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Omaha District

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**Final  
Interim Risk Management Plan  
Camp Hale Military Munitions Site  
FUDS ID B08CO0014**

**Formerly Used Defense Sites, Military Munitions  
Response Program**

**Contract No. W912DY-04-D-0010  
Delivery Order No. 003**

**April 2011**

  
**Shaw®** Shaw Environmental, Inc.

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FINAL

INTERIM RISK MANAGEMENT PLAN  
**CAMP HALE**

FUDS Property No. B08CO0014

Formerly Used Defense Sites  
Military Munitions Response Program

April 2011

Submitted to:

U.S. Department of the Army  
U.S. Army Corps of Engineers, Omaha District

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The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.

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## Table of Contents

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List of Figures .....	vi
List of Tables .....	vii
List of Appendices .....	viii
List of Acronyms and Abbreviations.....	x
Glossary of Terms .....	xii
1.0 Introduction .....	1-1
1.1 Project Authorization .....	1-1
1.2 Site Name and Location .....	1-1
1.3 Purpose, Scope, and Objectives of the Interim Risk Management Plan.....	1-2
1.4 Project Team and Area Stakeholders.....	1-2
1.5 Technical Project Planning Meeting Outcomes .....	1-3
1.6 Organization of the Interim Risk Management Plan .....	1-4
2.0 Property Description and History .....	2-1
2.1 Historical Military Use .....	2-1
2.1.1 Historical CIA Activities.....	2-3
2.1.2 National Historic Site .....	2-3
2.2 Ownership History .....	2-3
2.3 Physical Setting .....	2-3
2.3.1 Topography and Vegetation .....	2-3
2.3.2 Land Use .....	2-3
2.3.3 Nearby Population .....	2-4
2.3.4 Access Methods to the Camp Hale Area .....	2-5
2.4 Previous Investigations.....	2-7
2.4.1 1946 Removal Action .....	2-7
2.4.2 1965 Removal Action .....	2-7
2.4.3 Miscellaneous UXO Reports (1998-2007) .....	2-8
2.4.4 Time-Critical Removal Action (2001) .....	2-9
2.4.5 Archives Search Report (2003) .....	2-9
2.4.6 Time-Critical Removal Action (2003) .....	2-10
2.4.7 Site Visits (2000-2005) .....	2-10
2.4.8 Site-Specific Chemical Warfare Materiel Scoping and Security Study Report for Camp Hale (2005) .....	2-10
2.4.9 Preliminary Assessment (2007).....	2-11
2.4.10 Site Inspection (2008).....	2-11
3.0 Interim Risk Management Tools .....	3-1
3.1 Types of Area Users.....	3-1
3.2 Land Use Controls.....	3-1
3.2.1 Permit Conditions .....	3-2
3.2.2 Area Use Restrictions.....	3-2
3.2.3 Area Closures.....	3-2
3.3 Engineering Controls .....	3-3
3.3.1 Signage .....	3-3

3.4	MEC Awareness Training .....	3-3
3.5	Community Outreach and Communication Strategy .....	3-4
	3.5.1 Background .....	3-4
	3.5.2 General Approach .....	3-4
4.0	MEC Response .....	4-1
	4.1 MEC Response Protocol .....	4-1
	4.2 USACE and USFS Agreements .....	4-2
	4.3 Database Updates .....	4-2
5.0	MRA MU001: Homestake Valley Range Complex .....	5-1
	5.1 MRA Location and Historical Military Use .....	5-1
	5.2 Current Land Ownership and Use .....	5-1
	5.3 Previous Investigation Results (known MEC hazards) .....	5-2
	5.3.1 Past Investigation Finds .....	5-2
	5.3.2 Site Inspection (2008) .....	5-2
	5.3.3 MEC Conceptual Site Model .....	5-2
	5.4 MRA Risk Management Approach .....	5-4
	5.4.1 Land Use Controls .....	5-4
	5.4.2 Engineering Controls .....	5-6
	5.4.3 Communication Strategy .....	5-6
	5.5 MEC Response Protocol .....	5-7
6.0	MRA MU002: East Fork Valley Range Complex .....	6-1
	6.1 MRA Location and Historical Military Use .....	6-1
	6.2 Current Land Ownership and Use .....	6-1
	6.3 Previous Investigation Results (known MEC hazards) .....	6-2
	6.3.1 Past Investigation Finds .....	6-2
	6.3.2 Site Inspection (2008) .....	6-2
	6.3.3 MEC Conceptual Site Model .....	6-3
	6.4 MRA Risk Management Approach .....	6-8
	6.4.1 Land Use Controls .....	6-8
	6.4.2 Engineering Controls .....	6-9
	6.4.3 Communication Strategy .....	6-9
	6.5 MEC Response Protocol .....	6-9
7.0	MRA MU003: Eagle Valley North Range Complex .....	7-1
	7.1 MRA Location and Historical Military Use .....	7-1
	7.2 Current Land Ownership and Use .....	7-1
	7.3 Previous Investigation Results (known MEC hazards) .....	7-2
	7.3.1 Past Investigation Finds .....	7-2
	7.3.2 Site Inspection (2008) .....	7-2
	7.3.3 MEC Conceptual Site Model .....	7-3
	7.4 MRA Risk Management Approach .....	7-4
	7.4.1 Land Use Controls .....	7-4
	7.4.2 Engineering Controls .....	7-8
	7.4.3 Communication Strategy .....	7-8
	7.5 MEC Response Protocol .....	7-8
8.0	MRA MU004: Eagle Valley South Range Complex .....	8-1
	8.1 MRA Location and Historical Military Use .....	8-1
	8.2 Current Land Ownership and Use .....	8-1

8.3	Previous Investigation Results (known MEC hazards) .....	8-2
8.3.1	Past Investigation Finds .....	8-2
8.3.2	Site Inspection (2008).....	8-2
8.3.3	MEC Conceptual Site Model.....	8-3
8.4	MRA Risk Management Approach .....	8-4
8.4.1	Land Use Controls.....	8-4
8.4.2	Engineering Controls .....	8-7
8.4.3	Communication Strategy .....	8-8
8.5	MEC Response Protocol .....	8-8
9.0	MRA MU005: Ruby Gulch Range Complex .....	9-1
9.1	MRA Location and Historical Military Use.....	9-1
9.2	Current Land Ownership and Use .....	9-1
9.3	Previous Investigation Results (known MEC hazards) .....	9-2
9.3.1	Past Investigation Finds .....	9-2
9.3.2	Site Inspection (2008).....	9-2
9.3.3	MEC Conceptual Site Model.....	9-3
9.4	MRA Risk Management Approach .....	9-6
9.4.1	Land Use Controls.....	9-6
9.4.2	Engineering Controls .....	9-7
9.4.3	Communication Strategy .....	9-7
9.5	MEC Response Protocol .....	9-7
10.0	MRS TM006b: Shrine Mountain Maneuver Area South .....	10-1
10.1	MRA Location and Historical Military Use.....	10-1
10.2	Current Land Ownership and Use .....	10-1
10.3	Previous Investigation Results (known MEC hazards) .....	10-2
10.3.1	Past Investigation Finds .....	10-2
10.3.2	Site Inspection (2008).....	10-2
10.3.3	MEC Conceptual Site Model.....	10-2
10.4	MRA Risk Management Approach .....	10-4
10.4.1	Land Use Controls.....	10-4
10.4.2	Engineering Controls .....	10-5
10.4.3	Communication Strategy .....	10-5
10.5	MEC Response Protocol .....	10-5
11.0	MRA MU007: Yoder Gulch Range Complex .....	11-1
11.1	MRA Location and Historical Military Use.....	11-1
11.2	Current Land Ownership and Use .....	11-1
11.3	Previous Investigation Results (known MEC hazards) .....	11-2
11.3.1	Past Investigation Finds .....	11-2
11.3.2	Site Inspection (2008).....	11-2
11.3.3	MEC Conceptual Site Model.....	11-2
11.4	MRA Risk Management Approach .....	11-4
11.4.1	Land Use Controls.....	11-4
11.4.2	Engineering Controls .....	11-5
11.4.3	Communication Strategy .....	11-5
11.5	MEC Response Protocol .....	11-5
12.0	MRA MU008: Tennessee Pass Range Complex .....	12-1
12.1	MRA Location and Historical Military Use.....	12-1

12.2	Current Land Ownership and Use .....	12-1
12.3	Previous Investigation Results (known MEC hazards) .....	12-2
12.3.1	Past Investigation Finds .....	12-3
12.3.2	Site Inspection (2008).....	12-3
12.3.3	MEC Conceptual Site Model.....	12-3
12.4	MRA Risk Management Approach .....	12-7
12.4.1	Land Use Controls.....	12-7
12.4.2	Engineering Controls .....	12-8
12.4.3	Communication Strategy .....	12-8
12.5	MEC Response Protocol .....	12-8
13.0	MRA CW009: Chemical Training Area.....	13-1
13.1	MRA Location and Historical Military Use.....	13-1
13.2	Current Land Ownership and Use .....	13-1
13.3	Previous Investigation Results (known MEC hazards) .....	13-2
13.3.1	Past Investigation Finds .....	13-2
13.3.2	Site Inspection (2008).....	13-2
13.3.3	MEC Conceptual Site Model.....	13-3
13.4	MRA Risk Management Approach .....	13-4
13.4.1	Land Use Controls.....	13-4
13.4.2	Engineering Controls .....	13-5
13.4.3	Communication Strategy .....	13-5
13.5	MEC Response Protocol .....	13-5
14.0	Proposed Schedule.....	14-1
15.0	References .....	15-1



## List of Figures

---

- Figure 1-1 General Location Map
- Figure 2-1 MRA Boundaries
- Figure 2-2 Land Status
- Figure 2-3 General Trails Map
- Figure 2-4 MEC & MD:2001 to 2007
- Figure 2-5 1946 Luter and Sainato Clearance Map
- Figure 3-1 USFS Land-Use Compartments
- Figure 5-1 MU001: Homestake Valley Range Complex
- Figure 6-1 MU002: East Fork Valley Range Complex
- Figure 7-1 MU003: Eagle Valley North Range Complex
- Figure 8-1 MU004: Eagle Valley South Range Complex
- Figure 9-1 MU005: Ruby Gulch Range Complex
- Figure 10-1 TM006B: Shrine Mountain Maneuver Area - South
- Figure 11-1 MU007: Yoder Gulch Range Complex
- Figure 12-1 MU008: Tennessee Pass Range Complex
- Figure 13-1 CW009: Chemical Training Area

## List of Tables

---

Table 2-1	MRAs Addressed by the IRMP
Table 2-2	Population Demographics by County
Table 5-1	MU001: Homestake Range Complex Users
Table 5-2	Summary of Confirmed and Potential MEC/MD at MU001
Table 6-1	MU002: East Fork Valley Range Complex Users
Table 6-2	Summary of Confirmed and Potential MEC/MD at MU002
Table 7-1	MU003: Eagle Valley North Range Complex Users
Table 7-2	Summary of Confirmed and Potential MEC/MD at MU003
Table 8-1	MU004: Eagle Valley South Range Complex Users
Table 8-2	Summary of Confirmed and Potential MEC/MD at MU004
Table 9-1	MU005: Ruby Gulch Range Complex Users
Table 9-2	Summary of Confirmed and Potential MEC/MD at MU005
Table 10-1	TM006b: Shrine Mountain Maneuver Area Users
Table 10-2	Summary of Confirmed and Potential MEC/MD at TM006b
Table 11-1	MU007: Yoder Gulch Range Complex Users
Table 11-2	Summary of Confirmed and Potential MEC/MD at MU007
Table 12-1	MU008: Tennessee Pass Range Complex Users
Table 12-2	Summary of Confirmed and Potential MEC/MD at MU008
Table 13-1	CW009: Chemical Training Area Users
Table 13-2	Summary of Confirmed and Potential MEC/MD at CW009

## *List of Appendices*

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Appendix A	Technical Project Planning Memo
Appendix B	Signage Examples
Appendix C	Target Audiences
Appendix D	Safety Brochure
Appendix E	2009 Interview Summary

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## *List of Acronyms and Abbreviations*

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AOI	Area of Interest
APHE	armor-piercing high-explosive
ASR	Archives Search Report
AT	anti-tank
BAR	Browning Automatic Rifle
CAIS	Chemical Agent Identification Set
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIA	Central Intelligence Agency
CIP	Community Involvement Plan
CWM	chemical warfare materiel
DERP	Defense Environmental Restoration Program
DGM	Digital geophysical mapping
DoD	Department of Defense
EFV	East Fork Valley
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
ER	Engineer Regulation
EVN	East Valley North
EVS	Eagle Valley South
FS	feasibility study
ft	foot/feet
FUDS	Formerly Used Defense Sites
FVS	focused visual survey
GPS	Global Positioning System
HE	high-explosive
HEAT	high-explosive anti-tank
IRMP	Interim Risk Management Plan
KD	Known Distance
lb	pound(s)
MC	munitions constituents
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter
MMPR	Military Munitions Response Program
MRA	Munitions Response Area
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
msl	mean sea level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDAI	No Department of Defense Action Indicated
NF	National Forest

## *List of Acronyms and Abbreviations (Cont.)*

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NFA	No Further Action
NROI	no record of ordnance incidents
OB/OD	open burn/open detonation
PA	Preliminary Assessment
RAC	Risk Assessment Code
RI	remedial investigation
Shaw	Shaw Environmental, Inc.
SI	Site Inspection
TCRA	Time-Critical Removal Action
TPP	Technical Project Planning
Trail	Colorado Trail/Continental Divide National Scenic Trail
TSU	Technical Support Unit
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCB	U.S. Census Bureau
USFS	U.S. Department of Agriculture Forest Service
UXO	unexploded ordnance
WP	white phosphorus
WWII	World War II

## *Glossary of Terms*

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**Area of Interest (AOI)** – A location, not previously identified as a Munitions Response Site, where preliminary information (e.g., historical records, anecdotal information) indicates that military munitions activities may have occurred and evaluation is warranted.

**Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)** – Also known as “Superfund,” this congressionally enacted legislation provides the methodology for the removal of hazardous substances resultant from past / former operations. Response actions must be performed in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (USACE, 2003). CERCLA was codified as 42 USC 9601 et seq., on December 11, 1980, and amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

**Defense Sites** – 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 for or was permitted for the treatment or disposal of military munitions (10 USC 2710(e)(1)).

**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, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed consistent with applicable environmental laws and regulations (10 USC 2710(e)(2)).

**Explosive Ordnance Disposal (EOD)** – The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded ordnance and of other munitions that have become an imposing danger, for example, by damage or deterioration (10 USC 2710(e)(2)).

**Formerly Used Defense Site (FUDS)** – Real property that was formerly owned by, leased by, possessed by, or otherwise under the jurisdiction of the Secretary of Defense or the components, including organizations that predate DoD. Some FUDS properties include areas formerly used as military ranges (10 USC 2710(e)(2)).

**Military Munitions** – Ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the DoD, the U.S. Coast Guard, the U.S. Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunitions, small arms ammunition,

grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components of the above.

The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 USC 2011 et seq.) have been completed (10 USC 101(e)(4)(A) through (C)).

**Munitions Constituents (MC)** – Any materials originating from unexploded ordnance (UXO), discarded military munitions (DMM), or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions (10 USC 2710(e)(3)).

**Munitions Debris (MD)** – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal (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: (A) Unexploded ordnance (UXO), as defined in 10 USC 101(e)(5); (B) Discarded military munitions (DMM), as defined in 10 USC 2710(e)(2); or (C) Munitions constituents (e.g., TNT, RDX), as defined in 10 USC 2710(e)(3), present in high enough concentrations to pose an explosive hazard (10 USC 2710(e)(2)).

**Munitions Response Area (MRA)** – Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples are former ranges and munitions burial areas. An MRA comprises one or more munitions response sites (32 CFR§179.3).

**Munitions Response Site (MRS)** – A discrete location within an MRA that is known to require a munitions response (32 CFR§179.3).

**Munitions Response Site Prioritization Protocol (MRSPP)** – The MRSPP was published as a rule on October 5, 2005. This rule implements the requirement established in section 311(b) of the National Defense Authorization Act for Fiscal Year 2002 for the Department of Defense (DoD) to assign a relative priority for munitions responses to each location in the DoD's inventory of defense sites known or suspected of containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). The DoD adopted the MRSPP under the authority of 10 USC 2710(b). Provisions of 10 USC 2710(b) require that the Department assign to each defense site in the inventory required by 10 USC 2710(a) a relative priority for response activities based on the overall conditions at each location and taking into consideration various factors related to safety and environmental hazards (70 FR 58016).



**Range** – A designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration (10 USC 101(e)(1)(A) and (B)).

**Range Activities** – Research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems (10 USC 101(e)(2)(A) and (B)).

**Risk Assessment Code (RAC)** – An interim risk assessment procedure developed by the U.S. Army Engineering and Support Center, Huntsville (USAESCH), Ordnance and Explosives Directorate (CEHNC-OE) to address explosives safety hazards related to munitions. The RAC score was formerly used by the USACE to prioritize response actions at FUDS. The RAC procedure, which does not address environmental hazards associated with munitions constituents, has been superseded by the MRSPP.

**Unexploded Ordnance** – 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 either by malfunction, design, or any other cause (10 USC 101(e)(5)(A) through (C)).

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## ***1.0 Introduction***

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This Interim Risk Management Plan (IRMP) was prepared by Shaw Environmental, Inc. (Shaw) for the U.S. Army Corps of Engineers (USACE) in accordance with Delivery Order 003, issued under USACE Contract No. W912DY-04-D-0010. This IRMP reflects the collaborative approach taken by the USACE, U.S. Department of Agriculture Forest Service (USFS), Colorado Department of Public Health and Environment (CDPHE), and U.S. Environmental Protection Agency (EPA) to manage public exposure to potentially explosive hazards. Key components of this approach are to educate the public as to how to protect themselves should they encounter potential munition items, and to outline the response approach to be taken when potential munition items are reported related to military munitions hazards at Camp Hale until the remedial investigation and final remedial action is completed.

### ***1.1 Project Authorization***

The Department of Defense (DoD) has established the Military Munitions Response Program (MMRP) to address DoD sites suspected of containing munitions and explosives of concern (MEC) and potential munitions constituents (MC). Under the MMRP, the USACE is conducting environmental response activities at Formerly Used Defense Sites (FUDS) for the Army, DoD's Executive Agent for the FUDS program.

Pursuant to USACE's Engineer Regulation (ER) 200-3-1 (USACE, 2004) and the *Management Guidance for the Defense Environmental Restoration Program (DERP)* (DoD, 2001), USACE is conducting FUDS response activities in accordance with the DERP statute (10 U.S. Code [USC] 2701 et seq.), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 USC 103), Executive Orders 12580 and 13016, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] Part 300). As such, USACE is working with Federal and state agency partners to identify and implement interim measures to manage potential risk posed to the public as a result of historical military munitions training activities at Camp Hale, Colorado.

### ***1.2 Site Name and Location***

Camp Hale, FUDS Property Number B08CO0014, is located approximately 70 miles west of Denver, Colorado. The project area spans Eagle, Summit, Pitkin, and Lake Counties; is located between the towns of Red Cliff and Leadville; and extends from the eastern side of the Tenmile Range to the Holy Cross Wilderness Area on the west as shown on Figure 1-1. The total acreage for the MRAs addressed in this IRMP is 101,116 acres.

### *1.3 Purpose, Scope, and Objectives of the Interim Risk Management Plan*

The overall objective and purpose of the IRMP is to manage potential munitions risks until remedial actions are completed at the site and to “enhance public safety and protect the human environment from potential MEC remaining” from past military munitions training activities (USACE, 2009). Strategies for developing the IRMP include identifying potentially exposed populations and areas of concern with potential MEC hazards, identifying available risk management tools, and utilizing the appropriate tools on a site-specific basis to manage potential hazard exposures. The primary activities of this IRMP are to:

- Identify locations and user activities that warrant risk management;
- Inform users of the potential to encounter munitions MEC at Camp Hale;
- Instruct users on how to respond if suspected MEC is encountered; and
- Ensure that a formal MEC response process is followed in the event of encountering MEC.

The scope of this IRMP is focused to identifying and outlining an approach to manage potential explosive hazards due to the presence of MEC in the former Camp Hale area as determined through various site investigations conducted throughout the area. The areas where this IRMP will be focused are areas in which evidence of past military munitions training took place and where evidence of MEC was found during previous investigations.

### *1.4 Project Team and Area Stakeholders*

The project team is comprised of Federal and state agencies and has developed a strong working relationship over the years of examining and addressing historical military munitions in the Camp Hale area. The following agencies comprise the project team:

- USACE, Omaha District – The Omaha District has overall management, contractual, and funding responsibility. The USACE conducts the environmental cleanup work on former military land under the FUDS program.
- USFS – The USFS owns and manages the majority of the land within the Camp Hale FUDS boundary.
- CDPHE – The CDPHE is responsible for regulatory oversight for the State of Colorado.
- EPA – The EPA is the federal regulatory agency.
- Shaw – Shaw is the contractor to the USACE for the Camp Hale IRMP project.

Area stakeholders refer to the non-agency entities that have an interest in activities occurring in the Camp Hale area. These entities include public and elected officials of surrounding towns,

counties, and state; area residents and landowners; USFS personnel; area users such as seasonal, recreational, and special-use permittees; utilities; and emergency responders.

### ***1.5 Technical Project Planning Meeting Outcomes***

A Technical Project Planning (TPP) meeting was held on May 7, 2009, at the offices of the Rocky Mountain Region of the USFS in Golden, Colorado. Representatives from the entities identified above – USACE, USFS, CDPHE, EPA, and Shaw were in attendance. The purpose of this TPP meeting was to discuss the risk management approach to be implemented for the Camp Hale area. Items discussed during this meeting included community involvement needs for the project, field activities to be conducted in summer 2009 by Sky Research, an overview of the TPP process and goals, the IRMP approach, and the Camp Hale web site. Following discussion, action items were identified and responsible parties assigned. Meeting minutes are provided in Appendix A.

**Community Involvement** – CDPHE noted that the Community Involvement Plan (CIP) was in need of being updated; however, it was acknowledged during this discussion that updating the CIP would not occur as part of IRMP development. A communications strategy, based on information provided in the CIP and updated with interviews conducted during IRMP development, would be developed to meet the needs for risk management within the Camp Hale area. This strategy will be tailored to fit specific needs identified for a particular MRA and will remain in effect for the Camp Hale area until a final remedy is selected for the area.

Meeting attendees were reminded that Administrative Records for the project area have been established and are located at the Lake County Public Library and the Holy Cross Ranger District’s Minturn Office. However, a check on the Administrative Record in the Minturn office indicated that it needs to be repopulated/updated to reflect documents currently available to the public; however, it was decided after this meeting to make the Lake County Public Library the sole Administrative Record/Information Repository for the Camp Hale site.

During discussion of the TPP process, defining stakeholders in the project was raised as there were not representatives from all groups who could be considered a stakeholder, such as recreational user groups. A distinction was suggested between “area users” and “project stakeholder” which was agreed upon by the project team. Given use of outreach information gathered in support of the 2003 CIP and the need to update this information, the project team agreed to review the list of users and add or remove entities as appropriate. The goal of this activity is to ensure pertinent area users were identified and information needs captured in IRMP-related efforts.

**Summer 2009 Field Activities** – Field activities conducted during summer 2009 by Sky Research, Inc., were focused visual surveys (FVSs) over approximately 277 acres in five munitions response areas (MRAs): MU001 – Homestake Valley Range Complex; MU003 – Eagle Valley North Range Complex; MU004 – Eagle Valley South Range Complex; MU007 –

Yoder Gulch Range Complex; and MU008 – Tennessee Pass Range Complex. Recognizing that the 277 acre area is an estimate, as are the exact areas within each MRA to be surveyed, the FVS was designed to be flexible in order to address each MRA as necessary (i.e. more coverage in some areas, less in others) based on actual field conditions encountered.

**IRMP Approach** – Project team members reviewed an IRMP outline that presented the key sections of the document. [The outline was developed using MU008, Tennessee Pass Range Complex, as a pilot MRA; that is the IRMP sections were developed for MU008 with the understanding that this approach would then be used for all MRAs carried forward from the RI. Using this approach, team members reviewed the draft document and provided comments which are incorporated in this document.] Team members agreed that umbrella approaches should be identified with regard to communications strategy, land-use controls, and MEC response. These approaches would then be tailored to reflect specific needs for each respective MRA. The need for a formalized MEC response protocol was punctuated by a USFS representative who mentioned recent (i.e., within the last 2 to 3 years) MEC finds. After discussion, it became clear the project team knew of these finds; however, it underscored the need for a notification protocol.

The discussion turned to possible risk management mechanisms and the criteria to be used for determining which mechanisms would be used within a particular MRA. The stakeholders agreed to explore using a tiered approach based on the identified risks associated with an MRA. The first tier would be adding signs or similar form of notification for an area; tier two would be some sort of use restriction such as requiring hikers to remain on designated trails; and tier three would be area closures. It was also suggested to use permit issuance as a means to restrict access and uses of particular areas.

As performance measures are to be an important step in the IRMP for the project team, it was acknowledged that further discussion would not be productive until they are defined. The project team agreed to table this discussion until other parts of the IRMP are developed.

## ***1.6 Organization of the Interim Risk Management Plan***

This IRMP provides the framework, components, and activities to support interim risk management of MEC hazards until a final remedy is identified. The IRMP includes the following sections:

- Section 1.0 – Introduction
- Section 2.0 – Property Description and History
- Section 3.0 – Interim Risk Management Tools
- Section 4.0 – MEC Response
- Section 5.0 – MRA MU001: Homestake Valley Range Complex

- Section 6.0 – MRA MU002: East Fork Valley Range Complex
- Section 7.0 – MRA MU003: Eagle Valley North Range Complex
- Section 8.0 – MRA MU004: Eagle Valley South Range Complex
- Section 9.0 – MRA MU005: Ruby Gulch Range Complex
- Section 10.0 – MRS TM006b: Shrine Mountain Maneuver Area South
- Section 11.0 – MRA MU007: Yoder Gulch Range Complex
- Section 12.0 – MRA MU008, Tennessee Pass Range Complex
- Section 13.0 – MRA CW009: Chemical Training Area
- Section 14.0 – Proposed Schedule
- Section 15.0 – References
- Figures
- Appendix A Technical Project Planning Memo
- Appendix B Signage Examples
- Appendix C Target Audiences
- Appendix D Safety Brochure
- Appendix E 2009 Interview Summary

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## 2.0 Property Description and History

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A brief review of the setting, history, and use of Camp Hale is provided in the following sections. Much of the information presented was obtained from the *Preliminary Assessment* (PA; Shaw, 2008a) and *Site Inspection Report* (Shaw, 2008b).

Camp Hale is included on the MMRP Inventory in the *Defense Environmental Programs Annual Report to Congress Fiscal Year 2009* (DoD, 2009). For the Site Inspection (SI) conducted in 2007 (Shaw, 2008b), 14 MRAs were identified for the former Camp Hale area. Of these 14 MRAs, nine MRAs were carried forward from the SI for further action, six MRAs were recommended to be removed from further consideration based on a no further action determination, and one MRA (TM006) was split into two MRSs with one being carried forward for further action and the other being recommended for no DoD Action Indicated (NDAI). This IRMP outlines hazard management efforts through avoidance and reporting for the nine MRAs resulting from the SI (Figure 2-1) and are listed in Table 2-1.

### 2.1 Historical Military Use

During World War II (WWII), in the interest of providing a winter mountain warfare training area for soldiers, the War Department authorized the construction of Camp Hale in April 1942. Located in the west-central part of Colorado, the Camp Hale military reservation originally was authorized to use up to 179,000 acres of National Forest (NF) land. The War Department purchased or leased the remaining privately-owned land as part of Camp Hale. Much of the training focused on skiing, mountain climbing, and weapons qualification. Camp Hale officially opened in November 1942 with the transfer of the Mountain Training Command from Camp Carson, Colorado. The 99th Infantry Battalion arrived in December 1942.

Engineers constructed a variety of live fire ranges on the southeast portion of the cantonment area in 1942. These ranges included grenade courts; bayonet courses; gas chambers; rifle, pistol, and machine gun ranges; anti-aircraft ranges; and a landscape target range. The camp also served as a German prisoner of war camp in 1945. The soldiers also used numerous artillery and mortar ranges, and training and maneuver areas outside the cantonment area at Camp Hale. In addition, the Mountain and Winter Warfare Board tested and filmed a wide variety of weapons and equipment at Camp Hale throughout WWII.

The War Department placed Camp Hale on surplus status in September 1944, and by February 1945, the War Department began to deactivate Camp Hale. In 1946, Camp Hale became a sub-post of Camp Carson, and the area was subsequently used for various training activities through the 1950s by both the Army and Air Force.

**Table 2-1: MRAs Addressed by the IRMP**

<b>MRA</b>	<b>Approximate area in acres</b>	<b>MEC/Munitions Debris (MD)</b>	<b>Recommendation*</b>
MU001: Homestake Valley Range Complex	40,646	MD recovered during SI. MEC reported in previous investigations.	Proceed to remedial investigation (RI).
MU002: East Fork Valley Range Complex	382	MD recovered during SI. MEC requiring demolition recently found; MEC also found in previous investigations.	Proceed to RI.
MU003: Eagle Valley North Range Complex	9,561	MD recovered during SI. MEC requiring demolition recently found; MEC also found in previous investigations.	Proceed to RI.
MU004: Eagle Valley South Range Complex	6,182	MEC and MD recovered. Additional finds reported in previous investigations.	Proceed to RI.
MU005: Ruby Gulch Range Complex	8,757	MD recovered. MEC reported in previous investigations.	Proceed to RI.
TM006: Shrine Mountain Maneuver Area	6,527	Evidence of military munitions and related activities observed in the southern portion of the MRA. No evidence of military munitions related activities were observed in the northern section of the MRA.	Subdivide the MRA into two munitions response sites (MRSs) (TM006a to the north and TM006b to the south). No NDAI TM006a. Proceed to RI for TM006b.
MU007: Yoder Gulch Range Complex	5,643	MD recovered. MEC reported in previous investigations.	Proceed to RI.
MU008: Tennessee Pass Range Complex	23,367	MD recovered; MEC found in previous investigations.	Proceed to RI.
CW009: Chemical Training Area	51	MD and chemical warfare materiel (CWM)-related finds reported in previous investigations. Subsurface anomalies identified during a digital geophysical mapping (DGM) survey.	Proceed to RI.

\*Recommendations are from the SI Report (Shaw, 2008b).

In July 1965, Camp Hale was deactivated by Fort Carson (former Camp Carson). In October 1966, the General Services Administration transferred the Camp Hale installation and all buildings to the USFS.

### *2.1.1 Historical CIA Activities*

From 1959 through 1964, the Central Intelligence Agency (CIA), on behalf of the U.S. Government, secretly trained Tibetan soldiers at Camp Hale. The USFS granted authority for use of 10,880 acres for the classified mission. Nearly 170 Tibetan soldiers received training at Camp Hale between 1959 and 1964. These individuals experienced demanding training including weapons, demolitions, communications, and guerrilla tactics. Mortars (60 millimeters [mm] and 81mm), recoilless rifles (57mm and 75mm), M-1 rifles, and 2.36-inch and 3.5-inch rockets (commonly known as bazookas) were among the weapons employed.

### *2.1.2 National Historic Site*

Due to its unique significance as the only high-altitude training facility used by the United States during WWII, the Camp Hale cantonment and much of the East Fork Valley (EFV) was designated the Camp Hale National Historic Site in 1992. As a designated historic site, building foundations, construction details, and all other historical features, including munitions items, MD, and other WWII items are considered historical resources, and are protected under the National Historic Preservation Act.

## *2.2 Ownership History*

Camp Hale was established in 1942 in west-central Colorado to provide winter and mountain warfare training during WWII. Camp Hale was acquired by purchase from private owners and by use permits from the USFS. In July 1965, Camp Hale was deactivated and control of the lands returned to the USFS in 1966. Privately owned parcels were returned to their owners and are indicated on individual MRA figures presented later in this document.

## *2.3 Physical Setting*

### *2.3.1 Topography and Vegetation*

The overall landscape at Camp Hale is mountainous with valleys. The valley floors range in elevation from about 9,310 to 9,660 feet (ft) mean sea level (msl) and the topographic high points range from 9,400 to over 14,000 ft msl. Camp Hale is located near Leadville, the highest town in Colorado. Camp Hale has a very diverse offering of high-altitude open meadows, dense forests, and lower elevation sagebrush flats.

### *2.3.2 Land Use*

Access to Camp Hale is via Interstate-70 and State Highway 24. The majority of the former Camp Hale property is managed by the USFS. The White River NF manages most of the public land, along with the Arapaho and San Isabel NFs. There are numerous private holdings within

the NFs throughout the Camp Hale area (Figure 2-2). Additionally, the Army currently has an agreement to use most of the Camp Hale area for non-munitions training activities.

The area around Camp Hale is one of Colorado’s, and the western region’s, premier areas for outdoor recreation. This area is best known for skiing, which includes Vail, Beaver Creek, Copper Mountain, Ski Cooper, and Breckenridge resorts. However, other recreational activities, such as hiking, camping, and biking, are increasingly enjoyed by area visitors and residents throughout the year. The counties in which Camp Hale is located or adjacent to are also gateways to state and NFs, including other portions of the White River, San Isabel, and Arapaho NFs, which surround Camp Hale.

### 2.3.3 *Nearby Population*

#### 2.3.3.1 *Population Density*

The closest communities (using Pando as a point of reference) are Red Cliff approximately 5 miles to the north, Leadville approximately 18 miles to the south, and Breckenridge approximately 56 miles to the east by road, on the east side of the Tenmile Range. The population density for the counties contained in Camp Hale follows:

**Table 2-2: Population Demographics by County**

<b>County</b>	<b>Area (square miles)</b>	<b>Population</b>	<b>Population Density (persons/sq mile)</b>
Pitkin	970	15,474	15
Lake	377	7,994	21
Summit	608	26,843	39
Eagle	1,688	52,331	25

Source: U.S. Census Bureau (USCB), 2007

#### 2.3.3.2 *County Ethnic Composition*

Ethnic composition of the counties that comprise the Camp Hale area is important in order to understand any language barriers or cultural practices that may occur in relation to activities conducted at Camp Hale. At a minimum, identifying diversity in the project area will indicate if there is a need to provide information in a language other than English to ensure area users are alerted to potential hazards and how to protect themselves and their families.

According to Census Bureau information (USCB, 2007), the majority of the population in Lake County is Caucasian and comprises approximately 95 percent of the population. Among this 95 percent, 42 percent of responders identified themselves as being of Hispanic or Latino origin. Other than English, the next predominant language spoken in Lake County is Spanish, with 26 percent (USCB, 2000).

The ethnic make-up of Eagle County is 97 percent Caucasian, with 28 percent identifying themselves as Hispanic or Latino origin. Based on these demographics, project information to be made available to the public will be provided in both English and Spanish.

### *2.3.4 Access Methods to the Camp Hale Area*

#### *2.3.4.1 Trails*

Camp Hale contains numerous trails (Figure 2-3). Trails include segments of the Colorado Trail/Continental Divide National Scenic Trail (Trail), and three national recreation trails. Other trails of national or regional significance either cross the forest or have been proposed to do so. All of these trails play a role in providing trail-related recreation in areas that may not be accessible by motorized vehicles.

#### *2.3.4.2 Forest and Four-Wheel Drive Roads*

Forest and four-wheel drive roads serve as access routes off main roads that go through the Camp Hale area. These roads provide greater ease of access into less-developed areas for activities such as informal camping, hiking, residential, seasonal permit activities such as firewood cutting, and four-wheeling.

#### *2.3.4.3 Camping Areas*

Campgrounds are located off the main roads that go through the area, as well as some of the more traveled forest roads that go into the Homestake Valley and Eagle Valley areas. Dispersed, or informal, camping occurs throughout the Camp Hale area off trails and in more remote areas where outfitter and outdoor education groups visit. Developed campgrounds are continually slated for renovation and reconstruction, actions that include ground disturbing activities. The USACE will be included in the planning for those kinds of projects.

#### *2.3.4.4 Wilderness Areas*

The MRAs are located primarily on USFS land and used for recreational purposes, including hunting and fishing. There is one Wilderness Area within the identified MRAs, Holy Cross Wilderness, which provides a protected environment for the NF ecological systems. The types of recreational activities that can occur within a designated wilderness area are limited to non-motorized and non-mechanized methods of travel, per the Wilderness Act of 1964 (USFS, 2008). The term “mechanized travel” refers to the use of any object with moving parts that is to be used as transport for a person/people from one place to another and is propelled by a power source, human or not. During non-winter seasons, there are trails that can be used by area users on foot or horse. During the winter months, types of recreational activities that can occur in these areas include cross-country skiing and snowshoeing. According to the USFS Travel Management Plan (2008), year-round off-trail use is allowed but not encouraged.

Access to the wilderness area occurs through trailheads and four-wheel drive/Jeep roads present in the Homestake Valley and west of Route 24. All users of the Holy Cross Wilderness must obtain a permit; the party size for Holy Cross Wilderness is limited to 15 people. Such parties

self register at the trailhead. Wilderness users seek solitude and an “off the beaten track” experience. These users are more apt to travel cross country to gain that experience and to camp in secluded locations. All commercial users of National Forest System lands must have a special use permit. Based on historical research conducted during past project investigations, the southeastern portion of the Holy Cross Wilderness overlaps with known past munitions and maneuver training areas. During past area investigations, various types of munitions have been found ranging from artillery shells, rockets, and mortars to grenades, landmines, and blasting caps in a portion of Homestake Valley that overlaps with the Holy Cross Wilderness Area (Shaw, 2008b).

#### *2.3.4.5 Watersheds*

Use of water resources via rivers, streams, and watershed areas provides a pathway by which area users may be exposed to munitions-related hazards during aquatic-based activities. Area users can access aquatic areas via four-wheel drive roads and trails. A significant portion of the Upper Colorado River’s water originates in the headwater regions of the White River NF. These waters are a supply for irrigation needs as well as for municipalities on both sides of the Continental Divide. They also provide for recreational pursuits including fishing, boating, and camping.

There are 4,200 miles of perennial streams, 14,000 acres of lakes, and 120,000 acres of riparian and wetland areas on the forest. They vary in condition from nearly pristine water bodies in wilderness areas to streams and wetlands impaired by mining, heavy recreational use, road construction, and timber harvest.

#### *2.3.4.6 Timber Resources and Management*

Timber continues to be harvested from various areas within the Camp Hale area. In addition to timber harvesting, public access is provided for the “collection of special forest products including posts and poles, Christmas Trees, firewood, mushrooms, and transplants” (USFS, 2008). As a result of these various activities, people accessing and utilizing NF areas for these purposes may inadvertently encounter potential MEC or MD items within identified MRAs.

#### *2.3.4.7 Mineral Resources*

As the Camp Hale property contains both leasable and locatable minerals as is confirmed by the nearby presence of the Climax Mine and the numerous abandoned mines through the FUDS property, there are opportunities for encountering potential MEC. Typically, development of these areas involves the USFS and Bureau of Land Management and the issuance of authorization. Should mineral resources be identified within a MRA, appropriate steps could be included as conditions on a permit so as to limit exposure to potential hazards.

#### *2.3.4.8 Heritage Resources*

While Camp Hale contains a rich fabric of historical and prehistorical resources known as heritage resources, the only official area for public viewing is the Camp Hale cantonment area

off State Highway 24. Only a small percentage (less than 10 percent) of the area has been intensively inventoried to locate these resources. However, each time a ground-disturbing activity is planned for federally funded or permitted activities, the law requires that an inventory be conducted to mitigate any impacts to heritage resources. As a result of this type of ground-disturbing activity, should it occur in a MRA, there is a potential for exposure to potential MEC.

#### ***2.3.4.9 Other Resource Management Actions***

The Forest Service performs a full array of resource management actions throughout the Camp Hale area. These actions include but are not limited to range management, watershed restoration, wetland improvement, noxious weed management, wildlife habitat enhancement, recreation improvements, campground renovations/reconstruction, and fishery habitat improvements. Each of these actions may include ground disturbing activities. As a result of these actions, USFS personnel and contractors may inadvertently encounter potential MEC or MD items within the identified MRAs. Appropriate pre-planning steps including involving the USACE prior to any such ground disturbing activities could be included as a condition of ground disturbing projects to limit exposure to potential hazards.

### ***2.4 Previous Investigations***

Several investigations focusing on the identification of MEC have been performed in the Camp Hale area. Information from these investigations provides the basis for this IRMP and associated mitigation efforts. The following sections describe the scope and major conclusions of previous work, and Figure 2-4 shows MEC and MD items found between 2001 and 2007, with the exception of items identified during the 2003 Time Critical Removal Action; these items are shown in Figure 6-1. For detailed information, see the *Preliminary Assessment* (Shaw, 2008a) and *Site Inspection Report* (Shaw, 2008b).

#### ***2.4.1 1946 Removal Action***

As detailed in *Report of Inspection of Camp Hale Impact Ranges* (Luter and Sainato, 1946), sometime between July and September 1946, three Engineer Bomb and Shell Disposal Teams of the U.S. Army's 9800th Technical Support Unit (TSU) performed ordnance clearance activities at Camp Hale. A map attached to the document highlights several areas of Camp Hale and labels them as "Target Area ##." A list of unexploded ordnance (UXO) items found within each Target Area is included in the report. Additionally, the map denotes the many locations of listed MEC items and identifies other MEC finds not documented in the report (Figure 2-5). The map is in poor condition, thus many of the MEC locations can only be identified on a gross scale.

#### ***2.4.2 1965 Removal Action***

Documents in the USACE Omaha District's Real Estate archives record a 1965 ordnance clearance of a specified area, called the "Camp Hale Impact Area" located in the eastern end of the EFV (Wilson, 1965). This clearance action took place from June 14 to 18, 1965, and

coincided with the deactivation of Camp Hale. The following items were found, although exact locations were not recorded:

- 106mm High Explosive Anti-Tank (HEAT) – 3 each ;
- 90mm HEAT – 1 each;
- 3.5-inch HEAT – 11 each;
- 81mm High Explosive (HE\_ – 5 each;
- 81mm White Phosphorous (WP) – 2 each;
- 76mm armor-piercing high-explosive (APHE) – 1 each;
- 2.75-inch rocket motor – 1 each;
- M-11 rifle grenade – 1 each;
- 60mm Illumination – 5 each;
- 57mm HEAT – 32 each;
- 57mm WP – 1 each;
- 40mm HE – 8 each; and
- Mark II grenade – 1 each.

Based on the results from this action, the USFS issued a report “Camp Hale Munitions and the Forest Service 1968-2003” dated March 19, 2003 that discusses concerns by retired special/covert operations experts about the potential of finding CIA era munitions they consider to be “very dangerous and unstable” (USFS, 2003).

#### *2.4.3 Miscellaneous UXO Reports (1998-2007)*

The following list describes MEC encounters that have occurred within the Camp Hale area outside official clearances:

- In August or September 1998, bow hunters found a mine booster at Area of Interest (AOI) 043 (Resolution Creek Training Range). Fort Carson Explosive Ordnance Detail (EOD) responded.
- In 1998, an Outward Bound instructor reported a 60mm mortar round on Whitney Peak. Unable to reach the site because of the onset of winter weather, Fort Carson EOD responded on August 26, 1999 (USACE, 2003).
- On June 28, 2001, during an ordnance explosives surface sweep by the USACE in EFV, one unknown item (later identified as a non-hazardous 3.5-inch rocket motor) and one 2.36-inch bazooka warhead were found. Fort Carson EOD responded.



- On September 24, 2001, a hunter reported the discovery of an 81mm HE mortar round near the Ranch Creek Jeep Road, north of EFV to the USFS. Fort Carson EOD responded.
- On July 10, 2002, following USFS actions at the Chicago Ridge Fire, one 57mm HE M307 round was discovered south of Nazi Village (AOI 021). Fort Carson EOD responded on July 11, 2002. [The responding EOD team was actually from Moffett Field, California, and was assigned to cover the Fort Carson EOD office due to the overseas deployment of the regular Fort Carson EOD personnel.]
- On September 19, 2002, a reconnaissance team found two M9A1 rifle grenades and one shaped charge in EFV. Fort Carson EOD responded on 20 September 2002.
- On September 23, 2002, a worker from Xcel Energy reported a UXO item in the EFV, on the south bank of the East Fork. The item was identified as the intact head of a 3.5-inch, M28A2, anti-tank (AT) rocket. Fort Carson EOD responded on September 24, 2002.
- On September 24, 2002, three M1/M4 AT mines were discovered stacked along the road at the Known Distance (KD) Range (AOI 010). Fort Carson EOD was notified on September 30, 2002, and responded on October 1, 2002, destroying one of the mines on-site. The other two mines were determined to be inert and were taken by the EOD Unit as training aids.
- On October 17, 2003, a hunter contacted the USFS (Holy Cross District) to report the location of one 75mm HE artillery round, without fuze, west of Tennessee Pass. Fort Carson EOD responded on October 21, 2003.
- In October 2007, a 10th Mountain Division Hut user found a 75mm item around Slide Lake. Fort Carson EOD responded on October 9, 2007, and destroyed the item.

#### ***2.4.4 Time-Critical Removal Action (2001)***

A Time Critical Removal Action (TCRA) was performed in the summer of 2001 in and next to the EFV to ensure there were no munition hazards along the Trail. The TCRA consisted of a surface sweep of the Trail and the East Fork Group Campground in the valley closure area. The sweep was conducted from June 19 to 29, 2001, and covered approximately 67 acres. Evidence of ten different types of munitions was found, and two items were destroyed by Fort Carson EOD personnel (Moore, 2004). The two items destroyed by Fort Carson EOD were found in EFV and were a rocket motor for a 3.5-inch recoilless rifle (bazooka) round and a 2.36-inch recoilless rifle (bazooka) round. Both were destroyed by Fort Carson EOD on July 28, 2001.

#### ***2.4.5 Archives Search Report (2003)***

The Archives Search Report (ASR) compiled information from historical research at various archives and holding facilities, interviews with persons associated with Camp Hale or its

operation, and visits to the property (USACE, 2003). All efforts were directed towards determining possible use or disposal of ordnance or CWM at Camp Hale. Particular emphasis was placed on establishing the types, quantities, and areas of use or disposal.

Based on the archive searches performed, informal interviews with 10th Mountain Division and other veterans, discoveries by recreational users and USFS personnel, and results of three site visits, it was determined that the Camp Hale area included multiple ranges which used munitions. MD and live rounds were found on various ranges. Range documentation from maps is very limited. Many of the impact areas did not have formal targets, but used natural features (rock outcrops, stands of trees, etc.) as targets (Shaw, 2008b).

#### ***2.4.6 Time-Critical Removal Action (2003)***

TCRA work was performed during summer 2003 in the EFV. This work consisted of a surface clearance of approximately 500 acres, located on the valley floor from about the Camp Hale Memorial Campground extending east about 2.5 miles up the valley. Munitions or MD materials were found, and a total of 24 live items were destroyed (Shaw, 2005).

#### ***2.4.7 Site Visits (2000-2005)***

Site visits have been performed at various areas across the Camp Hale project area to identify areas previously used by the military and that required further study to determine if any military munitions hazards are present. Site visit activities included review of historical documents and interview information from past and present site users. Historical and current maps were examined with this information and areas of possible military use were identified. Site visits to these areas then were conducted to verify the presence of military munitions.

Site visits were performed in August 2000, June through September 2001, June through September 2002, July 2003, July 2004, and July through September 2005. During the 2002 site visit, three munitions items were encountered by USACE contractors and disposed by Fort Carson EOD personnel.

#### ***2.4.8 Site-Specific Chemical Warfare Materiel Scoping and Security Study Report for Camp Hale (2005)***

In accordance with DERP guidance and project initiation requirements under the FUDS program, the USACE Omaha District prepared a Findings and Determination of Eligibility Report to determine if former Camp Hale is eligible as a FUDS (Parsons, 2005). The former Camp Hale was included in the inventory of FUDS as a site potentially containing CWM. Historical information indicates two locations where CWM may have been used at Camp Hale – an area in the East Fork Valley identified on maps as “Gas Chamber” and on a ridge between Ptarmigan Pass and Sugarloaf Peak, east of the cantonment area of Camp Hale.

Review of the former Camp Hale data indicates that CWM in the form of Chemical Agent Identification Set (CAIS) kits were stored and used at the site for the training of military

personnel in the familiarization of, protection from, and decontamination of chemical agents/war gases. Based on historical documentation, there is a potential that field tests were conducted using 4.2-inch chemical mortars configured to be transported by pack animals. It is unknown if the mortars fill was chemical agent or WP (which at that time was referred to as a chemical agent) It is also unknown if all of the rounds were consumed during training or testing, was shipped to another facility, or was disposed of on-site. The recommendation for the former Camp Hale was further action in the form of a Programmatic RI/Feasibility Study (FS). In addition, a Risk Assessment Code (RAC) scoring for Camp Hale was conducted in March 2002 by the St. Louis District as part of the ASR. The RAC score was 3, recommending further action for the site.

Since the completion of the Camp Hale CWM Scoping and Security Report, additional surface evidence has been found at CW009 (Chemical Training Area) indicating the use of the K951 CAIS and incendiary grenades in that area. The scoring of the CWM study has not been amended to reflect recent findings.

#### *2.4.9 Preliminary Assessment (2007)*

In support of the MMRP at Camp Hale, a PA was performed in April – May 2007 (Shaw, 2008a). The PA was performed to characterize the site and potential sources; evaluate actual or potential release(s) of hazardous substance(s), pollutant(s), or contaminant(s) to migration/exposure pathways (groundwater, soil, and air) from MRAs; and evaluate associated targets of concern. The PA used the “AOI” designation for ranges as established in the ASR. However, as per USACE instruction during the SI, “MRA” became the preferred designation.

The results of this assessment indicated that munitions have been confirmed in many of the AOIs at Camp Hale. In addition, there are two AOIs where use of CWM has been documented: CW009 (AOI 016, Gas Chambers) and CW012 (AOI 040, Poison Gas Area). In addition to historical records, CAIS kits have been found in CW009, further supporting the potential for CWM use in this area.

#### *2.4.10 Site Inspection (2008)*

Following the PA, an SI was conducted for the Camp Hale area (Shaw, 2008a). An SI is performed to determine if a FUDS requires additional action by evaluating the presence or absence of MEC or MEC-related munitions constituents (MC). During an SI, the presence or absence of MEC and/or MC is determined along with the possibility of exposure to or impact on human health or the environment.

SI results evaluate site conditions and provide conclusions and recommendations reflective of information gathered through SI activities. Based on these efforts, 14 MRAs were identified in the Camp Hale area. Of these MRAs, recommendations provided in the SI report indicated the need for further action at nine MRAs due to the presence of MEC. Final remedies have not yet been identified for these MRAs, which has resulted in the preparation of this IRMP.

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## 3.0 *Interim Risk Management Tools*

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Interim risk management tools will be implemented on MRA-specific basis. However, a basic set of risk management tools will be used for the overall Camp Hale area, to include items such as signs, educational outreach, and sharing information with user groups through their outreach methods. Risk management tools are discussed in general below, with MRA-specific information provided in the appropriate MRA section.

### 3.1 *Types of Area Users*

A variety of users have been identified in relation to the Camp Hale area: residents/landowners, special use permittees, USFS personnel and other authorized workers, utility-related activities, and recreational users. Below are general descriptions of these user types, which will be further defined based on the MRA being discussed.

- **Residents/Landowners:** This group includes owners of land with homes on parcels, as well as people who own a residence but lease land from the USFS that are located within the Camp Hale area.
- **USFS personnel and other authorized workers:** This group includes regular USFS personnel, seasonal personnel, authorized contract workers, and other personnel.
- **Utility companies:** This group includes utility company employees who go into the area for utility conduit and/or easement maintenance.
- **Recreational users:** This group includes casual and commercial area users who participate in recreational activities in the area. These activities can include hiking, fishing, hunting, backpacking, camping, cross-country skiing, snow shoeing, and mountaineering.
- **Special Use Permittees:** The USFS issues special use permits for a definite period of time for USFS-managed land within the Camp Hale area. These permits allow for the permittee to access areas and/or conduct activities that would not normally be allowed on USFS managed land, such as mineral exploration, livestock grazing, outdoor educational activities, commercial recreational use (e.g., outfitters or timber harvesting).

### 3.2 *Land Use Controls*

Land use controls refer to a restriction or limitation that is placed on a property in order to protect human health and safety against some type of danger. In the case of the Camp Hale area, land use controls would be put in place as a tool to limit human exposure to the explosive hazard associated with historical military munitions that may be present in an area. Given the different types of land uses within the Camp Hale area, MRA-specific approaches will need to be

identified and evaluated for appropriateness. Per discussions during the TPP meeting, a tiered approach, which identifies the level of land use control to be implemented, could be used. This tiered approach would be reflective of the identified and potential MEC presence in a MRA. The first tier would be placement of signs and other outreach efforts to alert and educate area users as to the potential hazards present in historical training areas. The second tier could result in access restrictions to certain areas and deed restrictions should land change ownership. The third tier could be area closure in order to prevent exposure to potential hazards in a given area.

### ***3.2.1 Permit Conditions***

The USFS issues special use permits for USFS-managed land within the Camp Hale area. These permits allow for the permittee to access areas and/or conduct activities that would not normally be allowed on USFS managed land, such as livestock grazing, intensive recreational use, outdoor educational activities, timber harvesting, water, utilities, and minerals exploration. Given the finite lifespan of permits, conditions for permit issuance can be modified based on current site conditions or information.

Areas covered by permits for commercial recreational use are identified by compartments as defined by USFS District offices (Figure 3-1). In general, compartments reflect drainage areas and permits are issued based on the assessed carrying load, or amount of activity, a given area can support based on environmental conditions. Identification of the compartments used by a permittee can help with understanding the areas of use.

As conditions can be placed on the types of land use included in a special use permit, this is one mechanism to limit potential human exposure to MEC that may be present in a given area. An example of this would be prohibiting ground-disturbing activities for outfitter activities within the Camp Hale area.

### ***3.2.2 Area Use Restrictions***

Restricting use of an area within the NFs is another example of land management or control. The USFS has the authority as land manager to issue and enforce use restrictions for a given area. An example of this would be the limitation on use of camping sites in the EFV. The USFS issued this restriction after the 2003 TCRA identified numerous MEC and MD items and indicated the potential for subsurface items to be present. Use restrictions would be used as a mechanism to limit the time and method of potential exposure to MEC that may be present.

### ***3.2.3 Area Closures***

The USFS has the authority to issue a closure order for USFS-managed land within the Camp Hale area. These closure orders apply to USFS-managed land, can identify authorized personnel that may enter a closed area, and identify the duration of the closure order. Implementation of a closure order is another mechanism to limit potential human exposure to MEC that may be present in a given area. For example, the EFV was closed to regular visitor use during performance of the TCRA in 2003. During this time, visitor access was limited to use of the

Colorado Trail that went through the EFV area, with trail users being escorted through the area at specific times during work hours. Access to the area via forest roads was closed to area visitors.

### ***3.3 Engineering Controls***

#### ***3.3.1 Signage***

A signage strategy is presented as part of this IRMP as a result of concerns raised during the May 2009 TPP meeting. During this meeting, the need for signs alerting area users to the potential presence of MEC was raised by CDPHE. Discussion indicated that areas of high visitor and residential uses would need to be identified for signage as they related to the MRAs addressed by this IRMP.

Due to the potentially sensitive nature of presenting MEC-related information on signs around the Camp Hale area, the project team has reviewed sign examples used at other MMRP sites in order to identify verbiage that would be appropriate for the Camp Hale area. Examples of these signs are provided in Appendix B. Sign content would include identification of the area as being used by the military in the past, notification of the potential presence of MEC due to past military munitions training activities, direction to not touch anything that is unknown or unfamiliar, and information on who and how to contact for reporting the item. Personnel from the appropriate USFS office and the USACE will develop and finalize a sign plan for each MRA. Signs will be placed at key area user entry points especially at the developed campground kiosks and also at areas such as trailheads and road entry points within the Camp Hale area. The sign plan will be developed separately from the IRMP and will be implemented as funding allows.

#### ***3.4 MEC Awareness Training***

Given the number of MRAs being addressed in this IRMP due to the potential presence of MEC, recognition training would be provided to personnel conducting work activities in MRAs.

Munitions recognition training and hazard classification of areas within Camp Hale has already occurred, beginning in 2002, with the last training occurring in 2007. This recognition training will be conducted at the beginning of each summer field season for USFS seasonal employees and other personnel through review of materials already at USFS Ranger offices or by USACE upon request. In addition, a recognition training DVD will be developed and be made available at the Minturn and Leadville Ranger Stations for temporary USFS employees or other personnel.

Topics covered in this training include a background of historical military munitions training activities that occurred in the Camp Hale area, the types of munitions found in this area, specific areas where munitions have been found, the procedures to be followed when responding to emergency calls from within one of these areas, how to recognize a potential munitions item, and steps to take to work safely in potential MEC areas.

For those areas within Camp Hale requiring emergency response such as fire fighting, coordination has occurred between the USFS and USACE to provide MEC avoidance. This

response creates a safe path into and out of a fire-fighting area for the fire fighters. This coordination will continue into the foreseeable future.

### ***3.5 Community Outreach and Communication Strategy***

#### ***3.5.1 Background***

A CIP was developed in 2003 in support of the 2003 TCRA. During January and February 2003, representatives from the CDPHE and the USACE's contractor, Shaw, conducted 35 community interviews, with a total of 46 respondents, in and around the areas of Vail, Leadville, Frisco, and Denver, Colorado. These interviews were conducted with elected and public officials, media representatives, area businesses, recreational users, stakeholder groups, and local residents. The list of interviewees was broad in scope to include a variety of land users, businesses, elected and local officials, and public agencies. Input from the USFS and CDPHE ensured that those with regular access to and interest in the USFS lands were contacted and interviewed.

Based on information gathered during this effort, an information outreach approach was developed that focused on providing project information via a web site, establishing an Administrative Record File at the Lake County Public Library, posting and distributing munitions safety information and information sheets at area trailheads and to private landowners within the project area, and meeting with interested homeowner groups. In addition, public meetings would be held to provide project updates as determined by project activities.

##### ***3.5.1.1 Results of 2009 Interviews***

In September 2009, in order to ensure project communications and involvement efforts continue to meet the needs of stakeholders, Shaw conducted eight follow-up phone interviews with some of the stakeholders previously interviewed, and CDPHE and Shaw representatives conducted face-to-face interviews with 16 additional stakeholders who had not been interviewed in 2003. The face-to-face interviewees were centered around the Leadville area and were representative of special-use permit holders. A summary of the 2009 interviews is provided in Appendix E.

In general, the approaches and tools identified in the 2003 Community Involvement Plan remain valid with the exception that most interviewees in 2009 indicated little interest in formal public meetings. They still want information on status of the investigation and cleanup efforts, and most indicated that email communication and web-based sites work best for them. Most requested that USACE notify them with a phone call should anything be found requiring immediate action.

#### ***3.5.2 General Approach***

The information outreach and approach developed during the 2003 effort serves as the basis for communications strategies outlined in this IRMP, and will be tailored to any specific needs identified for a particular MRA. In general, the outreach activities to be utilized for the MRA communication strategy will focus on:



- Updating and maintaining the web site to provide current activity information,
- Providing project-related information to recreational groups so they can provide project updates to their members and others who may read their information; this may include development of an email distribution list,
- Installing signs at frequently used trails and trailheads into the project area,
- Meeting with individuals and small groups as requested,
- Conducting public meetings if needed, and
- Ensuring safety information is made available to the public and included in any information shared for this area.

In addition, as is suggested by demographic data and confirmed by interviewees and USFS personnel, signs, brochures and other distributed communication products will be in both English and Spanish.. Key outreach and informational methods used for the Camp Hale military munitions project are discussed below.

### *3.5.2.1 Target Audiences – Recreational Users, Landowners, USFS Personnel, Emergency Responders*

The current list of target audiences for information outreach is focused on those entities identified during both interview events. These entities include public and elected officials, recreational groups, local media representatives, local businesses, residents, landowners, area stakeholder groups, USFS personnel, and area emergency responders. Per input received from the project team during the May 2009 TPP meeting, this list of target audiences was reviewed and updated to include previously unidentified groups or organizations. The current list of target audiences can be found in Appendix C.

### *3.5.2.2 Outreach Methods*

As stated above, an information outreach approach is in place that focuses on providing project information through a web site, establishing an Administrative Record File at the Lake County Public Library, posting and distributing munitions safety information and information sheets at area trailheads and to private landowners within the project area, and meeting with interested homeowner groups. In addition, public meetings would be held to provide project updates. Information provided through these outlets is updated as appropriate, based on project status and activities.

#### *3.5.2.2.1 Internet Methods*

The Camp Hale web site is located at [www.camphale.org](http://www.camphale.org) and provides project-related information such as historical use of the area, project status, safety information, maps, project

documents, and an email contact form for the public to submit questions or concerns about the project. Originally established in 2004, this web site is updated as needed to reflect current project status and activities.

Additional internet-based methods for information sharing, such as Facebook and Twitter, were suggested to be investigated by CDPHE and EPA community involvement representatives. These mechanisms could be used in addition to the web site already created for the Camp Hale military munitions project. Actual use of these types of social networking web sites by area users was explored through interviews with area users. Based on the 2009 interviews, an email distribution list will be developed, maintained, and used to provide semi-annual updates.

#### ***3.5.2.2.2 Information Sheets/Newsletters***

Information sheets and/or newsletters provide interested people with project information to keep them aware of and informed about the project, progress, and safety. Information is made available to the public at the Administrative Record/Information Repository location (at the Lake County Public Library in Leadville), and electronically on the project web site and recreational user group web sites.

As indicated through special use permittee interviews, information sheets and safety brochures may be provided with permits issued by the Holy Cross and Leadville Ranger Districts. This will ensure permittees are provided with project-related information, particularly for safety information.

A safety brochure was prepared for area users in the Camp Hale area. This brochure explains the “3 R’s” approach followed by the DoD for sites with historical military munitions. The 3 R’s approach encourages area users to “Recognize” a potential munitions item, “Retreat” from this item, and “Report” details of the item such as what it looks like and its location to proper authorities. This brochure will be made available to the public through the Administrative Record/Information Repository location, Ranger District offices, and mailed with permits and other materials provided or issued by the USFS District offices.

#### ***3.5.2.2.3 Area User Group Outreach Methods***

During the 2003 CIP development effort, representatives of various groups and organizations that use the Camp Hale area offered to post or include project-related information in their information materials. Information sharing provided by these entities includes posting project information on their web site and/or printing the information in their newsletter or other publications. Interviews conducted in 2009 confirmed continued use of existing outreach mechanisms. Other communication methods or avenues for reaching Camp Hale users include organizational websites such as the 10th Mountain Division Hut Association website ([www.huts.org](http://www.huts.org)) and the Colorado Trail websites ([www.coloradotrail.org](http://www.coloradotrail.org) and [www.thecoloradotrail.com](http://www.thecoloradotrail.com)).

### *3.5.2.3 Landowner Outreach*

Homeowner associations and individual private property owners were identified during past investigation activities in the project area. Homeowner associations have been identified in the Homestake Valley, Missouri Hill, and Sylvan Lakes areas. These associations and any others will be confirmed and identified during development of the IRMP communications strategy and on-going project work. Project-related and MEC safety information will be made available to these groups for their members through electronic and hard copies of materials.

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## 4.0 *MEC Response*

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### 4.1 *MEC Response Protocol*

The standard procedure for reporting a known or suspected munitions item on historical military training areas is to report the encounter immediately to local law enforcement. The MEC response protocol currently in place is the following:

- The appropriate or nearest Ranger Office and/or the County Sheriff is alerted about a potential item.
- When a potential item is reported to a USFS District office, they try to obtain the location of the item, a description of it, and access points to that area. Depending on the circumstances of the report, someone from the District office familiar with the project may try to locate the item themselves, confirm the information provided, and obtain more precise global positioning system (GPS) coordinates and location description.
- In the Leadville Ranger District, the Sheriff Department is contacted by the Ranger District for destruction of the item, and a USFS representative provides an escort to the item's location. In some cases, the Sheriff's Department may ask the USFS to contact the U.S. Army to send an EOD Unit to dispose of the item. For the Holy Cross District, information provided by the reporting party is verified, and the U.S. Army is called to send the closest EOD unit.

While this approach effectively mitigates the immediate hazard, there is a need for additional notifications to occur when a potential MEC item is reported to the USFS. Additional notifications to occur are the following:

- An email notification will be sent to a distribution list of the project team agencies and other appropriate recipients when a suspicious item has been found and reported to a USFS Ranger District office. The email distribution list is provided in the table below and will be updated as necessary.
- Information provided by USFS to USACE and CDPHE will include a description of the item, location, who and how it was found, and steps to be taken with regard to the disposing of the item.

**Table 4-1: MEC Notification List**

<b>Agency</b>	<b>Representative</b>	<b>Phone Number</b>	<b>Email</b>
US Forest Service	Paula K. Peterson, Eagle-Holy Cross Ranger District	970-827-5159 (direct) 970-366-6246 (cell) 970-827-5715 (main)	pkpeterson@fs.fed.us
US Forest Service	Lisa Corbin, Leadville Ranger District	719-486-7447	lcorbin@fs.fed.us
US Army Corps of Engineers	Jerry Hodgson	402-995-2727	Jerry.L.Hodgson@ usace.army.mil
US Environmental Protection Agency	David Rathke	303-312-6016	Rathke.David@epamail.epa.gov
Colorado Department of Public Health and Environment	Jeff Swanson	303-692-3416	Jeffrey.Swanson@state.co.us

#### **4.2 USACE and USFS Agreements**

Currently, there is an informal agreement between the USFS and USACE is to provide construction support, fire-fighting support, and/or munitions recognition training. For fire-fighting support, the USFS may notify and consult with the USACE before fire-fighting proceeds in a given area. Munitions recognition training has been provided in the past at the beginning of each summer upon request by the USFS. This level of support will continue until further notice.

#### **4.3 Database Updates**

As suspected MEC finds are identified and confirmed as MEC or MD, this information will be added to the overall munitions database for this project. This database will then be used to provide information for updating fire maps for a particular area to ensure that the most up-to-date information is available to emergency responders. If MEC/MD finds regularly occur in the same area, as identified through database updates, this area will be re-evaluated by the USACE and CDPHE to determine any change in potential risk to area users. This process will be shared with the project team.