FINAL
EXPLANATION OF SIGNIFICANT DIFFERENCES FOR GRANT HOUSING AREA AND 37-MM IMPACT AREA

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

SEPTEMBER 2014

Prepared for:
U.S. Army Corp of Engineers
New England District
Concord, Massachusetts

Prepared by:
Sovereign Consulting Inc.
and HydroGeoLogic, Inc.
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SOVEREIGN CONSULTING INC.

HydroGeoLogic, Inc
Exceeding Expectations

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FOR
GRANT HOUSING AREA AND
37-MM IMPACT AREA

Devens, Massachusetts

September 2014

CERTIFICATION:

I hereby certify that the enclosed Report, shown and marked in this submittal, is that proposed to be incorporated with Contract Number W912WJ-10-D-0003 TO#007. This document was prepared in accordance with the U.S. Army Corps of Engineers (USACE) Scope of Work and is hereby submitted for Government Approval.

Reviewed By:

9. 25. 2014

HGL Project Manager — Date

9/25/14

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LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirements
BCT	Base Realignment and Closure Cleanup Team
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chemicals of concern
CSM	conceptual site model
Devens	Former Fort Devens Army Installation
DD	Decision Document
DGM	Digital Geophysical Mapping
ESD	Explanation of Significant Differences
FFS	focused feasibility study
GERE	Grant of Environmental Restrictions and Easement
HGL	HydroGeoLogic, Inc.
IA-2	Investigation Area 2
IA-5	Investigation Area 5
LUC	land use control
LUCIP	Land Use Control Implementation Plan
MassDEP	Massachusetts Department of Environmental Protection
MC	munitions constituents
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter
MMRP	Military Munitions Response Program
MPPEH	material potentially presenting an explosive hazard
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
OER	Ordnance & Explosive Remediation, Inc.
PA	Preliminary Assessment
PCB	polychlorinated biphenyl
RAB	Restoration Advisory Board
RAO	Remedial Action Objective

RFTA	Reserve Forces Training Area
RI	remedial investigation
ROD	record of decision
SA	study area
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SSI	Supplemental Site Investigation
TMV	toxicity, mobility, and volume
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UXO	unexploded ordnance
Weston	Weston Solutions, Inc.

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DEVENS, MASSACHUSETTS

1.0 INTRODUCTION AND STATEMENT OF PURPOSE

The Sovereign Consulting Inc./HydroGeoLogic, Inc. (HGL) team has prepared this Explanation of Significant Differences (ESD) to the Grant Housing Area and 37-millimeter (mm) Impact Area Record of Decision (ROD) (Weston Solutions, Inc. [Weston], 2009b) on behalf of U.S. Army Corps of Engineers (USACE), New England District, under Contract Number W912WJ-10-D-0003.

Specifically, the Army proposes incorporating the Oak and Maple Housing Areas within the September 2009 ROD for the Grant Housing Area and 37-mm Impact Area via this ESD. This will involve expanding the scope of the ROD by including the Land-Use Controls (LUC) associated with the Oak and Maple Housing Areas. The LUCs for Oak and Maple Housing Areas were detailed within the Final Focused Feasibility Study Addendum (Sovereign and HGL, 2013). All of the sites are located within Former Fort Devens (**Figure 1.1**). The Oak and Maple Housing Areas are adjacent to the Grant Housing Area and 37-mm Impact Area and were partially within the firing fan of the former range (**Figure 1.2**). The former 37-mm Impact Area is directly adjacent to the Oak Housing Area and comprises the northeastern slope area located near the Oak Housing Area. The addition of Oak and Maple Housing Areas to the Grant Housing Area and 37-mm Impact Area ROD allows the ROD stipulated LUC remedy to be applied over the entire former training range.

Site Name and Location	
Site Name:	Oak and Maple Housing Areas
Location:	Fort Devens is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) site located in the towns of Ayer and Shirley (Middlesex County) and Harvard and Lancaster (Worcester County), approximately 35 miles northwest of Boston, Massachusetts. On November 21, 1989, Fort Devens was placed on the CERCLA NPL, assigned CERCLIS I.D. Number MA7210025154, and was identified for cessation of operations and closure under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990.

Lead and Support Agencies	
Lead Agency:	Department of the Army Office of the Assistant Chief of Staff for Installation Management Base Realignment and Closure (BRAC) Division
Contacts:	Robert Simeone, BRAC Environmental Coordinator (978) 796-2205
Support Agencies:	U.S. Environmental Protection Agency (USEPA) and Massachusetts Department of Environmental Protection (MassDEP)
Contacts:	Carol Keating, Remedial Project Manager, USEPA New England, (617) 918-1393 David Chaffin, Remedial Project Manager, MassDEP, (617) 348-4005

The purpose of this document is to describe the nature of the significant changes proposed for implementation in the ROD, to summarize the decisions that led to making the changes, and to affirm that the revised remedy complies with §117 (c) of CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 and its implementing regulation, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This ESD has been prepared in accordance with these regulations, per the USEPA guidance *A Guide to Preparing Superfund Proposed Plans, Records of Decision, And Other Remedy Selection Decision Documents* (USEPA, 1999). The Army is the lead agency for the former Fort Devens sites identified in this ESD. The support agencies for these Devens sites are the USEPA and MassDEP.

The Superfund Program allows for changes to the remedy component of a Decision Document (DD) if the change differs significantly from the selected remedy with respect to scope, performance, or cost. Significant differences are defined as changes that generally involve a modification to a component of the selected remedy, but do not fundamentally alter the overall cleanup approach. In addition, such differences must be documented and made available to the public in accordance with Federal and state regulations, policy, and/or procedures. A significant change is proposed for the Grant Housing Area and the 37-mm Impact Area ROD, based on the incorporation of the Oak and Maple Housing Areas into the ROD.

The remedy selected for the 2009 Grant Housing Area and 37-mm Impact Area ROD consists of applying LUCs until no known hazards exist. The ROD remedy remains appropriate and will be applicable to the Oak and Maple Housing Areas with additional LUC requirements. The additional LUC requirements are described in subsequent sections of this ESD.

After all approvals are obtained, the ESD incorporating the Oak and Maple Housing Areas will become a part of the Administrative Record for the Grant Housing Area and the 37-mm Impact Area. The Administrative Record may be viewed at the Fort Devens BRAC Environmental Office (Building 666, 30 Quebec St., Devens, MA 01434) between the hours of 8:30 A.M. and 5:00 P.M., Monday through Friday, by calling (978) 796-3835.

2.0 SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

2.1 FORMER HOUSING AREAS AND 37-MM IMPACT AREA SITE HISTORY

Fort Devens 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 Reserve Forces Training Area (RFTA). Areas not retained as part of the Devens RFTA were, or

are in the process of being, transferred to new owners (MassDevelopment) for reuse and redevelopment. The Grant Housing Area and 37-mm Impact Area are included in property that was transferred to MassDevelopment in May 1996 and August 1999, respectively, and are planned for future redevelopment (i.e., Grant Housing Area - Residential reuse, 37-mm Impact Area - restricted reuse). The former Oak and Maple Housing Areas are also slated for redevelopment and are currently owned by MassDevelopment. The future use of the former Oak and Maple Housing Areas is commercial (innovation and technical business) per zoning maps of the area.

Historical records indicate that training (physical and tactical as well as use of military equipment), including the use of military munitions, occurred throughout the history of Fort Devens, including prior to the late 1950s within the Grant Housing Area. A 37-mm range was located along the western boundary of the Grant Housing Area with an impact area on the northern slope of Oak Hill. Historical documentation indicates that the range was likely used between World War I and World War II; however, with the construction of Hospital Road in the 1930s, the range was likely closed around that time for safety reasons. Military training continued within the then wooded Grant Housing Area through the late 1950s when base housing was constructed and training activities ceased.

2.2 PREVIOUS INVESTIGATIONS

In 1994/1995, the USACE completed a study to document the locations of all known training areas and ranges at Devens. Based on the findings of this study, *The Archive Search Reports* (USACE, 1995a; 1995b; and 1995c), portions of the Grant and Oak Housing Areas were identified for a removal action. A munitions response investigation and subsequent removal action were performed in 1995 and 1996, respectively. This removal action identified significant amounts of unexploded ordnance (UXO) and UXO scrap in the 37-mm Impact Area on the Oak Housing Area hillside, located to the southwest of the Grant Housing Area. In excess of 50 unexploded 37-mm projectiles and a large amount of 37-mm fragments were located and disposed. Most of the ordnance located was in two dense clusters indicating former target locations. The removal action results are summarized in the *Final Removal Action Report* (Human Factors Applications, Inc., 1996).

In 2004 and 2005, the Army conducted Preliminary Assessment/Site Inspection (PA/SI) and Supplemental Site Investigation (SSI) efforts within the Grant Housing Area and 37-mm Impact Area to assess whether military activities resulted in the release of munitions constituents (MC) or other chemicals of concern (COC) to soil and groundwater and, if so, what hazard those releases would pose to public health and welfare or the environment. Based on the results of the investigation work, chemical COCs potentially related to UXO (i.e., MC), were not detected within the investigation areas and do not pose a hazard to public health and welfare or the environment; however, site inspections of the 37-mm Impact Area located the presence of potential UXO on the surface. The potential UXOs were determined to be scrap from an exploded munition; however, there remained a concern that additional UXO existed at the site. Results of the subsequent investigation activities are documented in the report, *Preliminary Assessment/Site Inspection/Supplemental Site Investigation Comprehensive Report* (Weston, 2008c). For Investigation Area-2 (IA-2), which included the 37-mm Impact Area and portions of the Grant Housing Area, the PA/SI/SSI Report recommended that a Focused Feasibility Study

(FFS) be prepared to evaluate response alternatives involving LUCs that will reduce the explosive safety hazards associated with IA-2. Additionally, the report recommended that a Munitions and Explosives of Concern (MEC) investigation be performed at the Oak and Maple Housing Areas in order to characterize the potential MEC safety hazard and determine the need for additional MEC removals and/or LUCs within these areas.

In 2006, USACE prepared a *Final Expanded Conceptual Site Model* (CSM) *Report* (USACE, 2006) identifying training areas and ranges in the vicinity of the Grant, Locust, and Cavite Housing Areas. The report identified three ranges within the Grant Housing Area and adjacent Oak Housing Area [Investigation Area 1 - Former Training Area (Circa, 1922); IA-2 - Former Training Area 37-mm Anti-Tank Range (i.e., 37-mm range); and Investigation Area 5 (IA-5) - Sub-Caliber Anti-Tank Range (i.e., .22-caliber range)]. LUCs were identified by the report as the preferred response action to address the former ranges within the Grant Housing Area.

Concerns regarding the potential for remnant UXO to exist in soil within the 37-mm Impact Area and the potential for similar conditions at the Grant Housing Area resulted in MassDevelopment contracting Ordnance & Explosive Remediation, Inc. (OER) to conduct a survey of the areas. In 2004 and 2005, a digital geophysical survey and *mag and flag* mapping was completed throughout the entire Grant Housing Area and portions of surrounding housing areas, including the 37-mm Impact Area, to evaluate whether MEC existed. Based on this survey information, OER conducted a removal action and was successful in identifying and removing additional UXO from the area. In total, 31 additional UXO items (20 37-mm projectiles, 4 mines, 1 rifle grenade, and 6 stokes mortars), and 17 other ordnance items (1 37-mm armor piercing round, 8 empty rifle grenades, 3 training hand grenades, 2 empty mine flare bodies, 1 empty anti-tank mine, and 1 French VB2 trainer (rifle grenade)) were located and removed by OER. Similar to the 1994/1995 UXO removal efforts by USACE, most UXO was found within the 37-mm Impact Area. Results of the survey and removal action are documented in the report, *Site Specific Final Report, Digital Geophysical Mapping (DGM) & Unexploded Ordnance (UXO) Removal, Grant Housing Area, Former Ft. Devens, Harvard, Worcester, Massachusetts*, prepared by OER for MassDevelopment in 2006.

A MEC Remedial Investigation (RI) was conducted at former Oak and Maple Housing Areas in 2010/2011 (HGL, 2012) per recommendations detailed in the 2008 PA/SI/SSI (Weston, 2008). The clearance activities were focused in areas thought to have the greatest likelihood of MEC discovery. The investigation determined that the probability of encountering MEC within the previously developed former Oak and Maple Housing Areas is considered to be extremely low (HGL, 2012). The low probability is based on the number of anomalies investigated (3,647) versus the number of MEC found (1) and the fact that previous investigations performed for the former 37-mm range area in 1995/1996 and 2005, as detailed above, have overlapped portions of the Oak and Maple housing areas. The one discovered MEC item (a 37-mm black powder practice projectile) was found half way across Oak Hill about 10–20 feet downslope of the Oak housing lot. Munitions debris (MD) was scattered across the top and slope of Oak Hill. The location of the discovered MEC projectile corresponds to an area where MEC was discovered during previous investigations and is in proximity to the former presumed impact area and within the likely artillery firing fan. At the Maple Housing Area, 37-mm MD was scattered across the northern edge, with one 37-mm fragment found in the center of the housing area. MD and the discovered MEC item may have been re-distributed from their original deposition

point during construction of the housing areas when the local soils were graded and leveled to accommodate construction of the housing units; however, the presence of MD within the developed areas and the discovery of the one 37-mm projectile on the slopes of Oak Hill between the two housing areas indicate a possibility that additional MEC may exist within portions of the housing areas.

In addition to MEC-related investigations, the Army conducted both a pesticide soil removal action in 2002 and a Polychlorinated Biphenyl (PCB) Time Critical Removal Action between 2002 and 2005 within the Grant Housing Area. It was determined that during, and potentially following the construction of the Grant Housing Area in the late 1950s and early 1960s, the Army had applied pesticides around the housing units as an appropriate pest control method. The Army agreed with the Devens stakeholders to excavate and dispose of pesticide-affected soils to suitably analogous MassDEP Method 1 S-1 soil cleanup standards for unrestricted reuse in order to eliminate hazards to human health and the environment associated with the pesticides. The action resulted in the excavation and disposal of more than 150,000 tons of soil and concrete from the Grant Housing Area. During the removal action, which was conducted throughout the Grant Housing Area, no UXO was found. Further details on the pesticide soil removal action are provided in the *Final Release Abatement Measure Completion Report/Partial Response Action Outcome Statement – Grant Housing Area* (Weston, 2009a).

From 2002 through 2005, a Time Critical Removal Action was conducted in the southeast portion of the Grant Housing Area to address soil affected by PCBs from an unknown source (i.e., undocumented historical release). The area was excavated to a standard of 1 milligram per kilogram (mg/kg) of PCB in soil. Approximately 12,000 tons of soil were excavated and disposed as part of the removal action. Included in a portion of the PCB remedial area was reportedly a former small arms range. IA-5 was identified as a 1,000-inch Anti-Tank Range, which used .22-caliber rounds fired from modified 37-mm cannons at targets within the scale-sized range. Proficiency on the 1,000-inch range was required before the crews were allowed to transition to the full scale range such as the 37-mm range at IA-2. Similar to the pesticide removal action, MEC, including ammunition, were not encountered within the excavation areas or in the presumed berm area. In addition, soil sample results were not indicative of a former small arms firing range (i.e., high concentrations of lead were not detected) indicating that the Army may have dismantled the range prior to the housing unit construction or the range never existed. Further details on the PCB removal action are provided in the *Final Polychlorinated Biphenyls Time Critical Removal Action Closure Report, Former Grant Housing Area, Devens, Massachusetts* (Weston, 2006). Further details on the IA-5 investigation are provided in the PA/SI/SSI Report (Weston, 2008c).

As a result of investigations and removal actions conducted within the Grant Housing Area and 37-mm Impact Area, the Army prepared a FFS comparing remedial alternatives addressing potential residual UXO at the Grant Housing Area and the 37-mm Impact Area. The findings of the alternatives comparison are documented in the FFS (Weston, 2008a). Findings were summarized for public review and comment in the Proposed Plan (Weston, 2008b). A FFS Addendum (HGL, 2012) to the Grant Housing Area and 37-mm Impact Area FFS was prepared after completion of the 2010/2011 RI conducted at the Oak and Maple Housing Areas. Due to the former Oak and Maple Housing Areas proximity and similarity to the Grant Housing Area and 37-mm Impact Area, and the actual inclusion of portions of the former housing areas within

the former IA-2 37-mm anti-tank range firing fan as detailed in the RI (HGL, 2012), the level of detailed analyses required to prepare the FFS Addendum was much less than the 2008 FFS.

2.3 ROD EXECUTION FOR GRANT HOUSING AREA AND 37-MM IMPACT AREA

In 2009, a ROD was submitted for the Grant Housing Area and 37-mm Impact Area (Weston, 2009). The ROD indicated that the selected remedies neither affect nor are affected by removal actions at other Operable Units, Study Areas (SA), and/or Areas of Contamination (AOC) included within Devens.

The Remedial Action Objective (RAO), as detailed in the ROD, "is to prevent direct contact with UXO that may remain in soil at the sites." The ROD determined that the potential presence of UXO in the subsurface soil at the Grant Housing Area and at the 37-mm Impact Area does not represent a Principal Threat, as defined in *A Guide to Principal Threat and Low Level Threat Wastes* (OSWER 9380.3-06FS, 1991), and as summarized in Highlight 6-26 of *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA 540-R-98-031, 1999).

As such, the preferences for reduction of toxicity, mobility, and volume (TMV) of the UXO were not considered to be paramount above other evaluation criteria. Therefore, based on the information presented in the CERCLA nine-criteria screening process, LUCs [alternatives GR-2, LUCs (Grant Housing Area); and IA-2, LUCs (37-mm Impact Area)] are the selected remedies that are intended to be protective of public health and welfare or the environment. The LUCs comply with Applicable or Relevant and Appropriate Requirements (ARAR), and are cost-effective. The alternatives are described and the selection process documented in Subsection 1.4.1 and 1.4.2 of the *Final Focused Feasibility Study, Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, Massachusetts* (Weston, 2008a). The selection process is summarized in the *Proposed Plan, Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, Massachusetts* (Weston, 2008b).

The selected remedy for Grant Housing Area (Alternative GR-2) and 37-mm Impact Area (Alternative IA-2), as presented in Sections 2.9.2 and 2.10.2 of the ROD, respectively, is detailed below:

Alternative GR-2 – LUCs (Selected Remedy)
LUCs are addressed through affirmative measures including:

- Distribution of educational materials;
- Development of a web-based visual and audio media; and
- Deed notice.

Alternative IA-2 – LUCs (Selected Remedy)
For the 37-mm Impact Area, LUCs are addressed through institutional controls, access restrictions, affirmative measures, and prohibitive directives:

- Institutional controls to be implemented through a Grant of Environmental Restrictions and Easement (GERE) and existing open space/commercial property zoning to restrict future reuse of the property.

- Access controls to include the use of signage and either fencing and/or vegetative barrier to limit public access to the area.
- Public education via ongoing distribution of educational materials, development of a web-based visual and audio media, and signage at the site.
- Prohibitive directives to include restrictions to all ground intrusive activities.
- Annual site inspections of the site to evaluate access controls, monitor for the presence of surficial and near surface UXO, and evaluate the overall effectiveness of the LUCs. (Weston, 2009b).

2.4 APPLICABILITY OF ROD TO OAK AND MAPLE HOUSING AREAS

A Military Munitions Response Program (MMRP) RI of the former Oak and Maple Housing Areas that are located adjacent to the Grant Housing Area and former 37-mm Impact Area was conducted in 2010/2011 (HGL, 2012). Both housing areas overlap portions of the firing fan associated with the former 37-mm training range. The purpose of the investigation was to characterize the nature and extent of MEC, material potentially presenting an explosive hazard (MPPEH), and MD present within the Oak and Maple Housing Areas. The investigation revealed that the probability of encountering MEC within the previously developed Oak and Maple Housing Areas is low. The low probability is based on the number of anomalies investigated (3,647) versus the number of MEC found (1) and the fact that several previous investigations have overlapped portions of the investigated area. Previous investigations have cleared the majority of the Oak Housing Area including grids not investigated during the 2010/2011 investigations. However, the presence of MD within the developed areas and the discovery of the one 37-mm projectile on the slopes of Oak Hill between the two housing areas indicate a possibility that additional MD and possibly MEC may exist within the former housing areas.

Based on the possibility that additional MEC may be present, the Army proposed to expand the scope of the Grant Housing Area and 37-mm Impact Area ROD to include LUCs developed to encompass the former Oak and Maple housing areas, as specified in Section 4.0.

3.0 BASIS FOR THE DOCUMENT

The 2009 Grant Housing Area and 37-MM Impact Area ROD was prepared and approved prior to the MEC investigation conducted at Oak and Maple Housing Areas. The recommendation for the MEC Investigation was included in the 2008 PASI/SSI report (Weston, 2008) that was prepared for Grant, Locust, and Cavite Housings Areas because the Oak and Maple Housing Areas were located within the firing fan (IA-2). The subsequent RI (HGL, 2012) conducted at Oak and Maple Housing Areas established the need to prepare a FFS to evaluate remedy alternatives for the Oak and Maple Housing Areas. Because the nearby Grant Housing Area and 37-mm Impact Area were previously evaluated under a FFS in 2008 (Weston, 2008a), a FFS Addendum (Sovereign and HGL, 2013) was prepared for the Oak and Maple Housing Areas that evaluated potential remedies unique to the Oak and Maple Housing Areas but within the larger framework of the former training range. The FFS Addendum recommended LUCs as the appropriate remedy of the former Oak and Maple housing areas. The FFS Addendum further indicated the RAO for Oak and Maple Housing Areas was the same as the Grant Housing Area

and 37-mm Impact Area (Prevent direct contact with UXO/MEC, which may remain in soils)(Weston, 2008a). The LUC requirement could be incorporated into the 2009 ROD for Grant Housing Area and 37-mm Impact Area through an ESD because the Oak and Maple Housing Areas were located within the firing fan (IA-2). However, the CSM within the RI indicated that the intended future land use for the Oak and Maple Housing Areas is commercial development (innovative and technical business) whereas, per the 2009 ROD, the Grant Housing Area is residential reuse and the 37-mm Impact Area is open space/recreational reuse with LUC restrictions. Zoning districts are detailed on **Figure 3.1**. The Oak and Maple Housing Areas also have additional LUC requirements, above what the ROD prescribed for the Grant Housing Area, to address differences in potential risks resulting from a different level of clearance and to specifically address potential UXO hazards associated with the future use of these areas as commercial redevelopment sites. Although the sites differ in their intended future use and levels of UXO clearance, the 2009 ROD remedy (i.e., LUCs) can be applied to the Oak and Maple Housing Areas provided additional LUC provisions are added, as specified in Section 4.0.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCES

The Army proposes incorporating the Oak and Maple Housing Areas site within the 2009 ROD for the Grant Housing Area and 37-mm Impact Area site via this ESD. The Oak and Maple Housing areas are similar to the Grant Housing Area based on the low probability of encountering UXO at each site. Therefore, the preparation of this ESD is necessary to detail the LUC remedy required for the Oak and Maple Housing Area. Upon approval of this ESD, the Land Use Control Implementation Plan (LUCIP) for Grant Housing Area will be amended to incorporate Oak and Maple Housing Areas.

The additions to the 2009 ROD selected remedy, for application to the Oak and Maple Housing Areas, consist of inclusion of (1) pre-construction clearance of selected grids at the Oak Housing Area, (2) a MEC physical preview of any proposed construction footprint, (3) future MEC construction support for all intrusive activities in areas where construction support has not previously been conducted, (4) the inclusion of a deed notice for the prohibition of residential reuse within the LUCs and (5) LUC affirmative measures for public education.

Additional details on the LUCs specific to the Oak and Maple Housing Areas are detailed below.

1) Pre-construction clearance of selected grids: ten unsurveyed grids within Sub-Area 2, as identified in the MEC RI report (HGL, 2012) were not cleared during the 2010/2011 remedial investigation. Prior to beginning any site redevelopment activities, areas within these grids will be cleared following procedures detailed in the SI work plan (HGL, 2010).
2) MEC physical preview of any proposed construction footprint: the entire proposed construction area would be previewed by physically walking and performing a visual inspection of the area to ensure no MEC is present.
3) Future MEC construction support for all intrusive activities where construction support has not previously been conducted. MEC Construction Support will be provided for all intrusive activities (i.e., whenever an activity involves the disturbance and/or excavation of soils) in accordance with all applicable DoD and Army directives, policy,

and guidance related to explosive safety requirements, and will be performed in conjunction with the Devens Soil Management Policy, and the Devens UXO training required for all Devens and contractor personnel who perform intrusive work, as noted in the Grant LUCs (GR-2) described in the Grant Housing Area and 37-mm Impact Area ROD (Weston, 2009b). The specific methods and procedures for MEC construction support will be detailed in the LUCIP Addendum for the Oak and Maple Housing Areas (and any subsequent workplans related thereto).

4) Inclusion of prohibition of residential reuse: a prohibition of residential reuse would be enforced through a deed notice that will restrict residential usage of the Oak and Maple areas. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or MEC that may still be present in these areas. The restriction would be included in all subsequent transfers of the property from the current owner.
5) Public Education through the distribution of educational materials, live information sessions, web-based visual and audio media, and signage (at site).

The five LUCs specific for the Oak and Maple Housing Areas, along with the existing LUCs for the Grant Housing Area, will allow the RAO to be met and ensure the protection of public health and welfare.

Table 4.2 provides a summary of LUCs for Oak and Maple HAs relative to the LUCs developed for Grant Housing Area. Furthermore, the Grant of Environmental Restrictions and Easement (GERE) implemented at the adjacent 37-mm Impact Area is not required within the Oak or Maple Housing Areas. The LUCIP Addendum will be prepared and submitted to the regulators for review and concurrence within ninety (90) days of ESD signature by the Army and USEPA.

The additional cost of the Oak and Maple Housing Areas remedy is $255,317.89, as detailed in the Table 5.1 of the FFS Addendum (Sovereign and HGL, 2013). The pre-construction component is $123,479.25, and includes the clearance of accessible areas within the 10 unsurveyed grids within Subarea 2, as detailed in the RI report (HGL, 2012). The construction support component of the remedy is $58,380, and reflects 30-days of construction support. Areas under roads and slabs not cleared during the 2010/2011 remedial investigation will be cleared during the construction support component. The LUC costs reflect capital costs ($23,870.55) and annual O&M for 30-years ($49,588) presented as the selected remedy (GR-2) for Grant Housing Area in the Feasibility Study (Weston, 2008). The costs are accurate based upon the assumptions presented. Costs will primarily show variance relative to the amount of construction support required.

5.0 SUPPORT AGENCY COMMENTS

Comments on the Draft ESD were received from the USEPA (12 August 2013 and 27 June 2014), MassDEP (30 December 2013), and MassDevelopment (24 October 2013) and incorporated in this ESD as presented in **Attachment 1**. Comments on the Draft Final ESD were received from MassDevelopment (27 March 2014), MassDEP (6 May 2014), and USEPA (08 August 2014, 20 August 2014, 22 September 2014) and incorporated in this ESD as presented in **Attachment 1**.

6.0 STATUTORY DETERMINATION

Under CERCLA §121 and the NCP, the lead agency must select remedies that are protective of public health, welfare or the environment, comply with ARARs (unless a statutory waiver is justified), are cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. The Army believes that the proposed inclusion of the former Oak and Maple Housing Areas in the 2009 Grant Housing Area and 37-mm Impact Area ROD is consistent with CERCLA §121. It fulfills Federal and state requirements that are applicable or relevant and appropriate to these sites and remains protective of human health and the environment.

7.0 PUBLIC PARTICIPATION

The Army meets regularly with stakeholders through Base Realignment and Closure clean-up team (BCT) and Restoration Advisory Board (RAB) to discuss clean up status at the former Fort Devens sites. The remedy for the former Oak and Maple Housing Areas has been discussed with the BCT and RAB and is essentially equivalent to the one developed for Grant Housing Area and 37-mm Impact Area with the noted caveats.

In accordance with 40 CFR Section 300.435(c)(2)(i) of the NCP, this ESD and other supporting documents will be available in the Administrative Record maintained by the Army. The Administrative Record may be viewed at the Ft. Devens BRAC Environmental Office (Building 666, 30 Quebec St., Devens, MA 01434) between the hours of 8:30 A.M. and 5:00 P.M., Monday through Friday, by calling (978) 796-2205.

A legal notice relating to the availability of the ESD for review was displayed in the March 14 to 16, 2014 publication of the Nashoba Publishing papers, The Sun, and the Sentinel & Enterprise.

AUTHORIZING SIGNATURES

The forgoing Explanation of Significant Differences has been prepared to document changes in the selected and contingency remedies from the Record of Decision as required by Section 117(a) of CERCLA. The forgoing represents the selection of a remedial action by the U.S. Department of the Army and U. S. Environmental Protection Agency, with review and comment provided by the Massachusetts Department of Environmental Protection in accordance with CERCLA.

Concur and recommend for immediate implementation.

U.S. DEPARTMENT OF THE ARMY

SIMEONE.ROBERT.J.1242822893

Digitally signed by SIMEONE.ROBERT.J.1242822893
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SIMEONE.ROBERT.J.1242822893
Date: 2014.09.26 11:00:39 -04'00'

Date: 09/26/2014

Robert Simeone
BRAC Environmental Coordinator
Department of the Army
Base Realignment and Closure Division

U.S. ENVIRONMENTAL PROTECTION AGENCY

Nancy Barmakian for

Date: 09/30/14

James T. Owens III
Chief, Office of Site Remediation and Restoration
U.S. Environmental Protection Agency Region 1

8.0 REFERENCES

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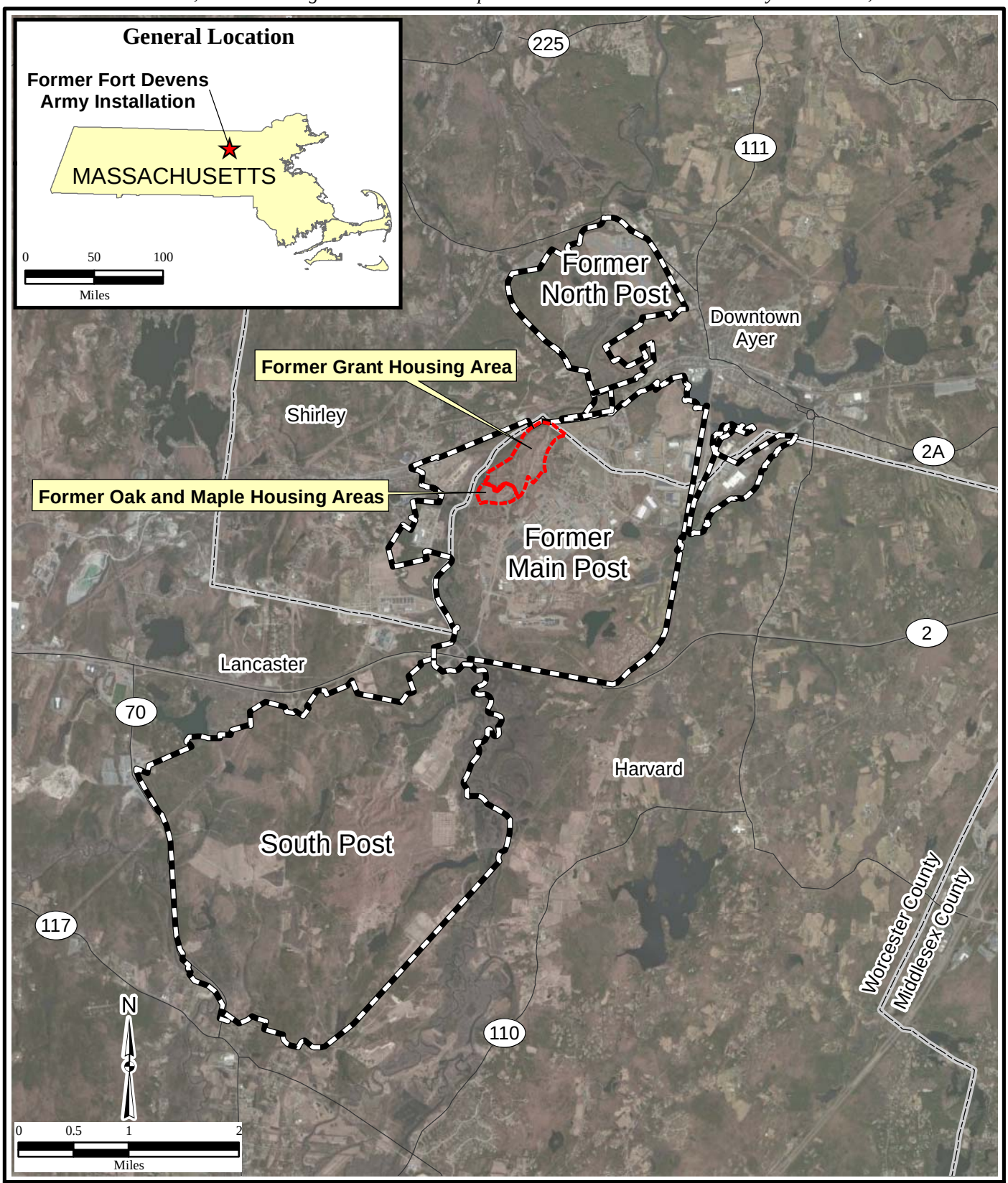
FIGURES



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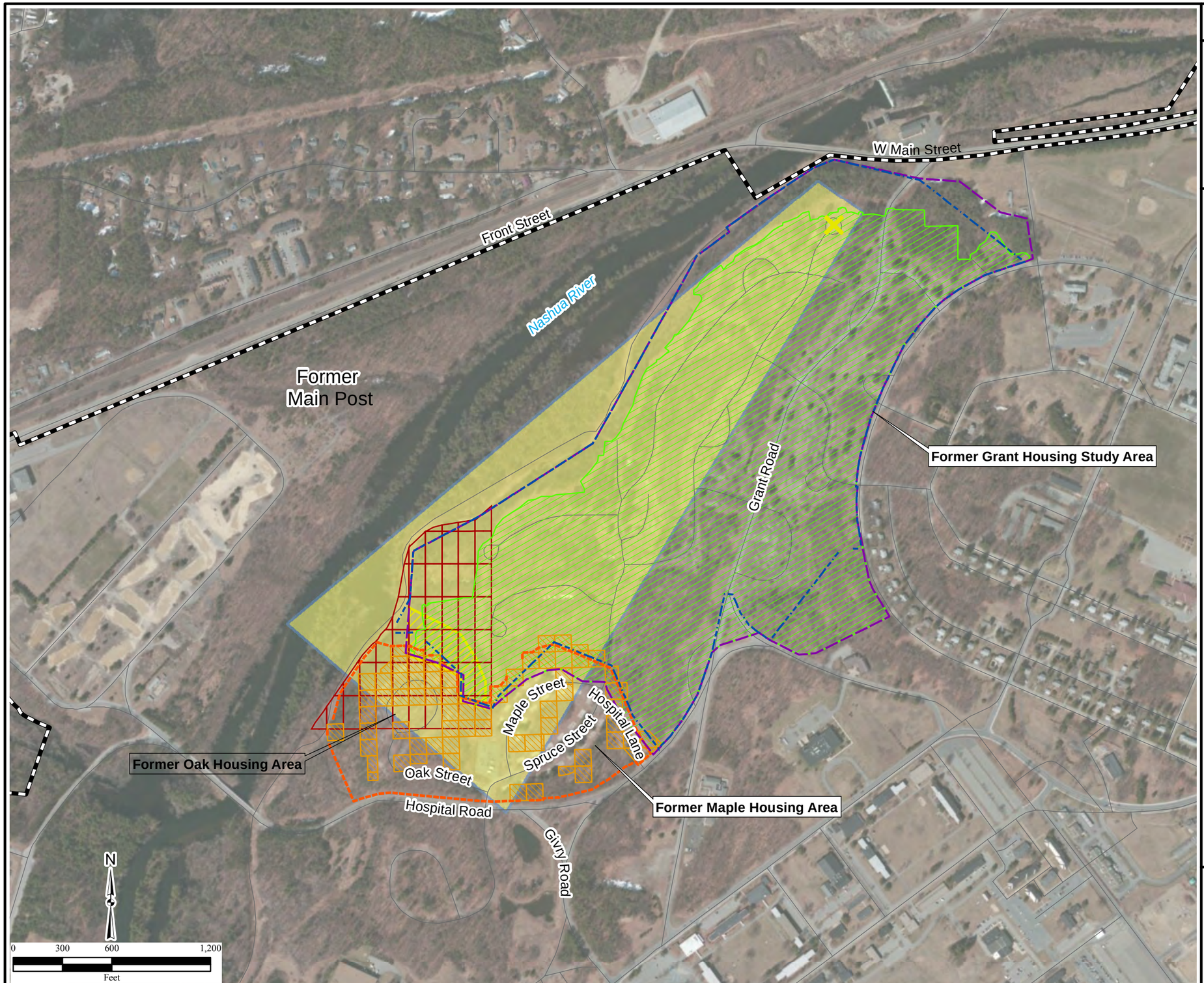
6/5/2013 PD, QC: 9/11/2012 CW
Source: HGL ESRI, USACE, www.mass.gov, ESRI Online Bing Maps Aerial

Legend

- Major Road
- County Line
- Site
- Former Fort Devens

Figure 1.1
Site Location
Former Fort Devens Army Installation



HGL—ESD, Grant Housing Area and 37-mm Impact Area—Former Fort Devens Army Installation, MA

Figure 1.2
Site Location
Grant Housing Area
and 37-mm Impact Area/
Oak and Maple Housing Areas

Legend

- Approximate Former Firing Location
- Road
- Former Fort Devens Boundary
- 37-mm Impact Area
- Former 37mm Artillery Firing Fan

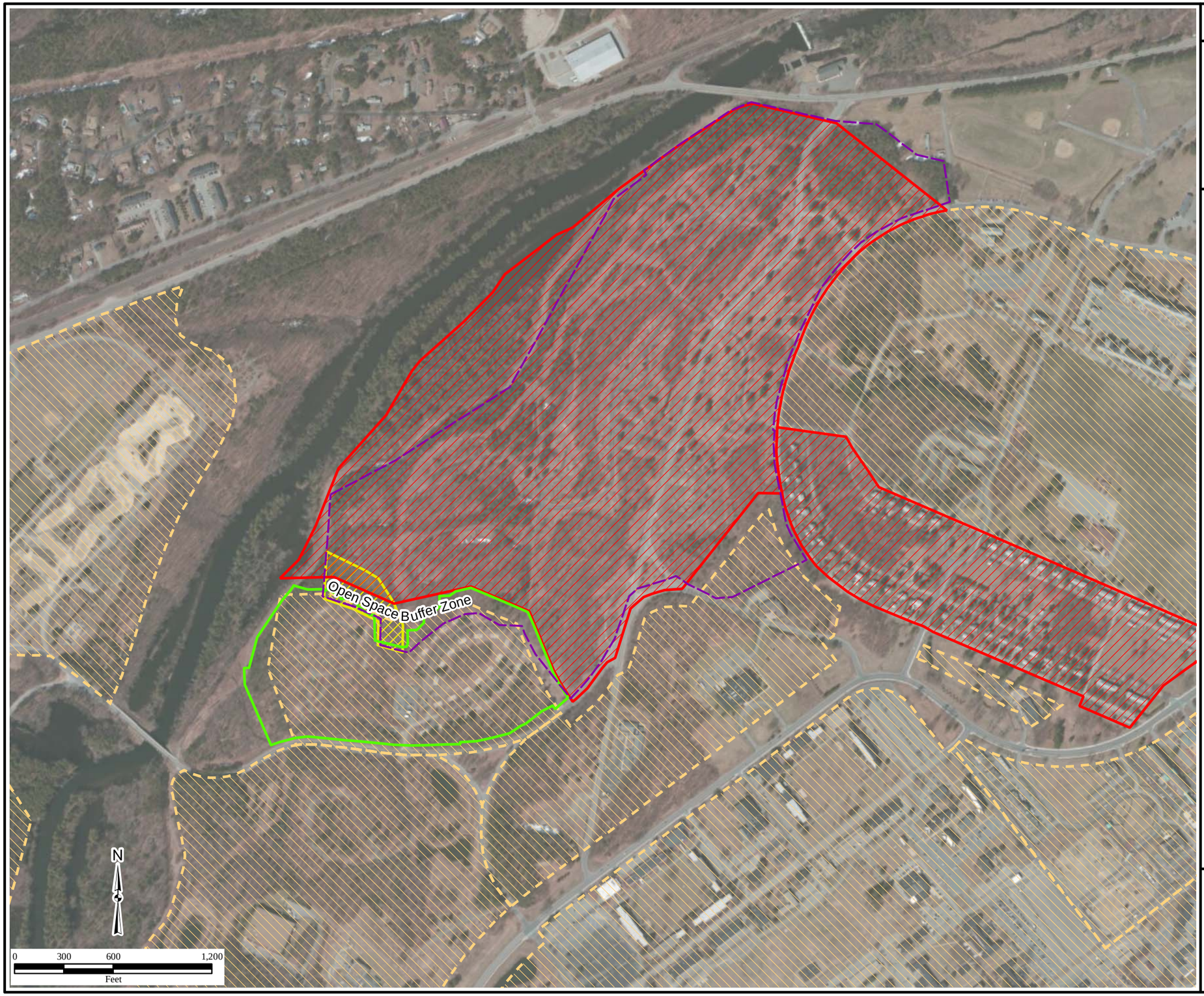
Sites:

- Area Cleared – 2010/2011 Remedial Investigation Conducted at Former Oak and Maple Housing Area (14 acres) (2 ft bgs)
- Area Cleared – 2005 Geophysical Investigation / UXO Removal[1] (121 acres) (2 ft bgs)
- Area Cleared – 1996 Remediation Grids (20 acres) (4 ft bgs)
- Former Oak and Maple Housing Study Area (33 acres)
- Former Grant Housing Area (130 acres)
- Area Evaluated During 2005 Geophysical Survey / UXO Removal (142 acres)

Note:
[1] Inaccessible areas (21 acres) were not cleared during the 2005 Geophysical Investigation/UXO Removal.

\\gst-srv-01\HGLGIS\Ft_Devens\Housing_Areas\Grant_Maple_Oak_ESD\(1-02)Housing_Areas.mxd
9/8/2014 CNL
Source: HGL ESRI, USACE, Weston, www.mass.gov, ArcGIS Online Imagery

SOVEREIGN CONSULTING INC.
HGL HydroGeoLogic, Inc.



HGL—ESD, Grant Housing Area and 37-mm Impact Area—
Former Fort Devens Army Installation, MA

Figure 3.1
Zoning Districts
Grant Housing Area
and 37-mm Impact Area/
Oak and Maple Housing Areas

Legend

- Residential Zoning
- Commercial Zoning
- Former Grant Housing Study Area
- 37-mm Impact Area
- Former Oak and Maple Housing Study Area

\\Gst-srv-01\HGLGIS\Ft_Devens\Housing_Areas\Grant_Maple_Oak_ESD
(3-01)Zoning_Districts.mxd
6/5/2013 RB
Source: HGL; ESRI; USACE; Mass.gov
ESRI Onlline Aerial Imagery

SOVEREIGN CONSULTING INC.

HGL HydroGeoLogic, Inc

TABLES

Table 4.1
Applicable or Relevant and Appropriate Requirements (ARARs)
and To Be Considered (TBC)

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR to the Extent Practicable
Chemical-Specific ARARs					
Federal	DoD Facilities	Munitions and Explosives of Concern Hazard Assessment Methodology (October 2008).	TBC	Provides a methodology for assessment of hazards in support of reuse/redevelopment of sites contaminated with ammunition, explosives, or chemical agents.	MEC size, flight path, and penetration depth for each type of MEC found on-site will be considered in remedial planning/ redevelopment decision-making.
Location-Specific ARARs					
State	Wetlands	Wetlands Protection Act – M.G.L. c. 131, Section 40 and 310 CMR 10	Applicable	Provides for protection of wetlands and requirement of Conservation Commission review and permit or waiver for work within the 100-ft buffer zone of a state wetland.	No work is being performed in wetlands or wetland buffer zones during the project. However, hay bales and silt fencing have been previously placed as appropriate to eliminate any potential adverse affects from adjacent on-site construction activities. Erosion control will be maintained in accordance with state regulations.
Federal	Wetlands	Protection of Wetlands Executive Order No. 11990 [40 CFR Part 6, App. A]	Applicable	Under this Order, federal agencies are required to minimize the destruction, loss, or degradation of wetlands, and preserve and enhance natural and beneficial values of wetlands. If remediation is required within wetlands areas, and no practical alternative exists, potential harm must be minimized and action taken to restore natural and beneficial values. Not yet promulgated as of July 2007.	No work is being performed in wetlands during the project. In addition, this regulation is not yet promulgated. However, in consideration of state and local wetlands regulations and in the interest of minimizing environmental impacts during remediation, hay bales and silt fencing will be placed as appropriate to eliminate any potential adverse affects from adjacent on-site construction activities. Erosion control will be maintained in accordance with federal regulations.

Table 4.1
Applicable or Relevant and Appropriate Requirements (ARARs)
and To Be Considered (TBC)

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR to the Extent Practicable
Action-Specific ARARs					
Federal	Regulation of Waste Management Portion of Response Actions that involve treatment or disposal of UXO.	RCRA - 40 CFR 266 Subpart M – Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste management Facilities	Applicable	266.203 – Provides standards for the transportation of solid waste military munitions. 266.204 – Standards applicable to emergency response. 266.205 - Standards applicable to storage of solid waste military munitions. 266.206 - Standards applicable to treatment and disposal of solid waste military munitions.	Should the need for MEC disposal/treatment arise, the requirements of Subpart M regarding transportation and disposal will be followed.
Federal	Regulation of Waste Management Portion of Response Actions that involve treatment or disposal of UXO.	RCRA - 40 CFR 264 Subpart X – Standards for owners and operators of hazardous waste treatment, storage, and disposal facilities; Miscellaneous units	Relevant and Appropriate if UXO blown in place. Applicable if UXO moved from site prior to detonation.	264.601- A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment.	Should the need for UXO disposal/treatment arise, it could require the use of technologies defined as "miscellaneous units" in Subpart X, including OB/OD units, shredders, crushers, etc.

Table 4.1
Applicable or Relevant and Appropriate Requirements (ARARs)
and To Be Considered (TBC)

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR to the Extent Practicable
Federal	Regulation of Waste Management Portion of Response Actions that involve treatment or disposal of UXO.	RCRA - 40 CFR 264 Subpart X – Standards for owners and operators of hazardous waste treatment, storage, and disposal facilities; Miscellaneous units	Relevant and Appropriate if UXO blown in place. Applicable if UXO moved from site prior to detonation.	Subpart X outlines procedures for issuing permits to miscellaneous units that treat, store, or dispose of hazardous waste. Miscellaneous units include OB/OD units, enclosed combustion devices, carbon and catalyst regeneration units, thermal desorption units, shredders, crushers, filter presses, and geologic repositories. Subpart X does not specify minimum technology requirements or monitoring requirements for miscellaneous units. Subpart X specifies an environmental performance standard that must be met through conformance with appropriate design, operating, and monitoring requirements.	
Federal	DoD sites	DoD 6055.09 – M Volume 7	Applicable	DoD Ammunition and Explosives Safety Standards: Criteria for Unexploded Ordnance, Munitions Response, Waste Military Munitions, and Material Potentially Presenting an Explosive Hazard.	MEC clearance and MEC construction support will be conducted to meet safety standards per the requirement.

Table 4.1
Applicable or Relevant and Appropriate Requirements (ARARs)
and To Be Considered (TBC)

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR to the Extent Practicable
Federal	Army Project Sites	USACE EP 75-1-2 Chapter 6 – MEC Support during Construction Activities	TBC	Chapter 6 details MEC support during construction activities. Key components of the MEC support includes UXO team composition, planning, responsibilities, authority, standby support, subsurface removal in support of construction activities, MEC destruction and quality management.	Implement for MEC construction support in accordance with DoD standards.
State	Regulation of Waste Management Portion of Response Actions that involve treatment or disposal of UXO.	310 CMR 30.606 – Standards for treatment, storage and disposal facilities, miscellaneous units.	Applicable or relevant and Appropriate to the extent that implementation authority for RCRA has been delegated to the Commonwealth of Massachusetts.	Miscellaneous Unit means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not one of the following: a container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, unit excluded from licensing requirements pursuant to 310 CMR 30.801, or a research facility. Part 606 prescribes environmental performance standards for miscellaneous units including location, design, construction, operation, maintenance, and closure. Operation, monitoring, inspection, and post-closure care provisions are included to protect public health, safety, welfare, and the environment.	Should the need for UXO disposal/treatment arise, it could require the use of technologies defined as "miscellaneous units" in Subpart X, including OB/OD units, shredders, crushers, etc.

Table 4.1
Applicable or Relevant and Appropriate Requirements (ARARs)
and To Be Considered (TBC)

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR to the Extent Practicable
TBC					
State	Soil	GERE M.G.L. c. 21E § 6, 310 CMR 40.1071-1073	Not Applicable for Oak and Maple Housing Areas.	Massachusetts provides regulatory guidance for the preparation of a Grant of Environmental Restriction to address site restrictions.	Restriction could be applied as a means of LUC at adjacent 37-mm Impact Area, as detailed in 2008 FFS. This restriction is not required for the Oak and Maple Housing Areas.

Notes:
CFR=Code of Federal Regulations
CMR=Code of Massachusetts Regulations
M.G.L.=Massachusetts General Law
OB/OD=open burn/open detonation
RCRA=Resource Conservation and Recovery Act
TBC=to be considered

Table 4.2
Land Use Controls
Oak and Maple Housing Areas

Grant Housing Area LUCs[1] applicable to Oak and Maple Housing Areas
1) Affirmative Measures:
-Distribution of educational materials
-Development of a web-based visual and audio media
-Deed Notice[2]
Impact Area LUCs[3] applicable to Oak and Maple Housing Areas
1) Affirmative Measures:
-Ongoing distribution of educational materials
-Development of a web-based visual and audio media
-LUC inspection (if necessary per LUCIP)
Grant Housing Area LUCs NOT applicable to Oak and Maple Housing Areas
-All LUCs are applicable
Impact Area LUCs NOT applicable to Oak and Maple Housing Areas
1) Institutional Controls:
-To be implemented through a GERE and existing open space/commercial property zoning to restrict future reuse of the property
2) Access Controls:
-To include the use of signage and either fencing and/or vegetative barrier to limit public access to the area
3) Affirmative Measures:
-To include the use of signage at the site and site inspection
4) Prohibitive Directives:
-To include restrictions to all ground intrusive activities
LUCs specific to Oak and Maple Housing Areas
1) Land use prohibition/restrictions (Prohibition on residential reuse. Commercial reuse allowed)
2) MEC physical preview of any areas identified for future construction activities
3) Pre-construction MEC clearance of selected areas (10 grids as detailed within RI)
4) MEC construction support during any intrusive activities
5) Annual LUC site inspection (to confirm prohibition of residential reuse and determine if intrusive activities were conducted)[4]
6) Annual LUC Compliance Report
7) Public education through the distribution of educational materials, live information sessions, web based visual and audio media, and signage (at site)

[1] - Grant HA LUCs are addressed through affirmative measures.

[2] - Deed Notice as amended to include Oak and Maple HA properties.

[3] - Impact Area LUCs are addressed through institutional controls, access restrictions, affirmative measures, and prohibitive directives.

Annual inspections of the Impact Area are conducted to evaluate access controls, monitor for the presence of surficial and near surface UXO,

and evaluate the overall effectiveness of the LUCs.

[4] - Sufficient information (e.g., physical inspection and interviews with property owners) will be gathered to determine if intrusive activities were conducted in Oak and Maple Housing Areas; and if

intrusive activities were conducted, to document those activities and determine if they were conducted with MEC construction support in accordance with the LUCIP.

ATTACHMENT 1

COMMENTS RECEIVED ON DRAFT AND DRAFT FINAL ESD

Draft Comments

Sheehan, Deborah

From: Lombardo, Ginny <Lombardo.Ginny@epa.gov>
Sent: Monday, August 12, 2013 1:39 PM
To: Simeone, Robert J CIV (US)
Cc: ROstrowski@massdevelopment.com; Chaffin, David (DEP); Metcalf, Jill; boh@ayer.ma.us; Richard Doherty; nehring_laurie@msn.com; julia.corenzwit@verizon.net; Dacyk, Pete; Iorio, Maryellen NAE
Subject: EPA Comments on Draft ESD for Grant/Impact Area (OU12) ROD - to add Oak and Maple HAs
Attachments: EPA Comments on Draft ESD - OU12 - Oak and Maple HAs - Cover.pdf; EPA Comments on Draft ESD - Oak and Maple.pdf

Bob-

Attached are EPA's comments on the Draft ESD.

Ginny Lombardo, Remedial Project Manager

U.S. EPA Region 1

5 Post Office Square

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Boston, MA 02109-3912

(617)918-1754 (office)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

August 12, 2013

Mr. Robert Simeone
BRAC Environmental Coordinator
BRAC Environmental Office
30 Quebec Street, Box 100
Devens, MA 01434

Re: Draft Explanation of Significant Differences for
Grant Housing Area and 37-MM Impact Area (OU12)
Former Fort Devens Army Installation, Devens, MA
June 2013

Dear Mr. Simeone:

EPA has reviewed the document titled, "Draft Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area," dated June 2013, as prepared by Sovereign Consulting Inc. and HydroGeologic, Inc., on behalf of the Army (Draft ESD). The Draft ESD proposes to revise the Grant Housing Area and 37-mm Impact Area (OU12) Record of Decision (ROD) to incorporate the Oak and Maple Housing Areas. Pursuant to the ESD, Land Use Controls (LUCs), which was the selected remedy for OU12, would be implemented at the Oak and Maple Housing Areas. The Oak and Maple Housing Areas were part of the same 37-mm anti tank range that covered the Grant Housing Area and 37-mm Impact Area. The Draft ESD was reviewed for consistency with the "Final Focused Feasibility Study Addendum, Former Oak and Maple Housing Areas," dated March 2013, and EPA's "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents," dated July 1999.

EPA's comments on the Draft ESD are attached. If you have any questions, please contact me at (617) 918-1754 or at lombardo.ginny@epa.gov.

Sincerely,

Ginny Lombardo

Ginny Lombardo
Remedial Project Manager

cc: Peter Dacyk, HGL
Jill Metcalf, EPA
David Chaffin, MassDEP
Ron Ostrowski, MassDevelopment

Mary Spinner, Ayer Board of Health
Richard Doherty, ECR Consulting, Inc.
Laurie Nehring, PACE
Julie Corenzwit, PACE

EPA Comments on
Draft Explanation of Significant Differences for
Grant Housing Area and 37-MM Impact Area (OU12)
June 2013

General Comments:

1. With respect to the LUC requirement for construction support, revise the language throughout the Draft ESD to be consistent with the Final FFS Addendum that construction support would be provided "*during any intrusive activities*." Include definitions of "*construction support*" and "*intrusive activities*." At the time of the finalization of the "*Munitions and Explosives of Concern Remedial Investigation Report, Former Oak and Maple Housing Areas Munitions Response Site*" (December 2012), EPA commented that construction support should be provided "*whenever there will be any activity that will require disturbance and/or excavation of soils*." The Draft ESD states that construction support "*would be provided once site redevelopment plans are in place and site redevelopment is initiated*" and "*once development commences*". The terms are subject to interpretation. Further, site preparation activities that may involve intrusive activities (e.g., demolition and removal of slabs, removal of road asphalt) may occur prior to redevelopment and these activities would warrant construction support. Construction support should be provided during intrusive activities. Note that Table 4.1 of the Draft ESD accurately references "*MEC construction support during any intrusive activities*."

2. The Draft ESD implies that the residential use restriction incorporated as a LUC for the Oak and Maple Housing Areas is "*because the sites differ in their intended use*". As noted in EPA's March 15, 2013 concurrence letter on the FFS Addendum, the prohibition on residential reuse for the Oak and Maple Housing Areas was considered a necessary additional LUC since the UXO clearance effort within this area did not cover the entire property. The Alternative OM-2 LUCs detailed in the Final FFS Addendum includes the prohibition on residential reuse, additional clearance and physical preview efforts, and construction support requirements, in addition to the LUCs that have been implemented for the Grant Housing Area. These additional requirements were incorporated into the proposed LUCs for Oak and Maple Housing Areas to address the differences between the level of clearance and the future use development plans for Oak and Maple Housing Areas, as compared to the Grant Housing Area.

3. Include the plan and schedule for the Land Use Control Implementation Plan (LUCIP) Addendum that will be used to implement the ESD LUC amendments.

Specific Comments:

1. <u>Section 1.0:</u> Include the date of ROD signature and reference the Grant Housing Area and 37-MM Impact Area as OU12.

2. <u>Section 2.0:</u> Present the Selected Remedy, as originally described in the ROD, including the Remedial Action Objectives and details of the LUCs.

3. Section 2.3: Substitute "*affect*" for "*impact*" and "*affected*" for "*impacted*." Use of the word "*impact*" in this context is confusing because it has a different meaning from the Impact Area that is referred to in the previous sentence.

4. Section 3.0: Provide the basis for the additional LUCs to be implemented at the former Oak and Maple Housing Areas. See General Comment 2. Discuss the Remedial Action Objective for the Oak and Maple Housing Area, which will be incorporated as a ROD RAO through the ESD. Note that the basis for the additional LUCs, above what the ROD prescribed for the Grant Housing Area, are to address differences in potential risks between the Grant Housing Area and the Oak and Maple Housing Areas as a result of the different level of clearance and to specifically address potential UXO hazards associated with the future use of these areas as commercial redevelopment sites. Provide additional details on the specific LUCs and support that they will meet the RAO for the Oak and Maple Housing Area. The reason that Oak and Maple were not originally included in the Grant ROD needs to be better explained. The reason that an ESD is necessary should be clear to the reader.

5. Section 4.0: Add a discussion on the residential use restriction and discuss how this will be addressed through a deed notice. The restriction has to be enforceable through the deed, and that should be spelled out in the narrative of the ESD. Add a discussion on the addition of USACE EP 75-1-2 (Chapter 6 MEC Support during Construction Activities) as a TBC ARAR for the revised remedy to define construction support. Include the ARARs Table from the Final FFS Addendum in the ESD.

6. Section 4.0: Discuss cost associated with the differences in the remedy. For the pre-construction clearance, clarify that the clearance will include the areas currently covered by foundation slabs and road asphalt within the Oak Housing Area. Describe any changes in expected outcomes that will result from the ESD.

Sheehan, Deborah

From: Redfield, Vanessa
Sent: Thursday, January 23, 2014 11:48 AM
To: Sheehan, Deborah
Subject: RE: Oak and Maple ESD (UNCLASSIFIED)

-----Original Message-----
From: Simeone, Robert J CIV (US) [mailto:robert.j.simeone.civ@mail.mil]
Sent: Monday, December 30, 2013 11:29 AM
To: LaValle, Stephen T MAJ NAE; Cicalese, Marc
Cc: Dacyk, Pete; Simpson, Eric; Simeone, Robert J CIV (US)
Subject: FW: Oak and Maple ESD (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

FYI - MassDEP comments on the subject ESD. Also attached are previously submitted comments from MassDev and EPA. Army RTCs w/draft final ESD due by
15 Feb.

Robert J. Simeone
Department of the Army
Base Realignment and Closure Division
U.S. Army Garrison Fort Devens
30 Quebec Street, Unit 100
Devens, MA 01434-4479
Office: 978-796-2205
Email: robert.j.simeone.civ@mail.mil

-----Original Message-----
From: Chaffin, David (DEP) [mailto:david.chaffin@state.ma.us]
Sent: Monday, December 30, 2013 11:12 AM
To: Simeone, Robert J CIV (US)
Cc: Keating, Carol; Jennings, Lynne; ROstrowski@Massdevelopment.com; Malewicz, Anne (DEP)
Subject: Oak and Maple ESD

For Use In Intra-Agency Policy Deliberations

Anne's comments on the draft Explanation of Significant Differences for Grant Housing Area and 37-mm Impact Area, dated June 2013, are attached.

My comments on the draft ESD follow:
1. Sections 1.0 and 4.0: Ambiguous text concerning the purpose of the
ESD (".incorporating the Oak and Maple Housing Areas within the 2009 ROD.) should be clarified; for example, the ESD could indicate that the scope of the Grant Housing Area ROD would be expanded to include LUCs for the Oak and Maple Housing Areas.

2. Section 2.1: Unless there is some doubt about zoning and the planned future use of the Oak and Maple Housing Areas, the clause "Based on the latest information from MassDevelopment", should be deleted from the last sentence of the first paragraph.

3. Section 2.4: To more clearly explain the purpose of the ESD, consider replacing heading "APPLICABILITY OF OAK AND MAPLE HOSUING AREAS TO ROD" with "APPLICABILITY OF ROD TO OAK AND MAPLE HOSUING AREAS", and consider adding text to the final paragraph to indicate that the Army proposed to expand the scope of the Grant Housing Area ROD to include LUCs for the Oak and Maple Housing Areas.

4. Section 5.0: To document that all comments received on the draft ESD were addressed, copies of the comment letters received should be attached to the ESD and cited here.

5. Section 7.0, AUTHORIZING SIGNATURES: The ESD should not indicate that MassDEP concurred with the ESD. Instead, the ESD should indicate that MassDEP reviewed and commented on the ESD, in accordance with CERCLA, and a copy of MassDEP's comment letter should be attached to the ESD.

6. Table 4.1 does not capture the full scope of the LUCs specified in the FFS Addendum (Section 4.1.2). In particular, the following additional elements should be noted in the ESD: annual LUC site inspection, annual LUC compliance report, zoning, live information sessions, and signage.

7. Figure 1.2: The referenced firing fan location (Section 1.1) should be identified.

David Chaffin
Massachusetts Department of Environmental Protection
617-348-4005
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Classification: UNCLASSIFIED
Caveats: NONE

General Comments:

MassDEP legal staff requests to review the proposed deed restriction language.

As noted in the Site Investigation and Feasibility Study, because of the proximity of the Oak and Maple Housing Area (the Housing Area) to the Impact Zone, there is a potential for ordnance to be present throughout the Housing Area. in the perimeter area around the Oak and Maple Housing area, under the paved roads, and in the area between Oak and Maple, (immediately adjacent to impact area). With this in mind, as stated in the ESD, these areas should be thoroughly investigated and items removed during the planning and construction phase. However, we believe that the ESD should also include the development by the Army of a detailed plan which would include qualified ordnance support and detail as to how the ordnance investigation and any necessary removal will be conducted during the construction phase. The footprint of the planned buildings as well as the transferred property proper should be included in the ordnance sweep and not limited to the building footprint. In addition, the Deven's Soil Management Plan should be fully implemented during the construction phase and as noted, any soil moved from this Oak and Maple area should be fully evaluated; managed and future location of this soil should be recorded.

The Oak and Maple area should have periodic inspections for MEC as part of the long term management of this LUC. Frost heave and the limitations of investigative techniques make these regular inspections important. Grid area E9 and B16, where a 37 mm ordnance and tail boom of rifle grenade was found, as noted on figure 3.7 of MEC Remedial Investigation, Oak and Maple Area, highlights why these inspections are necessary. Mass Development and the Army should retain the right to enter the transferred property and conduct these inspections.

MassDEP recommends that Mass Development retain ownership of a buffer zone around the impact area to reduce the risk of exposure due to encroachment by development.

Oak and Maple areas are within a few yards of the impact area. Since Oak and Maple area will be used in the future for commercial use, the impact area should remain fenced. This would provide a necessary level of protection to keep employees and visitors away from the former Impact area and reduce the potential for exposure. To reduce the potential for unauthorized entry to the impact area, and to be consistent with the GERE intended language, it would be prudent to amend the current LUCIP to remove the option of a vegetative barrier instead of a fence in the impact area.

Sheehan, Deborah

From: ROstrowski@Massdevelopment.com
Sent: Thursday, October 24, 2013 2:50 PM
To: Simeone, Robert J CIV (US); Keating, Carol; david.chaffin@state.ma.us
Cc: mark.matys@state.ma.us; mark.baldi@state.ma.us; Iorio, Maryellen NAE
Subject: MassDevelopment Comments on Draft ESD-OU12-Oak and Maple HAs

Bob.... At Table 4.1, LUCs Specific to Oak and Maple Housing Areas (4), " MEC construction support during any intrusive activities" needs to be more specifically defined so when the LUCIP is being developed appropriate use of MEC Support is identified as required. For instance, when pre development activities such as frost wall and foundation removal, utility pole and underground utility removal, etc, are being conducted , MEC support would be required. Similarly, MEC support would be required during development activities such as, excavating for footings, foundations, underground utility lines, new roads etc. However, once development activities are complete and the site is fully built out for sale, MEC construction support is not warranted thereafter such as when an owner needs to plant landscape shrubs or trees, expand a parking lot or other similar activities indicative of a facility that is operational. Once the site is functional, the Devens Soil Management Policy is appropriate for intrusive activities. This is the same procedure that is utilized in the Grant Housing Area LUCIP,(Exhibit E). thanks ron o

Draft Final Comments

Robert J. Simeone
Department of the Army
Base Realignment and Closure Division
U.S. Army Garrison Fort Devens
30 Quebec Street, Unit 100
Devens, MA 01434-4479
Office: 978-796-2205
Email: robert.j.simeone.civ@mail.mil

-----Original Message-----

From: Ostrowski, Ron [mailto:ROstrowski@Massdevelopment.com]
Sent: Thursday, March 27, 2014 2:44 PM
To: Simeone, Robert J CIV (US); Keating, Carol (Keating.Carol@epa.gov); david.chaffin@state.ma.us
Subject: MassDevelopment Comments on Draft Final (3/14) ESD for Grant Housing and 37 -MM Impact Area

Bob.. At 4.0, 4) re' prohibition of residential use, although Oak and
Maple are zoned commercial, the deed restriction is due to the site not being 100% investigated for UXO. Deed restrictions should be for cause eg.
Residual ground contamination, UXO impact area, etc but not based upon zoning. Please add defining language in the text to clarify for future
developers. thx ron o

Classification: UNCLASSIFIED
Caveats: NONE

Sheehan, Deborah

From: Dacyk, Pete
Sent: Wednesday, July 16, 2014 2:24 PM
To: Sheehan, Deborah
Subject: FW: GHA and Impact Area ESD

From: Chaffin, David (DEP) [mailto:david.chaffin@state.ma.us]
Sent: Tuesday, May 06, 2014 4:17 PM
To: Simeone, Robert J CIV (US); LaValle, Stephen T MAJ NAE; Dacyk, Pete
Cc: Keating, Carol; Ostrowski, Ron; Julie Corenzwit-home; Laurie Nehring; Richard Doherty; Malewicz, Anne (DEP)
Subject: GHA and Impact Area ESD

For Use In Intra-Agency Policy Deliberations

My comments on the draft final *Explanation of Significant Differences* for Grant Housing Area and 37-mm Impact Area, received March 26, 2014 follow. Anne may have additional comments.

1. Section 4.0, Second Paragraph, Subparagraph 3; and Table 4.2, Footnote 4: The meanings of the phrases: "Once development activities are completed…" and "Once the property is fully functional for commercial use…" are too ambiguous to be used to determine when construction support is required, and they are inconsistent with the draft ESD and Focused Feasibility Study Addendum, which specify that MEC construction support be provided "during any intrusive activities". To clarify the MEC construction support requirement and address the apparent concern that conducting MEC construction support in an area cleared previously by conducting MEC construction support would be unnecessarily burdensome, MassDEP suggests that this text could be revised to indicate that MEC construction support will be required during any intrusive activities conducted in an area where MEC construction support has not been conducted previously.

2. Table 4.2, **LUCs Specific to Oak and Maple Housing Areas**, Row 5: In addition to assessing the prohibition against residential reuse, the scope of the annual LUC site inspection should include gathering sufficient information (e.g., physical inspection and interviews with property owners) to determine if intrusive activities were conducted in the Oak or Maple Housing areas, and if intrusive activities were conducted, to document those activities and determine if they were conducted with MEC construction support in accordance with the LUCIP.

David Chaffin
Massachusetts Department of Environmental Protection

617-348-4005

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Version: Draft (June 2013)
Reviewers: Ginny Lombardo (GL), U.S. Environmental Protection Agency (USEPA); David Chaffin (DC), Massachusetts Department of Environmental Protection (MassDEP); Anne Malewicz (AM), MassDEP; and Ron Ostrowski (RO), MassDevelopment

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U. S. Environmental Protection Agency					
General Comments:					
GL	1.	With respect to the LUC requirement for construction support, revise the language throughout the Draft ESD to be consistent with the Final FFS Addendum that construction support would be provided "*during any intrusive activities*." Include definitions of "*construction support*" and "*intrusive activities*." At the time of the finalization of the "*Munitions and Explosives of Concern Remedial Investigation Report, Former Oak and Maple Housing Areas Munitions Response Site*" (December 2012), EPA commented that construction support should be provided "*whenever there will be any activity that will require disturbance and/or excavation of soils*." The Draft ESD states that construction support "*would be provided once site redevelopment plans are in place and site redevelopment is initiated*" and "*once development commences*". The terms are subject to interpretation. Further, site preparation activities that may involve intrusive activities (e.g., demolition and removal of slabs, removal of road asphalt) may occur prior to redevelopment and these activities would warrant construction support. Construction support should be provided during intrusive activities. Note that Table 4.1 of the Draft ESD accurately references "*MEC construction support during*			ESD now indicates construction support would be provided "during any intrusive activities" prior to the completion of development. Once the site is built out and fully functional MEC construction support is not warranted and intrusive activities will be conducted in accordance with the Devens Soil Management Policy. MEC Construction support per DOD and Army requirements will be specified in the LUCIP. The applicable requirements have been cited in the ARAR/TBC Table 4.1. **EPA Back check response from Carol Keating: The response is unacceptable. While the Army uses the low probability of encountering MEC within the previously developed Oak and Maple HAs and the planned future use of the property (commercial/industrial vs residential (Grant)) to support its position that MEC construction support should only be required for intrusive activities performed construction commencement and completion, EPA stands behind its original comment. Specifically, in the light of the fact that the level (depth and extent) of clearance was much shallower, and, therefore, "lower" than that previously performed at the former Grant Housing and 37mm impact areas, EPA believes that MEC construction support should be provided "during any intrusive activity" (as defined in the final "Munitions and Explosives of Concern Remedial Investigation Report, Former Oak and Maple HAs Munitions Response Site (Dec. 2012)". The Army's**
	1.				

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	(continued)	*any intrusive activities."*			**suggestion that there are different, less significant UXO hazards associated with intrusive activities conducted "prior to the commencement of the development", "once the site is built out", or after it is "fully functional" is unsupported and ill-advised.** **For reasons previously stated in EPA's original comment letter (and further supported by the fact that the RAOs for the Oak and Maple HAs are the same as that for Grant), EPA believes that construction support should be provided whenever a proposed activity involves the disturbance and/or excavation of soils. With that being said, EPA might be willing to consider a lower level of support (such as that set forth in the Devens Soil Management Policy) for those post-development/construction activities proposed in an area that had been previously cleared to the same lateral and vertical extent (i.e., if a 2' X 5' area will be excavated for a tree planting in an area that had been previously cleared to the same extent, both laterally (2') and vertically (5'), then the activity could likely proceed without MEC construction support.) Prior to EPA engaging is further discussion/resolution of this issue, however, it would be helpful if the Army could provide definitions for "completion of development", "fully built out", "operational" and "functional". In addition, the Army should provide a detailed explanation (beyond the "required Devens UXO training") as to why it believes that the Devens Soils Management Policy "would be adequate for future intrusive work" in the Oak and Maple HAs, especially since UXO clearance didn't cover the entire Oak and Maple HAs.**

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	1. (continued)				Army Back Check Response: The level of MEC clearance for both the Grant HA and the Oak/Maple HAs both support the determination that the probability for encountering MEC is "low" and therefore, the level of construction support will be on a case-by-case basis (see DOD 6055.9-M-V7 which states that areas on which previous response has been completed, pursuant to a DDESB-approved Explosives Safety Submission for the stipulated re-use, also qualify for "low" determinations). Page 9 of the ESD has been revised to state that once the property is fully functional for commercial use (innovative and technical businesses), construction support ***will*** continue to be provided on a case by case-by-case basis ***in addition to*** following the Devens Soil Management Policy and the required Devens UXO training. The statement "Once development activities are completed, construction support would no longer be required" has been deleted. Definitions: Completion of development = All buildings, utilities, roads and landscaping have been installed and are in place in a specific area per design plan(s). Built Out = All buildings, utilities, roads and landscaping are installed for the properties' end usage but do not maximize the lot's usage under zoning. The lot can support additional build-out for expansion for the current or future owner.

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	1. (continued)				Fully built out = All buildings, utilities, roads and landscaping are installed for the properties' end usage and maximize the lot's usage under zoning. Operational = Facility up and running and fully functional. Functional = Performing and operating per design.
GL	2.	The Draft ESD implies that the residential use restriction incorporated as a LUC for the Oak and Maple HAs is "*because the sites differ in their intended use*". As noted in EPA's March 15, 2013 concurrence letter on the FFS Addendum, the prohibition on residential reuse for the Oak and Maple HAs was considered a necessary additional LUC since the UXO clearance effort within this area did not cover the entire property. The Alternative OM-2 LUCs detailed in the Final FFS Addendum includes the prohibition on residential reuse, additional clearance and physical preview efforts, and construction support requirements, in addition to the LUCs that have been implemented for the Grant HA. These additional requirements were incorporated into the proposed LUCs for Oak and Maple HAs to address the differences between the level of clearance and the future use development plans for Oak and Maple HAs, as compared to the Grant HA.			The ESD text was revised to indicate that a prohibition on residential reuse is necessary based upon UXO clearance not covering the entire Oak and Maple HAs property. The zoning in the Oak and Maple Housing is consistent with prohibition of residential reuse detailed within the OM-2 LUCs.

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GL	3.	Include the plan and schedule for the Land Use Control Implementation Plan (LUCIP) Addendum that will be used to implement the ESD LUC amendments.			The LUCIP Addendum will be prepared after final approval of the ESD. The Army anticipates that the LUCIP Addendum will be prepared in CY2014. **EPA Back Check Response from Carol Keating: While the Army's resistance to the inclusion of plan and schedule for issuance of the LUCIP in the ESD is puzzling, please be advised that the draft LUCIP must be submitted to EPA (and MassDEP) within 90 days of ESD signature, in accordance with the January 4, 2013, "Sample Federal Facility Land Use Control ROD checklist with Suggested Language" (LUC Checklist), OSWER Directive 9355.12. Please insert the following text at the end of the second paragraph on page nine of the ESD, "The LUCIP Addendum will be prepared and submitted to the regulators for review and concurrence within ninety (90) days of ESD signature by the Army and EPA."** Army Back Check Response: Once the Final ESD is signed by the Army and the EPA, the Army will then prepare and submit the LUCIP. EPA's text has been added to next to last paragraph of Section 4.
Specific Comments					
GL	4.	Include the date of ROD signature and reference the Grant Housing Area and 37-MM Impact Area as OU12.	1.0		The text was revised to reference the September 2009 ROD. The Army will continue to reference the site as "Grant Housing Area and 37-MM Impact Area". OU12 is an EPA only designation for the site and is not how the Army has documented the site.

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GL	5.	Present the Selected Remedy, as originally described in the ROD, including the Remedial Action Objectives and details of the LUCs.	2.0		Sentence detailing the Remedial Action Objective, as presented in Section 2.7 of the ROD, inserted. Text detailing Selected Remedy for both Grant Housing Area (Alternative GR-2) and Impact Area (Alternative IA-2) inserted from Sections 2.9.2 and 2.10.2 of the ROD, respectively.
GL	6.	Substitute "*affect*" for "*impact*" and "*affected*" for "*impacted*." Use of the word "*impact*" in this context is confusing because it has a different meaning from the Impact Area that is referred to in the previous sentence.	2.3		The text was revised per comment.
GL	7.	Provide the basis for the additional LUCs to be implemented at the former Oak and Maple HAs. See General Comment 2. Discuss the Remedial Action Objective for the Oak and Maple Housing Area, which will be incorporated as a ROD RAO through the ESD. Note that the basis for the additional LUCs, above what the ROD prescribed for the Grant HA, are to address differences in potential risks between the Grant Housing Area and the Oak and Maple HAs as a result of the different level of clearance and to specifically address potential UXO hazards associated with the future use of these areas as commercial redevelopment sites. Provide additional details on the specific LUCs and support that they will meet the RAO for the Oak and Maple HAs.	3.0		The text was revised to provide a basis for additional LUCs, present additional clarification on the residential prohibition LUC requirement and present the RAO. Detail was added in Section 4.0 text for LUCs specific to Oak and Maple HAs that demonstrate the RAO will be met. The original recommendation to investigate the Oak and Maple HAs was added to the text, which provides a timeline relative to the Grant ROD. **EPA Back Check Response from Carol Keating: In addition to the generic description of the differences between the Oak and Maple HAs and the Grant Housing Area and 37-mm Impact Area, (i.e., level of clearance and zoning), the Army should provide details on the specific levels of clearance performed in each area and explain the Army's decision to investigate and/or address potential risks in one housing area more thoroughly (laterally and/or vertically) than another.**

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	7. (continued)	The reason that Oak and Maple were not originally included in the Grant ROD needs to be better explained. The reason that an ESD is necessary should be clear to the reader.			Army Back Check Response: The ESD summarizes the differences in levels of clearance. Specific details of the differences can be found in various reports in the administrative record. Note that the level of clearance is the same for both the Grant HA and the Oak/Maple HAs, but MassDevelopment and EPA decided to clear a greater percentage of the Grant HA (although that percentage was also less than 100% because the areas under roads were not cleared.).
GL	8.	Add a discussion on the residential use restriction and discuss how this will be addressed through a deed notice. The restriction has to be enforceable through the deed, and that should be spelled out in the narrative of the ESD. Add a discussion on the addition of USACE EP 75-1-2 (Chapter 6 MEC Support during Construction Activities) as a TBC ARAR for the revised remedy to define construction support. Include the ARARs Table from the Final FFS Addendum in the ESD.	4.0		Additional text was added per comment, as detailed below: "MEC Construction Support to be provided in accordance with an approved LUCIP (and any subsequent work plans), prepared in accordance with all applicable DoD, and Army directives, policy and guidance related to explosive safety requirements, as described in Table 4.1. The prohibition on residential reuse will be enforced through a deed notice and included in all future deeds. The deed notice will be included in an updated Grant Housing Area and 37-mm Impact Area LUCIP revised to include the Oak and Maple Housing Areas." **EPA Back Check Response from Carol Keating: In order to ensure that the deed language adequately and accurately describes the area subject to the LUCs, is legally sufficient under state law to run with the land with any subsequent property transfer, and provides sufficient notice of the restriction to any purchase, the deed restriction language should be included in the ESD.**

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	8. (continued)				Army Back Check Response: EPA's proposed approach is not consistent with Army and EPA guidance regarding detailed LUC specifications (such as deed notice language) which provides for placing such language in a post-ROD enforceable document.
GL	9.	Discuss cost associated with the differences in the remedy. For the pre-construction clearance, clarify that the clearance will include the areas currently covered by foundation slabs and road asphalt within the Oak HA. Describe any changes in expected outcomes that will result from the ESD.	4.0		Additional text was added per comment, as detailed below: "The additional cost of the Oak and Maple HAs remedy is $255,317.89 as detailed in the Table 5.1 of the FFS Addendum (HGL, 2013). The pre-construction component of this cost is $123,479.25 and includes the clearance of accessible areas within the 10 unsurveyed grids within Sub-Area 2 detailed in the RI report (HGL, 2012). The construction support component of the remedy is $58,380, and reflects 30-days of construction support. Areas under roads and slabs not cleared during the 2010/2011 remedial investigation will be cleared during the construction support component. The LUC costs reflect capital costs ($23,870.55) and annual O&M for 30-years ($49,588) presented as the selected remedy (GR-2) for Grant Housing Area in the Feasibility Study (Weston, 2008). The costs are accurate based upon the assumptions presented. Costs will primarily show variance relative to the amount of construction support required.

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CK	10.	Please add a new figure that shows (1) the area (acreage) of the Grant Housing area and the areas of the Oak and Maple housing areas, and, (2) demarcation of the lateral and vertical extent of UXO/MEC clearance in each area (as well as those areas where there is no or limited clearance). Alternatively, the required information can be added to an existing figure.			The lateral extent of the Grant HA and Oak/Maple HAs is presented in Figure 1.2. The lateral and vertical extent of UXO/MEC clearance at Oak and Maple Housing Areas is detailed in the Remedial Investigation Report (HGL, 2012). The lateral and vertical extent of UXO/MEC clearance at Grant HA is detailed in various historical reports.
Massachusetts Department of Environmental Protection (MassDEP)					
DC	11.	Ambiguous text concerning the purpose of the ESD ("incorporating the Oak and Maple HAs within the 2009 ROD.) should be clarified; for example, the ESD could indicate that the scope of the Grant Housing Area ROD would be expanded to include LUCs for the Oak and Maple HAs.	1.0		The following text was added to provide clarification: "This will involve expanding the scope of the ROD by including the LUCs associated with the Oak and Maple Housing Areas."
DC	12.	Unless there is some doubt about zoning and the planned future use of the Oak and Maple HAs, the clause "Based on the latest information from MassDevelopment", should be deleted from the last sentence of the first paragraph.	2.1		The text was revised as follows: "The future use of the former Oak and Maple Housing Areas is commercial (innovation and technical business) per zoning maps of the area."
DC	13.	To more clearly explain the purpose of the ESD, consider replacing heading "APPLICABILITY OF OAK AND MAPLE HOSUING AREAS TO ROD" with "APPLICABILITY OF ROD TO OAK AND MAPLE HOSUING AREAS", and consider adding text to the final paragraph to	2.4		The text heading of section 2.4 was revised per comment. The first sentence of the second paragraph was revised to include text detailing expansion of the ROD scope per comment.

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	13. (continued)	indicate that the Army proposed to expand the scope of the Grant Housing Area ROD to include LUCs for the Oak and Maple HAs.			
DC	14.	To document that all comments received on the draft ESD were addressed, copies of the comment letters received should be attached to the ESD and cited here.	5.0		Copies of comments for both the Draft and draft Final received either via letter or email are attached and cited.
DC	15.	AUTHORIZING SIGNATURES: The ESD should not indicate that MassDEP concurred with the ESD. Instead, the ESD should indicate that MassDEP reviewed and commented on the ESD, in accordance with CERCLA, and a copy of MassDEP's comment letter should be attached to the ESD	7.0		The text was revised to indicate "with review and comment provided by the Massachusetts Department of Environmental Protection in accordance with CERCLA." A copy of MassDEP's comment letter received via email has been attached to the ESD.
DC	16.	Table 4.1 does not capture the full scope of the LUCs specified in the FFS Addendum (Section 4.1.2). In particular, the following additional elements should be noted in the ESD: annual LUC site inspection, annual LUC compliance report, zoning, live information sessions, and signage.	Table 4.1		Table 4.1 was renumbered as Table 4.2, and was revised to include annual LUC site inspection (to confirm residential reuse prohibition), annual LUC compliance report, live information sessions, and zoning. Live information sessions consist of contractor briefings provided by the Devens Fire Department (awareness training). Signage at Oak and Maple was deemed unnecessary and was associated with the fenced area at the Impact Area. Table 5.1 of the FFS Addendum reflects the LUCs for Oak and Maple, which are a blend of Grant Housing Area and the additional LUCs for Oak and Maple.

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Reviewer	Cmt. #	Comment	Location		Comment Response
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	16. (continued)				**EPA Back Check Response: "Signage at Oak and Maple was deemed unnecessary and was associated with fenced area at the Impact Area." Please explain who deemed it "unnecessary". EPA believes that signage is necessary since the clean-up was not as thorough in Maple and Oak areas as it was at the Grant area, and because commercial users may be only occasional visitors and will not receive the same notifications, live information sessions etc., that residential users in Grant will receive.** Army Response: The statement that the clean-up was not as thorough is misleading: the level of UXO clearance was deemed to be sufficient based on the DQOs established for Oak/Maple HAs. As stated previously above, the signage requirement mentioned in the FFS Addendum was mainly associated with signs for the Impact Area. The FFS Addendum Section 4.1.2 lists the general types of LUCs recommended for the former Oak and Maple HA that includes increasing public awareness of MEC through "distribution of educational materials, web-based media, or installation of local signage". The need for signage (in additional to the Impact Area signs) was not carried forward into the draft ESD language and was not discussed by the BCT as a necessary LUC requirement at the Oak/Maple HAs.
DC	17.	Figure 1.2: The referenced firing fan location (Section 1.1) should be identified.	Figure 1		Figure 1.2 has been revised to include the firing fan location.
AM	18.	MassDEP legal staff requests to review the proposed deed restriction language.			The proposed deed restriction language will be provided as part of the LUCIP submittal.

Document Title: Draft Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area, Former Fort Devens Army Installation, Devens, MA
Version: Draft (June 2013)
Reviewers: Ginny Lombardo (GL), U.S. Environmental Protection Agency (USEPA); David Chaffin (DC), Massachusetts Department of Environmental Protection (MassDEP); Anne Malewicz (AM), MassDEP; and Ron Ostrowski (RO), MassDevelopment

Reviewer	Cmt. #	Comment	Location		Comment Response
			Sec.	Page	
AM	19.	As noted in the Site Investigation and Feasibility Study, because of the proximity of the Oak and Maple Housing Area (the Housing Area) to the Impact Zone, there is a potential for ordnance to be present throughout the Housing Area: in the perimeter area around the Oak and Maple Housing area, under the paved roads, and in the area between Oak and Maple, (immediately adjacent to impact area). With this in mind, as stated in the ESD, these areas should be thoroughly investigated and items removed during the planning and construction phase. However, we believe that the ESD should also include the development by the Army of a detailed plan which would include qualified ordnance support and detail as to how the ordnance investigation and any necessary removal will be conducted during the construction phase. The footprint of the planned buildings as well as the transferred property proper should be included in the ordnance sweep and not limited to the building footprint. In addition, the Devens Soil Management Plan should be fully implemented during the construction phase and as noted, any soil moved from this Oak and Maple area should be fully evaluated; managed and future location of this soil should be recorded.			A detailed plan will be prepared by the Army for MEC construction support. Construction support will be provided per response to comment #22.

Document Title: Draft Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area, Former Fort Devens Army Installation, Devens, MA
Version: Draft (June 2013)
Reviewers: Ginny Lombardo (GL), U.S. Environmental Protection Agency (USEPA); David Chaffin (DC), Massachusetts Department of Environmental Protection (MassDEP); Anne Malewicz (AM), MassDEP; and Ron Ostrowski (RO), MassDevelopment

Reviewer	Cmt. #	Comment	Location		Comment Response
			Sec.	Page	
AM	20.	The Oak and Maple area should have periodic inspections for MEC as part of the long term management of this LUC. Frost heave and the limitations of investigative techniques make these regular inspections important. Grid area E9 and B16, where a 37 mm ordnance and tail boom of rifle grenade was found, as noted on figure 3.7 of MEC Remedial Investigation, Oak and Maple Area, highlights why these inspections are necessary. Mass Development and the Army should retain the right to enter the transferred property and conduct these inspections.			Based on the level of UXO clearance performed at Oak and Maple periodic inspections for MEC are not necessary. The LUCs developed specifically for Oak and Maple reflect the level of clearance conducted and the low probability of UXO present on site.
AM	21.	MassDEP recommends that Mass Development retain ownership of a buffer zone around the impact area to reduce the risk of exposure due to encroachment by development.			Comment noted. The Army will relay the recommendation to MassDevelopment.
AM	22.	Oak and Maple areas are within a few yards of the impact area. Since Oak and Maple area will be used in the future for commercial use, the impact area should remain fenced. This would provide a necessary level of protection to keep employees and visitors away from the former Impact area and reduce the potential for exposure. To reduce the potential for unauthorized entry to the impact area, and to be consistent with the GERE intended language, it would be prudent to amend the			The Grant Housing Area and 37-MM Impact Area LUCIP was approved based upon the zoning in place for both the Grant Housing Area and 37-mm Impact Area, and the Oak and Maple HAs. The fencing and vegetation barrier as installed, is effective.

Document Title: Draft Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area, Former Fort Devens Army Installation, Devens, MA
Version: Draft (June 2013)
Reviewers: Ginny Lombardo (GL), U.S. Environmental Protection Agency (USEPA); David Chaffin (DC), Massachusetts Department of Environmental Protection (MassDEP); Anne Malewicz (AM), MassDEP; and Ron Ostrowski (RO), MassDevelopment

Reviewer	Cmt. #	Comment	Location		Comment Response
			Sec.	Page	
	22. (continued)	current LUCIP to remove the option of a vegetative barrier instead of a fence in the impact area			
MassDevelopment					
RO	23.	At Table 4.1, LUCs Specific to Oak and Maple HAs (4), "MEC construction support during any intrusive activities" needs to be more specifically defined so when the LUCIP is being developed appropriate use of MEC Support is identified as required. For instance, when pre development activities such as frost wall and foundation removal, utility pole and underground utility removal, etc. are being conducted, MEC support would be required. Similarly, MEC support would be required during development activities such as, excavating for footings, foundations, underground utility lines, new roads etc. However, once development activities are complete and the site is fully built out for sale, MEC construction support is not warranted thereafter such as when an owner needs to plant landscape shrubs or trees, expand a parking lot or other similar activities indicative of a facility that is operational. Once the site is functional, the Devens Soil Management Policy is appropriate for intrusive activities. This is the same procedure that is utilized in the Grant HA LUCIP, (Exhibit E).			Table 4.1 was renumbered as Table 4.2, and was revised by adding the below footnote to (4) "MEC construction support during any intrusive activities". [4] - MEC construction support not needed after site is fully built out for sale. Once site is functional, the Devens Soil Management Policy is appropriate for any intrusive activities.

Sheehan, Deborah

From: Sheehan, Deborah
Sent: Thursday, September 25, 2014 8:35 AM
To: Sheehan, Deborah
Subject: FW: GHA and Impact Area ESD for Oak and Maple Housing Areas

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From: Keating, Carol [mailto:Keating.Carol@epa.gov]
Sent: Friday, August 08, 2014 3:58 PM
To: Simeone, Robert J CIV (US); LaValle, Stephen T MAJ NAE; Dacyk, Pete
Cc: Ostrowski, Ron; Chaffin, David (DEP); Malewicz, Anne (DEP); Jennings, Lynne; Metcalf, Jill
Subject: GHA and Impact Area ESD for Oak and Maple Housing Areas

Bob,

As you are aware, last week EPA requested that the Army refrain from issuing the final (signed) version of the above-referenced document until EPA staff could fully evaluate the Army's July 23, 2014 responses to EPA comments on the draft final ESD. Based on feedback recently received from both legal and technical team members, EPA is unable to concur with the Army's responses (and revised "Final" ESD) for reasons previously identified and outlined, once again, below:

- **Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "*Construction Support DuringAny Intrusive Activities"***

  While the Army continues to rely on the "low" probability of encountering MEC as the basis for "softening" the more restrictive LUCs detailed in the Final FFS Addendum, EPA remains concerned about the potential presence of MEC remaining in the former Oak and Maple Housing Areas and use of the areas for commercial/industrial purposes . For reasons previously discussed (and to ensure consistency with the LUC requirements outlined in the Final FFS Addendum), **the ESD must be revised,throughout, to indicate that *MEC construction support will be provided during any intrusive activities performed in the Oak and Maple Housing Areas, including, but not limited to, the disturbance and/or excavation of soils, demolition and removal of slabs, and removal of road asphalt.*** Please note that this requirement (1) is irrespective of pre- or post-construction phases of development, (2) is unrelated to the site being "built out" and/or "fully functional", and (3) shall be performed in addition to (or in conjunction with) the other recommended LUCs (i.e. public education (i.e. live information sessions, web-based visual and audio media, etc.), MEC physical preview of proposed construction footprint, and the requirement for pre-construction survey or clearance, etc.). As you are aware, the LUCs for the Oak and Maple Housing Areas were intended to be more stringent than those required in the Grant ROD to address the differences between the level of UXO clearance within the Oak and Maple areas (14 of 27 acres covered using two different (analog and digital) geophysical mapping technologies with no geophysical prove out area (GPOA)), as compared to Grant (100% coverage using the best available MEC investigation technology (digital, EM-61) with recommended QA/QC procedures (i.e., GPOA) to support survey results). EPA's concerns with regards to the reliability and use of different geophysical mapping techniques date back to 2004, when EPA stated that it would not sign off on residential development at the former Grant Housing Area "unless a digital geophysical survey, using the best available technology, was

conducted at the site to reduce any remaining hazards". It should come as no surprise, therefore, that EPA considers digital geophysical mapping (DGM) techniques to be far more superior in locating buried UXO and other MEC items, and thus capable of producing a higher "level" of results (i.e., clearance) as compared to analog mapping techniques. In addition, although EPA had discussed the possible use of Army Corps of Engineers (ACE) "Standby Support" procedures for MEC construction support activities (as well as EPA/MassDEP's consideration of the Army's position that the probability for encountering MEC is "low"), it was agreed that the Army must first complete the pre-construction, surface clearance of grids not previously cleared before a final decision could be rendered in regards to either item.

- **Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "*Public Education – Distribution of education materials, live information sessions, web-based visual and audio media, and signage(at site)"***

The Army's recent response to comments indicates that "The need for signage (in addition to the Impact Area signs) was not carried forward into the draft

ESD language and was not discussed by the BCT as a necessary LUC requirement at the Oak/Maple HAs." While this may have originally been the case,

upon further review and consideration of the issue (as first raised by MassDEP), EPA believes that the ***placement of signage (at the site) is a necessary and***

critical component of the LUCs, as originally identified in Section 4.1.2 of the aforementioned Final FFS Addendum. The placement of a sign, warning

potential visitors and/or tresspassers (as well as the "less-informed" construction worker) of the potential presence of MEC, will help raise awareness of

potential site-related hazards and ensure both short- and long- term management and reduction of explosives-related risk in the former housing areas.

- **Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "*Deed Restrictions (including prohibition of residential use of site)"***

For reasons discussed in EPA's March 15, 2013 concurrence letter on the FFS Addendum, August 12, 2013 comments on the draft ESD, and June 27, 2014 comments on the draft final ESD, the document must be revised to more clearly reflect the intended purpose of the LUC, as specified in the Final FFS Addendum. Specifically, the prohibition on residential reuse for the Oak and Maple Housing Areas is warranted based on limitations associated

with the UXO/MEC investigation and clearance effort (<100%) performed in these areas and potential human health risk and explosive safety hazards

associated with UXO or MEC that may still be present (and of even greater concern given the historic "cut and fill" activities performed at both locations

and the associated uncertainties regarding the existence of MEC items at depth). Although the level of MEC investigation effort at the former Oak and

Maple Housing Areas is more consistent with that required for a "lower" reuse (i.e. commercial versus residential), the LUC (residential restriction) was

necessitated by the potential presence of UXO/MEC remaining in these areas and is unrelated to current zoning requirements.

- **Comment #10** - While EPA acknowledges the Army's presentation of "the lateral extent of the Grant and Oak/Maple HAs" in Figure 1.2, it remains convinced that the ESD should also contain a figure that includes the items requested in EPA's June 27, 2014 comments. Specifically, a new (or revised) figure, similar to Figure 3.1 in the 2012, MEC RI (for Oak and Maple), must be included that shows (1) the area (acreage) of the Grant/former 37 mm Impact Areas and the area (acreage) of the former Oak and Maple housing areas, and (2) demarcation of the lateral and vertical extent of UXO/MEC clearance in each area (as well as those areas where there is no or limited clearance). Members of the community (and other interested parties) should not have to locate and review "various historical reports" and other documents to discern the lateral and vertical extent of UXO/MEC clearance performed (or not performed) in each area. Figure 3.1, or another similar figure, could easily be amended to include the requested information.

Please feel free to contact me with questions or concerns in regards to the above.

Carol A. Keating

Remedial Project Manager

Office of Site Remediation and Restoration

Federal Facilities Superfund Section

(617) 918-1393

Carol A. Keating

Remedial Project Manager

Office of Site Remediation and Restoration

Federal Facilities Superfund Section

Sheehan, Deborah

From: Sheehan, Deborah
Sent: Thursday, September 25, 2014 8:32 AM
To: Sheehan, Deborah
Subject: FW: GHA and Impact Area ESD for Oak and Maple Housing Areas (UNCLASSIFIED)
Attachments: ESD Section 4 Revisions_082214.docx

From: Simeone, Robert J CIV USARMY CENAE (US)
Sent: Friday, August 22, 2014 10:27 AM
To: Keating, Carol
Cc: Chaffin, David (DEP); Ostrowski, Ron; Jennings, Lynne; Metcalf, Jill; Simeone, Robert J CIV USARMY CENAE (US)
Subject: RE: GHA and Impact Area ESD for Oak and Maple Housing Areas (UNCLASSIFIED)

Carol:

Thank you for providing the specific ESD text revisions. The proposed changes are consistent with prior Army responses to EPA comments and therefore are acceptable and have been included in the attached (yellow highlight). We will be providing the additional figures for your review and will then proceed to finalize the ESD.

Bob

From: Keating, Carol [Keating.Carol@epa.gov]
Sent: Wednesday, August 20, 2014 11:32 PM
To: Simeone, Robert J CIV USARMY CENAE (US)
Cc: Chaffin, David (DEP); Ostrowski, Ron; Jennings, Lynne; Metcalf, Jill
Subject: RE: GHA and Impact Area ESD for Oak and Maple Housing Areas (UNCLASSIFIED)

Bob,
EPA has reviewed the Army's August 14, 2014, response to EPA comments and associated, proposed ESD revisions. After discussing the Army's submittal with Lynne Jennings (Chief, Federal Facilities Superfund Section) and Jill Metcalf (Attorney, Office of Regional Counsel), EPA's previously-stated position with regards to these issues, remains unchanged. Given the fact that draft ESD was issued over a year ago and that the same comments/issues are still being debated, if the Army determines it cannot accept the proposed text changes (highlighted below), these issues will be elevated to EPA OSRR management for subsequent discussion and resolution.

Specifically, EPA requests that the following changes be incorporated into the above-referenced document (in the specific sections/paragraphs identified and associated Tables (i.e., Table 4.2) and other attachments, as/if warranted:
1. Section 4.0, Description of Significant Differences, 3) - For reasons previously discussed, the ESD must be revised, throughout, to indicate that MEC construction support will be provided during any intrusive activity performed in the Oak and Maple Housing Areas, including, but not limited to, the disturbance and/or excavation of soils, demolition and removal of slabs, and removal of road asphalt.... and is irrespective of pre- or post- construction phases of development and the site being "built out" and/or "fully functional (and shall be performed in addition to (or in conjunction with) other recommended LUCs)." Unfortunately, while the Army's initial response appears to concur with EPA's request by inserting "any intrusive activity" after "MEC construction support," a closer examination of revised Section 4 text, reveals that further amendment of text is warranted to fully clarify and resolve this issue.
Specifically, EPA requests that paragraph 3 (in its entirety) be amended to state: "***Future MEC construction support for all intrusive activities where construction support has not previously been conducted. MEC***

Construction Support will be provided for all intrusive activities (i.e., whenever an activity involves the disturbance and/or excavation of soils) in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements, and will be performed in conjunction with the Devens Soil Management Policy, and the Devens UXO training required for all Devens and contractor personnel who perform intrusive work, as noted in the Grant LUCs (GR-2) described in the Grant Housing Area and 37-mm Impact Area ROD (Weston, 2009b). The specific methods and procedures for MEC construction support will be detailed in the LUCIP Addendum for the Oak and Maple Housing Areas (and any subsequent workplans related thereto)."

2) Section 4.0, Description of Significant Differences, 4) - As stated in Section 3.0 of the ESD, "The FFS Addendum further indicated that the RAO for Oak and Maple Housing Areas was teh same as the Grant Housing Area and 37 mm Impact Area (Prevent direct contact with UXO/MEC , which may remain in soils)... The LUC requirement would be incorporated into the 2009 ROD... through an ESD because the Oak and Maple Housing Areas were located withint he firing fan (IA-2)." In addition, the additional LUC requirements (above what was required for Grant) were deemed necessary "to address differences in potential risks resulting from a different level of clearance and to specifically address potential UXO hazards associated with future use of these areas as commercial redevelopment sites." As stated in EPA's March 14, 2013 concurrence letter on the FFS Addendum (and reiterated in EPA's August 12, 2013, comments on the June 2013, draft ESD), the prohibition on residential use restriction was considered a necessary, additional LUC since the UXO clearance effort withing the Oak and Maple HAs did not cover the entire property and not because of the "reasonably anticipated future use" as purported by the Army.

Based on the above, EPA requested that the ESD be revised to more clearly reflect the intent of the LUCs, as described above. Unfortunately, the Army disagreed and did not amend the ESD, as requested. Paragraph 4 must be amended to state, "***Inclusion of prohibition of residential reuse: a prohibition of residential reuse would be enforced through a deed notice that will restrict usage of the Oak and Maple areas. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or MEC that may still be present in these areas. The restriction would be included in all subsequent transfers of the property***."

3) EPA requested that a figure, inclusive of all items identiifed in EPA's June 27, 2014 (and August 8, 2014) comments, be included in the ESD. Although the Army agreed to incorporate "figures from the RHE MEC RI Report", EPA requests an opportunity to review these figures prior to the Army's issuance of the final, signature-ready ESD.

Please feel free to call me with any questions or concerns in regards to the above. I look forward to discussing (and resolving) these issues with you at your earliest convenience.

Carol A. Keating
Remedial Project Manager
Office of Site Remediation and Restoration
Federal Facilities Superfund Section

From: Simeone, Robert J CIV USARMY CENAE (US) <robert.j.simeone.civ@mail.mil>
Sent: Thursday, August 14, 2014 12:14 PM
To: Keating, Carol
Cc: Chaffin, David (DEP); Ostrowski, Ron; Simeone, Robert J CIV USARMY CENAE (US)
Subject: FW: GHA and Impact Area ESD for Oak and Maple Housing Areas (UNCLASSIFIED)
Classification: UNCLASSIFIED
Caveats: NONE
Carol,

Please take a look at the attached ESD revisions along with my comments below.
Thanks,
Bob
Robert J. Simeone
Department of the Army
Base Realignment and Closure Division
U.S. Army Garrison Fort Devens
30 Quebec Street, Unit 100
Devens, MA 01434-4479
Office: 978-796-2205
Email: robert.j.simeone.civ@mail.mil
-----Original Message-----
From: Keating, Carol [mailto:Keating.Carol@epa.gov]
Sent: Friday, August 08, 2014 3:58 PM
To: Simeone, Robert J CIV USARMY CENAE (US); LaValle, Stephen T MAJ NAE; Dacyk, Pete
Cc: Ostrowski, Ron; Chaffin, David (DEP); Malewicz, Anne (DEP); Jennings, Lynne; Metcalf, Jill
Subject: GHA and Impact Area ESD for Oak and Maple Housing Areas
Bob,
As you are aware, last week EPA requested that the Army refrain from issuing the final (signed) version of the above-referenced document until EPA staff could fully evaluate the Army's July 23, 2014 responses to EPA comments on the draft final ESD. Based on feedback recently received from both legal and technical team members, EPA is unable to concur with the Army's responses (and revised "Final" ESD) for reasons previously identified and outlined, once again, below:
EPA COMMENT:
*

Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "Construction Support DuringAny Intrusive Activities"

While the Army continues to rely on the "low" probability of encountering MEC as the basis for "softening" the more restrictive LUCs detailed in the Final FFS Addendum, EPA remains concerned about the potential presence of MEC remaining in the former Oak and Maple Housing Areas and use of the areas for commercial/industrial purposes. For reasons previously discussed (and to ensure consistency with the LUC requirements outlined in the Final FFS Addendum), the ESD must be revised,throughout, to indicate that MEC construction support will be provided during any intrusive activities performed in the Oak and Maple Housing Areas, including, but not limited to, the disturbance and/or excavation of soils, demolition and removal of slabs, and removal of road asphalt.
ARMY COMMENT:
THE INTENT WAS NOT TO SOFTEN THE LUCs. THE ESD PROVIDES FOR CONSTRUCTION SUPPORT BY STATING IN SECTION 4 2ND PARA. "future construction support for all intrusive activities"
PLEASE SEE ATTACHED FOR PROPOSED REVISIONS TO SECTION 4 FOR ADDITIONAL CLARITY ON MEC CONSTRUCTION SUPPORT AND ON MEC CLEARANCE REQUIREMENTS RELATED TO THE
ROADS/SLABS AND EXCAVATIONS > 4FT.
EPA COMMENT:

Please note that this requirement (1) is irrespective of pre- or post-construction phases of development, (2) is unrelated to the site being "built out" and/or "fully functional", and (3) shall be performed in addition to (or in conjunction with) the other recommended LUCs (i.e. public education (i.e. live information sessions, web-based visual and audio media, etc.), MEC physical preview of proposed construction footprint, and the requirement for pre-construction survey or clearance, etc.).

ARMY COMMENT:

I BELIEVE THE ATTACHED REVISIONS ADDRESS THIS COMMENT.

EPA COMMENT:

As you are aware, the LUCs for the Oak and Maple Housing Areas were intended to be more stringent than those required in the Grant ROD to address the differences between the level of UXO clearance within the Oak and Maple areas (14 of 27 acres covered using two different (analog and digital) geophysical mapping technologies with no geophysical prove out area (GPOA)), as compared to Grant (100% coverage using the best available MEC investigation technology (digital, EM-61) with recommended QA/QC procedures (i.e., GPOA) to support survey results). EPA's concerns with regards to the reliability and use of different geophysical mapping techniques date back to 2004, when EPA stated that it would not sign off on residential development at the former Grant Housing Area "unless a digital geophysical survey, using the best available technology, was conducted at the site to reduce any remaining hazards". It should come as no surprise, therefore, that EPA considers digital geophysical mapping (DGM) techniques to be far more superior in locating buried UXO and other MEC items, and thus capable of producing a higher "level" of results (i.e., clearance) as compared to analog mapping techniques.

ARMY COMMENT:

AS INDICATED IN PRIOR ARMY'S RTCs, THE MEC SURVEY AT OAK/MAPLE WAS NOT INFERIOR TO THE SURVEY MEANS AND METHODS PERFORMED AT GRANT HA.

THE FACT THAT ANALOG METHODS WERE REQUIRED IS SOME AREAS BASED ON SITE CONDITION (WITHIN AREAS LEAST LIKELY TO BE DEVELOPED) IS NOT REASON TO CONCLUDE THAT THE OAK/MAPLE SURVEY WAS LESS RELIABLE (IT IS ALSO NOTED THAT THE ONLY 37MM UXO FOUND AT THE SITE WAS DETECTED BY THIS METHOD).

AREAS ON THE GRANT PROPERTY PERIPHERY WERE NOT SURVEYED DUE TO ACCESS (IN ADDITION TO AREAS UNDER THE NUMEROUS ROADS AND UTILITIES) THUS DEMONSTATING THAT 100% COVERAGE WAS NOT ACHIEVED AT GRANT.

THE GVS PROCESS USED AT OAK/MAPLE IS AN ADEQUATE SUBSTITUTE FOR GPO PLOTS AND IS IN FACT A MORE RIGOROUS VERIFICATION PROCESS

EPA COMMENT:

In addition, although EPA had discussed the possible use of Army Corps of Engineers (ACE) "Standby Support" procedures for MEC construction support activities (as well as EPA/MassDEP's consideration of the Army's position that the probability for encountering MEC is "low"), it was agreed that the Army must first complete the pre-construction, surface clearance of grids not previously cleared before a final decision could be rendered in regards to either item.

ARMY COMMENT:

THE ATTACHED ESD REVISIONS STATE THAT ARMY WILL PERFORM ALL SPECIFIED PRE-CONSTRUCTION MEC CLEARANCE AND FUTURE MEC CONSTRUCTION SUPPORT INCLUDING

UNDER ROADS, SLABS ETC. THE LUCIP AND SUBSEQUENT IMPLMENTATION WORK PLANS

WILL FURTHER SPECIFY THESE ACTIVITIES. NOT AWARE OF ANY 'AGREEMENTS' AS REFERRED TO IN THE COMMENT.
EPA COMMENT:
*

Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "Public Education - Distribution of education materials, live information sessions, web-based visual and audio media, and signage(at site)"
The Army's recent response to comments indicates that "The need for signage (in addition to the Impact Area signs) was not carried forward into the draft ESD language and was not discussed by the BCT as a necessary LUC requirement at the Oak/Maple HAs." While this may have originally been the case, upon further review and consideration of the issue (as first raised by MassDEP), EPA believes that the placement of signage (at the site) is a necessary and critical component of the LUCs, as originally identified in Section 4.1.2 of the aforementioned Final FFS Addendum. The placement of a sign, warning potential visitors and/or tresspassers (as well as the "less-informed" construction worker) of the potential presence of MEC, will help raise awareness of potential site-related hazards and ensure both short- and long-term management and reduction of explosives-related risk in the former housing areas.
ARMY WILL INCLUDE SIGNAGE AS LUC REQUIREMENT IN THE ESD. PPLEASE SEE ATTACHED REVISIONS.
EPA COMMENT:
* Oak and Maple Housing Areas Alternative 2 (OM-2) LUC- "Deed Restrictions (including prohibition of residential use of site)"
For reasons discussed in EPA's March 15, 2013 concurrence letter on the FFS Addendum, August 12, 2013 comments on the draft ESD, and June 27, 2014 comments on the draft final ESD, the document must be revised to more clearly reflect the intended purpose of the LUC, as specified in the Final FFS Addendum. Specifically, the prohibition on residential reuse for the Oak and Maple Housing Areas is warranted based on limitations associated with the UXO/MEC investigation and clearance effort (<100%) performed in these areas and potential human health risk and explosive safety hazards associated with UXO or MEC that may still be present (and of even greater concern given the historic "cut and fill" activities performed at both locations and the associated uncertainties regarding the existence of MEC items at depth). Although the level of MEC investigation effort at the former Oak and Maple Housing Areas is more consistent with that required for a "lower" reuse (i.e. commercial versus residential), the LUC (residential restriction) was necessitated by the potential presence of UXO/MEC remaining in these areas and is unrelated to current zoning requirements.
ARMY RESPONSE:
SECTION 3 OF THE ESD ALREADY STATES THAT:
"The Oak and Maple Housing Areas also have additional LUC requirements, above what the ROD prescribed for the Grant Housing
Area, to address differences in potential risks resulting from a different level of clearance and to specifically address potential UXO hazards associated with the future use of these areas as commercial redevelopment sites. Because the sites differ in their intended future use and levels of UXO clearance, the 2009 ROD remedy (i.e., LUCs) can be applied to the Oak and Maple Housing Areas provided additional LUC provisions are added, as specified

in Section 4.0."
FURTHER EMPHASIS IN THE ESD IN UNNECESSARY SINCE THE REASON FOR THE LUC DEED RESTRICTION IS IMPLIED BY THE REMEDY. EMPHASIS ON A SPECIFIC TECHNICAL ELEMENT TO JUSTIFY THE LUC IS ALSO UNNECESSARY.
THE REASON FOR THE LUC IS BASED ON FACT THAT THE RI, MEC HA AND THE RESULTING SELECTED REMEDY WERE ALL BASED ON THE REASONABLE FORESEEABLE LAND USE AS COMMERCIAL AND NOT BASED ON THE LOGIC THAT BECAUSE THE SITE WAS ONLY SURVEYED
@ XX% A RESIDENTIAL RESTRICTION IS NEEDED. THE LOGIC OF WORKING BACKWARDS FROM THE DIFFERENT LEVELS OF CLEARANCE TO A JUSTIFICATION FOR DEED RESTRICTION IS NOT RECOMMENDED. AS NOTED PREVIOUSLY, GRANT HA WAS ALSO NOT SURVEYED AT 100% AND THE IMPLIED PREMISE IS THAT ONLY A SITE WITH 100% CLEARANCE CAN BE ALLOWED FOR RESIDENTIAL DEVELOPMENT IS NOT ABSOLUTE I.E, MANY SITE FACTORS WILL ULTIMATELY DETERMINE THIS WITH SITE LAND USE BEING THE MOST CRITICAL.
EPA COMMENT:
* Comment #10 - While EPA acknowledges the Army's presentation of "the lateral extent of the Grant and Oak/Maple HAs" in Figure 1.2, it remains convinced that the ESD should also contain a figure that includes the items requested in EPA's June 27, 2014 comments. Specifically, a new (or revised) figure, similar to Figure 3.1 in the 2012, MEC RI (for Oak and Maple), must be included that shows (1) the area (acreage) of the Grant/former 37 mm Impact Areas and the area (acreage) of the former Oak and Maple housing areas, and (2) demarcation of the lateral and vertical extent of UXO/MEC clearance in each area (as well as those areas where there is no or limited clearance). Members of the community (and other interested parties) should not have to locate and review "various historical reports" and other documents to discern the lateral and vertical extent of UXO/MEC clearance performed (or not performed) in each area. Figure 3.1, or another similar figure, could easily be amended to include the requested information.
ARMY RESPONSE:
FIGURES FROM RHE MEC RI REPORT WILL BE INCORPORATED INTO THE ESD TO ADDRESS THIS COMMENT.
Please feel free to contact me with questions or concerns in regards to the above.
Carol A. Keating
Remedial Project Manager
Office of Site Remediation and Restoration
Federal Facilities Superfund Section
(617) 918-1393
Carol A. Keating
Remedial Project Manager
Office of Site Remediation and Restoration
Federal Facilities Superfund Section
Classification: UNCLASSIFIED
Caveats: NONE

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCES

The Army proposes incorporating the Oak and Maple Housing Areas site within the 2009 ROD for the Grant Housing Area and 37-mm Impact Area site via this ESD. The Oak and Maple Housing areas are similar to the Grant Housing Area based on the low probability of encountering UXO at each site. Therefore, the preparation of this ESD is necessary to detail the LUC remedy required for the Oak and Maple Housing Area. Upon approval of this ESD, the Land Use Control Implementation Plan (LUCIP) for Grant Housing Area will be amended to incorporate Oak and Maple Housing Areas.

The additions to the 2009 ROD selected remedy, for application to the Oak and Maple Housing Areas, consist of inclusion of (1) pre-construction clearance of selected grids at the Oak Housing Area, (2) a MEC physical preview of any proposed construction footprint, (3) future MEC construction support for all intrusive activities in areas where construction support has not previously been conducted, ~~and~~ (4) the inclusion of a deed notice for the prohibition of residential reuse within the LUCs and (5) LUC affirmative measures for public education.

Additional details on the LUCs specific to the Oak and Maple Housing Areas are detailed below.

1) Pre-construction clearance of selected grids: ten un-surveyed grids within Sub-Area 2, as identified in the MEC RI report (HGL, 2012) were not cleared during the 2010/2011 remedial investigation. Prior to beginning any site redevelopment activities, accessible areas within these grids will be cleared following procedures detailed in the SI work plan (HGL, 2010). ~~Areas under roads and slabs not cleared during the 2010/2011 remedial investigation will be cleared for MEC once redevelopment construction begins. MEC clearance under the roads and slabs will be conducted during MEC construction support activities.~~

2) MEC physical preview of any proposed construction footprint: the entire proposed construction area would be previewed by physically walking and performing a visual inspection of the area to ensure no MEC is present.

3) "Future MEC construction support for all intrusive activities where construction support has not previously been conducted. MEC Construction Support will be provided for all intrusive activities (i.e., whenever an activity involves the disturbance and/or excavation of soils) in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements, and will be performed in conjunction with the Devens Soil Management Policy, and the Devens UXO training required for all Devens and contractor personnel who perform intrusive work, as noted in the Grant LUCs (GR-2) described in the Grant Housing Area and 37-mm Impact Area ROD (Weston, 2009b). The specific methods and procedures for MEC construction support will be detailed in the LUCIP Addendum for the Oak and Maple Housing Areas (and any subsequent workplans related thereto)."

~~2)~~

~~Future construction support once development commences in areas where construction support has not previously been conducted: MEC Construction Support to be provided in accordance with an approved LUCIP (and any subsequent work plans), prepared in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements, as described in Table 4.1.. Once the property is fully functional for a commercial use (innovative and technical business), construction support will continue to be provided based on a case-by-case basis, in addition to following the Devens Soil Management Policy, and the Devens UXO training required for all Devens and contractor personnel who perform intrusive work, as noted in the Grant LUCs (GR-2) described in the Grant Housing Area and 37-mm Impact Area ROD (Weston, 2009b).~~

4) Inclusion of prohibition of residential reuse: a prohibition of residential reuse would be enforced through a deed notice that will restrict usage of the Oak and Maple areas. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or MEC that may still be present in these areas. The restriction would be included in all subsequent transfers of the property. ~~Inclusion of prohibition of residential reuse: a prohibition of residential reuse would be enforced through a deed notice that will restrict usage of the Oak and Maple areas. The prohibition on residential reuse is based on the reasonably anticipated future land use assumptions (i.e., commercial) that resulted in a remedy decision under the CERCLA that requires LUCs to ensure that future activity remains consistent with the reasonably anticipated future use.. The restriction would be included in all subsequent transfers of the property.~~

~~1)~~5)Public Education through the distribution of educational materials, live information sessions, web-based visual and audio media, and signage (at site).

The ~~four~~five LUCs specific for ~~to~~ the Oak and Maple Housing Areas, along with the existing LUCs for ~~shared with~~ the Grant Housing Area, will allow the RAO to be met and ensure the protection of public health and welfare.

Email Chain Summary of additional comment on Draft-Final ESD

To	From	Date	Comment
R. Simeone	C. Keating	9/24/2014	Subparagraph 4) Inclusion of prohibition of residential reuse: "a prohibition of residential reuse would be enforced through a deed notice that will restrict residential usage of the Oak and Maple areas. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or MEC that may still be present in these areas. The restriction would be included in all subsequent transfers of the property from the current owner."
C. Keating	R. Simeone	9/24/2014	Can you identify exactly where these changes need to be made...the italic text does not show in our email only plain text so just want to be sure. Once I make those changes I'll need to get it back to Sovereign so they can prep the final PDF copy for me to sign. Hopefully, I can get into FEDEX by tomorrow or Friday.
R. Simeone	C. Keating	9/24/2014	Page 8, Section 4.0, Paragraph 3 - Please insert the words "residential" and "from the current owner" (that appeared in italics in yesterday's email) into the actual text.
C. Keating	R. Simeone	9/23/2014	Regarding my comment on the deed notice....I'm not disputing use of a deed notice but pointing out that a deed provision/ covenant already exists in the MassDev deed that will cover the ROD/ESD ICs (i.e., to ensure they run w/land and that they are enforceable) and that a deed notice, while providing valuable information (i.e., an information device), is not enforceable.
R. Simeone	C. Keating	9/22/2014	Comments from Jill Metcaf (EPA) on 9/22/2014; Page 8, Section 3.0, Last Sentence: Change "Because" to "Although..." It doesn't make sense as written. CHANGED Page 8, Section 4.0, Paragraph 3, Sub paragraph 1), second sentence: "...Prior to beginning any site redevelopment activities, accessible areas within these grids will be cleared." Please define "accessible". EPA requests that the last sentence be revised to read, "Prior to beginning any site redevelopment activities, accessible areas and any areas under roads and slabs will be cleared.." "ACCESSIBLE" DELETED THE LANGUAGE FOR CLEARANCE UNDER SLABS/ROADS WAS PREVIOUSLY DELETED BASED ON PRIOR EPA TEXT CHANGES. THIS IS BECAUSE MEC CONSTRUCTION SUPPORT WILL INCLUDE "ALL INTRUSIVE ACTIVITIES". THE GRID CLEARANCE IS NOT NECESSARILY TIED TO CONTRUCTION (ALTHOUGH WE MAY PERFORM THIS WORK AROUND THE SAME TIME AS

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			ANY SLAB/ROAD REMOVAL TO BE EFFICIENT). Page 8, Section 4.0, Paragraph 3, Sub paragraph 4): The requested changes have been made. However, as a point of clarification (in response to Army's comment), a prohibition of residential reuse would be enforced through a deed notice that will restrict residential usage of the Oak and Maple areas. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or MEC that may still be present in these areas. The restriction would be included in all subsequent transfers of the property from the current owner. As a general comment on the necessity of a deed notice, this property should have at least as robust a deed instrument restricting residential usage as the Deed Notice the Grant ROD provides for the areas in which residential use is permitted. The deed notice in the ROD informs subsequent purchasers of Grant proper property of UXO investigations and removal actions, and the conclusion that the property with the notice is suitable for the proposed future use, but that the possibility does remain that UXO could be discovered in the future. Mass Development must insert the Deed Notice into any deed in which it conveys property located in the Grant Housing Areas. This property (Oak and Maple) is not deemed suitable for residential use because of the issues noted in this ESD. The ESD is possible only because there is the pre-existing Grant ROD. The ESD should require the same deed notice language used in the Grant ROD in any subsequent transfer by the present owner of affected property, although because of the current facts in the ESD, the restriction of residential use must also be part of the notice and included upon any subsequent transfers. Below is the Remedy section from the Grant Housing Area ROD addressing the Deed Notice required as part of the remedy: 2.14 SELECTED REMEDY - 2.14.1 Alternative GR-2 - Land Use Controls Alternative GR-2 - LUC consists of Public/Contractor Awareness training through: • Affirmative measures to include public education via ongoing periodic distribution of educational materials and development of a web-based visual and audio media. Education and outreach materials will be

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			distributed to property owners, residents, as well as any construction and/or utility contractors conducting ground intrusive activities on the property. The intent is to provide education to current residents, including tenants and owners, potential residents, the public, and construction/utility contractors of the potential presence of UXO, how to identify UXO, and what actions to take if suspect UXO is encountered. • Deed Notice: MassDevelopment will insert a Deed Notice into any deeds in which MassDevelopment conveys property located in the Grant HA. • Then all subsequent deeds conveying property (no matter who conveys) will be required to convey in full the Deed Notice. The notice will provide a source of additional information on UXO investigations and removal actions conducted at the Grant HA, the conclusion of the ROD that the property with the LUCs is suitable for the proposed future use, that there is no evidence of additional UXO present at the site, but that the possibility does remain that UXO could be discovered in the future. ." Page 10, Section 5.0 - Please amend the discussion to include reference to EPA's August and September comments. CHANGED
C. Keating, David Chaffin, and Ron Ostrowski	R. Simeone	9/9/2014	Attached are ESD files were revised for your review (Table 4.1 and Figures 1.1 and 3.1 did not require revision). The ESD text is in RLSO based upon the RLSO Section 4.0 text changes provided by EPA (below). Figure 1.2 was revised to show acreage of the site areas and acreage of areas actually cleared at both the Grant Housing Area and Oak and Maple Housing Areas (1996/2010/2011 Clearance/Investigation) and depths of clearance. The revisions of Figure 1.2 were made to address USEPA comment (below). Table 4.2 was additionally revised to be consistent with ESD text changes. Also, please note that the LUC involving a prohibition of residential reuse enforced through a deed notice is not actually enforceable (i.e., a deed notice not enforceable vs an actual deed provision that restricts certain uses is enforceable). Obviously, if the property were not already transferred the Army would specify any restrictions directly in the deed. However, this is not an issue since all Devens deeds have the following provision: 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 any

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			FOST, or Record of Decision ("ROD") or amendments thereto, related to the Property, which ROD shall be approved by the Grantor and EPA and issued by the Grantor pursuant to CERCLA or the FFA before or after the date of this deed. 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. Therefore, the deed notice (or the Grant HA amended deed notice that adds all relevant Oak/Maple information) will provide the added value of summarizing site conditions and relevant documents and stating that such property use restrictions are in place IAW the deed provisions (i.e., that property use must comply with the ROD LUCs). Any future enforcement would be through this deed provision and not necessarily through the deed notice.