

FINAL Decision Document for the Southeast Area Munitions Response Site



Prepared for:
**Utah National Guard
Military Munitions
Response Program
Camp W. G. Williams, Utah**

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April 2015

CAMP WILLIAMS, UTAH
MILITARY MUNITIONS RESPONSE PROGRAM

**FINAL
DECISION DOCUMENT
FOR THE
SOUTHEAST AREA
MUNITIONS RESPONSE SITE
UTAH COUNTY, UTAH**

**Army Environmental Database – Restoration
Site Number: WILLI-009-R-01**



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TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	ii
GLOSSARY OF TERMS	iii
EXECUTIVE SUMMARY.....	1
1 PURPOSE.....	1
2 SITE RISK.....	5
3 SELECTED ACTION.....	7
4 PUBLIC/COMMUNITY INVOLVEMENT	7
5 DECLARATION.....	7
6 APPROVAL AND SIGNATURE	7
7 REFERENCES.....	8

List of Figures

Figure 1	Site Map.....	3
Figure 2	Conceptual Site Model for Munitions and Explosives of Concern for the Southeast Area Munitions Response Site.....	6

ACRONYMS AND ABBREVIATIONS

AAR	After Action Report
AR	Army Regulation
ARNG	Army National Guard
bgs	Below Ground Surface
BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
CTT	Closed, Transferring, and Transferred
CWLEA	Camp W.G. Williams Land Exchange Act
DERP	Defense Environmental Restoration Program
DMM	Discarded Military Munitions
ESL	Ecological Screening Level
ft	Feet
MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mm	Millimeter
MMRP	Military Munitions Response Program
MRS	Munitions Response Site
MTA	Major Training Area
NCP	National Oil and Hazardous Substances Contingency Plan
PA	Preliminary Assessment
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RRD	Range-Related Debris
RSL	Regional Screening Level
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
UDEQ	Utah Department of Environmental Quality
US	United States
UTNG	Utah National Guard
UXO	Unexploded Ordnance

GLOSSARY OF TERMS

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	A federal law that addresses the funding for and remediation of abandoned or uncontrolled hazardous waste sites. This law also establishes criteria for the creation of key documents such as the Remedial Investigation, Feasibility Study, Proposed Plan, and Decision Document. Also known as Superfund. Amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA).
Decision Document	A report documenting the final action, approved by the regulatory agencies, that is required at CERCLA sites.
Discarded Military Munitions (DMM)	Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance (UXO), military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations (10 USC 2710(e)(2)).
Munitions and Explosives of Concern (MEC)	This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means: (1) UXO as defined in 10 USC 101(e)(5)(A) through (C); (2) DMM as defined in 10 USC 2710(e)(2); or (3) munitions constituents (e.g., TNT, RDX) as defined in 10 USC 2710(e)(3), present in high enough concentrations to pose an explosive hazard.
Munitions Constituents (MC)	Any materials originating from UXO, DMM, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.
Munitions Debris (MD)	Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.
Munitions Response Site (MRS)	A discrete location within a defense site that is known to require a munitions response (investigation, removal action, and/or remedial actions).

National Oil and Hazardous Substance Pollution Contingency Plan (NCP) Revised in 1990, the NCP provides the regulatory framework for responses under CERCLA. The NCP designates the Department of Defense as the removal response authority for ordnance and explosives hazards.

Range-Related Debris (RRD) Debris, other than MD, collected from operational ranges or from former ranges (e.g., target debris, military munitions packaging and crating material).

Unexploded Ordnance (UXO) Military munitions that have been primed, fuzed, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

EXECUTIVE SUMMARY

This Decision Document describes the No Action decision recommended for the Southeast Area Munitions Response Site (MRS) associated with past military training activities at Major Training Area (MTA)-L Camp W.G. Williams (Camp Williams), Utah. The Southeast Area MRS is a 20-acre parcel of land located in Utah County south of the southern boundary of Camp Williams. Based on evaluation of site-specific data which indicate that there are no munitions and explosives of concern (MEC) hazards or munitions constituents (MC) risks, the selected action for the MRS is No Action. The selected action is protective of human health and the environment. The cost for the action will be \$0, as no work is anticipated to be required after approval of this Decision Document.

1 PURPOSE

This document describes the decision to conduct No Action at the Southeast Area MRS. The MRS is associated with past military training activities at Camp Williams, Utah. No Action was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA), the National Oil and Hazardous Substances Contingency Plan, (NCP), Resource Conservation and Recovery Act (RCRA), and Army Regulation (AR) 200-1, as applicable.

The Southeast Area MRS (Army Environmental Database – Restoration site number WILLI-009-R-01) is comprised of a 20-acre parcel of land located in Utah County approximately 2,000 feet (ft) south of the southern boundary of Camp Williams (Figure 1). Camp Williams is operated by the Utah National Guard (UTNG), and currently consists of 25,488 acres in Salt Lake and Utah Counties. There are no known records, oral histories, or written documentation of formal or intentional military training at the Southeast Area MRS.

Investigation of the Southeast Area MRS was initiated by the UTNG, in conjunction with the Army National Guard (ARNG) Directorate, under the United States (US) Army Military Munitions Response Program (MMRP). The MMRP was established in 2001 to address possible MEC and MC at closed, transferring, and transferred (CTT) ranges. Unexploded ordnance (UXO), discarded military munitions (DMM), and MC present in high enough concentrations to pose an explosive hazard are included under the MEC designation. The MMRP, which is implemented under the Defense Environmental Restoration Program (DERP), follows the processes outlined in CERCLA and NCP.

The Southeast Area MRS consists of undeveloped public land owned by the US Government and administered by the Bureau of Land Management (BLM). The southeastern portion of the MRS is located within the city limits of Saratoga Springs, and the remainder of the

MRS is located in unincorporated Utah County. The MRS is surrounded on all sides by non-federal lands. Access to the MRS is unrestricted and the site is accessible via roads that traverse the MRS.

The entire MRS slopes gently to the east-southeast, with slightly steeper grades on the western half of the site, and flatter, more level ground toward the central and eastern portions of the site. A small but steep sided ravine is present just north of the MRS and is part of an ephemeral drainage channel that cuts across the northeastern corner of the site. The MRS contains considerable amounts of civilian refuse (e.g., appliances, used tires, metal, concrete, and clothing) from unauthorized public dumping activities, with refuse especially concentrated on the east end of the site (Figure 1). The MRS has also been used by the public for recreational shooting and is heavily littered with civilian small arms ammunition debris (e.g., ball ammunition and shotgun). A major utility corridor that includes high-power, above-ground transmission lines and parallel buried utilities, including a segment of the Kern River gas line, crosses the site from southwest to northeast. There is visible land scarring throughout the utility corridor from the installation of the Kern River gas line and periodic excavation of the gas line for testing and maintenance.

There are no wells located within the Southeast Area MRS from which depth to groundwater can be measured. However, the estimated depth to groundwater at the Southeast Area MRS is 150 to 200 ft below ground surface (bgs) based on groundwater elevations obtained from nearby wells and recorded by the Utah Division of Water Rights (UDWtR, 2009).

The parcel that comprises the Southeast Area MRS was included in the 2,305-acre Camp W.G. Williams Land Exchange Act (CWLEA) of 1989. The CWLEA relinquished the parcel comprising the MRS back to the public domain. Because the CWLEA required the Secretary of the Army to ensure that federal lands being relinquished or offered for exchange be free of hazardous materials and substances, the UTNG conducted Operation Clean Sweep '91, a surface munitions clearance action that was described in an After Action Report (AAR) dated August 27, 1991 (UTNG, 1991). The AAR had gone missing sometime after 1991, and was rediscovered in 2007. The AAR reported that military munitions had been found during the clearance operation, but was ambiguous as to the exact location where these items had been discovered. A Preliminary Assessment (PA) conducted in 2008 after rediscovery of the AAR concluded that, due to ambiguity in the report concerning the exact locations where munitions were found, the parcel comprising the Southeast Area MRS was eligible for investigation under the MMRP. The PA recommended a Site Inspection (SI) to further evaluate the parcel (NGB, 2008).

The SI of the Southeast Area MRS was completed in 2010 (Parsons, 2011). No MEC or munitions debris (MD) was found during the SI; however, several pieces of range-related debris (RRD) were identified. A small debris pile containing protective grommets from 8-inch artillery projectiles and an adjacent depression with geophysical anomalies indicative of buried metal

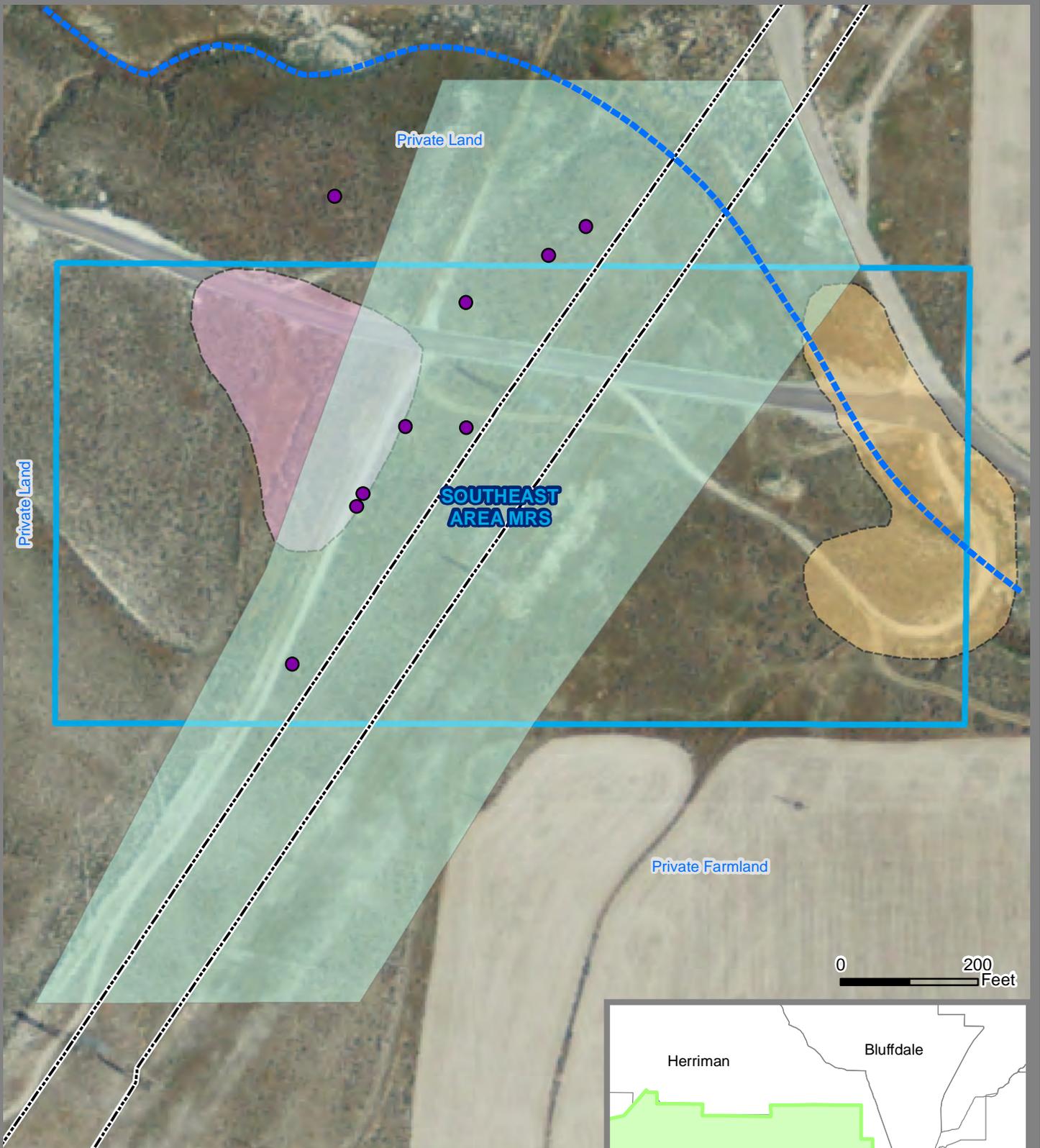


FIGURE 1

SITE MAP

DECISION DOCUMENT FOR THE SOUTHEAST AREA MRS

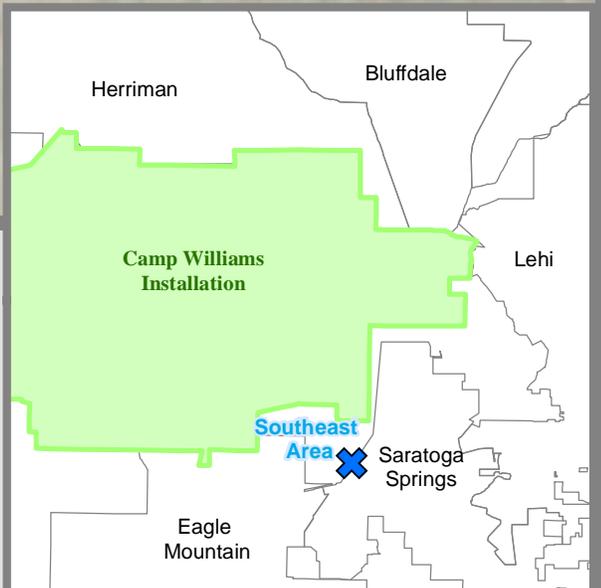


LEGEND

- Suspected Former Firing Point Locations
- - - Ephemeral Drainage
- - - Above Ground Power Lines
- Portion of Utility Corridor Investigated during RI
- Concentrated Area of Civilian Debris
- Area With Abundant Non-Military Small Arms Debris
- Munitions Response Site Boundary

NOTES

- MRS-Munitions Response Site
- RI-Remedial Investigation



were found in the central portion of the MRS. Additional RRD, including three lengths of communication wire and an artillery fuze container, were also found in the same general area. Based on the SI results, a Remedial Investigation (RI) was recommended to further evaluate the Southeast Area MRS.

The RI of the Southeast Area MRS was also completed in 2010 (Parsons, 2012). The extensive surface and subsurface field activities performed during the RI covered approximately 22-percent of the MRS. No MEC was found during the RI; however, MD and RRD associated with historical artillery firing operations were found at the Southeast Area MRS. The vast majority of these items were found in and around nine suspected artillery firing points identified in the western portion of the MRS during the RI. The suspected artillery firing points were identified in the field by the presence of ground disturbance features, such as raised berms, depressed ground, or rutting of the surface and/or the presence of MD or RRD on the surface. In most cases, these areas were also at least partially overgrown by non-native cheatgrass (*Bromus tectorum*), an invasive species that grows well in disturbed soils.

The suspected firing points were oriented southwest to northeast along a relatively narrow strip of flat ground approximately 1,000 ft long that extended approximately 100 ft north of the MRS boundary (Figure 1). The location and spatial distribution of suspected firing points at the MRS is consistent with the typical configuration of a field artillery battery and the so-called “gun line” that usually consisted of six to eight cannon arranged in a semi-linear fashion spaced an approximately equal distance from adjacent guns. The gun line suspected to have been present at the Southeast Area MRS is believed to have been arranged southwest to northeast, aimed to fire to the northwest at the Camp Williams Artillery Impact Area. Artillery firing is estimated to have been conducted at the MRS between the 1950s and 1970s based on the age of discarded items found at the suspected firing point locations. Additional suspected firing points are not expected at the Southeast Area MRS based on the extensive field activities performed to determine the extent of these features (Parsons, 2012).

A total of 654 surface and subsurface anomalies were identified and investigated during the RI. The source of most of the anomalies was found to be non-military civilian debris. However, 83 anomalies identified in and around the suspected firing points resulted in the finding of small disposal areas and burial pits containing discarded MD and/or RRD related to historical unpacking, preparation, and firing of artillery projectiles. These shallow disposal features were typically 1-2 ft in diameter (after excavation), and were interpreted to represent the field expedient discarding and burial of refuse at the time the firing points were being used, consistent with historical field artillery practice. The MD found during the RI was limited to four expended 7.62 millimeter (mm) small arms blanks and 91 expended percussion primers (models MK2A4 and M82). No unexpended blanks or primers were found. Abundant RRD found during the RI included grommets for 8-inch and 155mm projectiles, fuze well shipping lugs, empty fuze containers, fuze container lids and keys, and strands of communication wire. In

most cases, MD and RRD were found from the surface to approximately 1 ft bgs; however, in several instances, deeper burial up to 36 inches bgs was observed. With the exception of a small number of isolated strands of communication wire, all of the MD and RRD were found in the narrow strip of land containing the suspected firing points.

Based on the extensive investigation conducted at the MRS, it is believed that the majority of MD and RRD disposed at the Southeast Area MRS were likely recovered and removed from the site during the RI. Any additional MD and RRD potentially present in areas of the MRS not investigated during the RI are likely limited in number and similar to the types of MD and RRD recovered during the RI. No MEC was found on the surface or in any of the hundreds of subsurface excavations performed at the disposal features associated with the suspected firing points. Historical disposal of MEC in the form of DMM is not indicated, and there is no evidence of residual MEC of any kind being present. Therefore, MEC is not suspected to be present at the Southeast Area MRS.

No Action was selected as the appropriate action for the Southeast Area MRS by the UTNG and the ARNG Directorate, with support from the Utah Department of Environmental Quality (UDEQ). The UDEQ approved the conclusions and recommendations presented in the Final RI Report (Parsons, 2012), including the No Action determination. The BLM also concurred with the No Action recommendation for the MRS.

2 SITE RISK

As stated above, no MEC was identified at the Southeast Area MRS. Without this principal element, there are no complete MEC exposure pathways for current or anticipated future receptors, as shown on the conceptual site model (CSM) (Figure 2). An incomplete exposure pathway indicates that there are no current or future means by which a receptor (human or ecological) can come into contact with MEC, and therefore, no risks or hazards from exposure to MEC are expected at the Southeast Area MRS.

Surface soil sampling was conducted at the Southeast Area MRS during the RI (Parsons, 2012). Nine composite surface soil samples were collected from the MRS, one sample from each of the nine suspected firing points identified. Samples were analyzed for explosives, and no detections were reported with the exception of an isolated 2,4-dinitrotoluene detection that was less than the corresponding USEPA (2010) residential soil regional screening level (RSL) and ecological screening level (ESL) (LANL, 2010). This isolated, low-level detection is not indicative of a release. Therefore, there are no complete MC exposure pathways for current or anticipated future receptors, and no risks or hazards from exposure to MC are expected at the Southeast Area MRS.

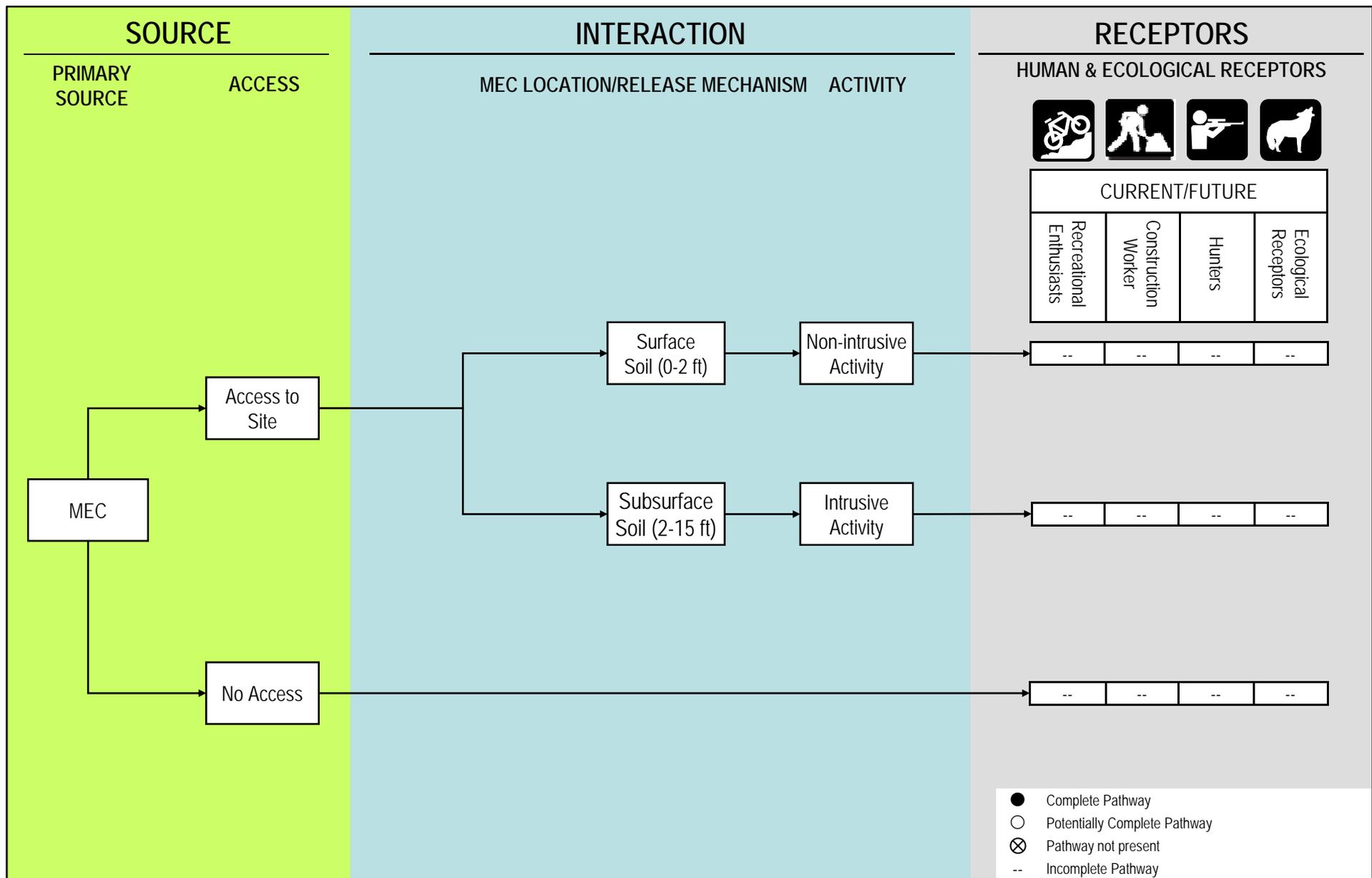


FIGURE 2
 CONCEPTUAL SITE MODEL FOR MUNITIONS AND EXPLOSIVES OF CONCERN FOR THE SOUTHEAST AREA MUNITIONS RESPONSE SITE
 DECISION DOCUMENT

3 SELECTED ACTION

No Action is the selected action for the Southeast Area MRS based on evaluation of site-specific data which indicate that there are no MEC hazards or MC risks to human health or the environment at the MRS.

There are no planned actions or costs associated with No Action. The selected action will allow the known current and future land uses at the Southeast Area MRS to be maintained, and has no anticipated impacts on the local community or the environment.

4 PUBLIC/COMMUNITY INVOLVEMENT

The community was provided opportunities for involvement in the process leading to the No Action determination for the Southeast Area MRS by various means, including:

- An open house in 2009;
- Nine Restoration Advisory Board (RAB) meetings conducted from 2010 to 2013;
- Periodic City Council updates provided to the City of Saratoga Springs, Utah, in the immediate vicinity of the Southeast Area MRS, including a 2009 introduction to the RAB and 2010 and 2012 project updates;
- An active public website established in 2010 (<http://www.campwilliamsrab.org>);
- Publication of fact sheets and newsletters beginning in 2009; and
- A public repository of project documents available in both electronic and paper form.

The electronic version of the public repository is located on the website (<http://www.campwilliamsrab.org/resources/repository>). Paper copies of project documents are available for public review at the repository maintained at the Herriman City Library (formerly located at the Riverton City Library).

5 DECLARATION

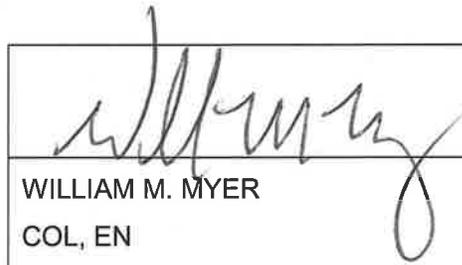
The selected action (i.e., No Action) is protective of human health and the environment.

6 APPROVAL AND SIGNATURE

This Decision Document describes the selected action of No Action for the Southeast Area MRS. The cost for the action will be \$0, as no work is anticipated to be required after approval of this Decision Document. The approval authority for this action is the Chief, Army

National Guard Directorate, Environmental Programs Division with concurrence from the Adjutant General, UT.

	
JEFFERSON S. BURTON	Date
Major General	16 Sep 15
The Adjutant General	

	
WILLIAM M. MYER	Date
COL, EN	25 Oct 15
Chief, Environmental Programs Division	

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