement in the environmental restoration decision-making process. For more information, contact Nancy Williamson at (607) 869-1494. 728

Rebekah Annechino _of the City of Geneva, County of Ontario, being duly sworn, doth depose and say that he is_ Hither zed PSIGNOG. Finger Lakes Publishing, Inc., publishers of THE FINGER LAKES TIMES a Daily Newspaper, published in Geneva, in said County: and that the notice of which the annexed, is a printed copy, cut from said newspaper, was printed and published in the regular edition and issue of said newspaper Finger akes Times for The 15 20 66 successive beginning UC+ and ending 1Ct 15 2006 la bekc "une dung Subscribed and sworn to before me) SUEANN M. STRONG lotary Public, State of New York this 20 day of UCH 20 CG Ontario County No. 01ST 6135617 Commission Expires October 24, 20 Notary Public, Ontario County, N.Y.

State of New York,

SS.

CITY OF GENEVA

- Seneca Army Depot

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Rebekah Annechino of the City	of Geneva, County of Ontario,
being duly sworn, doth depose and say that he is Au	thorized Designee.
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Newspaper, published in Geneva, in said County: an	d that the notice of which the
annexed, is a printed copy, cut from said newspaper, w	as printed and published in the
regular edition and issue of said newspaper	V Lakes Times
for	1 time
successive	beginning Oct 15 20.06
and ending	Dct 15 2006
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Subscribed and sworn to before me) this $20 \text{ day of } 0.4 20 \frac{1}{20} \text{ M Showed } 100 M Showed$	SUEANN M. STRONG Notary Public, State of New York Ontario County No. 01ST 6135617 Commission Expires October 24, 20
Notary Public, Ontario	County, N.Y.
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Remediation at the Ash Landfill

7

Presentation to the Restoration Advisory Board October 17, 2006


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- Annual Report after fourth quarterly event– January 2008



Questions?

REMEDIATION PLAN AND TRANSFER SCHEDULE March 7, 2007

PID / WHSE Area

SEAD 59 & SEAD 71- PAINT DISPOSAL AREAS

Acreage: 9 acres

Site History: Site consists of fill areas that debris was placed in. Risk: Potential Ground water contamination from petroleum contamination found in the soil. No risk remains from soils in fill areas. Status of Remediation: Removal action of the contaminated soil is complete. Evaluation

of GW is underway. RI has been prepared and demonstrates there is no risk from site for and industrial setting. PRAP recommending Institutional Controls has been prepared and is under review and comment and ROD is pending.

Funds: On Hand RIP/RC: September 2007 FOST: June 2007 Deed: September 2007

SEAD 001-R (SEAD 16) - ABANDONED DEACTIVATION FURNACE

Acreage: 3 acres. Site History: This unit was used to destroy small arms ammunition. Risk: SEAD 16 Abandoned Deactivation Furnace: Facility has residual powder in piping and OE scrap that has potential for explosive residuals. There is heavy metals contamination in the soil. Status of Remediation: ROD has been signed. The work plan to complete the action is being prepared under a performance based contract.

Funds: November 07 RIP/RC Completion Date: June 2008 FOST: July 2008 Deed: September 2008

SEAD 001-R (SEAD 17) - DEACTIVATION FURNACE

Acreage: 8 acres Site History: This unit was used to destroy small arms ammunition. Risk. SEAD 17 Deactivation Furnace: Facility has OE scrap that has potential for explosive residuals. There is heavy metals contamination in the soil.
These sites have had a site investigation performed. PAHs (Semi-volatiles) have been found. Solvents have been found in the ground water around the DRMO yard. Risk: Soil contamination may pose threat under the residential scenario but not the industrial scenario.

Status of Remediation: Proposed Remedial Action Plan has been submitted, commented on and is under revision. The Public meeting is expected in April.

Funds: November 2005 RIP/RC Completion Date: December 2006 FOST: June 2007 Deed: September 2007

SEAD 50 - TANK FARM STORAGE SEAD 54 - ASBESTOS STORAGE

SITE COMPLETE

Acreage: 26 acres

Sites History: These sites are where the Army stored material in above ground steel tanks. Movement of the material resulted in contamination of the soil. Status of Remediation: These two sites have a removal action underway. The action consists of excavation and disposal by land-filling the soil, which are contaminated with heavy metals. Status: Action Complete

Funds: Available

RIP/RC date: March 2005 FOST: Dec 2003 Deed: April 2004

SEAD 38 - BUILDING 2078 BOILER BLOW DOWN PIT SEAD 39 - BUILDING 121 BOILER BLOW DOWN PIT SEAD 40 - BUILDING 319 BOILER BLOW DOWN PIT

Acreage: 1 acre combined

Site History: These sites consist of contamination resulting in the blow down of the central boilers, which was discharged to the ground. SEAD 38 is also included in the SEAD 4 Area of concern.

Risk: Petroleum products may pose risk.

Status of Remediation: A PRAP for SEAD 39 and 40 with institutional controls has been prepared limiting use to industrial operations.

SEAD 1 and 2 - RCRA STORAGE FACILITIES

Acreage: 0.5 acres

Site History: These facilities, building 301 and 307 were used to storage hazardous waste pending shipment to a permitted facility. These sites were listed in the Federal Facilities Agreement even though they were regulated under RCRA.

Risk: SVOCs in soil remain around the building.

Status of Remediation: RCRA permit has been closed. An institutional control PRAP and ROD is being prepared to close out these sites.

Funds: Available RIP/RC date: September 2005 FOST: May 2006 Deed: September 2006

DECOMMISIONING SURVEYS (PID / Whse Area)

Size: 2 buildings (306 and 5)

Site History: Seneca has a NRC license that requires termination prior to allowing unrestricted access to the inside of the buildings. Field survey work completed. Final evaluation of risk is pending final approval of objectives. Final report and approval is required before transfer. Risk: Residual depleted uranium material could impact interior surface of structure.

(None was found during field investigation)

Status of Remediation: Fieldwork Complete. Final Report has prepared commented on, and has been resubmitted. NRC approval is pending Funds: Available Site Work Completion Date: N/A License Termination Date: May 2007

CONSERVATION AREA SITES

SEAD 003-R-01 (SEAD 46 &57) - AMMUNTION DESTRUCTION AREAS

Acreage: 113 acres

Site History: These sites are where the Army performed destruction of ammunition by detonation or discharge. The site investigation of these sites revealed contamination of MEC and heavy metals.

Risk: Sites have MEC scrap that has potential for explosive residuals. There is heavy metals contamination in the soil.

SEAD 63 - MISCELLANEOUS COMPONENTS BURIAL SITE

Acreage: 4 acres

History of Site: This site was use by the Army to bury classified military unique components.

Risk: Military unique items to be removed which have the potential to contain low-level radiological contamination. Some heavy metal contamination may be present. Status of Remediation: Removal action completed. The ROD is signed. No Further Action is required.

Funds: Available RIP/RC date: May 2006 FOST: June 2006 Deed: September 2007

SEAD 6 - ASH LANDFILL (including SEADs 3, 8, 14, 15)

Acreage: 42 Acres

Site History: Site is former municipal waste disposal area. Heavy metals remain in the soil. TCE (solvent) is found in the ground water.

Risk: Ecological risk potentially exists. Ground water wells will not be permitted. Status of Remediation: ROD is signed. Remedial Action is complete. The Long Term Management of this site is underway.

Funds: Available RIP/RC date: Jan 2007 FOST: July 2007 Deed: September 2007

SEAD 11 - OLD LANDFILL

Acreage: 6 acres

History of Site: Construction debris and other unknown items were disposed of at this site.

A site investigation conducted revealed contamination and unknown anomalies.

Risk: Heavy metals and solvent in the soil, unknown items in the fill area.

Status of Remediation: An Interim removal action is complete. A NFA determination with a PRAP and ROD is expected

Funds: January 2005 RIP/RC date: February 2007 FOST: June 2007 Deed: September 2007 Funding: November 2008 RIP/RC date: December 2009 FOST: March 2010 Deed: September 2010

SEAD 23 - OPEN BURNING GROUNDS

Acreage: 30 acres Site History: The Army used this site for burning propellant, explosives and pyrotechnics to destroy unstable items. This site is with in the boundary described by SEAD 115 Risk: See SEAD 115 Status of Remediation: The Record of Decision has been signed. The remedial action is complete. Long term monitoring is underway.

Funds: Available RIP/RC date: September 2004 FOST: April 2017 Deed: September 2017

SEAD 002-R-01 (SEAD118) – EAST EOD RANGES

Acreage: 18 acres

Site History: This site represents 2 areas where MEC was found as a result of record search and site investigations. It is proposed to perform removal actions at the three locations and restrict the land use to surface activity.

Mission: site is 2 locations. Site 2 and 3 are adjacent each other and were used by EOD units for training. These sites have MEC scrap that may have residual explosive ________ contamination.

Risk: Sites that have MEC scrap have potential for explosive residuals.

Status of Remediation: Field investigation for MEC has been completed. The completion report is expected to be finalized in April 2007. A NFA PRAP and ROD are expected to close out this site.

Funds: November 2005 RIP/RC date: Apr 2007 FOST: August 2007 Deed: September 2007

SEAD 007-R-01 (SEAD118) RIFLE GRENADE RANGE

Acreage: 30 acres

Site History: This site represents an area where MEC was found as a result of record search and site investigations. It is proposed to perform removal actions at the three locations and restrict the land use to surface activity.

FOST: April 2017 Deed: September 2017

SEAD 64B- GARBAGE DISPOSAL AREA

Acreage: 0.25 acres

Site History: This site is where the Army disposed of approximately 1 truckload of municipal garbage in the early 70's. The material is located under 10 feet of soil cover and requires closure as an inactive solid waste site. Status of Remediation: ROD is being staffed for signature which establishes an IC on this site.

Funds: Available RIP/RC date: May 2006 FOST: June 2006 DEED: September 2007

SEAD 64D- GARBAGE DISPOSAL AREA

Acreage: 0.25 acres Site History: This site is where the Army disposed of approximately 1 truckload of municipal garbage in the early 70's. The material is located under 10 feet of soil cover and requires closure as an inactive solid waste site.

Status of Remediation: ROD is being staffed for signature which establishes an IC on this site.

Funds: Available RIP/RC date: May 2006 FOST: June 2006 DEED: September 2007

SEAD 70- CONSTRUCTION DEBRIS AREA

Acreage: 0.25 acres

Site History: This site is where the Army disposed of construction debris such as fencing posts, concrete etc.

Remediation Status: UXO has been removed. The ROD establishing institutional controls is being staffed for signature Funds: Available RIP/RC date: Sept 2004 FOST: Aug 2005 Deed: September 2007

SEAD-11 Interim Removal Action

RAB Presentation March 20, 2007







Overview

Soil Sampling Results Removal Action Objectives Site History Groundwater Sampling Results Removal Action Activities

Path Forward

Site History

 4-acre area was used as a landfill between 1946 and 1949.
 Landfill material was placed on natural slope
 Materials in landfill were mostly

construction debris, ash, and soil

Site Location





Regulatory History

- Expanded Site Inspection 1993
- Additional Sampling Program 2000
- Action Memorandum / Decision Document (AM/DD) - April 2003
- Regulatory Approval of AM/DD January 2004

IRA Objective

Remove all landfilled material
 Remove contaminated soil exceeding site cleanup goals
 Confirm No Further Action is required

Mobilization on 10/27/2006 Cleared trees and mowed site





Excavated 32,900 cy of landfilled material









 $\frac{1}{3}$

Predicted Vs. Actual Quantities

	Estimated QTYs.	Actual QTYs.
Excavation Quantity	25,000 to 35,000 cy	Soil: 7,030 cy LF material: 25,870 cy Total: 32,900 cy
Disposal Tonnage	37,500 to 52,500 tons	42,188 tons



Transported and disposed of 42,188 tons



Recovered and disposed 5 drums





Collected 38 perimeter and 80 grid confirmatory samples

Confirmatory Sampling Requirements Landfill Surface Area: 191,313 sf Landfill Perimeter: 1,762 LF Confirmatory Sample Requirements: -1 grid sample every 2500 sf - 1 perimeter sample every 50 LF

	No. Required	No. Collected
Grid Samples	77	80
Perimeter samples	36	38

Confirmatory Sampling Results

				-		NYSDEC	No. above					
PARAMETER		AVG	MIN	MAX	CUGs ¹	Unrestricted Use ²	Unrestricted					
Volatile Organic Compounds												
Acetone		16	ND	67	200	50	1	of	104			
Cis-1,2-Dichle	roethene	3.0	ND	2		250	0	of	91			
Dichlorodifluo	omethane	3.0	ND	2			0	of	91			
Methylene ch	oride	12.46	ND	49	100	50	0	of	113			
Tetrachloroet	iene	3.0	ND	2	1400	1,300	0	of	91			
Trichloroether	е	4.6	ND	77	700	470	0	of	91			
Carcinogenic	PAHs											
BTE		0.72	ND	8.08	10							
Metals												
Aluminum		10,730	3,600	17,500	76,000		0	of	113			
Antimony		0.73	ND	6.8	31		0	of	113			
Arsenic		5.5	2.6	19.5	21.5	21.5	0	of	113			
Barium		80	23.3	182	5,400	350	0	of	113			
Beryllium		0.56	0.3	1	150	7.2	0	of	113			
Cadmium		0.31	ND	1.1	37	2.9	0	of	113			
Calcium		16,674	1,460	216,000			0	of	113			
Chromium		17	5.5	53	100,000	32.7	1	of	113			
Cobalt		9.0	4.2	16.8	900		0	of	113			
Copper		20	10	50.8	3,100	62.8	0	of	113			
Iron		22,218	8,760	51,100	38,600		0	of	113			
Lead		28	4.7	400	400	266	2	of	114			
Magnesium		5,608	1,930	26,200			0	of	113			
Manganese		582	163	1,540	1,800	2380	0	of	113			
Mercury		0.037	ND	0.10	23	0.18	0	of	113			
Nickel		24	10.2	38.6	1,600	62.3	0	of	113			
Potassium		1,115	656	1,750			0	of	113			
Selenium		0.77	ND	2.3	390	3.9	0	of	113			
Silver		0.14	ND	0.64	390		0	of	113			
Sodium		52	ND	115			0	of	113			
Thallium		0.83	ND	2.1	5.2		0	of	113			
Vanadium		19	7.6	31.6	78		0	of	113			
Zinc		94	33.6	354	23,000	126	12	of	113			

How did we do?



- All individual final samples meet proposed cleanup goals.
- All average concentrations meet NYSDEC Unrestricted Use Soil Cleanup Objectives maximum site background was substituted if greater than the unrestricted standard



Post-IRA Groundwater Monitoring

Collected GW samples – 7 wells Metals above GW standards – consistent Confirm groundwater is not impacted Recommendation – No additional GW No VOCs above GW standards with background

monitoring

Next Steps:

Preparation and Submittal of Construction Completion Report.

Preparation and Submittal of the No Further Action (NFA) Proposed Plan and ROD.

· 4/16

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1. ATTENDANCE:

Government RAB Members Present:

Stephen Absolom, U.S. Army Co-Chair; Alicia Thorne, NYS Department of Environmental Conservation; Julio Vazquez, US Environmental Protection Agency

Community RAB Members Present:

Karen Tackett, Community Co-Chair; Patricia Jones, Industrial Development Agency; Fred Swain, Robert McCann, Brian Dombroski, Seneca County Health Department; Charlotte Bethany, NYS Department of Health.

Community RAB Members Not Present:

Dave Schneider, Carmen Serrett, Frank Ives, David Wagner, Frankie Young-Long,

Environmental Support Personnel and Guests Present: Todd Heino, Parsons, Randy Battaglia, U.S. Army Corps of Engineers, New York District; Tom Enroth, COE, New York District; Janet Fallo, COE, New York District; Mike Tramboni, Environmental Chemical; Hoddnott, CHPPM; Armando Jimenez, Keith CENAD; Robert Martin, HQ USCACE; Kevin Healey, COE. Huntsville; Marshall Greene, COE Hunntsville; Charles Niver, Ovid, NY; Ben McAllister, Parsons; Katie Kadlubak, Parsons; Nancy Williamson, Recording Secretary

2. Mr. Absolom called the meeting to order at 7:07 p.m. He thanked everyone for coming and asked all attendees to introduce themselves.

3. Mr. Absolom's request for changes to the 11 June 2002 minutes elicited no changes. Mr. Absolom and Ms. Tackett signed the minutes into the record.

4. The presentation for the evening entitled "Steps to Transfer Clean Property" was given by Stephen Absolom.

The Army is pushing the County to take the property because it needs to get the acreage off the books before the next round of BRAC closures. The IDA will accept the property as soon as the Army gets the property ready.

As you can see in the handout (enclosed), page two, the FOST (Finding of Suitability to Transfer) for the PID area requires a series of steps. The timeline will vary depending on the length of time taken to receive comments from the regulators and the Army that address outstanding issues. The draft is nearly completed.

The FOST for the Conservation Area follows a similar schedule to that of the PID area. The area is larger and more complex, involving restructuring.

The cultural resource management effort involves preservation of historical sites and buildings. In addition, the State has identified Native American or "prehistoric" sites to preserve for the State Archeological Conservancy. The several Native American tribes/nations were offered the 2.3 acre site but declined it. Identified covenant sites are entered on the deed.

Q: Who enforces the covenant?
A: State Historical Preservation Office-though I'm not
sure how.

Sites to be retained by the Army, i.e. "dirty sites" will require an access control plan. A perimeter protection plan should be developed involving education, signs and fencing to protect the public and increase awareness of off-limit areas.

Q: Do you think there will be agreement on access before the FOST? A: Yes.

Q: Could it be an amendment to the FOST? A: Yes, as a Permanent Protection Plan. Comment: Access would be in writing.

Q: Is a good part of the area in Varick? A: Half.

The NRC Survey is for licensed material- D.U. armor-piercing rounds. Field data is being collected now. (Comment: The survey of 120 igloos ended today.) We must have an agreement on derived concentration guide line values. NRC did not accept out NRC plan. They need explanation of numbers and background levels. Once that is done we can prepare the Preliminary Report. It there are no comments, it can be finalized before the last two steps.

Q: They're not accepting background levels?
A: The computer model indicates findings. We got 26
variables changed. The NRC wouldn't accept changes until
we explained why we didn't change the balance of the
variables.
Q: Do you know which buildings?

A: 2073, 2084, 612, 306, 5.

NRC survey impacts both areas. It restricts building use.

The BRAC Disposal Support Package (BDSP) for the PID /Warehouse area identifies historic area, flood zones, coastal zones, threatened/endangered species. It describes all buildings/structures giving square footage. It describes roads, sidewalks, parking areas by acreage. It assures that the Environmental Impact Statement is accurate, where it is, and ensures FOST addresses PCB's, lead based paints, etc. The BDSP and the FOST are usually signed at the same time by different series of people and then married up.

The BDSP for the Conservation area has the same issues as well as identifying mineral rights retained by the Department of Interior or transferred to wetlands.

SCIDA will prepare a quitclaim deed for transfer of PID/Warehouse area and includes what they have concern for (lawyer unique). The deed incorporates FOST provisions, BDSP restrictions and convenants. Each party must agree on the language. It is a Warranty of Land Cleanliness. The deed for the Conservation Area takes a few days less to prepare since there is one fewer attorneys. This is the document where the Army gives covenant warranty, where the Army will come back and right any unforeseen problems.

The land survey must be completed prior to transfer. It is the responsibility of SCIDA. It is funding and weather-dependent. The deed cannot be signed without it. We are at step 1 - obtaining funds. Then they can award the contract for survey work to begin.

Q: Will survey parcel out parts the Army is keeping? A: Yes.

Q: Was survey done when the Army took the property? A: By military lot.

Q: So the same survey?
A: He has to re-do it since markers may be gone.

Comment: There were abstracts. **Response:** Yes, and the abstracts must be researched. There were 120 properties.

Q: So abstracts aren't included?
A: Now it starts fresh for the deed. Any easements won't
be carried in as new Army covenants.

Q: So, they can survey all around and the lines won't meet? A: Actually, that can happen very easily. It's based on interpretation.

Q: Who gets the land: Can original owners get the land? A: No. There will be no retrocession clauses in the documents. (Typically happens out West - Park Service.)

Q: When the Army took the land were owners compensated? A: Yes, they were.

Q: What endangered species are on the property? A: No endangered rather State threatened species--the northern harrier; the brown bat; also a couple plant species. Q: What parcel is of interest to Native Americans and
why?
A: The 2.3-acre site near Lake Housing was a tool-making
site. There are artifacts there.

Q: Will there be long-term monitoring? When does it end? Is there no transfer until monitoring ends?A: The property transfers after action, but the Army retains the right to monitor groundwater.

Q: Who keeps track of the monitoring schedule? A: That's in transition right now. The Army is installing the Installation Management Agency responsible for all property here and abroad - consisting of base development. AMC is responsible now, but it's changing 1 Oct 2002. This will standardize use of funds for Real Property Army-wide - through Regions (7-8). The Army Environmental Center will have control of all environmental work.

5. Mr. Absolom opened the meeting for general discussion.

We started 59/71 yesterday. Dirt is being excavated. A Public Notice was in the Finger Lakes Times. The last Pubic Notice was for metals removal.

Comment: Please send RAB members a copy of Public Notices.

A: No reason why I can't do that.

The next meeting will be a Public Meeting of the Fire Training Areas - within the next 30 days. Each RAB member will get a copy of the proposed plan. The next RAB meeting would be November 19.

Q: Can we do the Public Meeting as the RAB meeting? A: Yes, we could.

The meeting will be in October - exact date to be determined. It will be in the middle of the Public Comment period.

Q: Will the Native Americans be taking that site to have a center?

A: No. A covenant will be placed on the Aspen parcel The Native Americans had the opportunity to acquire the property, but they respond.

6. There being no further discussion, the meeting was adjourned at 8:18 p.m.

Respectfully submitted,

Maney Williamson

Enclosure

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: solom

STEPHEN M. ABSOLOM U.S. Army Co-Chair

Far

Karen Tackett Community Co-Chair
STEPS TO TRANSFER CLEAN PROPERTY

By STEPHEN M. ABSOLOM BRAC ENVIRONMENTAL COORDINATOR

- FOST Planned Industrial Development/Warehouse
 - 111 days

- Internal Draft FOST (BEC) ۲ 36 days
- BRAC Review (BRACO) • 14 days
- Revise FOST/Prepare for BCT Comment (BEC) 7 days
- BCT Comment 30 days
- Revise FOST/Prepare for Public Comment (BEC) 7 days
- Public commen<mark>t</mark> Period (30 Days)
- Hyperally during a PAB meeting! Public Meeting • 0 days
- Address Public Comments (BEC) •
- BRAC Review Final FOST (BRACO) •
- Finalize FOST for Signature (BEC) •
- Army Signature of FOST (BRACO) •

7 days It takes il months from seg à final approval just la de FOST

30 days

3 days

14 days

7 days

•	FOST Conserv	ation Area	113 days		
•	Internal Draft F	OST (BEC)	38 days		
•	BRAC Review	(BRACO)	, 14 days		
•	Revise FOST/F	repare for BCT C	Comment (BEC)	7 davs
•	BCT Comment	30 days	,	,	, and you
•	Revise FOST/F	repare for Public	Comment	(BEC)	7 davs
•	Public commen	t Period (30 Days	s) 3	0 days	j
•	Public Meeting	0 days			
•	Address Public	Comments (BEC	()	days	
•	BRAC Review	Final FOST (BR/	ACO)	4 days	
•	Finalize FOST	or Signature (BE	C) 7	days	
•	Army Signature	of FOST (BRAC	;O) 7	days	

- Cultural Resources Management Effort
 134 days
- Draft Programmatic Agreement (already done and sent to parties) BEC/COE)
 1 day
- Dispute Resolution (Native Americans/SHPO) 14 days
- Final Determination Historic Preservation Council 60 days
- Revise Programmatic Agreement (BEC/COE Ft. Worth) 14 days
- Army and Historic Preservation Signatures (BEC/BRACO/SHPO)
 45days



- NRC Survey 70 days plus
- Perform Survey

DIGU

- Contractor Prepare Preliminary Draft Report 21 days
- Army Review Preliminary Draft (BEC/COE) 7 days
- Contractor Prepare Draft and Submit to NRC 7 days
- NRC Review Report 30 days
- Army Address NRC Comments and prepare revised report (BEC)
 14 days
- NRC Approval of Closeout ????

- BDSP PID/Warehouse 35 days
- Prepare draft BRAC Disposal Support package (BEC)
- BRAC Review of Package (BRACO)
 14 days
- Revise BDSB (BEC) 7 days
- Final Approval/Signature BDSB (BRACO)14 days

15 days

- BDSP Conservation Area 35 days
- Prepare draft BRAC Disposal Support package (BEC)15 days
- BRAC Review of Package (BRACO) 14 days
- Revise BDSB (BEC) 7 days
- Final Approval/Signature BDSB (BRACO) 14 days

- DEED PID/Warehouse 90 days
- LRA Draft Deed and Provide to Army for Comment (LRA) 30 days
- Army Comment on Deed (BEC/BRACO/COE) 30 days
- LRA Revise Deed and Prepare Final Version (LRA)
 14 days
- Army comment on Deed (BEC/BRACO/COE)
 14 days
- LRA Revise Deed (LRA) 3 days
- Signature of Deed (LRA/BRACO)

30 days

Xon Mereini

Deed Conservation Area • 75 days LRA Draft Deed and Provide to Army for Comment (LRA) 21 days • Army Comment on Deed (BEC/BRACO/CQE) • 22 days LRA Revise Deed and Prepare Final Version (LRA) • 14 days Army comment on Deed (BEC/BRACO/COE) • 10 days LRA Revise Deed (LRA) • 3 days Signature of Deed (LRA/BRACO) 30 days

7

days

- Land Survey 133 days
 SCIDA Obtain Funding from OEA (LRA)
- SCIDA award contract for Survey
- Survey Work

98 days

28 days

Presentation to the RAB June 11, 2002

Former Special Weapons Storage Area (SEAD-12)

Summary of Feasibility Study

Jacqueline Travers, P. E.

Topics for Tonight's Presentation • SEAD-12 Background • Conclusions of Remedial Investigation • Proposed Feasibility Study Summary Presentation has not been Reviewed or Agreed to by EPA or NYSDEC





Location Map of SEAD-12 Site



Summary of Remedial

Investigation





Remedial Investigation/ Feasibility Study Milestones

- Investigation (Outside Buildings)
 - Began Summer 1998
 - Completed Fall 1999
- Investigation (Inside Buildings)
 - Began Summer 1999; Completed Fall 2001
- Remedial Investigation Report (Outside Buildings)
 Revised Final February 2002
- Feasibility Study Report (Outside Buildings)
 - Draft May 2002



Areas Requiring Further Action





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Disposal Pit C

- Debris found in several test pits including:
 - Construction debris
 - Military items
 - Stainless steel cylinders
 - Wire
 - Casings
- Elevated levels of zinc

Groundwater Near

Building 813

- Trichloroethene (TCE) detected in one well (MW12-37) at 1600 ppb (GA standard is 5 ppb).
- 1,2-Dichloroethene detected at 30 ppb in MW12-37 (GA standard is 5 ppb).
- TCE below the GA standard in well downgradient.





Identify Treatability Study Needs

 provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the <u>detailed analysis</u> phase and to support the remedial design of selected alternatives, and

• reduce cost and performance uncertainties for treatment alternatives to acceptable levels so that a remedy can be selected.



Disposal Pits – Alternatives Considered

Three Alternatives Considered:

- No Action (SC-1)
- Excavation and Off-Site Disposal (SC-2)
- On-site Capping and Containment (SC-3)



- Nothing is Implemented
- No Monitoring is Involved
- Costs are Zero
- Retained as a Baseline Comparison to Other Alternatives

Disposal Pits – SC-2 Excavation and Off-Site Disposal

- Excavate approx. 4600 cy from Disposal Pit A/B and 6100 cy from Disposal Pit C
- Sort debris from soil
- Scan all debris and soil for radionuclides
- Dispose of excavated materials appropriately





Disposal Pits – SC-3 On-site Capping and Containment

- Placement of a soil cap consisting of:
 - 6 inches of topsoil
 - 6 inches of common fill
 - Filter fabric
- Fencing to restrict access
- Technology eliminated from detailed evalution







GW-3 Air Sparging

- "In situ air stripper"
- · Conduct treatability study to assess implementability
- Install groundwater trenches perpendicular to the flow to capture shallow groundwater
- Installation of air sparging system that injects air into the groundwater
- Installation of a vapor collection and treatment system to treat volatiles collected in the system
- Groundwater monitoring to assess system performance
- Short-term restriction on use of groundwater







Groundwater Treatability Study

Purpose:

- Further Define Extent of Plume
- Gather Data to Further Evaluate
 - Alternatives
 - Natural Attenuation
 - Enhanced Natural Attenuation
 - Air Sparging

Cost Comparison

Altern	ative	Capital Cost	Annual Cost	Present Worth Cost		
Disposal Pits						
SC-1	No Action	_	· · · ·			
SC-2	Excavation/Disposal	\$3,369,500		\$3,369,500		
Groun	dwater			· · · · · · · · · · · · · · · · · · ·		
GW-1	No Action					
GW-2	Natural Attenuation IC	\$151,600	\$45,200	\$871.400		
GW-3	Air Sparging	\$796.500	\$112,300	S1.289,800		
GW-4	Interceptor Trench	\$7 89.700	\$118,300	\$1,309,000		
GW-5	Excavation	\$1,145,300	\$45,200	\$1,348,100		

Preferred Remedial Alternative for SEAD-12

Disposal Pits A/B and C

• SC-2 Excavation and Off-Site Disposal

Groundwater Near Bldg 813

• GW-2 Natural Attenuation and Institutional Controls



GW-2 Natural Attenuation and Institutional Controls

- Capable of achieving same long term effectiveness, permanence and reduction in toxicity, volume and mobility as other alternatives considered
- Time to achieve ARARs is longer than other alternatives: however, potential use of groundwater is low
- Most cost effective alternative
- Cost
 - Capital \$151,000
 - Annual \$45,200
 - Present Worth \$871.400
 - Conservative PW \$1,356,200

MINUTES RESTORATION ADVISORY BOARD June 11, 2002 MEETING

1. ATTENDANCE:

Government RAB Members Present:

Stephen Absolom, U.S. Army Co-Chair; Alicia Thorne, NYS Department of Environmental Conservation; Julio Vazquez, US Environmental Protection Agency

Community RAB Members Present:

Karen Tackett, Community Co-Chair; Henry Van Ness; Patricia Jones, Industrial Development Agency; Fred Swain.

Community RAB Members Not Present:

Brian Dombroski, Seneca County Health Department, excused; Robert McCann, excused; Dave Schneider, Carmen Serrett, Frank Ives, David Wagner, Frankie Young-Long, Charlotte Bethany, NYS Department of Health.

Environmental Support Personnel and Guests Present: Chris Raddell, Parsons Engineering Science; Jackie Travers, Parsons, Todd Heino, Parsons, Randy Battaglia, U.S. Army Corps of Engineers, New York District; Tom Enroth, US Army COE, New York District; Janet Fallo, U.S. Army COE, New York District; John Brod, ENSR; Marc Mizrahi, Environmental Chemical; Nancy Williamson, Recording Secretary

2. Mr. Absolom called the meeting to order at 7:00 p.m. He thanked the members for the schedule change since he has a budget meeting next week. All attendees were asked to introduce themselves.

3. Mr. Absolom's request for changes to the April minutes elicited no changes. Mr. Absolom and Ms. Tackett signed the minutes into the record.

4. The presentation for the evening given by Jackie Travers, Parsons Engineering Science, was entitled Former Special Weapons Storage Area (SEAD-12), Summary of Feasibility Study (enclosed).

Ms. Travers gave a brief history of the area. There are only three sites in less than 1 acre requiring further action in the entire "Q" Area. The Army will clean the "Q" area because of its former use. It will become an historic site with a written and photographic record kept in a locked archive. A re-user could take down buildings, yet the record would remain.

In Disposal Pit A/B were found sheet metal, electronic components, paint cans, metal fragments and empty drums. There were elevated levels of cadmium, chromium, and copper in the soil.

Several test pits in Disposal Pit C exposed construction debris, military items (guages, thermal batteries), stainless steel cylinders, wire and casings. There were elevated levels of zinc.

Testing of the groundwater near Building 813 revealed Trichloroethene (TCE) at 1600 ppb (GA standard is 5 ppb), 1.2-Dichloroethese at 30 ppb (standard of 5 ppb) and TCE below the GA standard in well downgradient.

The proposed action for the areas of concern involves feasibility study, treatability study, and evaluation of alternatives. The alternatives examined are a-no action, b- excavation and off-site disposal and c- on-site capping and containment. The Disposal Pits and Groundwater contaminated sites were discussed using these criteria and impacts of effectiveness, long-term monitoring and costs.

Q: What has the Army learned about handling TCE over the last few years? Monitoring quarterly every year--can that come down if the plume is stable?

A: We haven't gone to that yet. We could go to the Regulators to change it. In the budgeting process, we do take into consideration cost for the long term.
Q: Could clean-up at other sites in the Country be using newer or other remedies?

A: The SEAD-12 plume is small and has site specific conditions. Other methods have been tried elsewhere but side effects became a problem.
Comment: A treatability study might remediate the plume.

Q: Does the Ash Landfill site still have a 30-year monitoring period?

A: Yes, but the proposed plan is to add two more walls

and reduce the time to 10 years. My goal is to not have 30-year monitoring if I can help it. I can justify more capital work up front because it will shorten future cost.

Q: Is anyone surprised that the findings are so small? Four million dollars have been spent and another \$4 million will be spent to remediate. Any other questions on Site 12? (There were none.)

5. Mr. Absolom asked for open discussion from the floor.

The proposed site for the county jail is the old tank farm. We'll remediate the area before they build. We will dig up and remove heavy metal from steel tanks-saves the county overburden.

The three ferromanganese piles are still here, part of the National Stockpile that the Army must maintain all over the Country.

The Army would transfer clean property when it is available (minus the contaminated areas).

Q: Worked through LUC's?

A: No. We need to work them on sites until we can remediate them.

The Department of Defense and EPA are in dispute on LUC's. EPA says if LUC is part of the remedy, it needs to be in the ROD and enforceable. EPA can then come back

on the Army to remedy. The Army disagrees with the EPA position. So the Army will not put enforcement in the ROD. This will be handled higher up in the Government and may hold up things.

Transfer is necessary for the government to have base closure.

Q: Would the Army be responsible if roofs caved in?

A: No, the property is transferred "as is".

6. The board moved that the next meeting would be September 17, 2002. There will be one or two Public Meetings before then this summer. Notification will be sent RAB members.

7. The meeting was adjourned at 8:20 p.m.

Respectfully submitted,

Enclosure

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED;

STEPHEN M. ABSOLOM U.S. Army Co-Chair

Zan X Clarket Karen Tackett

Community Co-Chair

MINUTES RESTORATION ADVISORY BOARD April 20, 2004

1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair; Joseph White, NYSDEC;

Government RAB Members Excused: Julio Vazquez, EPA; Charlotte Bethoney, NYS Department of Health,

Community RAB Members Present: Karen Tackett, Community Co-Chair; Fred Swain, Robert McCann, Henry Van Ness

Community RAB Members Not Present: Pat Jones, SCIDA, excused; Dave Schneider; Carmen Serrett; Frank Ives; David Wagner; Frankie Young-Long; Russell Miller.

Environmental Support Personnel and Guests Present: Randy Battaglia, COE, New York District, Tom Enroth, COE, New York District; Janet Fallo, COE, New York District; Todd Heino, Parsons; Jeff Adams, Parsons.

2. Mr. Absolom called the meeting to order at 7:00 p.m. He thanked everyone for coming and had everyone introduce themselves.

3. Mr. Absolom asked for additions/corrections to minutes from the January 20, 2004 meeting. There being none, the minutes were signed into the record.

Mr. Absolom introduced Mr. Todd Heino, Parsons Engineering Science, to give the presentation on SEAD-122B, Small Arms Range at the Airfield, SEAD-121C, the DRMO Yard and SEAD-121I, the Cosmoline Oil Disposal Area. Also discussed was an earthen mound (SEAD-121J). The handout of the slide presentation is enclosed. The site investigation of the small arms range at the airfield consisted of soil sampling and g.w. samples. The results showed lead contamination. Since lead concentration exceeded the 400 ppm Clean Up Goal (CUG) for soil, remediation would be required. Other metals found that exceeded CUG were collocated with lead. Antimony and iron in groundwater exceeded standards but were consistent with Seneca background. The Treatability Study was performed to demonstrate screening of soil was an unacceptable technique to reduce lead contamination. All contaminated soil was screened and disposed of at an approved landfill.

Comment: So, now the Army can transfer the area including the small arms range to SCIDA for the State Police to use as a firing range and get it dirty again. Answer: Yes, you have to keep in mind that 88,000 ppm is too high (harmful) a level for the Army to transfer. The Army must state that the property conditions are such the actions taken are protective of human health and the environment. **Comment:** So the contamination was moved to a landfill for cover? **Answer:** Yes, the material was disposed of at Ontario County Landfill. The landfill is a control/manage area and designed to prevent the contaminants from entering the landfill. Comment: The State Police will be using site as a "green range"- not using lead. And they will maintain the range. Comment: In theory. But I'm familiar with these newer type bullet traps and the bullets come back at you. We had to put up hay bales to prevent that. Answer: I understand your point. But we have to follow the regulations so we can transfer the property. Question: How much soil was removed? 1200 yards of soil [actually 1200 tons, Answer: correction after meeting]. The DRMO yard, a fenced gravel covered area west of building 360 in the warehouse area, was used as a staging area for material awaiting recycling/sale. Material included scrap metal, wood debris, ordnance, batteries, etc. The Rumored Cosmoline Oil Disposal Area is located between 3rd and 7th Sts and C/D Aves. with warehouses on east and west sides. Soil, water and ditches were sampled

in both areas to determine what waste or contaminants were present, and assess if there was a future risk to human health and the environment.

Soil testing for the DRMO Yard revealed BTEX, PAHs and metals. Surface water results showed 1 hit of Bis(2-EH)phthalate and metals. Sediment/ditch soil had metals.

Question: What did the samples look like? Answer: Outside the yard near the road they were sandy with asphalt. Inside the yard there was lots of metal debris.

Groundwater results of DRMO showed 4-DCE, pesticides and metals.

Question: What determined the shape of the testing site? Answer: Geographic - the area is fenced and has drainage ditches outside the fence. DRMO lined vehicles up and piles of tires salvaged from the Army. Junk/disposal yards typically have contamination.

Question: So, there's shale three feet down? Answer: Not here. We had good wells here.

Question: How about vinyl chloride? Answer: Slightly up gradient and not found anywhere else. Comment: We had a grease pit. Now closed. TCE was found previously.

Results of Cosmoline Oil Area showed VOCs, pesticides/PCBs, SVOCs and metals in soil, sediment and ditch samples. SVOC and Metals were in Surface Water.

Conclusions for DRMO area: no significant organic compound releases—isolated hot spot for BTEX, industrial site background PAHs, metals surficial. Conclusions for Cosmoline Oil area: no evidence of release of organic compounds, industrial site sources, metals primarily surficial.

Question: What is cosmoline? Answer: Petroleum jelly-like preservative to keep metal from oxidizing, a coating. Question: Would it show up in PAHs? Comment: It has no specific chemical equation, no standards.

The Mounds Area - Site 109(7), SEAD-121J, is a mound in the PID near the Duck Pond area mounds, SEAD-120G. The Duck Pond Area Mounds were previously investigated and found not to be of concern.

Question: What is this mound? Answer: It's an abnormal ground formation. We decided to investigate it because it is large (300'1. x 20'w. x 10'h.). Question: Did it happen during the time of the base? Answer: Yes.

Other similar sites have topsoil with shale fragments covered with brush and trees. Site will be cleared, test pits dug, soil examined, tested and classified to determine if there are any contaminants or hazardous substances. Investigation will begin in summer of 2004. If no problems, we will prepare Findings Report to close out site. It contaminants exist we will investigate further and or initiate a removal action.

5. Open Discussion:

Question: Is tree removal going on at SEAD? Answer: No, except at the cemetery to clear up brush and damaged trees. If you read about timber harvest in the newspaper, it was just looked at as reuse. Comment: It looks from the highway that it was cleared. Answer: We cleared brush and geo-physically mapped area at the Open Detonation Grounds, but took no trees down.

Question: Who besides Parsons and the Army are working at the depot? Answer: Weston, Shaw, MKM and Plexus. Question: MKM? Answer: MKM is dealing with oversized material- disposal of ordnance, making a 20,000 cubic foot pile go away. Question: All summer? Answer: Yes, also a project to pull underground storage tanks. Question: Did they find anything at the OD Grounds? Answer: 7000 anomalies. Comment: 10% of findings, or 70 items, were destroyed.

Mr. Barry Roach of the Romulus Town Planning Board introduced himself.

6. Mr. Absolom: The next meeting is scheduled for June 15, 2004 in Waterloo, if possible, meeting every other month and alternating meeting sites.

Question: What is the agenda? Answer: I don't know yet.

Question: Are there no more public meetings? Answer: Landfill SEAD-11 -- not funded this year.

Question: Could we have Glenn Cooke or someone from SCIDA come and answer questions on future use of the depot? Answer: We can ask him.

Question: What are the priorities for the SCIDA? Answer: Jail, airfield, and police training.

Question: Has there been pressure to transfer dirty sites? Answer: No. We have it scheduled and it goes with funding.

Question: Do you think [public] meetings will pick up? Answer: No. Some projects are 2-year projects. Shorter ones we'll do as they come up.

Question: How often do you meet with regulators? Answer: We have BCT Monthly. If there is no RAB, the BCT is by conference call.

Question: Will the next RAB be here or in Waterloo? Answer: That's to be determined.

Mr. Absolom thanked everyone for coming. There being no further discussion or questions, the meeting was adjourned at 8:15 p.m.

Respectfully submitted, Maney Williamson

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: Ken 11/ Ubsolon

STEPHEN M. ABSOLOM U.S. Army Co-Chair

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Karen Tackett Community Co-Chair

Seneca Army Depot Activity Restoration Advisory Board April 20, 2004 Romulus, New York

RAB Meeting – 4/20/04

- Small Arms Range, Airfield
 - Present Findings of Site Investigation
 - Army Recommendation and Future Plans
- DRMO Yard and Cosmoline Oil Area
 - Present Findings of Site Investigation
- Mounds Area
 - Planned Investigation

Small Arms Range, Airfield SEAD-122B

- Site Description
 - Air Force developed original Firing Range
 - Army constructed current configuration in the 1980s
 - Two areas (small arms range and machine gun range)
 - 20-lane small arms range separated by protective baffles
 - 2 lane machine gun area within its own bermed area.
 - Backstop is 28ft. high earthen berm
 - Lines underlain by drain system
 - State Police plan to use for training activities



• Site Investigation

1

- Phase I Remedial Investigation June/July 2002
 - Soil Sampling
 - 7 Soil/3 Monitoring Well Borings (35 samples)
 - 25 Surface Soil Samples
 - Monitoring Well Installation, Testing and Sampling
 Three wells; 1 round of sampling
 - Analyzed Soil/GW samples for Lead, other TAL Metals; Soil only TOC

- Investigation Results
 - Primary contaminant is Lead due to bullets
 - Isolated areas where Lead exceeded 400 ppm CUG for soil – required remediation
 - Located on berm impact face, firing line floor, drainage swale
 - Other metals (Sb, As, Ca, Cu, Mg, Ag, Na, Tl, Zn) exceed CUGs in spil, but collocated with Lead
 - Sb and Fe exceeded GA Groundwater Standards, but below Seneca background
 - Results reported in Draft Final Characterization Report and Treatability Study Work Plan



- Treatability Study, January/February 2004
 - Evaluate mechanical screening as means of removing/eliminating bullets/fragments (& Lead) from soil
 - Conduct confirmational sampling at excavation areas
 - Process
 - Excavate soils (berm, swale, floor), stockpile, sample/analyze soil, screen (2 sizes, 1 and 0.5-inch), new stockpiles, sample/analyze screened soil
 - Conditions Cold, Frozen, Wet

- Treatability Study, Results
 - Smaller screens not used due to clumping of soil
 - Use of 0.5 and 1-inch screens did not remove bullets or reduce lead in treated soil; actually increased
 - Mechanical screening could work under drier/warmer conditions

- Treatability Study, Results
 - Screened soils exceeding 400 ppm Lead disposed offsite
 - Soils considered hazardous due to leaching potential stabilized prior to disposal
 - Confirmational sampling/analysis showed all high levels of Lead removed
 - Final Characterization Report, submitted March 15, 2004



- Summary
 - No Lead > 400 ppm remains at site
 - Army recommends No Further Action for site
 - Treatability Study Report will be submitted in next 60^{30} days
 - Army will prepare No Further Action Proposed Plan and Record of Decision to close out site.
 - Property will be transferred to SCIDA

- History
 - Both sites identified in EBS Report (WC, 1997)
 - Located in the east central portion of the Depot; SEAD-121C in Planned Industrial/Office Development area; SEAD-121I in Warehousing area – Henceforth PID Area
 - The DRMO Yard, SEAD-121C
 - The Rumored Cosmoline Oil Disposal Area, SEAD-1211

- Site Description DRMO Yard (SEAD-121C)
 - DRMO Defense Reutilization and Marketing Office
 - Area used to stage material awaiting recycle/sale
 - Fenced, triangular shaped, gravel covered area located immediately west of Building 360.
 - Containment/ storage cells located in Yard
 - scrap metal, wood debris, ordnance, batteries, tiles, oil filters, auto parts, paint cans, tires, etc.
 - Area sloped to promote drainage



- Site Description Rumored Cosmoline Oil Disposal Area (SEAD-121I)
 - Cosmoline a petroleum jelly like material, used to prevent metals from "rusting/oxidizing"
 - Four contiguous, north-south trending blocks, each ~
 275 ft x 625ft, bordered by C/D Ave & 3^{rd/7th} St.
 - Warehouses located west and east
 - Railroad lines/two loading docks along western side
 - Located at or near the highest point within the depot



- Investigation Objectives
 - Characterize site conditions
 - Determine if CER CLA release has occurred
 - Determine the nature of the waste(s) or contaminant(s) present
 - Assess the risk posed to human health and the environment (if any)

- Investigation Components
 - Work conducted in two phases, EBS (99) and RI (02/03)
 - EBS scope very limited
 - SEAD-121C 4 \$Bs (10 samples); 4 SS; 2 MW (3 samples)
 - VOCs, SVOCs, Pest/PCBs, Metals
 - SEAD-121I 4 SS; 2 Ditch Soil
 - SVOCs only
 - EBS results suggested more investigation needed
 - Reported in Investigation of Environmental Baseline Survey Non-Evaluated Sites (May 1999)

- RI Components
 - Samples collected included
 - SEAD-121C 20 SBs (22 samples); 20 SS (21 samples); 4 MWs (10 samples); 10 SW (11 samples); 10 Ditch (11 samples)
 - SEAD-121I 5 SBs (6 samples); 30 SS (32 samples); 7 SW (10 samples); 10 Ditch (11 samples)
 - Analyses included
 - TCL VOCs, SVOCs, Pesticides, PCBs
 - TAL Metals
 - Others (CN, NO2/NO3, NH4, Alkalinity, TOC, etc)

- Results DRMO Yard (SEAD-121C)
 - 78 analytes detected in Soil Samples
 11 VOCs (BTEX)
 17 pesticide/PCBs
 27 SVOCs (benzo PAHs)
 23 Metals (Cd, Cr, Ni, Pb)
 - 55 analytes detected in Groundwater Samples
 7 VOCs
 8 SVOCs
 21 Metals
 - 23 analytes detected in Surface Water Samples
 1 SVOC
 22 Metals
 - 39 analytes detected in Ditch Soil/Sediment
 3 VOCs
 12 SVOCs (PAHs)
 24 Metals/Cyanide

- Soil Results DRMO Yard (SEAD-121C)
 - Highest VOCs (BTEX ~160 ppm) found in SBDRMO-9 (2.5 - 3 ft)
 - Highest SVOCs (> 10 ppm benzo-PAHs surface soils) inside and outside yard
 - Pesticides/PCBs nothing of significance
 - Metals primarily surface deposition
 - Cu, Cr, Pb, Zn NE and SW corner
 - Sb, Ar, Be, Cd, Hg, Tl, V Collocated with Tier I







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- Groundwater Results DRMO Yard (SEAD-121C)
 - EBS GW showed 1,4-DCB, Pesticides, metals
 - EBS sites temporary wells, sampled by bailer
 - RI GW only showed metals, Low Flow Sampling -


- Surface Water Results DRMO Yard (SEAD-121C)
 - Surface Water showed 1 hit of Bis(2-EH) phthalate and metals (Al, Cd, Co, Cu, Fe, Pb, Hg, Ni, Ag, V, Zn)
 - Location 2 and 3 contain all, other locations only Al, Fe and Pb





- Sediment/Ditch Soil– DRMO Yard (SEAD-121C)
 - Primarily metals (like soil Cu, Cr, Pb, Zn, lesser amounts of others)
 - Location 2 and 9 contain benzo-PAHs; 2 highest at ~ 5 ppm





- Results Cosmoline Oil Area (SEAD-121I)
 - 81 analytes detected in Soil Samples
 8 VOCs
 15 Pesticide/PCBs
 33 SVOCs (benzo PAHs)
 25 Metals/CN (Enhanced at piles)
 - No Groundwater Samples Collected
 - 20 analytes detected in Surface Water Samples
 2 SVOC
 18 Metals
 - 58 analytes detected in Ditch Soil/Sediment
 7 VOCs
 26 SVOCs (PAHs)
 22 Metals

- Soil Results DRMO Yard (SEAD-121C)
 - No VOCs above 150 ppb Acetone, Low conc. of BTEX found occasionally 8-10 times
 - Elevated concentrations of benzo-PAH in and out of area
 - Pesticides/PCBs low concentrations (max 95 ppb)
 Metals primarily surface deposition
 - Fe, Mn around ore piles
 - Cu, Cr, Pb, Zn, Sb, Ar, Be, Cd, Hg, Tl, V









- Surface Water and Ditch Soil– SEAD-1211
 - 10 total exceedances of Class C standards in SW
 - Primarily in area of site, one down gradient
 - Generally low levels Al, Fe, Pb, Zn
 - Low levels is Sediment/Ditch soil; Cu, Hg, Ni, Zn





- Conclusions
 - SEAD-121C
 - No evidence of significant organic compound releases at site – isolated hot spot for BTEX (subsurface)
 - Industrial site background PAHs
 - Metals primarily surficial, located in two areas SW and NE

- Conclusions
 - SEAD-121I
 - No evidence of systemic release of organic compounds
 - Industrial site sources
 - Metals primarily surficial, located in two areas near ore piles

Mounds Area – Site 109(7) SEAD-121J

- History
 - Identified in Environmental Baseline Survey (EBS)
 Report
 - Earthen Mound
 - Originally designated as part of SEAD-120G, renamed to SEAD-121J at EPA/NYSDEC request because in PID
 - SEAD-120G are Mounds in Duck Pond Area, previously investigated and found not to be of concern



- Site Description
 - Located in east central portion of Depot
 - Area designated as Planned Industrial/Office Development Area
 - Pushed up berm ($\sim 300'1 \times 30'w \times 10'h$)
 - Topsoil with Shale Fragments
 - Covered with brush and trees

- Site Investigation Objectives
 - Determine whether hazardous substances present
 - Determine whether further investigation/action needed
 - Observations of Fill Characteristics and Analytical Results
 - The raised structure is the extent of the site
 - Compare soil data to guidance levels (CUGs & background)
 - If data exceeds CUGs/background, evaluate further

- Procedures
 - Excavate three test pits, halfway through and extending below berm
 - Physically examine and classify soil
 - Collect and analyze soil samples for VOCs, SVOCs, Pest/PCBs, Metals
 - CLP analysis protocols and validation in accordance with EPA RII guideline



- Planned path forward
 - Conduct investigation in Summer of 04
 - Assess Results
 - If no problem or concerns identified, prepare
 Findings Report to close out site
 - If contaminants exist
 - Additional Investigation (if necessary)
 - Removal Action

Construction Debris Landfill SEAD-11 Public Presentation

June 15, 2004





Topics for Tonight's Presentation

- History/Background of SEAD-11
- Review of the CERCLA/Removal Action Process
- Summary of Impacts at SEAD-11
- Recommended Action at \$EAD-11









Site History

- 4-Acre area was used as a landfill between 1946 and 1949. Operation practices are unknown.
- Materials in landfill were mostly construction debris, including metal and scrap wood, and empty 55-gallon drums





Investigations at SEAD-11

- Expanded Site Inspection 1993
- Additional Sampling Program 2000
- Action Memorandum / Decision Document (AM/DD) – April 2003
- Regulatory Approval of AM/DD January 2004





Non-Time Critical Removal Action Process

- Streamlined RI/FS
- Used for non-time critical removal actions to achieve prompt risk reduction
- Decisions will be made to ensure that an early action will be consistent with any long term action that may be necessary.
- A Proposed Remedial Action Plan (PRAP) and/or Record of Decision (ROD) will follow.







Previous Investigations

- Seismic Survey
- EM, GPR Surveys
- Test Pits
- Soil Gas Survey
- Soil
- Groundwater









Test Pit Field Results

ESI (Nov 1993) - Four test pits:

• Excavated materials included: metallic debris (scrap metal, metallic rods, and metallic webbing), construction debris (concrete slabs, asphalt, concrete, glass, and nails), dark brown soil, gravel, and boulders.




Test Pit Field Results

Additional Sampling Program (Oct 2000) - Four test pits:

- Excavated materials included: sheet metal edging, roofing material, asphalt, asbestos building material, tar, miscellaneous round cylindrical pieces, brick, wire, auto parts, metal drums, household trash, chain link fencing
- Nine 55-gallon drums were found at the southern edge of the landfill. Most contents are unknown, though 2 drums were labeled "Anti-Freeze Type 1" and "Trichloroethylene, Technical", respectively.





Soil Gas Results at SEAD-11

- Soil gas survey was conducted during Dec 1993 as part of the ESI
- Two areas in the landfill area were identified where elevated concentrations of VOCs (greater than 2.0 parts per million per volume [ppmV]) in soil gas were detected, including: vinyl chloride, 1,2-dichloroethene, TCE, toluene, and ethylbenzene.
- Test pits were excavated in these two areas, and no materials were uncovered that could be determined as a source for the VOCs detected in the soil gas.





Soil Analyses Results at SEAD-11

Soil has been primarily impacted by VOCs, SVOCs, and metals. Contaminants of concern (and their maximum detections) consist of acetone (3200 µg/Kg), trichloroethene (42,000 µg/Kg), individual PAH compounds, 4,4'-DDT (4300 µg/Kg), and several metals [antimony (285 mg/Kg); copper (1230 mg/Kg); lead (7210 mg/Kg); mercury (6 mg/Kg); thallium (8.8 mg/Kg); and zinc (7980 mg/Kg).





Groundwater Results at SEAD-11

- Three rounds of groundwater sampling were conducted [1 round during the ESI (late 1993/early 1994) and 2 rounds during the additional sampling program (Nov 2000 and Feb 2001)]
- 2000/2001 data considered more characteristic of current groundwater conditions and more reliable due to use of low-flow sampling methodology.
- VOCs and SVOCs were detected, but all concentrations were below the GA standard, when available.
- 15 Metals were detected and 6 metals (aluminum, antimony, iron, manganese, sodium, and thallium) exceeded their respective GA standards.





Impacts Found at SEAD-11

- Fill materials including 55-gallon drums and other containers (contents unknown) found in landfill
- Soils have been impacted by metals and carcinogenic PAHs, and to a lesser degree, VOCs and pesticides.
- Groundwater downgradient of the landfill has been impacted by VOCs and metals.





Risk Evaluation

- Considered for Planned Future Use -Recreation/Conservation Area.
- Investigations of SEAD-11 indicate that soils pose a potential threat to human health and the environment through soil ingestion or dermal contact.
- A quantitative ecological risk assessment at this site was not performed, however there is a potential for terrestrial biota to be exposed to site COCs.





Purpose of Action

- Remove an identified source of residual chemical materials in the soil to eliminate or at least lessen the magnitude of the potential threat to surrounding populations and the environment
- Remove construction debris, drums, and other metal and miscellaneous debris.





Components of Removal Action

- Excavation of approximately 36,300 cubic yards of soil from the landfill.
- Removal and disposal of drums and construction debris.
- Confirmatory soil sampling.
- Characterize and dispose/treat any groundwater generated during the removal action.







Cleanup Goals

- Soil cleanup goals for VOCs, SVOCs (except cPAHs), pesticides, PCBs, and metals are NY State TAGM #4046 recommended soil cleanup objectives, based on background data.
- Soil cleanup goals for carcinogenic PAHs are based on a 10 ppm benzo(a)pyrene toxicity equivalent.





Cost & Schedule

- Approximately \$5.9 million
- Includes Excavation, Screening and Disposal of 36,300 CY of soil and debris material
- Field work should take approximately 5 months to complete







What Follows Removal Action

- Evaluation of Completion Report
- Address groundwater after completion of remedial action
- PRAP, if necessary
- ROD
- Take further action, as necessary





MINUTES RESTORATION ADVISORY BOARD April 19, 2005

1. ATTENDANCE:

Government RAB Members Present: Stephen Absolom, U.S. Army Co-Chair

Government RAB Members Excused: Charlotte Bethoney, NYSDOH

<u>Community RAB Members Present</u>: Karen Tackett, Community Co-Chair; Pat Jones, SCIDA; Fred Swain

Community RAB Members Not Present: Robert McCann; Carmen Serrett

Environmental Support Personnel and Guests Present: Chris Boes, USAEC; Keith Hoddinott, USACHPPM; Randy Battaglia, USACE-Seneca, Todd Heino, Parsons; Nancy Williamson, SEDA.

2. Mr. Absolom called the meeting to order at 7:00 p.m. He thanked everyone for coming and introduced the agenda for the evening.

3. Mr. Absolom asked for additions/corrections to minutes from the November 16^{th} , 2004 and January 18, 2005 meetings. There being none, the minutes were signed into the record.

4. Mr. Absolom introduced Mr. Todd Heino, Parsons, who gave a presentation on Supplemental Remedial Investigation at SEAD-12 buildings 813 and 814.

Mr. Absolom reviewed the Finding of Suitability to Transfer (FOST) for the Airfield Parcel (see enclosure). Mr. Swain asked Ms. Jones if the airfield will continue to be used for State Police training and/or if it would be used as an airport.

Ms. Jones affirmed that the State Police would be using the airfield and that there would be no airport. Since significant financial support has been allocated in support of the Seneca County Airport, it is very doubtful FAA would approve a second airport. The State Police will also be using the firing range at the airfield.

Ms. Tackett asked Ms. Jones asked if the airfield couldn't be kept up to be used for emergencies.

Mr. Absolom and Ms. Jones responded that if the State Police used it any upkeep or restoration to the runway surface would be damaged.

4. Mr. Absolom next went over the draft Land Use Control (LUC) Remedial Design for SEAD 27, 66, and 64A (enclosure). He explained how the plan to implement LUC's on these areas involves several interdependent layers of responsibility between the Army, State and Federal regulators and town zoning boards.

5. The final topic for the meeting was membership. Public Notices were placed in the Finger Lakes Times, the Pennysaver and Reveille Between-the-Lakes to attract new members to the RAB. The result was one query from Waterloo. A survey of all members to gather opinions on what their RAB interest was elicited only 5 responses. Non-responders will be dropped.

Mr. Van Ness when surveyed proposed a different concept from bimonthly meetings. He suggested sending presentations in the mail and having each member contacted by Mr. Absolom for comments.

The Army will have other Public Meetings which RAB members are invited to attend. In lieu of bimonthly meetings we could have one or two formal RAB meetings a year.

Mr. Swain remarked that doing one-on-one phone calls would omit the interaction between members.

Ms. Jones suggested email as a possibility but Mr. Swain does not use email.

Mr. Absolom suggested going to quarterly meetings. He said he is open to suggestions.

The members agreed to try quarterly meetings with the next meeting set for August 16, 2005 in Waterloo.

Mr. Absolom said there may be a Public Meeting before the next RAB meeting.

There being no further business, the meeting was adjourned at 8:05 p.m.

Respectfully submitted,

nancy Williamson

Enclosures

NANCY WILLIAMSON Recording Secretary

APPROVED AS SUBMITTED: ren/11 Ion STEPHEN M. ABSOLOM

U.S. Army Co-Chair

Karen Tackett

Community Co-Chair