ADDENDUM TO THE FEASIBILITY STUDY: FINAL INSTITUTIONAL ANALYSIS

Site-Wide Remedial Investigation/Feasibility Study Spring Valley Formerly Used Defense Site (SVFUDS) Washington, D.C.

Contract: W912DR-09-D-0061, Delivery Order 0011 DERP FUDS MMRP/CWM Project No. C03DC091801 and HTRW Project No. C03DC091802

Prepared for:

U.S. Army Corps of Engineers Baltimore District



US Army Corps of Engineers. BUILDING STRONG.

September 14, 2016



September 14, 2016

Attn: Dan Noble CENAB-EN-HN 10 S. Howard Street Baltimore, MD 21201-1715

Dear Mr. Noble,

ERT, Inc. is pleased to present the Final Institutional Analysis for the Spring Valley FUDS Integrated Site-Wide Remedial Investigation/Feasibility Study, Washington, DC. This report is submitted under Contract W912DR-09-D-0061, Delivery Order 0011. It incorporates comments from the USEPA, DOEE, RAB TAPP, and Washington Aqueduct, on the May 13, 2016 Draft-Final version of the document.

Please do not hesitate to call me at 301-323-1392 if you need anything more.

Sincerely,

Maya E. Werner

Maya E. Werner Deputy Project Manager

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> Prepared for: U.S. Army Corps of Engineers Baltimore District

> > Prepared by: ERT, Inc. Laurel, Maryland 20707 (301) 361-0620

Maya E. Werner

Maya Werner Deputy Project Manager

Jennifer Harlan, PMP Program Manager

09/14/16 Date

04/07/16

Date

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COMPLETION OF SENIOR TECHNICAL REVIEW

This document has been produced within the framework of the ERT, Inc. (ERT) quality management system. As such, a senior technical review has been conducted. This included review of all elements addressed within the document, proposed or utilized technologies and alternatives and their applications with respect to project objectives and framework of U.S. Army Corps of Engineers regulatory constraints under the current project, within which this work has been completed.

ONIC SIGNATURE

04/04/16

Thomas Bachovchin, PG Senior Technical Reviewer Date

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

This document has been produced within the framework of ERT's quality management system. As such, an independent technical review, appropriate to the level of risk and complexity inherent in the project, has been conducted. This included a review of assumptions; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the project objectives. Comments and concerns resulting from review of the document have been addressed and corrected as necessary.

Jennifer Harlan, PMP

Jennifer Harlan, PMP Independent Technical Reviewer

04/07/16

Date

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Abbreviation	Definition
AU	American University
AUES	American University Experiment Station
CA	Cooperative Agreement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
D.C.	District of Columbia
DCRA	Department of Consumer and Regulatory Affairs
DDOE	District of Columbia Department of the Environment
DERP	Defense Environmental Restoration Program
DID	Data Item Description
DMM	Discarded Military Munitions
DoD	Department of the Defense
DOEE	District of Columbia Department of Energy and Environment
DDMOA	Defense/District Memorandum of Agreement
DDOT	District Department of Transportation
DPW	Department of Public Works
EP	Engineering Pamphlet
ERT	ERT, Inc.
FS	Feasibility Study
FUDS	Formerly Used Defense Site
IA	Institutional Analysis
IC	Institutional Control
LUC	land use control
MC	munitions constituents
MEC	munitions and explosives of concern
MMRP	Military Munitions Response Program
NCP	National Contingency Plan
NPS	National Park Service
RI	Remedial Investigation
RAO	Remedial Action Objective
SARA	Superfund Amendments and Reauthorization Act
SVFUDS	Spring Valley Formerly Used Defense Site
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
UXO	unexploded ordnance

ACRONYMS and ABBREVIATIONS

GLOSSARY OF TERMS

Defense Site – All locations that are or were owned by, leased to, or otherwise possessed or used by the Department of Defense (DoD). The term does not include any operational range, operating storage or manufacturing facility, or facility that is used or was permitted for the treatment or disposal of military munitions.

Explosive Hazard – A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.

Explosive Ordnance Disposal – The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance (UXO) and of other munitions that have become an imposing danger, for example, by damage or deterioration.

Explosives Safety - A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of potential mishaps involving military munitions.

Munitions and Explosives of Concern (MEC) – This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means (A) UXO, as defined in 10 United States Code (U.S.C.) 101(e)(5); (B) discarded military munitions (DMM), as defined in 10 U.S.C. 2710(e)(2); or (C) munitions constituents (MC), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

Munitions Response – Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by UXO, DMM, or MC, or to support a determination that no removal or remedial action is required.

Munitions Response Site – A discrete location within a munitions response area that is known to require a munitions response.

Unexploded Ordnance (UXO) – Military munitions that (A) have been primed, fuzed, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (C) remain unexploded whether by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5)(A) through (C)).

1.0 INTRODUCTION

This Institutional Analysis (IA) was prepared by ERT, Inc. (ERT), for the U.S. Army Corps of Engineers (USACE), as an Addendum to the U.S. Army Military Munitions Response Program (MMRP) Feasibility Study (FS) for the Spring Valley Formerly Used Defense Site (SVFUDS), located in Washington, District of Columbia (D.C.).

This IA has been prepared in accordance with the *MMRP Remedial Investigation/Feasibility Study Guidance* (U.S. Army, 2009), Engineer Pamphlet (EP) 1110-1-24 (USACE, 2000), the U.S. Environmental Protection Agency (USEPA) guidance EPA-540-R-09-001 *Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites* (USEPA, 2012), and Data Item Description (DID) MR-100 *Institutional Analysis and Institutional Control Plan* (DID, 2003). This document is an addendum to the Final FS (USACE, 2016); please refer to the FS for additional background information and detail on the Remedial Action Objective (RAO) process.

The objectives of the IA are to illustrate the opportunities that exist to implement a land use control (LUC) program at the SVFUDS; identify property owners and government agencies having jurisdiction over the site; and assess the appropriateness, capability and willingness of property owners and government agencies to assert their control over the site.

This IA documents and assesses institutional authority, jurisdiction, and desire to participate in implementing education and awareness initiatives within the SVFUDS to achieve the RAO. For this IA, the term RAO is used to refer only to the SVFUDS RAO that includes a LUC program objective of education and awareness initiatives in all areas of the SVFUDS. Education and awareness initiatives may include community-wide mailings of educational material such as understanding the 3 'R's (recognize, retreat, and report) with regard to areas where potential munitions may be encountered. The RAO is as follows:

Reduce the probability of residents, workers, and visitors handling munitions and explosives of concern (MEC) encountered during residential or construction activities conducted within SVFUDS Munitions Response Site 01 (MRS 01), through education and awareness initiatives (in addition to the focus areas [within MRS 01], these initiatives will be applied to all areas of the SVFUDS to address the possibility that MEC could be relocated or, less likely, found there).

The response alternatives to achieve this RAO for the entire SVFUDS were limited to institutional controls (ICs), which cover education and awareness initiatives, as direct action response alternatives are not practical. Note that the FS includes a separate RAO for focus areas of the SVFUDS where more direct remedial action alternatives were applied.

1.1 Overview

Typical strategies for addressing the presence of MEC are physical removals and LUCs. Physical removal actions are conducted to reduce the amount of MEC at a site. However, in a practical sense, current technologies do not provide for detection and removal of 100 percent of all MEC, especially in suburban environments. Due to technical and practical limitations with the technology, investigation methods, and extensive suburban development of the area which interferes with investigation and remedial tools, it cannot be stated with 100 percent confidence, even after remedial action is complete in MRS 01, that there is no MEC present in the subsurface within the SVFUDS. Therefore, LUCs are implemented to manage the residual hazard of MEC that could remain at the site. LUCs may be implemented without a physical removal action.

Property owners provide critical input into the development of a viable LUC program for a site effecting their property. If a LUC program is selected for a site not under the control of the DoD, as is the case for the SVFUDS, it is typically the property owners and/or appropriate state and local governments that have the authority to maintain compliance with the provisions of the LUCs and maintain the effectiveness of the LUCs.

LUCs consist of various mechanisms used to minimize the potential for hazards to human receptors from a property impacted with MEC or other hazards. LUCs include engineering and physical barriers (e.g., fencing); and non-engineering instruments called ICs. ICs are a subset of LUCs and include educational programs (e.g., public notification of residual MEC concerns), or administrative and legal controls (e.g., zoning restrictions, easements, covenants) that help to minimize the potential for human exposure to MEC. ICs typically are designed to work by limiting land and/or resource use or by providing information that helps guide human behavior at a site to reduce or eliminate the hazard. The LUC program identified in the RAO for the SVFUDS is the educational program IC. As part of this IC program, educational materials could be made available to property owners, including information on the three "R's" of munitions safety (recognize, retreat, and report). These could be made available on the dedicated USACE SVFUDS website in the form of a factsheet, mailed to all property owners within the SVFUDS on a recurring basis, and provided during any public meetings held. USACE already has established communications and outreach mechanisms that could be used to provide educational materials to all institutions and residential/commercial property owners within the SVFUDS.

EP 1110-1-24 (USACE, 2000) states that, "The policy of the USACE is to establish and maintain institutional controls in a manner which fully meet customers' expectations of quality, timeliness, and cost effectiveness within the bounds of legal responsibility." In order to effectively manage potential residual hazards at a MEC site, USACE seeks and encourages stakeholder involvement to identify site-specific objectives for an effective LUC program. At the SVFUDS, USACE has encouraged stakeholder involvement throughout the remedial investigation (RI) process through bimonthly community Restoration Advisory Board meetings and Interagency Partnering meetings in addition to hosting a formal public comment period on the RI Report. This IA documents the further coordination conducted to identify whether and how relevant institutions, particularly those within MRS 01 may support in the LUC program for the SVFUDS to achieve the RAO.

1.2 Purpose and Objectives

The overall purpose of this IA is to provide information on the capability of government agencies and/or non-government entities associated with SVFUDS to take part in the implementation and maintenance of LUCs in order to minimize exposure to MEC. The objectives of this IA are to:

- Identify and document the agencies and entities that have jurisdiction over any impacted areas at the SVFUDS;
- Assess the authority exercised by, capability of, and desire to participate of each agency and entity to assert controls that would protect the community from MEC hazards;
- Document the mission, if any, of each agency and entity to protect the surrounding community from MEC hazards under the law; and
- Document existing LUCs currently in place for the protection of the community from MEC hazards.

Governmental and non-governmental entities that will be required to support the short-term and long-term LUCs for the SVFUDS are identified and described in this IA.

1.3 Hazard Review

During World War I, the U.S. Government established the American University Experiment Station (AUES) to research the testing, production, development and effects of noxious gases, chemical warfare materiel, antidotes and protective masks. Mustard and lewisite agents, adamsite, irritants and smokes were among the chemicals researched and tested. The SVFUDS includes property occupied by the former AUES between 1917 and 1920. The AUES was located on the grounds of the present American University (AU) and used portions of the adjoining properties.

The SVFUDS Site-Wide RI Report (USACE, 2015) identified several areas with potential unacceptable explosive hazards posed by MEC and the FS evaluated alternatives for conducting remedial actions in those focus areas within the SVFUDS (e.g., Function Test Ranges, Static Fire test areas, AU Public Safety Building, Area of Interest 13, and Point of Interest 2 / Fordham Road area). The RAO discussed in this IA addresses all areas of the SVFUDS, not just those focus areas specifically identified with potential unacceptable explosive hazards. The RAO was developed as an acknowledgement that there will always be some potential for encountering MEC primarily in MRS 01 and possibly anywhere within the SVFUDS.

1.4 Regulatory Background

A number of existing statutes and regulations allow for and/or clarify the implementation of LUCs and the performance of an IA. The regulatory authorities governing the establishment and maintenance of LUCs during munitions response actions include:

- National Oil and Hazardous Substances Pollution Contingency Plan (NCP);
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA);
- Defense Environmental Restoration Program (DERP); and
- MMRP.

These statutes and regulations are discussed below.

The NCP (40 Code of Federal Regulations (CFR) Part 300) was established by the Clean Water Act of 1972 and has been revised and broadened several times since then. The purpose of the NCP is to provide the organizational structure and procedures for developing, evaluating, and implementing response actions at a site. The March 1990 revision is the latest version of the NCP. Paragraph 300.120(c) identifies the DoD as the removal response authority with respect to incidents involving DoD military weapons and munitions.

CERCLA (commonly known as Superfund) was enacted in 1980 to provide a legal framework to clean up sites contaminated with hazardous substances. CERCLA was enlarged and reauthorized by the Superfund Amendments and Reauthorization Act (SARA) in 1986. SARA included aspects that directly apply to MEC-contaminated sites. SARA also included Section 211, the DERP statute. This portion of the statute amended Title 10 of the United States Code (10 U.S.C.) by adding Chapter 160 to Title 10, Environmental Restoration, thus formally establishing the DERP.

The DERP created the authority of the DoD to undertake certain response actions and established the Defense Environmental Restoration Account. One of the goals of the DERP is the correction of environmental damage (such as detection and disposal of munitions and MEC) that creates an imminent and substantial endangerment to public health/welfare or to the environment. The DERP is required to undertake response actions at facilities or sites under the jurisdiction of the DoD and owned by, leased to, or otherwise possessed by the U.S. at the time of the actions leading to contamination. As a matter of DoD policy, munitions responses are conducted in accordance with CERCLA, as amended by the SARA, and the NCP.

The National Defense Authorization Act for fiscal year 2002 (Public Law 107-107) formally amended the DERP by establishing the MMRP. The MMRP is a program element of the DERP for the remediation of property known or suspected to contain MEC. Under the MMRP, the DoD conducts munitions responses per CERCLA, the NCP, and applicable federal and state laws. The DoD considers reasonably anticipated future land use in the design and implementation of response actions and provides, to the fullest extent practicable, the opportunity for meaningful involvement of state and local governments and members of the public in the munitions response process.

1.5 Selection Criteria Methodology

There are five elements that are considered when assessing the ability of a local, county, or state agency, or landowner to assist in the implementation or monitoring of a proposed LUC program. These five elements are:

- Jurisdiction Federal, state, and/or local government agencies may have jurisdiction within the area of a project site. The laws governing the existence of the specific agency will convey this jurisdiction. In some areas, several agencies may be involved, depending on the type of LUC or what specific aspect of a LUC is being contemplated. Private agencies do not usually have any jurisdictional authority.
- Authority Key questions that must be asked regarding the authority exercised by a government agency are listed below. Private agencies usually do not have any enforcement authority other than those provided by normal trespass laws.
 - a. What are the limits of the agency's authority?
 - b. What is the origin of the agency's authority?
 - c. How much control is exercised by the agency?
 - d. Does the agency have enforcement authority?
 - **Mission** The specific mission of the agency is critical to its ability to implement, enforce, or maintain an IC program.
 - **Capability** Even if an agency has the jurisdiction, authority, and mission to be involved in a LUC program, if it does not have the capability, it cannot be an effective partner. In the case of local government agencies, the capabilities may be unique and are often a reflection of the desires of the local community. The capabilities of a government or private agency can be augmented; however, this may require additional funding.

Desire – The desire of a particular government or private agency to participate in a LUC program is absolutely critical to its success. The effectiveness of LUCs is increased when local officials are committed to participation in a LUC program that is in their best interests. Resources in the form of funding for the agency's implementation costs may overcome the initial hesitancy to become involved.

1.6 Institution Selection

The SVFUDS comprises 661 acres in northwest Washington, D.C. This is a largely residential area with local shops and restaurants, surrounded by a cluster of dense apartment buildings and/or townhouses, spreading out into single-family homes. The character of these areas is more suburban in nature, with a greater concentration of cul-de-sacs than anywhere else in the city. Land use in and around the SVFUDS is primarily low-density residential, with smaller portions zoned for commercial use. The campus of American University (AU) is institutional use. The Dalecarlia Woods area owned by the Washington Aqueduct on the western edge of the SVFUDS is zoned as Federal use.

Institutions were selected for this analysis based on their specific mission to protect the public from MEC hazards and/or their jurisdiction and authority over the SVFUDS, where focus areas of potential MEC hazards were identified during the RI. The property owners selected for the analysis are those who are expected to have a long-term presence within the SVFUDS and are set up as institutions which could potentially support long-term implementation of education and awareness LUCs. This IA also selected a few institutions outside the focus areas of potential MEC hazards to obtain a larger understanding of willingness to participate across the SVFUDS. The institutions, including property owners and agencies, in the analysis are:

- District of Columbia Department of Energy and Environment (DOEE)
- USEPA, Region III
- U.S. Army Corps of Engineers
- Washington Aqueduct
- American University
- National Park Service (NPS)
- Sibley Memorial Hospital
- Wesley Theological Seminary

The USACE acknowledges that the approximately 1,200 residential/commercial owners of property within the SVFUDS are an important group of stakeholders. In a practical sense, these stakeholders cannot be treated as single individual institutions in this document. In addition, USACE does not expect these stakeholders to participate in implementation of the education and awareness LUC program; rather, USACE sees this group as recipients of the implemented LUC program. Achieving the RAO for this group of residential/commercial owners will remain a DoD responsibility.

During preparation of the IA, the selected institutions (DOEE; USEPA, Region III; Washington Aqueduct; AU; Sibley Memorial Hospital; and Wesley Theological Seminary) were contacted through a combination of phone interviews and email communication to obtain information on

the capability of government agencies and/or non-government entities associated with SVFUDS to take part in the implementation of education and awareness LUCs in order to minimize exposure to MEC. The complete analysis of the institutions following the methodology detailed in Section 1.5 is provided in Section 2.0.

2.0 TECHNICAL CAPABILITY

Each institution selected for analysis in Section 1.6 and its jurisdiction, authority, and potential role in a LUC program is briefly discussed below and in Tables 2-1 through 2-8. The completed tables were provided to USACE from the institutions for inclusion in this document; the information below represents a summary of responses.

2.1 District of Columbia Department of Energy and Environment

DOEE and its predecessor agencies including the District Department of the Environment (DDOE), District of Columbia Department of Health, and a branch of the Department of Consumer and Regulatory Affairs (DCRA), has been the lead on providing D.C. regulatory oversight for the SVFUDS project. D.C. representatives through DOEE and its predecessors have participated in project Interagency Partnering Meetings since 2001.

The DDOE was established by DC Law 16-51, DC Code §§ 8-151.01 *et seq.* the District Department of the Environment Establishment Act of 2005, which became active on February 15, 2006. The actual transition to DDOE did not occur until May 2006. The Department's name was changed to the DOEE in July 2015. The agency's core responsibilities include, but are not limited to, enforcing environmental regulations; monitoring and assessing environmental risks; developing energy and environmental policies; issuing permits; and providing residents and local businesses with funding, technical assistance, and information on initiatives designed to ensure a more resilient and sustainable city. DOEE provides regulatory oversight for the cleanup of contaminated sites, including the SVFUDS. DOEE has permitting authority for activities that may impact the environment. For the SVFUDS project, DOEE is funded by a Cooperative Agreement (CA) under the Defense / District Memorandum of Agreement (DDMOA) signed in May 1994. It is unknown whether funding through the CA would be available for future awareness activities, as DDMOAs typically provide funding for public education activities in accordance Federal and State requirements for public involvement, but not necessarily to implement a LUC program.

DOEE is willing to support awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted within the SVFUDS. DOEE noted that the agency does not have technical experience with unexploded ordnance (UXO) safety and management, limiting their technical capability to develop educational or awareness materials.

DOEE noted that operational and financial details would need to be worked out and recommended that USACE coordinate with other D.C. agencies which have operational or maintenance responsibilities in Spring Valley. Coordination would be focused on ensuring the agencies are provided with educational and awareness information related to any intrusive activities they perform within the SVFUDS. Basic information for DOEE is summarized in Table 2-1.

Table 2-1. Distri	ct of Columbia Department of Energy and Environment
Name of Agency	District of Columbia Department of Energy and Environment
Origin of Institution	The DDOE was established by DC Law 16-51, DC Code §§ 8-151.01 et
	seq. the District Department of the Environment Establishment Act of
	2005, which became active on February 15, 2006. The actual transition
	to DDOE didn't occur until May 2006. The Department's name was
	changed to the DOEE in July 2015. Previous to its elevation to a full-
	fledged department, DOEE spent the years of 1998 until 2006 as the
	Environmental Health Administration within the Department of Health
	and from 1983 until 1998 it was part of the Housing and Environmental
	Regulation Administration with the DCRA. Before that, the District's
	environmental programs were a hodge-podge of bureaus, divisions,
	sections and other types of programs housed in several Departments. ¹
Basis of Authority	Even though it is a municipality, D.C. is considered a state by the
	USEPA and, as such, it is responsible for enforcing a full complement
	of fully authorized and delegated environmental statutes, the most
	applicable ones are listed below.
	1. Hazardous Waste Management Act of 1977, effective March
	16, 1978 (D.C. Official Code §§ 8-1301 to 8-1322)
	2. Pesticide Operations Act of 1977, effective April 18, 1978
	(D.C. Law 2-70; D.C. Official Code §§ 8-401 <i>et seq.</i>)
	3. Underground Storage Tank Management Act of 1990, effective
	March 8, 1991 (D.C. Law 8-242; D.C. Official Code §§ 8-
	113.01 et seq.)
	4. Water Pollution Control Act of 1984, effective March 16, 1985
	(D.C. Law 5-188; D.C. Official Code §§ 8-103.01 et seq.)
	5. Brownfields Revitalization Amendment Act of 2010, effective
	April 8, 2011 (D.C. Law 18-369; D.C. Official Code §§ 8-631
	et seq.)
	6. Lead-Hazard Prevention and Elimination Act of 2008, effective
	March 31, 2009 (D.C. Law 17-381; D.C. Official Code §§ 8-
	231.01 et seq.)
	7. Department of Consumer and Regulatory Affairs Civil
	Infractions Act of 1985, effective October 5, 1985 (D.C. Law
	6-42; D.C. Official Code § 2-1801.04)
	Several other laws have been enacted, such as the recent bans on the
	use of coal tar and styrofoam and the reduction in the use of plastic
	bags. Except for a few portions of federal laws which are non-
	delegable or for which DOEE has not requested authorization, DOEE
	has full enforcement authority for all of its statutes and carries out an
	aggressive inspectional program under each of its laws. ¹
Sunset Provisions	None. ¹
Geographic Jurisdiction	Washington, D.C. ¹
Mission of the Agency	DOEE's mission is to improve the quality of life for the residents and
	natural inhabitants of the nation's capital by protecting and restoring the
	environment, conserving our natural resources, mitigating pollution,
	increasing access to clean and renewable energy, and educating the
	public on ways to secure a sustainable future. The agency's core responsibilities include, but are not limited to, enforcing environmental regulations; monitoring and assessing environmental risks; developing

Table 2-1. District of Columbia Department of Energy and Environment	
	energy and environmental policies; issuing permits; and providing residents and local businesses with funding, technical assistance, and information on initiatives designed to ensure a more resilient and sustainable city. ²
Public Safety Function:	DOEE provides regulatory oversight for the cleanup of contaminated sites, including the SVFUDS. ¹
Land Use Control Function:	DOEE's LUC function is limited to permitting (environmental permits for construction sites and well permits). ¹ However, permitting is not a part of the LUC program to achieve the RAO for the SVFUDS therefore; DOEE does not provide a direct LUC function.
Financial Capability	DOEE is funded through several sources including District of Columbia "local funds", federal grants, fees and fines. For the SVFUDS project DOEE is funded by a CA under the DDMOA signed in May 1994. It is unknown if this CA would be available for future awareness activities. ¹ DDMOAs typically provide funding for public education activities in accordance Federal and State requirements for public involvement, but not necessarily to implement a LUC program.
Desire to Participate	DOEE is willing to support awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted within the SVFUDS. DOEE recommended that USACE coordinate with other District agencies which have operational or maintenance responsibilities in Spring Valley. ¹ Coordination would be focused on ensuring the agencies are provided with educational and awareness information related to any intrusive activities they perform within the SVFUDS.
Constraints to Institutional Effectiveness	DOEE's ability to support awareness activities to reduce improper handling of MEC would be limited. DOEE does not have technical experience with UXO safety and management. In addition, DOEE is unsure whether funding through the DDMOA would be available for future awareness activities performed to achieve the RAO. Along with financial concerns, DOEE recommended that USACE coordinate with agencies (D.C.'s Department of Public Works (DPW), District Department of Transportation (DDOT) and D.C. Water) that actually conduct intrusive activities in the SVFUDS. DOEE stated that as is usual with any government operation, the simple process of making people [the public and other agencies] aware of the improper handling of MEC can become very complicated. ¹
Sources of Information: ¹ Correspondence with DOEE, ² http://doee.dc.gov/page/about	30 March 2016

² <u>http://doee.dc.gov/page/about-doee</u>

2.2 USEPA Region III

USEPA was established in 1970 as a result of USEPA Order 1110.2 organizing the USEPA. USEPA's authority as it relates to the SVFUDS is through the CERCLA [42 U.S.C. §9601 et seq. (1980)] as amended by SARA [42 U.S.C. 11001 et seq. (1986)]. USEPA has the President's response authority under Section 104 of the statute, and its enforcement authority under Section 106. USEPA recognizes that Section 300.120(d) of the NCP provides that DoD will be the

removal response authority with respect to incidents involving DoD military weapons and munitions or weapons and munitions under the jurisdiction, custody, or control of DoD.

The role of USEPA Region III is to provide federal regulatory oversight for the SVFUDS. USEPA Region III has also participated in project Interagency Partnering Meetings since 2001. USEPA Region III is willing to continue to support activities to achieve the SVFUDS RAO through its oversight function as long as funding is provided to USEPA to continue to do so. The role of the USEPA Region III will be primarily to review reports generated during five-year reviews of established LUCs. While this has not been a hindrance to USEPA participation at SVFUDS in the past, it is possible that in the future resources will not be available for oversight. As the regulator, USEPA Region III has no responsibility for implementing, monitoring, or enforcing LUCs associated with meeting the RAO. Basic information for USEPA Region III is summarized in Table 2-2.

Table 2-2. USEPA Region III		
Name of Agency	USEPA Region III	
Origin of Institution	USEPA was established 1970 as a result of USEPA Order 1110.2 organizing the USEPA. ¹	
Basis of Authority	CERCLA [42 U.S.C. §9601 et seq. (1980)] as amended by SARA [42 U.S.C. 11001 et seq. (1986)].	
	Generally, at a privately owned site such as the properties that make up the Spring Valley Site, USEPA has the President's response authority	
	under Section 104 of the statute, and its enforcement authority under	
	Section 106. USEPA recognizes that Section 300.120(d) of the NCP	
	provides that DoD will be the removal response authority with respect	
	to incidents involving DoD military weapons and munitions or weapons and munitions under the jurisdiction, custody, or control of DoD. ²	
Sunset Provisions	None. ²	
Geographic Jurisdiction	Federal regulatory oversight. ²	
Mission of the Agency	The mission of USEPA is to protect human health and the environment.	
	USEPA's Superfund program is responsible for cleaning up some of the	
	nation's most contaminated land and responding to environmental	
	emergencies, oil spills and natural disasters. To protect public health	
	and the environment, the Superfund program focuses on making a	
	visible and lasting difference in communities, ensuring that people can	
	live and work in healthy, vibrant places. ³	
Public Safety Function:	USEPA provides regulatory oversight for the cleanup of contaminated sites, including the SVFUDS. ²	
Land Use Control	No active role in implementation, maintenance, monitoring, or	
Function:	enforcement of LUCs in the SVFUDS. Will provide regulatory review	
	of reports of 5-year reviews for the SVFUDS. ²	
Financial Capability	Federally Funded ²	
Desire to Participate	USEPA, Region III is willing to support awareness activities that would	
	reduce the probability of residents, contractor/maintenance workers,	
	and visitors/passers-by from handling MEC encountered during	
	residential or construction/maintenance activities conducted within the SVFUDS. $^{\rm 2}$	
Constraints to Institutional	Oversight only; has no responsibility for implementing, maintaining,	
Effectiveness	monitoring, and enforcing LUCs associated with meeting the RAO to	

Table 2-2. USEPA Region III	
	reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted within the SVFUDS. Since the SVFUDS site is a Non-National Priorities List site USEPA is not funded for this site. While this has not been a hindrance to USEPA participation at SVFUDS in the past, it is possible that in the future resources will not be available for oversight. ²
Sources of Information:	
¹ <u>http://www.epa.gov/aboutepa/origins-epa</u>	
² Correspondence with USEPA Region III, 24 March 2016	

³ http://www.epa.gov/aboutepa/our-mission-and-what-we-do

2.3 U.S. Army Corps of Engineers

The USACE is responsible for Formerly Used Defense Site (FUDS) program management and execution as directed by the Department of the Army. The Baltimore District is geographically designated as the lead responsible for managing project cost, schedule, and scope to ensure quality and proper coordination with government and non-government entities for the SVFUDS. USACE Baltimore District is one of four USACE districts that have a Military Munitions Design Center; the Baltimore District has provided MMRP and hazardous, toxic, and radioactive waste project oversight for the SVFUDS. The Baltimore District is also responsible for programming funding and for upward reporting, including coordinating DDMOA funding for oversight as funded by the Army (ER 200-3-1).

As technical advisor to the Army and as the DoD executive agent for the FUDS program, USACE is responsible for the selection of LUCs including awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted within the SVFUDS. USACE would administer a LUC maintenance/oversight contract to support the RAO if programmed and funded by the Army. Basic information for USACE is summarized in Table 2-3.

Table 2-3. U.S. Army Corps of Engineers	
Name of Agency	U.S. Army Corps of Engineers
Origin of Institution	USACE was established in 1775 during the American Revolution to provide the Army with combat engineering, military construction and engineering support. The Army established the Corps of Engineers as a separate, permanent branch on March 16, 1802. With the formation of the Defense Environmental Restoration Program in 1983, USACE adopted a role of providing the DoD with technical and project management support on environmental and MMRP projects, including FUDS projects.
Basis of Authority	USACE conducts munitions response actions under the provisions of the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments and Reauthorization Act, Executive Orders 12580 and 13016, and the safety requirements of the DoD Explosives Safety Board. USACE has project-specific management and technical oversight authority on

Table 2-3. U.S. Army Corps of Engineers		
	FUDS projects. FUDS is a program authorized under the Defense	
	Environmental Restoration Program per section 2701(a)(1) of title 10,	
	United States Code (U.S.C.)(Reference n). The USACE Baltimore	
	District is one of four USACE districts that have a Military Munitions	
	Design Center and have provided MMRP project oversight for FUDS	
	projects.	
Sunset Provisions	None.	
Geographic Jurisdiction	USACE has nine regional divisions that include all of the U.S., the	
	Pacific, Europe, the Middle East, and Afghanistan. USACE has	
	provided MMRP and Hazardous and Toxic Waste project oversight for	
	the SVFUDS through the Baltimore District.	
Mission of the Agency	USACE is a major Army command that provides engineering, design,	
	and construction management services.	
Public Safety Function:	One of USACE's missions is public safety in munitions response,	
	which is captured in the mission statement for the Directorate of	
	Ordnance and Explosives: "To safely eliminate or reduce risks from	
	ordnance, explosives and recovered chemical warfare materiel at	
	current or formerly used defense sites."	
Land Use Control	As technical advisor to the Army and as the Department of Defense	
Function:	executive agent for the FUDS program, USACE is responsible for the	
	selection of LUCs such as awareness activities that would reduce the	
	probability of residents, contractor/maintenance workers, and	
	visitors/passers-by from handling MEC encountered during residential	
	or construction/maintenance activities conducted within the SVFUDS.	
	In addition, USACE can perform real estate services for the military	
	and civil works activities of the Army, and for other federal agencies, as	
	requested.	
Financial Capability	USACE could administer a LUC maintenance/oversight contract if	
	programmed and funded by the Army.	
Desire to Participate	Yes.	
Constraints to Institutional	None.	
Effectiveness		
Sources of Information: Corres	pondence with USACE, 24 March 2016	

2.4 Washington Aqueduct

The Washington Aqueduct, a division of the USACE, Baltimore District, is a federally owned and operated public water supply agency that produces an average of 155 million gallons of water per day at two treatment plants located in the District of Columbia. The Dalecarlia Reservoir, which is part of the Washington Aqueduct, is located near the western boundary of the SVFUDS. Approximately 60 acres of federal property known as the Dalecarlia Woods located directly east of the reservoir and managed by the Washington Aqueduct, is located within the SVFUDS boundary. As a federal agency owning and managing property within the SVFUDS, the Washington Aqueduct has jurisdiction over its portion of land within the SVFUDS.

The Washington Aqueduct's role with respect to the SVFUDS is to control its land and structures located within the SVFUDS boundary. As property owner, the Washington Aqueduct has authority to support awareness activities that would reduce the probability of

workers/visitors/passers-by from handling MEC encountered during construction/maintenance activities conducted on Washington Aqueduct property within the SVFUDS.

Washington Aqueduct acknowledges that there will always be a very small possibility of remaining UXO in the SVFUDS and it is willing to support and maintain awareness activities for workers/visitors/passers-by to reduce the probability of individuals handling MEC encountered during construction and/or maintenance activities. This will be accomplished by a system developed and managed by Washington Aqueduct. Should assistance be required, Washington Aqueduct will call upon other resources of the Baltimore District. For example, the Washington Aqueduct does not have technical experience with UXO safety and management; if any unforeseen situations arise, the Washington Aqueduct will work with the USACE Baltimore District to address them. Basic information for the Washington Aqueduct is summarized in Table 2-4.

Table 2-4. Washington Aqueduct		
Name of Agency	Washington Aqueduct	
Origin of Institution	A division of Baltimore District, USACE, Washington Aqueduct is a	
	federally owned and operated public water utility that produces an	
	average of 155 million gallons of water per day at two treatment plants	
	located in the District of Columbia. The Corps of Engineers designed,	
	built, and, in 1859, began operating Washington Aqueduct. Since then,	
	the Corps has substantially expanded and improved the capacity and	
	function of Washington Aqueduct from its original mission of	
	supplying raw river water to a sparsely populated District of Columbia	
	to today's mission of providing safe drinking water to a much larger	
	and more populous service area to include Northern Virginia.	
Basis of Authority	As an owner of property located within the SVFUDS, Washington	
	Aqueduct controls the land and structures. As delegated by the District	
	Engineer, Baltimore District, it controls access and activity on the	
Sunset Provisions	property. None.	
	Washington Aqueduct has jurisdiction over Washington Aqueduct	
Geographic Jurisdiction	owned property within the SVFUDS which is land surrounding the	
	Dalecarlia Reservoir.	
Mission of the Agency	The mission of the Washington Aqueduct is to collect, purify, and	
with show of the rigency	pump an adequate supply of drinking water for its wholesale customers:	
	The District of Columbia Water and Sewer Authority (DC Water);	
	Arlington County, Va.; and Fairfax County Water Authority (Fairfax	
	Water), Va.	
Public Safety Function:	Washington Aqueduct employs special police as security guards and	
	has working relationships with military authorities and other	
	governmental law enforcement to respond to matters that go beyond	
	administrative actions (e.g., criminal activities).	
Land Use Control	Washington Aqueduct as a property owner has authority to support	
Function:	awareness activities that would reduce the probability of	
	contractor/maintenance workers, and visitors/passers-by from handling	
	MEC encountered during construction/maintenance activities	
	conducted on Washington Aqueduct property within the SVFUDS.	
Financial Capability	All funding for operations, maintenance, and capital improvements	
	comes from revenue generated by selling drinking water to the three	

Table 2-4. Washington Aqueduct		
	wholesale customers (i.e., DC Water, Arlington County, and Fairfax Water). There are no federal funds appropriated for Washington Aqueduct. However, should a special need arise, Washington Aqueduct is not prohibited from accepting federal funds.	
Desire to Participate	Washington Aqueduct acknowledges that there will always be a very small possibility of remaining UXO in the SVFUDS and it is willing to support and maintain awareness activities for workers/visitors/passers- by to reduce the probability of individuals handling MEC encountered during construction and/or maintenance activities. This will be accomplished by a system developed and managed by Washington Aqueduct. Should assistance be required, Washington Aqueduct will call upon other resources of Baltimore District.	
Constraints to Institutional Effectiveness	The Washington Aqueduct has jurisdictional and land ownership authority over the Washington Aqueduct property within the SVFUDS. However, the Washington Aqueduct does not have technical experience with UXO safety and management. It will work with Baltimore District to deal with any unforeseen situations that are related to the SVFUDS.	
Sources of Information: Correspondence with Washington Aqueduct, 15 March 2016		

2.5 American University

AU is a private educational institution having jurisdiction over AU owned property within the SVFUDS. AU as a property owner has authority to support awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted on AU property within the SVFUDS.

AU is willing to support and maintain awareness activities which will provide information to students, faculty, staff, visitors and contractors to reduce the probability of individuals handling MEC during residential, construction or maintenance activities. AU has developed a system to provide informational awareness to the members of the AU Community and they are willing to continue to work cooperatively with USACE on awareness activities to share information with its community. However, AU does not have technical experience with UXO or MEC safety and management, and has limited financial resources to implement and maintain any programs beyond what is currently established. Basic information for AU is summarized in Table 2-5.

Table 2-5. American University	
Name of Agency	American University
Origin of Institution	AU was chartered by Congress in 1893, was opened in 1914, and
	admitted its first undergraduate students in 1925. The property on
	which AU is built was purchased by Methodist bishop John Fletcher
	Hurst in 1890. ¹
Basis of Authority	AU is a private property owner within Washington, D.C. As such, it
	has all the rights afforded to private property owners to exert authority
	and control over its property. 2
Sunset Provisions	None. ²
Geographic Jurisdiction	AU has jurisdiction over AU owned property within the SVFUDS. ²
Mission of the Agency	AU is a private doctoral institution situated in a residential

	Table 2-5. American University
	neighborhood of northwest Washington, D.C. ¹
Public Safety Function:	AU's Office of Public Safety oversees security, parking and transit,
	crime prevention and educational programs for members of the AU
	community. Public Safety officers are Special Police Officers under
	DC law, with jurisdiction limited to AU owned property. ²
Land Use Control	AU as a property owner has authority to support awareness activities
Function:	that would reduce the probability of residents, contractor/maintenance
	workers, and visitors/passers-by from handling MEC encountered
	during residential or construction/maintenance activities conducted on
	AU property within the SVFUDS. ²
Financial Capability	AU receives its funding from federal, private, and philanthropic
	sources. ²
Desire to Participate	AU is willing to support and maintain awareness activities which will
	provide information to students, faculty, staff, visitors and contractors
	to reduce the probability of individuals handling MEC during
	residential, construction or maintenance activities. The University has
	developed a system to provide informational awareness to the members
	of the AU Community. The University is willing to continue to work
	cooperatively with USACE on awareness activities to share information $\frac{2}{2}$
	with its community. ²
Constraints to Institutional	AU has jurisdictional and land ownership authority over the AU
Effectiveness	property within the SVFUDS. However, AU does not have technical
	experience with UXO or MEC safety and management, and, as a non- profit institution of higher education has limited financial resources to
	implement and maintain any such LUC programs. ²
Sources of Information:	
¹ <u>http://www.american.edu/abc</u>	nt/
² Correspondence with AU 22	

² Correspondence with AU, 22 March 2016

2.6 National Park Service

The NPS manages D.C.'s Rock Creek Park which includes an area known as Glover-Archbold Park. The northern tip of Glover-Archbold Park is located within the SVFUDS boundary. As a federal agency owning and managing property within the SVFUDS, the NPS has jurisdiction over its portion of land within the SVFUDS. In addition, U.S. Park Police and NPS Rangers have federal law enforcement authority on property administered by the NPS.

NPS as a property owner has authority to support awareness activities that would reduce the probability of contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during construction/maintenance activities conducted on NPS property within the SVFUDS. However, NPS did not respond to information requests to obtain feedback on NPS' willingness to participate. Basic information for NPS is summarized in Table 2-6.

	Table 2-6. National Park Service		
Name of Agency	National Park Service		
Origin of Institution	The first National Park, Yellowstone, was established by the Yellowstone Act of 1872. The Organic Act of 1916 officially established the National Park Service in the Department of the Interior responsible for protecting the 35 national parks and monuments then managed by the department. ¹		
Basis of Authority	National Parks and Related Programs 54 U.S.C. (2014)		
Sunset Provisions	None.		
Geographic Jurisdiction	NPS has jurisdiction over NPS-managed property within the SVFUDS, primarily Glover-Archbold Park.		
Mission of the Agency	The NPS preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. ²		
Public Safety Function:	US Park Police and NPS Rangers enforce federal laws on property administered by the NPS.		
Land Use Control Function:	NPS as a property owner has authority to support awareness activities that would reduce the probability of probability of contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during construction/maintenance activities conducted on NPS property within the SVFUDS.		
Financial Capability	Federally funded.		
Desire to Participate	NPS did not provide response.		
Constraints to Institutional Effectiveness	NPS did not provide response.		
Sources of Information: ¹ <u>http://www.nps.gov/aboutus/history.htm</u> ² <u>http://www.nps.gov/aboutus/index.htm</u>			

2.7 Sibley Memorial Hospital

Sibley Memorial Hospital, operated by Johns Hopkins Medicine, is a not-for-profit, full-service, private institution operating a major hospital campus responsible for doctors, patients, staff and visitors, within the SVFUDS. Sibley Memorial Hospital is a private property owner having jurisdiction over Sibley Memorial Hospital owned property within the SVFUDS. Siblev Memorial Hospital as a property owner has authority to support awareness activities that would reduce the probability of contractor/maintenance workers and visitors/passers-by from handling MEC encountered during construction/maintenance activities conducted on Sibley Memorial Hospital property within the SVFUDS. USACE spoke with a representative from Sibley Memorial Hospital who noted that the vast majority of the property has been extensively excavated, and developed. The majority of the campus is now either parking lots and garages, or buildings. During development activities within the last five years, no munition hazards were found. Based this, Sibley Memorial Hospital does not anticipate the need for any focused awareness activities within the hospital campus. Sibley Memorial Hospital however noted that the hospital would continue to act in accordance with current federal requirements regarding UXO and the handling of MEC encountered during construction/maintenance activities, which

includes calling 911. Basic information for Sibley Memorial Hospital is summarized in Table 2-7.

Table 2-7. Sibley Memorial Hospital		
Name of Agency	Sibley Memorial Hospital	
Origin of Institution	Sibley Memorial Hospital was founded in 1890. The present location of Sibley Memorial Hospital on Loughboro Road N.W. was acquired through congressional legislation in the 1950s, and a new hospital was	
	built and opened to serve patients on May 30, 1961. ¹	
Basis of Authority	Authority is based on ownership of the property. ²	
Sunset Provisions	None. ²	
Geographic Jurisdiction	Sibley Memorial Hospital has jurisdiction over Sibley Hospital - owned property within the SVFUDS. ²	
Mission of the Agency	The mission of Sibley Memorial Hospital is to provide quality health services and facilities for the community, to promote wellness, to relieve suffering, and to restore health as swiftly, safely, and humanely as it can be done consistent with the best service we can give at the highest value for all concerned. ¹	
Public Safety Function:	Sibley Memorial Hospital relies on the Metropolitan Police Department for security, public safety, and law enforcement. ²	
Land Use Control Function:	Sibley Memorial Hospital as a property owner has authority to support awareness activities that would reduce the probability of contractor/maintenance workers and visitors/passers-by from handling MEC encountered during construction/maintenance activities conducted on Sibley Memorial Hospital property within the SVFUDS. ²	
Financial Capability	Privately funded. ²	
Desire to Participate	USACE spoke with a representative from Sibley Memorial Hospital who noted that the vast majority of the property has been extensively excavated and developed. During development activities within the last five years, no munition hazards were found. Sibley Memorial Hospital plans to continue to act in accordance with current federal requirements regarding UXO and the handling of MEC encountered during construction/maintenance activities which includes calling 911. ²	
Constraints to Institutional Effectiveness	The Sibley Memorial Hospital has jurisdictional and land ownership authority over the Sibley Memorial Hospital property within the SVFUDS. However, the Sibley Memorial Hospital does not have technical experience with UXO safety and management. ²	
Sources of Information: ¹ http://www.hopkinsmedicine.org/sibley-memorial-hospital/about/ ² Correspondence with Sibley Memorial Hospital, 21 March 2016		

2.8 Wesley Theological Seminary

Wesley Theological Seminary, also known as Wesley Seminary, is a graduate institution affiliated with the United Methodist Church, located within the SVFUDS on property purchased by the seminary in the 1950's. Wesley Seminary as a property owner has authority to support awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted on Wesley Seminary property within the SVFUDS. Wesley Seminary desires to participate on a conditional basis, reserving the "right" to

opt-out should the elements of the program conflict with seminary policies or positions, or in some other way require the seminary to act against its own interests. The seminary will continue to participate in current awareness activities, and the seminary will continue to act responsibly and in accordance with current requirements regarding UXO and the handling of MEC encountered during construction/maintenance activities. Basic information for Wesley Seminary is summarized in Table 2-8.

Table 2-8. Wesley Theological Seminary		
Name of Agency	Wesley Theological Seminary	
Origin of Institution	Wesley Theological Seminary, a United Methodist-affiliated seminary, was founded in 1882 in Westminster, Maryland, and relocated to its present campus in Washington, DC, in 1958.	
Basis of Authority	Authority is based on ownership of the property.	
Sunset Provisions	None.	
Geographic Jurisdiction	Wesley Seminary has jurisdiction over Wesley Seminary owned property within the SVFUDS.	
Mission of the Agency	The mission of Wesley Theological Seminary is to equip Christians for leadership in the church and the world, to advance theological scholarship, and to model a prophetic voice in the public square.	
Public Safety Function:	Wesley Seminary relies on the Metropolitan Police Department for security, public safety, and law enforcement. Wesley Seminary does not employ private safety/security personnel.	
Land Use Control	Wesley Seminary as a property owner has authority to support	
Function:	awareness activities that would reduce the probability of residents, contractor/maintenance workers, and visitors/passers-by from handling MEC encountered during residential or construction/maintenance activities conducted on Wesley Seminary property within the SVFUDS.	
Financial Capability	Privately funded.	
Desire to Participate	Wesley Seminary would desire to participate on a conditional basis, reserving the "right" to opt-out should the elements of the program conflict with seminary policies or positions or in some other way require the seminary to act against its own interests. The seminary will continue to participate in current awareness activities, and the seminary will continue to act responsibly and in accordance with current requirements regarding UXO and the handling of MEC encountered during construction/maintenance activities.	
Constraints to Institutional	Wesley Seminary has jurisdictional and land ownership authority over	
Effectiveness	the Wesley Seminary property within the SVFUDS. However, Wesley Seminary does not have technical experience with UXO safety and management. Budgetary limitations will impact Wesley Seminary's participation in this program.	
Sources of Information: Correspondence with Wesley Seminary, 10 March 2016		

3.0 EVALUATION AND RECOMMENDATIONS

This section provides an evaluation of existing LUCs as they relate to potential munition hazards, and based on the analysis of selected institutions makes recommendations on activities USACE may consider as part of the process of implementing the education and awareness LUC identified in the RAO. For ease of reference, the RAO is as follows:

Reduce the probability of residents, workers, and visitors handling munitions and explosives of concern (MEC) encountered during residential or construction activities conducted within SVFUDS Munitions Response Site 01 (MRS 01), through education and awareness initiatives (in addition to the focus areas [within MRS 01], these initiatives will be applied to all areas of the SVFUDS to address the possibility that MEC could be relocated or, less likely, found there).

3.1 Evaluation of Existing Controls

With reference to potential MEC hazards in the SVFUDS, there are no current legal mechanisms or engineering controls limiting access or restricting any residential or construction activities. Land use within the SVFUDS is not expected to change in the future; the residential neighborhood is expected to remain as such with a few long-standing private institutions, the largest being AU, continuing to operate within the SVFUDS.

One current effort that relates to the identified education and awareness LUC is USACE's extensive community relations program developed to support SVFUDS public participation requirements. Initiatives have included regular postings to a dedicated project website, production of informative videos, routine development of factsheets, weekly and monthly email updates, maintenance of targeted automatic emergency notification systems, mailing of quarterly mailed newsletters, and holding public meetings as needed. The public participation program works to include all property owners within the SVFUDS including residential and commercial owners as well as institutions. In addition, one institution, AU, has also developed a system to provide informational awareness to the members of the AU Community. The system is used in part to disseminate SVFUDS related information and alerts affecting the AU community, such as those related to the 4825 Glenbrook Road project adjacent to the University. No other selected institutions identified existing initiatives related to SVFUDS activities.

3.2 Recommendations for Implementation of Future Controls

Institutions expressed varying degrees of willingness to participate in education and awareness activities to achieve the RAO. NPS did not provide feedback regarding their willingness to participate during development of this IA; Wesley Theological Seminary noted their willingness to participate would be conditional, based on what the LUC program entails when it is developed; Washington Aqueduct noted that the institution would develop and maintain its own program; and AU described already having a system in place to disseminate SVFUDS related information to the AU Community. AU is willing to continue to work cooperatively with USACE on awareness activities to share information with its community. USACE is willing to participate to implement the education and awareness LUC program by ensuring the remainder of property owners not selected as part of this IA, as well as those stakeholders identified through this IA who may also conduct intrusive activities within the SVFUDS (such as DPW, DDOT, D.C. Water) receive and consistently have access to education and awareness materials regarding potential MEC hazards.

Funding sources remain the primary concern for institutions that expressed a willingness to participate. USACE, Baltimore District remains dependent on receiving appropriate funding from DoD to select and implement the LUC program. Institutions such as Wesley Theological Seminary, AU, and DOEE expressed the potential for lack of dedicated funding to support; depending on the kind of initiative requested of the institutions to implement internally.

Based on USACE' previous interactions with the selected institutions and other residential, commercial and institutional property owners within the SVFUDS; the varying degrees of willingness noted by the selected institutions is reflective of the greater SVFUDS community. What this, as well as concerns regarding funding capability to implement internal initiatives, means for implementing an LUC program is that the program must be flexible and adaptable to fit the variety of stakeholders needs, interests, and limitations.

The education and awareness initiatives implemented to achieve the RAO could include using existing communication mechanisms established through the current USACE community relations program as described in Section 3.1. The purpose of the educational materials would be to remind residential, commercial, and institutional stakeholders of the appropriate response to MEC (recognize, retreat, report), in the unlikely event that it is encountered during residential or construction / maintenance activities within MRS01 as well as the overall SVFUDS.

Based on the significant number of property owners beyond the institutions selected for this analysis, such a program using pre-existing established communication mechanisms will most consistently provide the appropriate educational information to all stakeholders within MRS01 and the greater SVFUDS, not limited to selected institutions. It can easily be incorporated and disseminated as deemed appropriate by individuals and institutions. Further, such a program can be easily tracked, documented, maintained, and reviewed during five year reviews. The complete scope of the LUC program will be defined as part of the LUC Implementation Plan developed following the Decision Document.

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