

PROPOSED PLAN FOR MUNITIONS RESPONSE ACTIONS

Former Brooksville Turret Gunnery Range, Hernando County, Florida
Formerly Used Defense Site (FUDS) Project No. I04FL0778



June 2013

INTRODUCTION

This **Proposed Plan** is presented by the U.S. Army Corps of Engineers (the Corps) to allow the public the opportunity to review and comment on the recommended actions for the former Brooksville Turret Gunnery Range. This **Formerly Used Defense Site** is located in Hernando County, Florida (Figure 1). The site is composed of small farms and pastureland intermixed with residential areas.



Figure 1: Brooksville Turret Gunnery Range Location

A **Remedial Investigation** was conducted on the project site from February 2012 to May 2012 and forms the basis for the Proposed Plan recommendations. The investigation was conducted on six Potential Areas of Interest (2.36-Inch Rocket Range 1, 2.36-inch Rocket Range 2, Rocket and Scrap Dump, Scrap Pile, Fixed Machine Gun Range and Machine Gun/81-mm Mortar Range). The site has now been divided into two Munitions Response Sites based on the results of the fieldwork (see Figure 2 on page 2).

PUBLIC INVOLVEMENT PROCESS

Local community members and other interested parties are encouraged to review this Proposed Plan and submit comments. Public comments on all alternatives are considered before any action is selected and approved. The Corps is the executing agent for the Formerly Used Defense Site 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 Brooksville Turret Gunnery Range. The Military Munitions Response Program was established in 2001 to address non-

operational Department of Defense (DoD) sites known or suspected to contain **munitions and explosives of concern** or **munitions constituents** contamination. (Munitions constituents are the metals, explosives and related products that comprise munitions.)

This Proposed Plan contains terms (in bold letters) used for environmental remediation and the overall **Military Munitions Response Program**. These terms are described in the Glossary found at the end of this document.

Dates to Remember: PLEASE MARK YOUR CALENDAR

PUBLIC COMMENT PERIOD:
June 25, 2013 – July 26, 2013

The Corps will accept written comments on the Proposed Plan during the public comment period. Written comments may be sent to:

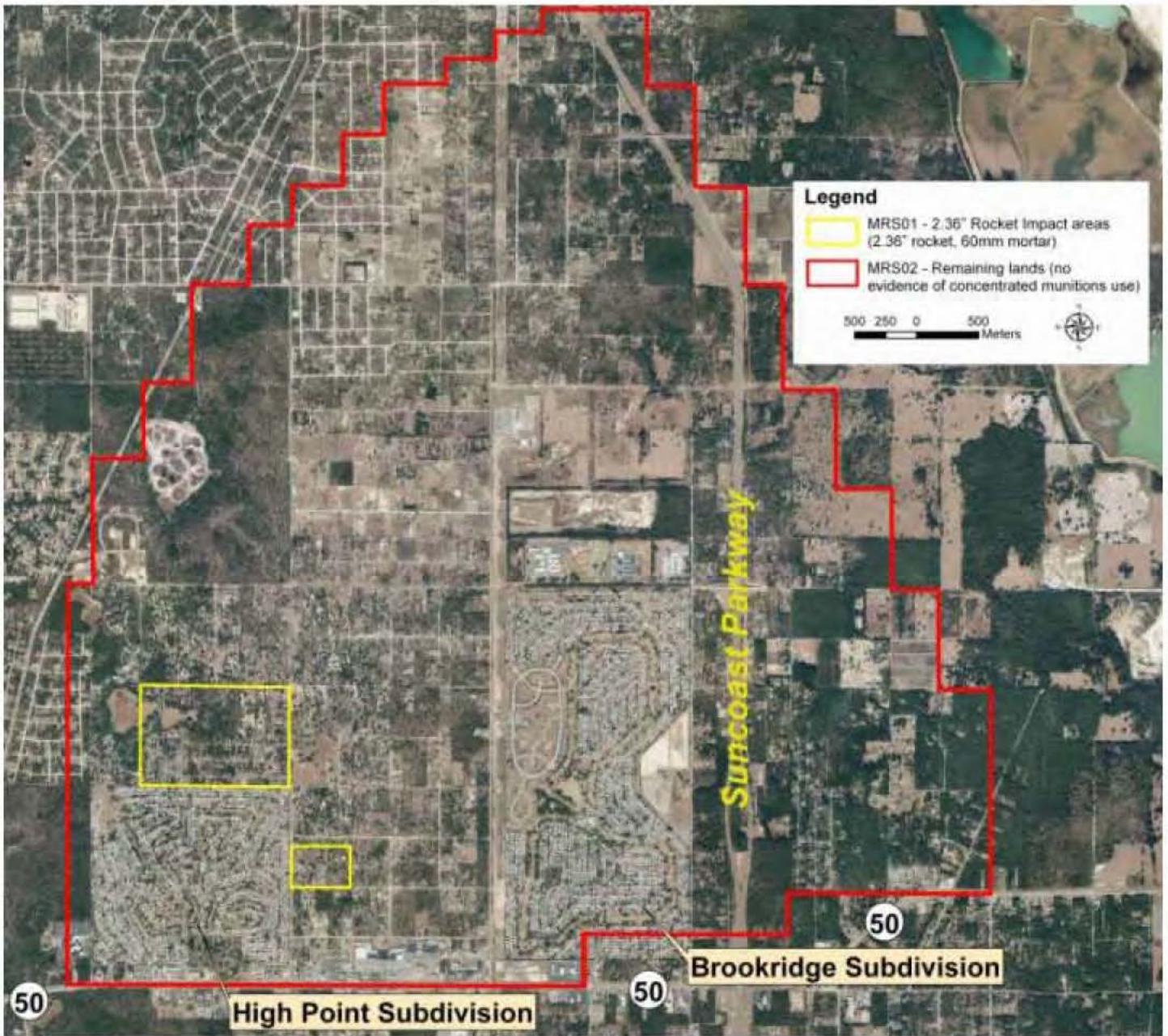
USACE Jacksonville District
Attn: PM-M Frank Araico
701 San Marco Boulevard
Jacksonville, FL 32207-8175

PUBLIC MEETING:

A public meeting will be held on *June 25, 2013*, at the Central High School, 14075 Ken Austin Parkway, Brooksville, FL 34613 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.

For more information, see the **Administrative Record** at the Hernando County Public Library West Hernando Branch located at 6335 Blackbird Avenue in Brooksville.

Figure 2 Delineation Map, Brooksville TGR, Hernando County, Florida



The Corps conducts environmental response activities at Formerly Used Defense Sites on behalf of the Department of Defense and is the lead agency for investigating, reporting, remedial decision-making, and implementation at the Brooksville Turret Gunnery Range. The Florida Department of Environmental Protection is the lead regulatory agency for this project. Representatives from the Florida Department of Environmental Protection reviewed the Remedial Investigation report and agreed with its conclusions and recommendations.

The *Final Brooksville Turret Gunnery Range Remedial Investigation/Feasibility Study Report, Hernando County, Florida* (USAE, 2013), is a part of the Brooksville Turret Gunnery Range **Administrative Record** file that contains all the documents used in making decisions on remedial projects at the former Brooksville Turret Gunnery Range.

This Proposed Plan identifies remedial alternatives evaluated for the Munitions Response Sites, and provides the rationale for the Preferred Alternative for each Munitions Response Site. The **preferred alternative** is in response to munitions and explosives of concern and/or munitions constituents present on the site. The purposes of this Proposed Plan are to:

- Provide basic background information.
- Describe remedial alternatives considered.
- Identify the Preferred Alternative for remedial action for the evaluated Munitions Response Site and explain the reasons for the preference.
- Solicit public review and comment on the alternatives described.
- Provide information on how the public can be involved in the remedy selection process.

The decision for each Munitions Response Site will be presented in a **Decision Document**. The Corps responses to public comments on this Proposed Plan will appear in the “Responsiveness Summary” section of the Decision Document. The flow chart shown in Figure 3, below, summarizes the various steps in the development and approval process for the Brooksville Turret Gunnery Range Decision Document.

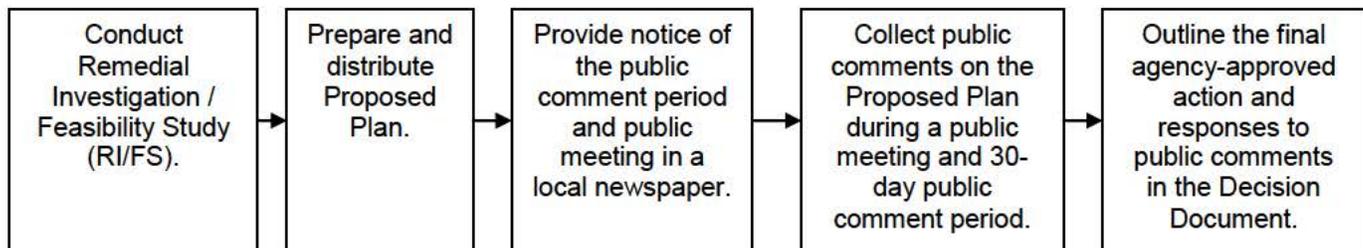


Figure 3: Brooksville Turret Gunnery Range Decision Document Process

SITE BACKGROUND

Site History

The former Brooksville Turret Gunnery Range in Hernando County, Florida was established in late 1943 in support of the World War II effort with the purpose of training bomber turret gunners stationed at Drew Field as part of the 3rd Army Air Force Fighter Command School. No permanent buildings were erected and minimal construction was performed on the one range established for training. This range was designated the Machine Gun Range (historically referred to as the Jeep Track Range) where an unmanned jeep was used to carry targets around an elliptical track as gunners fired .50-caliber machine guns at the moving target. A second .50-caliber machine gun range, designated as the Fixed Machine Gun Range, was added sometime shortly after the facility became operational.

In early 1944, training activities were expanded to accommodate Army infantry training. As a result of increased demand for firing practice, the two existing .50-caliber machine gun firing ranges were also used as 2.36-inch rocket (bazooka) ranges. Additionally, the .50-caliber Machine Gun Range was also reportedly used as an 81-mm mortar firing point; however, no evidence of this was identified during the Remedial Investigation.

Shortly after World War II ended, Brooksville Turret Gunnery Range was no longer needed. By November 1946, all leases to the property were terminated and the property was returned to the owners.

Previous Investigations

Following the **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)** process, the Corps has completed a series of studies at the site as identified below:

Inventory Project Report – In 1985, the Corps conducted an Inventory Project Report of the former Brooksville Turret Gunnery Range. The report concluded that the area is a Formerly Used Defense Site, but no evidence of munitions or other concerns were present. The report recommended no further action, although a statement was included that “the discovery of unknown, isolated, buried ordnance [munitions] missed by clearance teams” is always possible (USACE, 1985).

Ordnance and Explosives Archives Search Report – In 1995, the Corps conducted a site inspection and archives search of the site. This report listed the probable munitions used at each former range as well as estimated depth at which munitions may be present (by area) and the probable future land use. The Archives Search Report subdivided the former Brooksville Turret Gunnery Range into four Areas of Interest: Area A through Area D. The report concluded that the presence of munitions was “confirmed” in Area A and Area B based on verifiable historical evidence and direct witness of munitions. It stated that Area C and Area D could potentially contain munitions based on inference from records and indirect witness accounts (USACE, 1995).

Engineering Evaluation and Cost Analysis - An Engineering Evaluation and Cost Analysis was conducted in 1999. It focused on identifying where munitions remained, analyzing risk management alternatives, and recommending ways to reduce exposure to munitions. The four original Areas of Interest were further subdivided into eight Areas of Interest (Area A, B, C, D1, D2, D3, E and F). No munitions or munitions debris (pieces of munitions or other items that do not contain explosive materials) were present in Areas A, B, C or E. Munitions debris was identified in the other areas and munitions (2.36-inch rockets) containing explosive hazard were discovered in Areas D1 and D3.

Previous Removal Actions

Over the years, a number of investigations were conducted, during which munitions were removed from the site. These actions were prompted by residential development as well as discovery of munitions by individual property owners, primarily in the southern portion of the former Brooksville Turret Gunnery Range. These actions recovered numerous practice items and munitions containing explosive hazards, including 2.36-inch bazooka rockets, 81-mm mortars, rifle grenades and miscellaneous munitions components.

In support of the construction of the Suncoast Parkway, Parsons cleared a six-mile section of the parkway for a general contractor retained by the Florida Department of Transportation (Parsons, 1999). A number of munitions-related items were found, including 88 .50-caliber bullets, 31 40-mm projectiles and 46 3.25-inch practice rockets (Parsons, 1999). No munitions containing an explosive hazard were found at the site during this clearance (Parsons, 1999).

Based on the results of the Engineering Evaluation and Cost Analysis, the Corps completed several removal actions in phases, beginning with areas of greatest concern. In 2006, the Corps completed a removal action at the 2.36-Inch Rocket Range 1 in Area D1 and 2.36-Inch Rocket Range 2 in Area D3 (ECC, 2006). Several practice 2.36-inch rockets and munitions debris was recovered in both ranges. Soil samples were collected where munitions and munitions debris were found, but nothing was detected above the Florida Department of Environmental Protection’s screening levels.

The Corps completed additional removal actions at the 2.36-Inch Rocket Range 1 and 2.36-Inch Rocket Range 2 in 2008 and 2010 (Parsons, 2008, 2010a and 2010b). Crews recovered five 2.36-inch rockets containing explosive hazard, 46 practice 2.36-inch rockets, a 60-mm mortar containing explosive hazard and numerous pieces of munitions debris. Soil samples were collected in areas where munitions and/or munitions

debris were found during the removal action, but nothing was detected above the Florida Department of Environmental Protection's screening levels.

Remedial Investigation

The purpose of a remedial investigation is to determine what may be present and in what locations and amounts. This is known as characterizing the nature and extent of potential contamination.

Munitions and Explosives of Concern - Crews dug 11,613 metallic objects to determine if they were munitions-related. No munitions were found anywhere within the boundaries of the site during the Remedial Investigation, and only eight pieces of munitions debris were found. They included six expended .50-caliber rounds in the Fixed Machine Gun Range Potential Area of Interest, one expended .50-caliber round in the Machine Gun/81-mm Mortar Range Potential Area of Interest and a fin from a 60 mm mortar in the southern portion of the Remaining Land Potential Area of Interest.

Munitions Constituents - Teams also collected samples to determine if metals or explosives from munitions were present in the soil or water. Eight surface water and eight sediment samples were collected at a pond within the 2.36-Inch Rocket Range where a 60-mm mortar containing explosive hazard was discovered during a removal action. An evaluation of the results of the sampling indicated that there is no risk to people or the environment at the former Brooksville Turret Gunnery Range.

Results - Although no munitions were found during the Remedial Investigation, because of the way the military used the land, it is possible that munitions could still be present in the 2.36-inch rocket ranges. No munitions were found in the area designated as the Remaining Lands, so the likelihood of encountering munitions is low. The environmental sampling indicates there is no risk to people or the environment from munitions constituents.

For more efficient project management, the seven Areas of Interest that were originally the subject of the Remedial Investigation were combined into two Munitions Response Sites: MRS01- 2.36-Inch Rocket Ranges and MRS02 - Remaining Lands. MRS02 was recommended for No Action and as such, was not included in the Feasibility Study.

SITE CHARACTERISTICS

The former Brooksville Turret Gunnery Range is approximately 42 miles north of Tampa, Florida in Hernando County. The site is approximately 3.5 miles west of Brooksville and about 17 miles east of the Gulf of Mexico. The site is contained within the area bordered by County Road 476 (Centralia Road) to the north, State Highway 50 (Cortez Blvd.) to the south, County Roads 491 (Citrus Way) and 484 (Fort Dade Ave.) to the east, and high tension transmission lines to the west paralleling State Highway 55/US Highway 19 (Commercial Way/Nicasto Road), as shown in Figure 2.

Land Use

The site is comprised of small farms and pastureland intermixed with residential areas in the north and central portions of the site and shopping centers, heavily populated retirement communities (Highpoint and Brookridge Subdivisions), other subdivided residential areas, small farms and scattered residential homes in the southern portion of the site. Numerous corporately owned tracts of land are present throughout the site.

Groundwater and Surface Water Use

The majority of Hernando County residents are provided water for personal consumption from the Hernando County Utility Department. The department supplies water extracted from 57 deep groundwater wells all screened within the Floridan aquifer. Based on the Southwest Florida Water Management District database, private wells are also found locally with the majority of these wells screened in the Floridan aquifer. According to US Geological Survey groundwater data (Weeki-Wachee well 11, 5.25 miles east of Masaryktown, USGS Groundwater Watch), the average monthly depth to water ranges from approximately 42 to 44 feet for the referenced well. Regional groundwater flow is to the west.

The former Brooksville Turret Gunnery Range has no well-defined streams in the vicinity. Most of the property is drained through numerous sinkholes, closed depressions, ponds, lakes and grassy prairies. The Weekiwachee River in the western part of the county and the Withlacoochee and little Withlacoochee Rivers in the eastern part are the only permanent, major surface drainage conduits in the county. The Weeki-Wachee River is the closer of the three to the former Brooksville Turret Gunnery Range but none of these rivers directly affects the site.

Contamination Sources

The potential sources of contamination at the former Brooksville Turret Gunnery Range are munitions and munitions constituents. The potential for munitions and munitions constituents varies based on the specific operations that were conducted at the ranges. The potential munitions include: .30-caliber and .50-caliber bullets, 37-mm ammunition, 2.36-inch rockets, 40-mm projectiles and 60- and 81-mm mortars.

Contaminated Media

Investigations encountered 2.36-inch high explosive rockets, 60-mm high explosive mortars, and small arms ammunition on the surface and in subsurface soil at the former Brooksville Turret Gunnery Range. No other media (sediment, surface water, or groundwater) were found to be impacted by DoD activities.

SCOPE AND ROLE OF RESPONSE ACTIONS

The overall remedial strategy for the former Brooksville Turret Gunnery Range reflects the community interest and the Corps desire to eliminate the potential for munitions-related accidents and/or exposure to munitions constituents. As noted previously, the potential for munitions to be present in the 2.36-Inch Rocket Ranges Munitions Response Site (now referred to as MRS01) is low and it is unlikely that munitions are present in the Remaining Lands Munitions Response Site (now referred to as MRS02). There is no evidence of munitions constituents in the soil or water.

SUMMARY OF SITE RISKS

Risks were evaluated based on the potential for people and the environment to be exposed to munitions or munitions constituents. A munitions hazard assessment and a munitions constituent risk assessment were used to aid in the development, evaluation and selection of appropriate response alternatives. The potentially exposed population includes all those who live, work or visit those areas within the boundaries of the former Brooksville Turret Gunnery Range. In addition to people, environmental exposure could include protected species, such as the gopher tortoise, present in some areas of the site.

There are no munitions constituent risks at the former Brooksville Turret Gunnery Range. There is a low risk of encountering munitions in the 2.36-Inch Rocket Ranges Munitions Response Site. There is no munitions hazard at the Remaining Land Munitions Response Site.

Munitions and Explosives of Concern

There is the potential that residents, commercial/industrial workers, recreational users, other site visitors, and ecological receptors could encounter munitions within the Rocket Ranges Munitions Response Site. The Corps evaluated the potential current and future health effects from munitions at this Munitions Response Site. The results of the assessment were used to aid in the development, evaluation, and selection of appropriate response alternatives.

Areas with Potential Munitions – During previous investigations, munitions and munitions debris were found at what is now referred to as MRS01 - 2.36-Inch Rocket Ranges. Because removal actions were completed on these areas, significant additional investigation was not warranted under the Remedial Investigation. The munitions recovered included a 60-mm mortar and several 2.36-inch rockets, all containing explosive hazard. Munitions debris included 2.36-inch practice rockets and small arms ammunition of up to .50-caliber. Munitions and munitions debris were found both on the surface and subsurface to a depth of 30 inches below land

surface. Based on the extent of the removal actions and not finding any additional munitions during the Remedial Investigation, the potential of encountering munitions here is low.

Areas unaffected by Munitions Use - Based on previous investigations (Suncoast Parkway Clearance, Engineering Evaluation/Cost Analysis, removal actions), the current Remedial Investigation and media reports, no munitions have been identified in MRS02 - Remaining Lands. Only munitions debris, mostly small arms ammunition, was encountered. It is highly unlikely that munitions remain in this area.

Munitions Constituents

There is no evidence of munitions constituents within soil, sediment, surface water or groundwater; therefore, there is no risk to people or the environment from the military's use of the site.

Table 1
Assessment Conclusions

Munitions Response Site	Potential for Encountering Munitions	Risks from Exposure to Munitions Constituents	Further Action Recommended
MRS01 – 2.36-Inch Rocket Ranges	YES (low probability)	No	Yes
MRS02 – Remaining Lands	No	No	No

REMEDIAL ACTION OBJECTIVES

The overall Remedial Action Objective is to minimize the risk to people and the environment. The Remedial Action Objective for the 2.36-Inch Rocket Ranges Munitions Response Site will be achieved when measures have been established to protect people from munitions that may remain in this area.

No Remedial Action Objective is required for the Remaining Lands Munitions Response Site because no hazards have been identified.

SUMMARY OF REMEDIAL ALTERNATIVES

Since there are no hazards from munitions or risks due to munitions constituents at the Remaining Lands Munitions Response Site, the only alternative evaluated is No Action.

The following alternatives were evaluated for the 2.36-Inch Rocket Ranges Munitions Response Site.

Alternative 1: No Action

The “No Action” alternative involves no active response or controls to locate, remove, dispose of or limit the exposure to any potential munitions present within the site. In addition, the Corps would assume no responsibility for public awareness or education concerning the potential explosive hazards within the site. The “No Action” alternative is used in the evaluation of alternatives to provide a baseline for comparison of other response alternatives.

The “No Action” alternative assumes continued use of the site in its present state. If the potential exposure and hazards associated with the site are compatible with current and future developments in the area, then “No Action” may be warranted. It is important to note that the government will respond to any future discovery of munitions or explosives of concern at the site even if it has been designated for “No Action”.

Alternative 2: Education Program with Five-Year Reviews

The “Public Education” alternative uses a public education program to minimize inadvertent site access and exposure to munitions potentially remaining at the site. Such a program could include periodic public safety awareness meetings and distribution of educational media to landowners and local businesses. Letters and fact sheets would be sent to landowners and residents on parcels in areas identified during the Remedial

Investigation as potentially having munitions present. Letters with updates would be provided on a periodic basis, corresponding with the five-year reviews. The public education program will provide effective risk management by educating the local populace of the potential for explosive hazards at the site.

Alternative 3: Deed Notices and Education Program with Five-Year Reviews

Deed notices would involve recording the boundaries of the area of potential munitions contamination in the associated deeds along with the implementation of an associated required disclosure statement about the potential munitions hazards associated with the land prior to deed transfers. Implementation of a deed notice would require the cooperation of the local government and the property owner. The deed notice would be accessed whenever a deed search was conducted or whenever there is a property transfer. This would notify prospective new owners of the potential for munitions to remain at the property.

It is desirable to use a “layered approach” when using land use controls to ensure the protectiveness provided by the remedy. An educational awareness program, similar to that described under Alternative 2, would provide additional protection by providing information to the public concerning potential munitions hazards at the site. Reports, fact sheets and other information would also be placed in the information repository. Five-year reviews help to monitor the effectiveness of the alternative.

Alternative 4: Surface Munitions Removal with Five-Year Reviews

This alternative combines metal-detector assisted removal and disposal of munitions-related items from the ground surface of the area of concern with all the elements of Alternative 2. Under this alternative, the Corps would:

- Obtain written Right of Entry from the landowners to allow access for the field work;
- Cut sufficient brush and shrubs to allow for effective use of detection equipment and safe removal of surface munitions-related items;
- Survey and subdivide the site into grids;
- Remove munitions from the ground surface of each grid;
- Destroy munitions and explosives of concern;
- Transport non-hazardous munitions debris for offsite treatment and disposal; and
- Implement the public education program with five-year reviews.

Alternative 5: Munitions Removal to Maximum Depth with Public Education and Five-Year Reviews

This alternative includes all elements of the Alternative 4, but the removal of munitions would extend two feet below the ground surface, which is a depth consistent with investigative findings. Munitions removal would not be conducted under existing roads, parking areas, bodies of water and/or other structures.

Alternative 6: Excavation, Sifting and Restoration

Excavation, sifting and restoration involve excavation to remove munitions from the entire site. Rather than use metal detectors to identify specific subsurface metallic items and excavate them, this alternative would use mechanical excavation to remove all soil within the area and process the soil through a mechanical sifter to remove munitions and munitions debris. The initial excavation depth for this alternative would be based on the maximum depth of where exposure could occur, coupled with the maximum depth where munitions were found previously. If the excavation reaches two feet and there is indication that munitions may be present at a greater depth, the excavation would continue until the area is cleared. Under this alternative, all existing vegetation, including tree cover, would be cleared to facilitate excavating site soil.

Excavation would not be conducted under existing roads, parking areas, bodies of water and/or other structures. If munitions are encountered, it is anticipated that they would be destroyed by blowing them up in place using approved safety procedures. Munitions that are acceptable to move could be taken to a nearby

designated area for demolition. After demolition, all munitions debris would be inspected, certified as safe, containerized, and shipped to an offsite location for disposal.

People may be required to vacate homes and other occupied structures within an identified safety zone during work hours. An education program, similar to that described under Alternative 2, would provide additional protection by informing the public concerning potential munitions hazards at the site.

EVALUATION OF ALTERNATIVES

Seven criteria and two additional modifying criteria (nine total) were used to evaluate each of the munitions response alternatives individually and against each other to select a remedy. This section profiles the relative performance of each alternative against the seven criteria, noting how it compares to the other options under consideration. The nine evaluation criteria are discussed below. The detailed “Comparative Screening of Response Alternatives” can be found in the Feasibility Study Report.

Overall Protection of Human Health and the Environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls or treatment.

Compliance with Applicable or Relevant and Appropriate Requirements evaluates whether the alternative meets federal and state environmental statutes, regulations and other requirements that pertain to the site, or whether a waiver is justified.

Table 2
Evaluation Criteria for Remedial Alternatives

Threshold Criteria	Overall protection of human health and the environment
	Compliance with Applicable or Relevant and Appropriate Requirements
Primary Balancing Criteria	Long-term effectiveness and permanence
	Reduction of toxicity, mobility, or volume through treatment
	Short-term effectiveness
	Implementability
	Cost
Modifying Criteria	State acceptance
	Community acceptance

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Reduction of Toxicity, Mobility, or Volume through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents and the environment during implementation.

Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

Modifying criteria may be considered to the extent that information is available during the Feasibility Study, but can be fully considered only after public comment is received on the Proposed Plan. In the final balancing of trade-offs among alternatives upon which the final remedy selection is based, modifying criteria are of equal importance to the balancing criteria.

Summary of Alternative Evaluation Results

The six alternatives were initially screened for effectiveness, cost and implementability to determine which alternatives should be carried forward to a detailed analysis. Alternative 6 was dismissed from detailed analysis due to implementability concerns. Alternatives 1 through 3 were carried forward for detailed analysis. Because munitions removals were previously completed for MRS01 and the probability of encountering munitions is low within the Munitions Response Site, only the first three alternatives were evaluated. A summary of the detailed analysis is shown in Table 3.

Table 3
Detailed Analysis of Alternatives for MRS01

Criteria		Alternative 1 - No Further Action	Alternative 2 – Education Program	Alternative 3 – Deed Notices with Education Program
Threshold Factors	Protectiveness	Not Protective	Protective by modifying behavior if munitions are found.	Protective by modifying behavior if munitions are found.
	Compliance with Applicable or Relevant and Appropriate Requirements	Not Applicable	Not Applicable	Not Applicable
Balancing Factors	Reduction of Toxicity, Mobility and Volume Through Treatment	No Reduction	No Reduction	No Reduction
	Short-Term Effectiveness	No impact	No impact	No impact
	Long-Term Effectiveness and Permanence	Not Effective	Effective	Effective for education program Not Effective for deed notification
	Implementability	Implementable	Implementable	Implementable for education Not implementable for deed notification
	Cost	\$0	\$317,595	\$475,158

Table 3 (continued)
Detailed Analysis of Alternatives for MRS01

Criteria		Alternative 1 - No Further Action	Alternative 2 – Education Program	Alternative 3 – Deed Notices with Education Program
Modifying Considerations	Community Acceptance	Community acceptance is unlikely.	Community acceptance is likely.	Community acceptance is less likely since landowners will not want deed notices placed on their properties.
	State Acceptance	State acceptance is unlikely since this alternative is not protective.	Likely to be accepted because risk of exposure is reduced.	Likely to be accepted because risk of exposure is reduced.

The following conclusions were derived for MRS01 – 2.36-Inch Rocket Ranges:

- Alternative 1 is ineffective in reducing risk to human health and the environment and has no long-term permanence.
- Alternative 2 does not reduce the munitions hazard, but it does reduce the risk by informing residents of the hazards associated with the potential presence of munitions. The estimated cost to implement Alternative 2 is in the middle range for the three alternatives evaluated.
- Alternative 3 is similar to Alternative 2 with the addition of deed notices being placed on parcels with potential munitions hazards. The cost is slightly more than Alternative 2.

PREFERRED ALTERNATIVE

Education program with five-year reviews (Alternative 2) is the Preferred Alternative for MRS01 – 2.36-Inch Rocket Ranges. Based on the information available at this time, the Corps believes that this alternative would be protective of people and the environment. They would be cost effective, and would use permanent solutions to the maximum extent practicable. No Applicable or Relevant and Appropriate Requirements have been identified. USACE may modify the Preferred Alternatives in response to public comments or new information.

COMMUNITY PARTICIPATION

The Corps is soliciting public comments on the Preferred Alternatives recommended for the two Munitions Response Sites. Written and verbal comments will be accepted at a public meeting scheduled for Tuesday, June 25 at 6:30 p.m. at Central High School, 14075 Ken Austin Parkway, Brooksville, FL 34613.

Representatives of the Corps and the Florida Department of Environmental Protection will explain the Proposed Plan, listen to concerns, answer questions and accept public comments. Written comments will also be accepted through July 26, 2013. Comments received during the public meeting and comment period and will be considered in the final decision concerning future action to be taken at the project site. This decision will be presented in a **Decision Document**. The Corps' responses to public comments on this Proposed Plan will be contained in a "Responsiveness Summary" section of the Decision Document.

The *Final Remedial Investigation /Feasibility Study Report, Brooksville Turret Gunnery Range, Hernando County, Florida* (USAE, 2013) provides a comprehensive description of the site history, the details of the Remedial Investigation, the associated risk assessments and their conclusions, and the alternatives evaluated and recommended for the site. All of the reports and other project documents are available in the West Hernando Branch of the public library located at 6335 Blackbird Avenue.

CONTACT INFORMATION

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INFORMATION REPOSITORY

Copies of the *Final Brooksville Turret Gunnery Range Remedial Investigation Report, Hernando County, Florida* (USACE, 2012) and the Administrative Record for this site can be found at the following location:

Hernando County Public Library, West Hernando Branch
6335 Blackbird Avenue
Brooksville, FL 34613
Telephone: 352-540-6391

REFERENCES

ECC, 2006. Final Site Specific Removal Report, Non-Time Critical Removal Action, Former Brooksville Turret Gunnery Range, Brooksville, Florida. Prepared for U.S. Army Engineering and Support Center, Huntsville, Alabama by ECC.

Parsons, 1999. Report for UXO Clearance (Removal and Disposal of Ordnance and Explosives) Suncoast Parkway Section 6, Brooksville Turret Gunnery Range, Florida. Prepared for Smith & Company, Inc. and Florida Department of Transportation.

Parsons. 2010a. Site Specific Interim Report, Non-Time Critical Removal Action, Former Brooksville Turret Gunnery Range, Phase II, Step 2 Area, Brooksville Florida. Prepared for U.S. Army Engineering and Support Center, Huntsville by Parsons.

Parsons. 2010b. Site Specific Interim Report, Non-Time Critical Removal Action, Former Brooksville Turret Gunnery Range, Phase II, Step 5 Area, Brooksville Florida. Prepared for U.S. Army Engineering and Support Center, Huntsville by Parsons.

Parsons. 2010c. Site Specific Final Report, Non-Time Critical Removal Action, Former Brooksville Turret Gunnery Range, Phase II, Step 1, 2, and 5 Areas. Prepared for U.S. Army Engineering and Support Center, Huntsville, Alabama by Parsons.

USACE Rock Island District, 1995. Ordnance and Explosives Archives Search Report for Former Brooksville Turret Gunnery Range, Brooksville, Florida.

USACE, 2004. U.S. Army Corps of Engineers Engineer Regulation 200-3-1, Formerly Used Defense Site Program Policy.

USAE, 2013. Final Brooksville Turret Gunnery Range Remedial Investigation Report and Feasibility Study, Hernando County, Florida. Prepared by USA Environmental, Inc. for the U.S. Army Engineering and Support Center, Huntsville and USACE, Jacksonville District. April 2013.

U.S. Environmental Protection Agency, 1999. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents. U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response. EPA 540-R-98-031. July 1999.

GLOSSARY OF TERMS

Administrative Record – A compilation of all documents used to determine the appropriate remedial action at the project site.

Anomalies - An irregularity found using a metal detector.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, otherwise known as Superfund) – A federal law that addresses the funding for and remediation of abandoned or uncontrolled hazardous waste sites. This law also establishes criteria for the creation of key documents such as the Remedial Investigation Report, Proposed Plan and Decision Document.

Decision Document – The documentation of remedial response decisions at Formerly Used Defense Sites. Concurrence on the Decision Document by EPA or the state regulatory agency is sought and the Army approves the document.

Feasibility Study – The mechanism for the development, screening and detailed evaluation of alternative remedial actions.

Formerly Used Defense Site – Locations that were owned, leased, or otherwise used by the Department of Defense prior to October 17, 1986. Operational ranges, operating storage or manufacturing facilities, or facilities used for or permitted for the treatment or disposal of military munitions do not qualify as Formerly Used Defense Sites.

Munitions Constituents – Any materials originating from munitions, including explosive and non-explosive materials and emission, degradation, or breakdown elements of ordnance or munitions.

Munitions Debris – 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 – Munitions that may pose explosives safety risks, including unexploded ordnance (munitions); discarded military munitions; or munitions components (e.g., 2,4,6-trinitrotoluene, Research Department Explosive [RDX]) present in high enough concentrations to pose an explosive hazard.

Munitions Response Site – An area that is known to require a munitions response (investigation, removal action and/or remedial actions).

Preferred Alternative – The alternative that, when compared to other potential alternatives, best meets the CERCLA evaluation criteria and is proposed for implementation at a site.

Proposed Plan – A plan that identifies the preferred remedial alternative for a site and is made available to the public for comment.

Remedial Investigation – Exploratory inspection conducted at a site to define the nature and extent of contamination present.

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

Unexploded Ordnance – Military munitions that: (a) were primed, fuzed, armed, or otherwise prepared for action; (b) were 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.

ACRONYMS AND ABBREVIATIONS

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
Corps United States Army Corps of Engineers



Remember to practice the “Three R’s” of Explosives Safety:

Recognize – Suspicious objects found in area should not be touched.

Retreat – Carefully leave the area without touching or moving the item.

Report – Call 9-1-1 and say you may have found munitions.