

# Proposed Plan for Seventeen Sites Requiring Institutional Controls

SEADs 13, 39, 40, 41, 43/56/69, 44A, 44B, 52,  
62, 64B, 64C, 64D, 67, 122B, and 122E

Seneca Army Depot Activity

Romulus, New York

Presentation: June 20, 2006



# Outline

- Brief Introduction - SEADs 13, 39, 40, 41, 43/56/69, 44A, 44B, 52, 62, 64B, 64C, 64D, 67, 122B, and 122E
- Risk Assessment Introduction
- Individual Site Discussions
- Recommendation for Individual Sites



# Brief Introduction of 17 Sites

- SEAD-13 in the area designated as Residential / Resort (formerly Conservation/Recreational).
- SEAD-41 located in the area designated as Institutional Area (Hillside Children's Center).
- SEADs 39, 40, and 67 located in the area designated as Planned Industrial / Office Development (PID) Area.



# Brief Introduction of 17 Sites

- SEADs 43/56/69, 44A, 44B, 52, 62, and 64C located in area designated as Prison (Five Points Correctional Facility).
- SEADs 64B and 64D located in area designated as Training Area (formerly Conservation / Recreational).
- SEADs 122B and 122E located in area designated as Airfield Special Events/Institutional/Training.



# Risk Assessment Introduction

## Human Health (HH) Risk Assessment

- Reasonable Maximum Human (RME) Exposure:
  - The maximum detected concentration or the 95<sup>th</sup> UCL of the sample population's mean.
  - Reasonable maximum exposure scenario (extended duration, frequency and intakes).
- Acceptable Risk Limits:
  - Cancer: less than  $10^{-4}$ ~ $10^{-6}$ .
  - Non-cancer: HIs less than 1.



# HH Risk Assessment Receptors

- Residential/Resort – SEAD-13 (Conservation / Recreational):  
Park Worker (PW), Construction Worker (CW), Recreational Visitor – Child (RV-C), Adult Resident (AR), Child Resident (CR).
- Planned Industrial/Office Development – SEADs 39, 40, & 67:  
Industrial Worker, Construction Worker, Daycare Worker (DCW), Daycare Child (DCC).
- Training - SEADs 64B & 64D (Conservation/Recreational):  
Park Worker, Construction Worker, Recreational Visitor - Child.
- Prison – SEADs 43/56/69, 44A, 44B, 52, 62 & 64C:  
Prison Inmate (PrI), Prison Worker (PrW), Construction Worker, Daycare Worker, Daycare Child.
- Special Events/Institutional/Training – SEADs 122B & 122E:  
Industrial Worker, Construction Worker, Daycare Worker, Daycare Child, Adult Resident, Child Resident.



# Risk Assessment Introduction

## Ecological Risk Assessment

- Characterization of the unit and the ecological communities it may affect.
- Exposure Assessment – RME:
  - The maximum detected concentration as exposure point concentration.
  - Reasonable maximum exposure scenario.
- Toxicity Assessment.
- Risk Characterization.



# SEAD-13; Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site Background Information

- Site Name: Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Area.
- Future Land Use: Residential / Resort (previously Conservation / Recreational).
- Contaminants: Metal and salt compounds.
- Description: Two disposal pits used during the 1960s to dispose of unserviceable IRFNA. IRFNA was mixed with water and limestone in the pits for neutralization.





# SEAD-13 IRFNA Disposal Site

## Previous Investigations

- 93/94 Expanded Site Investigation (ESI) and 01/02 Supplemental Site Investigations:
  - Soil: PAHs/metals above TAGMs.
  - Groundwater (GW): BEHP, metals and  $\text{NO}_3$  exceed GA standards.
  - Surface water/Sediment (SW/SED) impacted by metals.



# SEAD-13 IRFNA Disposal Site Site Risks/Recommendation

- HH Risk: Residential and Conservation / Recreational Scenarios:
  - Total cancer risks for residents  $> 1E^{-04}$  due to ingestion of  $NO_3$  in GW.
  - Total non-cancer HI greater than 1 due to ingestion of  $NO_3$  in GW.
- Recommendation: No Action (NA) with GW access/use restriction.



# SEAD-39; Building (Bldg) 121 Boiler Blowdown Leach Pit

## Background Information

- Site Name: Building 121 Boiler Blowdown Leach Pit.
- Future Land Use: Planned Industrial / Office Development (PID).
- Contaminants: PAH and metal compounds.
- Description: Flat earthen area located exterior and north of Building 121 where prior to 79/80 boiler blowdown liquids were discharged and allowed to leach into ground. Liquids presumed to contain water, tannins, NaOH,  $\text{NaPO}_4$ .



# SEAD-39, Bldg 121 Boiler Blowdown Leach Pit Site

## Previous Investigations

- 93/94 Limited Site Investigation (LSI), 2003  
Time Critical Removal Action (TCRA),  
Proposed 2006 TCRA (10 cy).
- 2003 TCRA removed 40 tons of soil to landfill.
  - Soil Chemistry:
    - Total Recoverable Petroleum Hydrocarbons (93/94).
    - Average BTEQs > 10 ppm; some cPAHs above EPA and NYS guidance levels (2003).
    - Average benzo(a)pyrene toxicity equivalents (BTEQs) < 4 ppm; some cPAHs above NYS guidance levels, Human Health Risk Assessment meets EPA  $10^{-4}$  –  $10^{-6}$  guidance if planned TCRA performed.



# SEAD-39, Bldg 121 Boiler Blowdown Leach Pit Site Risks/Recommendation

- Assuming 2006 removal action - HH Risk: Industrial Scenarios, 95<sup>th</sup> UCL RME, 15 Confirmation Soil Samples:
  - Total cancer risks for all receptors <  $7E^{-05}$ .
    - Daycare Child @  $1E^{-04}$ .
  - Total non-cancer HI < 1.
- Recommendation: No Further Action (NFA) with residential use and GW access/use restriction.



# SEAD-40; Bldg 319

## Boiler Blowdown Leach Pit

### Background Information

- Site Name: Bldg 319 Boiler Blowdown Leach Pit.
- Future Land Use: Planned Industrial / Office Development.
- Contaminants: PAH and metal compounds.
- Description: Drainage ditch north of Bldg 319, near RR tracks and parking area. where prior to 79/80 boiler blowdown liquids were discharged and allowed to leach into ground. Liquid presumed to contain water, tannins, NaOH, NaPO<sub>4</sub>.



# SEAD-40, Bldg 319 Boiler Blowdown Leach Pit Site Previous Investigations

- 93/94 LSI and 2003 TCRA.
- TCRA removed 40 tons of soil to landfill.
  - Soil Chemistry:
    - Total Recoverable Petroleum Hydrocarbons (93/94).
    - Average BTEQs < 7.5 ppm; some individual BTEQs, cPAHs and metals above EPA and NYS guidance levels (2003).



# SEAD-40, Bldg 319 Boiler Blowdown Leach Pit Site Risks/Recommendation

- HH Risk: Industrial Scenarios, 95<sup>th</sup> UCL RME, 40+ Confirmation Soil Samples:
  - Total cancer risks for all Industrial receptors  $< 7E^{-05}$ .
    - Daycare Child @  $1E^{-04}$ .
  - Total non-cancer HI  $< 1$ .
- Recommendation: NFA with residential use and GW access/use restriction.





# SEAD-41; Bldg 718 Boiler Blowdown Leach Pit Background Information

- Site Name: Bldg 718 Boiler Blowdown Leach Pit.
- Future Land Use – Institutional, currently Hillside Children's Center.
- Contaminants: TRPH, VOCs and SVOCs.
- Description: Earthen area located exterior and west of Building 718 where prior to 79/80 boiler blowdown liquids were discharged and allowed to leach into ground. Liquids presumed to contain water, tannins, NaOH, NaPO<sub>4</sub>. Bldg 718 and surrounding area transferred and demolished by SCIDA/KidsPeace.



# SEAD-41, Bldg 718 Boiler Blowdown Leach Pit Site Previous Investigations

- 93/94 LSI, 00 TCRA.
- TCRA removed 8 tons of soil to LTTD.
  - Soil Chemistry:
    - Total Recoverable Petroleum Hydrocarbons (93/94).
    - Some VOCs and SVOCs (PAHs/cPAHs) (00).
- Bldg 718 demolished and surrounding area was regraded and covered with topsoil as part of KidsPeace takeover of property.



# SEAD-41, Bldg 718 Boiler Blowdown Leach Pit Site Risks/Recommendation

- Mini-Risk: Institutional, Max Value RME, 5 Confirmation Soil Samples:
  - Total cancer risks for all receptors  $< 3E^{-05}$ .
  - Total non-cancer HI  $< 1$ .
- Recommendation: NFA with GW notification in deed.



# SEAD 43/56/69, Bldg 606: Old Missile Propellant Test Lab/Herb & Pest Storage/Disposal Area Background Information

- Site Name: SEAD-43 Bldg 606, Old Missile Propellant Test Laboratory / SEAD-56 Herbicide and Pesticide Storage / SEAD-69 Disposal Area.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: IRFNA and other propellants, pesticides and herbicides.



# SEAD 43/56/69, Bldg 606: Lab/Storage/Disposal Area Background Information

- Description:
  - In the 60s, SEAD-43 Bldg 606, the missile propellant testing lab, was used QA surveillance testing of military ordnance. IRFNA stored in adjacent metal shed on concrete pad. Concrete pad used to aerate spill residues of IRFNA and liquid propellants.
  - In 1976, SEAD-56 Bldg 606 used for pesticide and herbicide storage and mixing facility. Storage at old foundation west of Bldg 606. Concrete UST used for intermittent storage of wastewater from rinsing portable truck mounted tank used for spraying Depot sites.
  - SEAD-69 is disposal area southeast of Bldg 606. Approx. 100' x 100' in size contains construction debris and possibly IRFNA and pesticides/herbicide residues.



# SEAD 43/56/69, Bldg 606: Lab/Storage/Disposal Area Previous Investigations

- 1994 ESI.
  - Soil: SVOCs and metals above TAGMs; Some low VOCs and pesticides below TAGMs;  $\text{NO}_3$  also.
  - GW: Silvex found once above GA; Some metals above GA; Nitrate/nitrite-nitrogen ( $\text{NO}_3/\text{NO}_2\text{-N}$ ).
  - SW: BEHP and metals above Class C;  $\text{NO}_3/\text{NO}_2\text{-N}$  observed.
  - SED: Herbicides, Metals, trace HMX, and  $\text{NO}_3/\text{NO}_2\text{-N}$ .



# SEAD-43/56/69

## Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 2E^{-05}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No contaminants of concern (CoCs) identified.
- Recommendation: NA with reversionary deed.
  - “... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.



# SEAD 44A: Quality Assurance (QA) Test Lab - Background Information

- Site Name: SEAD-44A, QA Test Laboratory.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: Metals, CN-, Munitions and Explosives of Concern (MEC) and Materials Potentially Presenting an Explosive Hazard (MPPEH).
- Description: Consisted of Bldg 416 and a number of earthen berms that were used for testing ordnance items including pyrotechnics, firing devices, 40mm practice/chemical smoke (CS) grenades, and landmines.





# SEAD 44A: QA Test Lab

## Previous Investigations

- 1993/94 LSI and 2000/2002 TCRA:
  - 1993/94 ESI:
    - Soil: Some SVOCs & metals above TAGMs. Low pesticides, and 2,4,6-TNT also found.
    - GW: Some metals above GA; low VOCs.
    - SW: Some metals above Class C.
    - SED: Some metals above NYS sediment criteria.
  - 2000/2002 TCRA:
    - Site-wide UXO & OE clearance and removal and soil remediation.
    - 27,000 yd<sup>3</sup> of soil excavated, screened to remove oversize (>1”) materials.
    - 27 UXO/OE items recovered/managed.



# SEAD-44A, QA Test Lab Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 9E^{-06}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with reversionary deed.
  - “... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.



# SEAD 44B: QA Test Lab Background Information

- Site Name: SEAD-44B, QA Test Laboratory.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: Metals, MEC and MPPEH.
- Description: Historically consisted of two Bldgs that were part of QA test area for pyrotechnics, CS grenades, and other fire devices. Area relatively flat except for two distinct earthen berms (1' – 2' high).



# SEAD 44B: QA Test Lab

## Previous Investigations

- 93/94 ESI:
  - Soil: SVOCs, 1 pesticide, and metals above TAGMs;  $\text{NO}_3/\text{NO}_2\text{-N}$ .
  - GW: Some metals above GA.
  - SW: Some metals above Class C.
  - SED: Metals above NYS sediment criteria;  $\text{NO}_3/\text{NO}_2\text{-N}$ .



# SEAD-44B, QA Test Lab Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 3E^{-06}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with reversionary deed.
  - “... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.



# SEAD 52: Bldgs 608 & 612 – Ammunition Breakdown Area Background Information

- Site Name: SEAD 52, Bldgs 608 & 612 – Ammunition Breakdown Area.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: Explosives.
- Description: Active from mid 50s to late 90s. Four Bldgs and numerous drainage ditches: 608, storage of ammunition magazines; 610, ammunition powder collection; 611, storage of equip, paint, solvents; 612; breakdown / maintenance of ammunition.



# SEAD 52: Bldgs 608 & 612 – Ammunition Breakdown Area Previous Investigations

- 1993 LSI:
  - Soil:
    - 2,4-DNT found at up to 2,100 ug/Kg in 10 samples.
    - 2,4,6-TNT found twice and tetyl found once.



# SEAD 52: Bldgs 608 & 612 – Ammunition Breakdown Area Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 2E^{-06}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with reversionary deed.
  - “... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.





# SEAD 62: Nicotine Sulfate Disposal Area near Bldgs 606 & 612 – Background Information

- Site Name: SEAD 62: Nicotine Sulfate Disposal Area near Bldgs 606 & 612.
- Location: Southeastern corner of the Depot, SE of Brady Road, between SEADs 43/56/69, 44A, 44B and 52.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: Nicotine Sulfate.
- Description: Predominantly undeveloped area measuring 0.5 mi x 0.25 mi with exception of bunkers and Bldgs on western edge (SEAD-52).



# SEAD 62: Nicotine Sulfate Disposal Area near Bldgs 606 & 612 – Previous Investigations

- 1994 ESI:
  - Soil: Some metals above TAGMs; low SVOCs and herbicides.
  - GW: Some metals and benzene above GA standards.



# SEAD 62: Nicotine Sulfate Disposal Area near Bldgs 606 & 612 – Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 1E^{-06}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with reversionary deed.  
“... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.



# SEAD-64B: Garbage Disposal Area Background Information

- Site Name: SEAD-64B: Garbage Disposal Area near Ovid Road and Bldg 2086.
- Future Land Use – Training Area (Conservation / Recreational).
- Contaminants: Metals, VOCs and SVOCs.
- Description: Garbage disposal from 1974 to 1979, when SEDA's solid waste incinerator not operational. Undeveloped land with two covered piles of household wastes. NYS Solid Waste landfill closure approval pending.



# SEAD 64B: Garbage Disposal Area – Previous Investigations

- 1994 ESI:
  - Soil: One metal above TAGMs.
  - GW: Some metals above GA standards.
  - SW: Two metals above Class C standards.
  - SED: Three pesticides and some metals above NYS sediment guidance.



# SEAD 64B: Garbage Disposal Area - Site Risks/Recommendation

- Mini-Risk: Conservation/Recreational Scenario, Max values used, RME:
  - Total cancer risks for all receptors  $< 2E^{-07}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with unauthorized digging restriction.



# SEAD 64C: Garbage Disposal Area - Background Information

- Site Name: SEAD 64C: Garbage Disposal Area at intersection of E. Patrol Rd. and S. Patrol Rd.
- Future Land Use – Prison, currently in Five Points Correctional Facility site.
- Contaminants: Metals, VOCs, SVOCs.
- Description: Garbage disposal from 1974 to 1979, when SEDA's solid waste incinerator not operational. Two small concrete pads in SE portion of site accessed by 75' crushed shale road. Area vegetated by grass and brush. NYS Solid Waste landfill closure approval pending.



# SEAD 64C: Garbage Disposal Area – Previous Investigations

- 94 ESI; Soil and GW collected; analyzed for TAL/TCL VOCs, SVOCs, pests/PCBs, metals and CN-:
  - Soil: Some metal above TAGMs.
  - GW: Phenol and some metals above GA standards.





# SEAD 64C: Garbage Disposal Area - Site Risks/Recommendation

- Mini-Risk: Prison Scenario, Max Value used, RME:
  - Total cancer risks for all receptors  $< 6E^{-08}$ .
  - Total non-cancer HI  $< 1$ .
- Eco risk: No CoCs identified.
- Recommendation: NA with reversionary deed and unauthorized digging restriction.
  - “... the property shall not be sold, leased, mortgaged, assigned or otherwise disposed of” without the consent of the Government.



# SEAD 64D: Garbage Disposal Area Background Information

- Site Name: SEAD-64D: Garbage Disposal Area located between N-S Baseline Rd. and W. Patrol Rd.
- Location: West, southwestern portion of the Depot.
- Future Land Use – Training Area (Conservation / Recreational).
- Contaminants: TCL/TAL analytes.
- Description: Garbage disposal from 74 – 79, when SEDA's solid waste incinerator not operational. Elongated E/W trending mound (75') surrounded by three surface depressions (2-4') with metal and other surface debris present. NYS Solid Waste landfill closure approval pending.



# SEAD-64D: Garbage Disposal Area – Previous Investigations

- 1994 ESI:
  - Soil: 3 SVOCs and 9 metals above TAGMs.
  - GW: Six metals above GA standards; low flow sampling techniques were not used.
  - SW: Two metals above Class C standards.
  - SED: Three pesticides and some metals above NYS sediment guidance.



# SEAD 64D: Garbage Disposal Area - Site Risks/Recommendation

- Mini-Risk: Conservation/Recreational Scenario, Max values used, RME:
  - Total cancer risks for all receptors  $< 4E^{-07}$ .
  - Total non-cancer HI = 3 PW and 1 RV-C due to ingestion of Fe + Mn in GW.
- Eco risk: No CoCs identified.
- Recommendation: NA with ICs prohibiting unauthorized digging and use/access to GW.



# SEAD-67; Dump Site E of STP #4

## Background Information

- Site Name: SEAD-67, Dump Site East of Sewage Treatment Plant No. 4.
- Location: North-central portion of the Depot, south of W. Romulus Rd.
- Future Land Use – Planned Industrial / Office Development.
- Contaminants: Metals and SVOCs.
- Description: Undeveloped and heavily vegetated area containing five waste piles and two earthen berms. The origin of waste piles and berms unknown.



# SEAD-67, Dump Site E of STP #4

## Previous Investigations

- 1993 ESI and 2002/2003 TCRA.
  - 1993 ESI indicated:
    - Soils: impacted by SVOCs (cPAHs) and Hg.
    - GW: Some metals above standards.
    - SW: Two metals above Class C standards.
    - Sed: SVOCs, pesticides and metals above guidance values.
  - TCRA removed 250 cy of soil from and beneath piles and berms to offsite landfill.
    - Confirmation samples showed PAHs present above TAGMs, but BTEQ < 10 ppm.



# SEAD-67, Dump Site E. of STP #4 Risks/Recommendation

- Risk: Industrial Scenario, 95<sup>th</sup> UCL Value RME, Confirmation Soil Samples:
  - Total cancer risks for all receptors  $< 8E^{-06}$ .
  - Total cancer risk for IW & CW  $< 2E^{-06}$ .
  - Total non-cancer HI for all  $< 1$ .
- Recommendation: NFA with ICs prohibiting residential use and GW access/use for potable water.



# SEAD-122B; Small Arms Range, Airfield - Background Information

- Site Name: SEAD-122B, Small Arms Range, Airfield.
- Future Land Use – Airfield Special Events / Institutional / Training.
- Contaminants: Metals.
- Description: Twenty lane, small arms range and two lane machine gun firing ranges built in 50s. Three sides consisted of earthen berms, measuring up to 28' tall and 8' – 16' thick. Footer drains underlying ranges for water drainage.





# SEAD-122B, Small Arms Range, Airfield - Previous Investigations

- 98 EBS, 02 Investigation and 04 Treatability Study.
  - 98 EBS indicated:
    - Soils: Some metals above TAGMs.
  - 02 Investigation indicated:
    - Soils: impacted by Pb at levels up to 88,700 ppm.
    - GW: Upgradient well showed highest levels of metals, some above GA standards.
  - Treatability Study ~ 500 cy of soil excavated from area where Pb > 400 ppm found. Screened and disposed at offsite landfill.
    - Confirmation samples showed residual soil Pb < 400 ppm.



# SEAD-122B, Small Arms Range, Airfield – Future Use/Recommendation

- Future Use: State Police Small Arms Range.
- No Risk Assessment performed since residential lead goal met.
- Recommendation: NFA with ICs prohibiting any residential use.



# SEAD-122E; Plane Deicing Area, Airfield - Background Information

- Site Name: SEAD-122E, Plane Deicing Areas, Airfield.
- Future Land Use – Airfield Special Events / Institutional / Training.
- Contaminants: Metals and PAHs.
- Description: Three separate refueling areas at the airfield where fueling and deicing occurred.



# SEAD-122B, Plane Deicing Area, Airfield - Previous Investigations

- 98 EBS included analysis of soils for SVOCs and principal components of deicing solution (i.e., alcohols/glycols) in 6 soil and 4 GW samples:
  - One surface soil sample near pavement had all maximum detections of PAHS.
  - No deicing chemicals identified.
  - BEHP found in all GW samples and blank; lab contaminant. SVOCs found in well at location where all high SVOCs detected, but not above standards.



# SEAD-122B, Plane Deicing Area, Airfield – Risks/Recommendation

- Mini-Risks: Institutional Scenario, Max Value used, RME:
  - Total cancer risks for IW and CW  $< 8E^{-05}$ .
  - Total cancer risk for all others (AR, CR, DC-W, & DC-C)  $\geq 1E^{-04}$ .
  - Total non-cancer HI  $< 1$ .
- Recommendation: NA with ICs prohibiting any residential use.



# Summary of Army's Recommendations

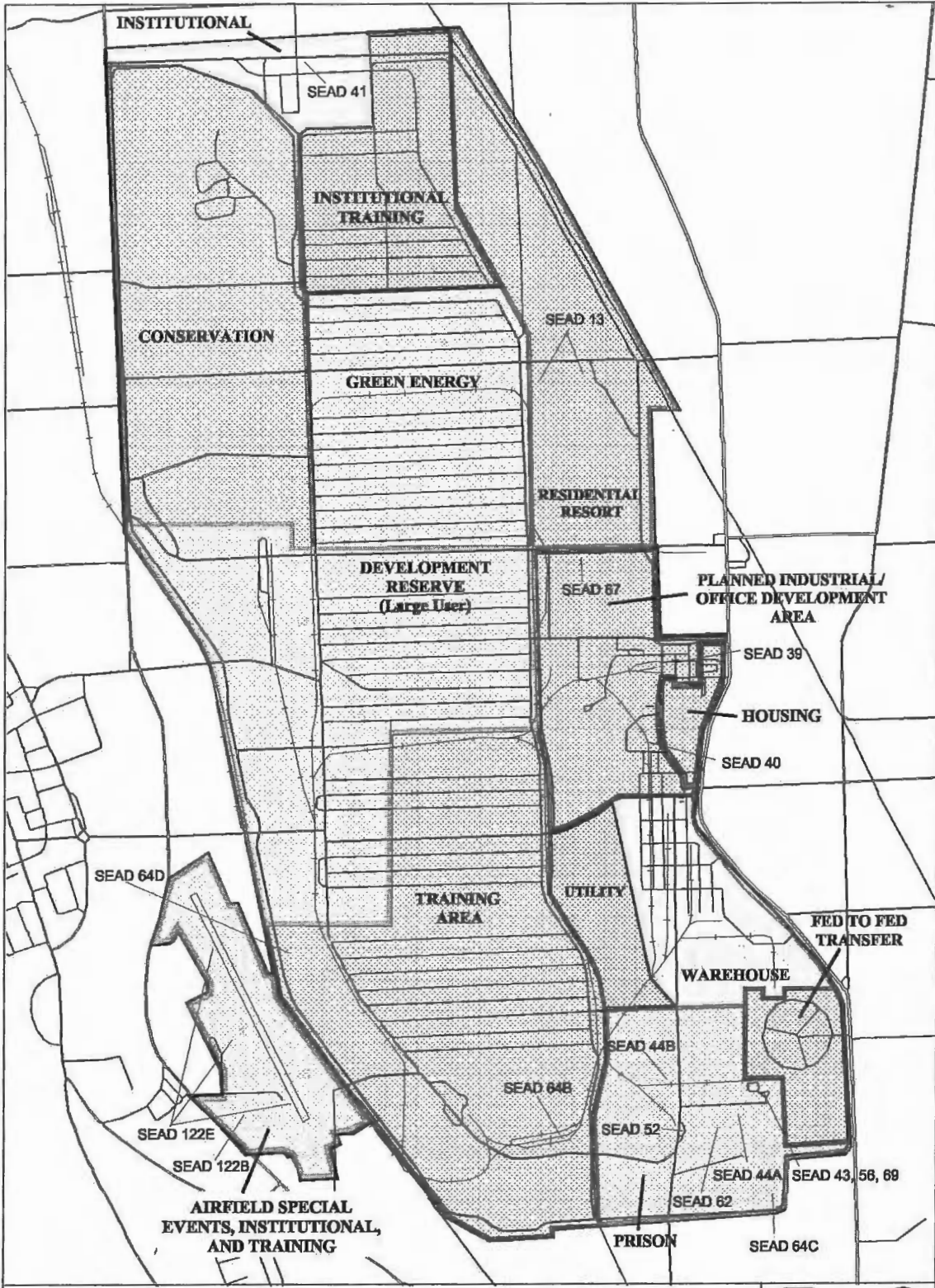
Site ID	Recommendation	Institutional Controls
• 13	NA	No GW access/use
• 39, 40 & 67	NFA	No GW access/use & No Residential Activities
• 41	NA	GW Notification in Deed
• 43/56/69, 44B, 52 & 62	NA	Reversionary Deed
• 44A	NFA	Reversionary Deed
• 64B	NA	No Digging
• 64C	NA	Reversionary Deed & No Digging
• 64D	NA	No GW access/use & No Digging
• 122B	NFA	No Residential Activities
• 122E	NA	No Residential Activities



# Institutional Controls

The Army shall implement, inspect, report, and enforce the ICs described in the Record of Decision in accordance with the approved IC Remedial Design. Although the Army may later transfer these responsibilities to another party by contract, property transfer agreement, or through other means, the Army shall retain ultimate responsibility for remedy integrity.







C:\SENeca\WAOCT\PRAP-ROD-IC-NEW\LANDUSE\_APR\Figure 1 - Future Land Use Layout

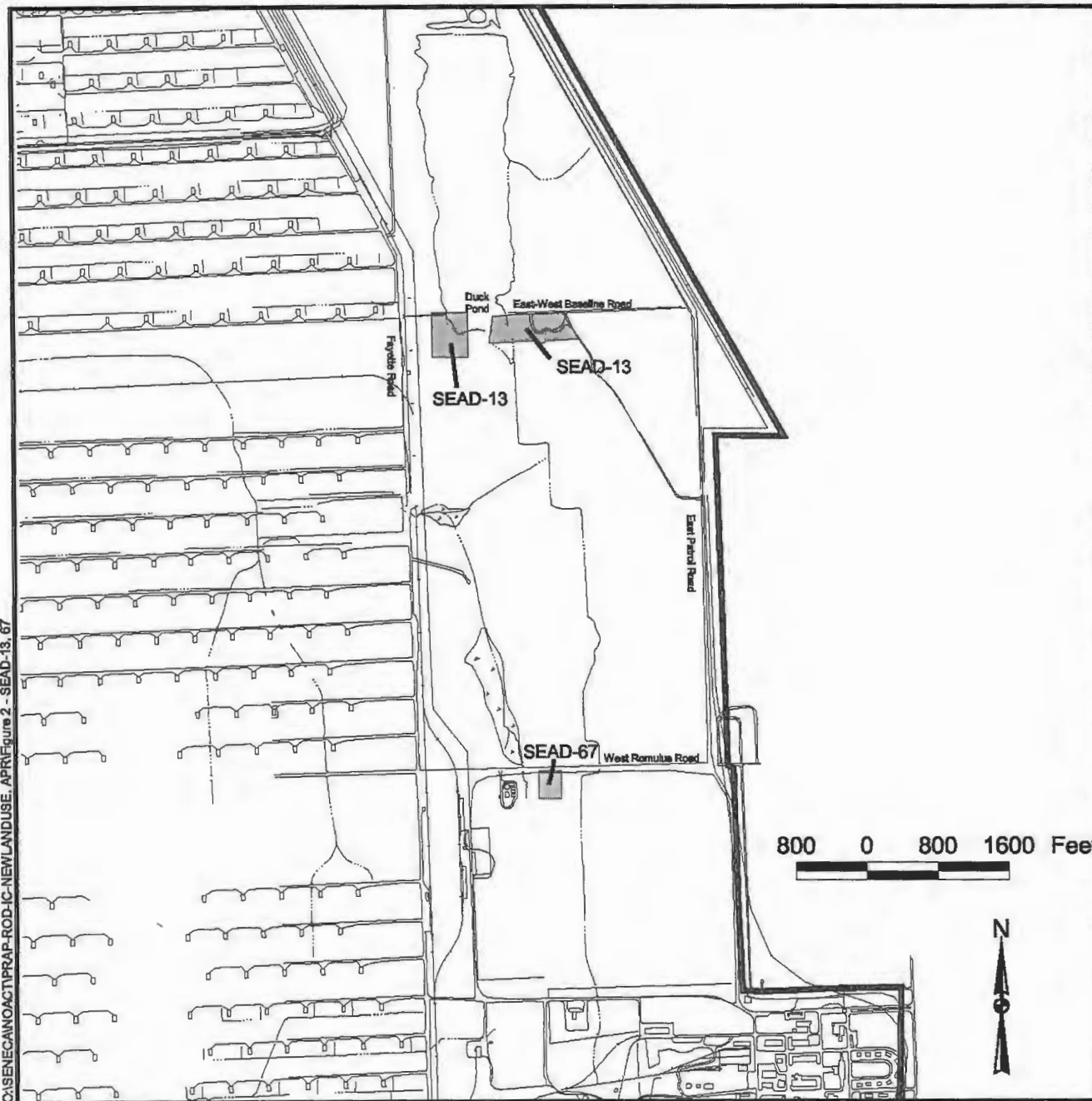
**LEGEND**



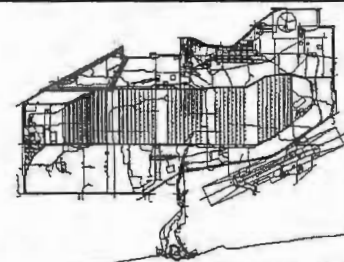
 	
<b>PARSONS</b>	
SENECA ARMY DEPOT PROPOSED PLAN FOR 17 SWMUs REQUIRING ICs	
Figure 1 Future Land Use and Location of IC SWMUs	
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C:\SENECA\NOACT\PRAP-ROD-IC-NEWLANDUSE\_APR\Figure 2 - SEAD-13, 67



- SEDA Boundary
- SEAD Boundary



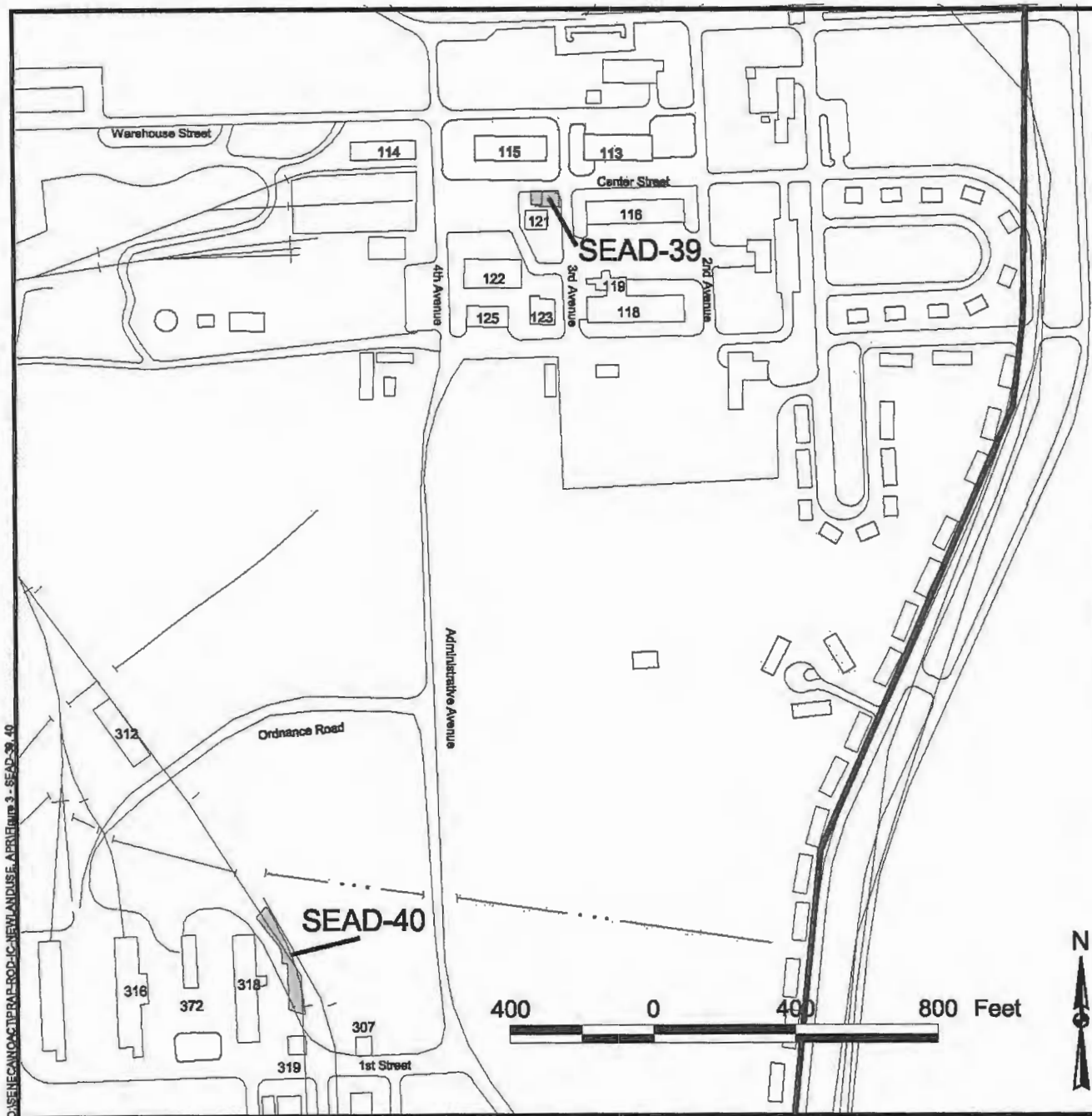
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**SENECA ARMY DEPOT  
PROPOSED PLAN FOR 17  
SWMU's REQUIRING IC's**



**Figure 2  
Location of SEADs 13 and 67**

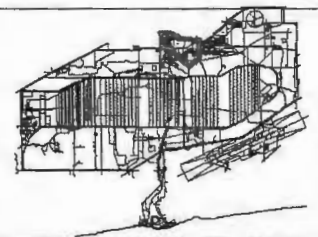
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C:\SENCA\IC\TERBAR-ROD\IC-NEW\ANDUSE-ARRIVE\arr 3 - SEAD-39, 40

-  SEDA Boundary
-  SEAD Boundary



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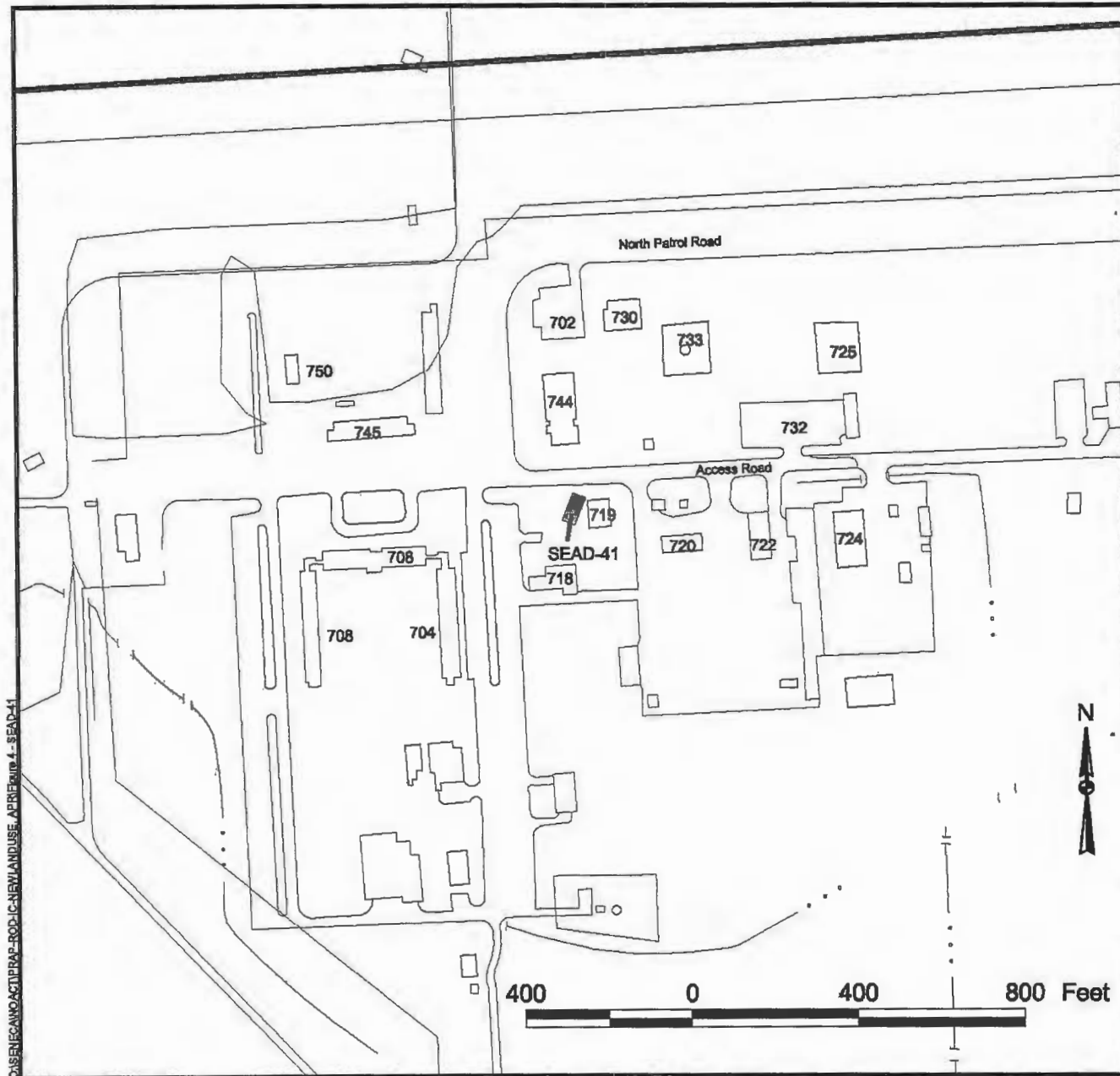
**SENECA ARMY DEPOT  
PROPOSED PLAN FOR 17  
SWMU's REQUIRING IC's**



**Figure 3  
Location of SEAD-39 and SEAD-40**

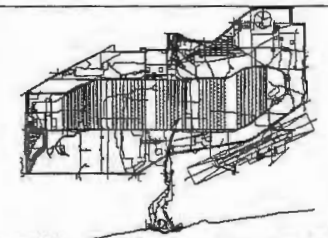
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-  SEDA Boundary
-  SEAD Boundary



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**SENECA ARMY DEPOT  
PROPOSED PLAN FOR 17  
SWMUs REQUIRING ICs**

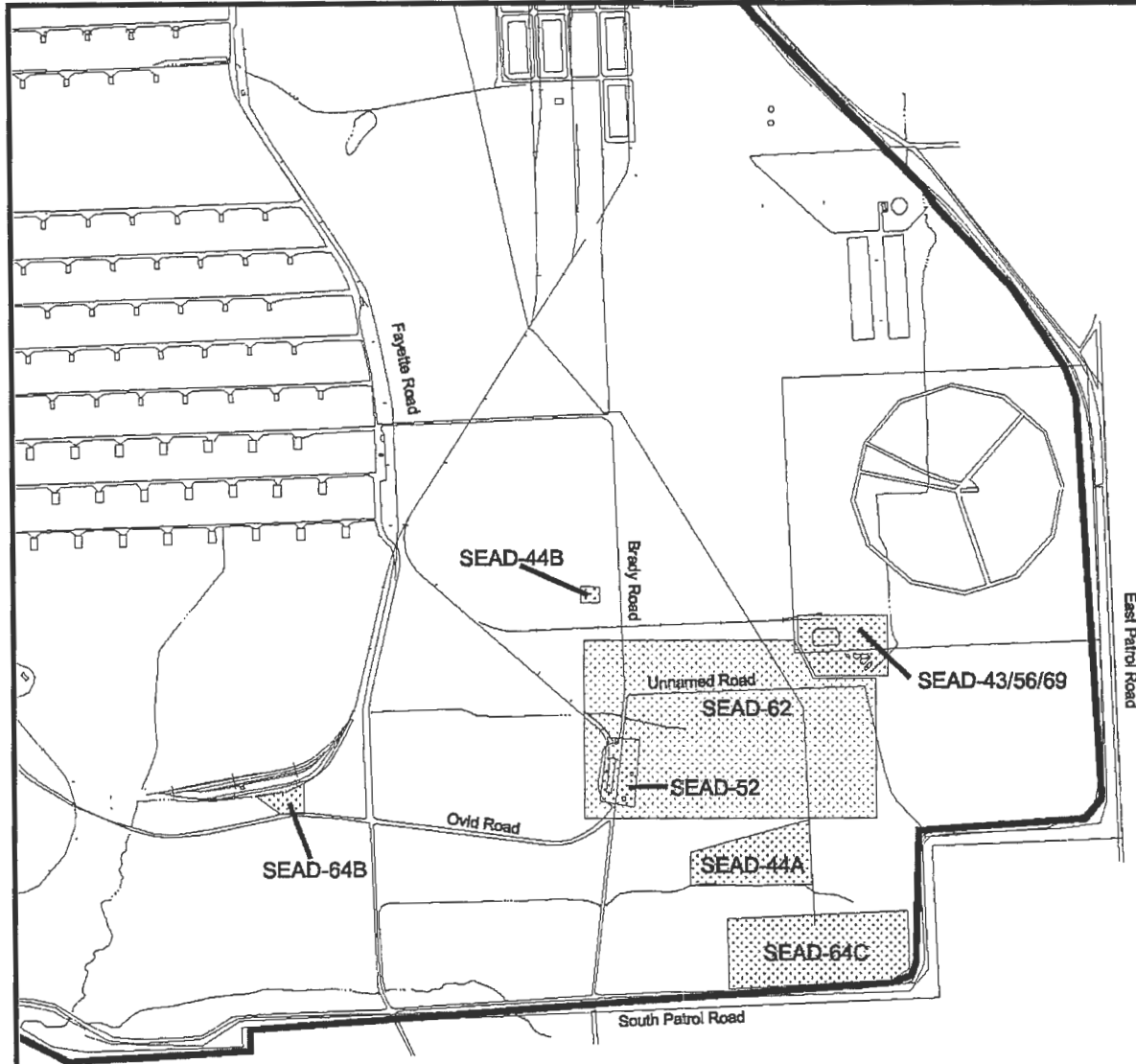
**Figure 4  
Location of SEAD-41**



Scale - 1:400

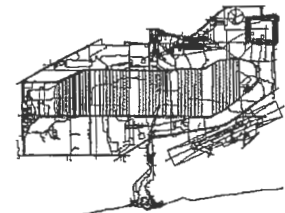
OCTOBER 2005



C:\SENCA\NOACT\PRAP-ROD\IC\NEW\AND\USE\_APR\PRP\FIG 4 - SEAD-41



-  SEDA Boundary
-  SEAD Boundary



**PARSONS**

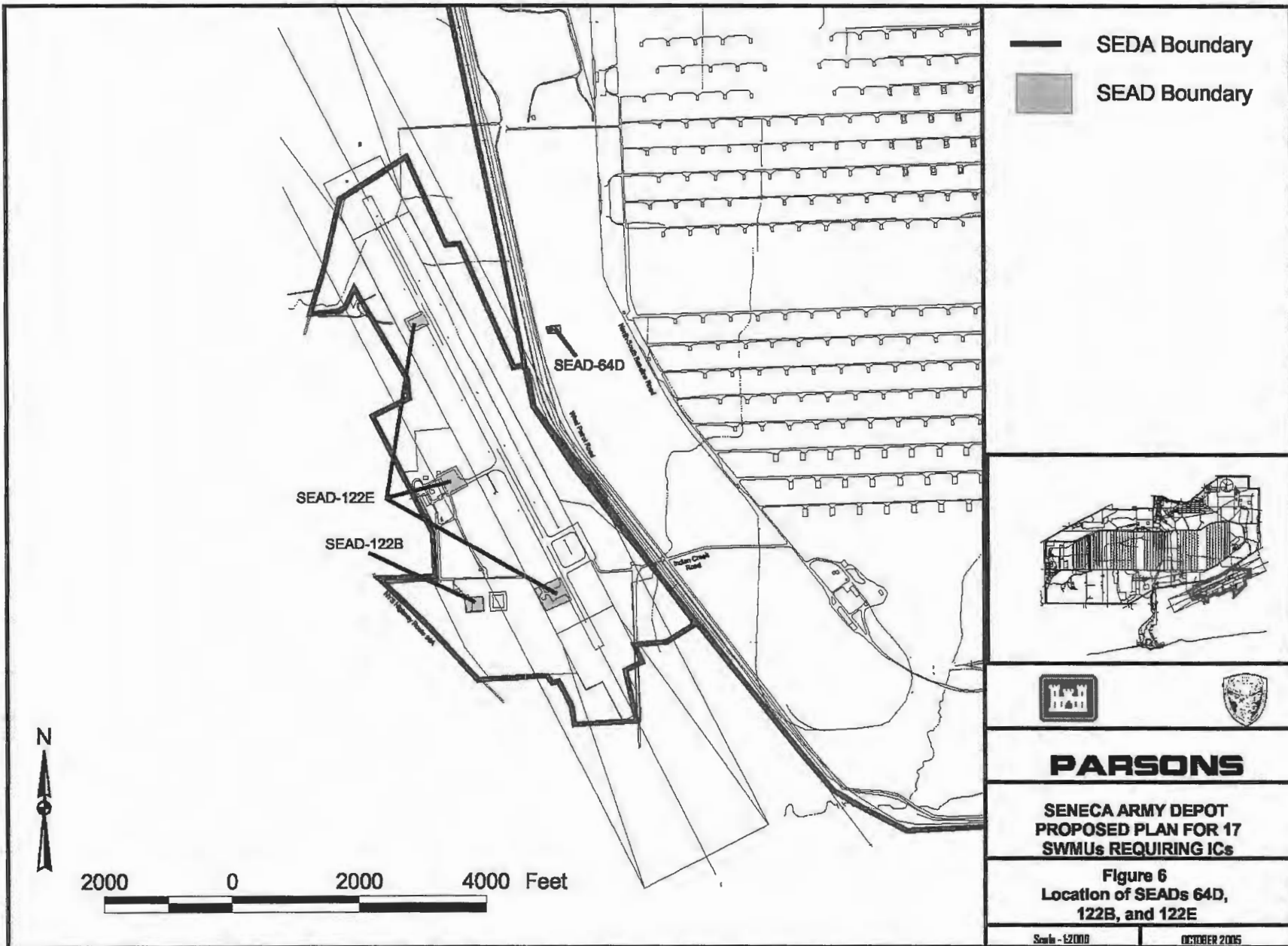
**SENECA ARMY DEPOT  
PROPOSED PLAN FOR 17  
SWMUs REQUIRING ICs**

**Figure 5  
Location of SEADs 43/56/69,  
44A, 44B, 52, 62, 64B, and 64C**

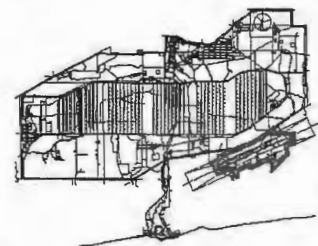
Scale - 1:1600      OCTOBER 2005



D:\SENECA\ONCTV\PRAP-ROD-IC-NEW\LANDUSE\_APR\Figure 6 - SEAD-64D, 122E



- SEDA Boundary
- SEAD Boundary



**PARSONS**

**SENECA ARMY DEPOT  
PROPOSED PLAN FOR 17  
SWMUs REQUIRING ICs**

**Figure 6  
Location of SEADs 64D,  
122B, and 122E**

Scale - 1:2000

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