U.S. Army Corps of Engineers, Fort Worth District
Formerly Used Defense Site Program

PROPOSED PLAN FOR MUNITIONS RESPONSE ACTIONS

Former Camp Fannin Munitions Response Area, Tyler, Texas **July 2013**

THE U.S. ARMY CORPS OF ENGINEERS ANNOUNCES THE PROPOSED PLAN

This Proposed Plan is presented by the U.S. Army Corps of Engineers (USACE), Fort Worth District to facilitate public involvement for review and comment on the remedy selection process for the former Camp Fannin Munitions Response Area (MRA), part of the Formerly Used Defense Sites (FUDS) program located approximately six miles northeast of Tyler, Texas in Smith County (Figure 1, page 2). USACE is the lead agency for investigating, reporting, making remedial decisions, and taking remedial actions for the former Camp Fannin MRA. This Proposed Plan presents preliminary recommendations to best address Munitions and Explosives of Concern (MEC – meaning ordnance or explosive materials that could pose an explosion hazard) and Munitions Constituents (MC – or chemical constituents [metals or explosives-related chemicals] left over from munitions use) at this site. Included in this Proposed Plan are the various alternatives that were evaluated along with the rationale for the Preferred Alternatives.

This Proposed Plan highlights key information contained in the Remedial Investigation Report for five recommended Munitions Response Sites (MRSs) contained within the former Camp Fannin MRA (MRSs 1, 3, 4, 5, and 7). This Proposed Plan is part of the Administrative Record file. The USACE encourages the public to review these documents contained in the file to gain a better understanding of the investigations and other activities that have taken place at the former Camp Fannin MRA.

The USACE is issuing this Proposed Plan as part of its public participation responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

PUBLIC INVOLVEMENT

The USACE requests comments from the public on this Proposed Plan. Public comments on the Proposed Plan will be accepted during a 30-day public review and comment period from July 8, 2013 through August 9, 2013. In addition, a public meeting will be held on July 16, 2013 to present and explain this Proposed Plan. The USACE will select final remedies for the MRA after reviewing and considering all information submitted during the 30-day public comment period.

PUBLIC MEETING:

July 16, 2013 at 6:30 PM

The USACE will hold a public meeting to explain the Proposed Plan and the alternatives presented in the Feasibility Study Report. Verbal and written comments will also be accepted at the meeting. The meeting will be held at: Winona Texas Senior High School auditorium, 101 Wildcat Drive, Winona, Texas 75792.

PUBLIC COMMENT PERIOD:

July 8 – August 9, 2013

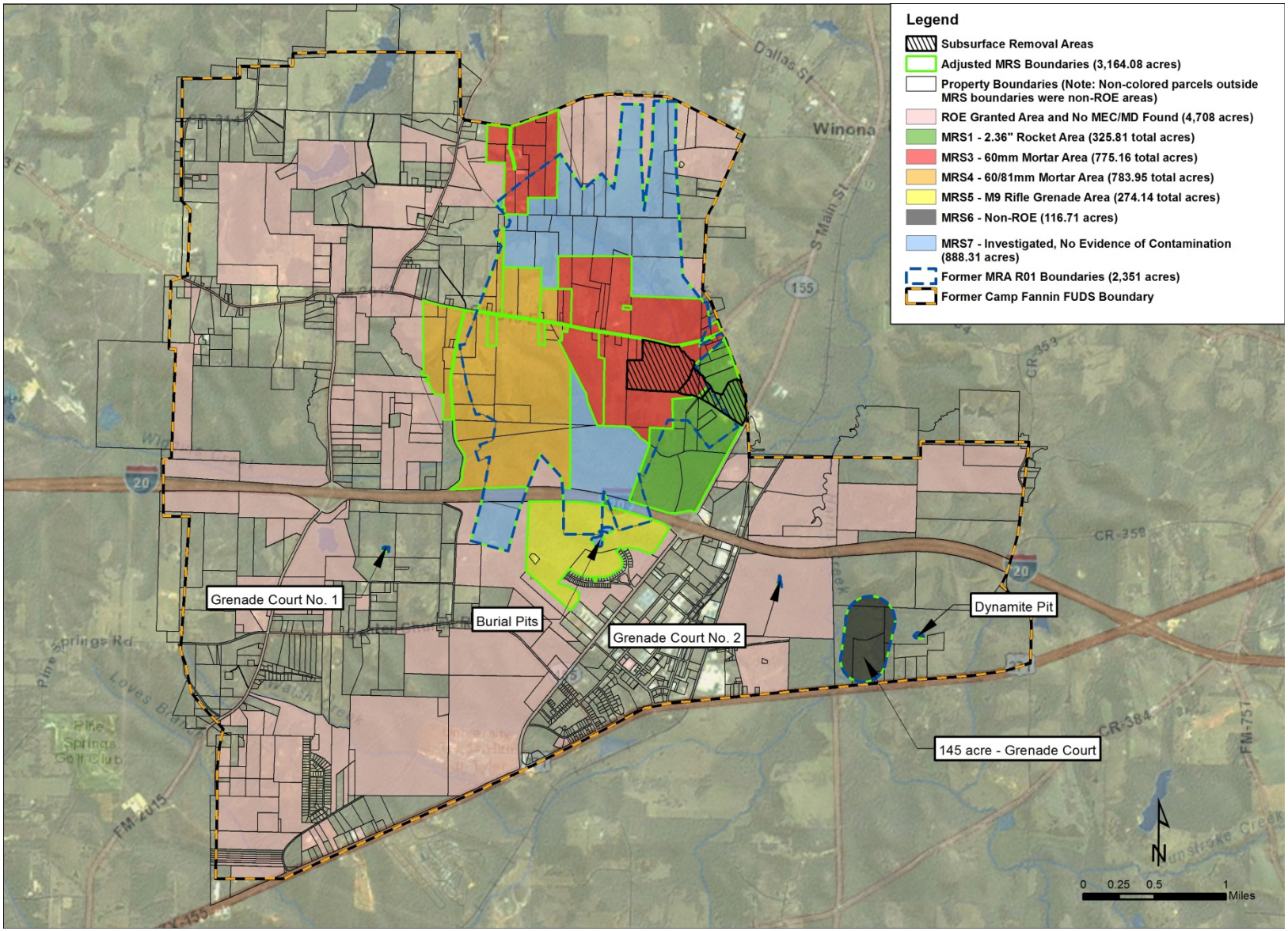
The USACE will accept written comments on the Proposed Plan during the public comment period.

ADMINISTRATIVE RECORD:

For more information on the site, see the Administrative Record at the:

Tyler Public Library
201 S. College Ave.
Tyler, Texas 75702.

Figure 1


Legend
Subsurface Removal Areas
Adjusted MRS Boundaries (3,164.08 acres)
Property Boundaries (Note: Non-colored parcels outside MRS boundaries were non-ROE areas)
ROE Granted Area and No MEC/MD Found (4,708 acres)
MRS1 - 2.36" Rocket Area (325.81 total acres)
MRS3 - 60mm Mortar Area (775.16 total acres)
MRS4 - 60/81mm Mortar Area (783.95 total acres)
MRS5 - M9 Rifle Grenade Area (274.14 total acres)
MRS6 - Non-ROE (116.71 acres)
MRS7 - Investigated, No Evidence of Contamination (888.31 acres)
Former MRA R01 Boundaries (2,351 acres)
Former Camp Fannin FUDS Boundary
Grenade Court No. 1
Burial Pits
Grenade Court No. 2
Dynamite Pit
145 acre - Grenade Court
Winona
Dallas St
S Main St
155
20
CR-353
CR-358
CR-384
FM-757
FM-2015
Pine Springs Golf Club
0 0.25 0.5 1 Miles

The USACE may modify the preferred alternatives or select other response actions than those presented in this Proposed Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all the alternatives presented in this Proposed Plan. After public comments have been considered, the Decision Document will present the final decisions. USACE responses to public comments on this Proposed Plan will be contained in the "Responsiveness Summary" section of the Decision Document. The current schedule calls for completion of the Decision Document by September 2013.

The USACE is the executing agent for the FUDS program, which is responsible for environmental restoration of all properties that were formerly owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense, such as Camp Fannin. The Military Munitions Response Program (MMRP) was established in 2001 to address non-operational Department of Defense (DoD) sites known or suspected to contain MEC or Munitions Constituent (MC) contamination. Under the MMRP, the USACE conducts environmental response activities at FUDS for the Army. The USACE is the lead agency for investigating, reporting, making remedial decisions, and taking remedial actions at the Camp Fannin MRA.

PROJECT SITE BACKGROUND

The former Camp Fannin site consists of approximately 14,093 acres of privately-owned properties. Camp Fannin was used from 1942 to 1946 for infantry, small arms, artillery, and tank gunnery training. During that time, the facility operated numerous ranges for rifle and pistol, grenade, mortar, and anti-aircraft artillery training.

The USACE established five distinct MRAs within the former Camp Fannin FUDS property. At the beginning of 2008, the USACE began a Remedial Investigation at the former Camp Fannin. In 2009, the former Camp Fannin underwent realignment by the USACE and all five MRAs, plus a newly-identified grenade court (Figure 1), were combined into a single MRA, called MRA R01, comprising 2,351 acres. Based on the findings of the Remedial Investigation, MRA R01, was delineated (subdivided) into six Munitions Response Sites (MRSs). Since delineation has not yet been formalized by USACE, the six MRSs are referred to in this documented as recommended MRSs. The delineation was based on the presence or potential presence of MEC and not potential hazards from MC. The risk assessment and screening-level ecological risk assessment concluded that the potential for adverse risks to human health or ecological receptors from exposure to MC in soil, sediment, and surface water would be negligible at the former Camp Fannin site. The recommended MRSs are shown on Figure 1 and include the following:

MRS1 – 2.36-inch Rocket Area: A 325.81-acre portion of the Range Complex where MEC and Munitions Debris (MD – or, debris remaining from munitions that does not present an explosive hazard) primarily related to 2.36-inch rockets were found on the surface and to a maximum depth of two feet, including an apparent burial pit containing a large concentration of 2.36-inch rocket-related debris and .30 caliber small arms ammunition in magazines. The depth of the apparent burial pit is not known because extensive investigation was beyond the scope of the Remedial Investigation, but it is anticipated to be about six feet.

MRS3 – 60mm Mortar Area: A 775.16-acre area located in the eastern and northern portions of the Range Complex where MEC and MD primarily related to 60mm mortars were found on the surface and to a maximum depth of about one foot.

MRS4 – 60/81mm Mortar Area: A 783.95-acre area located in the western portions of the Range Complex where the predominant MEC and MD identified were from 60mm and 81mm mortars. These items were found from the surface to a maximum depth of about two feet.

MRS5 – M9 Rifle Grenade Area: A 274.14-acre area located in the southern portion of the Range Complex. No items presenting an explosion hazard were found during the Remedial Investigation, but a small amount of MD related to rifle grenades or hand grenades was found on the ground surface.

MRS6 – Non-Rights-of-Entry (ROE) Areas: A group of non-contiguous parcels comprising 116.71 acres, including the newly-discovered 145-acre grenade court, the Dynamite Pit, and

Grenade Court No. 1, where ROEs could not be obtained from the landowners. Because these areas could not be accessed during the Remedial Investigation, no conclusions about the conditions can be made, and no alternatives were considered. Future actions for these areas will be determined by the USACE and MRS6 is not addressed further in this Proposed Plan.

MRS7 – Investigated – No Evidence of MEC/MD Contamination: A group of non-contiguous parcels comprising 888.31 acres, including areas within the Range Complex, the Burial Pits, and Grenade Court No. 2, where no evidence of MEC or MD was found.

Feasibility Study

The purpose of the Feasibility Study is to provide the project decision makers with the necessary data to develop, screen, and evaluate a range of potential response alternatives, and select a response to manage MEC hazards. Because there are potentially complete MEC exposure pathways, a Feasibility Study for recommended MRS1, MRS3, MRS4, and MRS5 was performed. Since no MEC or MC contamination was discovered at recommended MRS7, it did not require evaluation of remedial alternatives in the Feasibility Study and is appropriate for the No Department of Defense Action Indicated (NDAI) decision (also referred to as the "No Further Action" [NFA] decision) under CERCLA.

Properties within the former Camp Fannin are owned by various private landowners. Current land use for the recommended delineated MRSs is some combination of residential, agricultural, and light commercial/industrial. Future land uses are not expected to change appreciably; however, because all properties are privately owned, development could occur anywhere within the boundaries of the recommended MRSs.

In an effort to keep the public informed, a public meeting relating to planned Remedial Investigation activities within the former Camp Fannin was conducted in September 2008. The public meeting was announced through notices in the local newspapers. Information was conveyed to the public via fact sheets and newsletters, a web site, and the information repositories. Public input was obtained through public meetings, community involvement, and requests for public comments. Two Technical Project Planning meetings were held in July 2008 and April 2009.

PROJECT SITE CHARACTERISTICS

The former Camp Fannin area is mostly forested, gently rolling hills dotted with ranches, lakes, and pastures. The topography is nearly level to hilly with some areas having been further leveled during WWII-era construction of the facility and the affiliated ranges. The Range Complex consists of low rolling hills and flat areas. The surficial geology of Smith County reflects outcrops of formations consisting primarily of well-drained sandy and/or loamy soils with some clayey soils.

There are no large bodies of water within MRA R01. Small bodies of water such as farm ponds (both natural and man-made) are present. Wiggins Creek bisects the Range Complex from east to west just north of U.S. Interstate 20. Harris Creek runs north to south just east of the Range Complex. The area is well-drained, generally to north-northwest, with no wetlands except along creek banks and ponds.

Several threatened and endangered species have been identified in Smith County, Texas, potentially occurring at the former Camp Fannin. The Interior Least Tern and the Red wolf are on the Federal and State lists as endangered. One Federally-threatened species is known to occur in Smith County, Texas: the Louisiana black bear. State-listed threatened species include the American Peregrine Falcon, Peregrine Falcon, Bachman's Sparrow, Bald Eagle, Piping Plover, Wood Stork, Blackside darter, Creek chubsucker, Paddlefish, Black bear, Alligator snapping turtle, Louisiana pine snake, Northern scarlet snake, Texas horned lizard, and the Timber/Canebreak rattlesnake. These sensitive species and their habitats fall under the protection of the Endangered Species Act, the Migratory Bird Treaty, and the Bald Eagle Protect Act. Three previously recorded archaeological sites exist within the former Camp Fannin property boundary. There are no sites listed or eligible for listing on the National Register of Historic Places.

SCOPE AND ROLE OF RESPONSE ACTION

The overall remedial strategy for each recommended MRS reflects the public/stakeholder interest to manage risk and protect the public from residual MEC hazards.

SUMMARY OF PROJECT SITE RISKS

Site risks were evaluated in terms of a source of contamination, a receptor, and interaction at the exposure point or exposure pathways. The source would consist of MEC and/or MC in the environment.

Human receptors associated with the former Camp Fannin MRA R01 include adults and children. Residents, visitors, and recreational users (e.g., hunters, hikers, etc.) could interact with surface MEC, whereas MEC in the subsurface is more likely to be encountered by residents and workers while digging (i.e., workers associated with agriculture and construction). In addition to human receptors, ecological receptors (e.g., birds, reptiles, and mammals) live in areas throughout the site. The exposure pathway is a means of interaction between the source and receptor, such as a person encountering MEC. It is important to note that exposure to MEC does not mean that an incident or accident will occur. A receptor would have to disturb the item to be potentially exposed to an actual explosive hazard.

A qualitative MEC Hazard Assessment was conducted for MRS1, MRS3, and MRS4 using information from the Remedial Investigation to provide a baseline assessment of response alternatives. MRS5 did not require MEC Hazard Assessment scoring because only a small amount of surficial MD was found. MEC Hazard Assessment considers the following factors:

- Presence and nature of MEC sources,
- Site characteristics that affect potential pathways between the MEC source and human receptors, and
- Types of activities that may result in exposure.

Based on the MEC Hazard Assessment results (Table 1), the potential for explosive hazard conditions is considered high for current and reasonably anticipated future land uses at recommended MRS1, MRS3, and MRS4.

Table 1

	No Action (Baseline)	LUCs	Surface Removal with LUCs	Surface and Subsurface Removal with LUCs
MRS1 – 2.36 inch Rocket Area				
MEC HA	950	925	755	490
Hazard Level	1	1	2	4
MRS3 – 60mm Mortar Area				
MEC HA	950	925	755	490
Hazard Level	1	1	2	4
MRS4 – 60/81mm Mortar Area				
MEC HA	950	925	755	490
Hazard Level	1	1	2	4

Note: A Hazard Level of "1" represents the highest potential explosive hazard conditions, while "4" represents the lowest.

As part of the Remedial Investigation, the USACE evaluated the potential presence of MC in soil, surface water, and sediment. The risk assessment results concluded that MC does not pose a potential risk to human health or the environment. Remedial alternatives evaluated in the Feasibility Study do not consider MC exposure. No further action is recommended for the former Camp Fannin recommended MRSs with respect to MC.

Results of the MEC Hazard Assessment and baseline risk assessments are discussed in detail in the Remedial Investigation and Feasibility Study Reports, which are available in the Administrative Record. MEC/MD density was also used to assess response alternatives; in areas with a higher relative density, a receptor may have a greater chance of encountering MEC.

REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives address specific goals for reducing explosives safety hazards to ensure protection of human health, safety, and the environment. Due to variations among the recommended MRSs with regard to MEC risk, site conditions, and current/future use, specific

Remedial Action Objectives were developed for each recommended MRS:

Recommended MRS1

Prevent human interaction with MEC, which aside from a known burial pit is primarily confined to the upper two feet, by completing the following remedial actions:

- Complete a subsurface removal in areas where human activity for recreational, agricultural, and industrial purposes intrudes into the upper two feet.
- In areas where a burial pit is indicated, complete a removal that extends to the entire extent of the burial pit.
- Complete soil removal operations in lifts to remove suspected MEC from a soil stockpile that is intended for reuse.
- Prevent human interaction with surface MEC by completing a surface MEC removal in areas where the land use indicates usage without intrusive activity.

Recommended MRS3 and MRS4

Prevent human interaction with MEC, which is primarily confined to the upper two feet, by completing the following remedial actions:

- Complete a subsurface removal in areas where human activity for recreational, agricultural, and industrial purposes intrudes into the upper two feet.
- Prevent human interaction with surface MEC by completing a surface MEC removal in areas where the land use indicates usage without intrusive activity.

Recommended MRS5

Although no MEC, and only a small amount of MD from non-fragmenting items was found during the RI, the potential for the presence of hazardous items remains since 100 percent of the area could not be investigated during the RI. Therefore, measures to provide future protectiveness at this MRS are warranted as follows:

Reduce the potential for human interaction with explosive hazards by conducting educational awareness programs.

SUMMARY OF REMEDIAL ALTERNATIVES

A description of the four alternatives developed for the Feasibility Study is presented below.

Alternative 1 - No Action: No further action is conducted under this alternative. Evaluation of this alternative is required and used as a baseline for comparison with the other alternatives. No costs are associated with this alternative, since there would be no action. In the unlikely event that MEC is discovered in the future within a MRS where Alternative 1 is proposed, it would prompt additional assessment of the area to determine an appropriate response alternative.

Alternative 2 - Land Use Controls: Land Use Controls are physical, legal, or administrative mechanisms that restrict the use of, or limit access to, real property to prevent or reduce risks to human health, safety, and the environment. Land Use Controls for the former Camp Fannin recommended MRSs include educational material and MEC awareness training. Educational awareness can be effective at influencing behavior to reduce inappropriate interaction with MEC. No physical restrictions or limitations (i.e., deed restrictions, fences) would be placed on land use as part of Alternative 2.

Recurring five-year reviews would also be conducted to determine if the Land Use Controls continue to minimize explosives safety risks and continue to be protective of human health, safety, and the environment. Alternative 2 was evaluated as an option for recommended MRS1, MRS3, MRS4, and MRS5. This alternative is reliant on interaction with the public in terms of threat awareness and performs no source reduction of potential MEC.

Alternative 3 - Surface MEC Removal with Land Use Controls: This alternative includes a visual inspection, aided by hand-held instruments, and removal of potential MEC exposed at the ground surface. Brush clearance would be required in many areas prior to the removal. Personnel would traverse the entire accessible recommended MRS and suspected MEC that are identified would be removed and disposed using approved/safe procedures. Accessibility to areas within each recommended

MRS will be dependent upon vegetation/terrain, landowner cooperation, and granting of ROE. Surface clearance can reduce risk where MEC is likely to be present on the surface, specifically, for receptors whose land use activities primarily involve surface use (i.e., hunting, hiking, etc.). Risks associated with subsurface MEC may remain. Alternative 3 will place no restrictions or limitations on land use. Alternative 3 is not considered appropriate for a recommended MRS where no MEC items have been found; therefore, this alternative was not evaluated for recommended MRS5.

Land Use Controls, including preparation of educational material and MEC awareness training will be implemented as described in Alternative 2. Recurring five-year reviews will also be conducted to determine if the response action and educational awareness program continue to minimize explosives safety risks and be protective of human health, safety, and the environment.

Alternative 4 - Surface and Subsurface MEC Removal with Land Use Controls: This alternative includes a combination of surface MEC removal as described in Alternative 3 and subsurface MEC removal to specific depths based on the results of the Remedial Investigation and the types of MEC encountered at each recommended MRS. Surface removal will take place across the entire accessible portion of each recommended MRS, requiring significant brush clearing, as described for Alternative 3. Subsurface MEC removal will be performed in open agricultural and cleared areas. In addition, a 16,000 cubic yard stockpile of soil excavated to create a pond will also be removed in lifts from recommended MRS1. If MEC are encountered, the munition(s) will be destroyed using approved/safe procedures. The MEC removal will not be conducted under any existing paved surfaces, streams, and structures. Based on the results of the Remedial Investigation, types of MEC expected to be encountered within each recommended MRS include:

- MRS1 – 2.36-inch rockets, 60mm mortars, and rifle grenades to a maximum depth of at least two feet, and likely deeper at the burial pit found during the Remedial Investigation (assumed 6 feet below ground surface)
- MRS3 – 60mm mortars to a maximum depth of one foot below ground surface
- MRS4 – 60/81mm mortars to a maximum depth of two feet below ground surface

The completion of the MEC removal will significantly reduce potential explosive hazards; however, due to limitations in detection technology and because 100% coverage will not be possible in all areas of the site, it is likely that some munitions may go undetected. No restrictions or limitations will be placed on land use (i.e., deed restrictions, fences). To reduce risk associated with undetected munitions, MEC awareness training will be implemented as described in Alternative 2. Alternative 4 is not considered appropriate at an MRS where no MEC items have been found; therefore, this alternative was not evaluated for recommended MRS5.

EVALUATION OF ALTERNATIVES

Nine criteria are used to evaluate the different munitions response alternatives individually and against each other in order to select a Preferred Alternative. The nine criteria fall into three groups: threshold criteria, primary balancing criteria, and modifying criteria. A description and purpose of the three groups follow:

1. Overall Protection of Human Health and the Environment

This evaluation criterion assesses the effectiveness of an alternative and its ability to meet the Remedial Action Objective. It is a measure of how well an alternative reduces the public's potential exposure to MEC, thereby reducing the possibility of injury or death, and how well the alternative protects the environment. When evaluating this alternative, the presence of MEC at the site, and current and anticipated future land uses must be taken into consideration.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

This evaluation criterion serves to assess whether each alternative meets all the potential federal and state ARARs (Federal, State, and local laws, rules, regulations) as identified in the Remedial Investigation process. Based on the results of the Remedial Investigation, risks from concentrations of MC to human health or ecological receptors at the former Camp Fannin

recommended MRSs are negligible. As such, ARARs for MC are not applicable. Substantive portions of ARARs for MEC apply to the former Camp Fannin recommended MRSs including the Endangered Species Act of 1973, the Migratory Bird Treaty/Bald Eagle Protection Act, and the Resource Conservation and Recovery Act (RCRA) Disposal Requirements (40 CFR 264, Subpart X).

3. Long-Term Effectiveness and Permanence
This evaluation criterion addresses the effectiveness of an alternative in terms of the risk remaining at the site after the response objectives have been met. Long-term management will be implemented post remedial action to ensure the effectiveness, especially with respect to any changes in land use.

4. Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment
This evaluation criterion addresses the preference for selecting remedial alternatives that reduce or remove the toxicity, mobility, or volume of MEC. Evaluation of this criterion considers whether MEC have been documented at the recommended MRS. Mobility and volume of MEC can only be reduced by a surface or subsurface removal action.

5. Short-Term Effectiveness
This evaluation criterion examines the effectiveness of alternatives in protecting human health and the environment during the construction and implementation of a remedy until response objectives have been met. All MEC-related activities are conducted in accordance with stringent safety procedures, including implementation of safety exclusion zones, to protect field personnel and the public.

6. Implementability
This criterion refers to the technical and administrative feasibility of implementing the alternative and the availability of goods and services required for implementation. Personnel, materials, and equipment are readily available for implementation of all the alternatives.

7. Cost
The cost evaluation consists of estimated cost, investment, and benefit. Investment evaluates each alternative in terms of monetary investment required. The benefit of an alternative considers the most effective means of risk reduction for the cost required to perform the action. The cost ranges for the various alternatives between all recommended MRSs are:

Alternative 1 – No Action

- Each MRS - $0

Alternative 2 – Land Use Controls

- Each MRS - $493,190

Alternative 3 – Surface Removal with Land Use Controls

- MRS1 - $8,316,760; $25,530/acre
- MRS3 - $13,674,930; $17,650/acre
- MRS4 - $16,466,250; $21,010/acre

Alternative 4 – Surface and Subsurface Removal with Land Use Controls

- MRS1 - $9,744,600; $29,910/acre
- MRS3 - $23,653,710; $30,520/acre
- MRS4 - $19,984,230; $25,500/acre

8. State/Support Agency Acceptance
USEPA and TCEQ support will be evaluated after the public comment period and described in a Decision Document for each MRS.

9. Community Acceptance
Community acceptance of the Preferred Alternative will be evaluated after the public comment period ends and will be described in a Decision Document for each MRS.

PREFERRED ALTERNATIVES

MRS1 – 2.36-inch Rocket Area

The Preferred Alternative for recommended MRS1, the 2.36-inch Rocket Area, is Alternative 4 - Surface and Subsurface MEC Removal with Land Use Controls. Based on the results of the Remedial Investigation, 2.36-inch rockets, 60mm mortars, and rifle grenades are expected to be encountered to a maximum depth of two feet, and likely deeper at the burial pit (six feet below ground surface). The proposed subsurface removal area is 47 acres: 34 acres that would require brush clearing and 13 acres of bare ground (Table 2). Surface removal would be performed over the remaining accessible area (276 acres).

Alternative 4 would also include removal in lifts of the 16,000-cubic yard soil stockpile excavated to create a pond. Land Use Controls, to include MEC awareness training, would be included in the remedy. Five-year reviews would be

performed to ensure that the remedy remains protective of human health and the environment. This alternative offers maximum protection to the public of the four alternatives and will comply with ARARs during implementation by scouting areas for sensitive species/habitat prior to work and following RCRA Subtitle X requirements when consolidating demolition shots of MEC. Alternative 4 is considered the most effective alternative for reducing risk associated with potential explosive hazards by limiting interaction between receptors and MEC on the surface and in the subsurface during residential, recreational, commercial, and agricultural activities. In the short-term, UXO-qualified personnel may be exposed during implementation but have significant training to implement the alternative safely using approved methods. Alternative 4 offers the greatest reduction of MEC volume. Surface and subsurface removal is administratively and technically feasible, but will require coordination with landowners. The total cost for Alternative 4 at recommended MRS1 is $9,744,600, which is $29,910 per acre. The cost is moderate compared with other alternatives.

Table 2

MRS/Land Features	MRS1 (acres)	MRS3 (acres)	MRS4 (acres)
Total Acreage	325.81	775.16	783.95
Open Agricultural Plots	0	271.31	117.59
Cleared Areas (Bare Ground)	13.03	23.25	23.52
Wooded/Heavily Vegetated	309.52	465.1	627.16
Total Removal Area	322.55	759.66	768.27

MRS3 – 60mm Mortar Area

The Preferred Alternative for recommended MRS3, the 60mm Mortar Area is Alternative 4 - Surface and Subsurface MEC Removal with Land Use Controls. Types of MEC expected to be encountered at recommended MRS3 include 60mm mortars to a maximum depth of one foot below ground surface. The proposed subsurface removal area includes 392 acres, of which 295 acres is open agricultural plots/cleared areas (Table 2). Surface removal will take place over the remaining accessible area (465 acres of wooded/heavily vegetated property). Land Use Controls, to include MEC awareness training, will be included in the remedy. Five-year reviews will also take place to ensure that the remedy remains protective. The total cost to implement Alternative 4 at recommended MRS3 is $23,653,710 which equates to $30,520 per acre.

Alternative 4 will comply with ARARs during implementation by scouting areas for sensitive species/habitat prior to work and following RCRA Subtitle X requirements when consolidating shots. Alternative 4 is considered the most effective alternative for significantly reducing the risk associated with potential explosive hazards by reducing interaction between receptors and MEC on the surface and in the subsurface during residential, recreational, commercial, and agricultural activities. In the short-term, UXO-qualified personnel may be exposed during implementation. Alternative 4 offers the greatest reduction of MEC volume. Surface and subsurface removal is administratively and technically feasible, but will require coordination with property owners and ROE must be obtained. The cost is moderate compared with other alternatives

MRS4 – 60/81mm Mortar Area

The Preferred Alternative for recommended MRS4, the 60/81mm Mortar Area is Alternative 4 - Surface and Subsurface MEC Removal with Land Use Controls. Types of MEC expected to be encountered at recommended MRS4 include 60 and 81mm mortars to a maximum depth of two feet below ground surface. The proposed removal area (768 acres) includes 627 acres of wooded/heavily vegetated property where surface MEC removal will be performed (see Table 2). Subsurface MEC removal will be performed across 141 acres of open/agricultural land at MRS4. Land Use Controls, to include MEC awareness training, will be included in the remedy. As with recommended MRS1 and MRS3, five-year reviews will be performed. Implementation of Alternative 4 at recommended MRS4 will cost approximately $19,984,230, or $25,500 per acre, which is moderate compared with other alternatives.

Alternative 4 is the most protective of workers and the public and will comply with ARARs during implementation by scouting areas for sensitive species/habitat prior to work and following RCRA Subtitle X requirements when

consolidating shots. Alternative 4 is considered the most effective alternative for significantly reducing the risk associated with potential explosive hazards by reducing interaction between receptors and MEC on the surface and in the subsurface. Alternative 4 offers the greatest reduction of MEC volume. Surface and subsurface removal is feasible, but will require coordination with property owners and ROE must be obtained.

MRS5 – Rifle Grenade Area

The Preferred Alternative for recommended delineated MRS5, the Rifle Grenade Area is Alternative 2 - Land Use Controls. This alternative assumes no physical MEC remediation will take place. Alternative 2 is considered most appropriate for MRS5 because no MEC were identified in the Rifle Grenade Area during the RI; however, MD related to rifle grenades or hand grenades was found. Alternative 2, which includes Educational Awareness, is appropriate for this recommended MRS because brochures and training will inform the public and site visitors about potential hazards (MEC) and will identify appropriate response procedures in the unlikely event that MEC is found. Five-year reviews will be conducted to ensure that Land Use Controls continue to ensure that the remedy remains protective. Alternative 2 costs for recommended MRS5 are approximately $493,490.

Informing the resident/landowner or other members of the public of the dangers and related to ordnance will reduce explosives risks. Alternative 2 will comply with ARARs (no remedial activity will take place). Implementation is effective in the short-term but will require follow-up to achieve long-term effectiveness. There is no reduction of MEC toxicity, mobility, or volume through treatment; however, no MEC was found during the Remedial Investigation. Alternative 2 is technically and administratively feasible. The cost to implement Alternative 2 is low compared with other alternatives.

Summary Statement

Based on information currently available, the USACE believes that the Preferred Alternatives meet the threshold criteria and provide the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The USACE expects the Preferred Alternatives to satisfy the following statutory requirements of the Comprehensive Environmental Response, Compensation and Recovery Act (CERCLA) §121(b):

1) Be protective of human health and the environment;
2) Comply with ARARs;
3) Be cost-effective;
4) 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 (or justify not meeting the preference).

COMMUNITY PARTICIPATION

The USACE provided information and solicited public input to the investigation and remediation of the four subject recommended MRSs at the former Camp Fannin through stakeholder and public meetings, announcements in the Tyler Courier-Times Telegraph and Tyler USA newspapers, and the Administrative Record file. The dates for the public comment period, location, and time of the public meeting and the locations of the Administrative Record files are provided on the front page of this Proposed Plan. Public comments will be considered before any action is selected and approved. Representatives from the USACE and TCEQ will be present at the meeting to explain the Proposed Plan, listen to any concerns, answer questions, and accept public comments. Written comments will be accepted throughout a 30-day public comment period from July 8, 2013 through August 9, 2013.

Comments and requests for further information on the site should be directed to:

Ms. Beverly Post
US Army Corps of Engineers
Fort Worth District
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GLOSSARY OF TERMS

Administrative Record (AR) – A compilation of all documents relied upon to select a remedial action pertaining to the investigation and remediation of the project site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Congress enacted CERCLA (42 USC § 9620 et seq.), commonly known as Superfund, on 11 December 1980. This law addresses the funding for, and remediation of abandoned or uncontrolled hazardous waste sites. This law also establishes criteria for the creation of key documents such as the Remedial Investigation, Feasibility Study, Proposed Plan, and Decision Document.

Decision Document (DD) – A report documenting the final action, approved by the regulatory agencies.

Feasibility Study (FS) – The study evaluates possible remedies using the information generated from the Remedial Investigation. The FS becomes the basis for selection of a remedy.

Formerly Used Defense Sites **(FUDS)** – Locations that were owned by, leased to, or otherwise used by the Department of Defense. The term does not include any operational range, operating storage or manufacturing facility, or facility that was used for or was permitted for the treatment or disposal of military munitions.

Land Use Controls (LUCs) – Physical, legal, or administrative mechanisms that restrict the use of, or limit access to, contaminated property to reduce risk to human health and the environment. Institutional controls are a subset of LUCs and may include education and outreach to minimize the impact if MEC.

Munitions Constituents (MC) – Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions.

Munitions Debris (MD) – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Munitions and Explosives of Concern (MEC) – This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means unexploded ordnance, discarded military munitions, or munitions constituents (MC) present in high enough concentrations to pose an explosive hazard.

Munitions Response Area (MRA) – Any area on a defense site that is known or suspected to contain unexploded ordnance, discarded military munitions, or MC contamination. An MRA is comprised of one or more Munitions Response Sites.

Munitions Response Site (MRS) – A discrete location within a defense site that is known to require a munitions response (investigation and/or remedial action).

Proposed Plan (PP) – The plan that identifies the preferred remedial alternative for a site, and is made available to the public for comment.

Remedial Investigation (RI) – An investigation to determine the nature and extent of contamination, assess human health and environmental risks posed by the contaminants, and provide a basis for the development of response action alternatives.

Resource Conservation and Recovery Act (RCRA) – RCRA (42 USC § 6901 et seq.) gives USEPA the authority to control hazardous waste from the "cradle-to-grave." RCRA also set forth a framework for the management of non-hazardous solid wastes.

ACRONYMS

ARAR - Applicable or Relevant and Appropriate Requirement
DoD – Department of Defense
MMRP – Military Munitions Response Program
NDAI – No Department of Defense Action Indicated
ROE – Rights-of-Entry
TCEQ – Texas Commission on Environmental Quality
TPP – Technical Project Planning
USACE – United States Army Corps of Engineers
USEPA – United States Environmental Protection Agency

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Proposed Plan for the site is important to the U.S. Army Corps of Engineers. Comments provided by the public are valuable in helping us select a final remedy for the site.

You may use the space below to write your comments. Comments must be postmarked by August 9, 2013 and sent to the address below. If you have any questions about the comment period, please contact Beverly Post at (817) 886-1884.

Name _____

Address _____

City _____

State Zip _____

Comments: