

**FINAL**

**DECISION DOCUMENT**

**60 MM MORTAR AREA MUNITIONS RESPONSE SITE  
FORMER CAMP FANNIN  
SMITH COUNTY, TEXAS**

**FUDS Project No. K06TX006103**

**Prepared for:**

**U.S. Army Engineering and Support Center, Huntsville**



**Geographic District:**

**U.S. Army Corps of Engineers, Fort Worth District**

**August 2017**

## EXECUTIVE SUMMARY

This Decision Document (DD) is being presented by the United States Army Corps of Engineers (USACE) to describe the Department of Army (Army) selected remedy for the 60 mm Mortar Area Munitions Response Site (MRS) at the Former Camp Fannin Formerly Used Defense Site (FUDS) in Smith County, Texas. The remedies described in this DD were selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S. Code § 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan, 40 Code of Federal Regulations, Part 300 as amended.

The Defense Environmental Restoration Program (DERP) was established by Congress in 1986, and directed the Secretary of Defense to “...carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary.” DERP provides for the cleanup of Department of Defense (DoD) sites. DoD established a Military Munitions Response Program (MMRP) element was established under DERP in 2001 to address certain locations known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM) or munitions constituents (MC).. USACE is the program manager for DERP FUDS. USACE is the lead agency for investigating, reporting, making remedial decisions, and taking remedial actions at the MRSs identified at the Former Camp Fannin, while the Texas Commission on Environmental Quality (TCEQ) is the lead regulatory agency.

Based on the results of the Remedial Investigation (RI), the Former Camp Fannin was delineated into six MRSs. The delineation was based on the potential presence of MEC, differences in land ownership, and current and reasonably anticipated future land use. The six MRSs at the Former Camp Fannin are listed in Table ES-1 (below) and identified in [Figure 2](#).

Table ES- 1

Munitions Response Site (MRS)	Acreage
2.36-Inch Rocket Area MRS	326
60 mm Mortar Area MRS	775
60/81 mm Mortar Area MRS	784
M9 Rifle Grenade Area MRS	274
Non-ROE Areas MRS	117
Investigated-No Evidence of MEC/MD Contamination MRS	888.5

This document addresses the 60 mm Mortar Area MRS only. The 60 mm Mortar Area MRS consists of approximately 775 acres located along the south-western portion of the Former Camp Fannin Range Complex. The MRS contains firing points and portions of numerous range fans associated with the Former Camp Fannin. MEC contamination has been confirmed on the ground surface and subsurface of this MRS.

The RI completed for the Former Camp Fannin in 2011 concluded that potential MEC hazards are present for current and future residents, privately owned properties, commercial workers, site visitors, and/or

recreational users. Therefore, the RI for the Former Camp Fannin recommended a Feasibility Study (FS) be conducted to evaluate a range of possible remedial alternatives. The FS for the Former Camp Fannin, and the comprehensive Proposed Plan (PP) for select Former Camp Fannin MRSs, were completed in 2013. This resulted in USACE recommending a remedy for the 60 mm Mortar Area MRS that incorporates a MEC surface and subsurface clearance as well as land use controls (LUCs). The alternative is protective of human health and the environment. The estimated cost for the selected remedy at the 60 mm Mortar Area MRS is \$23,295,690.00. Additionally, because this remedy does not allow for UU/UE, five year reviews will be required. The estimated cost for conducting five year reviews for 30 years is \$358,020.00. Therefore, the total estimated cost of the selected remedy is \$23,653,710.00. Following stakeholder and public review of these recommendations in the Proposed Plan for the Former Camp Fannin, USACE determined that the recommended remedy is appropriate for this MRS.

Based on information currently available, the selected remedy (MEC surface and subsurface clearance and LUCs) is protective of human health, safety, and the environment; and satisfies the statutory requirements of CERCLA §121(b) with regards to the former use of this MRS by the DoD.

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## ATTACHMENTS

[Attachment 1: Announcement of Public Notice](#)

## GLOSSARY OF TERMS

**Anomaly** – Any item that is detected as a subsurface irregularity after geophysical investigation. This irregularity should deviate from the expected subsurface ferrous and non-ferrous material at a site (i.e., pipes, power lines, etc.).

**Applicable or relevant and appropriate requirements (ARAR)** – Applicable requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable. Relevant and appropriate requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not “applicable” to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, otherwise known as Superfund)** – Congress enacted CERCLA, commonly known as Superfund, on 11 December 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

**Chemical of Concern (COC)** – COCs are defined as the Chemicals of Potential Concern (COPC) that are present at sufficient concentrations to pose a risk to human health or the environment.

**Decision Document (DD)** – The Department of Defense has adopted the term Decision Document for the documentation of remedial action (RA) decisions at non-National Priorities List (NPL) FUDS Properties.

**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.

**Feasibility Study (FS)** – The process during which potential remedial alternatives for a site are developed and evaluated to provide the basis of a rationale for remedy selection.

**Five-Year Reviews** – Pursuant to CERCLA and the NCP, statutory five-year reviews are carried out upon completion of the remedial action, when hazardous substances, pollutants, or contaminants will remain on site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

**Formerly Used Defense Site (FUDS)** – A FUDS is defined as a facility or site (property) that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. By the Department of Defense Environmental Restoration Program (DERP) policy, the FUDS program is limited to those real properties that were transferred from DoD control prior to 17 October 1986. FUDS properties can be located within the 50 States, District of Columbia, Territories, Commonwealths, and possessions of the United States

**Military Munitions Response Program (MMRP)** – Program established by the DoD to manage environmental, health and safety issues presented by military munitions.

**Munitions Constituents (MC)** – Any materials originating from unexploded ordnance, discarded military munitions, 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., penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization or disposal. Munitions debris is confirmed inert and free of explosive hazards by technically qualified personnel.

**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; (b) discarded military munitions; or (c) MC (e.g., TNT, RDX) present in high enough concentrations to pose an explosive hazard.

**Munitions Response** - Response actions, including investigation, removal and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded Ordnance



(UXO), discarded military munitions (DMM), or munitions constituents (MC).

**Munitions Response Site (MRS)** – A discrete location within a Munitions Response Area as defined below that is known to require a munitions response.

**Munitions Response Area (MRA)** – Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. A munitions response area is comprised of one or more munitions response sites.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP)** – Revised in 1990, the NCP is a regulation promulgated by EPA that provides the regulatory framework for response actions under CERCLA, as well as National and Regional Response Teams that respond to releases of national or regional significance. (40 CFR Part 300) The NCP designates the Department of Defense as the removal response authority for DoD installations, and incidents involving DoD military weapons and munitions or weapons and munitions under the jurisdiction, custody, or control of DoD. (40 CFR 300.120(c) and (d))

**Preferred Alternative(s)** – The alternative(s) that, when compared to other potential alternatives, was/were determined to best meet the CERCLA evaluation criteria and is proposed for implementation at an MRS.

**Preliminary Screening Value (PSV)** – The concentration of a chemical, below which no further evaluation of that chemical is necessary to evaluate the nature and extent of contamination, or risk to human health and the environment. The preliminary screening value is based on consideration of human health and ecological exposure pathways, and naturally occurring concentrations of a chemical, as appropriate.

**Proposed Plan (PP)** – In the first step in the remedy selection process, the lead agency identifies the remedial action alternative that best meets the requirements in CERCLA 300.430(f)(1) and presents that preferred alternative to the public in a proposed plan. The purpose of the proposed plan is to supplement the RI/FS and provide the public with a reasonable opportunity to comment on the preferred alternative for remedial action, as well as alternative plans under consideration, and to offer comments on the proposed remedial action at a site.

**Public Education** – A variety of methods to educate the public regarding potential hazards at the site, including, but not limited to, fact sheets, letters, newspaper notices, meetings, and website.

**Remedial Investigation (RI)** – Exploratory inspection conducted at a site to define the nature and extent of contamination present, and to assess potential related hazards and risks.

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**Superfund** – See Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) above.

**Unexploded Ordnance (UXO)** – Military munitions that: (a) have been primed, fused, 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.

**UXO-Qualified Personnel** – Personnel who have performed successfully in military Explosive Ordnance Detachment (EOD) positions, or are qualified to perform in the following Department of Labor, Service Contract Act, Directory of Occupations, contractor positions: UXO Technician II, UXO Technician III, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor (DDESB, 2004).

## ACRONYMS AND ABBREVIATIONS

AP	Armor Piercing
ARAR	Applicable or relevant and appropriate requirement
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	Chemicals of Concern
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
DGM	Digital geophysical mapping
DoD	Department of Defense
ESD	Explanation of Significant Difference
FS	Feasibility Study
FUDS	Formerly Used Defense Site
GPS	Global Positioning System
HA	Hazard Assessment
LUC	Land Use Control
LTM	Long-Term Management
MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MRA	Munitions Response Area
MRS	Munitions Response Site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPV	Net Present Value
RAO	Remedial Action Objective
RI	Remedial Investigation
ROE	Right-of-Entry
TCEQ	Texas Commission on Environmental Quality
TPP	Technical Project Planning
TPWD	Texas Parks and Wildlife Department
U.S.	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UXO	Unexploded Ordnance
WMA	Wildlife Management Area

## **PART 1 – DECLARATION**

### **1 SITE NAME AND LOCATION**

This site is the 60 mm Mortar Area Munitions Response Site (MRS), Former Camp Fannin Formerly Used Defense Site (FUDS), in Smith County, Texas (Figures 1 & 2).

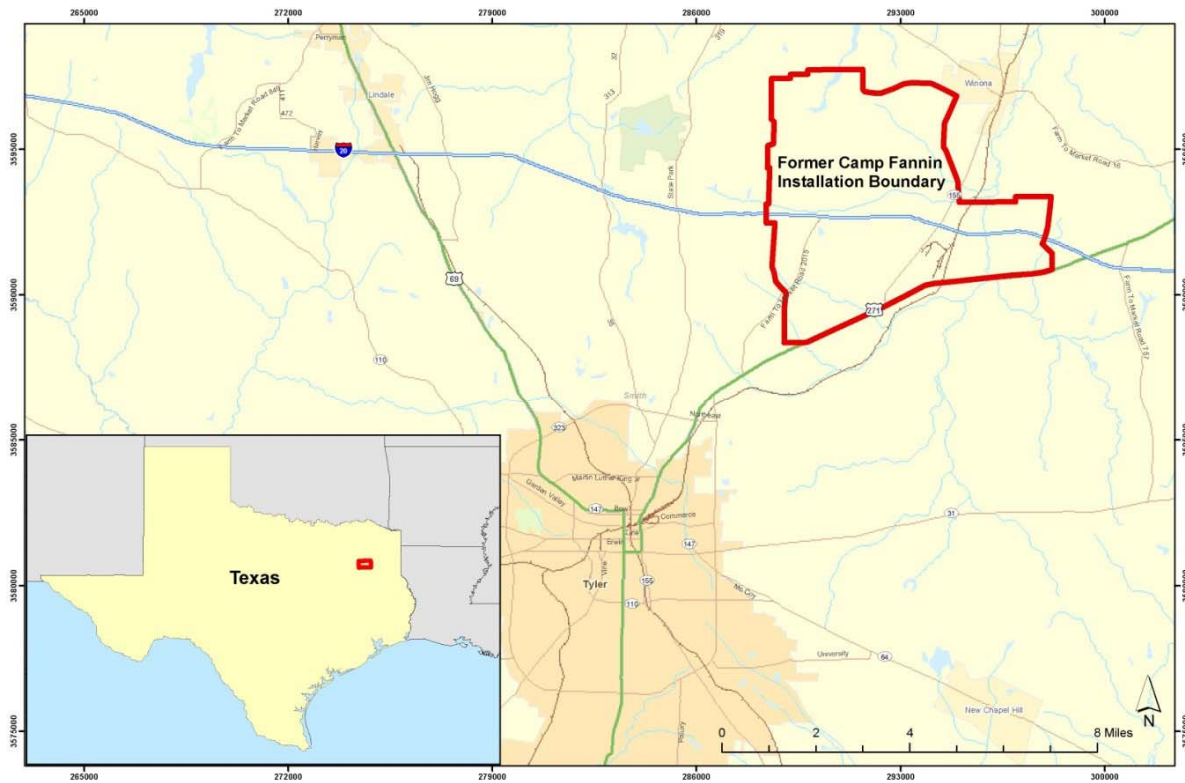
### **2 STATEMENT OF BASIS AND PURPOSE**

This Decision Document (DD) is being presented by the United States Army Corps of Engineers (USACE) to describe the Department of Army's selected remedies for the 60 mm Mortar Area MRS at the Former Camp Fannin FUDS in Smith County, Texas (Figure 3). The Defense Environmental Restoration Program (DERP) was established by Congress in 1986 and directed the Secretary of Defense to "...carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary." DERP provides for the cleanup of Department of Defense (DoD) sites. A Military Munitions Response Program (MMRP) element was established under DERP in 2001 to address non-operational range lands known or suspected to contain munitions and explosives of concern (MEC) or munitions constituents (MC) contamination. The USACE is the program manager for the DERP FUDS. USACE is the lead agency for investigating, reporting, making remedial decisions, and taking remedial actions at the MRSs identified at the Former Camp Fannin, while the Texas Commission on Environmental Quality (TCEQ) is the regulatory agency.

This DD has been prepared in accordance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund, and follows the requirements from the *Engineer Regulation 200-3-1; FUDS Program Policy* (USACE, 2004); *MMRP Interim Guidance Document 06-04* (USACE, 2006); and the United States Environmental Protection Agency (USEPA) guidance provided in *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, USEPA 540-R-98-031* (USEPA, 1999). Because this DD follows the precise format specified in the USEPA guidance, some sections are included that might not apply to this site and the associated selected remedies. In these cases, text is included explaining why the information required in the guidance is not relevant and/or not applicable to the Former Camp Fannin or specifically to the 60 mm Mortar Area MRS addressed in this DD.

The remedy described in this DD was selected in accordance with CERCLA, 42 U.S. Code § 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations, Part 300 as amended.

Figure 1: Former Camp Fannin Location



### 3 ASSESSMENT OF SITE

The site addressed by this DD is the 60 mm Mortar Area MRS, which encompasses approximately 775 acres in the south-western portion of the multiple range complex. A Remedial Investigation (RI) was completed at the Former Camp Fannin in 2011. Through completion of reconnaissance transects, Digital Geophysical Mapping (DGM) transects and grids, reacquisition and intrusive investigation of the anomalies within the DGM grids, and mag-and-dig transects, the RI determined the extent of munitions debris (MD) and MEC contamination over the 60mm Mortar Area MRS. Unexploded Ordnance (UXO) and MD items found in the 60 mm Mortar Area MRS consisted of 60mm mortars, 81mm mortars, 105mm projectiles, and hand grenades cups and spoons. The RI concluded that UXO may be present on the surface and subsurface at the 60 mm Mortar Area MRS; therefore, the site poses a potential threat to public health, welfare, or the environment. MC sampling indicated that there are no unacceptable risks to human health or the environment due to exposure to MC at this MRS.

Figure 2: Former Camp Fannin Munitions Response Sites

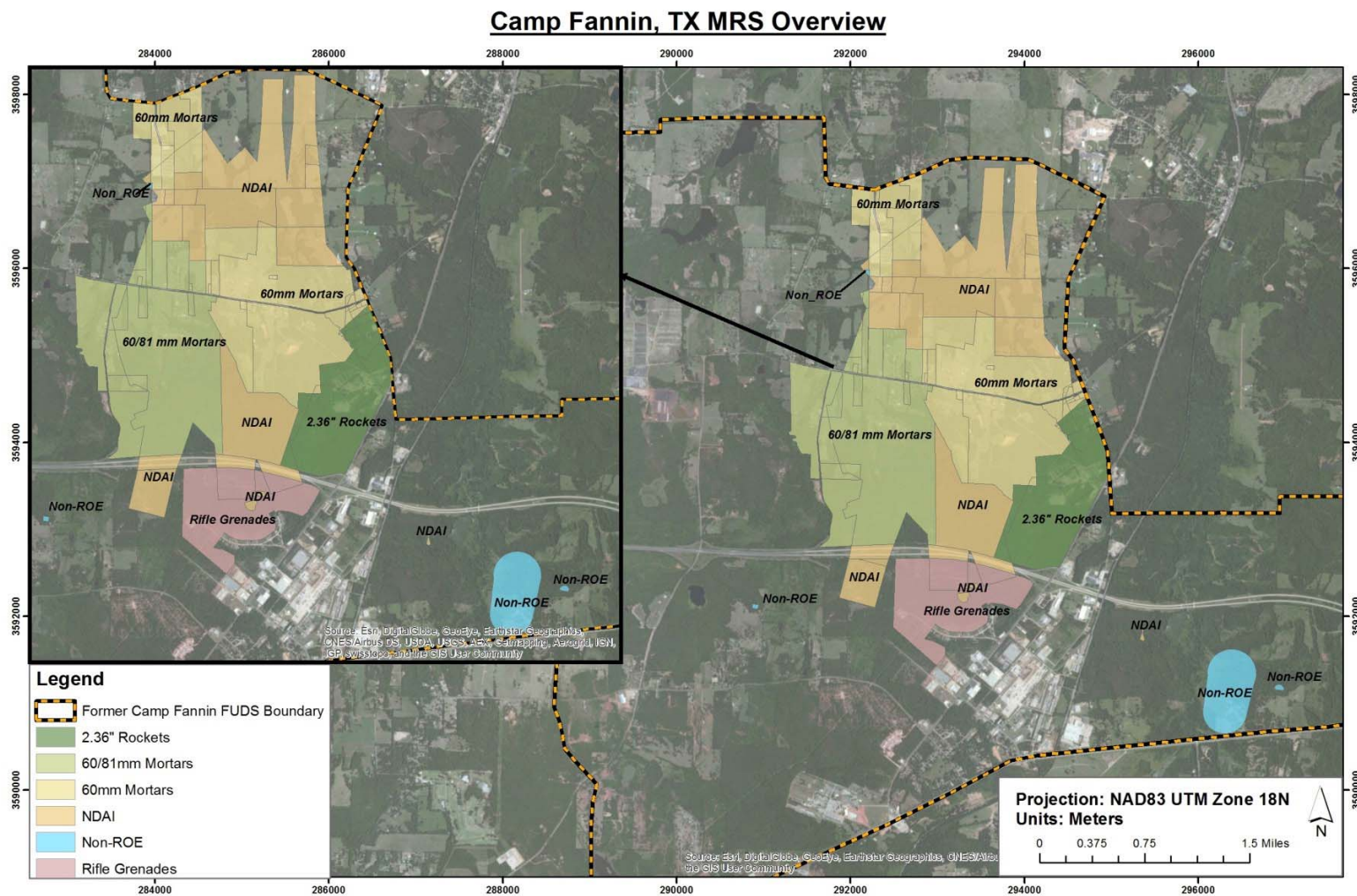
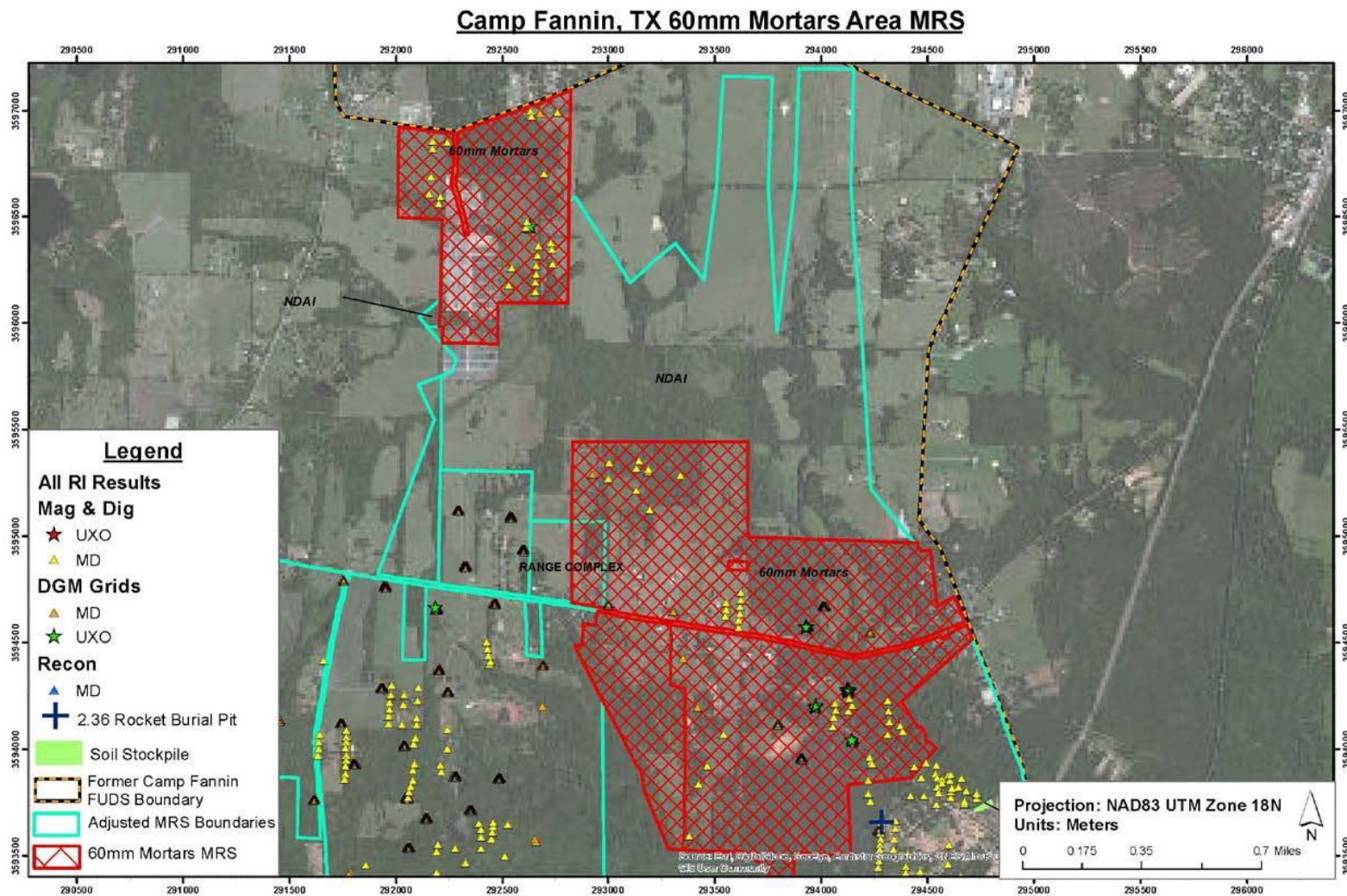




Figure 3: 60 mm Mortar Area MRS



## 4 DESCRIPTION OF SELECTED REMEDIES

USACE has selected a combination of land use controls (LUCs), and surface, and subsurface clearance. The specific components of the selected remedy are:

- Implementation of LUCs, including MEC awareness training and educational programs (3Rs Program including public education, periodic 3Rs educational awareness meetings, and fact sheets);
- Removal of MEC on the surface over the accessible area of about 775 acres (i.e., acreage not covered by infrastructure or requiring heavy vegetation removal); and
- Subsurface removal of MEC to a depth of one foot bgs (the maximum depth where MEC and MD were found during the RI) over approximately 392 acres which includes cleared and accessible areas, and cleared areas that would not preclude subsurface removal activities.

The 60 mm Mortar Area MRS is privately owned and the bulk of the area is heavily vegetated. The current land use is residential, light agricultural (tilled plots and pastures), light commercial, and recreational (ponds and wooded areas are present). Approximately 97 acres of this MRS will require brush clearing/deforestation to perform subsurface removal activities in areas where the property owner plans to develop a mobile home park. The land use is expected to remain the same for the foreseeable future.

Surface and subsurface removal of MEC will address site risks by reducing the potential for direct contact with MEC. Potential receptors include residents, agricultural workers, recreational users, commercial, and construction workers. The remedy also raises public awareness of potential MEC through awareness training and educational 3Rs programs that will inform the public of the dangers related to munitions and the appropriate response if MEC are encountered.

## 5 STATUTORY DETERMINATIONS

Based on the information currently available, the selected remedy for the 60 mm Mortar Range MRS is protective of human health and the environment, utilizes permanent solutions to the maximum extent practicable, and is cost effective when evaluated against the nine criteria described in the National Contingency Plan (NCP), 40 Code of Federal Regulations Section 300.430(e)(9)(iii). The selected remedy provides the best balance of trade offs when compared to the other evaluated alternatives with respect to the balancing and modifying criteria specified in the NCP by providing the best overall and long term effectiveness and the highest reduction of MEC hazards in the surface and subsurface. The selected remedy does not meet the statutory preference for treatment; however, this is considered acceptable because potential MEC found are to be removed from the site. Substantive portions of the Resource Conservation and Recovery Act (RCRA) Disposal Requirements (40 CFR 264, Subpart X) may apply as an applicable or relevant and appropriate requirement (ARAR) if, as part of a surface or subsurface clearance, munitions are consolidated for treatment, storage, or disposal. No other ARARs were identified. Because this remedy will not allow for unlimited use and unrestricted exposure (UU/UE) at the MRS, a statutory review will be conducted in accordance with 40 Code of Federal Regulations (CFR) 300.430(f) (4) (ii) no



less often than every five years after initiation of the remedial action to ensure that the remedy continues to be protective of human health, safety, and the environment and minimizes explosive safety hazards.

## 6 DATA CERTIFICATION CHECKLIST

The following information is included or otherwise addressed in this Decision Document.

- A summary of the characterization of potential MEC hazards at the 60 mm Mortar Range MRS.
- Current and reasonably anticipated future land use assumptions for the site.
- Key factors that led to the selection of a combination of focused surface and subsurface clearances and LUCs for the MRS.
- Estimated costs related to the selected remedy.
- How source materials constituting principal threats will be addressed.

Information on chemicals of concern (COCs) and their respective concentrations, associated baseline risk, and established cleanup levels is not included because the baseline risk assessment determined there are no unacceptable risks to human health or the environment due to potential exposure to MC at the 60 mm Mortar Range MRS (Zapata, 2013a).

## 7 AUTHORIZING SIGNATURE

This DD presents the selected response action at the 60 mm Mortar Range MRS, at the Former Camp Fannin, in Smith County, Texas. The USACE is the lead agency under the DERP at the Former Camp Fannin FUDS, and has developed this DD consistent with the CERCLA, as amended, and the NCP. This DD will be incorporated into the larger Administrative Record file for the Former Camp Fannin, which is available for public view at the Tyler Public Library, 201 South College Avenue, Tyler, Texas 75702.

The estimated cost for the selected remedy at the 60 mm Mortar Area MRS is \$23,295,690.00. Additionally, because this remedy does not allow for UU/UE, five year reviews will be required. The estimated cost for conducting five year reviews for 30 years is \$358,020.00. Therefore, the total estimated cost of the selected remedy is \$23,653,710.00. This document, presenting the selected remedy with a present worth cost estimate of \$23,653,710.00, is approved by the undersigned, pursuant to Memorandum, CEMP-CED (200-1a), July 29, 2016, subject: *Redelegation of Assignment of Mission Execution Functions Associated with Department of Defense Lead Agent Responsibilities for the Formerly Used Defense Sites Program*, Engineer Regulation 200-3-1, *FUDS Program Policy* and to the Memorandum, CEMP (1200C PERM February 9, 2017, subject: *Interim Guidance Document for the Formerly Used Defense Sites (FUDS) Decision Document (DD) Staffing and Approval*.



ANTHONY C. FUNKHOUSER  
Major General, USA  
Deputy Commanding General  
for Military & International Operations

21 AUG 17

Date

## **PART 2 - DECISION SUMMARY**

### **1 SITE NAME, LOCATION, AND BRIEF DESCRIPTION**

The Former Camp Fannin is located in Smith County in east Texas. The town of Tyler, Texas, is approximately six miles southwest of the Former Camp Fannin. The Federal Facility Identifier (FFID) for Camp Fannin is TX9799F648600. The Former Camp Fannin 60 mm Mortar Area MRS has been identified by the USACE under the FUDS program as Site Number K06TX006103. There were originally five distinct Munitions Response Areas (MRAs) located within the Former Camp Fannin property. The Former Camp Fannin was modified during the 2009 realignment to include only the areas comprised of the five original MRAs, plus a newly-identified 145-acre grenade court for a new single MRA denoted as MRA R01, which is comprised of approximately 2,351 acres. The data from the RI resulted in further delineation of MRA R01 into six recommended MRSs totaling 3,165 acres. This DD only addresses the 775-acre 60 mm Mortar Area MRS (Figure 3).

This DD is being presented by the USACE to describe the DoD selected remedy for the 60 mm Mortar Area MRS at the Former Camp Fannin FUDS in Smith County, Texas. The Secretary of Defense designated the Army as the Lead Agent for FUDS, regardless of which DoD component previously owned or used the property. The Secretary of the Army further delegated the program management and execution responsibility for FUDS to the USACE. The USACE is the executing agent for reporting, making remedial decisions, and taking remedial actions at the Former Camp Fannin. The supporting agencies for this project include EPA Region VI and TCEQ. The DERP FUDS is responsible for funding MEC response actions.

### **2 SITE HISTORY AND ENFORCEMENT ACTIVITIES**

#### **2.1 Site History**

The Former Camp Fannin was used from 1942 to 1946 for infantry training. Training included numerous rifle and pistol ranges (.22, .30, and .50 caliber), grenade ranges, mortar and rocket ranges, artillery training ranges (37mm to 105mm projectiles), anti-aircraft artillery, and tank gunnery training.

Prior to closure of the facility, a range clearance certificate, dated January 8, 1946, was issued by the Camp Ordnance Officer after sweeping the target impact areas and ranges for “duds and dangerous munitions.”

#### **2.2 Investigations Conducted to Date**

##### **2.2.1.1 *Inventory Project Report***

The USACE verified that the property was FUDS-eligible in a July 1986 Inventory Project Report (INPR) (USACE 1995). The INPR evaluates the reason for concern as MEC use.

##### **2.2.1.2 *Archives Search Report (September 1994)***

The 1994 Archives Search Report (ASR) and 2004 ASR supplement were prepared by the USACE, Saint Louis District, to evaluate the potential for MEC (USACE, 1994a, b and 2004). The ASR compiled

information obtained through historical research at various archives and records-holding facilities, aerial photography review, interviews with persons associated with the site, and a site inspection. All efforts were directed at determining the possible use or disposal of ordnance on the site. USACE conducted the associated field inspection during the period 8 February through 11 February 1994.

#### **2.2.1.3      *Engineering Evaluation/Cost Analysis***

Although American Technologies, Inc. (ATI), began preparation of an Engineering Evaluation and Cost Analysis (EE/CA) under contract to the USACE, the EE/CA process was discontinued in favor of a RI/FS.

#### **2.2.1.4      *GIS-Based Historical Photographic Analysis***

In January 2004, the U.S. Army Engineer Research and Development Center, Topographic Engineering Center (TEC), completed a geographic information system (GIS)-based analysis of time-sequence aerial photographs of the Former Camp Fannin. Areas of potential concern (such as ground scars, trenches, and ranges) were identified and mapped based on the analysis of historical aerial photographs. The TEC analysis is primarily based upon interpretation of black and white vertical aerial photography spanning selected years from 1940 to 1950. The analysis integrated the results of stereo viewing of overlapping period photographs, when possible, with 1995 digital orthophoto mapping by the U.S. Geological Survey (USGS). Also, selected rectified images were created to support mapping and analysis for various years. TEC used ERDAS 8.5 software to rectify selected historical photos to the 1995 photomap of the site. The analysis employed ESRI's ArcView 3.2a software to digitize and create vector layers for the historical years (ERDC, 2004).

#### **2.2.1.5      *Remedial Investigation (RI) Report (2013)***

An RI was performed at the Former Camp Fannin to characterize the nature and extent of MEC and MC contamination and to gather data necessary to assess the risks posed to human health, safety, and the environment. Through completion of reconnaissance transects, Digital Geophysical Mapping (DGM) transects and grids, reacquisition and intrusive investigation of the anomalies within the DGM grids, and mag-and-dig transects, the results of the RI determined the extent of MD and MEC over the subject areas of the Former Camp Fannin FUDS, including the 60mm Mortar Area MRS. MEC and MD items found in the 60mm Mortar Area MRS consisted of 60mm mortars, 81mm mortars, 105mm projectiles, and hand grenades cups and spoons. Eighteen 60 mm MEC items required disposal by demolition in the field. Sampling of site media concluded that MC was not a concern at the site to either human health or the environment. There is also no evidence of chemical-configured ordnance items at the site. The RI concluded that a Feasibility Study (FS) was required to evaluate appropriate munitions response alternatives for the 60mm Mortar Area MRS.

The RI concluded that MEC may be present over the entire area of the 60mm Mortar Area MRS. The potential for MEC being present over the entire area is high, as a high density of metallic fragments from high and/or low-order explosive detonation of munitions was found throughout the MRS. MEC has been encountered at the MRS, some of it found by local landowners, and there is a high risk of coming into contact with MEC in the future.

### **2.2.2 Feasibility Study (FS) Report (2013)**

An FS was performed for the Former Camp Fannin, including the 60 mm Mortar Area MRS, to provide project decision makers with the necessary data to develop, screen and evaluate a range of potential response alternatives to manage potential MEC hazards to human health and the environment. The FS developed and assessed four remedial alternatives for the MRS. The four alternatives were analyzed against the nine NCP criteria and then compared against each other. The FS Report for the Former Camp Fannin was finalized in July 2013 (ZAPATA, 2013b).

### **2.2.3 Proposed Plan**

A Proposed Plan (PP) was produced to summarize and document the RI/FS and the preferred alternative. The PP was made available to the public on 8 July 2013, followed by a public meeting on 16 July 2013. The comments from the public received during the 30-day public comment period and at the public meeting are summarized in the Responsiveness Summary which is contained in Section 3.0 of this DD.

### **2.3 CERCLA Enforcement Actions**

No CERCLA enforcement actions have taken place at the Former Camp Fannin.

## **3 COMMUNITY PARTICIPATION**

Community participation in the process leading to this Decision Document falls into three categories: 1) dissemination of information to the community; 2) stakeholder involvement in the technical project planning (TPP) process; and 3) formal public comment period. These three areas are described in more detail below.

### **3.1 Information Dissemination**

The following activities were conducted to disseminate information to the community in the vicinity of Former Camp Fannin:

- A Public Involvement Plan (PIP) was prepared in November 2008 to facilitate dialogue between the USACE and residents of the surrounding community regarding the RI/FS activities at the Former Camp Fannin.
- An Administrative Record file was established at the Tyler Public Library, and is located at 201 S. College Ave in Tyler, Texas. It currently contains past investigation reports, the RI Report, the FS Report, and the Proposed Plan (PP) for the entire Former Camp Fannin.
- Fact Sheets and informational materials were prepared and distributed to property owners and tenants, citizen groups, environmental groups, area businesses, regulatory officials, elected/civic officials, and local and regional media to address concerns expressed by the local community and update the status of studies.
- Based on the consensus reached by the project planning team, a Proposed Plan (PP) was prepared for public review and comment. A newspaper announcement was published on 7, 10 and 14 July 2013 in the *Tyler Courier-Times Telegraph* and the *Tyler USA* newspapers to solicit public comments on the PP for the Former Camp Fannin (Attachment 1).

- A public meeting to discuss the PP was held at the Winona High School in Winona, Texas, on 16 July 2013.
- Oral and written comments were solicited at the meeting and accepted during a Public Comment Period from 8 July 2013 through 9 August 2013. The USACE's responses to the comments received during the public comment period are included in the Responsiveness Summary, which is Part 3 of this DD.

#### **4 SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION**

Originally, the Former Camp Fannin was one MRA in the FUDS Management Information System (FUDSMIS), and was comprised of approximately 14,093 acres. The 2009 realignment resulted in the MRA being reduced to 2,351 acres, which included five distinct feature-specific MRAs that were combined into one single MRA (R01). The RI Report recommended this single 2,351 acre MRA be delineated into six discrete MRSs totaling 3,165 acres based on historical use and the types of munitions-related items that were recovered. Although the supporting FS Report and PP pertain to all MRSs at the Former Camp Fannin, this DD focuses only on the 60 mm Mortar Area MRS, which is comprised of 775 acres. The other Former Camp Fannin MRSs are addressed in separate DDs.

The Selected Remedy for the 60 mm Mortar Area MRS is surface and subsurface MEC Removal with land use controls (LUCs), followed by five year reviews. This remedy is expected to reduce the potential for receptor interaction with MEC in areas utilized by the public and the land owners. Potential receptors for the surface include residents, recreational users, agricultural workers, and commercial workers. Potential subsurface receptors include residents, agricultural workers, and construction workers. The remedy will also provide land users with information on past military-related activities and information regarding appropriate responses, if munitions are encountered.

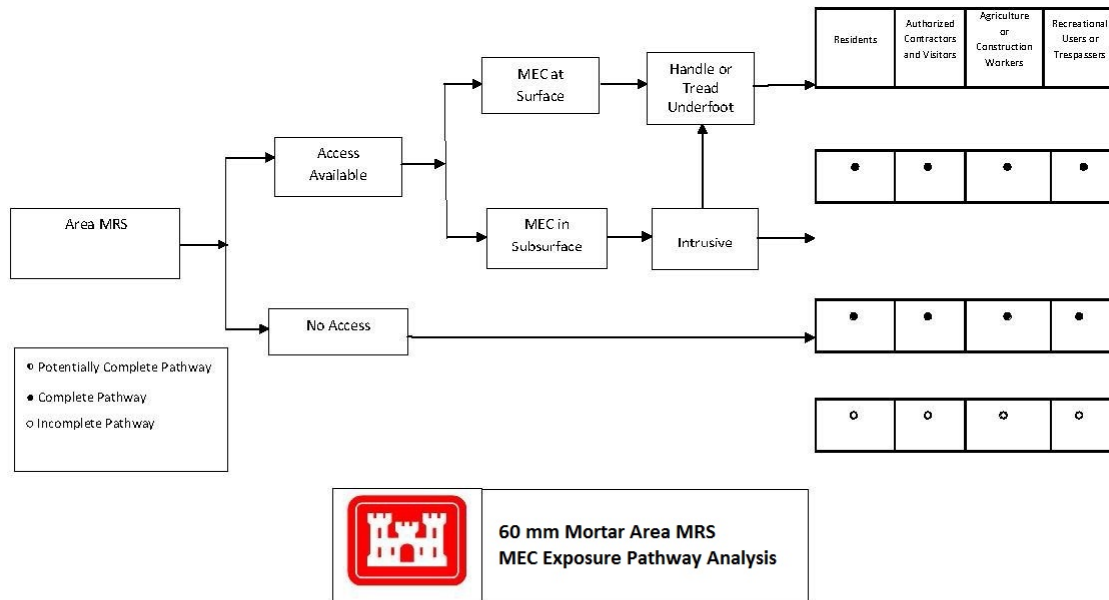
#### **5 MRS CHARACTERISTICS**

##### **5.1 Conceptual Site Model**

A conceptual site model (CSM), shown in figure 4, is a representation of a site and its environment that is used to facilitate understanding of the site and the potential contaminant exposure pathways that might be present. The CSM describes potential contamination sources and their known or suspected locations, human and/or ecological receptors present, and the possible interactions between the two.

Because the baseline risk assessment completed as part of the RI demonstrated that adverse health effects from human and ecological exposure to MC in soil at the Former Camp Fannin are not expected, all MC exposure pathways in the CSM are considered to be incomplete for the 60mm Mortar Area MRS. Since MEC and MD were observed at the 60 mm Mortar Area MRS during the RI, pathways are considered complete for all receptors.

Figure 4: MEC Conceptual Site Model



## 5.2 Physical Setting

The Former Camp Fannin is located in the geographical area of East Texas known as the "Piney Woods", about half-way between Dallas, Texas, and Shreveport, Louisiana. The terrain is mostly forested, gently rolling hills, dotted with ranches, lakes, and pastures. Smith County spreads over 932 square miles of the East Texas Timberlands region, with two-thirds of this environment covered in post oak, blackjack oak, and tall grasses; and one-third is heavily forested with pine and hardwoods. The elevation ranges from 300 to 600 feet above sea level (Tyler Texas Info, 2010). All of the properties within the Former Camp Fannin FUDS boundary are currently privately owned.

Small bodies of water, such as farm ponds (both natural and man-made) are present in the subject MRS. Wiggins Creek bisects the site from east to west, just north of U.S. Interstate I-20. The area is well drained, generally to the north-northwest, with no wetlands except along the creek banks and lakesides.

According to an in-depth study conducted in 2004 (Skelly and Loy, 2004), there are three previously recorded archaeological sites within the 14,093 acre Former Camp Fannin site boundaries. Because of the sensitive nature of archaeological site location information, and in accordance with the Texas Historic Sites Atlas restricted access agreement, these site locations will not to be released to the public. There are no National Register of Historic Places (NRHP)-listed or -eligible properties located in the

project boundaries (Skelly and Loy, 2004). Two locations in the Texas Historic Sites Atlas fall within the Former Camp Fannin FUDS boundaries, including the historical marker for Camp Fannin and the historical marker for Nicholas Wren. The first is located on State Highway 271, near the old gate to the Former Camp Fannin. The second marker, for Nicholas Wren, is located in the churchyard of the Harris Creek Baptist Church. The Camp Fannin marker is within the buffer for the cantonment area and the Nicholas Wren marker is within the buffer for the Harris Creek Baptist Church and Cemetery (Skelly and Loy, 2004).

### **5.3 Investigation of MEC**

During the RI activities, several methods were used to determine MEC and/or MD density, including:

- Analog instrument-assisted ground reconnaissance transects completed in September through October 2009 in an east-west orientation over large portions of the Former Camp Fannin FUDS property outside of the MRA R01 boundaries.
- DGM transects completed in August through November 2009, in predominantly a north-south orientation mostly in and immediately surrounding the Range Complex.
- Establishing and completing DGM surveys within grids in 2010 based on the results of the DGM transects.
- Reacquisition and intrusive investigation of the anomalies within the grids using ferrous and non-ferrous metal detectors.
- Mag-and-dig transects completed in February through April 2010 in predominantly a north-south orientation mostly in and immediately surrounding the Range Complex.
- East-west analog instrument assisted ground reconnaissance transects and north-south mag-and-dig transects in early 2011 to fill data gaps in areas where Right of Entry (ROE) agreements could not be obtained in time for the 2009-2010 field season.

### **5.4 Investigation of MC**

MC sampling was also conducted to support the RI; incremental soil samples, and discrete surface water and sediment samples were collected from the site. However, as previously mentioned, there were no identified risks to human health or the environment. All MC analytical data were compared to conservative risk-based screening criteria to determine whether any MC required further evaluation in a human and/or ecological risk assessment. The results of this screening level assessment demonstrated that all MC concentrations were below screening levels that would trigger the need for further risk assessment; therefore, MC are not considered to pose any potential unacceptable human or ecological risks at the MRS.

### **5.5 Types of Contamination and Affected Media**

Metallic fragments from high and/or low-explosive detonation of munitions were found within the 775 acres of the 60 mm Mortar Area MRS. A wide variety of munitions were encountered in the MRS, with 18 MEC items recovered and determined to be unexploded ordnance (UXO) containing energetic material. The following items were disposed of by detonation:

- 18 60mm mortars

Various MD were also recovered from the 60 mm Mortar Area MRS. MD was observed to be related mostly to 60mm mortars, 81mm mortars, 105mm projectiles, and hand grenades (cups and spoons). The majority of the MD was undifferentiated metal fragments from munitions. RI fieldwork was successful in determining the nature and extent of the MEC contamination in the 60 mm Mortar Area MRS.

## **5.6 Location of Contamination**

As described above, a wide variety of munitions were encountered in the surface and subsurface of the MRS, with 18 MEC items recovered and determined to be unexploded ordnance (UXO) containing energetic material. The locations of identified MEC and MD are shown on Figure 3.

## **5.7 Migration and Exposure Routes**

Figure 4 presents the CSM for MEC for the 60 mm Mortar Area MRS presenting the potential source, interaction, and receptors.

## **5.8 Potential Receptors Present**

Several factors influence the possible migration of MEC from the site. Because of the number of individuals using the site properties for residential, light commercial or light recreational purposes, the possibility exists for human activity resulting in redistribution of MEC items. Another factor involves the movement of smaller MEC items by overland water flow, particularly in drainages and low-lying areas subject to periodic flooding. A related phenomenon involves ground movement resulting from erosion, which may unearth previously buried MEC items.

## **5.9 Potential MEC Exposure Pathways**

Potential exposure to MEC contamination in soil could occur via direct contact of receptors to MEC contamination present in surface or subsurface soil. As described above, potential receptors that could interact with these pathways include residential, light agricultural/commercial and recreational (e.g., hunting, fishing, and hiking) uses. These receptors would most typically be in contact with soil on the ground surface and within the first foot (12 inches) bgs.

# **6 CURRENT AND POTENTIAL FUTURE LAND USES**

Current land use for the 60 mm Mortar Area MRS at the Former Camp Fannin is a combination of residential, light agricultural, light commercial, and recreational. Recreational activities may include hunting, fishing, and hiking.

Future land use at the 60 mm Mortar Area MRS is not expected to change appreciably from their current uses, although 97 acres within the MRS are currently planned for residential development (mobile home park) by the landowner.

# **7 SUMMARY OF PROJECT SITE RISKS**

## **7.1 Human Health Risks**

The results of the environmental sampling indicated that no MEC-related contaminants were present at concentrations of concern. All analytes were below applicable screening criteria and no potential



unacceptable human or ecological health risks are expected due to MC in the referenced MRS media.

## 7.2 MEC Hazard Assessment (MEC HA)

The USEPA MEC Hazard Assessment (MEC HA) program was used to determine the baseline UXO/Discarded Military Munitions (DMM) hazard characterization. The MEC HA scoring at the 60 mm Mortar Area MRS for the no further action (baseline condition), LUCs, Surface Removal with LUCs, and Surface and Subsurface Removal with LUCs are shown in Table 2-1.

Table 1 MEC HA Hazard Level Determination

MMRP Response Action	MEC HA Score	Hazard Level
Baseline (Existing) Condition	950	1
LUCs	925	1
Surface Removal with LUCs	755	2
Surface and Subsurface Removal with LUCs	490	4

## 7.3 Basis for Response Action

The basis for taking the response action at the 60 mm Mortar Area MRS is the risk associated with the potential MEC hazard. The response action selected in this DD is necessary to protect public health and welfare from potential MEC on the surface and/or subsurface of the 60 mm Mortar Area MRS.

## 8 REMEDIAL ACTION OBJECTIVES

The general Remedial Action Objective (RAO) at the Former Camp Fannin is to limit exposure to potential hazards/risks for site workers/visitors, residents, recreational users and ecological receptors, resulting from exposure to MEC and MC at the site. However, no unacceptable risks posed by exposure to MC was identified at the Former Camp Fannin, so no RAOs are required for MC at the MRS. The specific RAO for the 60 mm Mortar Area MRS is to minimize direct contact with MEC during receptor activities (e.g., residential, light agricultural, light commercial and recreational) on the ground surface and to a maximum anticipated receptor contact depth of 1 ft. bgs. Future land use is expected to remain similar to the current land use.

## 9 DESCRIPTION OF ALTERNATIVES

A range of general response actions were identified, evaluated, and screened to develop a list of possible remedial alternatives for the Former Camp Fannin MRSs. These general response actions were (a) no action, (b) LUCs, (c) surface MEC removals with LUCs and (d) surface and subsurface MEC removals with LUCs. Various technology options for these general response actions were evaluated based on screening criteria that included effectiveness, implementability, and cost. Methods deemed to be viable were combined into possible remedial alternatives for the 60 mm Mortar Area MRS. A No Action alternative was also evaluated. The No Action alternative refers to a remedy where no active remediation or enforceable LUCs are implemented. Under CERCLA, evaluation of a No Action alternative is required to provide a baseline for comparison of other remedial technologies and alternatives. A detailed description of the alternative development process is provided in the FS for the Former Camp Fannin. It should be noted that no alternative was evaluated that could reasonably achieve Unrestricted Use/Unlimited Exposure (UU/UE) for the MRS due to the infeasibility of completing a response that would achieve this status.

### 9.1 Remedy Components

The major components of each alternative are described below:

#### 9.1.1 *Alternative 1: No Action*

The No Action alternative (also referred to as No Further Action under CERCLA) has no major components because it means that a remedy will not be implemented to reduce the potential safety risks posed by MEC interaction with human receptors.

#### 9.1.2 *Alternative 2: Land Use Controls*

Alternative 2 employs the use of LUCs to prevent explosive hazard exposure to potential human receptors. LUCs for MEC generally include physical and/or administrative/legal mechanisms that minimize the potential for exposure by increasing awareness and limiting land use. This process does not prevent exposure to MEC in all cases; however, it can effectively prevent exposure by increasing awareness in areas where MEC may potentially be present. The LUCs for Alternative 2 include the following:

- Periodic educational awareness meetings, fact sheets, and letters to landowners.
- An educational awareness 3Rs program, which would focus on providing information on the areas containing the MEC hazards and the appropriate response if MEC is encountered.
- These preventive measures would include periodic educational public meetings and educational fact sheets that have the goal of modifying behavior to reduce the risks of exposure and reduce the impact if exposure occurs.
- Fact sheets and educational materials can be distributed through the community as posted notices or handouts.

### **9.1.3 Alternative 3: Land Use Controls and MEC Surface Clearance**

For this alternative, a surface MEC clearance would be completed in accessible areas across the MRS (i.e., areas not covered by roads, parking lots, buildings, or heavy wooded or forested areas or other conditions that would prevent access). A visual inspection using hand held instruments would be performed and MEC would be removed from the surface (near-surface/partially buried items to a depth of 6 inches bgs). MEC will be removed and disposed of on-site using demolition procedures. All MD will be inspected, certified, and shipped offsite for disposal. The completion of the surface clearance would result in a significant reduction in MEC hazards on the surface. This alternative would also include LUCs discussed under Section 9.1.2, Alternative 2.

### **9.1.4 Alternative 4: Land Use Controls and Surface/Subsurface MEC Clearance**

Alternative 4 provides the most protection for the current and suspected future land use. This alternative consists of conducting a surface and subsurface MEC clearance across the MRS. The surface MEC clearance (near-surface/partially buried items to a depth of 6 inches bgs) would be conducted in accessible areas across the MRS (i.e., areas not covered by roads, parking lots or buildings, or heavily wooded or forested areas or other conditions that would prevent access) totaling approximately 775 acres. The subsurface MEC clearance will be conducted on approximately 392 acres across areas that have open, cleared areas and agricultural plots. The subsurface clearance will be conducted to a depth of 1 foot bgs (the maximum depth where MEC and MD were found during the RI). The MEC clearances would be conducted using hand held instruments. This alternative would also include LUCs discussed under Section 9.1.2, Alternative 2.

## **9.2 Five-Year Reviews**

Because these alternatives do not allow for unlimited use/unrestricted exposure (UU/UE), in accordance with 40 Code of Federal Regulations (CFR), Section 300.430(f)(4)(ii), five-year reviews will be performed in addition to the selected remedial action to ensure that the remedy remains protective of human health and the environment. A Five-Year Review Report will document the information collected and evaluated, and present the findings of the evaluation of the continued protectiveness of LUCs at the 60 mm Mortar Area MRS. The report will document whether the selected alternative continues to minimize explosive safety risks and is still protective of human health, safety, and the environment and/or recommend follow-up actions that may be warranted.

## **9.3 Expected Outcomes of Each Alternative**

There are no socioeconomic or community revitalization impacts anticipated as a result of implementing any of the alternatives, and no environmental or ecological benefits (such as restoration of sensitive ecosystems, protection of endangered species, protection of wildlife resources, or wetlands restoration).

### **9.3.1 Alternative 1: No Action Alternative**

No further action is conducted under this alternative to locate, remove, dispose of, or limit exposure to any potential MEC. No institutional controls (e.g., education, deed notices, construction permits, etc.) are implemented. No costs are associated with this alternative since there would be no action. Evaluation of this alternative is required and used as a baseline for comparison with other alternatives.

This alternative does not meet the RAOs or effectiveness screening criteria for the 60 mm Mortar Area MRS because there is a potentially complete MEC pathway.

### **9.3.2 *Alternative 2: Land Use Controls***

The LUC alternative requires that an educational 3Rs program be implemented to warn of the potential explosive hazards associated with the site. Educational materials would be provided on a periodic basis. The LUC alternative would provide for reasonable protection of human health and the environment through education of site risks. This alternative is effective in both the short- and long-term because it reduces the potential for human receptors to encounter MEC at the MRS. There is no source reduction of MEC associated with this alternative. The LUC alternative can be implemented easily as no specialized equipment or personnel are required.

### **9.3.3 *Alternative 3: Land Use Controls and Surface Clearance***

Alternative 3 greatly reduces the risk of an accidental encounter with MEC on the surface across the MRS, but leaves subsurface MEC in place. This alternative is effective in both the short- and long-term, because it reduces the potential for human receptors to encounter MEC at the MRS. The clearances are implementable using conventional surface clearance techniques. Trained UXO technicians will use handheld metal detectors to determine the presence of underground metallic anomalies. Suspect UXO will be removed and disposed of on-site using demolition procedures. All MD will be inspected, certified, and shipped offsite for disposal.

Due to limitations in detection technology and because 100 percent coverage will not be possible in all areas of the MRS (i.e., areas covered by roads, parking lots or buildings, or heavily wooded or forested areas or other conditions that would prevent access) it is possible that some munitions may be missed. As part of Alternative 3, an educational awareness 3Rs program will be conducted as described in Section 9.1.2

### **9.3.4 *Alternative 4: Land Use Controls; Surface and Subsurface Clearance***

Alternative 4 provides the most protection for the current and future land use by implementing surface clearance over the entire accessible portion of the MRS. In addition, subsurface clearance would take place in accessible areas totaling approximately 392 acres (i.e., agricultural plots, cleared areas, etc.). This alternative is effective in both the short and long term, because it significantly reduces risks to potential receptors from accidental contact with MEC on the surface and subsurface. This alternative would provide the same reduction for surface exposures as Alternative 3, and would reduce the potential risks for receptors that might perform intrusive activities over the 392 acres planned for subsurface removal. The clearances are implementable using conventional surface clearance techniques. Trained UXO technicians will use handheld metal detectors to determine the presence of underground metallic anomalies. Suspect UXO will be removed and disposed of on-site using demolition procedures. All MD will be inspected, certified, and shipped offsite for disposal.

Due to limitations in detection technology and because 100 percent coverage will not be possible in all areas of the MRS (i.e., areas covered by roads, parking lots or buildings, or heavily wooded or forested areas or other conditions that would prevent access), it is possible that some munitions may be missed. As part of Alternative 4, an educational awareness 3Rs program will be conducted as described in

## 10 COMPARATIVE ANALYSIS OF ALTERNATIVES

### 10.1 Evaluation Method

A detailed analysis was completed for the various remedial alternatives developed to address the potential MEC hazards at the 60 mm Mortar Area MRS. The purpose of this detailed analysis was to evaluate and compare the range of remedial action alternatives against the baseline condition (no action) to select one preferred alternative that was considered the most suitable to address the risks present. A detailed account of this analysis is provided in the FS for Former Camp Fannin (Zapata, 2013b). A summary of this process is provided here.

The detailed analysis involved evaluating each identified remedial alternative against nine criteria, as defined by CERCLA. These nine criteria fall into three groups: threshold criteria, primary balancing criteria, and modifying criteria. A description and purpose of the three groups of criteria follows:

- **Threshold criteria** are requirements that each alternative must meet in order to be eligible for selection and include (a) overall protectiveness of human health and the environment and (b) compliance with ARARs.
- **Primary balancing criteria** are used to weigh major trade-offs among alternatives and include (a) long-term effectiveness and permanence, (b) reduction of toxicity, mobility, or volume of contaminants through treatment, (c) short term effectiveness, (d) implementability, and (e) cost.
- **Modifying criteria** include (a) state/support agency acceptance and (b) community acceptance, and require review of the remedial alternatives by stakeholders. For this reason, while these criteria may be considered to the extent that information is available during the FS, they can only be fully considered after public comment is received on the Proposed Plan. In the final balancing of trade-offs between alternatives upon which the final remedy selection is based, modifying criteria are equally important as the balancing criteria.

The details of the nine evaluation criteria are explained further in Table 3 below. A summary of the evaluation of the threshold and primary balancing criteria, applied to the alternatives applicable to the 60 mm Mortar Area MRS, is provided in Table 4; and the estimated costs to implement the alternatives are presented in Table 5. Further details regarding this evaluation are provided in the *Final FS Report for the Former Camp Fannin* (Zapata, 2013b).

**Table 2: Summary of Evaluation Criteria for Remedial Alternatives**

<p><b>Overall Protection of Human Health and the Environment</b> addresses whether a remedial alternative will achieve adequate protection of human health and the environment and describes how MEC at the site will be eliminated, reduced, or controlled through treatment, engineering, and/or LUCs. Because there is not an established threshold for MEC hazard, the goal is to effectively minimize or eliminate the exposure pathway between the MEC and receptor.</p>
<p><b>Compliance with ARARs</b> addresses whether a remedial alternative meets all applicable or relevant and appropriate selected federal and/or state environmental statutes and regulations. To be acceptable, an alternative shall comply with ARARs or be covered by a waiver. Based on the results of the RI, risks from concentrations of MC to human health or ecological receptors at the Former Camp Fannin MRSs are negligible. As such, ARARs for MC are not applicable. Substantive portions of the Resource Conservation and Recovery Act (RCRA) Disposal Requirements (40 CFR 264, Subpart X) may apply if, as part of a surface or subsurface clearance, munitions are consolidated for treatment, storage, or disposal. This ARAR would not be applicable for either the No Action Alternative or the stand-alone LUC Alternative as no munitions would be removed during the remedial action.</p>
<p><b>Long-Term Effectiveness and Permanence</b> addresses the ability of a remedial alternative to maintain reliable protection of human health and the environment over time. This criterion considers the magnitude of residual hazard, the adequacy of the response in limiting the hazard, and whether LUCs and long-term maintenance are required.</p>
<p><b>Reduction of Volume, or Removal, of MEC</b> relates to the extent to which the remedial alternatives permanently reduce the volume of MEC and reduces the associated safety hazard. Factors for this criterion for MEC include the degree of permanence of the remedial action, the amount of MEC removed/demolished, and the type and quantity of MEC remaining.</p>
<p><b>Short-Term Effectiveness</b> addresses the period of time needed to implement the remedy and any adverse impacts that may be posed to workers, the community, and the environment during implementation. MEC removal poses risks to workers and the public that are not associated with environmental contaminants that must be considered and controlled.</p>
<p><b>Implementability</b> refers to the technical and administrative feasibility of implementing each Alternative and the availability of services and materials are addressed by this criterion. This criterion also considers the degree of coordination required by the regulatory agencies, successful implementation of the remedial action at similar sites, and research to realistically predict field implementability.</p>
<p><b>Cost</b> addresses the capital costs, in addition to annual costs anticipated for implementation of the response action.</p>
<p><b>Regulatory Acceptance</b> is used to evaluate the technical and administrative concerns of the regulatory community regarding the alternatives, including an assessment of the regulatory community's position and key concerns regarding the alternative, and comments on ARARs or the proposed use of waivers.</p>
<p><b>Community Acceptance</b> includes an evaluation of the concerns of the public regarding the alternatives. It determines which component of the alternatives interested persons in the community support, have reservations about, or oppose.</p>

**Table 3: Detailed analysis of Alternatives for 60 mm Mortar Area MRS**

Criteria		Alternative 1: No Action
Threshold Criteria	Overall Protection of Human Health and the Environment	This alternative is not protective of human health or the environment because it does not mitigate risk associated with the potential presence of MEC.
	Compliance with ARARs	No ARAR's were identified for this alternative.
Primary Balancing Criteria	Short-term Effectiveness	Does not meet short-term effectiveness requirements (does not remove or reduce exposure to MEC)
	Long-term Effectiveness	Does not meet long-term effectiveness requirements (does not remove or reduce exposure to MEC)
	Reduction of Toxicity, Mobility, or Volume	No reduction in volume as no MEC removal would take place.
	Implementability	Highly implementable because no remedial action occurs.
	Cost Estimate (Net Present Value [NPV])	No cost associated with this alternative.
Modifying Criteria	Regulatory and Community Acceptance	TCEQ does not concur with Alternative 1 as no actions are associated with this alternative to address hazards at the site. As described in Part 3 of this Decision Document, no comments pertaining to any of the alternatives were received during the public comment period.
Criteria		Alternative 2: Land Use Controls
Threshold Criteria	Overall Protection of Human Health and the Environment	This alternative protects human health and the environment by educating potential receptors about the explosive hazards associated with MEC.
	Compliance with ARARs	No ARAR's were identified for this alternative.
Primary Balancing Criteria	Short-term Effectiveness	Implementation of LUCs effective in short-term. Reduction of MEC explosive hazard to residents/landowners through education.
	Long-term Effectiveness	Chance for accidental exposure will increase, if intrusive work performed. Will require follow-up to achieve long-term effectiveness.
	Reduction of Toxicity, Mobility, or Volume	No reduction in volume as no MEC removal would take place.
	Implementability	Administratively feasible; moderate technical effort required for implementation
	Cost Estimate (NPV)	Total cost is \$493,190; Low or minimal costs to implement relative to other alternatives evaluated.
Modifying Criteria	Regulatory and Community Acceptance	TCEQ does not concur with Alternative 2 as deed restrictions are not included as a LUC (see Section 10.3). As described in Part 3 of this Decision Document, no comments pertaining to any of the alternatives were received during the public comment period.
Criteria		Alternative 3: Land Use Controls and Surface Clearance
Threshold Criteria	Overall Protection of Human Health and the Environment	This alternative protects human health and the environment by removing MEC from the ground surface and by educating potential receptors about the explosive hazards associated with MEC that might remain after clearances are completed.
	Compliance with ARARs	This alternative will comply with ARARs by following RCRA Subpart X requirements when consolidating shots of MEC, as applicable.
Primary Balancing Criteria	Short-term Effectiveness	Offers short-term effectiveness by reducing the potential for human receptor interaction with MEC on the surface because the risk would be reduced immediately following the MEC clearance and LUC implementation. There is an increase in short-term risk to workers associated with the surface clearance.
	Long-term Effectiveness	Offers greater long-term effectiveness by removing the source on the ground surface; thereby, along with LUCs, reducing the potential for

		human receptor interaction with MEC at the site. Statutory five-year reviews are required to ensure the remedy remains protective of human health and the environment.
	Reduction of Toxicity, Mobility, or Volume	Effective at reducing the volume of MEC on the ground surface. LUCs would reduce the subsurface exposure risk to human receptors through education.
	Implementability	This alternative is implementable using conventional surface clearance techniques and services. Specially trained personnel are required for the surface and subsurface clearance. Coordination with property owners to obtain ROE's will be required.
	Cost Estimate (NPV)	Total cost is \$13,674,930.00 (\$17,650/acre); Moderate cost to implement relative to the fourth alternative evaluated.
Modifying Criteria	Regulatory and Community Acceptance	As described in Part 3 of this Decision Document, no comments pertaining to any of the alternatives were received during the public comment period. TCEQ does not concur with LUCs because deed restrictions are not included (see Section 10.3).
<b>Criteria</b>		<b>Alternative 4: Land Use Controls; Surface and Subsurface Clearance</b>
Threshold Criteria	Overall Protection of Human Health and the Environment	This alternative protects human health and the environment by removing MEC from the ground surface and from approximately 392 acres of subsurface over the MRS. LUC's will provide added protection by educating potential receptors about the explosive hazards associated with MEC that might remain after clearances are completed.
	Compliance with ARARs	This alternative will comply with ARARs by following RCRA Subpart X requirements when consolidating shots of MEC, as applicable.
Primary Balancing Criteria	Short-term Effectiveness	Offers short-term effectiveness by reducing the potential for human receptor interaction with MEC because the risk would be reduced immediately following the MEC clearance. There is an increase in short-term risk to workers associated with the surface and subsurface clearances.
	Long-term Effectiveness	Offers greater long-term effectiveness by removing the source on the ground surface and from a portion of the subsurface; thereby, along with LUCs, reducing the potential for human receptor interaction with MEC at the site.
	Reduction of Toxicity, Mobility, or Volume	Effective at reducing the volume of MEC on the ground surface and from the subsurface.
	Implementability	This alternative is implementable using conventional MEC clearance techniques and services and materials are available. Specially trained personnel are required for the MEC clearance. Coordination with property owners to obtain ROE's will be required.
	Cost Estimate (NPV)	Total cost is \$23,653,710 (\$30,520/acre). High cost to implement relative to other alternatives.
Modifying Criteria	Regulatory and Community Acceptance	As described in Part 3 of this Decision Document, no comments pertaining to any of the alternatives were received during the public comment period. TCEQ does not concur with LUCs because deed restrictions are not included (see Section 10.3).



**Table 4: 60 mm Mortar Area MRS Cost Analysis Table**

Alternative	Cost <sup>1,2</sup>
Alternative 1: No Action	No Cost
Alternative 2: Land Use Controls	\$493,190
Alternative 3: Land Use Controls and Surface Clearance	\$13,674,930
Alternative 4: Land Use Controls; Surface and Subsurface Clearance	\$23,653,710

Notes: <sup>1</sup>Cost are NPV

<sup>2</sup>Alternative 2, 3 and 4 include costs for 30 years of five-year reviews.

## 10.2 Evaluation Summary

The four alternatives were evaluated in terms of the nine criteria (Table 1 above). Table 2 above summarizes the evaluation and identifies the most practicable solution for reducing the potential MEC exposure hazard at the MRS.

**Alternative 1** – Alternative 1 must be ruled out for the 60 mm Mortar Area MRS at the Former Camp Fannin because it is ineffective. Alternative 1 provides no source reduction or reduction of future risk, and is therefore the least protective of human health and the environment. Alternative 1 provides no reduction of source area toxicity, mobility, or volume. Because no actions are required for Alternative 1, it is highly implementable, could be implemented immediately, and there would be no short-term risks associated with implementation. There are no costs associated with this alternative.

**Alternative 2** – Alternative 2 is protective of human health and the environment by reducing risks to potential receptors through education. The MEC source and its toxicity, mobility, or volume will not be reduced and it is easily implementable with moderate technical effort required. Costs for this alternative are low to minimal relative to other alternatives evaluated.

**Alternative 3** – Alternative 3 is protective of human health and the environment. A surface clearance combined with LUCs is effective at reducing risks of MEC exposure. Both the MEC source and its toxicity, mobility, and volume will be reduced on the ground surface; however, potential MEC will remain on the subsurface outside the removal footprint. It is implementable, though trained and qualified UXO technicians and specialized equipment are required. Additionally, coordination with landowners to obtain Rights of Entry (ROE) will be necessary. Although there are some short-term risks to workers and the environment associated with the removal, they would be mitigated by best practices. The estimated costs associated with this alternative are moderately high compared to the fourth alternative.

**Alternative 4** – Alternative 4 is also protective of human health and the environment relative to the removal of explosive hazards associated with MEC. A combination of LUCs and surface and subsurface clearances in accessible areas are effective at reducing risks of MEC exposure. The MEC source and its toxicity, mobility, and volume will be reduced on both the surface and in the subsurface more than any of the other alternatives. It is implementable, though trained and qualified UXO technicians and

specialized equipment are required. Additionally, coordination with landowners to obtain ROE's will be necessary. Although there are some short-term risks to workers and the environment associated with the removal, they would be mitigated by best practices. Costs for this alternative are high when compared to other alternatives evaluated.

### **10.3 State Acceptance**

The TCEQ overall approves the Decision Document for the 60 MM Mortar Area MRS with the following comments: "In addition to the LUCs outlined in the Decision Document, the Corps should maintain an updated public information web page site specific to Camp Fannin with information on the munitions 3Rs (e.g. Recognize, Retreat, Report); and the landowners notifications should be filed with the county deed for those areas containing MEC hazard. However, the TCEQ believes that the Corps understands the TCEQ's position concerning the inconsistencies in education and five year review when it comes to property notification, ownership, transfer, and health and safety. The TCEQ believes that a more consistent notification process involving formal institutional controls (deed notice restrictive covenant) should be used." USACE has no authority to implement legal instruments at FUDS; therefore, since the inclusion of the requested legal instrument is not implementable, it is not included as part of any remedial alternative.

### **10.4 Community Acceptance**

As described in Part 3 of this Decision Document, no comments pertaining to any of the alternatives were received during the public comment period, with the exception of those received during the public meeting. After the Decision Document is signed, USACE shall publish a notice of the availability of the Decision Document in the *Tyler Courier-Times Telegraph* and the *Tyler USA* newspapers and make the Decision Document available for public inspection and copying at the Tyler Public Library, 201 South College Avenue, Tyler, Texas, prior to the beginning of any remedial action.

## **11 PRINCIPAL THREAT WASTES**

As discussed in the prior sections of this Decision Document, potential hazards from MEC were identified at the 60 mm Mortar Area MRS. There are no materials constituting principal threats related to MC at the 60 mm Mortar Area MRS.

## **12 SELECTED REMEDY**

### **12.1 Rationale for the Selected Remedy**

The Selected Remedy for the 60 mm Mortar Area MRS at the Former Camp Fannin is Alternative 4 – Surface and Subsurface MEC Removal with LUCs and long term monitoring. Alternative 4 is protective of human health and the environment and satisfies the statutory requirements of CERCLA §121(b), to: be protective of human health and the environment; comply with ARARs; be cost effective; and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Alternative 4 meets the RAOs by reducing the potential for direct contact with MEC and is protective of potential receptors. Alternative 4 will comply with the ARARs by following RCRA Subpart X requirements when consolidating shots of MEC, as applicable. Implementation of LUCs is effective in the short-term using educational programs (3Rs Program) and MEC awareness training. The potential for exposure to MEC will be reduced through the implementation of this alternative in the

long-term. There will be a significant reduction in MEC volume in areas where removal activities are conducted. Alternative 4 is technically and administratively feasible to implement. Costs are high compared with other alternatives.

Alternative 4 is protective of human health and the environment and satisfies the statutory requirements of CERCLA §121(b), to be protective of human health and the environment; comply with ARARs; be cost effective; and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element. The selected remedy does not meet the statutory preference for treatment; however, this is considered acceptable because potential MEC contaminants are to be removed from the site.

### **12.2 Description of the Selected Remedy**

Alternative 4 – Surface and Subsurface MEC Removal with LUCs involves surface MEC removal over all accessible land estimated to be about 760 acres. The estimated surface removal net acreage accounts for areas determined to be inaccessible to personnel such as, buildings, roads, pavement, or heavily vegetated areas not amenable to brush cutting. The surface clearance only areas will include the removal of near-surface/partially buried items to a depth of approximately 6 inches bgs. The subsurface removal at the estimated 392 acres, (agricultural plots and cleared areas) will be cleared to a depth of 1 foot bgs (the maximum depth where MEC & MD were found during the RI) and includes approximately 97 acres that are planned for a residential development by the landowner. The remaining acreage within the MRS is considered not suitable, or feasible, for subsurface removal. Land use is expected to remain the same in the foreseeable future; however, changes in future land use are not expected to trigger subsequent DOD-sponsored surface or subsurface remediation.

The planned response alternative includes any necessary detonation and engineering controls, land survey, GIS support, quality control (QC) of MEC removal, and disposal of MD. A Remedial Action Work Plan and Site-Specific Final Remedial Report will be prepared to support and document the remedial action.

LUCs will include MEC Awareness Training and educational programs (3Rs Program) for all interested members of the public, and production and distribution of educational materials, including pamphlets, flyers, and information circulars.

### **12.3 Cost Estimate for the Selected Remedy**

The information in the cost estimate summary table below (Table 5) is based on the best available information regarding the anticipated scope of the selected remedy. The total estimated cost for the selected remedy is \$23,653,710.00. Changes in this cost estimate are likely to accrue as a result of new information. Major changes may be documented in the form of a memorandum in the Administrative Record file, an Explanation of Significant Difference (ESD), or a Decision Document amendment. This is an order-of-magnitude cost estimate that is expected to be within +50 to -30 percent of the actual project cost. Cost savings could be realized by having one combined public education program for the entire Former Camp Fannin.

**Table 5: Cost Estimate Summary for the Selected Remedy**

<b>Alternative 4: Land Use Controls; Surface and Subsurface Clearance</b>		
<b>Technical Project Planning</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$53,200
	Government Cost (30% of Contractor Cost)	\$16,010
	Subtotal	\$69,350
	Contingency (20% of Subtotal)	\$13,870
	Total	\$83,220
<b>Community Relations Plan and Community Relations Support with LUCs</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$135,400
	Government Cost (30% of Contractor Cost)	\$40,620
	Subtotal	\$176,020
	Contingency (20% of Subtotal)	\$35,210
	Total	\$211,230
<b>Remedial Action Work Plan</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$46,940
	Government Cost (30% of Contractor Cost)	\$14,090
	Subtotal	\$61,030
	Contingency (20% of Subtotal)	\$12,210
	Total	\$73,240
<b>Mobilization/Demobilization</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$35,350
	Government Cost (30% of Contractor Cost)	\$1,770
	Subtotal	\$37,120
	Contingency (20% of Subtotal)	\$7,430
	Total	\$44,550
<b>Remedial Action Field Work (760 acres surface removal; 392 acres subsurface removal)</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$14,615,770
	Government Cost (30% of Contractor Cost)	\$4,384,740
	Subtotal	\$19,000,510
	Contingency (20% of Subtotal)	\$3,800,110
	Total	\$22,800,620
<b>Site Specific Final Report</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$53,090
	Government Cost (30% of Contractor Cost)	\$15,930
	Subtotal	\$69,020
	Contingency (20% of Subtotal)	\$13,810
	Total	\$82,830
<b>Five Year Reviews</b>		
	Contractor Cost (Labor, Supplies, and Travel)	\$38,240
	Government Cost (30% of Contractor Cost)	\$11,480
	Subtotal	\$49,720
	Contingency (20% of Subtotal)	\$9,950
	Total	\$59,670
	6 Reviews	\$358,020
	Grand Total	\$23,653,710
<b>Estimated Per Acre Cost</b>		\$30,520
<b>Total Estimated Cost</b>		<b>\$23,653,710</b>

#### **12.4 Expected Outcomes of the Selected Remedy**

Following the implementation of the selected remedy at the 60 mm Mortar MRS, the land uses at the MRS will remain the same. LUCs will reduce potential exposure risks to MEC for all receptors by educating and informing the public about potential remaining risks. Anticipated benefits of the selected remedy include reduced risks to site visitors/workers, residents and recreational users through surface and subsurface MEC removal, and LUCs. Land use is expected to remain the same in the foreseeable future; however changes in future land use are not expected to trigger subsequent DOD-sponsored surface or subsurface remediation.

There are no socioeconomic or community revitalization impacts anticipated as a result of implementing the selected remedy, nor are there any significant expected environmental or ecological benefits.

### **13 STATUTORY DETERMINATIONS**

Based on the information currently available, the selected remedy for the 60 mm Mortar Range MRS (a combination of LUCs, and surface and subsurface clearance) is protective of human health and the environment and satisfies the statutory requirements of CERCLA §121(b) with regards to the former use of the MRS by the Army and DoD. Although it is the most costly of the alternatives, it also provides the most reduction in risk and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. Substantive portions of the Resource Conservation and Recovery Act (RCRA) Disposal Requirements (40 CFR 264, Subpart X) may apply as an applicable or relevant and appropriate requirement (ARAR) if, as part of a surface or subsurface clearance, munitions are consolidated for treatment, storage, or disposal. No other ARARs were identified.

Because this remedy will not allow for unlimited use and unrestricted exposure at the MRS, a statutory review will be conducted no less often than every five years after initiation of remedial action to ensure that the remedy continues to be protective of human health, safety, and the environment and minimizes explosive safety hazards. If new information arises concerning contamination conditions at the site or if land uses change beyond what has been assumed, the evaluation of remedial alternatives may need to be revisited.

### **14 DOCUMENTATION OF SIGNIFICANT CHANGES FROM PREFERRED ALTERNATIVE OF PROPOSED PLAN**

The selected remedy described in this Decision Document (a combination of LUCs, and surface and subsurface clearance) is unchanged from that detailed in the *Final Proposed Plan for the Former Camp Fannin* (Zapata, 2013c).

## PART 3 - RESPONSIVENESS SUMMARY

### 1 Stakeholder Issues and Lead Agency Responses

#### 1.1 Regulatory Concurrence and Comment

The *RI/FS Report for Former Camp Fannin* (Zapata, 2013a) and *Proposed Plan for Former Camp Fannin* (Zapata, 2014c) were submitted to TCEQ for review and comment. TCEQ made one comment regarding the general implementation of LUCs at the Former Camp Fannin. The comment and response are provided below:

**Comment:** Land Use Controls: "In addition to signage, training, and education, the State of Texas requires a legal instrument be placed in the property records .... which indicates the limitations on or the conditions governing use of the property which ensures protection of human health and the environment (Texas Administrative Code §350-4(a)(47) as well as §350.11(Subchapter F)).

The purpose of the controls are to provide permanent notice of actual and/ or potential hazards associated with the property and to inform potential landowners and users of conditions to ensure protective property use.

These legal instruments range from deed notices, restrictive covenants, and equivalent zoning or government ordinance that would be functionally equivalent to a deed notice. Although the munitions constituents (MC) may be controlled on site, MEC will never be 100% certain of removal. More is needed to notify the public of the potential hazards of owning and using the property."

**Response:** "The TAC provisions require that a legal instrument in the form of a deed notice, Voluntary Cleanup Program Certificate of Completion, or restrictive covenant be placed in the appropriate property records. However, the Former Camp Fannin property is privately owned and USACE has no authority to place restrictions on that property. TAC 350.111 specifically requires landowner consent for the requested property restrictions. Moreover, the statute specifically states that, "restrictive covenants shall be executed only by the landowner". While TCEQ may have the regulatory authority to override a landowner, USACE does not.

Accordingly, USACE is unable to agree to your request to include TAC §350.11[1] (Subchapter F) in the FS as a proposed ARAR."

#### 1.2 Public Comment

The USACE also made the Proposed Plan for the Former Camp Fannin MRSs available for public comment between 08 July and 19 August 2013. This public comment period was announced through a notice placed in *Tyler Courier-Times Telegraph* and the *Tyler USA* newspapers (Attachment 1). No written comments were received during the public comment period.

In addition, a public meeting was held on 16 July 2013 at the Winona High School in Winona, Texas. At the public meeting, the results of the RI were summarized, the alternatives considered were described, and the alternative preferred by USACE was presented. The audio of the meeting was recorded, and a summary of the questions submitted by the public during the meeting and the USACE response is

presented below. The meeting transcript has been placed in the Administrative Record at the Tyler Public Library, Tyler, Texas.

#### **Overview of Oral Questions at 16 July 2013 Public Meeting**

**Comment:** “How are you doing? My name is Don Walsh. My property is where the Chest Hospital is now. There is 360 acres there. We were not afforded the opportunity to buy it back. And everybody knows why -- it's called Owentown. It's because the State of -- or the City of Tyler sold it to a banker out of Dallas. His name was Owen. They made it Owentown. The people that had the land taken from them did not have an opportunity to buy it back. That land was bought for \$35 an acre. If you will straighten out this history, I'll tell you where the tank is out there.”

**Response:** An Army tank would not present an explosive hazard.

**Comment:** “One thing that concerns me, and I imagine everybody else, you used the term EPA. I'm fearful of those people. Those people have Executive Order power behind them. And, also, land use control. I would like for you to expand on what that term means.”

**Response:** There are three general types of “land use controls”: legal mechanisms, engineering controls, and education programs. The type of land use controls we are proposing here are educational. To implement legal mechanisms or engineering controls would require permission from the owner of the property and that is not feasible for this project. Educational programs might consist of fact sheets, MEC awareness training, and/or safety training. The purpose is to inform the public of the risk of MEC and what to do in the event a possible MEC item has been found.

**Comment:** “I work for the Water Department, and I'm curious if you a [sic] hundred percent confident that you found everything? Because we dig almost every day and if we hit something and blow up -- do you see what I'm saying? I've been here 20 years, and we have taken a chance for that long until y'all came in and decided to clean the area. How confident are you that it's good to go, as far as the munitions?”

**Response:** Based on the results of our investigation across the site, it has been determined that an explosive hazard does exist at Camp Fannin. The educational and/or safety training that will be implemented with the selected alternative can be utilized by all agencies to teach their employees how to conduct work safely. Learning how to recognize something as a possible explosive hazard and notifying the appropriate authorities will help prevent unnecessary encounters with MEC.

**No Additional comments were received from the public during the meeting and no public comments were submitted via mail.**

#### **1.3 Technical and Legal Issues**

There are no technical or legal issues that have been identified for this MRS at this time.


## REFERENCES

- U.S. Army Corps of Engineers (USACE). 1994a, Archives Search Report Findings, Camp Fannin, Tyler, Texas, Project Number K06TX006101, September 1994.
- U.S. Army Corps of Engineers (USACE). 1994b, Archives Search Report Conclusions and Recommendations, Camp Fannin, Tyler, Texas, Project Number K06TX006101, September 1994.
- U.S. Army Corps of Engineers (USACE). 1995, DERP-FUDS Inventory Project Report for Property K06TX006101, Triton Development Corporation, et al, Properties (formerly Camp Fannin), Tyler, Texas, Prepared by USACE Fort Worth District.
- U.S. Army Corps of Engineers (USACE), 2004, Archives Search Report Supplement, Camp Fannin, Tyler, Texas, Project Number K06TX0061, November 2004.
- U.S. Army Corps of Engineers (USACE), 2009, MMRP Realignment FUDSMIS Data Summary, Former Camp Fannin, Texas, Project No. K06TX006101, 3 February, 2009.
- U.S. Army Engineer Research and Development Center (ERDC), Topographic Engineering Center, 2004, "Camp Fannin, Texas: GIS-Based Historical Photographic Analysis, January 2004 Report", prepared for the USAESCH, Huntsville, AL.
- ZAPATA, 2013a, Final Remedial Investigation Report, Former Camp Fannin, Texas. May 2013.
- ZAPATA, 2013b, Final Feasibility Study Report, Former Camp Fannin, Texas. July 2013.
- ZAPATA, 2013c, Final Proposed Plan for the Former Camp Fannin, Texas. July 2013.



## ATTACHMENT 1

### ANNOUNCEMENT FOR PUBLIC NOTICE

1220	Public Notices	1220	Public Notices	1220	Public Notices
					
<b>U.S. Army Corps of Engineers (USACE) to hold a Public Meeting for the Remedial Investigation/Feasibility Study (RI/FS) and Proposed Plan, Former Camp Fannin</b>					
<p>The former Camp Fannin, Smith County, Texas, was used by the U.S. Army for training during World War II. The U.S. Army Corps of Engineers will conduct a Public Meeting to discuss the Remedial Investigation/Feasibility Study and the Proposed Plan for future actions for the former Camp Fannin at the following location:</p> <p><b>Winona Senior High School Auditorium 101 Wildcat Drive • Winona, Texas 75792 July 16, 2013 • 6:30 – 8:30 p.m.</b></p> <p>A public comment period from July 8, 2013 through August 9, 2013 has been established. The USACE will accept written comments on the Proposed Plan during this period at the contact information provided below.</p> <p>The local community is invited to attend the meeting that will provide a forum for exchange of information between the U.S. Army Corps of Engineers and the community regarding the ongoing site activities and the recommended future actions in the Proposed Plan.</p> <p>Project-related documents, including the Proposed Plan, are available for review at the Tyler Public Library, 201 South College Avenue, Tyler, Texas 75702, and at the U.S. Army Corps of Engineers, Fort Worth District, 819 Taylor Street, Fort Worth, Texas 76102.</p> <p>We encourage you to comment on the Proposed Plan during the public comment period that ends at 5:00 pm August 9, 2013. Mail postmarked by August 9, 2013 will be accepted. Comments received during this period will be considered in the final decision-making process.</p> <p>To submit comments during the 30 day public comment period, or for additional information, please contact Ms. Beverly Post, U.S. Army Corps of Engineers, Fort Worth District, 819 Taylor Street, Fort Worth, Texas 76102.</p> <p><b>Telephone: (817) 886-1884 Email: Beverly.J.Post@usace.army.mil</b></p>					