United States Army Corps of Engineers
New England District

Final
Land Use Control Implementation Plan, Area of Contamination 69W

Former Fort Devens Army Installation
Devens, Massachusetts

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Prepared By:
SERES-Arcadis 8(a) Joint Venture 2, LLC
669 Marina Drive, Suite B-7
Charleston, SC 29492
Tel 843 216 8531

Prepared For:
United States Army Corps of Engineers,
New England District

Andy Vitolins, PG
Project Manager

Heather Levesque, PMP
Deputy Project Manager

Received By:

REDDY.PENELOPE.W.1502105066 Digitally signed by REDDY.PENELOPE.W.1502105066
Date: 2023.06.15 21:14:52 -04'00'

Penelope Reddy
USACE Project Manager

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Acronyms and Abbreviations

AOC	area of contamination
Army	U.S. Department of the Army
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPH	extractable petroleum hydrocarbon
ESMA	excavated soils management area
Fort Devens	Former Fort Devens Army Installation
ft	foot
HLA	Harding Lawson Associates, Inc.
IC	institutional control
LTM	long-term monitoring
LTMMP	Long-Term Monitoring and Maintenance Plan
LUC	land use control
LUCIP	Land Use Control Implementation Plan
MassDEP	Massachusetts Department of Environmental Protection
MassDevelopment	Massachusetts Development Finance Agency
NAUL	Notice of Activity and Use Limitation
PAH	polycyclic aromatic hydrocarbon
Property	Lease Parcel A.15
RAO	remedial action objective
ROD	Record of Decision
USACE	U.S. Army Corps of Engineers—New England District
USAEC	U.S. Army Environmental Command
USEPA	United States Environmental Protection Agency
VPH	volatile petroleum hydrocarbon

1 Introduction

This Land Use Control Implementation Plan (LUCIP) was developed to guide the implementation of stand-alone land use controls (LUCs) (also referred to as institutional controls [ICs]) for the Former Elementary School Spill Site, Area of Contamination (AOC) 69W at the former Fort Devens Army Installation (Fort Devens), located in Devens, Massachusetts (Figure 1). SERES-Arcadis 8(a) Joint Venture 2 (S-A JV), LLC prepared this LUCIP on behalf of the U.S. Army Corps of Engineers – New England District (USACE), under Contract Number W912WJ-19-D-0014. The United States Environmental Protection Agency (USEPA) and Massachusetts Department of Environmental Protection (MassDEP) are responsible for regulatory oversight of AOC 69W in accordance with the Federal Facility Agreement, signed pursuant to Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA; 42 United States Code §9601 et. seq.). The U.S. Department of the Army (Army) is responsible for carrying out remedy implementation in accordance with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulations [CFR] Part 300). This LUCIP was prepared in accordance with the Final Land Use Control Implementation Work Plan (S-A JV 2022). As noted in the Final LUCIP Work Plan (S-A JV 2022), the Army is preparing this site-specific LUCIP for AOC 69W based on the additional work determined by USEPA to be necessary to assess the short- and long-term protectiveness of the ongoing remedial action at the site evaluated in the Final Fifth 2020 FYR Report (KOMAN Government Solutions, LLC 2020). The Army did not believe preparation of stand-alone site-specific LUCIPs were necessary given that the land use control implementation for the Devens sites were documented in the Long-Term Monitoring and Maintenance Plan (LTMMP) (Sovereign and HGL 2015) and the LUC inspections have been reported annually. LUCs were incorporated in the Quitclaim Deed in Appendix B.

AOC 69W is located at the northeast corner of the intersection of Jackson Road and Antietam Street on the northern portion of what was formerly the Main Post at Fort Devens. AOC 69W consists of the former Fort Devens Elementary School (Building 215), the associated parking lot, and adjacent lawn extending approximately 300 feet (ft) northwest to Willow Brook (Figure 2). The building is currently leased to the Francis W. Parker Charter Essential School, which was opened in September 2000. Impacts at AOC 69W are attributed to two separate releases of No. 2 heating oil in 1972 and 1978 (Harding Lawson Associates, Inc. [HLA] 1998). It is estimated that approximately 7,000 to 8,000 gallons of No. 2 heating oil were released into soil from each event. A removal action was performed in 1998 that included the removal of approximately 3,500 cubic yards of petroleum-contaminated soil, installation of the oil recovery system (250-gallon underground vault and its associated piping), and a 10,000-gallon underground storage tank (Figure 2). LUCs were selected as a component of the remedy so that remaining contamination does not impact potential human and environmental receptors. Table 1 presents the organization of this LUCIP.

Table 1 LUCIP Organization

Section	Title	Purpose
Section 1	Introduction	Identifies the site name and location, name of the organization that prepared the document, the agency responsible for oversight, and the organizational structure of the document.
Section 2	Site Details	Summarizes the site characteristics, site history, property information, and stakeholder contacts.
Section 3	Key Elements for All Planned/Implemented Institutional Controls	Develops an IC relationship matrix and identifies each IC, the substantive use restriction(s) achieved by each IC, and the legal description of the restricted area(s).
Section 4	Institutional Control Maintenance Elements	Summarizes the assurance monitoring and reporting process of each IC and provides an implementation schedule.
Section 5	Institutional Control Enforcement Elements	Discusses enforcement-related information for addressing various events including improper or incomplete IC implementation or maintenance, and reports of an IC breach/violation.
Section 6	Institutional Control Modification and Termination Elements	Provides information on modifying or terminating an IC.
Figures		Figures 1 and 2 illustrate the site location, site features, residual contamination, IC boundaries, and engineering controls.
Appendices		Appendix A provides a list of references used in the development of the LUCIP. Appendix B provides the Parcel A.15 Quitclaim Deed (USAEC 2007) and enclosures, including the Finding of Suitability to Transfer (USAEC 2006) and Notice of Activity and Use Limitation (NAUL; forthcoming). Appendix C presents the Record of Decision (ROD) for AOC 69W. Appendix D presents a LUC checklist used for annual IC assurance monitoring. Appendix E presents the Responses to Regulatory Comments.

2 Site Details

This section describes the site characteristics, summarizes the site history, and provides property information and IC stakeholder contacts.

2.1 Site Description

AOC 69W is a part of Lease Parcel A.15 (Property) and is an approximate 11.0-acre plot located on the former Main Post located near the northeast comer of the intersection of Jackson Road and Antietam Street (Figure 2). The Property is partially developed with the former Fort Devens Elementary School (Building 215), a paved driveway entrance and associated parking lots, and a paved playground area. Portions of the Property are maintained as a grassed lawn extending approximately 200 feet west to Willow Brook (drainage area). Portions of the remainder of the Property adjacent to Willow Brook to the north are mapped wetlands and floodplains regulated under the Clean Water Act and the Massachusetts Wetlands Protection Act (Figure 2). The Property is bounded to the north by the Shriver Job Corp Center, to the east by athletic fields, to the south by residential housing, and to the west by Jackson Road. In accordance with the Devens Reuse Plan (Vanasse Hangen Brustlin, Inc. 1994), the Property is located within the zoning district designated as Gateway II: Verbeck. This zoning allows for a range of institutional and educational uses (U.S. Army Environmental Command [USAEC] 2006). The current school building is a single-story structure comprising approximately 22,000 square feet. The building was constructed in two phases beginning in 1951 and was expanded to its current configuration in 1972. There are no other buildings on the Property. School operations were suspended in 1993 as a result of the Base Realignment and Closure (BRAC) process. The building is currently occupied and operated as a charter school under the jurisdiction of the Massachusetts Department of Education under a lease agreement with the Massachusetts Development Finance Agency (MassDevelopment).

2.2 Site History

Fort Devens was established in 1917 as Camp Devens, a temporary training camp for soldiers from the New England area. In 1931, the camp became a permanent installation and was redesignated as Fort Devens. Throughout its history, Fort Devens has served as a training and induction center for military personnel and a unit mobilization and demobilization site. All or portions of this function occurred during World Wars I and II, the Korean and Vietnam conflicts, and operations Desert Shield and Desert Storm. The primary mission of Fort Devens is to command, train, and provide logistical support for non-divisional troop units and to support and execute BRAC activities.

The history of the Former Elementary School Spill Site, AOC 69W, from 1951 to 1998 can be found in the ROD, (HLA 1999, pages 2-4) presented in Appendix C.

A limited action ROD (40 CFR 300.420) was signed in 1999 (HLA 1999). The limited action ROD consisted of groundwater long-term monitoring (LTM), ICs to limit the potential exposure to contaminated soils and groundwater under both the existing and future site conditions, and five-year reviews to assess overall effectiveness of the remedy (HLA 1999). Table B-1 of the ROD lists the groundwater contaminants of concern and cleanup goals and the basis for each (Appendix C).

“Limited action” was the selected remedy for AOC 69W groundwater and subsurface soils based on the risk assessment results estimating cancer and non-cancer risks associated with the current and future exposure to

site maintenance worker, child trespasser, utility/construction worker, school occupants, and general public exposure (HLA 1998). The intent of the ROD (HLA 1999) was primarily to address soils and groundwater contaminated with fuel oil. To meet drinking water standards, the ROD (HLA 1999) specified two actions to be undertaken. First, long-term groundwater monitoring was to be applied to verify that elevated arsenic contamination will continue to decrease over time and not migrate downgradient and second, ICs were to be implemented to limit potential exposure to contaminated soil and groundwater under both and existing and future site conditions; ensure that exposure to remaining contaminated soils beneath and adjacent to the building are controlled; and extraction of groundwater from the site for industrial or potable uses would not be permitted. These actions were also qualified by the statement, “In addition, arsenic concentrations are expected to decrease following the soil removal which eliminated the source.” (HLA 1999). According to the ROD, the LTM program was implemented to monitor for any potential off-site migration of contaminants and to verify that elevated concentrations decrease over time (HLA 1999). Additional key components of the limited action remedy, as detailed in the ROD, included development of a long-term groundwater monitoring plan and conducting five-year reviews (HLA 1999). The long-term groundwater monitoring plan would be developed to monitor for any potential off-site migration of contaminants and to verify that elevated concentrations decrease over time. Five-year reviews would be conducted to review the data collected and to assess the effectiveness of the remedy.

The key component of the remedy selected by the ROD for AOC 69W is LUCs. These LUCs include preventing the use of this site groundwater for industrial or potable use. LUCs were incorporated into the deed for the property encompassing AOC 69W.

The former Fort Devens Elementary School was re-opened in September 2000 as the Francis W. Parker Charter Essential School and currently occupies the site. The former Fort Devens Elementary School is connected to the Devens municipal water supply. The excavated soils management area (ESMA) is monitored annually during sampling events for broken ground or excavations.

The final post-ROD Long Term Monitoring Plan for AOC 69W was issued in October 2000 (HLA 2000). Contaminants included in the LTM program were established in the USEPA-approved 2000 LTMMP and the contaminants included arsenic, iron, manganese, bis(2-ethylhexyl)phthalate, and volatile petroleum hydrocarbons (VPH). The first round of groundwater LTM was performed in the spring of 2000 with semiannual sampling performed through 2005. Annual sampling was initiated in 2006 and a revised LTMMP was prepared in 2015 (Sovereign and HGL 2015). VPH was removed from the monitoring program in 2014 after several rounds of non-detect results.

The Army finalized the Finding of Suitability to Transfer (USAEC 2006) for AOC 69W in November 2006, and the property was formally transferred from Army ownership to MassDevelopment in August 2007. The current property tenant, Francis W. Parker Charter Essential School, is abiding by the ICs imposed on the Property, and annual groundwater sampling continues as recommended in the LTMMP (Sovereign and HGL 2015).

2.3 Property Information and Institutional Control Stakeholder Contacts

The contact information for each IC stakeholder is provided below.

Massachusetts Development Finance Agency (Landowner): Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: President & CEO. With copies to the following:

- Massachusetts Development Finance Agency, 33 Andrews Parkway, Devens, MA 01434, Attn: EVP, Devens Operations
- Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: EVP, Real Estate
- Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: General Counsel

Massachusetts Department of Education: Massachusetts Department of Elementary and Secondary Education, 75 Pleasant Street, Malden, MA 02148.

Francis W. Parker Charter Essential School: Francis W. Parker Charter Essential School, 49 Antietam Street, Devens, MA 01434, Attn: Principal.

USEPA: United States Environmental Protection Agency, Region 1, 5 Post Office Square, Federal Facilities Superfund Section, Suite 100 (HBT), Mail Code OSRR07-3, Boston, MA 02019, Attn: Remedial Project Manager.

MassDEP: Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup, One Winter Street, Boston, MA 02108, Attn: Superfund Federal Facilities, Section Chief.

Army: NC3/Taylor Bldg/RM 1400, 2530 Crystal Drive, Arlington, VA 22202, Attn: BRAC Base Environmental Coordinator.

3 Key Elements for All Planned/Implemented Institutional Controls

LUCs in regard to real property are broadly interpreted to mean the following:

> *"any restriction or control, arising from the need to protect human health and the environment, that limits use of and/or exposure to any portion of that property, including water resources. This term encompasses 'institutional controls,' such as those involving real estate interests, governmental permitting, zoning, public advisories, deed notices, and other 'legal' restrictions. The term may also include restrictions on access, whether achieved by means of engineered barriers such as a fence or concrete pad, or by 'human' means, such as the presence of security guards. Additionally, the term may involve both affirmative measures to achieve the desired restriction (e.g., night lighting of an area) and prohibitive directives (e.g., no drilling of drinking water wells)."* (Johnston 1998)

The LUCs for a property will provide a blueprint for how the property is to be used to maintain the level of protection intended by the remedial alternative.

3.1 General Elements

A ROD (HLA 1999) was signed in June 1999 documenting "limited action" as the selected remedy for AOC 69W, consisting of long-term groundwater monitoring, ICs, and five-year reviews. The remedial action objectives (RAOs), as stipulated in the 1999 ROD included the following:

- Restore the aquifer to drinking water standards within a reasonable time frame;
- Monitor potential future migration of groundwater contamination;
- Eliminate risk from potential consumption of groundwater; and
- Reduce or eliminate the direct contact threat of contaminated soils.

In accordance with the ROD, the basis of the RAOs was potential health risks to individuals based on current and future use scenarios of the site (e.g., site maintenance worker, child trespasser, utility/construction worker, school occupants, and general public exposure) (HLA 1999).

The limited action alternative for AOC 69W included the following key components:

- ICs including deed and/or use restrictions would be established and enforced to restrict or prevent potential human exposure to site soil and groundwater contaminants left in place.
- A long-term groundwater monitoring plan would be developed to monitor for any potential off-site migration of contaminants and to verify that elevated concentrations decrease over time. As specified in the ROD, it was anticipated that arsenic and MassDEP extractable petroleum hydrocarbon (EPH)/VPH would be the monitored analytes.
- Five-year reviews would be performed to review the data collected and assess the effectiveness of the remedy.

3.2 Elements Specific to Instrument Category

As set forth in Enclosure 7 of the 2006 FOST (*Environmental Protection Provisions (EPP))* (Appendix B) (USAEC 2006), the 2007 Quitclaim Deed transferring ownership of the Property from Army to MassDevelopment, incorporated the following institutional controls and land-use restrictions to AOC 69W (see 2007 Quitclaim Deed, Article X, Appendix B):

- Educational, Institutional, and Open Space Use Restriction – Upon careful environmental study and site-specific risk assessment, it was determined that the Property is suitable for educational, institutional, and open space uses. Because other land uses including residential land uses were not evaluated in the site-specific risk assessment, they are not permitted (Figure 2).
- Groundwater Restriction – Due to the presence of residual petroleum hydrocarbons, manganese, and arsenic in groundwater at levels exceeding drinking water standards, groundwater (as defined in Section 101(12) of CERCLA) underlying the Property shall not be accessed or used for any purpose without the prior written approval of the Army, USEPA, and MassDEP). The groundwater use restriction is the parcel boundary and is shown on Figure 2.
- Soil Excavation Restriction – Due to the levels of residual petroleum hydrocarbon in soil under the Property within the "Soil Management Area" (as shown on the "Parcel A.15" map, Appendix B and Figure 2 in the LUCIP), excavation for any purpose is prohibited pending preparation of Soil Management and Health and Safety Plans by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals and prior approval of the Army, USEPA, and MassDEP. The Soil Management Area, as shown on Figure 2 and Appendix B, is approximately 100 by 88 feet at and under the northwest corner of the school building (Figure 2).

3.2.1 Land-Use Control Inspection

Existing land use and site conditions will be assessed during annual LUC inspections with the representatives and on site during LTM events to confirm that the LUC requirements are being met. If future proposed land uses are inconsistent with the LUCs, then site exposure scenarios to human health and the environment will be re-evaluated to confirm the selected response actions are appropriate.

3.2.2 Interviews

Telephone interviews will be conducted with the property manager or other designee familiar with the day-to-day activities at AOC 69W. During the interviews, the representative from each site will be asked about compliance with the existing LUCs. Specifically, the following items will be discussed during the interviews.

- The representative's familiarity with the LUCs imposed upon the Property and documentation of compliance with these controls;
- Change to Property use;
- Approved conditional exemptions, amendments, and/or releases;
- Unauthorized use and activities;
- Review of corrective action to resolve unauthorized uses and activities;
- Overall effectiveness of the LUCs;

- Excavations (planned or emergency) that may have extended to soils below 2 ft in depth north of the school within the ESMA delineated on Figure 2;
- The source of public drinking water for the Property; and
- Proposed plans for Property sale, future redevelopment, and construction or demolition activities on the Property.

Site-specific annual LUC checklists, including interview components, were developed in 2007 for use during LUC verification activities. The LUC checklist for AOC 69W is presented in Appendix D.

3.2.3 Physical On-Site Inspection

Field personnel will perform a physical inspection of AOC 69W during LTM events to confirm compliance with the LUCs. The physical inspection will include the area surrounding groundwater monitoring well locations and the path or route to them. The physical inspection of AOC 69W will include the following items.

- An examination for evidence that groundwater extraction wells have been installed on the premises;
- An examination for evidence that no harmful exposures to the public are evident regarding soil or groundwater;
- An examination for penetrations through the pavement within the ESMA;
- An examination for repaved cut marks in the pavement within the ESMA that have not otherwise been identified and properly documented by the property owner;
- Any evidence of site use changes.

The annual LUC checklist, including physical on-site inspection components, is presented in Appendix D.

3.3 Institutional Control Relationship Matrix

Table 2 below provides a summary of LUCs, ICs, and other post-ROD restrictions for AOC 69W.

Table 2 Summary of Land Use Controls, Institutional Controls, and Other Post-ROD Restrictions

Affected Parcel	Media Affected	LUC/IC Goals/Objectives	Restriction	Use Restriction / IC Objective	IC Instruments (Planned or Implemented)	Site Controls	Other
Parcel A.15/AOC 69W	Groundwater	Prohibit contact with groundwater	No extraction of groundwater	The Grantee, its successors and assigns, shall not access or use groundwater underlying the Property for any purpose without the prior written approval of the Grantor, USEPA, and MassDEP. Property used solely for educational, institutional, and open space use.	Environmental Protection Provisions documented in Quitclaim Deed recorded with the Suffolk County Register of Deeds on August 29, 2007 (USAEC 2007)	Annual LUC inspections	Notifications
		Prevent human exposure to groundwater	No extraction of groundwater	Restore aquifer to drinking water standards within a reasonable time frame, monitor potential migration of groundwater contamination, eliminate risk from potential consumption of groundwater. Deed or use/restriction that prevent potential human exposure to contaminants left in place. Long-term groundwater monitoring plan to confirm no off-site migration and/or reduction of concentrations of contaminants over time. Five-year reviews to assess effectiveness of the remedy.	ROD (HLA 1999)	Annual LUC inspections	Five-year reviews
Parcel A.15/AOC 69W	Soil	Prohibit dermal contact of soil	No contact with contaminated soil	The soil under the Property within the Soil Management Area (shown on Figure 2), contains residual petroleum hydrocarbons at levels which require implementation of soil management and health and safety plans prepared by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals, prior to initiating excavations. The Grantee, its successors and assigns, shall not excavate soil from areas of the Property identified in the Soil Management Area for any purpose without the prior written approval of the Grantor, USEPA, and MassDEP. Property used solely for educational, institutional, and open space use.	Environmental Protection Provisions documented in Quitclaim Deed recorded with the Suffolk County Register of Deeds on August 29, 2007 (USAEC 2007)	Annual LUC inspections	Notifications
		Reduce or eliminate direct contact threat with contaminated soil	No contact with contaminated soil	Deed or use/restriction that prevent potential human exposure to contaminants left in place. Five-year reviews to assess effectiveness of the remedy.	ROD (HLA 1999)	Annual LUC inspections	Five-year reviews

4 Institutional Control Maintenance Elements

The Army is responsible for implementing, maintaining, reporting, and enforcing the LUCs. Although the Army may delegate some or all of these duties required under this LUCIP to another entity (such as MassDevelopment or other future property owner) or through a third party by contract or through other means, it retains ultimate responsibility for ensuring the effectiveness and integrity of the AOC 69W remedy, as determined by the ROD and Quitclaim Deed, through the proper management of soils and groundwater and implementation, maintenance, reporting, and enforcement of LUCs. Should another entity or third party cease to perform these duties, the Army shall implement the LUCs or propose modifications to this LUCIP that provide an equivalent level of protection, as determined by USEPA and MassDEP, in consultation with MassDevelopment or its successor municipal authority.

Upon approval of this LUCIP by USEPA and MassDEP, the Army will undertake the implementation actions identified in Table 3 to ensure compliance with requirements set forth in the 1999 ROD, 2007 Quitclaim Deed, and set forth herein, and ensure that LUC objectives are met and maintained.

The Army shall ensure that a NAUL is recorded on the title to the property and a copy of the NAUL, prepared, recorded and inserted on the deed is included in Appendix B after recording in the Suffolk County Registry of Deeds is complete. The Army, in consultation with USEPA and MassDEP, will work with MassDevelopment to ensure that the NAUL includes all ROD-required LUCs and Quitclaim Deed restrictions. Copies of subsequently executed NAULs should be inserted into Appendix B as they are recorded/executed.

4.1 Institutional Control Assurance Monitoring

The following monitoring and maintenance activities will occur annually to confirm the performance objectives of the LUCs are met:

- IC activities are the following:
  - Actively monitor the area of LUCs in accordance with the LUC checklist in Appendix D. Any required changes to the area of LUCs would be implemented through a LUCIP amendment; and
  - Monitor and report on the implementation and enforcement of ICs to USEPA, MassDEP, and MassDevelopment, including intrusive activity within the area.
- Affirmative measures include the following:
  - Distribution of the LUCIP to appropriate parties; and
  - Meeting amongst the stakeholders if there is a change in the area due to intrusive activities.

The following monitoring and maintenance activities will occur every five years:

- IC activities include conducting a five-year review in accordance with CERCLA, Section 121(c), so that human health and the environment are being protected by the remedy and to document maintenance of the LUCs.
- Affirmative measures include distribution of the five-year review to appropriate parties.

4.2 Reporting

This section describes the reporting that will be completed to document IC activities and alternative measures.

4.2.1 Annual Reviews/Inspections

Annual reviews, physical inspections, and interviews with Army, MassDevelopment, and current/future sublessees or future property owners shall be conducted to verify continued, effective implementation, enforcement, and compliance with the LUCs required per the ROD and this LUCIP. The Army shall complete the annual LUC inspection checklist, included in Appendix D, to annually evaluate/verify compliance with the foregoing. The Army (or its designee) will provide results of the annual LUC inspection in an annual LUC inspection/compliance report for submittal to USEPA, MassDEP, and MassDevelopment. At a minimum, the annual report will include the completed annual LUC inspection checklist (Appendix D) and a narrative summary of work performed, discuss observations during physical site inspections, identify deviations from the LUCIP and whether they were caused by an implementation issue, a change in site conditions or land use, or some other issue. The report should also recommend corrective actions necessary or already undertaken to correct the infraction(s). If any deficiency(ies) are found during the annual inspection, a written explanation will be prepared indicating the deficiency and what efforts or measures have or will be undertaken to correct the deficiency, and a schedule to correct the same. The correction and enforcement of such deficiencies shall follow the requirements under Section 6, Institutional Control Modification and Termination Elements. If there is to be a delegation of performance of duties by the Army as permitted by Section 4 above, the Army, having ultimate responsibility for the remedy's integrity, will promptly notify USEPA, MassDEP, and MassDevelopment of such delegation.

The Army shall provide copies of the Final Annual LUC Inspection/Compliance Report to USEPA, MassDEP, and MassDevelopment.

4.2.2 Five-Year Reviews

As part of the comprehensive five-year review process conducted at Devens under Section 121 of CERCLA, as amended by Superfund Amendments and Reauthorization Act of 1986, a review/inspection of the continued short- and long-term effectiveness of the LUCs will be conducted by the Army, with the cooperation of MassDevelopment and any current and future property lessees and/or owners. Public meetings will be held by the Army coincident with these five-year reviews to help keep the public informed of site status, including its general condition and effectiveness of the remedial action.

4.2.3 Institutional Controls

An annual LUC compliance review, using the LUC checklist presented in Appendix D, will be documented in an annual report and will be provided by the Army to USEPA, MassDEP, and MassDevelopment. The annual report will include a summary of the items reviewed from the checklist, identification of deviations from this LUCIP, necessary corrective actions due to implementation issues or as a result of changes in site conditions or land use, and proposed changes to this LUCIP and reporting frequency. If deficiencies, including violations of the LUCs, are found during the annual review, a written explanation will be prepared indicating the deficiency and what efforts or measures have been or will be undertaken to correct the deficiency. The correction and enforcement of such deficiencies will meet the requirements in Section 5. If the Army intends to delegate performance of duties, the Army will promptly notify USEPA, MassDEP, and MassDevelopment.

4.2.4 Affirmative Measures

The annual review will include items identified on the attached LUC checklist in Appendix D. This checklist will be followed as a guideline to review required tasks and updates that may be necessary because of changing circumstances throughout that year. The annual report will also address whether the use restrictions and controls referenced in this LUCIP were communicated appropriately via pubic outreach and education, whether the owners and state and local agencies were notified of the restrictions and controls affecting AOC 69W, and whether use of the area has conformed to such restrictions and controls.

4.3 Implementation Schedule

The Army will implement all actions by the timeframes indicated in the table below.

Table 3 Milestone Activity Schedule

Milestone Activity	Completion Date
Post the Final LUCIP to the Fort Devens website at https://www.nae.usace.army.mil/Missions/Projects-Topics/Former-Fort-Devens-Environmental-Cleanup/	Within 30 days of USEPA and MassDEP concurrence of the LUCIP
Annual LUC inspection	Occurs annually as part of the inspections of the former Main Post sites
MassDevelopment will prepare and record a NAUL approved by the Army, USEPA, MassDEP on the title held by MassDevelopment	Within 60 days of USEPA and MassDEP approval of the LUCIP
Insert copy of the executed NAUL, upon recording at the Registry of Deeds, in Appendix B	Within 30 days of recording NAUL

5 Institutional Control Enforcement Elements

If the Army determines that the LUCs are not being complied with, its actions may range from informal resolutions with the owner or violator, to the institution of judicial action. Any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the LUCs will be addressed by the Army as soon as practicable, but in no case will the process be initiated later than 10 days after the Army becomes aware of the breach. The Army will notify USEPA and MassDEP as soon as practicable but no longer than 10 days after discovery of any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the ICs. The Army will notify USEPA and MassDEP regarding how the Army has addressed or will address the breach within 10 days of sending USEPA and MassDEP notification of the breach. Should the Army become aware that a user of AOC 69W has violated any LUC requirement where a local agency may have independent jurisdiction (local regulations and permits), the Army will also notify the agencies and MassDevelopment of such violations and work cooperatively with them to re-establish owner/user compliance with the LUC. Without limiting the authority of the USEPA and MassDEP

under applicable law, MassDEP shall have the authority to enforce the NAUL against the then current owner of the property(ies).

6 Institutional Control Modification and Termination Elements

If the Army can demonstrate based on currently available or newly acquired data, that site access restriction can be relaxed or removed while protection of human health is maintained, the Army may petition USEPA for such a relaxation or removal of restrictions (HLA 1999). Until such time, the LUCs reflected in this LUCIP are expected to remain in place. If LUCs are no longer needed, the owners, if other than the Army or MassDevelopment, of the area of LUCs will be notified and LUCs will be discontinued.

6.1 Modification

The Army shall not modify or terminate LUCs, implementation actions, or modify restrictions regarding land use without approval by USEPA and the MassDEP and the concurrence of MassDevelopment; provided that Army determines, in its sole discretion, that the requirement for such concurrence shall not place the Army in violation of its legal obligations to the USEPA. The Army shall seek prior concurrence before any anticipated action that may disrupt the effectiveness of the LUCs or any action that may alter or negate the need for LUCs. This LUCIP may be amended only in accordance with Section VII of the Federal Facility Agreement. Except as provided by Section 6.3 of this LUCIP, no changes shall be made without the prior approval of USEPA and MassDEP, and the concurrence of MassDevelopment; provided that Army determines, in its sole discretion, that the requirement for such concurrence shall not place the Army in violation of its legal obligations to the USEPA. In the latter case, Army shall take reasonable steps to consult with MassDevelopment to minimize the impacts of the changes to these parties.

6.2 Termination

The LUCs will be maintained until the Army can demonstrate to USEPA, based on currently available or newly acquired data, that site access restriction can be relaxed or removed while protection of human health is maintained (HLA 1999). If LUCs are no longer needed, as determined in an Explanation of Significant Difference or ROD Amendment, the Army will coordinate with the owner of the affected property(ies) and MassDEP to record releases of the relevant LUCs following applicable federal, state and local regulations and will also advise MassDevelopment of that action. At that time, the specific LUCs that are no longer needed, and the associated responsibilities will be discontinued.

6.3 Approvals

Changes to the LUCIP can only be approved through the process set forth in Section 5 of this LUCIP. Where the approval of a party (hereafter, the "approval party") is required under this LUCIP for non-substantive changes that may be made without amendment of this LUCIP as provided herein, the Army (or its designee) shall give the approval party notice thereof, along with any information to be included in such notice pursuant to the terms of this LUCIP. If the approval party fails to respond to the request for approval within 30 days after said request is

made, the Army (or its designee) will send the approval party a second request. If the approval party fails to respond to such second request within 10 days after said second request is made, the approval party will be deemed to have approved such request.

6.4 Notices

All notices, responses, requests, and approvals required or permitted under this LUCIP, between or among MassDevelopment (or its successor entity[ies]), USEPA, MassDEP and/or the Army, shall be sent by postage pre-paid certified or registered mail (return receipt requested) or by recognized overnight courier (such as DHL, Federal Express, UPS), with delivery charges prepaid, to the following respective addresses identified below unless all parties consent to the use of electronic mail:

Massachusetts Development Finance Agency: Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: President & CEO. With copies to the following:

- Massachusetts Development Finance Agency, 33 Andrews Parkway, Devens, MA 01434, Attn: EVP, Devens Operations
- Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: EVP, Real Estate
- Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: General Counsel

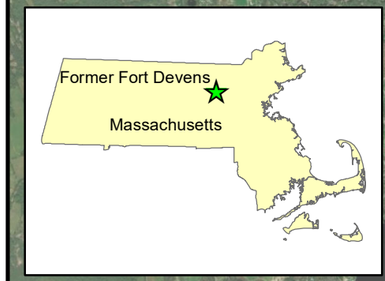
USEPA: United States Environmental Protection Agency, Region 1, 5 Post Office Square, Federal Facilities Superfund Section, Suite 100 (HBT), Mail Code OSRR07-3, Boston, MA 02019, Attn: Remedial Project Manager.

MassDEP: Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup, One Winter Street, Boston, MA 02108, Attn: Superfund Federal Facilities, Section Chief.

Army: NC3/Taylor Bldg/RM 1400, 2530 Crystal Drive, Arlington, VA 22202, Attn: BRAC Base Environmental Coordinator.

A party may change its address for notice by notice to the other parties in accordance with this section. Notices shall be deemed given when delivered (or, if delivery is refused, when so refused).

Figures



N

Former North Post

Downtown Ayer

AOC 69W

Shirley

Former Main Post

Middlesex County

Worcester County

George W Stanton Hwy

Lancaster

Harvard

Former Fort Devens Army Installation and Fort Devens Reserve Forces Training Area (South Post)

Aerial Source: ESRI, ArcGIS Online, Aerial Imagery

Legend

- Former Fort Devens Boundary
- Area of Contamination (AOC)
- County Line
- Highway
- Major Road

0 1 2
Miles

Land Use Control Implementation Plan
AOC 69W, Former Elementary School Spill Site
Former Fort Devens Army Installation
Devens, Massachusetts

Site Location

SERES Engineering & Services, LLC
ARCADIS a joint venture

Figure 1

T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AOC 69W\2023\APR23\Figure 1 - Site Location.mxd 4/12/2023 2:54:32 PM User Name: skl01076

Willow Brook piezometer
located 1/4 mile to the north
along the west bank of Willow Brook

69WP-13-01

Groundwater Restriction
Boundary

69WP-08-01

ZWM-95-18X

ZWP-95-02X

ZWM-01-25X

250-gallon underground vault

ZWM-95-15X

ZWM-01-26X

ZWM-99-23X

69W-94-14

ZWM-99-24X

ZWP-95-01X

69W-94-13

69W-94-12

ZWM-99-22X

Former 10,000 gallon UST

ZWM-95-16X

New Boiler Room

Old Boiler Room

Francis W. Parker Charter
Essential School

Building 215

ZWM-95-17X

Jackson Road

Willow Brook

Antietam Street

236

246

256

226

N

Aerial Source:
Google Earth, 2019

Legend

- Parcel A.15 Boundary
- Groundwater Restriction and Educational, Institutional, and Open Space Use Restriction
- LTM Sample Well
- LTM Sample Well Point
- LTM Well - Gauge Only
- LTM Piezometer
- Surface Water Course
- Wetland Boundary
- Excavated Soils Management Area (ESMA) (Soil Excavation Restriction)
- Soil Excavation Limits (1997-1998)
- Topographic Contour (ft AMSL)
- MassDEP Zone II Wellhead Protection Area

Note:
Boundaries and site features shown on the figure are approximate.
Historical site features digitized from historical site plan "Figure ES-1, RI Sampling Locations, AOC 69W" (Harding Lawson Associates, Inc. 1998)

AOC = area of contamination
ft AMSL = feet above mean sea level
LTM = long-term monitoring
MassDEP = Massachusetts Department of Environmental Protection
UST = underground storage tank

0 200 400
Feet

Land Use Control Implementation Plan
AOC 69W, Former Elementary School Spill Site
Former Fort Devens Army Installation
Devens, Massachusetts

Site Layout and Restrictions

SERES Engineering & Services, LLC
ARCADIS a joint venture

Figure
2

Path: T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AOC 69W\2023\APR23\Figure 2 - Site Layout and Restrictions AOC69W.mxd

File: Figure 2 - Site Layout and Restrictions AOC69W.mxd

Appendix A

LUCIP References

References

Harding Lawson Associates, Inc. (HLA). 1998. Final Remedial Investigation Report Area of Contamination (AOC) 69W Devens, Massachusetts. August.

HLA. 1999. Record of Decision, Area of Contamination 69W, Devens, Massachusetts. June.

HLA. 2000. Final Long Term Monitoring Plan, Area of Contamination (AOC) 69W, Devens, Massachusetts, June.

Johnston, Jon D. Chief, Federal Facilities Branch of Region 4 USEPA. 1998. Memorandum - Land Use Control Policy. Subject: Assuring Land Use Controls at Federal Facilities. April 13. www.epa.gov/region4/waste/fedfac/landusec.htm

KOMAN Government Solutions, LLC. 2020. Final Fifth 2020 Five-Year Review Report. Former Fort Devens Army Installation, Devens, Massachusetts. September.

SERES-Arcadis 8(a) Joint Venture 2, LLC (S-A JV). 2022. Final Land Use Control Implementation Work Plan. Former Fort Devens Army Installation, Devens, Massachusetts. February.

Sovereign and HGL. 2015. Long-Term Monitoring and Maintenance Plan for Former Fort Devens Army Installation and Sudbury Annex. February.

U.S. Army Environmental Command (USAEC). 2006. Finding of Suitability to Transfer, Former Fort Devens Elementary School Area of Contamination 69W, Lease Parcel A. 15, Fort Devens, Massachusetts. November.

USAEC. 2007. Quitclaim Deed for Parcel A. 15, Recorded with the Suffolk County Register of Deeds on August 29, 2007.

Vanasse Hangen Brustlin, Inc. 1994. Devens Reuse Plan Prepared for the Towns of Ayer, Harvard, Lancaster, and Shirley Boards of Selectmen. November 14.

Appendix B

Enclosures

58
K58

2007 00162358
Bk: 50024 Pg: 65 Doc: DEED
Page: 1 of 58 08/29/2007 03:27 PM

Quitclaim Deed

Parcel A.15

WHEREAS, pursuant to the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510, as amended, and codified at 10 U.S.C. 2687, note) ("BRAC"), the United States of America, acting by and through the Department of the Army (referred to hereinafter as the "Army" or "Grantor"), closed the military installation located at Fort Devens Massachusetts ("Fort Devens"), and has made a final disposal decision with respect thereto; and

WHEREAS, pursuant to Chapter 498 of the Massachusetts Acts of 1993 as amended, the Massachusetts Development Finance Agency (referred to hereinafter as the "Grantee"), successor in interest to the Government Land Bank under Chapter 289 of the Acts of 1998, notice of which was recorded on October 7, 1998, with the Middlesex County, Southern District, Registry of Deeds (the "Registry") in Book 29188, Page 568, was granted the exclusive authority to oversee and implement the civilian reuse of Fort Devens in accordance with a locally approved reuse plan and bylaws and designated as the Local Redevelopment Authority under BRAC; and

WHEREAS, pursuant to a Memorandum of Agreement ("MOA") entered into between the Grantor and the Grantee on May 9, 1996, as amended from time to time, the Grantor transferred certain portions of Fort Devens to the Grantee by quitclaim deed dated May 9, 1996, recorded with the Registry in Book 26317, Page 003, and leased certain other portions of Fort Devens (the "Leased Parcels ") to the Grantee through a Lease in Furtherance of Conveyance ("Lease"), a Notice of Lease dated May 9, 1996 (the "Notice of Lease"), recorded with the Registry in Book 26340, Page 168, pending the completion of certain environmental clean-up activities on the Leased Parcels by the Grantor; and

WHEREAS, the terms of the MOA provide, among other things, that upon the completion of the environmental clean-up of any of the Leased Parcels pursuant to: applicable law, the approval of a Finding of Suitability to Transfer by the Grantor, the United States Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("DEP"); and, in accordance with the Department of Defense policy guidance, the Grantor will convey said Leased Parcels to the Grantee for consideration of less than one hundred dollars ($100.00); and

WHEREAS, the Finding of Suitability to Transfer, Former Fort Devens Elementary School, Area of Contamination 69W, Lease Parcel A.15, Fort Devens, Massachusetts, dated November 2006, hereinafter the "FOST", attached hereto as Exhibit B and made a part hereof, said parcel being identified on a plan entitled "Plan of Land Conveyed to the Government Land Bank by the Secretary of the Army, Ayer, Harvard and Shirley MA" (the "Leased Parcel Plan"), dated May 9, 1996, and recorded with the Registry as Plan 500 of 1996, was approved by the Grantor in accordance with the applicable Department of Defense policy guidelines, the EPA and DEP; and

FRIEDMAN & STEIN, P.C.
25 Braintree Hill Office Park
Suite 204
Braintree, MA 02184

WHEREAS, the Grantee has requested and the Grantor has agreed to convey Lease Parcel A.15 to the Grantee;

KNOW ALL MEN BY THESE PRESENTS: that the UNITED STATES OF AMERICA, acting by and through the ACTING DEPUTY ASSISTANT SECRETARY OF THE ARMY (Installations and Housing) (the "Grantor"), pursuant to a delegation of authority from the Secretary of the Army, under and pursuant to the Defense Base Closure and Realignment Act of 1990, Public Law 101-510, as amended, codified at 10 U.S.C. § 2687 note ("BRAC") and the Federal Property and Administrative Service Act of 1949, as amended, for the utilization and disposal of excess and surplus property at closed and realigned military installations, for consideration paid of less than $100.00 the receipt and sufficiency of which is hereby acknowledged, does hereby grant, remise, release, and forever quitclaim unto the Massachusetts Development Finance Agency, its successors and assigns, (the "Grantee"), a Massachusetts body politic and corporate created by Chapter 23G of the Massachusetts General Laws and successor in interest to the Government Land Bank, having a principal place of business located at 160 Federal Street, 7th Floor, Boston, Massachusetts 02110, and designated as the Local Redevelopment Authority under BRAC, all its right, title, and interest in and to Leased Parcel A.15, consisting of 11.0± acres of land located within the zoning district designated as Gateway II, Verbeck, Devens Regional Enterprise Zone, Town of Ayer, Middlesex County, Commonwealth of Massachusetts (the "Property"), and shown on the Leased Parcel Plan, and more particularly described in Exhibit A, attached hereto and made a part hereof, and in the Notice of Lease. The Grantor and the Grantee hereby release any and all rights in the Property under said Notice of Lease, and under the Lease referenced therein, it being agreed that the Lease shall remain in full force and effect with regard to the other Leased Parcels not being conveyed hereunder.

The Property includes:

1. all buildings, facilities, utility systems, utilities, utility lines and poles, conduits, infrastructure, roadways, railroads, bridges, and improvements thereon and appurtenances thereto, if any;

2. all easements, reservations, and other rights appurtenant thereto;

3. all hereditaments and tenements therein and reversions, remainders, issues, profits, and other rights belonging or related thereto; and

4. all mineral rights.

The legal description of the Property, attached hereto as Exhibit A, has been prepared by the Grantee and the Grantee shall be responsible for the accuracy of the

description of the Property conveyed herein and shall indemnify and hold the Grantor harmless from any and all liability resulting from any inaccuracy in the description.

I. CERCLA COVENANTS AND NOTICE

Pursuant to Section 120(h)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 et seq. ("CERCLA"):

A. The Grantee is hereby notified that the Grantor has identified the Property as real property on which no hazardous substances were released or disposed of, but on which petroleum products and their derivatives are known to have been released or disposed of. Available information regarding the type, quantity, and location of such petroleum products and their derivatives and actions taken with regard to the Property is set forth in the FOST.

B. The Grantor hereby covenants that:

1. all response action necessary to protect human health and the environment with respect to any petroleum product remaining on the Property has been taken prior to the date of this conveyance hereunder, and

2. any additional response action found to be necessary under applicable laws and regulations after the date of this conveyance with respect to the discovery hazardous substances and/or petroleum products or their derivatives that were released or disposed of prior to conveyance of the Property shall be conducted by the United States. This covenant shall not apply in any case in which the person or entity to which the Property is transferred is held to be a potentially responsible party under CERCLA with respect to the release or disposal of any hazardous substances and/or petroleum products or their derivatives on the Property.

II. Access Rights Reserved under CERCLA

The Grantor hereby reserves, and the Grantee takes the Property subject to, a right of access on, over and through the Property as necessary to conduct any necessary investigation, response action, corrective action, or other activity necessary for the Grantor to fulfill its environmental responsibilities under this Deed or applicable law or regulation. In exercising the rights hereunder, the Grantor shall give the Grantee or its successors or assigns reasonable notice of actions to be taken on the Property pursuant to this reserved easement and shall, to the extent reasonable, consistent with the Federal Facilities Agreement ("FFA") defined hereunder and applicable law and regulation, and at no additional cost to the United States, endeavor to minimize the disruption to the Grantee's, its successors', or assigns' use of the Property.

III. FEDERAL FACILITIES AGREEMENT

By accepting this Deed, the Grantee acknowledges that the Grantor has provided the Grantee with a copy of the Federal Facilities Agreement (the "FFA") entered into between the Grantor and the EPA dated May 11, 1991, and the modification thereto, dated March 26, 1996. The Grantor shall provide the Grantee with a copy of any future amendments to the FFA.

A. The Grantor, EPA, the Commonwealth of Massachusetts acting by and through the DEP, and their respective agents, employees, and contractors, shall have such access to, over and through the Property as may be necessary for any investigation, response, or corrective action pursuant to CERCLA or the FFA found to be necessary before or after the date of this Deed on the Property or on other property comprising the Fort Devens National Priorities List (the "NPL") site. This reservation includes the right of access to, and use of, to the extent permitted by law, any available utilities at reasonable cost to the Grantor, EPA and DEP.

B. In exercising the rights hereunder, the Grantor, the DEP and the EPA shall give the Grantee or its successors or assigns reasonable notice of actions taken on the Property under the FFA and shall, to the extent reasonable, consistent with the FFA, and at no additional cost to the Grantor, the DEP and the EPA, endeavor to minimize the disruption to the Grantee's, its successors' or assigns' use of the Property.

C. The Grantee agrees that notwithstanding any other provision of this Deed, the Grantor assumes no liability to the Grantee, its successors or assigns, or any other person, should implementation of the FFA interfere with the use of the Property. The Grantee and its successors and assigns shall have no claim on account of any such interference against the Grantor, the DEP, the EPA or any officer, agent, employee, or contractor thereof.

D. Prior to the determination by the Grantor, EPA and DEP that all remedial action is complete under CERCLA and the FFA on the Property, the Grantee, its successors and assigns, shall not undertake activities on the Property that would interfere with or impede the completion of the CERCLA clean-up on the Property and shall give prior written notice to the Grantor, the EPA, and the DEP, acting by and through the DEP, of any construction, alterations, or similar work on the Property that may interfere with or impede said clean-up.

E. The Grantee, its successors and assigns shall comply with any institutional controls established or put in place by the Grantor, EPA or DEP relating to the Property which are required by the FOST or the Record of Decision ("ROD"), dated June 30, 1999, or amendments thereto related to the Property. Additionally, the Grantee shall ensure that any leasehold it grants in the Property or any fee interest conveyance of any portion of the

Property provides for legally-binding compliance with the institutional controls required by the FOST or ROD.

F. For any portion of the Property subject to a response action under CERCLA or the FFA, prior to the conveyance of an interest therein, the Grantee shall include in all conveyances provisions for allowing the continued operation of any monitoring wells, treatment facilities, or other response activities undertaken pursuant to CERCLA or the FFA on said portion of the Property and shall notify the Grantor, EPA, and the DEP by certified mail, at least thirty (30) days prior to any such conveyance of an interest in said Property, which notice shall include a description of said provisions allowing for the continued operation of any monitoring wells, treatment facilities, or other response activities undertaken pursuant to CERCLA or the FFA.

G. Prior to the determination by the Grantor and EPA that all remedial action under CERCLA and the FFA is complete for the Fort Devens NPL site, the Grantee and all subsequent transferees of an interest in any portion of the Property will provide copies of the instrument evidencing such transaction to the DEP, the EPA, and the Grantor by certified mail, within fourteen (14) days after the effective date of such transaction.

H. The Grantee and all subsequent transferees shall include the provisions of this Section III in all subsequent leases, transfer, or conveyance documents relating to the Property or any portion thereof that are entered into prior to a determination by the Grantor that all remedial action is complete at the Fort Devens NPL site. In addition, should any conflict arise between the FFA and any amendment thereto and the deed provisions, the FFA provisions will take precedence. The Grantor assumes no liability to the Grantee, its successors and assigns, should implementation of the FFA interfere with their use of the Property.

IV. FINAL BASE-WIDE ENVIRONMENTAL BASELINE SURVEY AND FOST

The Grantee has received the technical environmental reports, including the Final Base-Wide Environmental Baseline Survey prepared by Arthur D. Little, Inc. dated March 1996 and revised in April 1996 (the "Base-Wide EBS"); Final Remediation Investigation Report for AOC 69W, August 1998; Final Record of Decision, AOC 69W, June 30, 1999; Long Term Monitoring Plan for AOC 69W, March 2000; OPS Demonstration for AOC 69W, November 2005 and Long Term Monitoring Annual Reports 2000-2004 and the FOST,prepared by, or on behalf of, the Grantor, the Grantee, and others, and Grantor agrees, to the best of the Grantor's knowledge, that said FOST accurately describes the environmental conditions of the Property. The Grantee has inspected the Property and accepts the physical condition and current level of known hazardous substances, including petroleum products, on the Property as disclosed in the FOST and/or the Base-Wide EBS and deems the Property to be safe for the Grantee's intended use as a school. If, after conveyance of the Property to the Grantee, there is an actual or threatened release of a

hazardous substance (as defined under Section 101 of CERCLA) on, under, or from the Property, or in the event that a hazardous substance or petroleum product is discovered on or under the Property after the date of the conveyance hereof, whether or not such hazardous substance or petroleum product was set forth in the technical environmental reports, including the FOST or the Base-Wide EBS, Grantee or its successors or assigns shall be responsible for such release or newly discovered hazardous substance or petroleum product unless the Grantee is able to demonstrate that such release or such newly discovered hazardous substance or petroleum product was due to Grantor's prior activities, ownership, use, or occupation of the Property, or the activities of the Grantor's contractors, employees, and/or agents. The Grantee, its successors and assigns, and as consideration for the conveyance, agree to release the Grantor from any liability or responsibility for any claims arising out of or in any way predicated on the release of any hazardous substance or petroleum product on the Property occurring after the conveyance, where such hazardous substances or petroleum product were placed on the Property by the Grantee, or its agents, employees, invitees, or contractors, after the conveyance.

V. "AS IS"

The Property is conveyed under this Deed in an "as is, where is" condition, without any representation or warranty whatsoever by the Grantor concerning the state of repair or condition of said Property, unless otherwise noted herein.

VI. NOTICE OF THE PRESENCE OF UNDERGROUND STORAGE TANKS

The Grantee is hereby informed and does acknowledge that underground storage tanks ("USTs") were located on the Property as described in the Base-Wide EBS and/or the FOST. The Grantee has further been informed by the Grantor that all USTs that have been removed from the Property were tested at the time of removal, and any contamination identified was removed or remediated prior to backfilling as described in the FOST..

VII. RADON NOTIFICATION

A radon survey was not conducted in Building 215 located on the Property and included in the conveyance herein. However, radon was detected at or above the EPA residual action level of 4 picocuries per liter (pCi/L) in some buildings located on Fort Devens as described in the "Radon Survey (AREE 67) Report" dated October 1995 prepared by Arthur D. Little, Inc. for the U.S. Army Environmental Center.

VIII. NOTICE OF THE PROGRAMMATIC AGREEMENT

The Grantee agrees to comply with applicable provisions of the Programmatic Agreement among the Grantee, the Advisory Council on Historic Preservation, and the

Massachusetts Historic Commission dated March 20, 1996, (the "Programmatic Agreement") which pertain or otherwise apply to the Property. The Programmatic Agreement regulates those activities that may affect structures, facilities, or cultural or archeological sites eligible for, or listed on, the National Register of Historic Places.

IX. MEC NOTIFICATION

The Grantor completed a comprehensive records search, and based on that search, had undertaken and completed statistical and physical testing of areas on the Property, if any, where the existence of munitions and explosives of concern ("MEC") was considered to be present. 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. § 2710 (e) (9); (B) discarded military munitions (DMM), as defined in 10 U.S.C. § 2710 (e) (2); or (C) explosive munitions constituents (e.g. TNT, RDX) present in high enough concentrations to pose an explosive hazard. Based upon said survey and research, the Grantor represents that, to the best of its knowledge, no MEC is currently present on the Property. Notwithstanding the survey and research conducted by the Grantor, the parties acknowledge that given the finding of potential MEC contamination on other parcels at the former Fort Devens, and due to the former use of the Property as part of an active military installation and training grounds, there is a possibility that MEC may exist on the Property. In the event that the Grantee, its successors and assigns, or any other person should discover any MEC on the Property, it shall not attempt to remove or destroy it, but shall immediately notify the local Police Department and the Grantor, or the Grantor's designated explosive ordnance representative. Personnel will be dispatched by the Grantor, at its sole cost and expense, to promptly dispose of such ordnance at no expense to the Grantee.

The Grantee shall neither transfer the Property, lease the Property, nor grant any interest, privilege, or license whatsoever in connection with the Property without the inclusion of the provisions of this Section IX, and shall require the inclusion of such provisions of this Section IX in all further deeds/easements, transfers, leases, or grant of any interest, privilege, or license.

X. ENVIRONMENTAL PROTECTION PROVISIONS

A. Land Use Restrictions

1. Educational, Institutional and Open Space Use Restriction

(a) The Grantor has undertaken careful environmental study of the Property and has determined that the Property is suitable for educational, institutional and open space uses based on a site-specific risk assessment. Other land uses including residential land uses were not evaluated in the site-specific risk assessment and are therefore not permitted. The Grantor makes no representation regarding the suitability of the land for any other purposes. In order to protect human health and the environment and further the common

environmental objectives and land use plans of the United States of America, the Commonwealth of Massachusetts and Grantee, the covenants and restrictions shall be included to assure the use of the Property is consistent with the environmental condition of the Property. The following restrictions and covenants benefit the lands retained by the Grantor and the public welfare generally and are consistent with state and federal environmental statutes.

(b) The Grantee, for itself, its successors and assigns covenants that it shall use the Property solely for educational, institutional and open space uses. These restrictions and covenants are binding on the Grantee, its successors and assigns; shall run with the land and are forever enforceable.

2. Groundwater Restriction

Grantee is hereby informed and acknowledges that groundwater on the Property contains residual petroleum hydrocarbons and Manganese and Arsenic at levels which exceed drinking water standards. The Grantee, its successors and assigns, shall not access or use ground water underlying the Property for any purpose without the prior written approval of the Grantor, the EPA, and the DEP. For the purpose of this restriction, "ground water" shall have the same meaning as in section 101(12) of CERCLA.

3. Soil Excavation Restriction

Grantee is hereby informed and acknowledges that the soil under the Property within the Soil Management Area, as shown on the "Parcel A.15" map, attached hereto as Exhibit C and made a part hereof, contains residual petroleum hydrocarbons at levels which require implementation of soil management and health and safety plans prepared by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals, prior to initiating excavations. The Grantee, its successors and assigns, shall not excavate soil from areas of the Property identified as the Soil Management Area for any purpose without the prior written approval of the Grantor, the EPA, and the DEP. The restricted area is approximately 100 by 88 feet at and under the Northwest corner of the school building as shown on Exhibit C.

4. Modification or Release of Environmental Protection Provisions

(a) The provisions in this Article X, Environmental Protection Provisions, shall remain in force until such time as the concentration of petroleum related chemical constituents in the soil and groundwater beneath or on the Property constituting the Devens NPL site AOC 69W have been reduced to levels that allow for unlimited exposure and unrestricted use as determined by the Grantor. Nothing contained herein shall preclude the Grantee, its successors or assigns, from undertaking, in accordance with applicable laws and regulations and without any cost to the Grantor, such additional action necessary to allow for other less restrictive use of the Property. Prior to such use of the Property, the Grantee shall consult with and obtain the approval of the Grantor, and, as appropriate, the

EPA,DEP and local authorities, Upon the Grantee's obtaining the approval of the Grantor and, as appropriate, the EPA, DEP the Grantor agrees to record an amendment hereto. This recordation shall be the responsibility of the Grantee and at no additional cost to the Grantor.

5. Project Notifications

The Grantee, its successors and assigns, shall submit any notifications or requests for modifications to the Environmental Protection Provisions by first class mail, postage prepaid, addressed as follows:

Department of the Army

U.S. Army District, New England
ATTN: CENAE-RE
696 Virginia Road
Concord, MA 01742-2751

United States Environmental Protection Agency

Devens Remedial Project Manager
U.S. Environmental Protection Agency
One Congress Street, Suite 100
Boston, MA 02114

Massachusetts Department of Environmental Protection

Federal Facilities (Devens) Program Manager
Massachusetts Department of Environmental Protection
Central Region Office
627 Main Street
Worcester, MA 01608

B. WETLANDS AND FLOODPLAINS

1. General Provisions

The Property contains wetland areas protected under state, federal and local laws and regulations as shown on Exhibit C. Applicable laws and regulations restrict activities that involve draining wetlands or the discharge of fill materials into wetland areas, including, without limitation, the placement of fill materials; the building of any structure; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and dams and dikes. To fulfill the Grantor's commitment in the Fort Devens Disposal and Reuse Environmental Impact Statement Record of Decision, made in accordance with the National Environmental Policy Act of 1969, 42 U.S.C. §4321

et seq., this Deed provides for protection of wetlands beyond what would otherwise specifically be required under federal and state law.

2. Wetlands Protection

To protect water quality, groundwater recharge, and wildlife habitat, the Grantee, its successors, and assigns shall restrict activities within and protect any wetlands on the Property herein conveyed in accordance with the Zoning By-Laws, Devens Regional Enterprise Zone, dated November 18, 1994, as follows:

a. Lands within one hundred (100) feet of wetland resources are presumed important to the protection of these resources because activities undertaken in close proximity to wetlands and other resources have a high likelihood of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality and loss of wildlife habitat. To protect water quality, groundwater recharge, and wildlife habitat, no alteration of the natural vegetation of substrate may be undertaken within twenty-five (25) feet of the bank of any stream, river, pond, any wetland bordering on these waterbodies, and any vernal pool certified by the Division of Fisheries and Wildlife (collectively "Resource Areas"). Furthermore , no building shall be located within fifty (50) feet of the Resource Areas.

b. Except for the twenty-five (25) foot and fifty (50) foot setbacks referenced in paragraph X.B.2.a, the Devens Enterprise Commission may permit development within one hundred (100) feet of a Resource Area upon a demonstration by the applicant that work within the one hundred (100) foot area would not adversely affect the ability of the wetland to protect surface or groundwater, public or private water supplies, water quality, wildlife habitat, or fisheries.

c. The twenty-five (25) foot and fifty (50) foot setback requirements described in paragraph X.B.2.a will not apply to the construction of recreational facilities (bikeways, trails, docks, etc.), roads, streets, railsidings aboveground or underground public utilities and infrastructure, detention basins or drainage structures, measures undertaken for the remediation of contaminated soils or groundwater, or removal of solid waste.,

3. Enforcement

The Grantee covenants for itself, its successors, and assigns that the Grantee, its successors and assigns shall include, and otherwise make legally binding, the restrictions in this Section X.B in all subsequent leases, transfer, or conveyance documents relating to the

Property, provided that the Property contains wetlands protected by applicable state or federal law. The restrictions and protections provided for in this Section X.B. shall run with the land. The restrictions in this Section X.B benefit the lands retained by the Grantor that formerly comprised Fort Devens, as well as the public generally. The Grantor and The Commonwealth of Massachusetts shall have the right to enforce the wetlands restrictions provided for in this Section by appropriate legal proceedings and to obtain injunctive and other equitable relief against any violations, including, without limitation, relief requiring restoration of any of the Property to its condition prior to the time of the injury complained of, and shall be in addition to, and not in limitation of, any other rights and remedies available to the Grantor and The Commonwealth of Massachusetts.

C. NOTICE OF THE PRESENCE OF ASBESTOS

1. The Grantee is hereby informed and does acknowledge that the building located on the Property contains friable and non-friable asbestos or asbestos-containing materials ("ACM") as identified in the FOST and the Base-Wide EBS.

2. 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 any 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 or ACM on the Property, whether the Grantee, its successors or assigns have properly warned or failed to properly warn the individual(s) injured. The Grantee assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from (i) any exposure to asbestos or ACM that resulted prior to the Grantor's conveyance of such portion of the property to the Grantee pursuant to this Deed or any leases entered into between the Grantor and Grantee, or (ii) any disposal or mishandling of asbestos or ACM by the Grantor prior to the Grantor's lease or Deed conveyance of the Property to the Grantee.

3. The Grantee agrees to be responsible for any future remediation of asbestos identified in the Base-Wide EBS, or the FOST, which is determined to be necessary on the Property after the date of the Lease. The Grantor assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from: (i) any exposure to asbestos or ACM that resulted due to the Grantee's failure to comply with any legal requirements applicable to asbestos on any portion of the Property, or (ii) any disposal of asbestos or ACM after the date of lease or deed conveyance of the Property to the Grantee.

4. The Grantee further agrees to bear full responsibility for and discharge the Grantor, its officers, agents and employees, from and against all suits, claims, demands or actions, liabilities, judgments, costs and attorneys' fees to the extent arising out of, or in

any manner predicated upon, exposure to asbestos, identified in the Base-Wide EBS, or the FOST, on any portion of the Property, which exposure occurs after the date of lease or deed conveyance of the Property to the Grantee, or any future remediation or abatement of asbestos on any portion of the Property or the need therefore.

5. The Grantee acknowledges that it has had the opportunity to inspect the property as to asbestos content and condition and any hazardous or environmental conditions related thereto. The failure of the Grantee to inspect or to be fully informed regarding the content or quantity of ACM as described in the Base-Wide EBS will not constitute grounds for any claim or demand against the Grantor, except as may be otherwise provided in this Deed.

D. NOTICE OF THE PRESENCE OF LEAD-BASED PAINT

Notice of the Presence of Lead-Based Paint and Covenant Against the Use of the Property for Residential Purposes.

1. 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 as disclosed to the Grantee under Section 1611.d. of the Lease, or the Base-Wide EBS prepared by the Grantor. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. The provisions of this Section X.D. shall apply only to the extent the presence of lead-based paint was disclosed in the Deed, the Base-Wide EBS, and the FOST.

2. The Grantee agrees to be responsible for any future abatement and/or disposal of lead-based paint identified in this Deed, the Base-Wide EBS, or the FOST which is determined to be necessary on the Property after the date of lease or deed conveyance of the Property to the Grantee.

3. The Grantor assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from: (i) any exposure to lead- based paint hazards that resulted from the Grantee's failure to comply with any applicable federal, state or local legal requirements for lead-based paint abatement that resulted from the Grantee's demolition of the buildings, or (ii) any disposal of lead-based paint debris arising from the Grantee's use of the Property after the date of lease or deed conveyance of the Property to the Grantee.

4. The Grantee further agrees to bear full responsibility for and discharge the Grantor, its officers, agents and employees, from and against all suits, claims, demands, or actions, liabilities, judgments, costs and attorneys' fees to the extent arising out of, or in any manner predicated upon personal injury, death or property damage resulting from, related to, caused by or arising out of the Grantee's mishandling of the lead based paint or lead based paint hazards on the Property.

5. The Grantee shall provide any purchaser of any interest in Residential Real Property with a copy of the Lead-Paint Notice, or other such notice as may be required under state or federal law.

E. Inclusion of Provisions

The Grantee shall neither transfer the Property, lease the Property, nor grant any interest, privilege, or license whatsoever in connection with the Property without the inclusion of the provisions of this Section X, and shall require the inclusion of said provisions in all further deeds, easements, transfers, leases, or grant of any interest, privilege, or license.

XI. NOTICE OF NON-DISCRIMINATION

With respect to activities related to the Property, the Grantee shall not discriminate against any person or persons or exclude them from participation in the Grantee's operations, programs or activities conducted on the Property because of race, color, religion, sex, age, handicap, or national origin.

XII. ANTI-DEFICIENCY ACT

The Grantor's obligation to pay or reimburse any money under this Deed is subject to the availability of appropriated funds to the Department of the Army, and nothing in this Deed shall be interpreted to require obligations or payments by the United States in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

IN WITNESS WHEREOF, the Grantor has caused this Deed to be executed in its name by the Acting Deputy Assistant Secretary of the Army (Installations and Housing) this 10th day of August, 2007.

UNITED STATES OF AMERICA

W T Burney

for DAVID M. REED
Acting Deputy Assistant Secretary of the Army
(Installations and Housing)
OASA (I&E)

ACKNOWLEDGEMENT

COMMONWEALTH OF VIRGINIA)
)SS:
COUNTY OF ARLINGTON)

I, the undersigned, a Notary Public in and for the Commonwealth of Virginia, County of Arlington, do hereby certify that this day personally appeared before me in the Commonwealth of Virginia, County of Arlington, William T. Birney appeared for David M. Reed, Deputy Assistant Secretary of the Army (Installations and Housing), whose name is signed to the foregoing instrument and who acknowledged the foregoing instrument to be his free act and deed on the date shown, and acknowledged the same for and behalf of the UNITED STATES OF AMERICA

Elizabeth Mitchell
Notary Public

ELIZABETH MITCHELL
NOTARY PUBLIC
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES MARCH 31, 2010

My Commission Expires: _____

#7054452

ACCEPTANCE BY GRANTEE

The Massachusetts Development Finance Agency, a Massachusetts body politic and corporate created by Chapter 23G of the Massachusetts General Laws, successor in interest to the Government Land Bank under Chapter 289 of the Acts of 1998, as amended, by its duly qualified and authorized President and CEO, Robert L. Culver, does hereby accept and approve this Quitclaim Deed and agrees to all of the terms and conditions thereof as of the 26 day of July, 2007.

MASSACHUSETTS DEVELOPMENT
FINANCE AGENCY

By: _____
Name: Robert L. Culver
Title: President and CEO

ACKNOWLEDGEMENT

THE COMMONWEALTH OF MASSACHUSETTS)
)SS:
COUNTY OF SUFFOLK)

On this 26th day of JULY 2007, before me, the undersigned notary public, personally appeared Robert L. Culver, and proved to me through satisfactory evidence of identification, which was ☐ photographic identification with signature issued by a federal or state governmental agency, ☐ oath or affirmation of a credible witness, ☑ personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document(s), and acknowledged to me that he signed it voluntarily for its stated purpose, as President and CEO of Massachusetts Development Finance Agency.

(Notary Seal)

_____
Notary Public

My commission expires: _____

VICTORIA STRATTON
Notary Public
Commonwealth of Massachusetts
My Commission Expires
December 12, 2008

This deed was prepared/reviewed by
Julie D'Esposito, Attorney
U.S. Army Corps of Engineers, New England District

EXHIBIT A

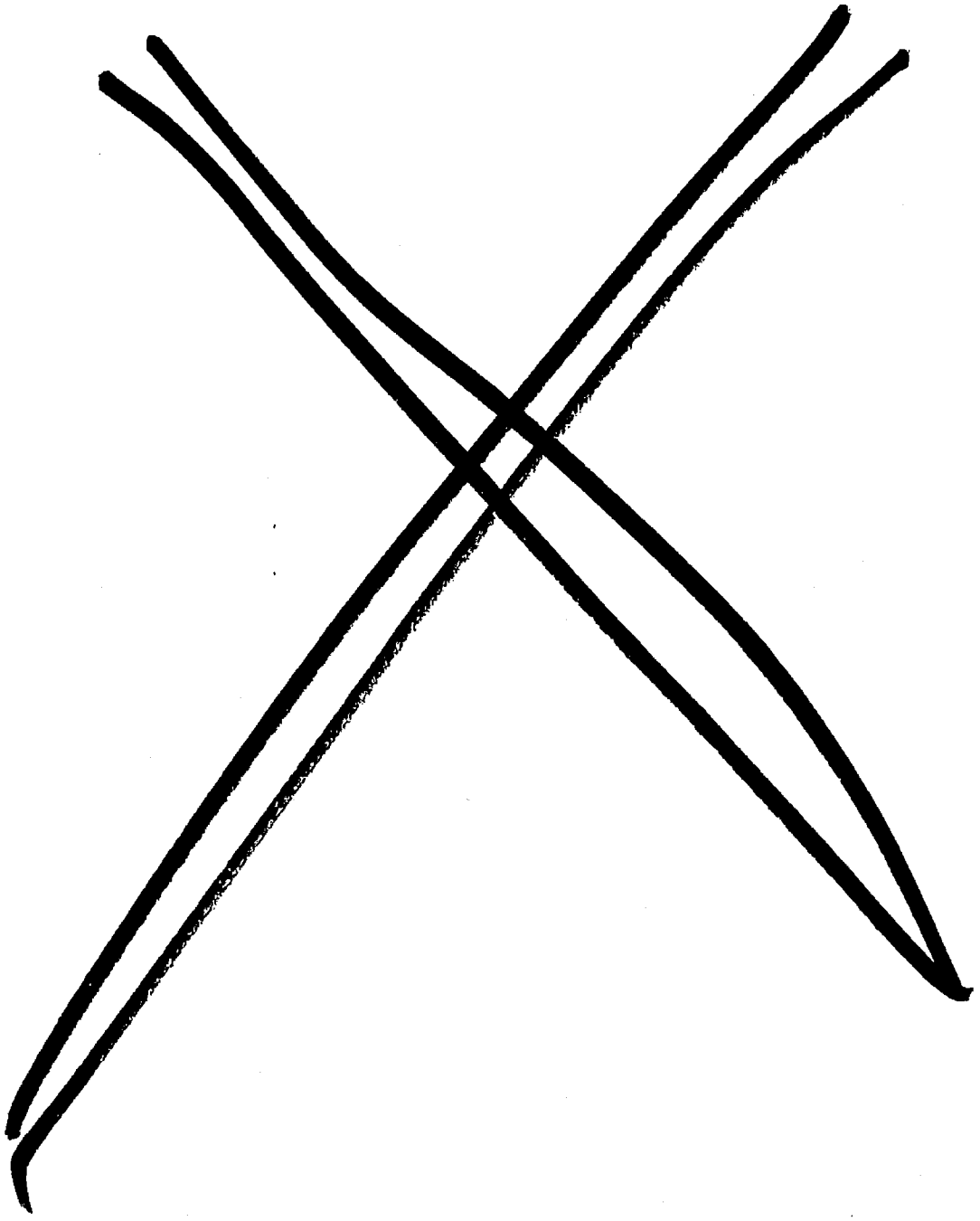
Parcel A.15

A certain parcel of land located in the Town of Ayer, Middlesex County, MA, known as lease parcel A15, located on the east side of Antietam Street, beginning at a point with the NAD coordinates (± 50') N3024916, E627113.

Thence along Antietam Street N68°-48'W, eighty seven feet ±, (87'±) to a point;
Thence still along Antietam Street, N25°-00'W, fifty five feet ±, (55'±) to a point on the east sideline of MacArthur Avenue (now Jackson Road);
Thence north along the sideline of MacArthur Avenue (now Jackson Road), seven courses totaling eleven hundred and sixty feet ±, (1160'±) to a point;
Thence S83°-OO'E, sixty three feet ±, (63'±) to a point at parcel G;
Thence along parcel G, S33°-30'E, sixty one feet ±, (61'±) to a point;
Thence S76°-33'E, three hundred seventy five feet ±, (375'±) to a point;
Thence S13°-30'E, five hundred forty six feet ±, (546'±) to a point;
Thence S89°-30'E, two hundred feet ±, (200'±) to a point;
Thence S69°-1O'E, three hundred four feet ±, (304 '±) to a point, last 5 courses along parcel G;
Thence S00°-20'W, three hundred sixty two feet ±, (362'±) to a point;
Thence N89°-30'W, six hundred eighty six feet ±, (686'±) to the point of beginning.

Said parcel contains 11 acres ±.

EXHIBIT B
FOST



FINDING OF SUITABILITY TO TRANSFER

FORMER FORT DEVENS ELEMENTARY SCHOOL
AREA OF CONTAMINATION 69W
LEASE PARCEL A. 15
FORT DEVENS, MASSACHUSETTS

Prepared By:
U.S. Department of the Army
Base Realignment and Closure Division
Devens BRAC Environmental Office
30 Quebec Street, Unit 100
Devens, MA 01434-4479

November 2006

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FINDING OF SUITABILTIY TO TRANSFER
FORMER FORT DEVENS, MASSACHUSETTS

Fort Devens Elementary School
Area of Contamination 69W
Lease Parcel A.15
November 2006

1. PURPOSE

The purpose of this Finding of Suitability to Transfer ("FOST") is to document the environmental suitability of a certain parcel of property at the former Fort Devens, Massachusetts for transfer to the Massachusetts Development Finance Agency ("MassDevelopment") for development as educational/institutional/open space property consistent with Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") Section 120(h) and Department of Defense Policy. In addition, the FOST identifies use restrictions as specified in the attached Environmental Protection Provisions necessary to protect human health or the environment after such transfer.

2. PROPERTY DESCRIPTION

Lease Parcel A.15 ("Property") is an 11.0 acre ± parcel on the former Main Post located near the northeast corner of the intersection of Jackson Road and Antietam Street. The Property is partially developed with one building that was the former Fort Devens Elementary School ("Building 215"), a paved driveway entrance and associated parking lots, and a paved playground area. Portions of the Property are maintained as a grassed lawn extending approximately 200-feet west to Willow Brook (drainage area). Portions of the remainder of the Property adjacent to Willow Brook to the North, as shown by the Property Location Map (Enclosure 1), are mapped wetlands and floodplains regulated under the Clean Water Act and the Massachusetts Wetlands Protection Act. The Property is bounded on the north by the Shriver Job Corp Center, to the east by athletic fields, to the south by residential housing, and to the west by Jackson Road.

In accordance with the Devens Reuse Plan dated November 14, 1994, the Property is located within the zoning district designated as Gateway II: Verbeck. This zoning allows for a range of institutional and educational uses.

The current school building is a single story structure comprised of approximately 22,000 square feet. The building was constructed in two phases beginning in 1951 and expanded to its current configuration in 1972. There are no other buildings on the Property. School operations were suspended in 1993 as a result of the base realignment and closure process ("BRAC"). The building is currently occupied and operated as a charter school under the jurisdiction of the Massachusetts Department of Education under a lease agreement with MassDevelopment. A Property location map and legal description are provided as Enclosure 1.

3. ENVIRONMENTAL DOCUMENTATION

A determination of the environmental condition of the Property and facilities has been made based on an environmental assessment, investigative reports, and remedial actions, including but not limited to:

- Final Environmental Baseline Survey, 1996;
- Final Remediation Investigation Report for AOC 69W, August 1998;
- Final Record of Decision, AOC 69W, June 30, 1999; and,
- Long Term Monitoring Plan (LTMP) for AOC 69W, March 2000
- OPS Demonstration for AOC 69W, November 2005
- Long Term Monitoring Annual Reports 2000-2004.

The information about the Property is a result of a complete search of agency files during the development of these environmental surveys. A complete list of documents that provide information on environmental conditions of the Property is attached (Enclosure 2).

4. ENVIRONMENTAL CONDITION OF PROPERTY

The Department of Defense (DOD) Environmental Condition of Property (ECP) Category for the Property is Category 2. Category 2 includes those areas of the Property where only a release or disposal of petroleum products and/or their derivatives has occurred. A summary of the ECP categories and ECP category definitions is provided in Table 1 – Description of Property (Enclosure 3).

4.1 ENVIRONMENTAL REMEDIATION SITES

In accordance with the Federal Facilities Agreement (FFA) between the Army and the US Environmental Protection Agency (EPA) for the Fort Devens Army Installation, the Property was designated as Area of Contamination (AOC) 69W due to documentation of petroleum fuel oil releases in 1972 and 1978 and a Site Investigation (SI) conducted in 1994, which revealed the presence of fuel related contaminants in both soil and groundwater. In 1972, a new section of Building 215 was added to the school including construction of a new boiler that would compliment the old boiler. This construction also included the removal of the old 10,000 gallon underground storage tank (UST) that was located in what is now the courtyard of the school and the installation of a new 10,000 gallon UST located under the parking lot on the north side of the school. The underground fuel line leading from the new UST to the new boiler room was accidentally crimped, causing the pipe to split and leak an estimated 7,000 to 8,000 gallons on No. 2 fuel oil to the ground. A second spill was discovered in 1978 where the underground fuel piping leading from the UST to the old boiler room (which remained operational after construction of the new boiler room) failed at a pipe joint. Approximately 7,000 gallons of oil were released into the soil during the incident.

A Remedial Investigation (RI) was conducted (1995-1998) to further define the nature and extent of contaminants, previously detected in the soil and groundwater during the SI, and to determine if remediation was warranted. The RI determined that (a) fuel-related compounds,

primarily total petroleum hydrocarbons compounds (TPHC) and semi-volatile organic compounds (SVOCs) were present in soils extending from the new (1972) boiler room to approximately 300 feet northwest, as shown on the Property Location Map, and (b) fuel-related volatile organic compounds (VOCs), SVOCs, TPHC, and inorganics were present in groundwater. Soil and groundwater contamination appeared to be largely a result of the 1972 fuel oil release. The underground oil recovery system apparently acted as a conduit for contaminant migration in soil and groundwater. Observed contamination from the 1978 release did not appear to be migrating downgradient and further migration is unlikely considering the age of the release and the paved parking lot that inhibits precipitation infiltration.

Based on a review of the soil and groundwater contaminant data presented the SI and RI, the Army performed a removal action (1997-1998) at the Property and excavated approximately 3,500 cubic yards (cy) of petroleum-contaminated soil associated with the 1972 and 1978 fuel oil leak. The 10,000 gallon fuel oil UST (that replaced the 10,000 UST removed in 1972) and the oil recovery system's 250-gallon vault and associated piping were also removed. The 10,000-gallon fuel oil UST was confirmed to be intact (i.e., no holes or leaks were observed). Confirmatory soil sampling in excavated areas indicated that extractable petroleum hydrocarbon (EPH) and volatile petroleum hydrocarbon (VPH) concentrations immediately adjacent to the school still exceeded the Massachusetts Contingency Plan (MCP) Method 1 S-1/GW-1 soil standards after the removal action. Because of the proximity of the school, this soil could not be excavated without potential building structural damage. Because the area is paved, there is minimal potential for further migration of contaminants and future exposure. .

A Final Record of Decision (ROD) for AOC 69W was signed on June 30, 1999. The ROD included a Limited Action remedy that consists of (1) Long-term Groundwater Monitoring to verify that the contaminants do not migrate off-site and that elevated concentrations decrease over time; and (2) Institutional Controls (ICs) to limit the potential exposure to contaminated soils and groundwater under both existing and future site conditions.

In order to implement the ICs established in the ROD, the FOST identifies land use restrictions, as specified in the attached Environmental Protection Provisions (EPPs) (Enclosure 7), necessary to protect human health and the environment.

All remedial actions necessary to protect human health and the environment have been implemented in accordance with CERCLA Section 120(h)(3). The selected remedy consisting of ICs and Long-Term Groundwater Monitoring is Operating Properly and Successfully (OPS). The OPS Certification by the EPA is attached in Enclosure 4.

4.2 STORAGE, RELEASE, OR DISPOSAL OF HAZARDOUS SUBSTANCES

There is no evidence that hazardous substances were stored for one year or more, released, or disposed on the Property in excess of the reportable quantities listed in 40 CFR 373.

4.3 PETROLEUM AND PETROLEUM PRODUCTS

Petroleum and Petroleum Products have been assessed at the Property in two categories: not in underground or above-ground storage tanks (Section 3.3.1, Storage, Release, or Disposal of Petroleum Products) and, within underground and above ground storage tanks [Section 3.3.2. Underground and Above Ground Storage Tanks (UST/AST)]. The results of the petroleum and petroleum product assessment are as follows.

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

There is no evidence that petroleum products in excess of 55-gallons were stored, released, or disposed at the Property as the result of non–UST/AST petroleum activities. Accordingly, there is no need for any notification of non-UST/AST petroleum product storage, releases, or disposal.

4.3.2 Underground and Above Ground Storage Tanks (UST/AST)

- **Current UST/AST Sites:** There are no UST/AST currently on the Property.

- **Former UST/AST Sites:** There were two 10,000-gallon #2 Fuel Oil Underground Storage Tanks ("UST") and no Above Ground Storage Tanks ("AST") on the Property. The initial 10,000 gallon UST that serviced Building 215 was installed in 1951 and removed in 1972. This UST was located in what is now the courtyard of the school. No releases or spills are recorded to have occurred. This UST was replaced in 1972 with the installation of a new 10,000 gallon UST and associated ancillary facilities including a 250 gallon concrete oil recovery sump system and fuel supply lines. This UST was located under the parking lot on the north side of the school. Petroleum product releases are reported to have occurred from the piping and ancillary facilities associated with this UST in 1972 (~ 7,000 to 8,000 gallons) and 1978 (~ 7,000 to 8,000 gallons) as detailed above in Section 4.1. The remediation of these petroleum products releases, associated impacted soils and closure/removal of the UST and ancillary systems was conducted under CERCLA as a Time Critical Removal Action in 1997 and 1998. See Table 2b. - Notification of Petroleum Products Storage, Release, or Disposal (Enclosure 5) for additional information.

4.4 SOIL CONTAMINATION

The Time Critical Removal Action performed in 1997 and 1998 removed approximately 3,500 cubic yards of contaminated soil resulting from the petroleum releases. Complete contaminated soil removal was not possible due to structural concerns for the building. Therefore, petroleum-contaminated soil remains on site underneath and in direct proximity to the north side of the school building as indicated by the Soil Management Area (See Enclosure 1, Site Location Map). Because the area is paved there is minimal potential for further migration of contaminants and future exposure. However, soil excavation in the Soil Management Area is

subject to a Soil Management Plan and Health and Safety Plan as set forth in the attached Environmental Protection Provisions (EPP) (Enclosure 6).

4.5 GROUNDWATER CONTAMINATION

AOC 69W was identified for environmental media investigation based on reports and records of fuel oil releases that occurred in 1972 and 1978. A SI and RI were conducted by the Army to determine the potential for contaminated soil and groundwater. As a result of the groundwater quality assessment, groundwater contaminants were determined to consist of VOCs, SVOCs, TPHC and inorganic compounds.

Following the RI assessment of site conditions and subsequent Time Critical Removal Action, the ROD remedy was implemented with the development and implementation of the Long Term Monitoring Plan ("LTMP") to monitor for any potential off-site migration of petroleum hydrocarbons, arsenic and manganese and to verify that elevated contaminants reduce over time. Residual petroleum hydrocarbon constituents, arsenic and manganese have been detected in excess of the Federal Safe Drinking Water Act - Maximum Contaminant Levels (MCLs) in groundwater samples collected semi-annually from one or more wells since the LTMP was implemented in May 2000. Overall monitoring trends indicate that the concentrations of petroleum hydrocarbon contaminants are decreasing over time and are not migrating off-site. Monitoring also indicates that the effect of biodegradation of residual petroleum hydrocarbons in both soil and groundwater has generated "reducing condition" locally within the aquifer that has resulted in the dissolution of arsenic and manganese (both naturally occurring elements within soil and groundwater) in groundwater. Two monitoring wells designated as "sentry wells" have shown results that indicate elevated levels of arsenic and manganese in areas directly downgradiant and in close proximity to the former 250-gallon oil recovery sump (Well ZWM-95-15X) and downgradiant to the former source area (Well ZWM-99-23X). The long term monitoring performed by the Army will continue to verify that contaminants are decreasing over time and are not migrating off-site. The EPA-approved Operating Properly and Successfully Demonstration Report documents the overall improving trend in groundwater quality in the Source Area since the implementation of the LTMP in 2000.

The groundwater is currently not used as a drinking water source and it is not anticipated to be used in the future because MassDevelopment provides a public water supply. The EPP includes a restriction on access to groundwater for any purpose (Enclosure 7).

4.6 SURFACE WATER AND WETLANDS

Willow Brook and the adjacent wetlands were affected by the 1978 oil spill that resulted in an oil sheen. Following response actions, the natural resources have recovered. The Deed will include a notice of applicable wetland and floodplain requirements, which apply to the resource areas estimated by Enclosure 1, Property Location Map.

4.7 POLYCHLORINATED BIPHENYLS

There is no evidence that PCB-containing equipment is located or was previously located on the Property. Accordingly, no notification is required for PCBs.

4.8 ASBESTOS

There is asbestos containing material ("ACM") in Building 215. An Asbestos Management Plan and Re-Inspection Reports have been prepared for the Property (Guertin Elkerton 2005). Friable and non-friable ACMs were removed from inhabited areas of Building 215 during a renovation project in 1999 conducted by MassDevelopment. Any remaining friable ACM will not present an unacceptable risk because it is contained within confined areas of the building's utility sub basement that are open only to authorized personnel and thus does not currently pose a threat to the health and safety of Building 215 occupants. Other building features with the potential for ACM may include roofing materials that have not been replaced during repair projects since the construction of Building 215. The MassDevelopment is currently responsible for managing ACM in accordance with the Lease with the Army dated May 9, 1996 and applicable law. The Deed will include an asbestos warning and covenant.

4.9 LEAD BASED PAINT ("LBP")

Based on the age of Building 215 (constructed prior to 1978), it is presumed to contain lead based paint ("LBP"). 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 the lead-based paint warning and covenant.

4.10 RADIOLOGICAL MATERIALS

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

4.11 RADON

A radon survey was conducted at Fort Devens by Arthur D. Little, Inc. (ADL), 1995. "Radon Survey (AREE 67) Report"; prepared for U.S. Army Environmental Center. Building 215 was not part of that radon survey, however, some building structures that were sampled during AREE 67 survey, radon was detected at or above the EPA residual action level of 4 picocuries per liter (pCi/L).

4.12 INDOOR AIR QUALITY

A comprehensive indoor air quality evaluation and site specific risk assessment was performed in 1997 as part of the RI. Based on this evaluation, the air quality was determined to be acceptable for school use. (HLA, 1998). Subsequently, the final 2005 Five Year Review for AOC 69W included a recommendation that the Army review the previous indoor air evaluations and risk assessments in order to confirm that prior assessments are consistent with the current EPA and Massachusetts Department of Environmental Protection (MADEP) guidance for evaluating the vapor intrusion to indoor air pathway from groundwater and soils. The Army completed this re-evaluation of previous indoor air assessments in August 2006 and concluded

the following: (1) Prior indoor air studies performed at the Former Devens Elementary School building in 1997 (ABB-ES) and 1998 (USEPA) generally meet current performance standards for vapor intrusion and indoor air studies, with a few minor exceptions related to the uncertainties associated with data quality in the initial 1997 study which are balanced by the higher level of data quality in the subsequent 1998 study; and (2) Health risks associated with potential exposure to target petroleum-related compounds in indoor air, under the assumption that long-term average indoor air concentrations are represented by the maximum detected concentrations of target compounds among the 1997 and 1998 studies, are below a hazard index of 1. The hazard index associated with constituents that may be present in indoor air as a result of VI pathway completeness (i.e., 2-methylpentane) is less than 0.1 or more than one-order of magnitude below the USEPA threshold hazard index of 1. The results of this evaluation suggest that VI, as represented by the sampling and analytical activities performed by ABB-ES and USEPA in 1997 and 1998, is not associated with a health risk of concern. Given that biodegradation of petroleum compounds has likely reduced the soil and groundwater source concentrations in the eight to nine years that has passed since completion of the indoor air studies, it is likely that health risks under present-day conditions would be even lower. The re-evaluation of previous indoor air assessments is detailed in the Army report, *Draft Indoor Air Sampling Technical Evaluation, Area of Contamination 69W, August 2006.*

4.13 MUNITIONS AND EXPLOSIVES OF CONCERN (MEC)

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. 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. However, the Property is within a former military installation on which various live-fire training was conducted. The northern part of the Property and adjacent property were previously used for 1000" (83') sub-caliber 22 antitank practice and skeet shooting ranges and the southern part of the Property was used as a grenade practice area. It is possible that 37 mm and 2.36' rockets were used. Intrusive statistical sampling of the Property was conducted in 1995 and no MEC or MEC-related scrap was detected (Human Factors Applications, 1995). No further action was recommended based on the findings. Based on the aforementioned facts, the deed will include a MEC Notification provision to ensure that any MEC discovered on the Property is properly evaluated and removed for disposal.

4.14 OTHER PROPERTY CONDITIONS

There are no other hazardous conditions on the Property that present an unacceptable risk to human health and the environment.

5. ADJACENT HAZARDOUS CONDITIONS

There are no conditions adjacent to the Property that present an unacceptable risk to human health and the environment.

6. ENVIRONMENTAL REMEDIATION AGREEMENTS

The following environmental orders/agreements are applicable to the Property:

Federal Facilities Agreement (the "FFA") for the former Fort Devens Army Installation entered into between the Grantor and the EPA dated May 11, 1991, and the modification thereto, dated March 26, 1996.

All remediation activities on the property, required by the FFA are 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

Comments received during the 30-day FOST public review period will be reviewed and incorporated into the Final FOST as appropriate and attached as Enclosure 7.

8. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE AND CONSISTENCY WITH LOCAL REUSE PLAN

The environmental impacts associated with proposed transfer and reuse of the Property has been analyzed in accordance with the National Environmental Policy Act ("NEPA") and Devens Reuse Plan and Devens By-Laws. The result of this analysis has been documented in the 1995 Final Environmental Impact Statement, Fort Devens, Massachusetts, Disposal and Reuse. Any encumbrances or condition identified in such analysis as necessary to protect human health or the environment has been incorporated into the FOST.

9. FINDING OF SUITABLITY 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.

Michael G. Drumheller

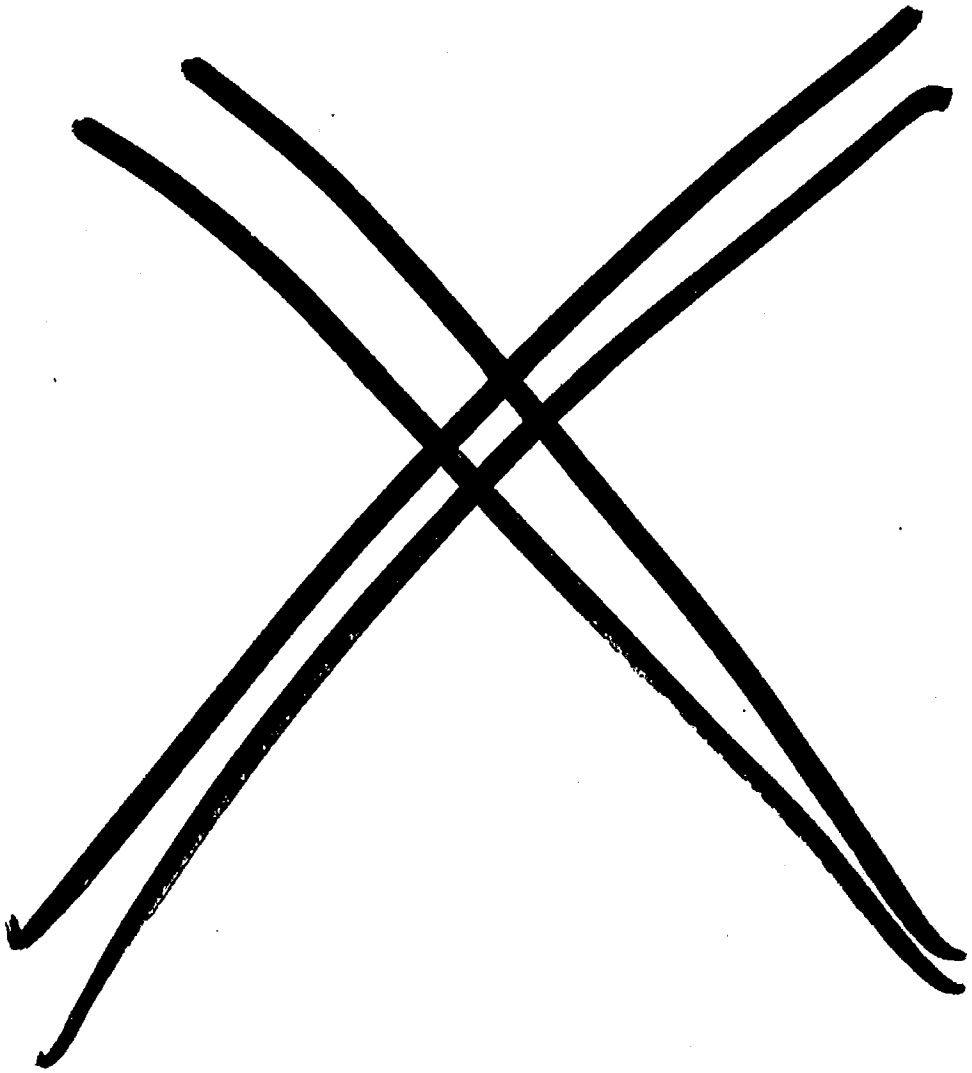
30 NOV 2006

Chief, Operational Army and Medical Branch,
Department of the Army
Base Realignment and Closure Division

Devens FOST – Parcel A.15

Enclosures:

1. Site Location Map
2. References
3. Table 1, Environmental Condition of Property (ECP) Categories
4. Table 2, Notification of Petroleum Products Storage, Release, or Disposal
5. EPA Certification of OPS
6. CERCLA Covenant, Access Provisions and Other Deed Notices
7. Environmental Protection Provisions
8. FOST Public Notice
9. Responsiveness Summary



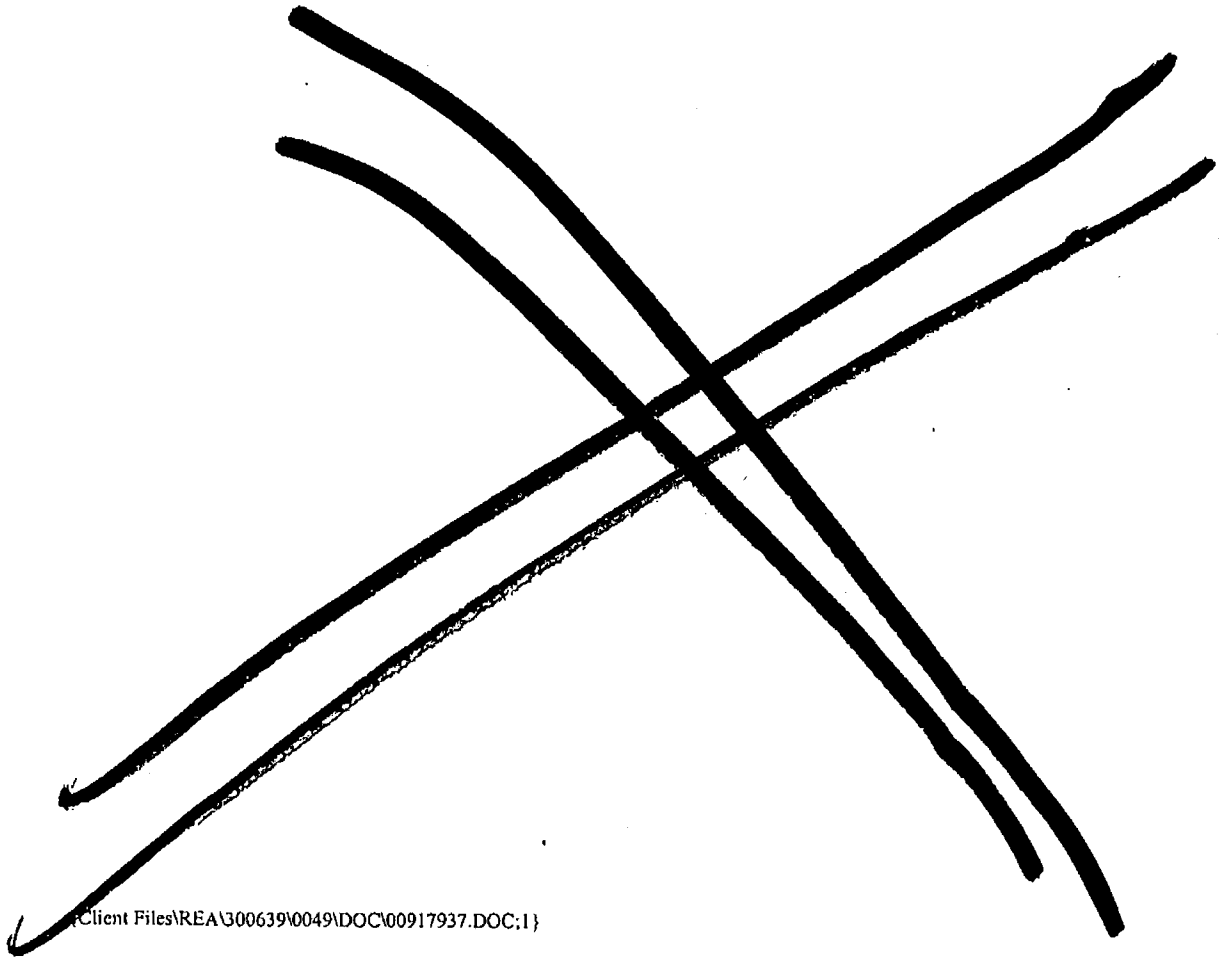
ENCLOSURE 1

SITE LOCATION MAP
AND
LEGAL DESCRIPTION

Finding of Suitability To Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

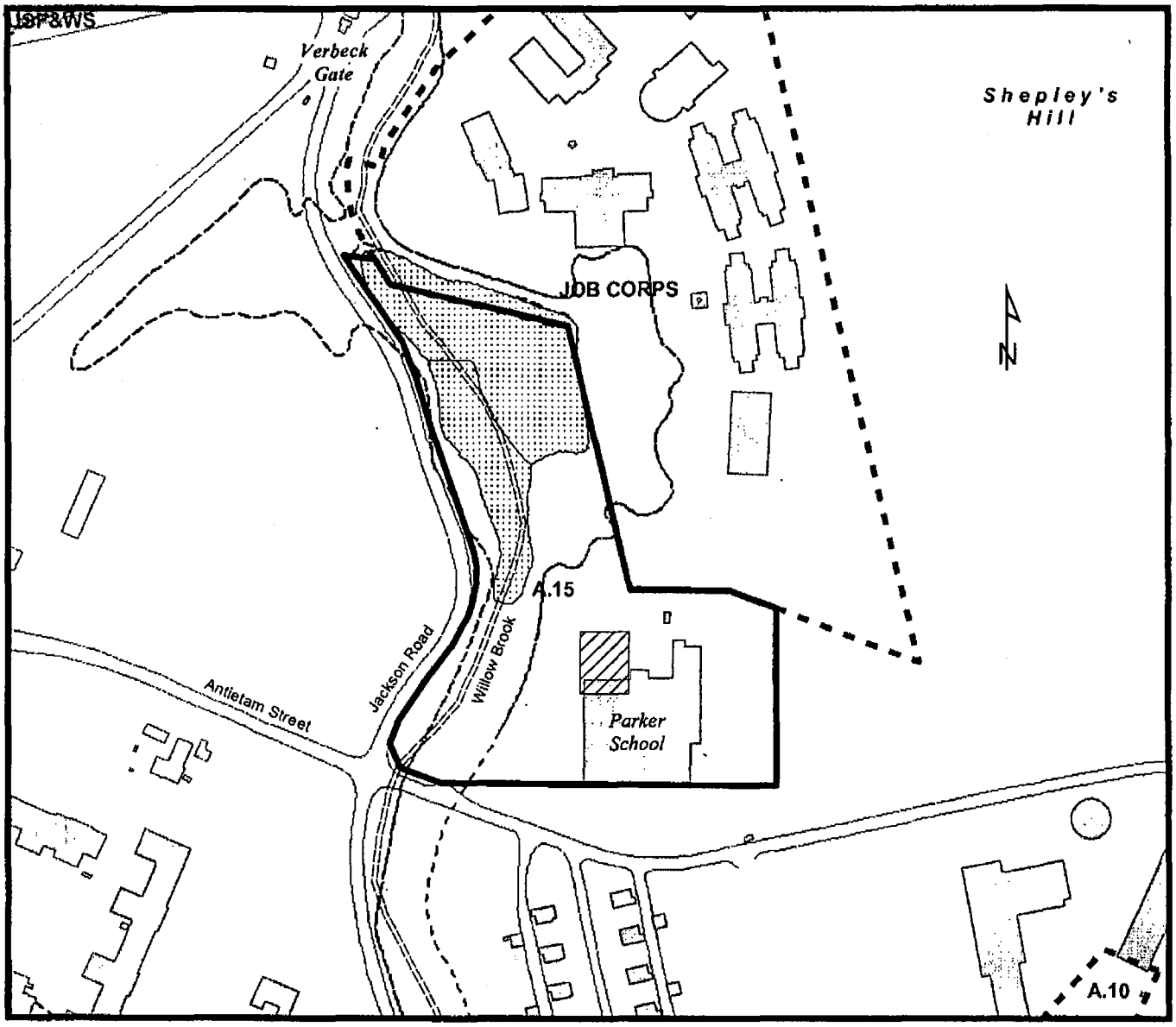
"Loc
Parcel_A.15_bw.pdf"

"LegalDescription
A.15.doc"



Parcel A.15

1 inch equals 300 feet



Parcel A.15 (AOC 69W)
Other Parcels
Building
Soil Management Area
Wetland
Flood Zone
Stream
Road

0 500 1,000
Feet

Devens BRAC Environmental Office 2005

Attachment A: Legal Parcel Descriptions of Fort Devens

Parcel A.15 (AOC 69W) Legal Description

Located on the east side of Antietam Street, beginning at a point with the NAD coordinates (± 50') N3024916, E627113.

Thence along Antietam Street N68°-48'W, eighty seven feet ±, (87'±) to a point;

Thence still along Antietam Street, N25°-00'W, fifty five feet ±, (55'±) to a point on the east sideline of MacArthur Avenue (now Jackson Road);

Thence north along the sideline of MacArthur Avenue (now Jackson Road), seven courses totaling eleven hundred and sixty feet ±, (1160'±) to a point;

Thence S83°-OO'E, sixty three feet ±, (63'±) to a point at parcel G;

Thence along parcel G, S33°-30'E, sixty one feet ±, (61'±) to a point;

Thence S76°-33'E, three hundred seventy five feet ±, (375'±) to a point;

Thence S13°-30'E, five hundred forty six feet ±, (546'±) to a point;

Thence S89°-30'E, two hundred feet ±, (200'±) to a point;

Thence S69°-1O'E, three hundred four feet ±, (304 '±) to a point, last 5 courses along parcel G;

Thence SOO°-20'W, three hundred sixty two feet ±, (362'±) to a point;

Thence N89°-30'W, six hundred eighty six feet ±, (686'±) to the point of beginning.

Said parcel contains 11 acres ±.

p67073TEPS.EBS-Surv.basewide.trans-a.~7196 33

Note: Parcel G is the Transferred Shriver Center

ENCLOSURE 2

REFERENCES

Finding of Suitability To Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

1. Arthur D. Little, Inc. (ADL), 1996, "Environmental Baseline Survey, for Proposed Lease and/or Transfer, Fort, Devens-Basewide, April.

2. Harding Lawson Associates, (HLA), 1998. "Final Remediation Investigation Report, Area of Contamination (AOC) 69W", Devens, Massachusetts; Contract No. DAAA-31-94-D0-0061; prepared for U.S. Army Corps of Engineers; August.

3. Harding Lawson Associates, (HLA), 1999. "Record of Decision Area of Contamination 69W"; Prepared for U.S. Army Corps of Engineers (USACE), New England District. June.

4. Harding Lawson Associates, (HLA), 2000. "Long Term Monitoring Plan Area of Contamination 69W"; Prepared for U.S. Army Corps of Engineers (USACE), New England District. March.

5. MACTEC, 2005. "Operating Properly and Successfully (OPS) Demonstration Area of Contamination 69W"; Prepared for U.S. Army Corps of Engineers (USACE), New England District. June.

6. Roy F. Weston, (Weston), 1998. "Contaminated Soil Removal-Phase II, Areas of Contamination (AOC) 69W, Devens Elementary School, Devens, Massachusetts, Removal Action Report." Prepared for U.S. Army Corps of Engineers (USACE), New England District. May.

7. US Army Corps of Engineers (USACE), 2001. "2000 Annual Report for Area of Contamination (AOC) 69W, Long Term Groundwater Monitoring, Devens, Massachusetts. April.

8. US Army Corps of Engineers (USACE), 2002. "2001 Annual Report for Area of Contamination (AOC) 69W, Long Term Groundwater Monitoring," April

9. US Army Corps of Engineers (USACE), 2003. "2002 Annual Report for Area of Contamination (AOC) 69W, Long Term Groundwater Monitoring, Devens, Massachusetts. April.

10. US Army Corps of Engineers (USACE), 2004. "2003 Annual Report for Area of Contamination (AOC) 69W, Long Term Groundwater Monitoring, Devens, Massachusetts. March.

11. US Army Corps of Engineers (USACE), 2005. "2004 Annual Report for Area of Contamination (AOC) 69W, Long Term Groundwater Monitoring, Devens, Massachusetts. May

12. Arthur D. Little, Inc. (ADL), 1995. "Final Transformer Study (AREE 66) Report"; prepared for U.S. Army Environmental Center; September.

13. Ostrowski, Ron, July 30, 2003. "Background Information Request, Parcel A. 15".

14. Arthur D. Little, Inc. (ADL), 1995. "Lead-Based Paint Survey (AREE 68) Report"; prepared for U.S. Army Environmental Center; October.

15. Arthur D. Little, Inc. (ADL), 1995. "Radon Survey (AREE 67) Report"; prepared for U.S. Army Environmental Center; October.

16. Vanasse Hangen Brustlin, Inc., 1994. "Devens, Reuse Plan". Prepared for Town of Ayer, Town of Harvard, Town of Lancaster, Town of Shirley, and The Massachusetts Government Land Bank. June.

17. US Army Corps of Engineers (USACE), 1995. "Archives Search Report, Conclusions and Recommendations and Maps" Ordinance, Ammunition, & Explosives, Prepared for the U.S. Department of the Army, Corps of Engineers, Engineering and Support Center, Huntsville, May.

18. Human Factors Applications, 1995. "Draft Sampling Action Report, Vol. I, Ordinance, Ammunition, & Explosives Sampling Action, Prepared for the U.S. Department of the Army, Corps of Engineers, Engineering and Support Center, Huntsville, December.

20 Guertin Elkerton, and Assoc., 2005. AHERA Re-Inspection Report, F. W. Parker Charter School, May.

ENCLOSURE 3

TABLE 1
Department of Defense (DOD)
Environmental Condition of Property (ECP) Categories
Lease Parcel A.15
Fort Devens, Massachusetts

Property Descriptions And ECP Categories[1]

EBS Parcels	Area/Name	Associated Buildings/Facilities	Size (In Acres)	Original ECP Category & Designation	Reason For Changing ECP Category	Revised ECP Category
Lease Parcel A.15	Former Devens Elementary School (AOC 69W)	Building 215	11.0	Leasable	Protection of human health and the environment have been achieved by the excavation and removal of a former UST and contaminated soils associated with prior heating fuel releases. A Long Term Monitoring Plan is in place and groundwater quality is improving. Institutional Controls are being implemented that restrict groundwater access and limit human exposure to contaminants. All remedial actions necessary to protect human health and the environment have been completed.	2

Notes:

1 - ECP Category Descriptions:

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

Category 2. - areas where only a release or disposal of petroleum products and/or their derivatives has occurred (including migration of petroleum products from adjacent areas);

Category 3. - areas where a release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action;

Category 4. - areas where a release, disposal, and/or migration of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken;

Category 5. - areas where a release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are underway but all required remedial actions have not yet taken place;

Category 6. - areas where a release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented;

Category 7. - areas that are not evaluated or require additional evaluation

ENCLOSURE 4

Finding of Suitability to Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

TABLE 2
Notification of Petroleum Products Storage, Release, or Disposal

Table 2 - Petroleum Release Notice.doc

TABLE 2
NOTIFICATION of PETROLEUM PRODUCTS, STORAGE, RELEASE, OR DISPOSAL

Finding of Suitability To Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

Site	Hazardous Substance Environmental Concern	Disposal Storage Release	Quantity	Dates	CASRN* No.	RCRA Waste No.	Site Status
AOC 69W	1. 10,000 Gal #2 Fuel Oil UST Formerly in Courtyard Area	Storage	1. Unknown	1951 to 1972	N/A	N/A	Removed July 1972
	2. 10,000 Gal #2 Fuel Oil UST Formerly located under North Parking Area	Storage	2. Unknown	1972 to 1998			Removed Jan.1998
	3. 250 gal Oil/Water Recovery Vault	Disposal	3. Unknown	1972-1998			RI Complete 1998
	4. #2 Fuel Spill Supply Line	Release Media Affected: Soil	4. Est. 8000 Gal	1978			3500 cu.yd. Soil Removal 1998
	5. #2 Fuel Spill Supply Line	Release Media Affected: Soil/Water	5. Est 8000 Gal.	1978			ROD Signed 1999
	6. EPH C9-C18 Aliphatics EPH C19-C36 Aliphatics EPH C11-C22 Aromatics VPH C9-C12 Aliphatics VPH C9-C10 Aromatics	Soil	6. 10000 ug/g 1200 ug/g 2300 ug/g 1300 ug/g 960 ug/g	1998 Soil Manage Area			LTMP 2000 to Present OPS 2005

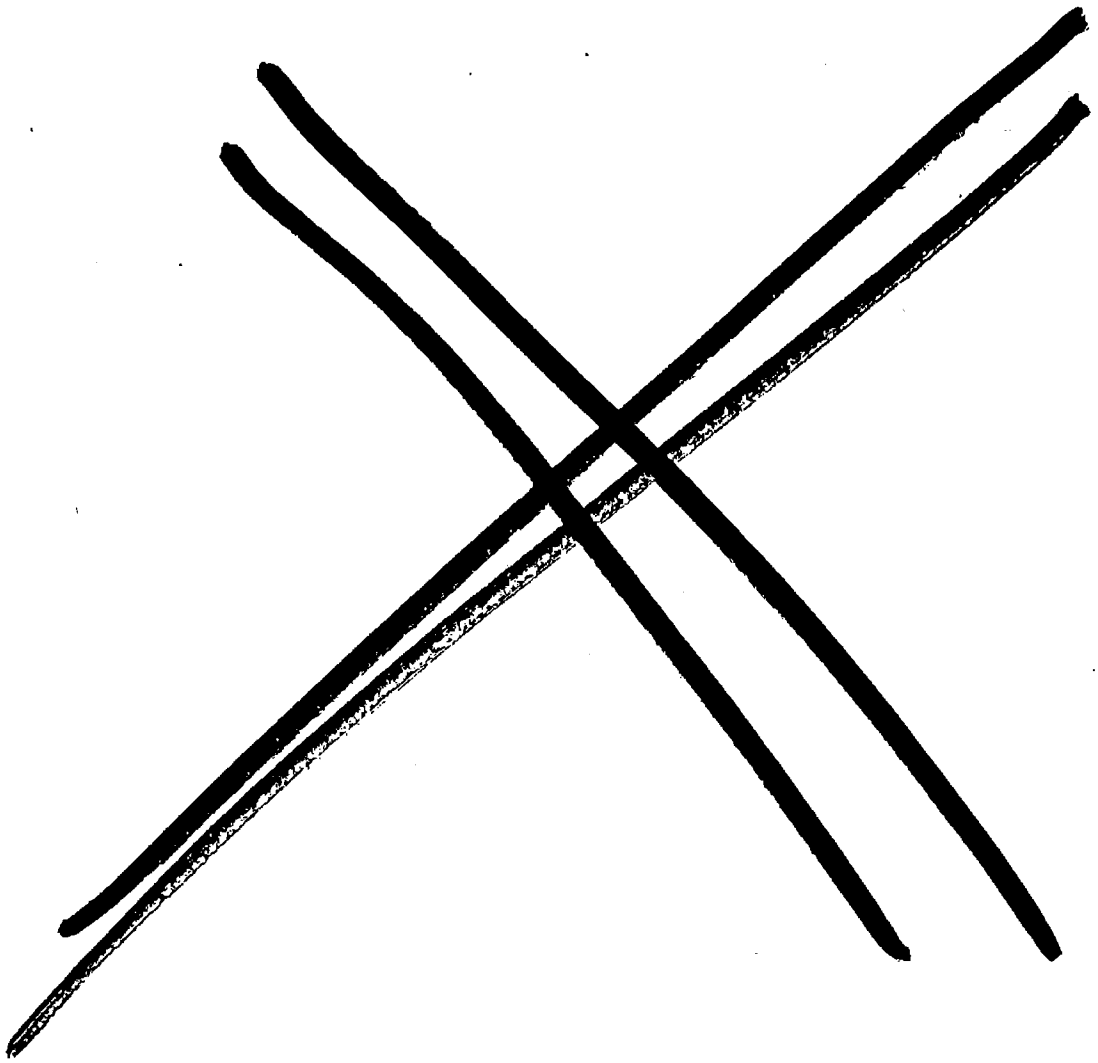
*Notes: CASRN=Chemical Abstracts Registration Number ROD=Record of Decision
RI= Remedial Investigation LTMP= Long Term Monitoring Plan OPS= Operating Properly and successfully
6. Summary of Residual Petroleum Hydrocarbons in Confirmatory Soil Sample bottom of Excavation. Within Soil Management Area

ENCLOSURE 5

US EPA Certification of OPS

Finding of Suitability to Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

EPA_OPS_Concur.pd
f



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

January 9, 2006

Mr. Robert J. Simeone
BRAC Environmental Coordinator
BRAC Environmental Office
30 Quebec Street, Box 100
Devens, MA 01432

Re: Final Operating Properly and Successfully Demonstration for Area of Contamination 69W, Devens, MA, November 2005

Dear Mr. Simeone:

The Environmental Protection Agency (EPA) has received the document titled "Final Operating Properly and Successfully Demonstration for Area of Contamination 69W, Devens, MA" dated November 2005 (the OPS Demonstration Report), as prepared by MACTEC Engineering and Consulting, Inc., under contract to the U.S. Army Corps of Engineers New England District. The OPS Demonstration Report conveyed the Army's determination that the AOC 69W remedy at the former Fort Devens is in place and operating properly and successfully. The OPS Demonstration Report contained the objective data and the weight of evidence used to support the Army's determination and demonstrate to EPA that the AOC 69W remedy is operating properly and successfully. Based on our evaluation of the OPS Demonstration Report, EPA-New England hereby approves the Army's demonstration that the AOC 69W remedy is in place and operating properly and successfully and is protective of human health and the environment. The specific aspects of evaluating whether a remedial action is operating properly and successfully and when to approve a federal agency demonstration have been delegated to EPA-New England.

The determination that a remedy is operating properly and successfully is a precondition to the deed transfer of federally owned property in accordance with §120(h)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C §9620(h)(3). A federal agency can transfer real property subject to Section 120(h)(3) by deed once a remedial action has been constructed and installed, but before the cleanup objectives have been met, provided that the federal agency can demonstrate to EPA that the remedial action is operating properly and successfully. The approval of the OPS Demonstration for AOC 69W will permit the transfer and redevelopment of parcel A.15, an approximately 11 acre parcel.

EPA-New England's approval of the AOC 69W OPS Demonstration is made without any independent investigation or verification of the information used to support the AOC 69W OPS

Demonstration. EPA-New England expressly reserves all rights and authorities relating to information not contained in the AOC 69W OPS Demonstration Report, whether or not such information is known as of this date or discovered in the future. Further, EPA-New England's approval of the AOC 69W OPS Demonstration is solely for the purpose of allowing deeded transfer of property and does not imply that all cleanup actions are completed. The Army is still obligated to complete remedial actions for AOC 69W as specified in the AOC 69W Record of Decision (ROD) and Long-Term Monitoring Plan (LTMP) and follow-up actions specified in the Devens 2005 Five-Year Review Report. EPA-New England and the Massachusetts Department of Environmental Protection (Mass DEP) will continue their involvement and oversight of the Army's environmental restoration of AOC 69W and other identified sites at the former Fort Devens, as required by the Federal Facility Agreement (FFA), dated April 1991, and Modification I to the Fort Devens FFA, dated March 1996.

As always, we look forward to working with you, Mass DEP and MassDevelopment in continuing the environmental cleanup and economic redevelopment successes of Devens.

Sincerely,

Susan Studlien, Director
Office of Site Remediation and Restoration

cc: Ginny Lombardo, EPA-NE
Lynne Welsh, MDEP
Ron Ostrowski, MassDevelopment
Bryan Olson, EPA-NE
Dave McTigue, Gannett Fleming

ENCLOSURE 6

CERCLA COVENANT, ACCESS PROVISIONS AND OTHER DEED NOTICES

The following CERCLA Covenant and Access Provisions, along with the other deed 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. In addition, not withstanding any contract agreements to the contrary, the Army acknowledges its ongoing obligations under CERCLA, §120 (h).

I. CERCLA COVENANTS AND NOTICE

A. The Grantee is hereby notified that the Grantor has identified the Property as real property on which no hazardous substances were released or disposed of, but on which petroleum products and their derivatives are known to have been released or disposed of. Available information regarding the type, quantity, and location of such petroleum products and their derivatives and actions taken with regard to the Property is set forth in the Final Finding of Suitability to Transfer, Former Fort Devens Elementary School Area of Contamination 69W, dated November 2006, ("FOST").

B. The Grantor hereby covenants that:

1. all response action necessary to protect human health and the environment with respect to any petroleum product remaining on the Property has been taken prior to the date of this conveyance hereunder, and

2. any additional response action found to be necessary under applicable laws and regulations after the date of this conveyance with respect to the discovery hazardous substances and/or petroleum products or their derivatives that were released or disposed of prior to conveyance of the Property shall be conducted by the United States. This covenant shall not apply in any case in which the person or entity to which the Property is transferred is held to be a potentially responsible party under CERCLA with respect to the release or disposal of any hazardous substances and/or petroleum products or their derivatives on the Property.

II. ACCESS RIGHTS RESERVED UNDER CERCLA

The Grantor hereby reserves, and the Grantee takes the Property subject to, a right of access on, over and through the Property as necessary to conduct any necessary investigation, response action, corrective action, or other activity necessary for the Grantor to fulfill its environmental responsibilities under this Deed or applicable law or regulation. In exercising the rights hereunder, the Grantor shall give the Grantee or its successors or assigns reasonable notice of actions to be taken on the Property pursuant to this reserved easement and shall, to the extent reasonable, consistent with the Federal Facilities Agreement ("FFA") defined hereunder and

applicable law and regulation, and at no additional cost to the United States, endeavor to minimize the disruption to the Grantee's, its successors', or assigns' use of the Property.

III. FEDERAL FACILITIES AGREEMENT

By accepting this Deed, the Grantee acknowledges that the Grantor has provided the Grantee with a copy of the Federal Facilities Agreement (the "FFA") entered into between the Grantor and the EPA dated May 11, 1991, and the modification thereto, dated March 26, 1996. The Grantor shall provide the Grantee with a copy of any future amendments to the FFA.

A. The Grantor, EPA, the Commonwealth of Massachusetts acting by and through the MADEP, and their respective agents, employees, and contractors, shall have such access to, over and through the Property as may be necessary for any investigation, response, or corrective action pursuant to CERCLA or the FFA found to be necessary before or after the date of this Deed on the Property or on other property comprising the Fort Devens National Priorities List (the "NPL") site. This reservation includes the right of access to, and use of, to the extent permitted by law, any available utilities at reasonable cost to the Grantor, EPA and DEP.

B. In exercising the rights hereunder, the Grantor, MADEP and the EPA shall give the Grantee or its successors or assigns reasonable notice of actions taken on the Property under the FFA and shall, to the extent reasonable, consistent with the FFA, and at no additional cost to the Grantor, the MADEP and the EPA, endeavor to minimize the disruption to the Grantee's, its successors' or assigns' use of the Property.

C. The Grantee agrees that notwithstanding any other provision of this Deed, the Grantor assumes no liability to the Grantee, its successors or assigns, or any other person, should implementation of the FFA interfere with the use of the Property. The Grantee and its successors and assigns shall have no claim on account of any such interference against the Grantor, the MADEP, the EPA or any officer, agent, employee, or contractor thereof.

D. Prior to the determination by the Grantor, EPA and DEP that all remedial action is complete under CERCLA and the FFA on the Property, the Grantee, its successors and assigns, shall not undertake activities on the Property that would interfere with or impede the completion of the CERCLA clean-up on the Property and shall give prior written notice to the Grantor, the EPA and the MADEP of any construction, alterations, or similar work on the Property that may interfere with or impede said clean-up.

E. The Grantee, its successors and assigns shall comply with any institutional controls established or put in place by the Grantor, EPA or MADEP relating to the Property which are required by any FOST or Record of Decision ("ROD") or amendments thereto related to the Property. Additionally, the Grantee shall ensure that any leasehold it grants in the Property or any fee interest conveyance of any portion of the Property provides for legally-binding compliance with the institutional controls required by any such FOST or ROD.

F. For any portion of the Property subject to a response action under CERCLA or the FFA, prior to the conveyance of an interest therein, the Grantee shall include in all conveyances

provisions for allowing the continued operation of any monitoring wells, treatment facilities, or other response activities undertaken pursuant to CERCLA or the FFA on said portion of the Property and shall notify the Grantor, EPA, and the DEP by certified mail, at least thirty (30) days prior to any such conveyance of an interest in said Property, which notice shall include a description of said provisions allowing for the continued operation of any monitoring wells, treatment facilities, or other response activities undertaken pursuant to CERCLA or the FFA.

G. Prior to the determination by the Grantor and EPA that all remedial action under CERCLA and the FFA is complete for the Fort Devens NPL site, the Grantee and all subsequent transferees of an interest in any portion of the Property will provide copies of the instrument evidencing such transaction to the DEP, the EPA, and the Grantor by certified mail, within fourteen (14) days after the effective date of such transaction.

H. The Grantee and all subsequent transferees shall include the provisions of this Section III in all subsequent leases, transfer, or conveyance documents relating to the Property or any portion thereof that are entered into prior to a determination by the Grantor that all remedial action is complete at the Fort Devens NPL site. In addition, should any conflict arise between the FFA and any amendment thereto and the deed provisions, the FFA provisions will take precedence. The Grantor assumes no liability to the Grantee, its successors and assigns, should implementation of the FFA interfere with their use of the Property.

IV. FINAL BASE-WIDE ENVIRONMENTAL BASELINE SURVEY AND FOST.

The Grantee has received the technical environmental reports, including the Final Base-Wide Environmental Baseline Survey prepared by Arthur D. Little, Inc. dated March 1996 (the "Base-Wide EBS"); and the individual FOST for the Property which is attached hereto as Exhibit B, prepared by, or on behalf of, the Grantor, the Grantee, and others, and Grantor agrees, to the best of the Grantor's knowledge, that said FOST accurately describes the environmental conditions of the Property. The Grantee has inspected the Property and accepts the physical condition and current level of known hazardous substances including petroleum products on the Property as disclosed in the FOST and/or the Base-Wide EBS and deems the Property to be safe for the Grantee's intended use as a school. If, after conveyance of the Property to the Grantee, there is an actual or threatened release of a hazardous substance (as defined under Section 101 of CERCLA) on, under, or from the Property, or in the event that a hazardous substance is discovered on or under the Property after the date of the conveyance hereof, whether or not such hazardous substance was set forth in the technical environmental reports, including the individual FOST or the Base-Wide EBS, Grantee or its successors or assigns shall be responsible for such release or newly discovered hazardous substance unless the Grantee is able to demonstrate that such release or such newly discovered hazardous substance was due to Grantor's prior activities, ownership, use, or occupation of the Property, or the activities of the Grantor's contractors, employees, and/or agents. The Grantee, its successors and assigns, and as consideration for the conveyance, agree to release the Grantor from any liability or responsibility for any claims arising out of or in any way predicated on the release of any hazardous substance on the Property occurring after the conveyance, where such hazardous substances were placed on the Property by the Grantee, or its agents, employees, invitees, or contractors, after the conveyance.

V. "AS IS"

The Property and personal property located thereon is conveyed under this deed in an "as is, where is" condition, without any representation or warranty whatsoever by the Grantor concerning the state of repair or condition of said Property, unless otherwise noted herein.

VI. NON-WAIVER OF CERCLA CLAIMS

Nothing contained in this Deed shall affect the Grantor's responsibilities to conduct response actions or corrective actions that are required by the FFA, CERCLA or other applicable law, rules and regulations, or the Grantor's indemnification obligations under Section 330 of the National Defense Authorization Act for Fiscal Year 1993, as amended.

VII. NOTICE OF NON-DISCRIMINATION

With respect to activities related to the Property, the Grantee shall not discriminate against any person or persons or exclude them from participation in the Grantee's operations, programs or activities conducted on the Property because of race, color, religion, sex, age, handicap, or national origin.

VIII. INDEMNIFICATION

A. The Grantor recognizes its obligation to hold harmless, defend, and indemnify the Grantee and any successor, assignee, transferee, lender, or lessee of the Grantee or its successors and assigns, as provided in Section 330 of the National Defense Authorization Act for Fiscal Year 1993, as amended, and to otherwise meet its obligations under law, subject to the availability of appropriated funds.

B. The Grantee shall indemnify and hold the Grantor harmless from all claims, liability, loss, cost, environmental contamination, or damage arising out of or resulting from the activities of the Grantee, its agents, employees, or contractors on the Property prior to the date of this Deed, except where such claims, liability, loss, cost, environmental contamination, or damage is the result of the gross negligence or willful misconduct of the Grantor or its employees, agents, or contractors.

IX. ANTI-DEFICIENCY ACT

The Grantor's obligation to pay or reimburse any money under this Deed is subject to the availability of appropriated funds to the Department of the Army, and nothing in this Deed shall be interpreted to require obligations or payments by the United States in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

ENCLOSURE 7

ENVIRONMENTAL PROTECTION PROVISIONS (EPP)

Finding of Suitability To Transfer
Fort Devens, Massachusetts
Former Fort Devens Elementary School
Lease Parcel A.15

The following conditions, restrictions, and notifications will be placed in the deed to ensure protection of human health and the environment and to preclude any interference with ongoing or completed remediation activities at the former Fort Devens.

I. LAND USE RESTRICTIONS

A. Educational, Institutional and Open Space Use Restriction

The Department of the Army has undertaken careful environmental study of the property and has determined that the Property is suitable for Educational, Institutional and Open Space Uses based on a site-specific risk assessment. Other land uses including residential land uses were not evaluated in the site-specific risk assessment and the Grantor makes no representation regarding the suitability of the land for other purposes. In order to protect human health and the environment and further the common environmental objectives and land use plans of the United States, State of Massachusetts and Grantee, the covenants and restrictions shall be included to assure the use of the property is consistent with the environmental condition of the Property. The following restrictions and covenants benefit the lands retained by the Grantor and the public welfare generally and are consistent with state and federal environmental statutes.

Restrictions and Conditions. The Grantee, for itself, its successors or assigns covenants that it shall use the Property solely for Educational, Institutional and Open Space Uses. These restrictions and covenants are binding on the Grantee, its successors and assigns; shall run with the land; and are forever enforceable.

B. Groundwater Restriction.

Grantee is hereby informed and acknowledges that groundwater on the Property contains residual petroleum hydrocarbons and Manganese and Arsenic at levels which exceed drinking water standards. The Grantee, its successors and assigns, shall not access or use ground water underlying the Property for any purpose without the prior written approval of United States Department of the Army, the United States Environmental Protection Agency (USEPA), and the Massachusetts Department of Environmental Protection (MADEP). 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).

C. Soil Excavation Restriction

Grantee is hereby informed and acknowledges that the soil under the Property within the Soil Management Area (see Enclosure 1) contains residual petroleum hydrocarbons at levels which require implementation of soil management and health and safety plans prepared by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals, prior to initiating excavations. The Grantee, its successors and assigns, shall not excavate soil from areas of the Property identified as the Soil Management Area for any purpose without the prior written approval of United States Department of the Army, the USEPA, and the MADEP. The restricted area is approximately 100 by 88 feet at and under the Northwest corner of the school building as shown on the Property Location Map (Enclosure. 1).

D. Modification or Release of Environmental Protection Provisions

The EPP shall remain in force until such time as the concentration of petroleum related chemical constituents in the soil and groundwater beneath or on Property constituting the Devens NPL site AOC 69W have been reduced to levels that allow for unlimited exposure and unrestricted use. Nothing contained herein shall preclude the Grantee, its successors or assigns, from undertaking, in accordance with applicable laws and regulations and without any cost to the Grantor, such additional action necessary to allow for other less restrictive use of the Property. Prior to such use of the Property, the Grantee shall consult with and obtain the approval of the Grantor, and, as appropriate, the USEPA, MADEP, and local authorities. Upon the Grantee's obtaining the approval of the Grantor and, as appropriate, the USEPA, MADEP, and local authorities, the Grantor agrees to record an amendment hereto. This recordation shall be the responsibility of the Grantee and at no additional cost to the Grantor.

E. Project Notifications

The Grantee, its successors and assigns, shall submit any notifications or requests for modifications to the above restrictions, by first class mail, postage prepaid, addressed as follows:

a. Department of the Army

Chief, Real Estate Division
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

b. United States Environmental Protection Agency

Devens Remedial Project Manager
Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114

c. Massachusetts Department of Environmental Protection

Federal Facilities (Devens) Program Manager
Massachusetts Department of Environmental Protection
Central Region Office
627 Main Street
Worcester, MA 01608

II. WETLANDS AND FLOODPLAINS

A. General Provisions

The Property contains wetland areas protected under state, federal and local laws and regulations as indicated in Enclosure 1 - Site Location Map. Applicable laws and regulations restrict activities that involve draining wetlands or the discharge of fill materials into wetland areas, including, without limitation, the placement of fill materials; the building of any structure; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and dams and dikes. To fulfill the Grantor's commitment in the Fort Devens Disposal and Reuse Environmental Impact Statement Record of Decision, made in accordance with the National Environmental Policy Act of 1969, 42 U.S.C. §4321 et seq., this deed notice provides for protection of wetlands beyond what would otherwise specifically be required under federal and state law.

B. Wetlands Protection

To protect water quality, groundwater recharge, and wildlife habitat, the Grantee, its successors, and assigns shall restrict activities within and protect any wetlands on the Property herein conveyed as provided for in Article XII.C. of the Devens By-Laws, dated November 18, 1994, and approved by the towns of Ayer, Harvard, and Shirley on December 7, 1994, Article XII.C. of the Devens By-Laws may be amended from time to time in accordance with applicable law, provided that any such amendment will not affect the obligation of the Grantee and its successors and assigns hereunder to comply with Article XII.C. of the Devens By-Laws, in its form as of the date of the Deed conveyance, unless such amendment receives the written consent of the DEP.

C. Enforcement

The Grantee covenants for itself, its successors, and assigns that the Grantee, its successors and assigns shall include, and otherwise make legally binding, the restrictions in this Section II in all subsequent leases, transfer, or conveyance documents relating to the Property, provided that the Property contains wetlands protected by applicable state or federal law. The restrictions and protections provided for in this Section II shall run with the land. The restrictions in this Section II benefit the lands retained by the Grantor that formerly comprised Fort Devens, as well as the public generally. The Grantor and/or The Commonwealth of Massachusetts shall have the right to enforce the wetlands restrictions provided for in this Section II by appropriate legal proceedings and to obtain injunctive and other equitable relief against any violations, including, without limitation, relief requiring restoration of any of the Property to its condition prior to the time of the injury complained of, and shall be in addition to, and not in limitation of, any other rights and remedies available to the Grantor and The Commonwealth of Massachusetts.

III. NOTICE OF THE PRESENCE OF ASBESTOS

A. The Grantee is hereby informed and does acknowledge that the building located on the Property contains friable and non-friable asbestos or asbestos-containing materials ("ACM") as identified in the FOST, the Base-Wide EBS and the Area Requiring Environmental Evaluation 65 ("AREE 65") prepared for the Grantor by Arthur D. Little, Inc., dated May 1995.

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 any 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 or ACM on the Property, whether the Grantee, its successors or assigns have properly warned or failed to properly warn the individual(s) injured. The Grantee assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from (i) any exposure to asbestos or ACM that resulted prior to the Grantor's conveyance of such portion of the property to the Grantee pursuant to this Deed or any leases entered into between the Grantor and Grantee, or (ii) any disposal or mishandling of asbestos or ACM by the Grantor prior to the Grantor's lease or deed conveyance of the Property to the Grantee.

C. The Grantee agrees to be responsible for any future remediation of asbestos identified in the Base-Wide EBS, the FOST, or AREE 65 which is determined to be necessary on the Property after the date of the Lease. The Grantor assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from: (i) any exposure to asbestos or ACM that resulted due to the Grantee's failure to comply with any legal requirements applicable to asbestos on any portion of the Property, or (ii) any disposal of asbestos or ACM after the date of lease or deed conveyance of the Property to the Grantee.

D. The Grantee further agrees to bear full responsibility for and discharge the Grantor, its officers, agents and employees, from and against all suits, claims, demands or actions, liabilities, judgments, costs and attorneys' fees to the extent arising out of, or in any manner predicated upon, exposure to asbestos, identified in the Base-Wide EBS, the FOST, or AREE 65 on any portion of the Property, which exposure occurs after the date of lease or deed conveyance of the Property to the Grantee, or any future remediation or abatement of asbestos on any portion of the Property or the need therefore.

E. The Grantee acknowledges that it has had the opportunity to inspect the property as to asbestos content and condition and any hazardous or environmental conditions related thereto. The failure of the Grantee to inspect or to be fully informed regarding the content or quantity of ACM as described in the Base-Wide EBS will not constitute grounds for any claim or demand against the Grantor, except as may be otherwise provided in the Property Deed.

IV. NOTICE OF THE PRESENCE OF UNDERGROUND STORAGE TANKS

The Grantee is hereby informed and does acknowledge that underground storage tanks (USTs) have been located on the Property, as described in the Base-Wide EBS and/or the FOST. The Grantee has further been informed by the Grantor that all USTs that have been removed from the Property were tested at the time of removal, and any contamination identified was removed or remediated to the extent feasible prior to backfilling.

V. RADON NOTIFICATION

A radon survey was conducted at Fort Devens by Arthur D. Little, Inc. (ADL), 1995. "Radon Survey (AREE 67) Report"; prepared for U.S. Army Environmental Center. Building 215 was not part of that radon survey, however, some building structures that were sampled during AREE 67 survey, radon was detected at or above the EPA residual action level of 4 picocuries per liter (pCi/L).

VI. NOTICE OF THE PROGRAMMATIC AGREEMENT

The Grantee agrees to comply with applicable provisions of the Programmatic Agreement among the Grantee, the Advisory Council on Historic Preservation, and the Massachusetts Historic Commission dated March 20, 1996, (the "Programmatic Agreement") which pertain or otherwise apply to the Property. The Programmatic Agreement regulates those activities that may affect structures, facilities, or cultural or archeological sites eligible for, or listed on, the National Register of Historic Places.

VII. MEC NOTIFICATION

The Grantor completed a comprehensive records search, and based on that search, had undertaken and completed statistical and physical testing of areas on the Property, if any, where the existence of munitions and explosives of concern ("MEC") was considered to be present. 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. 2710(e)(9); (B) discarded military

munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or (C) explosive munitions constituents (e.g. TNT, RDX) present in high enough concentrations to pose an explosive hazard. Based upon said survey and research, the Grantor represents that, to the best of its knowledge, no MEC is currently present on the Property. Notwithstanding the survey and research conducted by the Grantor, the parties acknowledge that given the finding of potential MEC contamination on other parcels at the former Fort Devens, and due to the former use of the Property as part of an active military installation and training grounds, there is a possibility that MEC may exist on the Property. In the event that the Grantee, its successors and assigns, or any other person should discover any MEC on the Property, it shall not attempt to remove or destroy it, but shall immediately notify the local Police Department and the Grantor, or the Grantor's designated explosive ordnance representative. Personnel will be dispatched by the Grantor, at its sole cost and expense, to promptly to dispose of such ordnance at no expense to the Grantee.

The Grantee shall neither transfer the Property, lease the Property, nor grant any interest, privilege, or license whatsoever in connection with the Property without the inclusion of the provisions of this Section IX and shall require the inclusion of such provisions of this Section IX in all further deeds, easements, transfers, leases, or grant of any interest, privilege, or license.

VIII. NOTICE OF THE PRESENCE OF LEAD-BASED PAINT

Notice of the Presence of Lead-Based Paint and Covenant Against the Use of the Property for Residential Purposes.

A. 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 as disclosed to the Grantee under Section 1611.d. of the Lease, the Base-Wide EBS and the Area Requiring Environmental Evaluation 68 ("AREE 68") prepared by the Grantor. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. The provisions of this Section XII shall apply only to the extent the presence of lead-based paint was disclosed in the Property Deed, the Base-Wide EBS, the FOST or AREE 68.

B. The Grantee agrees to be responsible for any future abatement and/or disposal of lead-based paint identified in this Deed, the Base-Wide EBS, the FOST or AREE 68 which is determined to be necessary on the Property after the date of lease or deed conveyance of the Property to the Grantee.

C. The Grantor assumes no liability for damages or remediation for personal injury, illness, disability, death or property damage arising from: (i) any exposure to lead- based paint hazards that resulted from the Grantee's failure to comply with any applicable federal, state or local legal requirements for lead-based paint abatement that resulted from the Grantee's demolition of the buildings, or (ii) any disposal of lead-based paint debris arising from the Grantee's use of the Property after the date of lease or deed conveyance of the Property to the Grantee.

D. The Grantee further agrees to bear full responsibility for and discharge the Grantor, its officers, agents and employees, from and against all suits, claims, demands, or

actions, liabilities, judgments, costs and attorneys' fees to the extent arising out of, or in any manner predicated upon personal injury, death or property damage resulting from, related to, caused by or arising out of the Grantee's mishandling of the lead based paint or lead based paint hazards on the Property.

E. The Grantee shall provide any purchaser of any interest in Residential Real Property with a copy of the Lead-Paint Notice, or other such notice as may be required under state or federal law.

ENCLOSURE 8

PUBLIC NOTICE

Finding of Suitability to Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

FOST_Public_Notice.
pdf

Nashoba Valley MARKETPLACE

GROTON LANDMARK • HARVARD HILLSIDE • PEPPERELL FREE PRESS • THE PUBLIC SPIRIT, AYER • SHIRLEY ORACLE • TOWNSEND TIMES

FRIDAY, AUGUST 18, 2006

LEGAL NOTICE
Devens Reserves Forces Training Area
U. S. Army
PUBLIC NOTICE

The Devens RFTA Base Realignment and Closure (BRAC) Environmental Office hereby announces, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments Reauthorization Act of 1986, that the Finding of Suitability to Transfer (FOST) for Lease Parcel A.15 (former Fort Devens Elementary School and Area of Contamination 69W) is being released for public comment. The purpose of the FOST is to document the environmental suitability of this parcel of property for transfer from the Army to MassDevelopment. Lease Parcel A.15 is an 11.0 acre parcel on the former Fort Devens Main Post located near the northeast corner of the intersection of Jackson Road and Antietam Street. The public may comment on the FOST by submitting suchcomments on or before September 18, 2006. All comments via mail, e-mail or fax can be submitted to:
Mr. Robert Simeone
Devens BRAC
Environmental Office
30 Quebec Street, Unit 100
Devens, MA 01434-4479
E-mail: robert.j.simeone@devens.army.mil
Telephone: (978)796-2205
Fax: (978)796-3133
This document has been forwarded to the Massachusetts Department of Environmental Protection (MADEP), the U.S. Environmental Protection Agency (USEPA), and is available at the public libraries in Harvard and Ayer and at the Devens BRAC Environmental Office during business hours. A copy of the document can also be obtained by calling the Devens BRAC Environmental Office at (978)796-3835.

August 18, 2006

COMMONWEALTH OF MASSACHUSETTS
THE TRIAL COURT
THE PROBATE AND FAMILY COURT DEPARTMENT
MIDDLESEX, SS DIVISION
DOCKET NO. 03P3685PG
NOTICE
IN THE ESTATE OF SHAY MARIE CARNEVALE AND EDMUND CARNEVALE
To all persons interested in the estate of SHAY MARIE CARNEVALE and EDMUND CARNEVALE of SHIRLEY in the County of Middlesex. A Petition has been presented in the above-captioned matter praying for CHILD SUPPORT. IF YOU DESIRE TO OBJECT THERETO, YOU OR YOUR ATTORNEY MUST FILE A WRITTEN APPEARANCE IN SAID COURT AT MIDDLESEX PROBATE AND FAMILY COURT, 208 CAMBRIDGE STREET, CAMBRIDGE, MA 02141, ON OR BEFORE TEN O'CLOCK IN THE FORENOON

LEGAL NOTICE
TOWN OF AYER
PLANNING BOARD
PUBLIC HEARING

The Ayer Planning Board will be conducting a Public Hearing on Thursday, September 7, 2006 at 7:15 p.m. at the Town Hall, 1st Floor Meeting Room, 1 Main St., Ayer, MA, pursuant to MGL Chapter 41, to consider granting approval for the Definitive Plan entitled Elizabeth Estates subdivision, consisting of 10 lots. The property is situated along Norwood Ave., northerly of Highland Ave. and 300-ft. southerly of Washington St., Ayer, MA. Copies of the application may be inspected in the Town Clerk's office M-F during normal business hours.
Property: Assessors Map 20 – Parcel 52
ELIZABETH HUGHES
Chairperson
AYER PLANNING BOARD

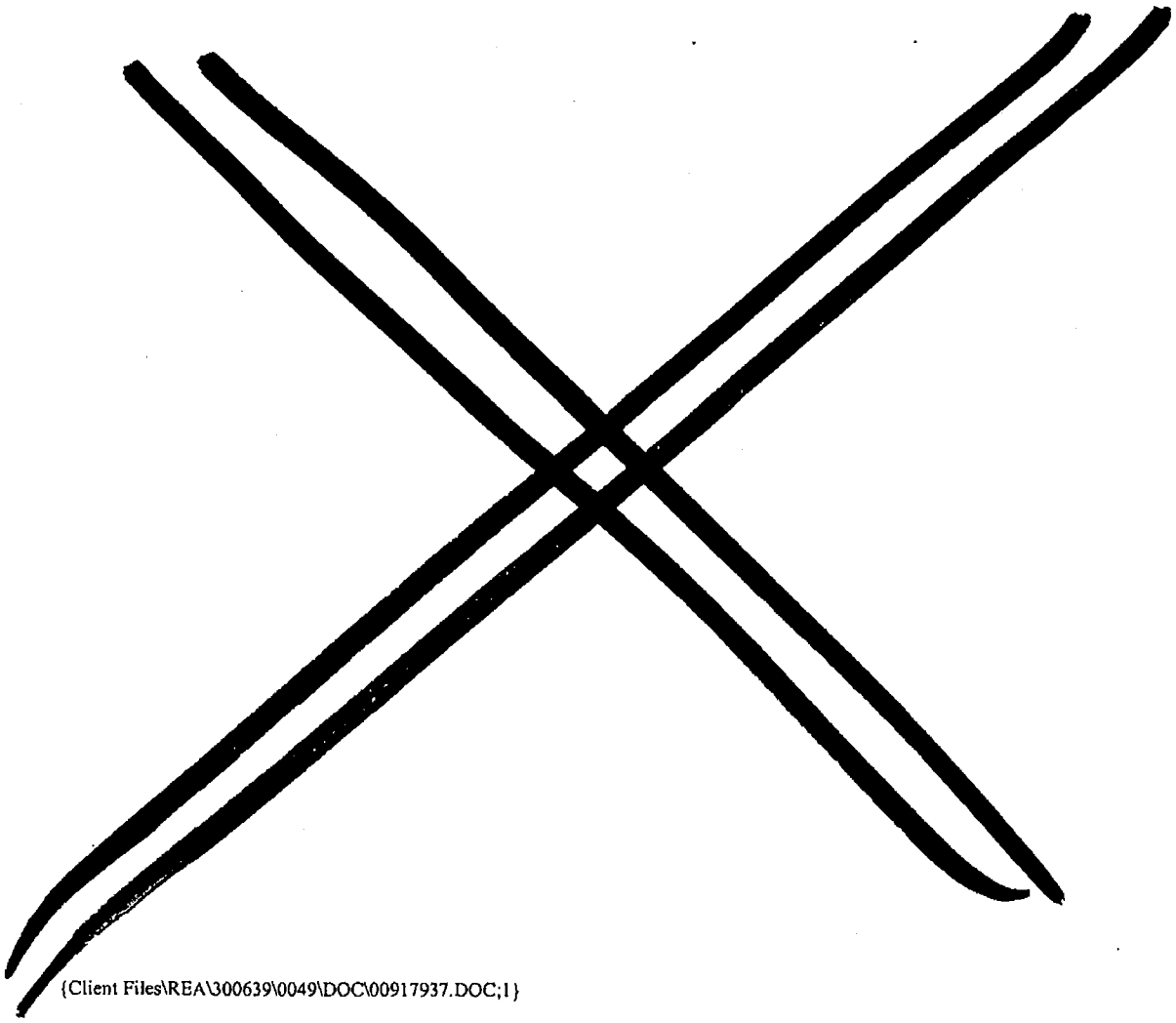
August 18, 25, 2006

ENCLOSURE 9

RESPONSIVENESS SUMMAARY

Finding of Suitability to Transfer
Lease Parcel A.15
Fort Devens, Massachusetts

Responsiveness
Summary.doc



ENCLOSURE 9

RESPONSIVENESS SUMMARY

The Army received comments on the Finding of Suitability to Transfer (FOST) for Parcel A.15 from the following stakeholders:

U.S. Environmental Protection Agency, Region I (USEPA) in a letter dated May 25, 2006.

Massachusetts Department of Environmental Protection (MADEP) in a letter dated May 12, 2006.

The following comments provided by USEPA and MADEP are listed below *(in italic)* with the Army's response provided immediately below.

USEPA Comments:

1. *Page 1, Section 2: Under the "Property Description and History" section, please include a brief reference to the fact that due to soil and groundwater contamination, a Record of Decision (ROD) was issued on June 30, 1999, and an Operating Properly and Successfully (OPS) Demonstration was issued in November 2005.*

Army Response: This information is provided in Sections 3 Environmental Documentation and Section 4 Environmental Condition of Property.

2. *Page 2, Section 4.1: Change "Area of Concern" to "Area of Contamination", as AOC is defined in the FFA as Area of Contamination.*

Army Response: Text has been revised accordingly.

3. *Page 4, Section 4.3.4: Add missing parenthesis to the 2nd paragraph of this section. With respect to the statement "...there is no offsite migration of Site contaminants in excess of cleanup goals", please consider EPA's general comment 2 on the Draft 2004 Annual Report for AOC69W, restated here:*

> *Manganese exceedances in well ZWM-95-15X are continuing and appear to be increasing (see Figure 1.6). This well is a "sentry" well. The Final LTMP (HLA, 2000), page 4-1, states that "If there is an indication that contaminants are migrating downgradient from the former source area, the Army in conjunction with MADEP and USEPA representatives will evaluate the need for additional action. Contaminants will be deemed to be migrating downgradient if any COCs are detected above their respective action levels in any of the designated sentry wells." The BCT should discuss the manganese exceedances at the -15X sentry*

well. This well is only approximately 60 feet downgradient of the edge of Willow Brook. Possibly, the Army could include, in future Annual Reports, observations of the brook to the northwest of -15X to determine if metal floc is observed. If the increasing trend of Mn at this "sentry" well continues in the future, the BCT will need to consider additional follow-up action.

Army Response: Text has been revised to acknowledge Manganese concentrations in groundwater.

4. *Page 5, Section 4.9: Please include an explanation here of the re-evaluation of the air quality data that is underway in response to the 2005 Five-Year Review follow-up action.*

Army Response: Text has been revised to include summary the latest data review and re-assessment of previous indoor air studies.

5. *Page 6, Section 4.12: With respect to the statement that "...there is no migration of Site contaminants in excess of cleanup goals to adjacent properties", see comment 3 above.*

Army Response: Text has been revised as follows: *"There are no conditions adjacent to the Property that present an unacceptable risk to human health and the environment."*

6. *Enclosure 6: Concerning language to go into the property deed:*

- *It would be useful to have all the proposed deed warnings, covenants and restrictions cataloged in this one enclosure even if they are also mentioned in the body of the FOST (e.g. lead paint, asbestos, radon, hazardous substance notification etc.).*

- *Due to the need for institutional controls and long term restrictions on land use required by the AOC69W ROD, the controls and restrictions must be put into effect through the deed in a manner that is legally sufficient to bind the grantee, its successors and assigns and run with the land.*

- *Please identify that the property is subject to the Fort Devens Federal Facility Agreement (FFA), dated April 1991, and Modification I to the FFA, dated March 1996.*

- *Include the covenants identified in CERCLA §120(h)(3)(A)(ii) warranting that--- "(I) all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, and (II) any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States".*

- *Please include a clause in the deed identified in CERCLA §120 (h)(3)(A) "granting the United States access to the property in any case in which remedial action or corrective action is found to be necessary after the date of such transfer."*

- *Please include, as outlined in FOST guidance from the Deputy Secretary of Defense, dated 1 June 1994, additional conditions in the transfer deed that will ensure environmental investigations and remedial and oversight activities will not be disrupted at any time. Such conditions should include, but are not limited to: (a) providing for continued access for DoD (or its designated contractor) and regulatory agencies to monitor the effectiveness of cleanup, perform five-year reviews, and/or take additional remedial or removal actions; (b) prohibiting activities that could disrupt any remediation, activities, or jeopardize the protectiveness of those remedies such as the following:*
  1. *Surface application of water that could impact the migration of contaminated ground water, or*
  2. *Construction that would interfere with, negatively impact, or restrict access for cleanup work.*

Army Response: Enclosure 6 has been revised to include the CERCLA covenant, access provisions and other deed provisions as per the Army's model deed language and guidance.

7. *Enclosure 6: EPA's address is One Congress Street, Suite **1100**, not Suite 100. Please revise.*

Army Response: Text has been revised accordingly.

MADEP Comments:

Section 8, page 7, Finding of Suitability to Transfer: In addition to the Environmental Protection Provisions, most FOST documents have the following covenants and clauses added to the deed:

- *The covenant under CERCLA §120 (h)(3)(A)(ii)(I) warranting that all remedial action necessary to protect human health and the environment with respect to hazardous substances remaining on the Property has been taken before the date of transfer.*

- *The covenant under CERCLA §120 (h)(3)(A)(ii)(II) warranting that any remedial action found to be necessary after the date of transfer with respect to such hazardous substances remaining on the Property shall be conducted by the United States.*

- *The clause as required by CERCLA §120 (h)(3)(A)(iii) granting the United States access to the Property in any case in which remedial action or corrective action is found to be necessary after the date of transfer.*

Please add these to the FOST.

Army Response: Enclosure 6 has been revised to include the CERCLA covenant, access provisions and other deed provisions as per the Army's model deed language and guidance.

Additionally, please include a BCT approved LTMP and an Updated Indoor Air Quality evaluation. These should be included in this FOST. Also identify the intended uses for this property and its zoning classification per the Reuse Plan.

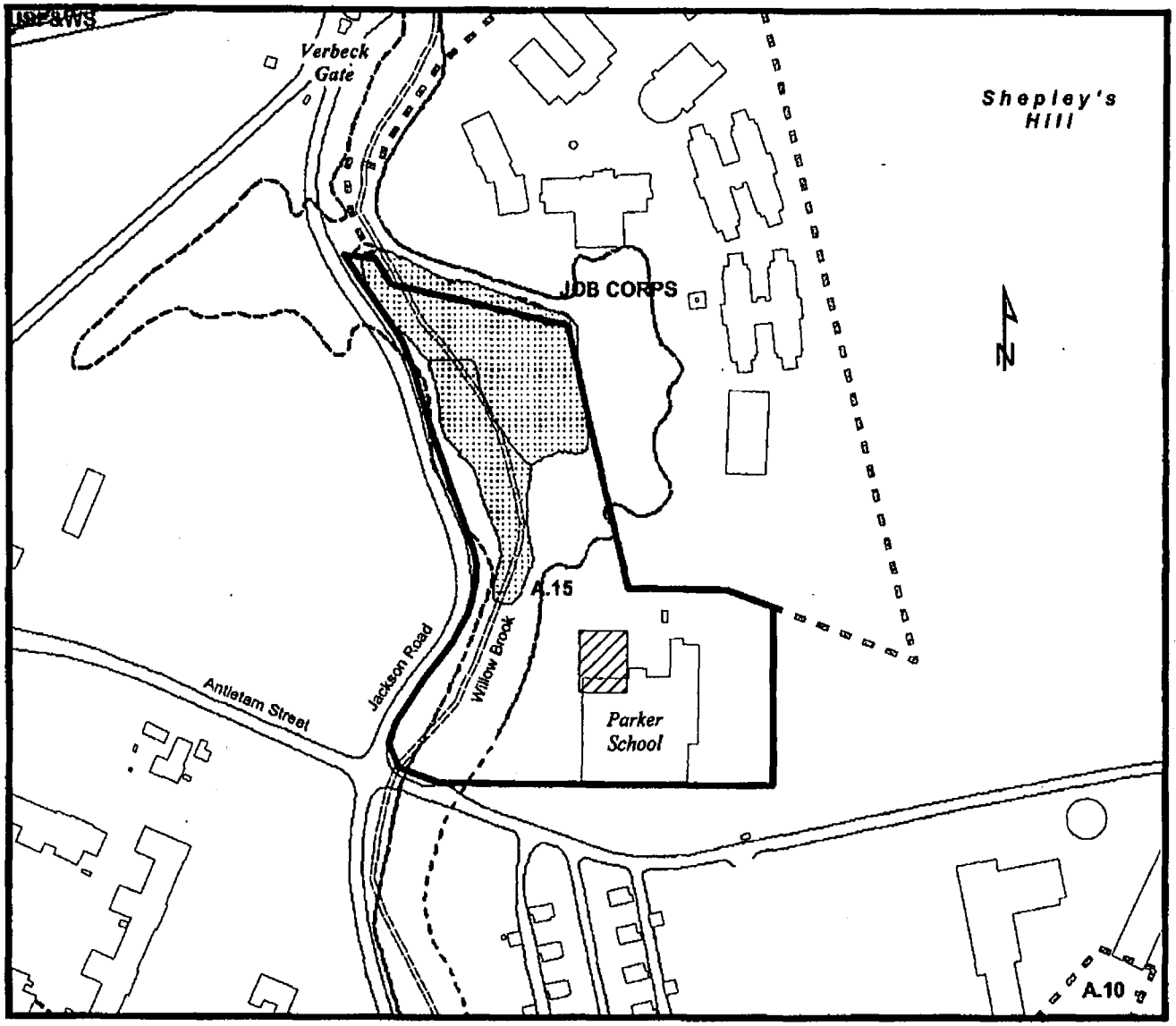
Army Response: The environmental conditions related to impacted groundwater and the associated requirement for long term groundwater monitoring is adequately addressed in the FOST. Similarly, a summary of the Updated Indoor Air Assessment has been included in the FOST. Therefore, these documents will not be included in the FOST as requested.

The FOST has been revised to include the appropriate zoning classification per the reuse plan.

EXHIBIT C

Parcel A.15

1 inch equals 300 feet



Parcel A.15 (AOC 69W)
Other Parcels
Building
Soil Management Area
Wetland
Flood Zone
Stream
Road

Eugene C. Bruce
Attest: Middlesex S. Register

0 500 1,000
Feet

Devens BRAC Environmental Office 2005

Appendix C

Record of Decision, Area of Contamination 69W
Devens, Massachusetts

U.S. Army Corps of Engineers
New England District

RECORD OF DECISION
AREA OF CONTAMINATION 69W
DEVENS, MASSACHUSETTS

JUNE 1999

PRINTED ON RECYCLED PAPER

HLA Harding Lawson Associates

RECORD OF DECISION
AREA OF CONTAMINATION 69W
DEVENS, MASSACHUSETTS

JUNE 1999

RECORD OF DECISION
AREA OF CONTAMINATION 69W
DEVENS, MASSACHUSETTS

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(continued)

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Area of Contamination 69W
Devens, Massachusetts

STATEMENT OF PURPOSE AND BASIS

This decision document presents the U.S. Army's selected remedial action for Area of Contamination (AOC) 69W, Devens, Massachusetts. It was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 as amended, 42 USC §§ 9601 et seq. and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) as amended, 40 CFR Part 300. The following have been delegated the authority to approve this Record of Decision. The Devens Base Realignment and Closure (BRAC) Environmental Coordinator; the Devens Reserve Forces Training Area (RFTA) Installation Commander; and the Director, Office of Site Remediation and Restoration, U.S. Environmental Protection Agency New England.

This decision document is based on the Administrative Record developed in accordance with Section 113(k) of CERCLA. The Administrative Record is available for public review at the Devens BRAC Environmental Office, 30 Quebec Street, Devens, Massachusetts, and at the Ayer Town Hall, Main Street, Ayer, Massachusetts. The Administrative Record Index (Appendix D of this Record of Decision) identifies each of the items considered during selection of the remedial action.

ASSESSMENT OF AOC 69W

Actual or threatened releases of hazardous substances from AOC 69W, if not addressed by implementing the response action selected in this record of decision, may present a current or potential future threat to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The Army's selected remedy at AOC 69W is Limited Action consisting of long-term groundwater monitoring and institutional controls. AOC 69W was part of a site wide investigation of past spill sites at Fort Devens. AOC 69W currently poses no unacceptable risks to human health or the environment. Further, previous removal actions have eliminated underground storage tanks (USTs) and the majority of contaminated soils that would otherwise be a continuing source of downgradient groundwater contamination. Risks associated with hypothetical future potable use of AOC 69W groundwater exceed levels considered acceptable by USEPA. Implementation of institutional controls either through deed and/or use restrictions will limit potential future exposure to contaminated soil and groundwater. Long-term groundwater monitoring will ensure that any residual contamination does not migrate off-site.

Major components of the remedy include:

- Implementation of a Long-Term Groundwater Monitoring Plan
- Incorporate/implement institutional controls that restrict ground water access and limit potential human exposure to contaminants.
- Performing five-year site reviews

STATE CONCURRENCE

The Commonwealth of Massachusetts has concurred with the selected remedy. Appendix E of this Record of Decision contains a copy of the Declaration of State Concurrence.

STATUTORY DETERMINATION FOR AOC 69W

The selected remedy is consistent with CERCLA and, to the extent practicable, the NCP. Based on the previous removal action at AOC 69W and the results of the remedial investigation, the proposed Limited Action is adequate to ensure protection of human health and the environment.

Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, a review will be conducted within five years

after initiation of the Limited Action to ensure that the remedy continues to provide adequate protection of human health and the environment.

DECLARATION

The foregoing represents the selection of a remedial action by the U.S. Department of the Army and the U. S. Environmental Protection Agency, with the concurrence of the Commonwealth of Massachusetts Department of Environmental Protection.

Concur and recommend for immediate implementation:

DEPARTMENT OF THE ARMY

James C Chambers

James C. Chambers
BRAC Environmental Coordinator
Devens Reserve Forces Training Area
Devens, Massachusetts

29 June 1999
Date

DECLARATION

The foregoing represents the selection of a remedial action by the U.S. Department of the Army and the U. S. Environmental Protection Agency, with the concurrence of the Commonwealth of Massachusetts Department of Environmental Protection.

Concur and recommend for immediate implementation:

DEPARTMENT OF THE ARMY

29 June 1999

Edward R. Murdough
Date

Lieutenant Colonel, U.S. Army
Installation Commander
Devens Reserve Forces Training Area
Devens, Massachusetts

DECLARATION

The foregoing represents the selection of a remedial action by the U.S. Department of the Army and the U. S. Environmental Protection Agency, with the concurrence of the Commonwealth of Massachusetts Department of Environmental Protection.

Concur and recommend for immediate implementation:

U.S. ENVIRONMENTAL PROTECTION AGENCY

Frank Cianfrattone — 6-30-99

Patricia F. Meaney, Director — Date
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency, New England

DECISION SUMMARY

I. SITE NAME, LOCATION, AND DESCRIPTION

This Record of Decision addresses past releases of contaminants to soil and groundwater at Area of Contamination (AOC) 69W, Devens Massachusetts. Devens, is located approximately 35 miles northwest of Boston, Massachusetts. The Army is the lead federal agency responsible for the cleanup of AOC 69W and funding is from the Department of Defense.

AOC 69W is located at the northeast corner of the intersection of MacArthur Avenue and Antietam Street on the northern portion of what was formerly the Main Post at Fort Devens (Figure 1). AOC 69W is comprised of the former Fort Devens Elementary School (Building 215) and the associated parking lot and adjacent lawn extending approximately 300 feet northwest to Willow Brook. Contamination at AOC 69W is attributed to No. 2 heating oil which leaked from underground piping in two separate incidences; once in 1972 and again in 1978. It is estimated that approximately 7,000 to 8,000 gallons of fuel oil were released to soil from each release (Figure 2).

A more complete description of AOC 69W can be found in Section 5.0 of the Remedial Investigation (RI) report. This report and other associated with the Devens cleanup are available at the Public Libraries in Ayer, Harvard, Lancaster, and Shirley.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Land Use and Response History

Fort Devens was established in 1917 as Camp Devens, a temporary training camp for soldiers from the New England area. In 1931, the camp became a permanent installation and was renamed Fort Devens. Throughout its history, Fort Devens served as a training and induction center for military personnel, and as a unit mobilization and demobilization site. All or portions of this function occurred during World Wars I and II, the Korean and Vietnam conflicts, and operations Desert Shield and Desert Storm. During World War II, more than 614,000 inductees were processed and Fort Devens reached a peak population of 65,000.

The primary mission of Fort Devens was to command, train, and provide logistical support for non-divisional troop units and to support and execute Base Realignment and Closure (BRAC) activities. The installation also supported the Army Readiness Region and National Guard units in the New England area.

Fort Devens was identified for cessation of operations and closure under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, and was officially closed in March 1996. Portions of the property formerly occupied by Fort Devens were retained by the Army for reserve forces training and renamed the Devens RFTA. Areas not retained as part of the Devens RFTA were, or are in the process of being, transferred to new owners for reuse and redevelopment. AOC 69W is located in an area planned for transfer to MassDevelopment. The existing school building is expected to be re-opened in the future.

The following items summarize the history of AOC 69W.

- **1951.** The Fort Devens Elementary School was built and was comprised of the east/southeast half of the present school. The school was heated by an oil-fired boiler, and the heating oil was stored in a 10,000-gallon UST located in what is currently the school courtyard. The school was operated and maintained by the Ayer School Department.

- **1972.** An addition to the school was built which formed the current school structure. Although a new boiler room was constructed, the old boiler room remained operational. The original 10,000-gallon UST was removed and a new 10,000-gallon UST was installed north of the school in the middle of the current parking lot. During the UST installation, the underground fuel line leading to the new boiler room was accidentally crimped, causing the pipe to split and leak approximately 7,000 to 8,000-gallons of No. 2 fuel oil to the ground.

- **1972-1973.** As a result of the fuel release, an oil recovery system was installed in the vicinity of the 10,000-gallon UST. The system consisted of underground piping connected to a buried 250-gallon concrete vault that acted as an oil/water separator. The vault collected oily water and was pumped out approximately every three months.

- **1978.** Underground fuel piping near the old boiler room failed at a pipe joint. Approximately 7,000 to 8,000-gallons of oil were released into the soil during the incident. Soil was excavated to locate the source of the release. The excavation was used to collect the residual oil for one month before the damaged piping was found and replaced. A minimum of 2,600-gallons of residual oil was pumped from the oil recovery system.

- **1993.** The Ayer School Department closed the school because the facility was excess to its needs. As part of the Base Closure process the Army conducted a basewide evaluation of past spill sites and designated the elementary school spill site as Area Requiring Environmental Evaluation (AREE) 69W. Based on document reviews and site visits, the evaluation concluded that residual fuel contamination may have been present in the soil and groundwater at the site.

- **1994.** The Army performed a Site Investigation (SI) which revealed the presence of fuel-related contaminants in both soil and groundwater between the school and the existing fuel UST, and in an area extending northwest from the existing fuel UST to near Willow Brook. The Army redesignated the site as AOC 69W and proposed that a remedial investigation be performed.

- **1995-1998.** An RI was conducted to define the distribution of contaminants previously detected in the soil and groundwater during the AREE SI, and to determine whether remediation is warranted. Investigation activities included an historical record search and personnel interviews; a geophysical survey and test pitting; sediment and toxicity sampling in Willow Brook; surface and subsurface soil sampling; groundwater monitoring well installation; groundwater sampling and groundwater level measurements; aquifer testing; ecological survey and wetland delineation; air quality sampling within the elementary school; and human health and ecological risk assessments (Figure 2). The RI data showed that fuel-related compounds, primarily total petroleum hydrocarbons (TPHC) and semivolatile organic compounds (SVOCs), were present in soils extending from the new (1972) boiler room to approximately 300 feet northwest. Fuel-related volatile organic compounds (VOCs), SVOCs, TPHC, and inorganics comprised the observed groundwater contaminants. Soil and groundwater contamination appeared to be largely a result of the 1972 fuel oil release. The underground oil recovery system apparently acted as a conduit for contaminant migration in soil and groundwater. Observed contamination from the 1978 release did not appear to be

migrating downgradient and further migration is unlikely considering the age of the release and the paved parking lot that inhibits precipitation infiltration.

- **1997-1998.** Based on a review of the soil and groundwater contaminant data, the Army performed a removal action and excavated approximately 3,500 cubic yards of petroleum-contaminated soil associated with the 1972 fuel oil leak (Figure 2). The 10,000-gallon fuel oil UST and the oil recovery system's 250-gallon vault and associated piping were also removed. The 10,000-gallon fuel oil UST was confirmed to be intact (i.e., no holes or leaks were observed). Confirmatory soil sampling in excavated areas indicated that extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) concentrations immediately adjacent to the school still exceeded the Massachusetts Contingency Plan (MCP) Method 1 S-1/GW-1 soil standards after the removal action. Due to the proximity of the school, this soil could not be excavated without potential structural damage to the building. Because the area is paved, there is minimal potential for further migration of contaminants and future exposure.

B. Enforcement History

On December 21, 1989, Fort Devens was placed on the National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) to evaluate and implement response actions to cleanup past releases of hazardous substances, pollutants, and contaminants. A Federal Facility Agreement to establish a procedural framework for ensuring that appropriate response actions are implemented at Fort Devens was developed and signed by the Army and the U.S. Environmental Protection Agency (USEPA) Region I on May 13, 1991, and finalized on November 15, 1991. AOC 69W is considered a subsite of the entire installation.

In 1995, the U.S. Department of Defense, through the U.S. Army Environmental Center (USAEC), initiated an RI for AOC 69W, and the RI report was issued in August 1998. The purpose of the RI was to determine the nature and extent of contamination at AOC 69W, assess human health and ecological risks, and assess whether additional response actions were necessary. Based on the results of the RI and Removal Action, the Army, along with the USEPA and MADEP, concluded that under current conditions and uses, including re-use as a school,

AOC 69W did not present unacceptable risks to human health or the environment and that a feasibility study to evaluate remedial action alternatives was not needed.

The Proposed Plan detailing the Army's plan for Limited Action at AOC 69W was issued in April 1999 for public comment. Technical comments presented during the public comment period are included in the Administrative Record. Appendix C, the Responsiveness Summary, contains a summary of these comments and the Army's responses, and describes how these comments affected the Limited Action decision.

III. COMMUNITY PARTICIPATION

The Army has held regular and frequent information meetings, issued fact sheets and press releases, and held public meetings to keep the community and other interested parties informed of activities at AOC 69W.

In February 1992, the Army released, following public review, a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities at Fort Devens. As part of this plan, the Army established a Technical Review Committee (TRC) in early 1992. The TRC, as required by SARA Section 211 and Army Regulation 200-1, included representatives from USEPA, USAEC, Fort Devens, Massachusetts Department of Environmental Protection (MADEP), local officials, and the community. Until January 1994, when it was replaced by the Restoration Advisory Board (RAB), the committee generally met quarterly to review and provide technical comments on schedules, work plans, work products, and proposed activities for the SAs and AOCs at Fort Devens. The AREE, RI, and Removal Action reports; Proposed Plan; and other related support documents were all submitted to the TRC or RAB for their review and comment. The Community Relations Plan was updated to address BRAC issues and reissued in May 1995.

The Army, as part of its commitment to involve the affected communities, forms a RAB when an installation closure involves transfer of property to the community. The Fort Devens RAB was formed in February 1994. The RAB initially consisted of 28 members (15 original TRC members plus 13 new members) representing the Army, USEPA Region I, MADEP, local governments, and citizens of the local communities. The RAB currently consists of 19 members.

It meets monthly and provides advice to the installation and regulatory agencies on the Devens RFTA cleanup programs. Specific responsibilities include: addressing cleanup issues such as land use and cleanup goals; reviewing plans and documents; identifying proposed requirements and priorities; and conducting regular meetings that are open to the public. In addition, the USEPA has given a Technical Assistance Grant (TAG) to the People of Ayer Concerned for the Environment (PACE). The TAG is given out by USEPA to community groups to support their efforts in reviewing and understanding complex site investigations and remediation issues. PACE has reviewed and provided comments on AOC 69W documents.

The groundwater within AOC 69W is not considered to be potable based on the Devens Reuse plan that was approved by all the surrounding towns and the fact that there is a municipal water supply operated by MassDevelopment.

On April 8, 1999, the Army issued the Proposed Plan, to provide the public with the Army's proposal for Limited Action at AOC 69W. The Proposed Plan also described the opportunities for public participation and provided details on the upcoming public comment period and public meetings.

During the weeks of April 12 and April 26, 1999, the Army published public notices announcing the Proposed Plan and public information meeting in the Lowell Sun, Worcester Telegram and Gazette, Fitchburg-Leominster Sentinel Enterprise, and the Public Spirit. The Army also made the Proposed Plan available to the public at the public information repositories at the Davis Public Library at the Devens RFTA, the Ayer Public Library, the Hazen Memorial Library in Shirley, the Harvard Public Library, and the Lancaster Public Library. A notice was also run on local access television.

From April 8 through May 10, 1999, the Army held a 30-day public comment period to accept public comments on the Proposed Plan and on other documents released to the public. On May 5, 1999, the Army held a formal public hearing at Devens RFTA to present the Army's Proposed Plan to the public and to provide the opportunity for open discussion concerning the Proposed Plan. The Army also accepted verbal or written comments from the public at the meeting. A transcript of this meeting, public comments, and the Army's response to comments are included in the attached Responsiveness Summary (Appendix C).

considered by the Army in choosing the plan of action for AOC 69W. On May 5, 1999, the Army made the Administrative Record available for public review at the Devens BRAC Environmental Office, and at the Ayer Town Hall, Ayer, Massachusetts. An index to the Administrative Record is available at the USEPA Records Center, 90 Canal Street, Boston, Massachusetts and is provided as Appendix D.

IV. SCOPE AND ROLE OF THE RESPONSE ACTION

This Limited Action decision addresses soil and groundwater contamination attributed to historical fuel oil releases at the former Fort Devens Elementary School. The 10,000-gallon fuel oil UST, the oil recovery system, and all associated piping and appurtenances were removed in 1997. In addition, 3,500 cubic yards of petroleum contaminated soils were removed. No other sources of contamination have been identified at AOC 69W.

The Limited Action will consist of long-term groundwater monitoring to verify that elevated arsenic concentration will continue to decrease over time and not migrate downgradient. Institutional controls will also be implemented at AOC 69W to limit the potential exposure to the contaminated soil and groundwater under both existing and future site conditions. These institutional controls will ensure that exposure to remaining contaminated soils beneath and adjacent to the building are controlled and the extraction of groundwater from the site for industrial and/or potable uses would not be permitted. These institutional controls will be incorporated either in full or by reference into all deeds, easements, mortgages, leases or any other instruments of transfer prior to the transfer of the property to MassDevelopment. Overall protectiveness will be assessed during five-year site reviews. Alternatively, if the Army can demonstrate based on currently available or newly acquired data, that site access restriction can be relaxed or removed while protection of human health is maintained, the Army may petition USEPA for such a relaxation or removal of restrictions.

V. SUMMARY OF SITE CHARACTERISTICS

Section 5.0 of the RI report, August 1998, contains an overview of AREE, RI, and Removal Action activities at AOC 69W. Significant findings of the RI are summarized in the following subsections.

A. Site Geology and Hydrogeology Summary

The predominant soil type at AOC 69W consists of dark yellowish-brown fine to coarse sands, gravely sands, and silty sands. Explorations in the vicinity of Willow Brook and its associated wetlands revealed a four- to five-foot layer of dark grayish-brown, sandy silt overlying the sands. Organic material was found in the area north of the school at a maximum depth of 4 feet bgs. Near surface soils beneath the school and parking lot consist of reworked native soils. Bedrock was not encountered at AOC 69W. The water table aquifer at AOC 69W occurs in the overburden at depths ranging from 4 to 6 feet bgs on the north side of the school building to approximately 1-foot bgs adjacent to Willow Brook. Groundwater flow directions are predominately south-southeast to north-northwest. Groundwater discharges to Willow Brook at times of high groundwater levels. Vertical gradients were not calculated as there are no deep overburden wells; however, the intermittent discharge to Willow Brook indicates locally upward gradients. Calculated groundwater flow velocities are consistent with the observed sandy soils with a maximum calculated flow velocity of 2 feet/day and a mean flow velocity of 0.7 feet/day. AOC 69W is located within the delineated Zone 2 for the MacPherson production well located approximately 3,000 feet to the north.

B. Soils

A review of the field and off-site analytical data from the 1995 and 1996 RI field investigations indicated that there were two areas of fuel-related soil contamination at AOC 69W. The larger area extended from the new boiler room to the 250-gallon UST in the wooded area approximately 300 feet northwest of the school. The contamination was attributed to the 1972 release of fuel oil from piping between the 10,000-gallon UST and the new boiler room. Analytical data and visual evidence suggested that the release may have been inside or near the new boiler room. As a result of the release, an oil recovery system was installed in 1972 to

remove oil from the source area and presumably from near surface soils in the grassy area north of the school. Contaminant distributions established by the RI indicated that the underground piping associated with this system may have acted as a conduit for contaminant migration. Detected contaminants were primarily TPHC, polyaromatic hydrocarbons (PAHs), and EPH/VPH at approximately 6 to 10 feet below ground surface (bgs) adjacent to the school and 0 to 4 feet bgs downgradient in the grassy area and in the vicinity of the 250-gallon UST. Detected subsurface contaminants were located primarily at or near the water table. Surficial contamination downgradient of the school (near Willow Brook) is attributed to sorption during times of high groundwater levels.

Based on the nature and distribution of contaminants, a Removal Action was undertaken in the winter of 1997 and 1998 to remove contaminated soil associated with the 1972 release. Soil was excavated to a maximum depth of 13 feet bgs near the school, and 8 feet bgs near the 250-gallon UST. Confirmatory subsurface soil sample results from the Removal Action showed that concentrations of fuel-related contaminants still exceed MCP S-1/GW-1 standards for EPH in subsurface soils immediately adjacent to the school building, but are generally low in downgradient areas (only a few concentrations in soil slightly exceeded MCP S-1/GW-1 standards, see Figure 3).

The other identified area of soil contamination is located adjacent to the school building outside of the old boiler room. This contamination is attributed to the 1978 release of fuel oil due to ruptured piping. An excavation at the time of the release showed visible fuel oil contamination emanating from underneath the school. Analytical data indicate that the contaminants are primarily TPHC at depths of 4 to 7 feet bgs beneath the paved parking lot. Contaminants appear to be localized in the area immediately adjacent to the school. Site related contaminants were absent from downgradient soils (e.g., ZWR-95-27X, ZWR-95-54X, and ZWR-95-55X). Future migration is not likely as the area is paved, thereby inhibiting leaching of soils via precipitation infiltration.

C. Groundwater

Fuel-related VOCs, SVOCs, TPHC, and inorganics comprise the observed groundwater contaminants at AOC 69W. Varying degrees of groundwater contamination, as identified by field and off-site analysis, were observed to extend from the new boiler room towards the 250-

gallon UST located approximately 300 feet to the northwest. The area of groundwater contamination was coincident with the underground pipe associated with the oil recovery system installed in response to the 1972 fuel oil release. Contaminant concentrations were highest between the new boiler room and monitoring well 69W—94-13, which was also the area of highest observed soil concentrations. The soil around monitoring wells 69W—94-10 and 69W—94-13 exhibited the highest contaminant and inorganic concentrations and were removed during the soil Removal Action.

Arsenic, calcium, iron, manganese, potassium, and sodium were detected in filtered samples at levels in excess of calculated Devens background levels. The greatest number of background exceedances and the only recorded MCL exceedances in Rounds 1 through 4 were observed in monitoring wells 69W—94-10 and 69W—94-13. Analytes that exceeded MCLs in these wells included arsenic, naphthalene, and the EPH and VPH aromatic fractions. Contaminated soils surrounding these wells were removed during the soil Removal Action.

The RI did not reveal any significant groundwater contamination associated with the 1978 fuel oil release in the vicinity of the old boiler room. Low levels of chlorinated VOCs were detected during the 1995 field analysis and Round 1 groundwater sampling; however, there were no chlorinated VOCs detected during the Rounds 2, 3, or 4 groundwater sampling efforts.

VI. CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

AOC 69W is currently not operated. The Ayer School Department closed the school facility in 1993 and it has not been re-opened. Land uses surrounding the school are open space, educational, and commercial/industrial. Future anticipated use of the site is to re-open the school in the fall of 1999. The Army will be transferring the school and surrounding parcel to the MassDevelopment whom in turn will lease or sell the property back to the Ayer School Department for use by the Parker Charter school.

The groundwater is currently not used as a drinking water source and is not anticipated to be utilized in the future because of MassDevelopment supplied water. Institutional controls will be implemented to ensure that exposures to remaining contaminated soils beneath and adjacent to the building are controlled and the extraction of groundwater at the site for industrial and/or

potable use is not permitted until contaminant concentrations do not pose an unacceptable risk to human health.

VII. SUMMARY OF SITE RISKS

The risk assessment contained in the RI report evaluates the probability and magnitude of potential human health effects associated with exposure to contaminated media at AOC 69W. The human health risk assessment followed a four step process: (1) contaminant identification, which identified those hazardous substances that, given the specifics of the site, were of significant concern; (2) exposure assessment, which identified actual or potential exposure pathways, characterized the potentially exposed populations, and determined the extent of possible exposure; (3) toxicity assessment, which considered the types and magnitude of adverse health effects associated with exposure to hazardous substances; and (4) risk characterization, which integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the site, including carcinogenic and non-carcinogenic risks. A detailed discussion of the human health risk assessment approach and results is presented in Section 9.0 of the RI report.

Ten soil analytes, 14 groundwater analytes, three sediment analytes, and four air analytes, listed in Table 1 in Appendix B of this Record of Decision, were selected as chemicals of potential concern for evaluation in the human health risk assessment of the RI report. These chemicals of potential concern were selected to represent potential site-related hazards based on toxicity, concentration, frequency of detection, mobility, and persistence in the environment. A summary of the health effects of each of the chemicals of potential concern can be found in the risk assessment detailed in Section 9.0 of the RI report.

Potential human health effects associated with exposure to the chemicals of potential concern were estimated quantitatively or qualitatively through the development of several hypothetical exposure pathways associated with current and anticipated future land use. These pathways, listed below, were developed to reflect the potential for exposure to hazardous substances based on the present uses, potential future uses, and location of the site. A more detailed description can be found in Subsection 9.3.1 of the risk assessment.

Potential Exposure Pathways for Current and Future Land Use

- site maintenance worker exposure through dermal contact or incidental ingestion of surface soil and inhalation of soil particulates while maintaining the grassy area
- child trespasser exposure through incidental ingestion or dermal contact to surface water and sediment (as groundwater discharge) while wading in the brook or wetland area, incidental ingestion or dermal contact to surface soil while playing, and inhalation of particulates from soil

Potential Exposure Pathways for Future Land Use

- utility/construction worker exposure through incidental ingestion or dermal contact to surface and subsurface soil, inhalation of volatile organic compounds from soil, and inhalation of particulates from surface and subsurface soils
- school occupants (pupils) exposure through inhalation of VOCs in indoor air, incidental ingestion or dermal contact to surface water and sediment (as groundwater discharge) while wading in the brook or wetland area, incidental ingestion or dermal contact to surface soil while playing, and inhalation of particulates from soil
- general public exposure to site groundwater as a potable water source

Excess lifetime cancer risks were determined for each exposure pathway by multiplying the exposure level with the chemical-specific cancer slope factor. Cancer slope factors have been developed by USEPA from epidemiological or animal studies to reflect a conservative "upper bound" of the risk posed by potentially carcinogenic chemicals. That is, the true risk is unlikely to be greater than the risk predicted. The resulting risk estimates are expressed in scientific notation as a probability (e.g., $1x10^{-6}$ for 1/1,000,000) and indicate (using this example), that an average individual is not likely to have greater than a one in a million chance of developing cancer over 70 years as a result of site-related exposure to the chemical at the stated concentration. Current USEPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

The hazard index (HI) was also calculated for each exposure pathway as a measure of the potential for non-carcinogenic health effects. The HI is the sum of the hazard quotients for

individual chemicals with similar exposure pathways and toxic endpoints. A hazard quotient is calculated by dividing the exposure level by the reference dose (RfD) or other suitable benchmark for non-carcinogenic health effects for each individual chemical. RfDs have been developed by USEPA to protect sensitive individuals over the course of a lifetime, and they reflect a daily exposure level that is likely to be without an appreciable risk of an adverse health effect. RfDs are derived from epidemiological or animal studies and incorporate uncertainty factors to help ensure that adverse health effects will not occur. The hazard quotient is often expressed as a single value (e.g., 0.3) indicating the ratio of the stated exposure to the RfD value (in this example, the exposure as characterized is approximately one third of an acceptable exposure level for the given chemical). The hazard quotient is only considered additive for chemicals that have the same or similar toxic endpoint. For example, the hazard quotient for a chemical known to produce liver damage should not be added to a second whose toxic endpoint is kidney damage. HQs do not need to be segregated unless the HI for all CPCs for the receptor is greater than one.

Table 3 in Appendix B summarizes the carcinogenic and non-carcinogenic risks for soil, sediment, indoor air, and groundwater under the evaluated current and future land use conditions. Review of that table shows that under current land use conditions the estimated excess carcinogenic risks for exposure of a child trespasser and site maintenance worker to soil, sediment, and groundwater were within the USEPA acceptable risk range of $1x10^{-4}$ to $1x10^{-6}$. Similarly, potential noncancer risks did not exceed the USEPA HI threshold value of 1. Estimated excess carcinogenic risks under future land use conditions were evaluated for a pupil (exposure to surface soil, sediment, groundwater, and indoor air) and utility worker (exposure to surface soil and subsurface soil). The excess carcinogenic risk for a pupil is within the USEPA acceptable risk range while the utility worker risk was less than the USEPA threshold level of $1x10^{-6}$. Again, potential noncancer risks did not exceed the USEPA HI threshold value of 1.

There is no current use of groundwater at AOC 69W; therefore, the risk assessment evaluated potential risks associated with a future residential potable use. Estimated cancer and noncancer risks associated with this hypothetical future exposure exceeded levels generally considered acceptable by the USEPA. These risks are primarily due to the presence of arsenic in groundwater. The arsenic levels have been shown to be decreasing and are anticipated to further decrease due to the contaminated soil removal. Furthermore, the arsenic concentrations that resulted in the excess risk were from monitoring wells 69W—94-10 and 69W—94-13. These

wells, along with the surrounding contaminated soils were excavated during the 1997-1998 soil removal action. The historic arsenic levels are therefore believed to be a worst case scenario.

Potential risks for ecological receptors were evaluated for chemicals detected in surface soil, sediment, and groundwater at AOC 69W. Chemicals of potential concern that were identified in these media included metals, pesticides, polychlorinated biphenyls, SVOCs, VOCs, and petroleum-related compounds including TPHC, EPH/VPH, and PAHs.

The following exposure pathways were evaluated in the ecological risk assessment:

- small mammal and bird, predatory mammal, terrestrial plant, and soil invertebrate exposures to surface soil
- small mammal and bird, predatory mammal, and aquatic receptor exposures to sediment in Willow Brook
- aquatic receptors exposures to groundwater that seasonally discharges to Willow Brook

The ecological risk assessment for aquatic receptors is highly conservative as Willow Brook is only seasonally inundated and is generally characterized as a degraded ditch habitat.

In general, there are no risks to ecological receptors except in few cases where negligible risks were estimated. Risks to terrestrial plants may occur at one surface soil sample location (ZWS-95-42X) due to the presence of lead. However, the presence of lead at this location may be associated more with road run-off or lawn mower maintenance than from the fuel oil release. Risks to the plants would be localized, and are not likely to result in population-level effects.

Risks to aquatic organisms were also identified for certain metals; however, the soil removal action has likely mitigated the reducing conditions in the subsurface soils that may have mobilized the metals in groundwater. Adverse effects were observed for aquatic organisms exposed to sediment in toxicity tests; however, these adverse effects are likely related to the poor habitat and substrate quality, rather than the presence of site-related chemicals. This is supported by the fact that exposure point concentrations for chemicals detected in sediment only slightly exceeded sediment benchmarks.

Based on the conclusions of the ecological risk assessment, there are no unacceptable risks associated with site-related fuel oil contamination at AOC 69W.

VIII. REMEDIAL ACTION OBJECTIVES

The remedial action objectives (RAOs) for the site are:

- Restore the aquifer to drinking water standards within a reasonable time frame.
- Monitor potential future migration of ground water contamination
- Eliminate risk from potential consumption of groundwater
- Reduce or eliminate the direct contact threat of contaminated soils

The basis of the RAOs is the potential health risks to individuals based on current and future use scenarios (i.e., maintenance worker, and elementary school children scenario) at the site. The Risk Assessment results estimated cancer and non-cancer risks associated with the possible current and future exposures to surface soil, subsurface soil, sediment, groundwater discharge to surface water and indoor air were all within acceptable levels. Groundwater used as potable water source does exceed risk levels generally considered acceptable by the USEPA. The risk is attributable to arsenic in groundwater as a potable water source. The Army's rationale for proposing the limited action alternative is two-fold:

1) The groundwater will not be used as a drinking water source. The town of Devens has a municipal water supply. Therefore, the groundwater poses no unacceptable risk to human health or the environment.
2) The Army will monitor arsenic and EPH/VPH levels in ground water and place Institutional Controls on the property to ensure current and future protectiveness.

IX. DESCRIPTION OF ALTERNATIVES

Due to the previous source removal, the remedy only requires Institutional Controls and long-term monitoring of ground water. A Feasibility Study was not conducted. A brief comparison of a No Action alternative to the Limited Action alternative is presented below.

The Proposed Plan assessed how well the two alternatives would meet the evaluation criteria while controlling migration of contaminants from soils to ground water and groundwater to surface water.

No Action. The No Action alternative was evaluated as a baseline and was compared to the Limited Action alternative. No remedial action, monitoring, further investigation, or five year reviews would be performed as part of this alternative. No Institutional Controls would be placed on the property to limit potential human exposure to site contaminants. Please see Table 4 in Appendix B for Evaluation Criteria vs. Alternatives.

Estimated time for design and construction:	N/A
Estimated time for cleanup:	N/A
Estimated capital costs:	$0
Estimated operation and maintenance costs:	$0
Estimated Total Costs	$0

Limited Action. The Limited Action alternative for AOC 69W includes the following key components:

- Institutional Controls, including deed and/or use restrictions, are established and enforced that restrict or prevent potential human exposure to site soil and ground water contaminants left in place.
- A Long-Term Groundwater Monitoring Plan is developed to monitor for any potential off-site migration of contaminants and to verify that elevated concentrations decrease over time. It is anticipated that arsenic and MADEP EPH/VPH will be the monitored analytes.
- Five-year reviews are conducted to review the data collected and assess the effectiveness of the remedy.

Estimated time for design and construction:	N/A
Estimated time for cleanup:	N/A
Estimated capital costs:	$23,300
Estimated operation and maintenance costs:	$172,000
Estimated Total Costs	$195,300

The expected outcome of this alternative is to restore the aquifer to drinking water standards within a reasonable time frame and to prevent exposure to contaminants remaining at the site through the establishment of Institutional Controls.

X. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

The following provides the comparative analysis of alternatives. This information is summarized in Table 4 of Appendix B.

Overall Protection of Human Health and the Environment. The No Action alternative would be protective of human health under current conditions, but would not be protective under potential future conditions. Similar to the No Action alternative, the Limited Action alternative would be protective under current conditions, but in addition it provides Institutional Controls to limit potential future exposures. Since the ground water is not anticipated to be a drinking water source and contaminants are expected to decrease to acceptable levels over time, Institutional Controls and Long-Term Groundwater Monitoring will provide overall protection of human health and the environment.

Compliance with Applicable or Relevant and Appropriate Requirements. The No Action alternative would not trigger ARARS. The limited action alternative would be designed and implemented to comply with all ARARs. No waivers would be required. A synopsis of Federal and State ARARs is provided as Table 5 in Appendix B.

Provides Long-term Protection: Because the No Action alternative does not include Institutional Controls to limit potential future exposures or remedial actions to protect receptors,

it does not offer long-term effectiveness. The Limited Action alternative would be protective under current conditions and it provides Institutional Controls to limit potential future exposures. Since the ground water will not be a drinking water source and contaminants are expected to decrease to acceptable levels over time because of the source removal, Institutional Controls and Long-Term Groundwater Monitoring would provide both long-term effectiveness and permanence.

Reduces Mobility, Toxicity, or Volume: Neither the No Action nor the Limited Action alternative provides treatment to reduce the toxicity, mobility, or volume of contaminants. The paved parking lot and school building have and will continue to limit precipitation infiltration thereby reducing mobility. The removal of petroleum contaminated soils has eliminated a source of groundwater contamination as well as removed the cause of the reducing conditions in the aquifer which resulted in the liberation of the naturally occurring arsenic.

Provide Short-term Protection: The No Action and Limited Action alternatives do not include action that would result in adverse short-term effects to human health and environment. Construction activities for monitoring well installations would present minimal short-term risks, but those risks would be minimized through the adherence to site specific Health and Safety Plan.

Can Be Implemented: Both alternatives can be implemented relatively easily.

Cost: The No Action alternative has zero cost and thus is the lowest. The costs for the Limited Action alternative include capital costs for the preparation of the Long-Term Groundwater Monitoring Plan and Institutional Controls. Annual costs include ground water monitoring and five year site reviews. The total estimated present worth cost for the Limited Action alternative is $195,300.

State Acceptance: The Commonwealth of Massachusetts has reviewed the RI Report and the Proposed Plan and concurs with the Army's selected remedy.

Community Acceptance: During the public comment period on the Proposed Plan, the Army received several comments regarding the potential for human health risks based on the future use of the school and its' surrounding area. The Army's responses to these comments are contained

in the Responsiveness Summary included in Appendix C to this Record of Decision. The Army has taken into consideration the public concerns and will work with the community and regulatory agencies to develop a Long-Term Monitoring Plan which address these concerns.

XI. SELECTED REMEDY

Limited Action. The Limited Action alternative at AOC 69W includes the following key components:

- Institutional Controls, including deed and/or use restrictions, are established and enforced that restrict or prevent potential human exposure to site soil and ground water contaminants left in place.
- A Long-Term Groundwater Monitoring Plan is developed to monitor for any potential off-site migration of contaminants and to verify that elevated concentrations decrease over time. It is anticipated that arsenic and MADEP EPH/VPH will be the monitored analytes
- Five-year reviews are conducted to review the data collected and to assess the effectiveness of the remedy.

XII. STATUTORY DETERMINATIONS

The selected remedy is consistent with CERCLA and, to the extent practicable, the NCP. Based on the previous removal action at AOC 69W and the results of the remedial investigation, the proposed Limited Action is adequate to ensure protection of human health and the environment.

Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, a review will be conducted within five years after initiation of the Limited Action to ensure that the remedy continues to provide adequate protection of human health and the environment.

XIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES

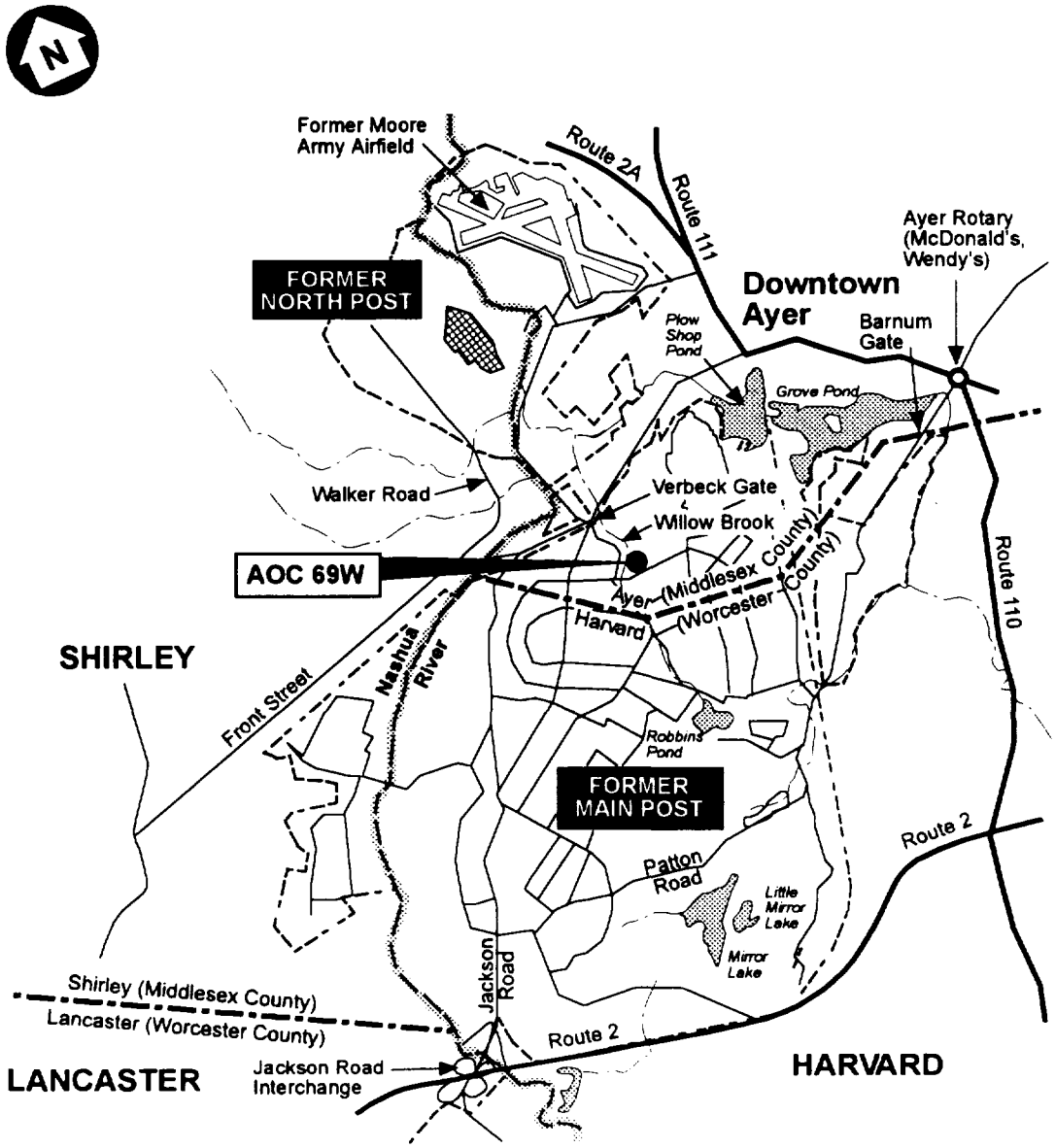
The Army presented a Proposed Plan for Limited Action at AOC 69W on April 8, 1999. This Record of Decision contains no significant changes from the Proposed Plan.

XIV. STATE ROLE

The Commonwealth of Massachusetts has reviewed the AREE, Removal Action, and RI reports; Proposed Plan; and this Record of Decision and concurs with the Limited Action decision. A copy of the Declaration of State Concurrence is attached as Appendix E.

APPENDIX A

APPENDIX A - FIGURES

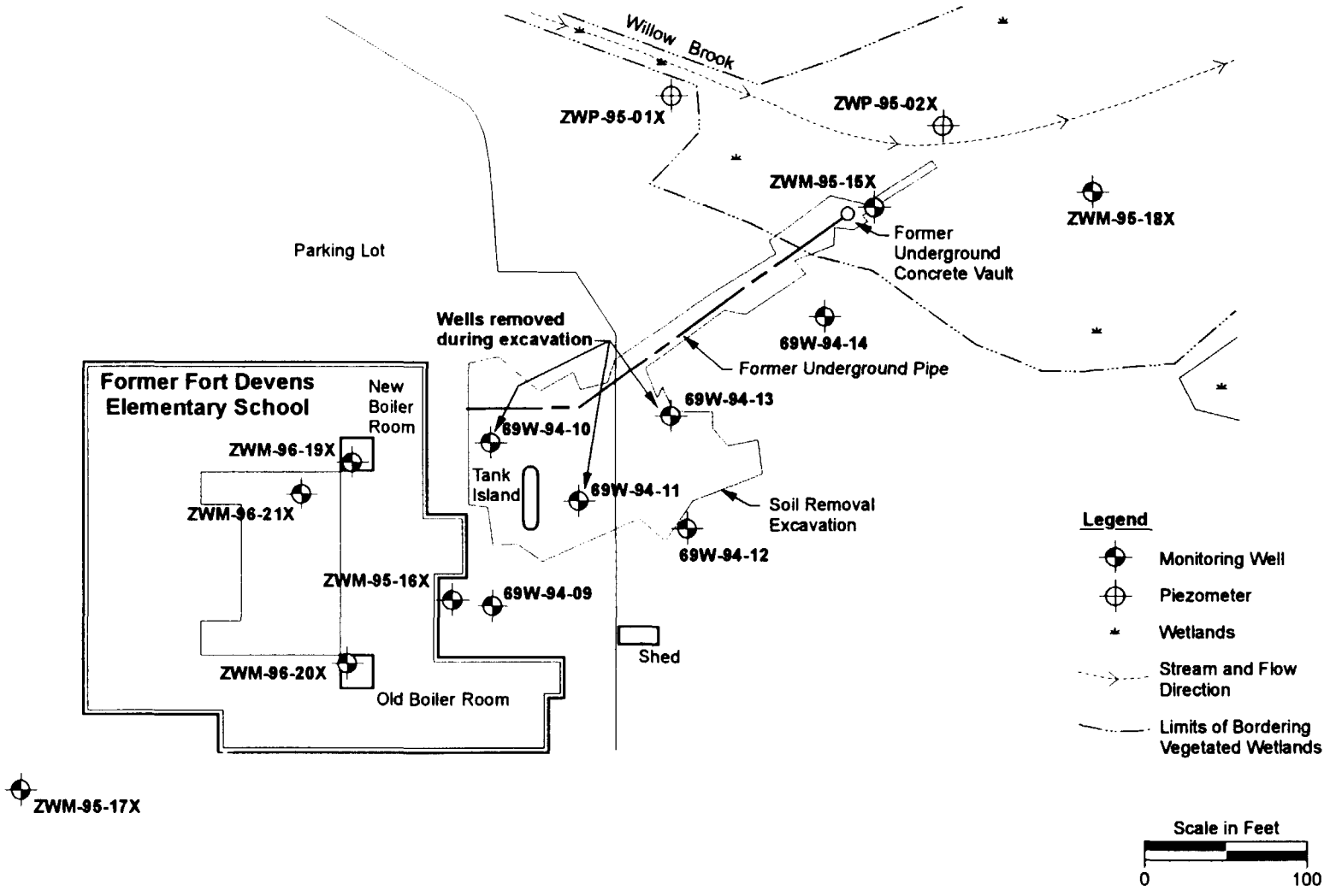


Harding Lawson Associates
Engineering and Environmental Services

Location of AOC 69W
AOC 69W Record of Decision
Devens, Massachusetts

FIGURE
1

DRAWN	JOB NUMBER	FILE NUMBER	APPROVED	DATE	REVISED DATE
jph	45001	W9906003(a)		6/99	



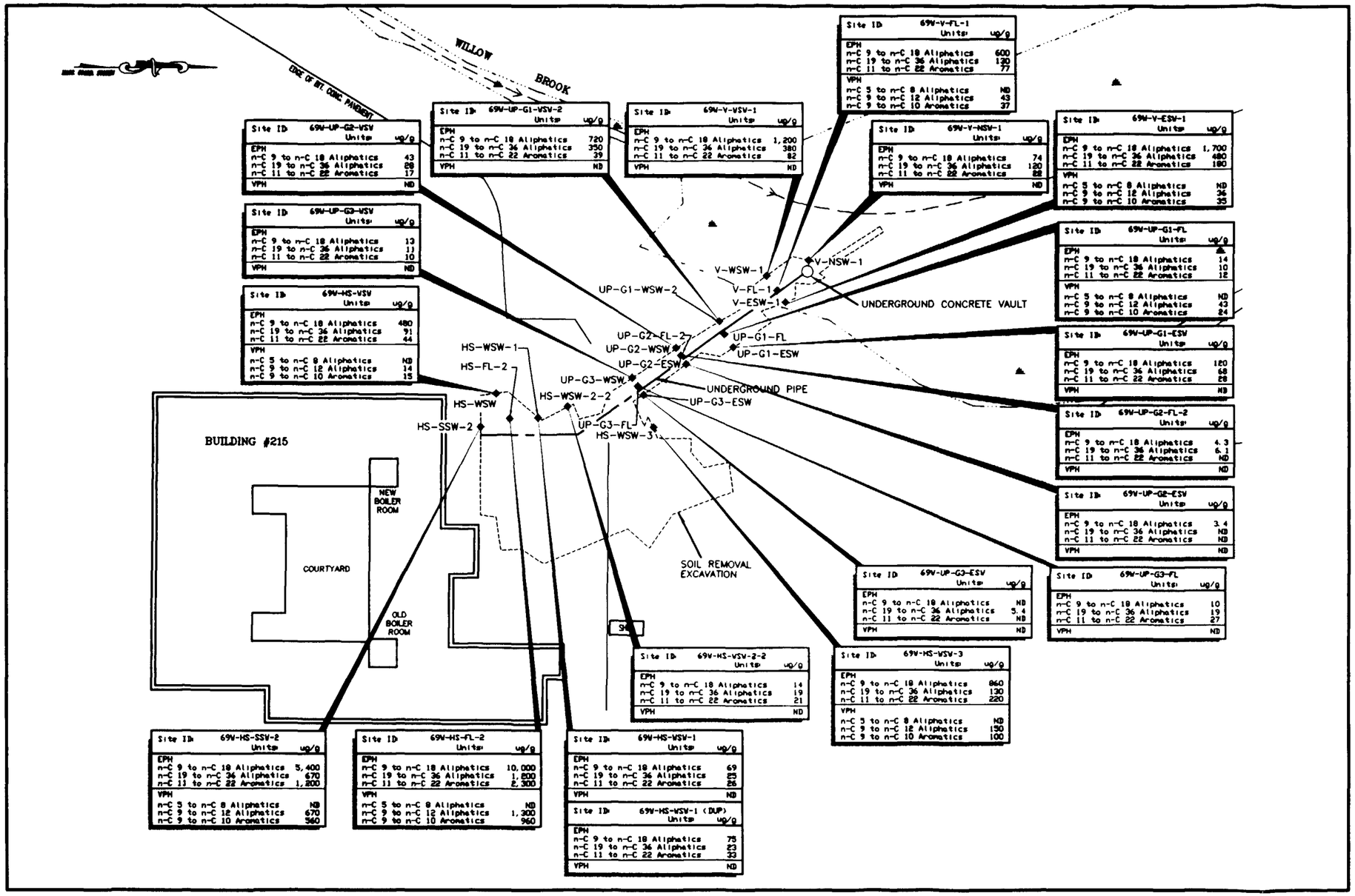
Harding Lawson Associates
Engineering and
Environmental Services

Site Plan
AOC 69W Record of Decision
Devens, Massachusetts

FIGURE
2

DRAWN	JOB NUMBER	FILE NUMBER	APPROVED	DATE	REVISED DATE
jph	45001	W9906003(b)		6/99	

T:\9144-05\9144F302.DWG 6/7/99 EJL



LEGEND

- ◆ EXCAVATION SOIL SAMPLES
- WETLANDS
- STREAM AND FLOW DIRECTION
- LIMITS OF BORDERING VEGETATED WETLANDS
- ND NOT DETECTED
- (DUP) DUPLICATE
- ug/g MICROGRAMS PER GRAM

0 40 80
Scale in feet

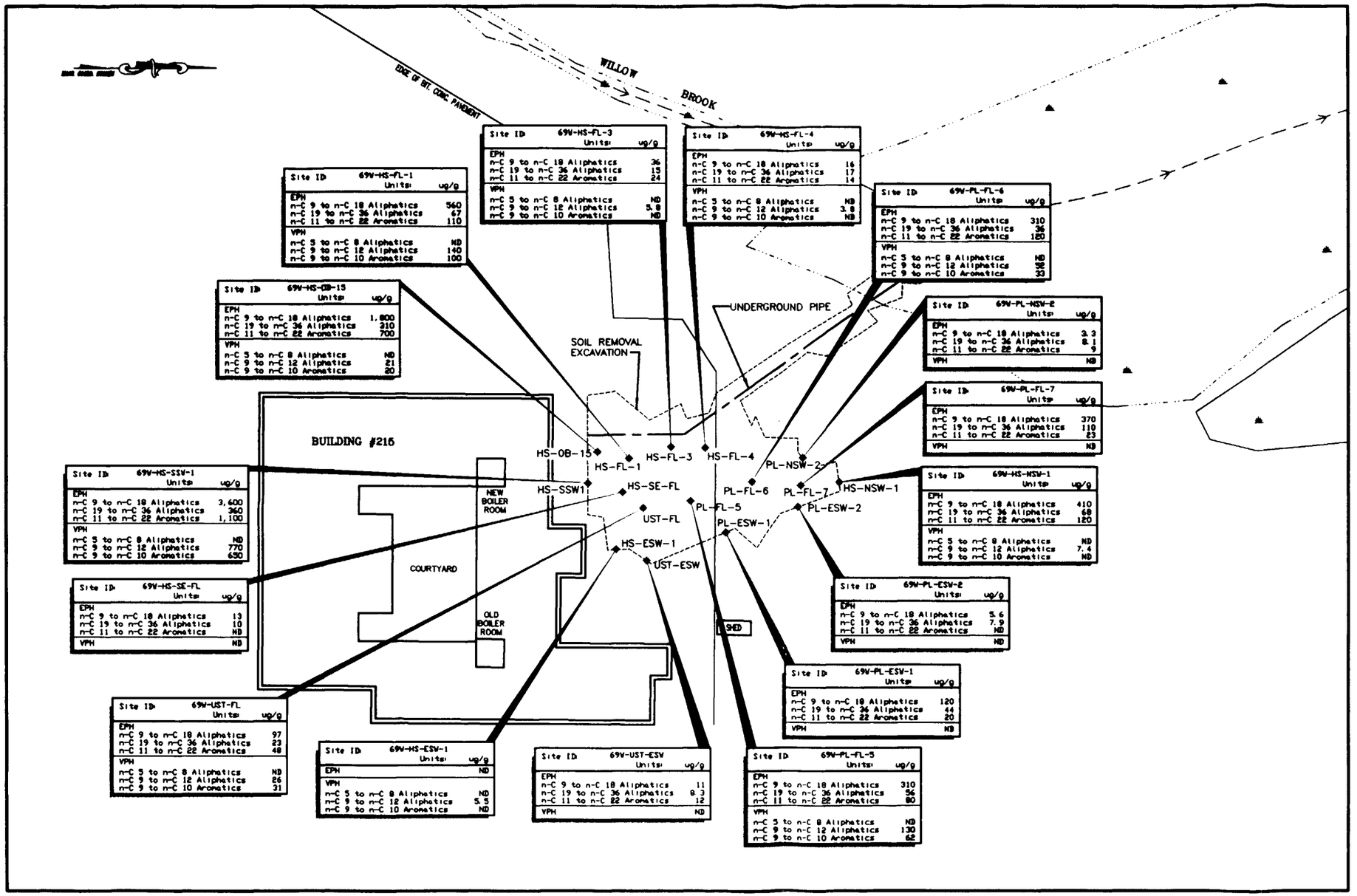
Harding Lawson Associates
Engineering and Environmental Services

EPH-VPH CONCENTRATIONS IN SOIL
1997 OFF SITE ANALYTICAL RESULTS
AOC 69W RECORD OF DECISION
DEVENS, MASSACHUSETTS

FIGURE 3 (WEST)

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
EJL	9144-05		06/7/99	00/00/00

T:\9144-05\9144F501.DWG 6/7/99 EJL



LEGEND

- EXCAVATION SOIL SAMPLES
- WETLANDS
- STREAM AND FLOW DIRECTION
- LIMITS OF BORDERING VEGETATED WETLANDS
- ND NOT DETECTED
- (DUP) DUPLICATE
- ug/g MICROGRAMS PER GRAM

0 40 80
Scale in feet

Harding Lawson Associates
Engineering and Environmental Services

EPH-VPH CONCENTRATIONS IN SOIL
1997 OFF SITE ANALYTICAL RESULTS
AOC 69W RECORD OF DECISION
DEVENS, MASSACHUSETTS

FIGURE 3 (EAST)

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
EJL	9144-05		06/7/99	00/00/00

APPENDIX B

APPENDIX B - TABLES

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Minimum Detected	Concentration Maximum Detected	Arithmetic Mean	95% UCL	Back-ground*	Region III RBC**	ARARs	CPC?	Notes
SURFACE SOIL (0 - 1 feet bgs)[a] (mg/kg)											
PAL METALS											
Aluminum	NA	6 / 6	5210	6160	5916.667	NC	18000	7800	NA	No	Less than RBC[1], Background[2]
Arsenic	NA	6 / 6	7.66	18	12.0383	NC	19	0.43	NA	Yes	Exceeds RBC[3], Background[2]
Barium	NA	6 / 6	14.1	22.4	18.2	NC	54	550	NA	No	Less than RBC[1], Background[2]
Beryllium	0.50-0.50	1 / 6	0.85	0.85	0.35	NC	0.81	0.15	NA	Yes	Exceeds RBC[3]
Calcium	NA	6 / 6	333	908	683.1667	NC	810	NA	NA	No	Essential Nutrient[4]
Chromium	NA	6 / 6	12.1	28.1	18.0167	NC	33	39	NA	No	Less than RBC[1], Background[2]
Cobalt	NA	6 / 6	2.51	5.36	4.1283	NC	4.7	470	NA	No	Less than RBC[1]
Copper	NA	6 / 6	5.59	29.9	11.7867	NC	13.5	310	NA	No	Less than RBC[1]
Iron	NA	6 / 6	6780	10300	8818.333	NC	18000	2300	NA	Yes	Exceeds RBC[3], Background[2]
Lead	NA	5 / 6	11.4	238	71.1	NC	61.1	NA	400 e	No	Less than ARAR[5]
Magnesium	NA	6 / 6	1360	2670	2405	NC	5500	NA	NA	No	Essential Nutrient[4], Background[2]
Manganese	NA	6 / 6	52.4	240	167.4	NC	380	180	NA	Yes	Exceeds RBC[3], Background[2]
Mercury	0.050-0.050	2 / 6	0.0755	0.0784	0.0423	NC	NA	2.3	NA	No	Less than RBC[1]
Nickel	NA	6 / 6	5.98	18.1	13.3133	NC	14.6	160	NA	No	Less than RBC[1]
Potassium	NA	6 / 6	367	993	630.1667	NC	2400	NA	NA	No	Background[2], Essential Nutrient[4]
Selenium	0.25-0.25	1 / 6	0.364	0.364	0.1648	NC	ND	39	NA	No	Less than RBC[1]
Sodium	NA	6 / 6	241	506	347.5	NC	131	NA	NA	No	Essential Nutrient[4]
Vanadium	NA	6 / 6	10.6	19.1	14.0667	NC	32.3	55	NA	No	Less than RBC[1], Background[2]
Zinc	NA	6 / 6	18.9	71.7	32.4833	NC	43.9	2300	NA	No	Less than RBC[1]
PAL SEMIVOLATILE ORGANICS											
Acenaphthylene	0.033-3	1 / 6	2	2	0.7055	NC	-	310 h	NA	No	Less than RBC[1]
Anthracene	0.033-3	1 / 6	1	1	0.5388	NC	-	2300	NA	No	Less than RBC[1]
Benzo[k]fluoranthene	0.066-7	1 / 6	2	2	1.0943	NC	-	8.8	NA	No	Less than RBC[1]
Chrysene	0.12-10	2 / 6	0.17	5	2.0383	NC	-	88	NA	No	Less than RBC[1]
Fluoranthene	0.068-1	4 / 6	0.19	9	3.2873	NC	-	310	NA	No	Less than RBC[1]
Fluorene	0.033-3	1 / 6	1	1	0.5388	NC	-	310	NA	No	Less than RBC[1]
Phenanthrene	0.20-0.70	5 / 6	0.065	9	3.0925	NC	-	310 h	NA	No	Less than RBC[1]
Pyrene	0.20-0.70	5 / 6	0.075	10	3.7742	NC	-	230	NA	No	Less than RBC[1]
PAL VOLATILE ORGANICS											
Acetone	0.017-0.017	1 / 6	0.069	0.069	0.0186	NC	-	780	NA	No	Less than RBC[1]
Toluene	0.00078-0.00078	3 / 6	0.001	0.0021	0.0009	NC	-	1600	NA	No	Less than RBC[1]
Trichlorofluoromethane	0.0059-0.0059	2 / 6	0.0055	0.0072	0.0041	NC	-	2300	NA	No	Less than RBC[1]
Xylenes	0.0015-0.0015	1 / 6	0.0027	0.0027	0.0011	NC	-	16000	NA	No	Less than RBC[1]

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Concentration: Minimum Detected	Concentration: Maximum Detected	Concentration: Arithmetic Mean	Concentration: 95% UCL	Concentration: Background*	Region III RBC**	ARARs	CPC?	Notes
SURFACE SOIL (0 - 1 feet bgs)[a] (mg/kg) - CONTINUED											
OTHER											
Total Petroleum Hydrocarbons	28-28	5 / 6	52.5	936	390.375	NC	-	NA	NA	Yes	No standard available[f]
SUBSURFACE SOIL (1 - 10 feet bgs)[b] (mg/kg)											
PAL METALS											
Aluminum	NA	2 / 2	2910	3060	2985	NC	18000	7800	NA	No	Less than RBC[1], Background[2]
Arsenic	NA	2 / 2	4.74	7.32	6.03	NC	19	0.43	NA	Yes	Exceeds RBC[3], Background[2]
Barium	NA	2 / 2	8.14	8.21	8.175	NC	54	550	NA	No	Less than RBC[1], Background[2]
Calcium	NA	2 / 2	369	463	416	NC	810	NA	NA	No	Essential Nutrient[4], Background[2]
Chromium	4.1-4.1	1 / 2	10.3	10.3	6.1625	NC	33	39	NA	No	Less than RBC[1], Background[2]
Cobalt	NA	2 / 2	2.22	2.88	2.55	NC	4.7	470	NA	No	Less than RBC[1], Background[2]
Copper	NA	2 / 2	4.6	5.14	4.87	NC	13.5	310	NA	No	Less than RBC[1], Background[2]
Iron	NA	2 / 2	5460	5880	5670	NC	18000	2300	NA	Yes	Exceeds RBC[3], Background[2]
Lead	NA	2 / 2	1.87	1.91	1.89	NC	48	NA	400 e	No	Less than ARAR[5], Background[2]
Magnesium	NA	2 / 2	1090	1430	1260	NC	5500	NA	NA	No	Essential Nutrient[4], Background[2]
Manganese	NA	2 / 2	56.4	90.3	73.35	NC	380	180	NA	No	Less than RBC[1], Background[2]
Nickel	NA	2 / 2	8.26	8.57	8.415	NC	14.6	160	NA	No	Less than RBC[1], Background[2]
Potassium	NA	2 / 2	460	515	487.5	NC	2400	NA	NA	No	Essential Nutrient[4], Background[2]
Sodium	NA	2 / 2	299	398	348.5	NC	131	NA	NA	No	Essential Nutrient[4],
Vanadium	NA	2 / 2	4.5	6.47	5.485	NC	32.3	55	NA	No	Less than RBC[1], Background[2]
Zinc	8.0-8.0	1 / 2	14	14	9.0075	NC	43.9	2300	NA	No	Less than RBC[1], Background[2]
PAL SEMIVOLATILE ORGANICS											
2-Methylnaphthalene	0.51-0.7	4 / 30	1.9	42	3.1797	2.858	-	310 h	NA	No	Less than RBC[1]
Acenaphthene	0.51-0.7	5 / 30	0.79	7.6	0.9312	1	-	470	NA	No	Less than RBC[1]
Acenaphthylene	0.06-0.7	2 / 30	9.6	16	1.1142	0.98	-	2300	NA	No	Less than RBC[1]
Benzo(a)anthracene	0.07-0.7	1 / 30	0.1	0.1	0.2655	0.35	-	0.88	NA	No	Less than RBC[1]
Benzo(b)fluoranthene	0.07-0.7	1 / 30	0.06	0.06	0.2642	0.354	-	0.88	NA	No	Less than RBC[1]
Chrysene	0.51-0.7	3 / 30	0.08	0.08	0.2652	0.347	-	88	NA	No	Less than RBC[1]
Fluoranthene	0.06-0.7	2 / 30	0.13	0.24	0.2732	0.333	-	310	NA	No	Less than RBC[1]
Fluorene	0.51-0.7	5 / 30	0.68	26	1.9132	1.584	-	310	NA	No	Less than RBC[1]
Naphthalene	0.51-0.7	3 / 30	7.1	12	1.1798	1.15	-	310	NA	No	Less than RBC[1]
Phenanthrene	0.51-7	3 / 30	1.5	9	0.8707	0.932	-	310 h	NA	No	Less than RBC[1]
Pyrene	0.06-0.7	2 / 30	0.18	0.18	0.2815	0.34	-	230	NA	No	Less than RBC[1]

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Minimum Detected	Concentration Maximum Detected	Concentration Arithmetic Mean	Concentration 95% UCL	Concentration Back-ground[a]	Region III RBC[**]	ARARs	CPC?	Notes
PAL VOLATILE ORGANICS											
Acetone	0.017-0.017	1 / 2	0.022	0.022	0.0153	NC	-	780	NA	No	Less than RBC[1]
Dichloromethane	0.012-0.012	1 / 2	0.025	0.025	0.0155	NC					
Toluene	0.0008-0.0008	1 / 2	0.0013	0.0013	0.0008	NC	-	1600	NA	No	Less than RBC[1]
SUBSURFACE SOIL (1 - 10 feet bgs)[b] (mg/kg) - CONTINUED											
OTHER											
Total Petroleum Hydrocarbons	28-28	2 / 5	57.5	902	27.8	NC	-	NA	NA	Yes	No standard available[7]
Extractable Petroleum Hydrocarbons (EPH)											
C11-C22 Aromatics	8.9-34	24 / 30	9	1,200	138	268	-	NA	NA	Yes	No standard available[7]
C19-C36 Aliphatics	0.15-4.6	26 / 30	5.4	670	119	1,998	-	NA	NA	Yes	No standard available[7]
C9-C18 Aliphatics	1.5-3.8	26 / 30	3.3	5,400	588	18,583	-	NA	NA	Yes	No standard available[7]
Volatile Petroleum Hydrocarbons (VPH)											
C-9-C12 Aliphatics	0.01-670	12 / 30	3.8	770	52.9	1,261	-	NA	NA	Yes	No standard available[7]
C9-C10 Aromatics	0.25-560	8 / 30	15	650	42.7	119	-	NA	NA	Yes	No standard available[7]
GROUNDWATER [c] (mg/L) - UNFILTERED											
PAL METALS											
Aluminum	0.141-0.141	4 / 10	0.39	0.448	0.2	NC	6.87	3.7	0.05 g	Yes	Exceeds ARAR[6], Background[2]
Arsenic	0.0025-0.0025	6 / 10	0.0052	0.19	0.04	NC	0.0105	0.000045	0.05 f	Yes	Exceeds RBC[3], Exceeds ARAR[6]
Barium	NA	10 / 10	0.0046	0.017	0.01	NC	0.0396	0.26	2 f	No	Less than RBC[1], Less than ARAR[5], Background[2]
Calcium	NA	10 / 10	15.5	25	20	NC	14.7	NA	NA	No	Essential Nutrient[4]
Copper	NA	1 / 10	0.01	0.01	0.004	NC		1.5	1.3	No	Less than RBC[1], Less than ARAR[5], Background[2]
Iron	0.0388-0.0388	9 / 10	0.44	26	5.2	NC	9.1	1.1	0.3 g	Yes	Exceeds RBC[3], Exceeds ARAR[6]
Lead	0.001 - 0.001	4 / 10	0.001	0.002	0.001	NC		NA	0.015	No	Less than ARAR[5], Background[2]
Magnesium	NA	10 / 10	1.7	3.02	2.2	NC	3.48	NA	NA	No	Essential Nutrient[4], Background[2]
Manganese		10 / 10	0.013	2.7	0.66	NC	0.291	0.084	0.05 g	Yes	Exceeds RBC[3], Exceeds ARAR[6]
Potassium	NA	10 / 10	1.6	5.1	2.3	NC	2.37	NA	NA	No	Essential Nutrient[4]
Sodium	NA	10 / 10	23.5	38	29	NC	10.8	NA	NA	No	Essential Nutrient[4]
PAL SEMIVOLATILE ORGANICS											
2-Methylnaphthalene (i)	0.0017-0.0017	2 / 10	0.008	0.6	0.06	NC	-	0.15 h	NA	Yes	Exceeds RBC[3]
Acenaphthene (j)	0.0017-0.06	1 / 13	0.01	0.01	0.004	NC	-	0.22	NA	No	Less than RBC[1]
Bis(2-ethylhexyl)phthalate (i)	0.0048-0.0048	4 / 10	0.0034	0.5	0.053	NC	-	0.0048	0.006 f	Yes	Exceeds RBC[3], Exceeds ARAR[6]
Dibenzofuran (i)	0.0017-0.06	1 / 10	0.0023	0.0023	0.004	NC	-	0.015	NA	No	Less than RBC[1]
Diethylphthalate (i)	0.002-0.11	3 / 10	0.002	0.003	0.007	NC	-	2.9	NA	No	Less than RBC[1]
Fluoranthene (j)	0.0052-0.01	2 / 13	0.0066	0.008	0.004	NC	-	0.15	NA	No	Less than RBC[1]

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Minimum Detected	Concentration Maximum Detected	Concentration Arithmetic Mean	Concentration 95% UCL	Back-ground*	Region III RBC**	ARARs	CPC?	Notes
Fluorene (j)	0.01-0.011	2 / 8	0.003	0.007	0.005	NC	-	0.15	NA	No	Less than RBC[1]
Naphthalene (i)	0.0005-0.0005	2 / 10	0.015	0.2	0.021	NC	+	0.15	NA	Yes	Exceeds RBC[3]
Phenanthrene (i)	0.0005-0.0005	2 / 10	0.002	0.15	0.015	NC	-	0.15 h	NA	No	Less than RBC[1]
PAL VOLATILE ORGANICS											
1,1,1-Trichloroethane (k)	0.0005-0.0013	1 / 10	0.0015	0.002	0.00035	NC	-	0.079	NA	No	Less than RBC[1]
Acetone (k)	0.013-0.036	2 / 10	0.013	0.014	0.009	NC	-	0.37	NA	No	Less than RBC[1]
Chloroform (k)	0.0005-0.0013	2 / 10	0.00055	0.00055	0.00034	NC	+	0.00015	NA	Yes	Exceeds RBC[3]
Ethylbenzene (l)	0.005-0.005	1 / 13	0.026	0.026	0.0047	NC	-	0.13	0.7 f	No	Less than RBC[1], Less than ARAR[5]
Toluene (k)	0.0005-0.0005	7 / 10	0.00045	0.0019	0.0007	NC	-	0.075	1 f	No	Less than RBC[1], Less than ARAR[5]
Trichloroethylene (k)	0.0005-0.0013	2 / 10	0.0033	0.0033	0.0005	NC	-	0.0016	NA	Yes	Exceeds RBC[3]
Xylenes (k)	0.00084-0.00084	1 / 10	0.0014	0.0014	0.00055	NC	-	1.2	NA	No	Less than RBC[1]
GROUNDWATER [c] (mg/L) - UNFILTERED - CONTINUED											
OTHER											
Extractable Petroleum Hydrocarbons (EPH)											
C9-C18 Aliphatics (j)	0.09-0.3	3 / 13	0.21	0.6	0.15	NC	-	NA	NA	Yes	No standard available[7]
C11-C22 Aromatics (j)	0.03-0.04	3 / 13	0.043	0.3	0.053	NC	-	NA	NA	Yes	No standard available[7]
Volatile Petroleum Hydrocarbons (VPH)											
C5-C8 Aliphatics (l)	0.0025-0.075	1 / 9	0.047	0.047	0.02	NA	-	NA	NA	Yes	No standard available[7]
C9-C12 Aliphatics (l)	0.032-0.065	4 / 13	0.032	0.34	0.061	NC	-	NA	NA	Yes	No standard available[7]
C9-C10 Aromatics (l)	0.012-0.02	4 / 13	0.014	0.61	0.082	NC	-	NA	NA	Yes	No standard available[7]
DOWNGRADIENT SEDIMENT [d] (mg/kg)											
PAL METALS											
Aluminum	NA	3 / 3	2930	4840	3843	NC	18000	7800	NA	No	Less than RBC[1], Background[2]
Arsenic	NA	3 / 3	5.46	14.0	10.8	NC	19	0.43	NA	Yes	Exceeds RBC[3], Background[2]
Barium	NA	3 / 3	7.13	11.4	9.5	NC	54	550	NA	No	Less than RBC[1], Background[2]
Calcium	NA	3 / 3	10.3	736	427	NC	810	NA	NA	No	Essential Nutrient[4], Background[2]
Chromium	NA	3 / 3	11.2	16.1	13.8	NC	33	39	NA	No	Less than RBC[1], Background[2]
Cobalt	NA	3 / 3	2.23	6.9	4.3	NC	4.7	470	NA	No	Less than RBC[1]
Copper	NA	3 / 3	6.56	23.4	13.6	NC	13.5	310	NA	No	Less than RBC[1]
Iron	NA	3 / 3	7010	10900	9370	NC	18000	2300	NA	Yes	Exceeds RBC[3], Background[2]
Lead	NA	3 / 3	11.4	30.0	20.7	NC	48	NA	400 e	No	Less than ARAR[5], Background[2]
Magnesium	NA	3 / 3	1580	2630	2123	NC	5500	NA	NA	No	Essential Nutrient[4], Background[2]
Manganese	NA	3 / 3	70.7	186	139	NC	380	180	NA	Yes	Exceeds RBC[3], Background[2]

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Concentration					Region III RBC**	ARARs	CPC?	Notes
			Minimum Detected	Maximum Detected	Arithmetic Mean	95% UCL	Back-ground*				
Nickel	NA	3 / 3	9 55	18 1	12 7	NC	14 6	160	NA	No	Less than RBC[1]
Potassium	NA	3 / 3	364	426	402	NC	2400	NA	NA	No	Essential Nutrient[4], Background[2]
Sodium	NA	3 / 3	259	307	275	NC	234	NA	NA	No	Essential Nutrient[4]
Vanadium	NA	3 / 3	7 91	10 4	8 9	NC	32 3	55	NA	No	Less than RBC[1], Background[2]
Zinc	NA	3 / 3	22 8	39 6	31.4	NC	43.9	2300	NA	No	Less than RBC[1]
PAL SEMIVOLATILE ORGANICS											
Benzo[k]fluoranthene	0 30-0 30	1 / 3	0 4	0 40	0 23	NC	-	8.8	NA	No	Less than RBC[1]
Chrysene	0 60-0 60	1 / 3	2	2	0 86	NC	-	88	NA	No	Less than RBC[1]
Fluoranthene	0 30-0 30	2 / 3	1	3	1 04	NC	-	310	NA	No	Less than RBC[1]
Phenanthrene	0 20-0 20	2 / 3	0 9	2	1	NC	-	310 h	NA	No	Less than RBC[1]
Pyrene	0 20-0 20	2 / 3	1	3	1 4	NC	-	230	NA	No	Less than RBC[1]
PAL VOLATILE ORGANICS											
Trichlorofluoromethane	NA	3 / 3	0 0082	0 0096	0 0091	NC	-	2300	NA	No	Less than RBC[1]
PESTICIDES/PCBS											
4,4-DDD	NA	3 / 3	0 0174	0 12	0 068	NC	-	2 7	NA	No	Less than RBC[1]
4,4-DDE	0 0077-0 0077	1 / 3	0 015	0 015	0 0076	NC	-	1 9	NA	No	Less than RBC[1]
4,4-DDT	NA	2 / 3	0 02	0 046	0 024	NC	-	1 9	NA	No	Less than RBC[1]
OTHER											
Total Petroleum Hydrocarbons	NA	3 / 3	66 8	290	162	NC	-	NA	NA	Yes	No standard available[7]
INDOOR AIR [m] (ug/m^3)											
VOLATILE ORGANICS											
2-Methylheptane	4 4	2 / 5	5 2	19	7 3	NC	(n)	200	NA	No	Less than RBC[1]
Ethylbenzene	NA	5 / 5	2 8	470	102	NC		100	NA	Yes	
Nonane	4 4	1 / 5	7 2	7 2	3 2	NC	(n)	200	NA	No	Less than RBC[1]
Octane	4 4	1 / 5	21	21	5 9	NC	(o)	20	NA	Yes	
Toluene	NA	5 / 5	70	1000	297	NC		42	NA	Yes	
Acetone	NA	5 / 5	52	470	172	NC		37	NA	Yes	
Xylene	8 8	4 / 5	8	92	30 4	NC		730	NA	No	Less than RBC[1]
2-Methylheptane	4 4	1 / 5	8 7	8 7	3 5	NC	(n)	200	NA	No	Less than RBC[1]

TABLE 1
DATA SUMMARY AND SELECTIONOF CHEMICALS OF POTENTIAL CONCERN
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

	Range of SQLs	Frequency of Detection	Concentration: Minimum Detected	Concentration: Maximum Detected	Concentration: Arithmetic Mean	Concentration: 95% UCL	Concentration: Back-ground*	Region III RBC**	ARARs	CPC?	Notes

NOTES:

a Samples included in data set are listed on Table 9-1

b Samples included in data set are listed on Table 9-1

c Samples included in data set are listed on Table 9-1

d Samples included in data set are listed on Table 9-1

e USEPA soil lead screening level (OSWER Directive 9355 4-12, 1994b)

f MCL (USEPA, 1996b)

g Secondary MCL (USEPA, 1996b)

h *Value for naphthalene used as surrogate*

i Data for SVOC analysis

j Data for EPH analysis

k Data for VOC analysis

l Data for VPH analysis

m Samples included in data set are listed on Table 9-1

n Value is RfC for the C9-C12 aliphatic fraction published by MADEP (1997), adjusted to represent a value of 10% of the RfC

o Value is the RfC for the C5-C8 aliphatic fraction published by MADEP (1997), adjusted to represent a value of 10% of the RfC.

Background Maximum concentration in Fort Devens background listed.

95 percent UCL of Fort Devens background groundwater See Appendix F for development of background

**Region III RBCs (USEPA, 1997a) Residential RBC for soil used for sediment and surface and subsurface soil evaluation, tap water RBC used for groundwater evaluation Ambient Air RBCs used for indoor air evaluation RBCs based on carcinogenic effects are associated with a $1x10^{-6}$ cancer risk level. RBCs based on noncarcinogenic effects are associated with an adjusted HQ of 0.1

Chemicals selected as CPCs are shaded.

RBC - Risk-based concentration

mg - milligrams

kg - kilograms

L - liter

ARARs - Applicable or Relevant and Appropriate Requirements

MCL - *Maximum Contaminant Level*

CPC - chemical of potential concern

bgs - below ground surface

SQL - Sample Quantitation Limit

- - not applicable for organics

NC - 95 percent UCL not calculated for data sets with less then 10 samples or groundwater

NA - No value available

UCL - upper confidence limit

Less than RBC[1] - Maximum detected concentration less than risk-based concentration

Background[2] - Sample concentrations detected are at or below background concentrations

Exceeds RBC[3] - Maximum detected concentration exceeds risk-based concentration

Essential Nutrient[4] - Analyte is an essential human nutrient (magnesium, calcium, potassium, sodium) and is not considered a CPC

Less than ARAR[5] - Maximum detected concentration is less than concentration shown in ARARs column

Exceeds ARAR[6] - Maximum detected concentration is greater than concentration shown in ARARs column

No standard available[7] - No standards available for comparison, analyte is considered a CPC

E 2

SUMMARY OF HUM. ALTH RISK ASSESSMENT
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

EXPOSURE MEDIUM / RECEPTOR	CENTRAL TENDENCY		RME		ARE SITE RISKS UNACCEPTABLE?	
	Total Cancer Risk	Total Hazard Index	Total Cancer Risk	Total Hazard Index	Cancer Risk (exceeds USEPA acceptable cancer risk range?)	Non-Cancer Risk exceeds USEPA acceptable Hazard Index?) [2]
CHILD TRESPASSER: Current Land Use						
SURFACE SOIL:	$3x10^{-6}$	0.1	$6x10^{-6}$	0.2	NO	NO
SEDIMENT:	$5x10^{-7}$	0.05	$1x10^{-6}$	0.07	NO	NO
GROUNDWATER (Discharge to Surface Water) :	$1x10^{-6}$	0.2	$2x10^{-6}$	0.2	NO	NO
TOTAL CHILD TRESPASSER RISK:	$6x10^{-6}$	0.4	$1x10^{-5}$	0.6	NO	NO
SITE MAINTENANCE WORKER: Current Land USe						
SURFACE SOIL:	1×10^{-6}	0.07	$5x10^{-6}$	0.1	NO	NO
PUPIL: Future Land Use						
SURFACE SOIL:	$5x10^{-6}$	0.3	$9x10^{-6}$	0.3	NO	NO
SEDIMENT:	$5x10^{-7}$	0.05	$1x10^{-6}$	0.07	NO	NO
GROUNDWATER (Discharge to Surface Water) :	$1x10^{-6}$	0.2	$2x10^{-6}$	0.2	NO	NO
INDOOR AIR:	NC	0.4	NC	0.4	NO	NO
TOTAL PUPIL RISK:	$6x10^{-6}$	1	$1x10^{-5}$	1	NO	NO
EXCAVATION WORKER: Future Land Use						
SURFACE SOIL:	$1x10^{-7}$	0.1	$3x10^{-7}$	0.2	NO	NO
SUBSURFACE SOIL:	$6x10^{-8}$	0.9	$1x10^{-7}$	0.9	NO	NO
TOTAL EXCAVATION WORKER RISK:	$2x10^{-7}$	1	$4x10^{-7}$	1	NO	NO
ADULT RESIDENT: Future Land Use						
GROUNDWATER HYPOTHETICAL POTABLE USE [3]	$1x10^{-4}$	4	$3x10^{-3}$	25	YES	YES
CHILD RESIDENT: Future Land Use						
GROUNDWATER HYPOTHETICAL POTABLE USE [3]	$8x10^{-5}$	8	$2x10^{-3}$	57	YES	YES
TOTAL RESIDENT RISK:	$2x10^{-4}$	--	$3x10^{-3}$	--	YES	YES

NOTES

1 According to the National Contigency Plan for Superfund Sites, the acceptable cancer risk range is within or below 1 in 10,000 ($1x10^{-4}$) to 1 in 1 million ($1x10^{-6}$)

2 According to the National Contigency Plan for Superfund Sites, the acceptable non-cancer risk is a chemical dose that will not result in adverse health effects to sensitive subpopulations, this is often interpreted by the USEPA to be a HI of not greater than 1

3 Groundwater is not presently, nor will be in the future, used as a source of residential or industrial supply water Therefore, this evaluation represents a theortical exposure which does not and will not occur

RME = Reasonable Maximum Exposure
bgs = below ground surface
HI = Hazard Index

Table 3
Ecological Risk Assessment Summary
AOC 69W

Record of Decision
Devens, Massachusetts

Receptor	Medium		
	Surface Soil	Groundwater	Sediment
Small Mammals	Negligible	NA	None
Small Birds	None	NA	None
Predatory Mammals	None	NA	None
Terrestrial Plants	Pb at ZWS-95-42X? No signs of stressed vegetation	NA	NA
Soil Invertebrates	None	NA	NA
Aquatic Organisms	NA	Fe and Mn [1]. Negligible risk from other analytes	Negligible. Adverse effects observed in toxicity tests may be associated with low habitat quality

[1] Iron and manganese were detected in groundwater at concentrations that exceed AWQC; however, the soil removal action has mitigated the reducing conditions that may have contributed to the mobilization of these analytes in groundwater.

TABLE 4
EVALUATION CRITERIA AND. ALTERNATIVES
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

NINE CRITERIA	NO ACTION	LIMITED ACTION WITH INSTITUTIONAL CONTROLS ★
Protects Human Health and Environment	◑	●
Meets Federal and State Requirements	○	●
Provides Long-term Protection	○	●
Reduces Mobility, toxicity, or volume	○	○
Provide Short-term Protection	◑	●
Can Be Implemented	●	●
Cost	$0	$195,300
State Acceptance	○	●
Community Acceptance	○	◑

● = Meets or exceeds criteria
◑ = Partically meets criteria
○ = Does not meet criteria
★ = Preferred alternative

TABLE 5
CHEMICAL-, LOCATION-, AND ACTION-SPECIFIC ARARS, CRITERIA, ADVISORIES, AND GUIDANCE
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

MEDIA	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTION TO BE TAKEN TO ATTAIN REQUIREMENT
GROUNDWATER Federal	Safe Drinking Water Act (SDWA) - Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs; 40 CFR 141.11-141.16 and 141.50-141.52	Relevant and Appropriate	MCLs are enforceable standards (based in part on the availability and cost of treatment) that specify the maximum permissible concentrations of contaminants in public drinking water supplies. MCLGs are non-enforceable health based goals that specify the maximum concentration at which no known or anticipated adverse effects on humans will occur.	Long-term groundwater monitoring will ensure that site contaminants do not migrate off-site. Implementation of Institiutional Controls prohibiting installation of drinking water wells at the site will prevent exposure. In addition, arsenic concentrations are expected to decrease following the soil removal which eliminated the majority of the source of the aquifers reducing conditions.
State	Massachusetts Groundwater Quality Standards; 310 CMR 6.00	Relevant and Appropriate	These standards designate and assign uses for which groundwaters of the Commonwealth shall be maintained and protected, and set forth water quality criteria necessary to maintain the designated uses. Groundwater at AOC 69W is classified as Class I, fresh groundwaters designated as a source of potable water supply.	Long-term groundwater monitoring will ensure that site contaminants do not migrate off-site. Implementation of Institiutional Controls prohibiting installation of drinking water wells at the site will prevent exposure. In addition, arsenic concentrations are expected to decrease following the soil removal which eliminated the majority of the source of the

TABLE 5
CHEMICAL-, LOCATION-, AND ACTION-SPECIFIC ARARS, CRITERIA, ADVISORIES, AND GUIDANCE
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

MEDIA	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTION TO BE TAKEN TO ATTAIN REQUIREMENT
	Massachusetts Drinking Water Regulations, 310 CMR 22.00	Relevant and Appropriate	These regulations list Massachusetts MCLs which apply to drinking water distributed through a public water system.	Long-term groundwater monitoring will ensure that site contaminants do not migrate off-site. Implementation of Institiutional Controls prohibiting installation of drinking water wells at the site will prevent exposure. In addition, arsenic concentrations are expected to decrease following the soil removal which eliminated the
	Massachusetts Hazardous Waste Management Regulations, 310 CMR 30.300	Applicable	These regulations contain requirements for generators including testing of wastes to determine if they are hazardous wastes and accumulation of hazardous waste prior to disposal.	Any hazardous waste (soils or groundwater) generated from long-term monitoring or excavation at AOC 69W will be managed in accordance with these regulations. Institutional Controls will limit contact to in-situ

APPENDIX C

APPENDIX C - RESPONSIVENESS SUMMARY

This Responsiveness Summary has been prepared to meet the requirements of Sections 113(k)(2)(B)(iv) and 117(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, which requires response to "significant comments, criticisms, and new data submitted in written or oral presentations" on a proposed plan for remedial action. The purpose of this Responsiveness Summary is to document Army responses to questions and comments expressed during the public comment period by the public, potentially responsible parties, and governmental bodies in written and oral comments regarding the Proposed Plan for Area of Contamination (AOC) 69W.

The Army held a 30-day public comment period from April 8 through May 10, 1999, to provide an opportunity for interested parties to comment on the Remedial Investigation (RI) report, Proposed Plan, and other documents developed to address contamination at AOC 69W, Devens, Massachusetts. The RI characterized soil and groundwater contamination at AOC 69W and evaluated potential human health and ecological risks. Based on the results of the RI and risk assessment, the Army concluded that under current land uses (including re-use as a school) AOC 69W did not pose unacceptable risks to human health or the environment. Hypothetical future use of the groundwater as a residential potable water source did exceed risk levels generally considered acceptable by the USEPA. The Army identified its proposal for Limited Action of long-term groundwater monitoring and institutional controls in the Proposed Plan issued on April 8, 1999.

All documents considered in arriving at the Limited Action decision were placed in the Administrative Record for review. The Administrative Record contains all supporting documentation considered by the Army in choosing the remedy for AOC 69W. The Administrative Record is available to the public at the Devens Base Realignment and Closure (BRAC) Environmental Office, 30 Quebec Street, Devens RFTA, and at the Ayer Town Hall, Main Street, Ayer. An index to the Administrative Record is available at the U.S. Environmental Protection Agency (USEPA) Records Center, 90 Canal Street, Boston, Massachusetts and is provided as Appendix D to the Record of Decision.

This Responsiveness Summary is organized into the following sections:

I. **Statement of Why the Army Recommended Limited Action**-This section briefly states why the Army recommended Limited Action consisting of long-term groundwater monitoring and institutional controls for AOC 69W.

II. **Background on Community Involvement**-This section provides a brief history of community involvement and Army initiatives to inform the community of site activities.

III. **Summary of Comments Received During the Public Comment Period and Army Responses**-This section provides Army responses to oral and written comments received from the public and not formally responded to during the public comment period. A transcript of the public meeting consisting of all comments received during this meeting and the Army's responses to these comments is provided in Attachment A of this Responsiveness Summary.

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I. STATEMENT OF WHY THE ARMY RECOMMENDED LIMITED ACTION

The Army recommended Limited Action because under current conditions AOC 69W poses no unacceptable risks to human health of the environment. Furthermore, the Removal Action performed by the Army in 1997-1998 has eliminated the majority of the petroleum contaminated soils which would otherwise be a continuing source of contamination. The fuel oil UST, piping, and oil recovery system were also removed. The contaminated soil adjacent to and underneath the school that exceeds the MCP Method 1 S-1/GW-1 soil standards is below a paved area which minimizes any further migration of contaminants and potential future exposure. Because the soil Removal Action eliminated the majority of source area contaminants, estimated risks and interpretations represent worst-case estimates that are unlikely to be exceeded under future land use conditions. The Limited Action enables the Army to continue monitoring site conditions and places limitations on future use to minimize the potential for future exposures.

Risks associated with hypothetical future potable use (worst-case) exposure to AOC 69W groundwater, exceed levels considered acceptable by USEPA due largely to elevated concentrations of arsenic. The soil removal will act to lessen reducing conditions in the groundwater and therefore arsenic concentrations are expected to continue to decrease. The Army will monitor the groundwater for site contaminants and observe groundwater conditions over time. A long-term groundwater monitoring plan will be prepared which will include the identification and location of new groundwater monitoring wells and existing monitoring wells to be sampled. The sampling frequency and analytical parameters to be evaluated will also be identified within this plan. The objective of the monitoring well be to verify that elevated arsenic concentrations will continue to decrease and not migrate further downgradient. Monitoring will be performed for five years, after which the sampling frequency will be reassessed pending the results of the five-year site review.

Institutional controls will also be implemented at AOC 69W to limit the potential exposure to the contaminated soil and groundwater under both existing and future site conditions. These institutional controls will ensure that exposure to remaining contaminated soils beneath and adjacent to the building are controlled and the extraction of groundwater from the site for industrial and/or potable water supply would not be permitted. The institutional controls for AOC 69W will be incorporated either in full or by reference into all deeds, easements, mortgages, leases or any other instruments of transfer prior to the transfer of the property to MassDevelopment.

As part of the five-year review process, existing land use will be evaluated to ensure that the institutional control requirements are still being met. If the future proposed land use at AOC 69W is inconsistent with these institutional controls, then the site exposure scenarios to human health and the environment will be re-evaluated to ensure that this response action is appropriate.

II. BACKGROUND ON COMMUNITY INVOLVEMENT

The Army has held regular and frequent information meetings, issued fact sheets and press releases, and held public meetings to keep the community and other interested parties informed of activities at AOC 69W.

In February 1992, the Army released, following public review, a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities at Fort Devens. As part of this plan, the Army established a Technical Review Committee (TRC) in early 1992. The TRC, as required by SARA Section 211 and Army Regulation 200-1, included representatives from USEPA, USAEC, Fort Devens, Massachusetts Department of Environmental Protection (MADEP), local officials, and the community. Until January 1994, when it was replaced by the Restoration Advisory Board (RAB), the committee generally met quarterly to review and provide technical comments on schedules, work plans, work products, and proposed activities for the study areas at Fort Devens. The Site Investigation, Area Requiring Environmental Evaluation, and RI reports; Proposed Plan; and other related support documents were all submitted to the TRC or RAB for their review and comment. The Community Relations Plan was updated to address BRAC issues and reissued in May 1995.

The Army, as part of its commitment to involve the affected communities, forms a RAB when an installation closure involves transfer of property to the community. The Fort Devens RAB was formed in February 1994 to add members of the Citizen's Advisory Committee (CAC) to the TRC. The CAC had been established previously to address Massachusetts Environmental Policy Act/Environmental Assessment issues concerning the reuse of property at Fort Devens. The RAB initially consisted of 28 members (15 original TRC members plus 13 new members) representing the Army, USEPA Region I, MADEP, local governments, and citizens of the local communities. The RAB currently consists of 19 members. It meets monthly and provides advice to the installation and regulatory agencies on the Devens RFTA cleanup programs. Specific responsibilities include: addressing cleanup issues such as land use and cleanup goals; reviewing plans and documents; identifying proposed requirements and priorities; and conducting regular meetings that are open to the public.

On April 8, 1999, the Army issued the Proposed Plan, to provide the public with a brief explanation of the Army's proposal for Limited Action at AOC 69W. The Proposed Plan also described the opportunities for public participation and provided details on the upcoming public comment period and public meetings.

During the weeks of April 12 and 26, 1999, the Army published a public notice announcing the Proposed Plan and public information meeting in the Lowell Sun, Worcester Telegram and Gazette, Fitchburg-Leominster Sentinel Enterprise, and the Public Spirit. The Army also made the Proposed Plan available to the public at the public information repositories at the Davis Public Library at the Devens RFTA, the Ayer Public Library, the Hazen Memorial Library in Shirley, the Harvard Public Library, and the Lancaster Public Library.

From April 8 through May 10, 1999, the Army held a 30-day public comment period to accept public comments on the Proposed Plan and on other documents released to the public. On May 5, 1999, the Army held a formal public hearing at Devens RFTA to present the Army's Proposed Plan to the public and to provide the opportunity for open discussion concerning the Proposed Plan. The Army also accepted verbal or written comments from the public at the meeting. A transcript of this meeting, public comments, and the Army's response to comments are attached to this Responsiveness Summary.

All supporting documentation for the decision regarding AOC 69W is contained in the Administrative Record for review. The Administrative Record is a collection of all the documents considered by the Army in choosing the plan of action for AOC 69W. On May 5, 1999, the Army made the Administrative Record available for public review at the Devens BRAC Environmental Office, and at the Ayer Town Hall, Ayer, Massachusetts. An index to the Administrative Record is available at the USEPA Records Center, 90 Canal Street, Boston, Massachusetts and is provided as Appendix D.

III. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND ARMY RESPONSES

The following comments were received during the public comment period.

Oral comments received at the public hearing on May 5, 1999 as recorded on the official transcript.

Commentor: Kevin O'Malley – Ayer Superintendent of Schools

Comment: In terms of that category of institutional controls, have the uses that a school would ordinarily make of a facility and of grounds been explored to the extent that any of them would be prohibited into the future, (examples) a science class planting a bush, a field trip, or a group of kids playing in a playground setting, et cetra? Are we to feel comfortable based on your findings that there are no risks to children in using the outside facility?

Response: The institutional control pertaining to exposure to subsurface soil is based on the residual soil contamination located adjacent to the school building and beneath the paved parking lot at depths of 6 to 10 feet below ground surface. The institutional controls for exposure to soils would therefore only pertain to subsurface soils, those soils located at depths greater than 3 feet below ground surface. It is anticipated that this restriction would in no way impact the ordinary use of the facility either indoors or out.

The human health risk assessment has shown that there is no unacceptable risk posed by the site to either pupils or teachers.

Comment: We are, all of us, concerned about indoor quality of air. Are we to be assured that the quality of the air in the facility going on into the future will not be affected by this particular event in the past? In other words, could there be recesses, places that would be stirred up by habitation activity that might contaminate the air in a way that we would have to come back and remediate it; whereas, right now; because everything is sedentary, things are testing out wonderful?

Response: The indoor air sampling was performed in October of 1997 during a time that the school building was inactive and sealed. This represents a worst-case scenario insofar as any contaminant vapors present would be allowed collect within the school building without being ventilated. Only three analytes (ethylbenzene, 2-methylheptane, and xylene) were detected in indoor air that are potentially attributed to subsurface contamination beneath the school. Of these, none were detected in the vicinity of the northwestern portion of the school at concentrations high enough to include them in the risk assessment and only ethylbenzene was detected at a concentration within the school building at a concentration that included it as a contaminant of potential concern. The results of the human health risk assessment show that there are no unacceptable risks to either pupils or teachers from indoor air. The USEPA performed additional air sampling and conducted an independent risk assessment which also showed no unacceptable levels of risk.

Occupation of the school would not act to increase petroleum-related contamination within the school building as these soils are beneath the school foundation and paved parking lot. In addition, the occupation and use of the school would also result in constant ventilation of the school building through the opening of doors and windows.

Comment: What, if any, ongoing relationship will this study from the Army have with this facility and grounds? Will the change of deed or the change of ownership status affect that kind of relationship?

Response: The Army proposes to perform long-term monitoring of the groundwater at the site until such time as it is agreed by the Army and the USEPA that monitoring is no longer required. This time frame will not be shorter than five-years.

Comment: Does your (Army) concern go beyond environmental to structural building issues in the transfer of the property?

Response: Prior to transfer of the property to MassDevelopment the Army will issue a Statement of Condition documenting the physical condition of the property. The property is then transferred as is.

Commentor: Mary Ann Gapinski – School Nurse, Parker Charter School

Comment: While we concur with the conclusions that there are no unacceptable human health risks with the building as it is now, we are concerned about the surveillance of it in the long-term.

Table 9-11 which was the quantitative risk summary of the remedial RI, it states time and time again that the indoor air was not evaluated; that it was not calculated; that there was no VOCs noted; and probably not in a building that had been closed for numerous years. We – I'm sure that the indoor area quality reports that have come back would justify that statement.
However, in stirring up the activity there with 400-plus students and faculty at the site, we are concerned about the potential for the VOCs and sediment inhalation of those, and not just the cancer risk. I know the ATSDR did potentials on that, and that came back inclusive as well.
However, our major concern at this time – and again much of this concern is due to the population which will be in that building, namely school age children – that we're talking about asthma and other respiratory ailments that are common among this age population. So it's not just the cancer risks that need to be looked at, but other health concerns.

And along with this, we would just like to add in the record that perhaps as part of the AUL, the land restrictions for this, that could be included a ventilation system that is performance standard; that is up to date; that the controls be set for that specifically with these potential VOCs in the building.

Response: Table 9-11does state that carcinogenic risks were not calculated for exposure to indoor air because there were no anlaytes detected that qualified as contaminants of potential concern. However, non-carcinogenic health risks were calculated. This assessment showed that risk levels were well below the USEPA threshold level.

In addition, please refer to the response to the second comment by Mr. Kevin O'Malley.

Comment: In some of the original documents regarding this AOC 69W, we found that there was some proposed lease and transfer restrictions that were – included asbestos, lead paint, radon, the groundwater exposure, and the subsoil excavation concerns.

Now, we understand, you know, the groundwater and the subsoil excavation concerns; and those will remain with the deed. And then we also understand that the asbestos, the lead paint, and the radon issues have all been, we hope, remediated by the renovations that are being done by the DCC there.

However, my question is, will any of those other issues remain in the deed transfer restrictions – the asbestos, the lead paint, and the radon issues – or are those all considered remediated and gone from concerns?

Response: It is the Army's understanding that the asbestos, lead paint, and radon issues have been addressed by the DCC. The deed restrictions imposed will only pertain to the potential future exposure to groundwater as a potable water source and to subsurface soil.

Commentor: Sally Kent – Environmental Chemistry Teacher, Parker Charter School

Comment: We're very much interested in using this whole school as a case study for a year's worth of curriculum. I'm looking for support; and, also because as we go into this and we bring in a whole lot of families involved and students into the building, I want the families and the students to be reassured that they're moving into a safe building. So I think it's – it would be very good for them to have a good in-depth study so they all feel comfortable with going into – they feel educated about the process.

I would also like to find out about being able to use the site once were in the building as our environmental class – chemistry class. Will we be allowed to sample the soil ourselves? Will there be any restricted areas to go to the water for samples? Will we be allowed to take sediment from the streams nearby? How will we be restricted as environmental and analytical chemists?

Response: The deed restrictions imposed will pertain to groundwater as a potable water source and to subsurface soil (soil at a depth greater than three feet below ground surface). Any future school activities would have to take these restrictions into account. As has been stated previously, these restrictions should not impinge upon normal activities either inside or outside of the school facility.

Commentor: Carol Case – Parent of students at Parker Charter School

Comment: Once all this testing is ongoing, can you tell me how the results of that test will be – where those results will be kept and how people at the school or elsewhere of interest would have access to that information?

Response: The results of the long-term groundwater monitoring will be made available on an annual basis in the form of a long-term monitoring report. This report will be a part of the public record and will be sent to all parties on the document distribution list as well as the document repositories located at the local libraries. In addition, representatives of the Parker Charter School will continue to be invited to information and planning meetings to be held between the Army, USEPA, and MADEP.

Commentor: Charlie Jones – Ayer School Committee

Comment: You (Army, J. Chambers) said that you could have restrictions that go – pass on with the deed. But as you pointed out, currently the Army is leasing that facility and has not transferred it over to Devens.

Do you foresee any delay in transferring the property over so that the property can then be used or – while ongoing, long-term investigations or long-term remedies are taking place; or do you see that this will – what you've done will facilitate the transfer of the property?

Response: The Limited Action proposed in this Record of Decision should not delay the transfer of the school property to MassDevelopment.

The following written comment was received during the public comment period:

Commentor: Carol M. Case – Parent of students at the Parker Charter School

Comment: In a question I posed during the May 5th public hearing, I asked how the results gathered from the ongoing site monitoring would be maintained and disseminated, and by whom it could be accessed.

While having this information available to a public review board is acceptable, there should also be a commitment on the part of the Army to pro-actively provide this information to the parties of interest. This should in particular include the building owners, lessees, and occupants, whether at any given time they happen to be the same or separate parties.

This would ensure that there is adequate notice of issues that might require remedial action or that might significantly or otherwise interrupt normal use of the building and site.

Response: Please refer to the response to Ms. Case's earlier comment.

ATTACHMENT A - PUBLIC MEETING TRANSCRIPT

Volume I
Pages 1 to 19

PUBLIC MEETING REGARDING PROPOSED PLAN FOR AOC 69W

U.S. Army Reserve
Forces Training Area

Devens, Massachusetts

MODERATOR: Jim Chambers

Held at:

U.S. Army RFTA Headquarters
Building 679
Quebec Street
U.S. Army Reserve Forces Training Area
Devens, Massachusetts
Wednesday, May 5, 1999
8:02 p.m.

(William J. Ellis, Registered Professional Reporter)

* * * *

P R O C E E D I N G S

JIM CHAMBERS: Good evening. Welcome. My name is Jim Chambers. I'm the Base Realignment And Closure Environmental Coordinator for the Army at Devens.

Tonight, we're going to have the formal public hearing now on the proposed plan for Area of Contamination 69W. That's a fuel -- heating fuel release that -- at the former elementary school at the former Fort Devens. We've just concluded the information session, and now we'll proceed to the formal hearing.

As it is a formal hearing, I ask that if you choose to make comments this evening, that you stand, speak loudly and clearly, please announce your name and address and -- if your name -- spell it if necessary, please.

Again, we are recording this with a court stenographer this evening. These comments will -- this is part of a public hearing period. The written comment period began April 8. It's a 30-day period. It ends May 10.

The formal hearing tonight, all the comments we receive, the Army, as part of the

Superfund process, is required to respond to. We will respond to those in what's referred to as a Responsiveness Summary which is included in the Record of Decision for this site. The Record of Decision is the formal declaration of what we propose to do with this site.

So we've issued a proposed plan for you all to review. The Record of Decision is the Army and the United States Environmental Protection Agency formally agreeing that that is the selected remedy.

So with that, I'd just like to again introduce myself, Jim Chambers from the Army; Mark Applebee from the Army Corp. of Engineers; Rod Rustad -- spell your name, Rod.

ROD RUSTAD: R-u-s-t-a-d.

JIM CHAMBERS: Is with Harding Lawson Associates. They're the consultant that worked with the Army on this site; Mr. Jerry Keefe from the EPA is here; and Mr. David Salvadore from the Massachusetts Department of Environmental Protection.

And with that, we'll begin the formal comment period. So please stand, and we'll try to do this -- if there's more than one person, I'll try

to get to everybody.

So questions? Comments?

KEVIN O'MALLEY: At least we have no questions. Let me start the ball rolling.

I'm Kevin O'Malley. I'm the Superintendent of Schools in Ayer and the potential eventual owner or representative of -- the School Committee of Ayer representative. And we have numerous questions, but if I could put two on the table now.

One. In terms of that category of institutional controls, have the uses that a school would ordinarily make of a facility and of grounds been explored to the extent that any of them would be prohibited into the future, a science class planting a bush, a field trip, or a group of kids playing in a playground setting, et cetera? Are we to feel comfortable based on your findings that there are no risks to children in using the outside facility?

If I could ask my second question now, then I'll sit down.

Second. We are, all of us, concerned about indoor quality of air. Are we to be assured that the quality of the air in the facility going on into

the future will not be affected by this particular event in the past? In other words, could there be recesses, places that would be stirred up by habitation activity that might contaminate the air in a way that we would have to come back and remediate it; whereas, right now, because everything is sedentary, things are testing out wonderful?

So with those two questions to begin with, could I see if I can get some response.

JIM CHAMBERS: Well, first of all, when they did the risk assessment as part of the remedial investigation -- as part of that process, you look to see how people might come in contact with the contamination. And so that they looked at -- and what type of activity might be involved. So they looked at adults and children.

And because this area is paved, and there is a building on top of the area, and because of the depth of the contamination that's been left behind, there is no risk expected for the scenario that you described.

KEVIN O'MALLEY: Well, there is a good percentage of the property that is not paved.

JIM CHAMBERS: But the contamination

doesn't extend out to there.

KEVIN O'MALLEY: Okay.

JIM CHAMBERS: This is the extent of the excavation that was done. The residual soil contamination is in this area right here, and that's all under -- at a depth of ten feet below pavement and below the building.

KEVIN O'MALLEY: Air. Do you have --

JIM CHAMBERS: Air quality. The Army's focus when they did the air quality testing was to associate the -- what impact on the air quality might have resulted from this fuel release. We find nothing that is associated with that. In fact, as -- all the risk -- I mean all the air quality testing that's been done shows that there are -- there is no concern.

So if there should be something in the future, we don't expect it to be from this site. The only way that -- from this would be if the pavement were to be removed or the building to be removed, and that would possibly stir up the soils that have the contamination in it. And that would be part of the restrictions, that we notify -- that in the future, if any type of construction work is

done, that there's a notification that the soils that are -- if soils should be excavated from that site, that they have to be managed properly.

KEVIN O'MALLEY: If I could have a follow-up.

Is it to be assumed that at the original site of contamination that there had been some air pollution, some air problems; and that -- that -- what I'm trying -- you know, I'm legitimately concerned with surprises relative to air quality down the road. And so had there been air pollution, and it's all fine now and massive numbers of kids stirring up the environment, et cetera, et cetera.

JIM CHAMBERS: I can't speak to the past. The Town of Ayer -- the School Department of the Town of Ayer was in operational control of the school during that time. And the Army --

KEVIN O'MALLEY: I'm worried about the future.

JIM CHAMBERS: Well, I'm just saying -- you asked -- the first question was is it to be assumed that there was air problems in the past. I have no knowledge of there being problems in the past.

As to the future --

KEVIN O'MALLEY: Nor do we, by the way, for the record. I'm just trying to project the future.

So what you're saying in essence, both inside and outside, this is a fairly clean bill of health relative to the use of students and staff as a school facility and grounds?

JIM CHAMBERS: Yes, from the perspective of this --

KEVIN O'MALLEY: From your analysis --

JIM CHAMBERS: -- situation.

KEVIN O'MALLEY: -- analysis of pollution in this study.

MARY ANN GAPINSKI: I guess I'll go next.

I'm Mary Ann Gapinski, and I'm from the Parker Charter School, the school nurse there, and coordinator of what we've labeled our environmental subcommittee.

First, I want to extend publicly our thanks to the BRAC office, namely Jim Chambers and his staff, for all the cooperation that we've received from them with our investigation. We've been overseeing this remediation of this oil spill since the fall of '97. We've been following their activities and have greatly appreciated all that

they have done and all the work that the Army has -- and time and effort that's been put into it. And they've been extremely cooperative, they, along with the representatives from the EPA and the Mass. Department of Environmental Protection. However, we still do have some concerns.

While we concur with the conclusions that there are no unacceptable human health risks with the building as it is now, we are concerned about the surveillance of it in the long-term.

In looking at Table No. 9-11 which was the quantitative risk summary of the remedial RI, it states time and time again that the indoor air was not evaluated; that it was not calculated; that there was no VOCs noted; and probably not in a building that had been closed for numerous years. We -- I'm sure that the indoor area quality reports that have come back would justify that statement.

However, in stirring up the activity there with 400-plus students and faculty at the site, we are concerned about the potential for the VOCs and sediment and inhalation of those, and not just the cancer risk. I know the ATSDR did potentials on that, and that came back inclusive as well.

However, our major concern at this time -- and again much of this concern is due to the population which will be in that building, namely school age children -- that we're talking about asthma and other respiratory ailments that are common among this age population. So it's not just the cancer risks that need to be looked at, but other health concerns.

And along with this, we would just like to add in the record that perhaps as part of the AUL, the land restrictions for this, that could be included a ventilation system that is performance standard; that is up to date; that the controls be set for that specifically with these potential VOCs in the building.

So those are basically my concerns, and I would like to go on record with having those acknowledged. Thank you.

THE REPORTER: Could you spell your name, please, ma'am.

MARY ANN GAPINSKI: G-a-p-i-n-s-k-i.

THE REPORTER: Thank you.

JIM CHAMBERS: Thank you. We'll consider those, and those comments we'll respond to formally

in the written response.

MARY ANN GAPINSKI: Thank you.

JIM CHAMBERS: Well, anybody else?

(Pause)

JIM CHAMBERS: Okay. Well, we'll wait about five more minutes or so to see if somebody else shows up; and then we'll formally close the hearing.

Again, please sign in if you haven't done so already; and there's copies of the slides that we presented tonight, as well as copies of the proposed plan. It won't be necessary for you all to stay if you're done, but we'll keep it open for another five minutes or so.

Yes.

SALLY KENT: My name is Sally Kent. I teach Environmental Chemistry at the Parker Charter School.

And we're very much interested in using this whole school as a case study for a year's worth of curriculum. I'm looking for support; and, also, because as we go into this and we bring in a whole lot of families involved and students into the building, I want the families and the students to be

reassured that they're moving into a safe building. So I think it's -- it would be very good for them to have a good in-depth study so they all feel comfortable with going into -- they feel educated about the process.

I also would like to find out about being able to use the site once we're in the building as our environmental class -- chemistry class. Will we be allowed to sample the soil ourselves? Will there be any restricted areas to go to the water for samples? Will we be allowed to take sediment from the streams nearby? How will we be restricted as environmental and analytical chemists?

JIM CHAMBERS: Thank you for that comment. We will respond to that formally as well.

I might add that when you do occupy the school, if there are conditions that we restrict as a result of deed restrictions, that if you were to submit a proposal, we would consider it and evaluate whether or not it contradicted any restrictions that we might put in place.

KEVIN O'MALLEY: Kevin O'Malley again, filling in the five minutes.

What, if any, ongoing relationship will

this study from the Army have with this facility and grounds?

JIM CHAMBERS: Well, as I said, we have -- we propose long-term monitoring. So we will be monitoring groundwater for this site until such time as it's agreed by the Army and the EPA that monitoring is no longer required. When we reach that point, we would then notify the public again that that's the agreement that we've -- intend.

KEVIN O'MALLEY: Will the change of deed or the change of ownership status affect that kind of relationship?

JIM CHAMBERS: Okay. Deed restrictions -- the parcel is a leased parcel. It's been leased in furtherance and conveyance to the Massachusetts Development -- Mass. Development; and in order for them to take possession, we'll have to actually convey the property. And then if they convey to the Town of Ayer, this deed restriction will run with that land.

And, again, once -- as we do the monitoring and stuff, we would review the further requirement for deed restrictions as well.

KEVIN O'MALLEY: Could you --

JIM CHAMBERS: And we do -- the sampling would be --

KEVIN O'MALLEY: Would you spell that out a little bit.

JIM CHAMBERS: The sampling will be done annually. As this is a CERCLA site or Superfund site, that there are five-year reviews required as well. And so annually, there will be a report saying what the results of the sampling are. And in the five-year period, there will be a review of what's transpired over those five years and whether there's a necessity to continue with the remedial action as proposed.

KEVIN O'MALLEY: So you could restrict a deed after it has been transferred relative to a Superfund?

JIM CHAMBERS: Retract it. Yes, we could retract it.

Yes.

CAROL CASE: My name is Carol Case, C-a-s-e. I'm a parent of students at the Parker School. I'm just wondering once all this testing is ongoing, can you tell me how the results of that test will be -- where those results will be kept and

how people at the school or elsewhere of interest would have access to that information.

JIM CHAMBERS: Yes. First of all, as part of our community relations process, we have a -- what's called a Restoration Advisory Board. And that's a group of citizens from the communities that we meet with on a monthly basis, and we report to them the status of latest updates on what we're doing, as well as we send out reports to members of the Restoration Advisory Board. We send copies to information repositories, and there's an information repository in each of the public libraries of the four towns associated with Devens -- Ayer, Harvard, Shirley, and Lancaster.

And, periodically, we put out a notice of the documents that are available at the libraries.

CHARLES JONES: Charles Jones, Ayer School Committee.

Back to the issue on the deed, you said that you could have restrictions that go -- pass on with the deed. But as you pointed out, currently the Army is leasing that facility and has not transferred it over to Devens.

Do you foresee any delay in transferring

the property over so that the property can then be used or -- while ongoing, long-term investigations or long-term remedies are taking place; or do you see that this will -- what you've done will facilitate the transfer of the property?

JIM CHAMBERS: Well, in order to transfer the property, we have to have what's known as a finding of suitability to transfer. In that, we update the latest environmental condition of the property; and we propose -- I foresee that we will propose that we could transfer the property.

So I don't anticipate a problem as a result of this environmental issue.

KEVIN O'MALLEY: Does your concern go beyond environment to structural building issues in the transfer of the property? Do you check the roof and pass it over in good condition, for instance?

JIM CHAMBERS: The Army transfers the buildings as is to the Mass. Development; and should they choose to warrant it, you can take it up with them.

MARY ANN GAPINSKI: Mary Ann Gapinski again for the Parker Charter School.

In some of the original documents regarding

this AOC 69W, we found that there was some proposed lease and transfer restrictions that were -- included asbestos, lead paint, Radon, the groundwater exposure, and the subsoil excavation concerns.

Now, we understand, you know, the groundwater and the subsoil excavation concerns; and those will remain with the deed. And then we also understand that the asbestos, the lead paint, and the Radon issues have all been, we hope, remediated by the renovations that are being done by the DCC there.

However, my question is, will any of those other issues remain in the deed transfer restrictions -- the asbestos, the Radon, and the lead paint issues -- or are those all considered remediated and gone from concerns?

JIM CHAMBERS: In the deed, the Army puts notifications of the -- either the existence or the suspected existence of those substances, and -- I guess I'll have to check on that answer, and we'll respond to that in the Responsiveness Summary as well. I'm not sure how long that is carried forward for.

MARY ANN GAPINSKI: Okay.

JIM CHAMBERS: All right. Are there any additional comments?

(Pause)

JIM CHAMBERS: All right. With that, I'm going to -- last call.

All right. Thank you all for coming out this evening.

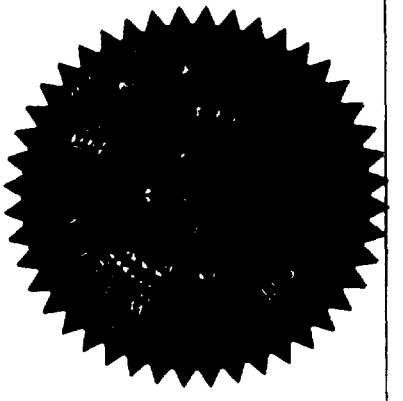
(Whereupon, the proceedings were adjourned at 8:26 p.m.)

C E R T I F I C A T E

I, William J. Ellis, Registered Professional Reporter, do hereby certify that the foregoing transcript, Volume I, is a true and accurate transcription of my stenographic notes taken on May 5, 1999.

William J. Ellis

Registered Professional Reporter



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APPENDIX D

APPENDIX D - ADMINISTRATIVE RECORD INDEX

ADMINISTRATIVE RECORD
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

Document Number	MastDoc Number	DOC_TITLE	AUTHOR_LOC	DOC_DATE
1095	1095	Draft Remedial Investigation/Feasibility Study Work Plan Addendum for Supplemental Air Sampling, AOC 69W - Devens Elementary School, ABB Environmental Services, Inc, July 1997.	ABB Environmental Services, Inc.	01-Jul-97
1096	1096	Final Remedial Investigation/Feasibility Study Work Plan Addendum for Supplemental Air Sampling, AOC 69W - Devens Elementary School, ABB Environmental Services, Inc, October 1997.	ABB Environmental Services, Inc.	01-Oct-97
1269	1095	Responses to Comments, Draft Supplemental RI Report, AOC 69W	ABB Environmental Services, Inc.	01-Apr-98
1025	1025	Draft Task Order Work Plan, AOCs 57, 63AX and 69W, Data Item A002	ABB Environmental Services, Inc.	01-Jul-95
1026	1025	Comments on the Draft Task Order Work Plan, AOCs 57, 63AX and 69W, Data Item A002	Jerome C. Keefe, USEPA Region I	18-Aug-95
1027	1025	Comments on the Draft Task Order Work Plan, AOCs 57, 63AX and 69W, Data Item A002	D. Lynne Welsh, MADEP	15-Sep-95
37	37	Final Task Order Work Plan, AOCs 57, 63AX and 69W, Data Item A002	ABB Environmental Services, Inc.	01-Jan-96
38	1025	Response to Comments, Draft Task Order Work Plan, AOCs 57, 63AX and 69W, Data Item A002	ABB Environmental Services, Inc.	01-Jan-96
39	1025	MADEP Rebuttals to the Army Response to Comments for the Draft Task Order Work Plan, AOCs 57, 63AX, & 69W, Data Item 002, AND (2) MADEP Comments on the Final Task Order Work Plan, AOCs 57, 63AX, & 69W, Data Item 002	Christopher J. Knuth, MADEP	27-Feb-96
40	37	USEPA Comments on the Final Task Order Work Plan for Areas of Contamination 57, 63AX, & 69W	Jerome C. Keefe, USEPA Region I	27-Feb-96
1028	37	MADEP Comments on the Final Task Order Work Plan, AOCs 57, 63AX, & 69W, Data Item 002	Christopher J. Knuth, MADEP	27-Feb-96
1145	0	MADEP Comments on the Rebuttals to Army Responses to Comments for Draft Task Order Work Plan, AOC 57 and 69W and Comments on Final Task Order Work Plan AOC 57, 63AX and 69W.	Christopher J. Knuth, MADEP	27-Feb-96

ADMINISTRATIVE RECORD
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

Document Number	MastDoc Number	DOC_TITLE	AUTHOR_LOC	DOC_DATE
1147	0	MADEP Comments on the Draft Addendum to the Risk Assessment Approach Plan, Elementary School, AOC 69W	John Regan, MADEP	27-Mar-98
1242	0	USEPA Comments on the Draft RI/FS Task Work Plan Addendum for AOCs 69W and 57	James P. Byrne, USEPA	01-Jun-96
1243	0	MADEP Review of Response to Comments, Draft RI/FS Task Work Plan Addendum for AOCs 69W and 57	Christopher J. Knuth, MADEP	12-Sep-96
1329	1329	Removal Action Report Contaminated Soil Removal - Phase II, Area of Contamination 69W, Devens Elementary School, Devens, MA	Weston	01-May-98
1328	1329	USEPA New England's Comments on the AOC 69W Removal Action Report	James P. Byrne, USEPA	26-Jun-98
1324	0	USEPA Comments on the Draft Action Memorandum for AOC 69W, Devens, MA (Roy F. Weston, September 1997)	Jerome C. Keefe, USEPA	07-Oct-97
1323	0	MADEP Comments on the Contaminated Soil Removal Phase II AOC 69W, Elementary School, Draft Action Memorandum, Devens, MA (Roy F. Weston, September 1997)	David M. Salvadore, MADEP	10-Oct-97
1325	1325	Final Action Memorandum, Contaminated Soil Removal, Phase II, Area of Contamination (AOC) 69W, Elementary School, Devens, MA	Weston	01-Dec-97
1322	0	MADEP Comments on the Contaminated Soil Removal Phase II AOC 69W, Elementary School, Draft Action Memorandum, Devens, MA (Roy F. Weston, September 1997)	David M. Salvadore, MADEP	20-Jan-98
1170	0	USEPA Comments on the Fort Devens Elementary School Air Quality Testing (AOC 69W)	Jerome C. Keefe, USEPA	25-Mar-97
1286	1286	Final Report - Indoor Air Sampling Study, Area of Contamination 69W, Devens Elementary School, Devens, MA	Peter R. Kahn, USEPA	01-Jun-98
1106	1106	Draft Air Sampling Results, AOC 69W, Fort Devens Elementary School, November 13, 1996.	ABB Environmental Services, Inc.	01-Nov-96

ADMINISTRATIVE RECORD
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

Document Number	MastDoc Number	DOC_TITLE	AUTHOR_LOC	DOC_DATE
1107	1106	USEPA Comments dated December 3, 1996 from Jerry Keefe on "Draft Air Sampling Results, AOC 69W, Devens Elementary School".	Jerry Keefe	01-Dec-96
1108	1106	MADEP Comments dated December 13, 1996 from Christopher Knuth on "Draft Air Sampling Results, AOC 69W, Devens Elementary School".	Christopher Knuth	01-Dec-96
1169	0	MADEP Comments on Elementary School Air Quality Testing, AOC 69W (Devens Commerce Center, January 3, 1997)	Christopher J. Knuth, MADEP	10-Feb-97
1109	1106	Responses dated (April 14, 1997) to USEPA and MADEP Comments on "Draft Air Sampling Results, AOC 69W, Devens Elementary School".	ABB Environmental Services, Inc.	01-Apr-97
1151	1106	USEPA Comments on the December 1997, Draft Supplemental Air Sampling Report, AOC 69W, Elementary School	Jerome C. Keefe, USEPA	05-Feb-98
1266	1266	Draft RI Report, AOC 69W, Volumes I through III, April 1998	ABB Environmental Services, Inc.	01-Apr-98
1321	1266	USEPA New England's Comments on the Draft Remedial Investigation Report (RI Report) for Area of Contamination (AOC) 69W, Devens, MA (April 1998)	Jerome C. Keefe, USEPA	23-Jun-98
1320	1266	MADEP Comments on the Draft Remedial Investigation Report, Area of Contamination (AOC) 69W (ABB, April 1998)	David M. Salvadore, MADEP	26-Jun-98
1362	0	MADEP Comments on the Final Remedial Investigation Report Area of Contamination (AOC) 69W, Devens, MA., LA, August 1998	David M. Salvidore, MADEP	26-Sep-98
1252		MADEP Comments on Task Order No. 0001, Modification No. 1, Fort Devens RI/FS Task Work Plan Addendum for AOC 69W (ABB-ES, June 28, 1996)	Christopher J. Knuth, MADEP	24-Jul-96
1251		MADEP Comments on Task Order No. 0001, Modification No. 1, Fort Devens Final RI/FS Task Work Plan Addendum for AOC 69W (ABB-ES, August 28, 1996)	Christopher J. Knuth, MADEP	12-Sep-96

ADMINISTRATIVE RECORD
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

Document Number	MastDoc Number	DOC_TITLE	AUTHOR_LOC	DOC_DATE
1218	0	USEPA Comments on the Risk Assessment Approach Plan for AOC 69W	Jerome C. Keefe, USEPA	30-Jan-97
1219	0	MADEP Comments on the Risk Assessment Approach Plan (RAPP), Remedial Investigation Report AOC 69W	Christopher J. Knuth, MADEP	11-Feb-97
1167	0	USEPA Comments on the RI/FS Task Work Plan Addendum for Supplemental Air Sampling, AOC 69W, Devens Elementary School	James P. Byrne, USEPA	23-Jul-97
1110	1095	Draft Response to Comments on "Draft RI/FS Task Work Plan Addendum for Supplemental Air Sampling AOC 69W-Devens Elementary School", August 1997.	ABB Environmental Services, Inc.	01-Aug-97
1166	1095	USEPA Comments on the August 1997 Response to Comments for the July 1997 Draft RI/FS Work Plan Addendum for Supplemental Air Sampling for AOC 69W	Jerome C. Keefe, USEPA	15-Aug-97
1168	0	MADEP Comments on the Army Draft Response to Comments on Draft RI/FS Work Plan Addendum for Supplemental Air Sampling, AOC 69W (August 1997)	John Regan, MADEP	16-Sep-97
1304	0	MADEP Comments on the Draft Supplemental Air Sampling Report, AOC 69W, Devens Elementary School, (ABB, December 1997)	John Regan, MADEP	02-Mar-98
1312	1312	Quality Assurance Project Plan, Indoor Air Sampling Study, Area of Contamination 69W, Devens Elementary School, Devens, MA	USEPA	01-Apr-98
1148	0	USEPA Comments on the Addendum to the Risk Assessment Approach Plan for the Elementary School, AOC 69W	James P. Byrne, USEPA	06-Apr-98
1407	1391	MADEP Comments on the Area of Contamination (AOC) 69W, (Former Fort Devens Elementary School), Draft Proposed Plan, Devens, Massachusetts, November 1998.	David M. Salvadore, MADEP	27-Jan-98
1391	1391	Draft Proposed Plan, AOC 69W (Former Fort Devens Elementary School), Devens, MA	Harding Lawson Associates	01-Nov-98

ADMINISTRATIVE RECORD
AOC 69W

RECORD OF DECISION
DEVENS, MASSACHUSETTS

Document Number	MastDoc Number	DOC_TITLE	AUTHOR_LOC	DOC_DATE
1394	1391	USEPA Comments on the Proposed Plan for AOC 69W (Former Fort Devens Elementary School)	Jerry Keefe, USEPA	08-Jan-99
1406	0	USEPA Comments on the AOC 69W Proposed Plan - February 1999	Jerry Keefe, USEPA	19-Mar-99
1412	1412	Proposed Plan, AOC 69W (Former Fort Devens Elemenary School), U.S. Army Reserve Forces Training Area, Devens, Massachusetts	U.S. Army Corps of Engineers	01-Apr-99

APPENDIX E

APPENDIX E - DECLARATION OF STATE CONCURRENCE

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

June 22, 1999

Mr. John Devillars
Regional Administrator
U.S. Environmental Protection Agency
JFK Federal Building
Boston, MA 02203

RE: Record of Decision for Area of Contamination (AOC)69W, Former Fort Devens Elementary School, Devens Massachusetts, Harding Lawson Associates, June 1999.

Dear Mr. Devillars:

The Massachusetts Department of Environmental Protection (MADEP) has reviewed the Record of Decision (ROD) proposed by the United States Army for AOC 69W.

The ROD documents two heating oil releases at the school from failed underground oil supply pipes; the releases totaled approximately 14000 to 16000 gallons. A 1972 oil release occurred in the area of a former underground storage tank (UST) and a 1978 release occurred as a result of a broken pipe under the school building. The removal of approximately 3000 cubic yards of oil contaminated soil in 1997 and 1998 resulted in reducing the concentrations of petroleum contamination in soil in the area of the former USTs to acceptable levels. A much smaller volume of contaminated soil remains inaccessible under the building and therefore will not be removed.

Risks associated with the hypothetical future use of groundwater from the site as drinking water exceed levels considered acceptable to the USEPA and MADEP. Institutional controls will limit potential future human exposure to contaminated soil beneath the building and the use of groundwater from the site.

The Army's selected remedy for AOC 69W is a Limited Action that includes:

A Long term groundwater monitoring plan with (5) year data performance reviews, to ensure that any residual contamination does not migrate off-site.

Implementation of institutional controls that restrict the use of groundwater from the site and limit the potential human exposure to contaminated soil.

MADEP concurs with the ROD for AOC 69W and would like to thank the United States Army, particularly Jim Chambers, BRAC Environmental Coordinator, and Jerry Keefe, Environmental Protection Agency for their efforts to ensure that the requirements of the MADEP are met.

Sincerely,

Robert W. Golledge Jr.
Regional Director
Central Regional Office

RWG/RB/DS/jc

cc: Fort Devens Mailing List
Information Repositories
Jerry Keefe, EPA
Jim Chambers, BRAC
Ron Ostrowski, DCC
Jeff Waugh, ACOE
Pat Plante, ABB
Mark Applebee, ACOE

W:/first/aoc69rod

APPENDIX F

APPENDIX F - GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Contamination
AREE	Area Requiring Environmental Evaluation
bgs	below ground surface
BRAC	Base Realignment and Closure
CAC	Citizen's Advisory Committee
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPH	extractable petroleum hydrocarbons
HI	hazard index
MADEP	Massachusetts Department of Environmental Protection
MCL	Maximum Contaminant Level
MCP	Massachusetts Contingency Plan
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
PAH	polyaromatic hydrocarbons
RAB	Restoration Advisory Board
RfD	reference dose
RI	Remedial Investigation
RFTA	Reserve Forces Training Area
SARA	Superfund Amendments and Reauthorization Act
SI	Site Investigation
SVOC	semivolatile organic compound
TPHC	total petroleum hydrocarbons
TRC	Technical Review Committee
USAEC	U.S. Army Environmental Center
USEPA	U.S. Environmental Protection Agency

UST	underground storage tank
VOC	volatile organic compound
VPH	volatile petroleum hydrocarbons

Appendix D

Land Use Control Checklist

Land Use Control Checklist for AOC 69W, Former Elementary School Spill Site

I. Site Information			
Site Name/Location: AOC 69W		**Name/Affiliation: Former Elementary School Spill Site**	
Remedy Includes: Long-term monitoring of groundwater wells			
Inspection Date:			
Participants:			
II. Documentation and Records			
Item	**Yes**	**No**	**Comments**
Any related Department of Public Works permits found?			
Any related zoning permits or variances found?			
Any related Conservation Commission findings, proposals, or notices of intent found?			
III. Physical On-Site Inspection			
Item	**Yes**	**No**	**Comments**
Any evidence of new penetrations or repaved cut marks present at the site?			
Is there evidence of damage to the remedy?			
a. Any damage or change to area overlying the ESMA?			
b. Any damage to on-site monitoring wells?			
Any groundwater extraction wells present?			
Is there sufficient access to the site for monitoring?			
Any signs of increased exposure potential?			
IV. Interview			
Name of Interviewer:			
Name of Interviewee:			
Date of Interview:			
Contact Information:			
Interview Notes:			
Site Update:			

Land Use Control Checklist for AOC 69W, Former Elementary School Spill Site

Item	Yes	No	Comments
Is interviewee familiar with the LUCs imposed upon the property and documentation of these controls?			
Are there any proposed plans for property sale, future development, construction, or demolition activities at the property?			
Any excavations, planned or emergency, that may have extended to soils below two feet in depth within the ESMA?			
Is drinking water supplied from off-site?			
Are there any issues with site access for monitoring?			
V. Response Actions			
Item	**Yes**	**No**	**Comments**
Were violations of the LUCs present?			
Are there Response Actions necessary based on the violations?			
Are modifications/terminations of LUCs necessary?			
Have Enforcement Actions been taken during this reporting period?			

Appendix E

Responses to Regulatory Comments

US Army Corps of Engineers ®

Project Name: Former Fort Devens Army Installation	**Location:** Devens, Massachusetts
Document Name: Draft Land Use Control Implementation Plan, Area of Contamination 69W	
Prepared By: USACE and SERES-Arcadis 8(a) JV	

New England District
696 Virginia Road
Concord, Massachusetts

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
MassDEP COMMENTS (David Chaffin) – July 14, 2022 / DEP Approval of Response Letter October 19, 2022)					
1.	Section 3.2	The plan should identify the specific restrictions that were/will be identified in the legal instrument used to impose restrictions on the site property.	The deed restriction language will be added from Section X of the 2007 Quitclaim Deed (the legal instrument) into Section 3.2.	NA	NA
2.	Section 3.2	Section 3.2: Current practice for CERCLA sites in Massachusetts is to impose land use controls using a Notice of Activity Use Limitation [NAUL, 310 CMR 40.111(8)]. Consequently, if the plan will not specify the use of a NAUL for AOC 69W, the plan should include an explanation for not doing so.	The document will be revised to indicate that MassDevelopment will prepare a NAUL, and the NAUL schedule will be included in Section 4.3.	NA	NA
3.	Section 3.2	As shown in Figure 2, AOC 69W extends across a Current Drinking Water Source Area (Zone II area associated with the MacPherson public water supply well). Consequently, while an interim restriction can be used to prevent exposure to groundwater during cleanup, the LUCs should not include a permanent restriction against using site groundwater as a source of drinking water [310 CMR 40.1012(4)].	Section 3.2 will be updated in response to Comment #1 and state that groundwater use is prohibited without approval of the Army, USEPA, and MassDEP. Restrictions can be lifted once all agree that contaminant levels have been reduced to an acceptable level.	NA	NA
4.	Section 4.1	Concerning LUCs requirements, the LTMMP is subordinate to the LUCIP. Therefore, the LUCIP should present the LUCs monitoring requirements and amendment procedures.	Comment noted. The referenced text will be revised in response to this comment.	NA	NA
5.	Section 4.3	The plan should include a schedule for all the activities that will be conducted under the plan (Section 4.3 only addresses inspections).	Section 4.3 will be updated to include the schedule for distribution of the approved Final LUCIP and the NAUL.	NA	NA
6.	Appendix B (Soil Management Plan), Implementation	As required for soil that will be relocated from the ESMA, a work plan and health and safety plan (Table 2) for disturbance and return of soil within the ESMA should be submitted to Army, EPA, and DEP.	Table 2 will be revised to include as a use restriction development and submission of a Work Plan and Health and Safety Plan for excavation in the EMSA. The SSSMP implementation section will be revised to also include submission of the aforementioned documents to the Army, USEPA, and MassDEP.	NA	NA
7.	Appendix C (LUCs Checklist), Section IV	The interview date(s) should also be documented.	The checklist will be amended in response to this comment.	NA	NA
USEPA COMMENTS (Carol Keating) – July 20, 2022 / November 1, 2023 (BACKCHECK)					
		GENERAL COMMENT			
1.		While the draft document appropriately refers to land-use controls (LUCs)/Institutional Controls (ICs) as a component of the selected remedy, there are many instances where the discussion of LUCs is inconsistent with language in the 1999 Record of Decision (ROD). For example, the ROD specifies that, "Institutional controls will be implemented at AOC 69W to limit the potential exposure to the contaminated soil and groundwater under both existing and future site conditions" and that they "will be	The document will be revised accordingly.	NA	NA

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
		implemented either through deed and/or use restrictions." However, the ROD itself does not identify the specific restrictions/land use controls necessary to limit potential exposure or describe how they are to be implemented, monitored and/or enforced. For example, in many instances, the LUCIP suggests that the specific restrictions were set forth in the ROD, when, in fact, the specific restrictions, rooted in the ROD requirements and goals, were specifically identified in the 2007 Deed transferring the property to MassDevelopment. To avoid confusion, please ensure that the LUCIP accurately refers to the source of the information provided, i.e., 1999 ROD, 2006 FOST and/or 2007 Deed.			
2.					
3.		While the FOST and Deed are included in Appendix D, the draft LUCIP fails to identify the specific LUC requirements and the boundaries to which each of those requirements must be applied. Please revise the LUCIP to identify and discuss the LUCs/ICs specific to AOC 69W and include a figure(s) depicting the areas covered by each land-use control/restriction (if not applicable to the entire site). For example, since the Educational, Institutional and Open Space Use Restriction applies to the entire site, this LUC boundary should be coincident with the Property/Parcel/Site boundary. The Soil Excavation Restriction boundary should be consistent with the area where residual soil remains (i.e., Soil Management Area), and the Groundwater Restriction boundary should include the area of underlying groundwater where drinking water standards are exceeded (see FOST, Article X, Environmental Protection Provisions (EPPs)).	Section 3.2 will be revised in response to this comment and separate figures will be prepared for each of the three-land use control/restrictions for clarity (Educational, Institutional and Open Space Use Restriction; Groundwater Restriction; and Soil Excavation Restriction).	NA	NA
		PAGE-SPECIFIC COMMENT			
1.	Page 1, Section 1.0	Please amend the discussion to include a brief explanation as to why Army is only now generating a site-specific LUCIP for AOC 69W, almost 23 years post-ROD signature/implementation) and describe how LUCs have been incorporated either in full or by reference into all deeds, easements, mortgages, leases or any other instruments of transfer prior to the transfer of the property to MassDevelopment, in accordance with the ROD (see 1999 ROD, pg.7).	As noted in the Final LUCIP Work Plan, the Army is preparing a site-specific LUCIP for AOC 69W based on the additional work determined by USEPA to be necessary to assess the short- and long-term protectiveness of the ongoing remedial action at the site evaluated in the Final Fifth 2020 FYR Report. The Army did not believe preparation of stand-alone site-specific LUCIPs were necessary given that the land use control implementation for the Devens sites were documented in the long-term monitoring and maintenance plan (LTMMP) and the LUC inspections have been reported annually. LUCs were incorporated in the Quitclaim Deed in Appendix D as noted in Section 1.	Please include the response in the draft final document.	The Army's response was included in the previously issued Draft Final version on Page 1, Section 1. Please also refer to the Army's response to EPA's February 9, 2023 Comment #4 referenced below.

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
2.	Page 4, Section 2.2, Last Paragraph, 3rd and 4th Sentences	The text is confusing and inconsistent with the discussion/representation of these issues in the ROD. Specifically, the statement that "groundwater to this site's recharge area is not planned as a drinking water source" is inconsistent with the ROD which (1) acknowledges that the site "is located within the delineated Zone 2 for the MacPherson production well located approximately 3,000 feet to the north" (pg. 8), (2) includes a Response Action Objectives (RAOs) to restore groundwater underlying the site to drinking water standards within a reasonable time frame (pg. 15.), and (3) identifies "the expected outcome of this alternative as the restoration of the aquifer to drinking water standards within a reasonable time frame." (pg. 17). Also, the assertion in the LUCIP that "residual contamination of groundwater in this area does not pose an unacceptable risk" because "Devens has a municipal water supply," is contrary to discussion of site risks in the ROD (pg. 13.) To avoid confusion and ensure consistency in the two documents, EPA recommends that these two sentences be deleted and replaced, if desired, with text excerpted directly from the 1999 ROD, 2006 FOST and/or 2007 Deed.	The sentences will be deleted and replaced with text from the 1999 ROD.	NA	NA
3.	Page 5, Section 2.2, 1st Paragraph, Last Sentence	• Please insert "annually" between "monitoring" and "during."	The text will be revised as suggested.	NA	NA
4.	Page 5, Section 2.2, 3rd Paragraph, Last Sentence	Please identify all groundwater contaminants identified in the ROD with detections above drinking water standards (i.e., MCLs) or other risk-based concentrations (see Appendix B, Table B-1) and discuss if/when/why they were eliminated from ROD-required, long-term monitoring program.	The LUCIP will be revised to reference Appendix B, Table B-1 of the ROD. In addition, text will be added to the document noting that the list of contaminants included in the LTM program were established in the USEPA-approved 2000 LTMMP for AOC 69W. These contaminants were arsenic, iron, manganese, bis(2-ethylhexyl)phthalate, and VPH.	NA	NA
5.	Page 7, Section 3.2	Many of the statements in this section are inconsistent with the ROD, FOST and/or Deed or repeat information presented in prior sections of this draft LUCIP. Rather than comment on each of the inconsistencies, EPA proposes that the entire section be revised to identify and describe each of the AOC 69W ICs/LUCs. The site-specific LUCIP should be a stand-alone document that clearly identifies and thoroughly describes each of the LUCs/ICs required at the Site. (See Section 2.0 in the "FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA") (April 2021)). Although the text refers to the attached	Section 3.2 will be revised to include the restrictions as identified in the 2007 Quitclaim Deed, Article X.	NA	NA

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
		deed/FOST for this information, inclusion of this information in the body of the LUCIP will ensure that current and future property owners and lessees can easily identify and comply with the use restrictions and prohibitions specific to the AOC 69W property. Specifically, EPA recommends that the existing discussion be replaced with the following text (or something similar), "As specified in the ROD and/or set forth in Enclosure 7 of the 2006 FOST (*Environmental Protection Provisions (EPP)*), the 2007 deed transferring ownership of the Property from Army to MassDevelopment, incorporated the following institutional controls and land-use restrictions to AOC 69W (see 2007 Deed, Article X): • Educational, Institutional and Open Space Use Restriction - Upon careful environmental study and site-specific risk assessment, it was determined that the Property is suitable for educational, institutional, and open space uses. Because other land uses including residential land uses were not evaluated in the site-specific risk assessment, they are not permitted. • Groundwater Restriction – Due to the presence of residual petroleum hydrocarbons, manganese and arsenic in groundwater at levels exceeding drinking water standards, groundwater (as defined in § 101(12) of CERCLA) underlying the Property shall not be accessed or used for any purpose without the prior written approval of the Army, EPA and MassDEP. Soil Excavation Restriction – Due to the levels of residual petroleum hydrocarbon in soil under the Property within the "Soil Management Area" (as shown on the "Parcel A.15" map, FOST. Exhibit C and Figure 2 in the LUCIP), excavation for any purpose is prohibited pending preparation of Soil Management and Health and Safety Plans by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals and prior approval of the Army, EPA, and MassDEP. (The Soil Management Area, as shown on FOST, Exhibit C, is approximately 100 by 88 feet at and under the Northwest Corner of the school building.)			
6.	Page 7, Section 3.2.1	The first sentence states that "Existing land use and site conditions will be assessed remotely during annual LUC inspections with the representative (and on site, during LTM events). Although CERCLA does not specify how these inspections are to be conducted, it is unclear how the *remote* assessment of LUCs can provide the same level of assurance as visual, onsite inspections and how the ongoing compliance with required land use controls and restrictions can be verified with certainty. The annual LUC inspections are typically conducted with the current property owner and lessee, if/where applicable, so that existing site conditions and ongoing	The text will be revised for clarity. Annual on-site inspections are conducted by the Army in addition to telephone interviews with the current property owner and lessee.	NA	NA

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
		compliance with site-specific LUCs/ICs can be assessed/verified jointly. Please explain how Army will ensure that the proposed remote inspections are equally effective in identifying inconsistencies or breaches in LUC/IC objectives or use restrictions, or any other actions that may interfere with the effectiveness of the LUCs/ICs.			
7.	Page 7, Section 3.2.2	The discussion indicates that "Telephone interviews will be conducted with the property manager or other designee familiar with the day-to-day activities at AOC 69W." For reasons discussed in the preceding comments, on-site, face-to-face interviews are typically conducted to ensure effective communication and understanding of all items included in the LUC Inspection Checklist. Although CERCLA does not specify how the interviews are to be conducted, please explain how Army will ensure that the proposed telephone interviews will be equally effective in facilitating the property owner's/lessee's familiarity with each of the checklist items and ability to identify and communicate possible inconsistencies (i.e., potential breaches) in the land use restrictions/activities or any other actions that may interfere with the effectiveness of the LUC/IC component of the selected remedy.	Telephone interviews are effective and appropriate. The Army notes that the LUC Checklist which identifies the questions to ask each interviewee is used for the telephone interviews. All of the items regarding on-site conditions as ascertained from the interviews are verified during the on-site inspections.	NA	NA
8.	Pages 8 & 9, Section 3.3, Table 2	Because the existing table is like to create confusion rather than provide clarity, EPA recommends that it either be deleted or revised to more accurately describe each of the restrictions and identify the parcels or parts of parcels to which they apply. Specifically, it should amended to include the following: • a separate column that identifies each of the restrictions; • a description of the area to which each restriction applies. The table refers to Figure 2, but as noted in an earlier comment, that figure doesn't show the LUC boundaries. Instead the Table (in the "Area of Interest" column) should refer to Figure to be created in response to GC 2; • using the exact language in the 2007 deed, insert a new column that identifies each of the specific restrictions that have been placed on the property. This would make it extremely clear what the restrictions are and that they satisfy the objectives set forth in this table; and, • insert the following italicized language (excerpted from the 1999 ROD, pg. 11) to the "Conditions for Termination" column language related to groundwater: "Once federal MCLs are attained *and until contaminant concentrations do not pose an unacceptable risk to human health*."	Table 2 will be revised in response to this comment.	NA	NA
9.	Page 10, Section 4.0	Please amend the current discussion to include a more thorough description of LUC Responsibilities (See, e.g., Section 3.0, April 2021, FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK	The document will be revised to address this comment.	NA	NA

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
		AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA").)			
10.	Page 10, Section 4.1	Please expand the current discussion to include a more thorough description of annual LUC inspections/reviews (See, e.g., Section 4.3, April 2021, FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA").)	Section 4.1 will be revised accordingly.	NA	NA
11.	Page 11, Section 6.0	The current discussion of when LUCs might be "discontinued" is inconsistent with the ROD and relevant EPA IC guidance. EPA recommends that the draft document be amended to include the discussion of "LUC Changes" in Section 5.0 of the April 2021, "FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA").	The Army notes that the USEPA requested changes in this comment differ from the USEPA requested changes to Section 6.0 in the Draft AOC 44/52 LUCIP. The Army will implement the USEPA requested changes to the Draft AOC 44/52 LUCIP to maintain consistency between the LUCIPs.	As indicated in recent comments on the draft SA71 LUCIP, EPA should have requested that the draft document be amended to include the discussion of "LUC Changes" and "Duration of LUCs" in §§ 5.0 and 7.0, respectively, of the April 2021, "FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA").	"LUC Changes" and "Duration of LUCs" were added to the previously issued Draft Final document with the addition of Section 6.1, Modifications; Section 6.2, Termination; Section 6.3, Approvals; and Section 6.4, Notices. The referenced discussion regarding when LUCs might be "discontinued" has been revised with the ROD language in the Revised Draft Final; please refer to Sections 6 and 6.2.
12.	Page 11, New Section 7.0	Please insert a new "Enforcement" section that includes the text in Section 6.0 of the April 2021, "FINAL LAND USE CONTROL IMPLEMENTATION PLAN ADDENDUM, FORMER OAK AND MAPLE HOUSING AREAS AND A PORTION OF THE FORMER GRANT HOUSING AREA ("RESTRICTED AREA").	The Army notes that the USEPA requested revisions in this comment differ from the USEPA requested revisions to the Draft AOC 44/52 LUCIP. Therefore, the referenced Section 6.0 text will replace the text in Section 5.0 to maintain consistency between the LUCIPs.	EPA is less concerned about whether the "Enforcement" language is placed in §§ 5.0 or 6.0, as long as it is included in the draft final document.	Comment noted. The previously issued Draft Final document included the requested "Enforcement" language in Section 5, Institutional Control Enforcement Elements. In regard to the Former Oak and Maple Housing enforcement language, the Army has removed the following sentence because it precludes other alternatives, such as modifying the LUCIP to add, remove, or enhance/clarify LUCs: "Should the LUCs reflected in this LUCIP cease to provide an appropriate level of protection, the Army shall propose modifications through an Explanation of Significant Difference (ESD) or a ROD Amendment."
13.	Figure 2	As mentioned in previous comments, please amend the figure (or add a new figure) to clearly delineate the areas covered by each land-use control/restriction. If a restriction is applicable to the entire site or an entire parcel, please make that clear in the text and legend of the figure. (See GC 2.)	Separate figures will be prepared for each of the three-land use control/restrictions for clarity (Educational, Institutional and Open Space Use Restriction; Groundwater Restriction; and Soil Excavation Restriction).	NA	NA
		Comments on Appendix B Site-Specific Soil Management Plan			
14.		While a current component of the AOC 69W LUCIP in the 2015 Main Post LTMMP, the development of a SSSMP for AOC 69W for inclusion in a site-specific LUCIP will help ensure that soils excavated, relocated and/or removed during performance of any construction-related and/or intrusive soil activity within the boundaries of the Soil Management Area are consistently and property managed. While the approach is a slight deviation from the description of "Soil Restrictions" in the FOST, Article X, EPP (which requires preparation of Soil Management [and Health and Safety) Plans by a Licensed Site Professional and Certified Industrial Hygienist, or other qualified professionals prior to the commencement of each soil excavation event in the Soil Management Area), it has proven	As applicable, the Army will revise the AOC 69W SSSMP to incorporate USEPA comments received on the Draft AOC 44/52 LUCIP SSSMP.	NA	NA

No.	Ref. Page / Para.	COMMENT	RESPONSE (Submitted on October 11, 2022 as a Response Letter to EPA Comments on the Draft)	BACKCHECK COMMENT	BACKCHECK RESPONSE
		extremely helpful at other sites in managing and coordinating requirements set forth in site-specific decision documents, applicable DoD and Army directives, policy, and guidance, CERCLA, as amended by Superfund Amendments and Reauthorization Act (SARA) of 1986, the National Contingency Plan (NCP), the Devens Federal Facilities Agreement (FFA) and other federal and state contaminated soil management regulations. Although EPA was unable to review the AOC 69W SSSMP, given our recent experience in developing the SSSMP for the Former Oak and Maple Housing Areas and a Portion of the Former Grant Housing Area ("Restricted Area"), we believe it would be both appropriate and useful to apply the same approach, namely the format and much of the substantive requirements to the AOC 69W SSSMP.			

USEPA COMMENTS (Carol Keating) – ADDITIONAL WRITTEN BACKCHECK COMMENTS RECEIVED (GENERAL) – February 9, 2023					
Gen 1.				As requested, below is a "summary of issues" to discuss, and hopefully resolve, during Monday's meeting/conference call. While EPA appreciates all of the hard work that has gone into preparing the site-specific LUCs required in EPA's September 29, 2020 Additional Work letter, I noticed, while conducting a side-by-side review of the two draft LUCIPs and two draft final LUCIPs submitted for EPA review and comment, , that there are inconsistencies between each LUCIP as well as inconsistencies between the LUCIPs, corresponding CERCLA Decision Documents (i.e., RODs, ESDs), and for AOC 69W, the November 2006 FOST. After the confirmed 2019 LUC breach at AOC 43J and the suspected 2015 breach at AOC 69W, EPA determined that the preparation and distribution of site-specific, stand alone LUCIPs would be make it easier for current (and future) property owners, lessees, and other interested parties to locate, identify, and understand the relevant land use restrictions and institutional controls applicable to specific areas/parcels of property at the former Fort Devens and the basis of including them as a component of the selected CERCLA remedy. While the Main Post LTMMPs have included a generic discussion of LUC monitoring activities, they've lacked the level of specificity necessary to effectively communicate current and/or potential future risks (i.e., contaminants present at the site, the concentration of each contaminant detected, the risks (current and/or potential) associated with exposure to those contaminants, and the restrictions and/or prohibitions deemed necessary to minimize/eliminate those risks. While EPA acknowledges that some of these issues identified below may not have been included in its comments on the draft AOCs 44/52 LUCIP (the first draft LUCIP released for review and comment), it is imperative that the LUCIP text follow the corresponding text in the CERCLA decision document, since the information in the ROD supports the decision to include LUCs/ICs as a component of the selected CERCLA response action:	Comment noted; please refer to the Army's responses to EPA's specific comments below.
Gen 1.	Continued			• discussion of exposure pathways evaluated, and current/future risks discussed in the LUCIPs is inconsistent with the ROD.	The text has been modified to be more consistent with the statements from the ROD.
Gen 1.	Continued			• remedial components described in the LUCIPs are inconsistent with the description in the ROD.	The text has been modified to be more consistent with the statements from the ROD.
Gen 1.	Continued			• RAOs, COCs, and cleanup levels/goals identified in the LUCIP are inconsistent with those set forth in the ROD; as illustrated in the AOC 69W ROD text below, many of the "older" legacy RODs have seemingly inconsistent text regarding site COCs and cleanup goals; EPA requests that the text most relevant to, and supportive of, the decision to incorporate LUCs/ICs into the selected remedy be included in the LUCIPs.	The text has been modified in response to this comment.
Gen 1.	Continued			• description of LUCs/ICs in the LUCIP are inconsistent with those in corresponding CERCLA decision documents; while EPA supports the inclusion of both CERCLA/ROD-required LUCs/ICs and FOST-required restrictions in the AOC 69W LUCIPs (because it provides a comprehensive summary of all existing land use restrictions/institutional controls), the LUCIPs should clearly distinguish between those LUCs/ICs that are components of a CERCLA remedial action (i.e., identified in a ROD/ESD) and the restrictions identified by Army as necessary to ensure protection of human health and/or	The text and Table 2 have been modified to clarify those LUCs/ICs that correspond to the ROD versus those cited in the Quitclaim Deed.

				ecological risks at the time of property transfer (i.e., identified in the FOST); in many cases, the FOST restrictions are different (more restrictive) than the ROD-required LUCs and EPA doesn't have the authority, to ensure effective implementation, monitoring, and enforcement of LUCs/ICs that are not components of a CERCLA remedy.	
Gen 1.	Continued			• in light of the fact that SA-71 and AOCs 44/52 and 57 properties are still owned by Army, that none of the LUCIPs mention the site-specific Soil Management Plans (SSSMPs) (except in the TOC), and that there are existing ROD-required soil excavation/management requirements in place at AOC 69W, EPA recommends that the SSSMPs be removed from the LUCIPs; SSSMPs can be added to the LUCIPs, if warranted, in conjunction with future property transfers); in the interim, Army shall confirm that the ROD-specified LUCs have been incorporated into relevant portions of the existing LIFOC for Army-owned/retained properties (which I believe for Devens is called the "Real Property Master Plan, Long-Range Component for Devens Reserve Forces Training")	Comment noted. The SSSMP has been removed from the Revised Draft Final AOC 69W LUCIP and will be removed from the remaining LUCIPs if previously included. The Army confirms that the ROD-specified LUCs have been incorporated into the deed to MassDevelopment for AOC 69W.
Gen 2.	Table 2			Table 2 – should be entitled "Summary of Land Use Controls, Institutional Controls and Other Post-ROD Restrictions" (or something similar); columns should be amended as specified below or revised to resemble the "LUC Layering Table" below (excerpted from the AOC 50 RA Work Plan)[i]; the existing tables are confusing and contain details that appear inconsistent with the CERCLA ROD. • "Parcel Number" – is a FOST designation; CERCLA ROD refers to "Sites/Operable Units" – okay to use both but include AOC/OU/SA ID # • "Restriction" is fine but should specify what the restriction is and the source of the restriction (i.e., ROD/ESD and/or FOST). • a new column entitled "Media Affected" should be added that identifies the media to which the LUC/IC applies (see below) • "Area of Interest" is the same as Site/OU; suggest deleting or changing to "LUC Boundary" (which for soil would be the "Excavated Soil Management Area" and for groundwater would be the extent of contamination as defined in the ROD (i.e., COCs detected above ROD-specified cleanup goals); Army can propose amending these boundaries upon collection of data sufficient to support a change (i.e., completion of supplemental RIs) • "Contaminants Remaining" should be replaced with "ROD COCs" (to avoid further debate, EPA recommends deleting the entire column) • "Cleanup Objective" should be "LUC/IC Goals/Objectives" (see below) • "Site Controls" and "Other" columns (see below) are useful and can include info such as Annual LUC Inspections, FYRs, Notification Letters, etc. • "Conditions for Termination" since the conditions and process for terminating ROD-specified LUCs/ICs is defined in the CERCLA decision document* and LUCIP, Section 6.2**, respectively (which differ slightly from the process set forth in recent Army FOSTs***), EPA recommends	Table 2 has been revised in response to this comment to mirror the 2005 AOC RA Work Plan. Please note that this table now differs from the example IC relationship matrix provided in the 2012 EPA ICIAP Guidance, of which was referenced in the Final LUCIP Work Plan.

				deleting entire column; below illustrates the discrepancies in LUC termination language in AOC 69W documents *ROD – if the Army can demonstrate based on currently available or newly acquired data, that site access restriction can be relaxed or removed while protection of human health is maintained, the Army may petition USEPA for such a relaxation or removal of restrictions " **LUCIP – "The LUCs reflected in this LUCIP are expected to remain in place until the concentrations of contaminants of concern in the soil and groundwater have been shown to decrease below actionable levels or have been removed from the site at such levels as to allow UU/UE." ***FOST – "Environmental Protection Provisions, shall remain in force until such time as the concentration of petroleum related chemical constituents in the soil and groundwater beneath or on the Property constituting the Devens NPL site AOC 69W have been reduced to levels that allow for unlimited exposure and unrestricted use"	
USEPA COMMENTS (Carol Keating) – ADDITIONAL WRITTEN COMMENTS RECEIVED (SPECIFIC TO AOC 69W) – February 9, 2023					
1.				Army's responses to EPA comments #11, #12 and #14 state "The Army notes that the USEPA requested changes in this comment differ from the USEPA requested changes to Section 6.0 in the Draft AOC 44/52 LUCIP. The Army will implement the USEPA requested changes to the Draft AOC 44/52 LUCIP to maintain consistency between the LUCIPs." While the draft AOC 44/52 LUCIP may have been the first draft released for review and comment, the AOC 69W LUCIP will be the first to be finalized, as such, EPA requests that Army incorporate the agreed-upon changes for AOC 69W into the draft/draft final SA-17, and AOCs 44/52 and 57 LUCIPs.	Per Army and EPA discussions on February 15, 2023, the agreed-upon changes will be incorporated into the remaining LUCIPs (SA 71, AOC 44/52, and AOC 57) upon EPA approval/acceptance of the AOC 69W LUCIP.
2.				Document was not revised accordingly. (*See EPA General Comment 1 provided on February 9, 2023: description of LUCs/ICs in the LUCIP are inconsistent with those in corresponding CERCLA decision documents; while EPA supports the inclusion of both CERCLA/ROD-required LUCs/ICs and FOST-required restrictions in the AOC 69W LUCIPs (because it provides a comprehensive summary of all existing land use restrictions/institutional controls), the LUCIPs should clearly distinguish between those LUCs/ICs that are components of a CERCLA remedial action (i.e., identified in a ROD/ESD) and the restrictions identified by Army as necessary to ensure protection of human health and/or ecological risks at the time of property transfer (i.e., identified in the FOST); in many cases, the FOST restrictions are different (more restrictive) than the ROD-required LUCs and EPA doesn't have the authority, to ensure effective implementation, monitoring, and enforcement of LUCs/ICs that are not components of a CERCLA remedy.*)[ii]	The text was revised to specify the CERCLA restrictions in Section 3.1 and the FOST restrictions in Section 3.2. The restrictions are broken out in Table 2 to clarify ROD-specified restrictions vs. FOST-specified restrictions.
3.				EPA requested that the last two sentences ("Because groundwater to this site's recharge area is not planned as a drinking water source and because Devens has a municipal water supply, the Army's position has been that residual contamination of groundwater in this area does not pose an unacceptable risk. The limited action ROD has been in effect since 1999 (HLA 1999)" be deleted and replaced, if desired, with text excerpted directly from the ROD. The two sentences were deleted (and replaced for some unknown reason with "Appendix B, Table B-1 of the ROD lists the groundwater contaminants with detections above drinking water standards or other risk-based concentrations," in response to EPA Comment #4	The text was moved from Section 3.2 to Section 2.2 in response to EPA Original Comment #4. The referenced two paragraphs have been modified for consistency with the ROD language rather than being deleted from the document.

				(which requested that text "identify all groundwater contaminants identified in the ROD above drinking water standards (i.e., MCLs) …." (See below)); for some reason, the two paragraphs that appeared in Section 3.2 of the draft and subsequently deleted, at the request of EPA, because it was "inconsistent with the discussion/representation of these issues in the ROD," were inserted in the proceeding paragraphs. It is unacceptable to insert text that was deleted from a previous version of the document (at the request of EPA). Please delete.	
4.				The Draft Final does not include requested information (and added text regarding the LTMMP is unnecessary and inflammatory); to promptly resolve the issue, EPA recommends that the Table B-1 be referenced in the LUCIP and included in an Appendix; the table not only identifies the COCs but all the relevant cleanup goals (and the basis for each (i.e., ARAR, TBC, background, etc.)	The Army disagrees that the inclusion of this sentence is inflammatory and believes it not only adds value, but also offers a factual response to a previous EPA comment about why a site-specific LUCIP is only now being provided, 23 years after the remedy, which is that the parties agreed to the sitewide LTMMP as a process for administering and monitoring LUCs at the legacy sites. The ROD (which includes Table B-1) has been included as an appendix to the document.
USEPA COMMENTS (Carol Keating) – ADDITIONAL WRITTEN COMMENTS RECEIVED (SPECIFIC TO AOC 69W) – February 16, 2023					
1.	Figure 2			<u>Figure 2 – Site Layout</u> – this figure could be used to show that residential use, open space, educational, and commercial/industrial use, and groundwater restriction boundaries since they are all contiguous with the Parcel A.15 boundary (This assumes, of course, that the current extent of groundwater contamination doesn't extend beyond the parcel/property boundary. It's important that the groundwater use restriction boundary be sufficiently located outside the known/suspected boundaries of contamination such that the extraction of groundwater doesn't cause the "plume" to migrate into otherwise "unimpacted" locations within or outside of the parcel/property boundary).	This figure shows the parcel boundary, which is the areas of the groundwater use restriction and the land uses restriction. Under real property law, land use control restrictions are established with the means and bounds of the parcel boundary.
2.	Figure 3			<u>Figure 3 – Site Features</u> – in addition to the items mentioned above, the legend needs to be corrected (i.e., the ESMA should be a yellow line, the soil excavation limits should be a purple line, "MassDEP Zone II Wellhead Protection Area" should be inserted next to the box with gold hatching, and the topographic contouring lines need to be demarcated with a different color). Also, I'm not sure what the green blob in the middle of the figure illustrates but it should probably be deleted to avoid confusion.	The figure has been modified in response to this comment (please note the site features previously included on Figure 3 are now shown on Figure 2 as Figure 3 was removed). The green area is the wetland boundary and has been corrected to indicate as such.
W3.	Figure 4			<u>Figure 4 – Open Space, Educational, and Commercial Use Restriction</u> - as discussed above, this can easily be included on Figures 2 and 3; if it remains, please denote the boundary in a different color and include such in the legend.	Concur. Restriction is shown on Figure 2. Figure 4 was removed.
4.	Figure 5			<u>Figure 5 – Groundwater Use Restriction</u> – as discussed above, this can easily be included on Figures 2 & 3; if it remains, please include a line on the figure and text in the legend, that shows/discusses the groundwater restriction boundary.	Concur. Restriction is shown on Figure 2. Figure 5 was removed.
5.	Figure 6			<u>Figure 6 – Soil Excavation Restriction</u> – since this is clearly illustrated in Figures 2 and 3, we don't need a separate figure here.	Concur. Restriction is shown on Figure 2. Figure 6 was removed.
USEPA COMMENTS (Carol Keating) – VERBAL COMMENTS RECEIVED (BASED ON DISCUSSION DURING MEETING) – February 15, 2023					
1.				Site-specific SSSMPs should be developed as needed and do not need to be included in the LUCIPs at this time. The Army should specify the need for a site-specific SSSMP in the Real Property Master Plan for AOC 44/52.	Comment noted. The SSSMP has been removed from the Revised Draft Final AOC 69W LUCIP and will be removed from the other LUCIPs if previously included.

2.				In regard to the issue of having not having the completion report for the AOC 44/52 reconstruction activities, the Army can add a statement to the LUCIP indicating that the Environmental Protection Provisions were met during construction.	Comment noted regarding AOC 44/52.
3.				In regard to termination and modification of LUCs language in the LUCIPs, please use the new EPA-provided language which supersedes the EPA 2012 LUCIP guidance and the EPA-approved LUCIP Work Plan. In response to the Army's request for the EPA guidance document during the meeting, the EPA submits the following further information (via email on February 21, 2023): In regard to the request for a reference to the EPA guidance document that discusses language to be included in Federal Facility LUCIPs, specifically in the sections entitled, "LUC Responsibilities, Implementation Actions, LUC Changes, Enforcement, Duration of LUCs, and Approval/Notices" - EPA is still looking for the actual guidance/directive, and is providing what they believe was the first, stand alone LUCIP, issued in 2011 for the Former Grant Housing Area (HA) and 37-mm Impact Area, as well as the April 2021 LUCIP Addendum, that amended the 2011 LUCIP, to included ESD-required LUCs for the Former Oak and Maple HAs and the southern portion of former Grant HA. It is the exact language EPA requested be inserted in the draft final AOC 69W LUCIP.	The Army received from EPA the documents which incorporated the new language but not the guidance or directive that supersedes the EPA 2012 LUCIP. The language that was presented in the 2011 LUCIP and the 2021 LUCIP Addendum and was requested be inserted in the AOC 69W LUCIP was included in the previously issued Draft Final document as detailed below (the order and name of the section headings are different to follow the structure of the Final LUCIP Work Plan): • 3.0, LUC Responsibilities was added to Section 4, Institutional Controls Maintenance Elements • 4.0, Implementation Actions was added to Section 4, Institutional Controls Maintenance Elements • 4.1, Distribution of LUCIP Addendum is addressed in Table 3 Milestone Activity Schedule • 4.2, Activity Use Limitation was added to Section 4, Institutional Controls Maintenance Elements. • 4.3 (a), Reporting-Annual Reviews/Inspections was added to Section 4.2.1, Annual Reviews/Inspections • 4.3 (b), Reporting-Five-Year Reviews was added to Section 4.2.2, Five-Year Reviews • 5.0, LUC Changes was added to Section 6.1, Modification • 6.0, Enforcement was added to Section 5, Institutional Control Enforcement Elements • 7.0, Duration of LUCs was added to Section 6.2, Termination • 8.1, Approvals was added to Section 6.3, Approvals • 8.2, Notices was added to Section 6.4, Notices
4.				In Table 2, all restrictions should be identified (i.e., ROD and Deed) and the source of each restriction should be identified. The EPA can't require the inclusion of non-ROD required restrictions (i.e., restrictions listed in the deed or LIFOC that are beyond those required in the ROD) in the LUCIP, but suggests that they be included so the LUCIP reader is provided a comprehensive listing of all requirements.	Table 2 has been revised to include the ROD and Quitclaim Deed restrictions and to provide the source of the restrictions.
5.				The Army needs to cite exact language of ROD and ESDs in site history and for remedial components. The Army should reference the ROD (and can be included as an attachment) for risk assessment findings. The discussion regarding risk should be brief.	The comment has been addressed, and the ROD has been included as an appendix to the document.
6.				Section 2.0 – Site History can be made more brief and can reference the ROD so that there are no conflicts between the ROD language and the LUCIP.	Section 2.0 – Site History was revised for brevity. For reference purposes, the ROD has also been included as an appendix to the document.
		END OF COMMENTS			

[i] Example PDFs of AOC 50 tables not included in this RTC due to space limitations.
[ii] Example PDF of table not included in this RTC due to space limitations.