



PROPOSED PLAN FOR MUNITIONS RESPONSE ACTIONS

FUDS Project No. I04FL007801

Former Withlacoochee Chemical Warfare Service Field Trials and
Air-to-Ground Bombing and Gunnery Range

June 2016

1.0 INTRODUCTION AND PURPOSE

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 action for the Former Withlacoochee Chemical Warfare Service Field Trials and Air-to-Ground Bombing and Gunnery Range (Withlacoochee) and to encourage community participation in the environmental process. This Formerly Used Defense Site is located within the Richloam Wildlife Management Area of the Withlacoochee State Forest. The Florida Forest Service manages the site for timber, and the public uses it for recreation.

This document is issued by the Corps, in consultation with the Florida Department of Environmental Protection, to meet statutory and regulatory requirements for public participation. The Proposed Plan provides brief descriptions of the remedial alternatives evaluated and discusses the rationale for supporting selection of the Preferred Alternative. The Corps will select a final remedy for the site after reviewing and considering all information submitted during the 30-day public comment period. The Corps may modify the Preferred Alternative or select another response action based on new information or public comments. Therefore, the public is encouraged to review and comment on the alternatives presented in this Proposed Plan.

The Corps is required under the Comprehensive Environmental Response, Compensation, and Liability Act to issue this Proposed Plan and seek public comment and participation under Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan. A Remedial Investigation was initiated in 2010, with field work conducted at the three areas which comprise the Withlacoochee site (please see Figure 2) from February 2012 to February 2014 and forms the basis for the Proposed Plan recommendation. This Proposed Plan summarizes information that can be found in greater detail in the Remedial Investigation/Feasibility Study report and other project documents.

The Army is the lead agency for the Formerly Used Defense Sites program, and the Corps, on behalf of the Army and the Department of Defense, 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. The Corps is responsible for investigating, reporting, and implementing remedial action at the former Withlacoochee site. 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/Feasibility Study and agreed with its conclusions and recommendations.

The Remedial Investigation/Feasibility Study is part of the Administrative Record file that contains all the documents used in making decisions on remedial projects at the Withlacoochee site. The Administrative Record file is available for review at the EC Rowell Public Library located at 85 E. Central Avenue in Webster, Florida. This Proposed Plan identifies the remedial alternatives evaluated and provides the rationale for the Preferred Alternative. 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.

Dates to Remember:

PUBLIC COMMENT PERIOD:

June 24 – July 26, 2016

The Corps will accept comments on this Proposed Plan during the public comment period. A public meeting may also be requested. Written comments may be sent to:

U.S. Army Corps of Engineers
Attn.: Frank Araico (CESAJ-PM-M)
701 San Marco Boulevard
Jacksonville, FL 33702
FUDS.Florida@usace.army.mil

Project documents are available for review at the following location.

EC Rowell Public Library
85 E. Central Avenue, Webster, FL 33597
(352) 568-1600

- Provide information on how the public can be involved in the remedy selection process.

The decision 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 1 below summarizes the various steps in the development and approval process for the Decision Document.

Figure 1 – Steps to Obtaining a Decision Document

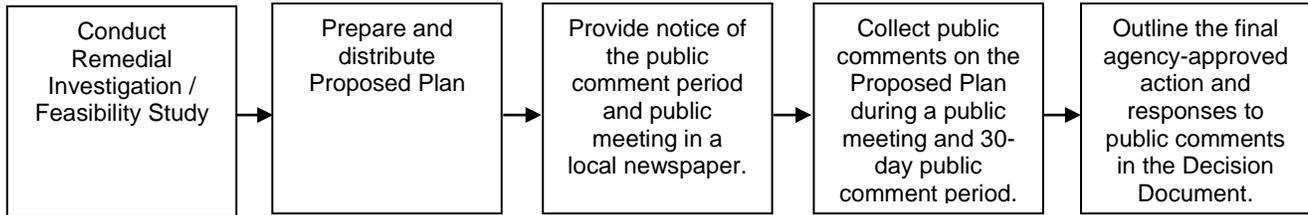
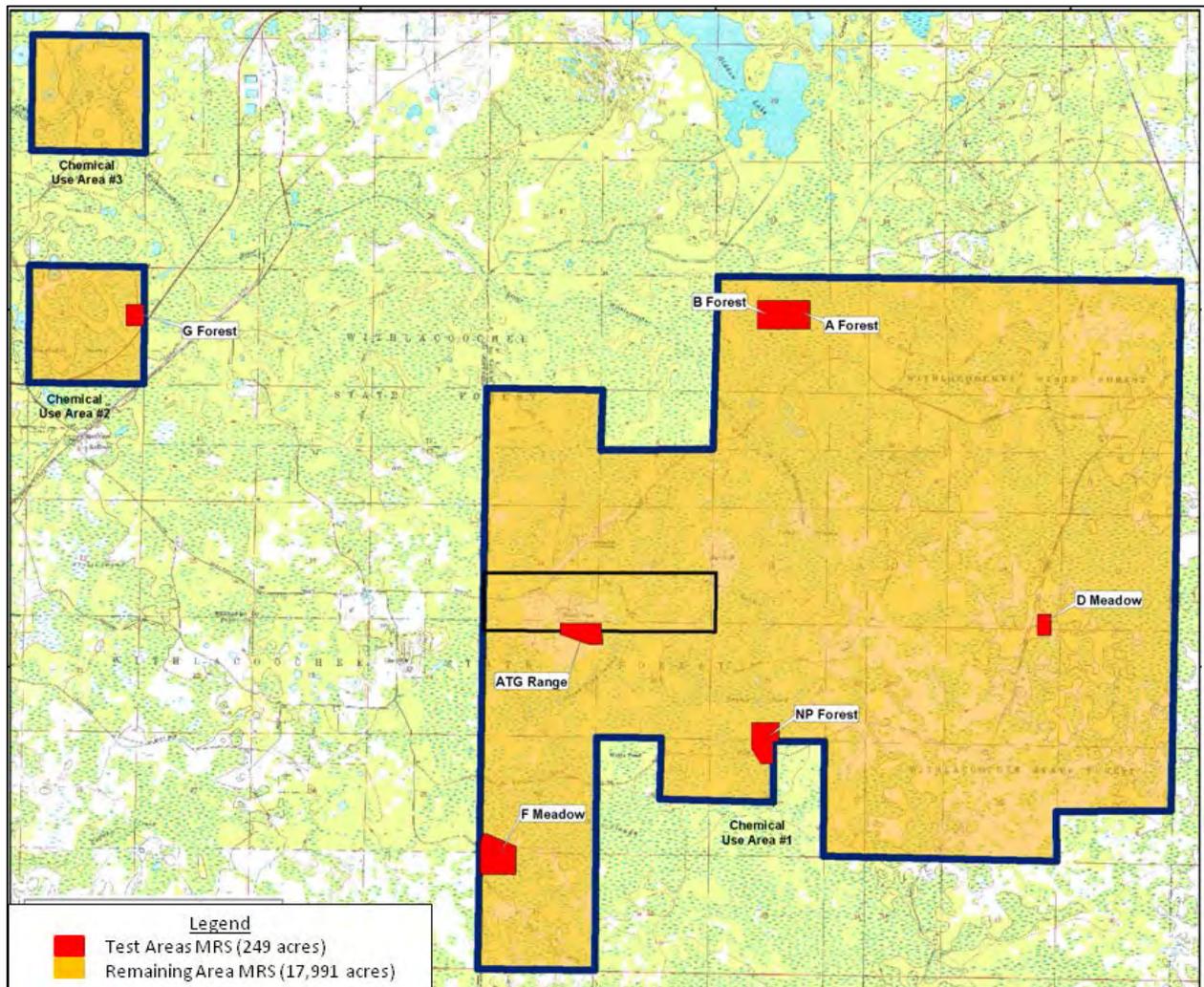


Figure 2 – Withlacoochee Site



2.0 SITE BACKGROUND

SITE HISTORY

The Withlacoochee Site lies within Sumter and Hernando counties in Florida. Prior to government acquisition of the area that now includes this site; the land was either undeveloped or used for agricultural practices (including livestock grazing). The U.S. Department of Agriculture acquired the property in 1936 and managed it as the Withlacoochee Land Utilization Project under the Soil Conservation Service in an effort to repurpose the land (ill-suited for crops) for forestry or forestry and grazing.

In 1943, Zephyrhills Army Air Field sought additional land for the purpose of establishing an Air-to-Ground Gunnery Range for the Army Air Forces School of Applied Tactics. The Withlacoochee Land Utilization Project site was a prime candidate, being a well-suited tract of land lying approximately 18 miles north-northeast of the Zephyrhills Airfield. In October 1943, the War Department issued a real estate acquisition directive to acquire 10,562 acres (as well as an existing truck trail) through a temporary use permit for the gunnery range. The War Department acquired additional land in Hernando County, bringing the total acquisition to 18,240 acres. The School of Applied Tactics cleared an area 4,000 by 2,500 feet for the purpose of establishing six strafing targets spaced approximately 600 feet apart. An emergency landing strip was also constructed on top of an existing service road.

In October 1943, the School of Applied Tactics was redesignated as the Army Air Forces Tactical Center tasked with organizing activities throughout the Orlando, Florida area. In March 1944, the Tactical Center transferred authority for the gunnery range to the Third Air Force. In July 1944, the Assistant Secretary of Agriculture approved a modification to the Special Use Permit allowing use of the tract as a practice bombing range in addition to the gunnery range. The practice bombing range (now identified as the Lacoochee Bombing and Gunnery Range) was to be used by heavy bombardment groups from MacDill and Drew Fields. By May 1945, the Third Air Force reassigned the Bombing and Gunnery Range to Bartow Army Air Field under the auspices of the Third Fighter Command. Bartow constructed additional facilities by the end of the summer of 1945, which included a complete gunnery range, spotting towers, low-level bombing target, hutments for range personnel, and logistics facilities.

The U.S. Army Chemical Warfare Service conducted field trials of persistent and non-persistent chemical agents at the site beginning in November 1943. In October 1943, the Dugway Proving Ground commander requested and received permission allowing use of the Raulerson Hammock Inviolable Area of the Richloam Unit of the Withlacoochee Land Use Project site for the Chemical Warfare Service tests. Personnel from the Army and the National Defense Research Committee cut an access road into the selected area and established a 400 x 400 yard sampler grid and a system of five Japanese foxholes, bunkers, and dugouts. Non-persistent agent testing began on November 25, 1943 and ended on January 11, 1944. Personnel from Dugway Proving Ground were mobilized in December 1943 for the purpose of setting up the site for persistent agent field testing. Test support facilities, including a decontamination center and Toxic Gas Yard for bulk agent storage and filling apparatus, were built at the area later occupied by the East Richloam Fire Tower and Ranger Station. Field testing of persistent agents began in January 1944 and included static firing and dropping of chemical bombs from aircraft, spray tanks, chemical munitions (e.g. mortars), thermal generators, and the testing of protective clothing. Documents in the Archives Search Report, dated July 1993, indicate that bombs, clusters, chemical rockets, spray tanks, and mortar shells containing phosgene, cyanogen chloride, hydrogen cyanide, tearing agent, Levinstein mustard, other mustard variants, and nitrogen mustards were tested at the site. In some tests, agent simulants such as methyl salicylate were used, or non-standard gas fillers such as ammonia and nitrous oxide.

By November 1945, the Third Air Force declared that it no longer required the use of the Bombing and Gunnery Range, and requested that the range be declared surplus. In December 1945, the War Department placed the Lacoochee Bombing and Gunnery Range in the Surplus Category, subsequently being decontaminated for release back to the U.S. Department of Agriculture, which occurred formally in November 1946. The Chemical Warfare Service tests were conducted by the Dugway Proving Ground Mobile Unit based at nearby Bushnell AAF from October 1943 to September 1945. The unit moved to Brooksville AAF in the fall of 1945 and conducted operations at the Withlacoochee site from October 1945 to February 1946. Equipment and supplies were demobilized from Brooksville AAF in May 1946. The Florida Forest Service purchased the land from the Federal government between 1958 and 1983 as part of the Richloam Tract of the Withlacoochee State Forest.

PREVIOUS AND CURRENT INVESTIGATIONS

In 1950, the Corps conducted a surface clearance within portions of the site, removed munitions, and recommended surface use only in some areas. Subsequently, the Corps completed a number of additional studies, which included historical records research and site visits. An RI/FS was recommended. The Remedial Investigation determined there were no risks associated with munitions constituents within the site. It further determined there were no risks from munitions within the Remaining Areas and thus No Action is appropriate. The Remedial Investigation did identify risks associated with the potential presence of munitions in the Test Areas and remediating that risk is the focus of the Feasibility Study and the this Proposed Plan.

The RI/FS was initiated in 2010, and fieldwork was conducted between February 2012 and February 2014. It included geophysical mapping of paths (known as transects) through the site and grids (squares or rectangles of various sizes), digging selected metallic objects to identify what they were, and collecting soil samples to test for munitions constituents. Munitions constituents are materials that comprise munitions such as metals, explosives, and chemical agents. Geophysical mapping involves carrying a digital metal detector across the ground surface; the instrument signal response changes according to the quantity, nature, and distribution of metal in the area being surveyed. The data were used to identify locations where grids were needed for further investigation and where to dig within the grids.

The teams searched along 332 miles of transects (125 acres) and in 98 grids (6.4 acres) and dug up 582 metallic objects. Two unexploded munitions were found, one of which contained a chemical warfare agent (mustard). That munition was then packaged and safely transported by a special team to a research laboratory in another state. The second munition did not contain any chemical warfare agent, and it was destroyed on site by detonation. Pieces from munitions (known as munitions debris) were found in 117 locations within 12 grids. Munitions were discovered in soil as deep as 14 inches, while munitions debris could be found as deep as 40 inches.

The team collected 166 soil samples throughout the site. No chemical warfare agents were detected in any sample. An explosives compound, 2,4,6-Trinitrotoluene (TNT), was detected in two samples collected near where a chemical munition was found. These detections were slightly higher than the Florida Department of Environmental Protection's residential limit. Arsenic was detected above the Florida Department of Environmental Protection's residential limit in nine soil samples. However, arsenic occurs naturally in the environment and is prevalent throughout Florida; it is also associated with agricultural uses. Barium was detected in six samples above the FDEP's residential limit and above established background concentrations, but well below their commercial/industrial level. Copper was detected in one sample above the residential limit and above established background concentrations, but well below their commercial/industrial limit. Based on the results of soil, sediment, and water samples collected during the Remedial Investigation, contamination is not present at the Withlacoochee Site.

Prior to the Remedial Investigation fieldwork, a public meeting was held and included members from the local hunt club and residents. The discussion centered on the history of the site and the investigation activities which were going to be conducted. Attendees asked several questions related to the types of munitions tested and the types of samples which were going to be collected.

3.0 SITE CHARACTERISTICS

PHYSICAL CHARACTERISTICS AND LAND USE

The Withlacoochee Site is made up of two munitions response sites which cover approximately 18,240 acres within the Richloam Tract of the Withlacoochee State Forest and is also part of the Richloam Wildlife Management Area. The Florida Forest Service manages the site for timber, and the public uses it for recreation. The site also includes the Florida Bass Conservation Center offices and the Richloam State Fish Hatchery. Several highways pass near the site and many secondary roads and trails run throughout it.

The site is essentially flat with a gentle east to west slope. It is approximately 40 percent wetland and predominately occupied by pine flatwoods and cypress ponds with several hardwood hammocks dispersed throughout the area. Surface water is present as scattered ponds and standing water in wetlands, varying with precipitation rates.

The Remedial Investigation was designed to assess the potential for munitions contamination within the Withlacoochee Munitions Response Area. For the purpose of the investigation phase, the Chemical Use Area was

divided into three geographically separate units: 1) Chemical Use Area #1 (16,960 acres), which includes an Air-to-Ground Bombing and Gunnery Range, 2) Chemical Use Area #2 (640 acres), and 3) Chemical Use Area #3 (640 acres). The boundaries of the Withlacoochee Site are presented in **Figure 1**.

The presence of munitions constituents in surface soil was addressed during the Remedial Investigation. A Risk Assessment for munitions constituents was conducted and concluded that no unacceptable risks to human or ecological health remain at the project site. Two munitions were discovered during the investigation. Conclusions were drawn regarding the extent of munitions contamination within the Chemical Use Area based on the results of the 2016 Remedial Investigation report. These investigations have resulted in the following conclusions for two separate site areas:

Test Areas Munitions Response Site

- Two munition items (one chemical munition) were discovered during the Remedial Investigation, both occurring in the deeper soil (14-16 inches).
- Unacceptable risks to human and ecological receptors are not expected.

Remaining Areas MRS

- No contamination is present.
- Unacceptable risks to human and ecological receptors are not expected.

Table 1. ARARs – Withlacoochee Site

Standard, Requirement, or Criterion	Description
RCRA, 40 CFR 264 Subpart X (Miscellaneous Units – OB/OD) § 264.601 (Environmental Performance Standards)	Applicable when consolidating munitions for a demolition operation. Remedial actions must appropriately identify and manage investigative derived wastes and remedial wastes (that are hazardous wastes) stored on-site including pre- and post-demolition samples to document lack of, or measure the amount of, munitions constituents that are released. Pertains only to Alternative 4.
CWA, Section 404, 33 CFR 320.4(r), 40 CFR 230	Field work must be conducted in a manner that protects wetlands, and minimizes the effect on wetlands. The Corps and Florida Department of Environmental Protection review and approval process is an important aspect of environmental protection relative to 40 CFR 230. Pertains only to Alternative 4.

4.0 SCOPE AND ROLE OF RESPONSE ACTION

The overall remedial strategy for this site is to reduce the risk of hazards associated with potential munitions at the site. Based on the results of the Remedial Investigation, there is a low potential of finding munitions at this site. The selected remedy will include methods of managing the potential risk.

5.0 SUMMARY OF SITE RISKS

Six areas were identified where munitions may potentially still be present and they comprise the Test Areas Munitions Response Site. All other areas are referred to as the “Remaining Areas Munitions Response Site.” The entirety of the Withlacoochee Site lies within the Richloam Tract of the Withlacoochee State Forest. The site is mostly used for recreation, including hunting, hiking, etc. The Florida Forest Service also manages the site for timber. It is assumed, based on interviews conducted with representatives from the Florida Forest Service, that activities will remain the same in the future.

The Corps completed a detailed risk assessment to determine the potential risk to people and the environment from the three metals and one explosives compound detected in the soil above the Florida Department of Environmental Protection’s residential limit. The results of the risk assessment indicate there is no risk to people or the environment from munitions constituents.

It is the Corps' current judgment that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

6.0 REMEDIAL ACTION OBJECTIVES

The Remedial Action Objective for the Test Areas is to reduce the unacceptable risk due to the presence of EK-4 10-lb Bombs, Chemical, Tail Ejection, within the Chemical Use Area to a maximum depth of 36 inches below surface (the maximum depth munitions were found and the depth of digging anticipated from installation of utilities) in order to address the likelihood of human direct contact exposure such that a negligible risk can be determined acceptable.

No Remedial Action Objective is required for the Remaining Areas because no potential hazards have been identified.

7.0 SUMMARY OF REMEDIAL ALTERNATIVES

Since there are no hazards or risks associated with the Remaining Areas, the only alternative evaluated for that site is No Action.

The following alternatives were evaluated for the Test Areas.

Alternative 1: No Action

The No Action alternative means that no action is needed to reduce the potential explosive hazards posed by munitions. This alternative is used in the evaluation of other alternatives to provide a baseline for comparison. No Action would involve the continued use of the site in its current condition. It is ineffective in reducing risk to people and the environment and has no permanence. This alternative is effective for the Remaining Areas portion of the munitions response site; however it is not effective for the Test Areas where munitions hazards have been identified. The cost of Alternative 1 is \$0.

Alternative 2: Land Use Controls (Education Program)

This alternative consists of an educational awareness program. An educational awareness program implemented by the Corps would educate the public about the potential munitions hazards associated with the Test Areas. The focus is on insuring people respond appropriately if they suspect they have found munitions. Educational information would be sent to landowners and site managers (Florida Forest Service) within the site requesting the information be made available to recreational users and others who may live or work in the area. Information could be posted in the kiosks situated throughout the area as well as on the Forest Service website and in other materials the Forest Service produces. Information pieces would include a description of the military history of the site, the potential munitions hazards, and steps to be taken in the event someone find something suspicious. Contact numbers for the local authorities, including the Withlacoochee Forestry Center, would be included. The flyers would describe the minimal risks potentially present at the site in a straightforward and non-alarming manner. The Community Relations Plan would include a revised project summary, updated flyers, stakeholder lists, media contacts, and information on the community. Though not part of the remedy, Five-Year Reviews would be required for Alternative 2 to monitor and ensure that the remedy is protective of people and the environment. The estimated cost of Alternative 2 is \$388,000.

For the Remaining Areas portion of the munitions response site, No Action (as described under Alternative 1) would be implemented.

Alternative 3: Remedial Action (Munitions Removal at Surface); Land Use Controls (Education Program)

This alternative includes removing munitions from the ground surface within the Test Areas and the education program described in Alternative 2. The overall process includes preparation of the site including the clearing of understory vegetation and brush to allow access for the removal teams. Brush clearing may use mechanical brush clearing machines (e.g., bushhog), and hand clearing tools (cutters, chainsaws, mowers, etc.). Generally, trees

larger than 6 inches in diameter and ornamental plants are not removed. After brush clearing, removal teams will observe the surface of the cleared land, identifying and removing visible munitions from the ground surface. Munitions would be destroyed, if possible, or applicable chemical warfare materiel removal and destruction procedures would be employed. The estimated cost of Alternative 3 is \$16,041,000.

For the Remaining Areas portion of the munitions response site, No Action (as described under Alternative 1) would be implemented.

Alternative 4: Remedial Action (Munitions Removal at Surface and Subsurface)

This alternative uses a combination of activities to achieve a reduction in the probability of encountering munitions by removing munitions on the surface and in the ground within the Test Areas. The overall process would begin by clearing the areas of brush as noted under Alternative 3. Teams would then use various metal-detecting instruments to locate possible locations of buried munitions. As demonstrated by work conducted during the Remedial Investigation, munitions are suspected to be as deep as 36 inches. Removal teams would dig at each location identified during the metal-detection survey, removing all metallic items detected including munitions debris and munitions, if found. Similar to Alternative 3, munitions would be destroyed if possible, or applicable chemical warfare materiel removal and destruction procedures would be employed. The public will be protected during the removal of all munitions by an interim educational awareness program that will end when the removal is complete. The estimated cost of Alternative 4 is \$37,202,000.

For the Remaining Areas portion of the munitions response site, No Action (as described under Alternative 1) would be implemented.

8.0 EVALUATION OF ALTERNATIVES

The rationale for selecting the preferred alternative was based on nine criteria used to compare alternatives to one another in a detailed analysis (**Table 2**). The nine criteria fall into three groups: threshold criteria, primary balancing criteria, and modifying criteria, as described below.

- Threshold criteria are requirements that each alternative must meet to be eligible for selection.
- Primary balancing criteria are used to weigh major tradeoffs among alternatives.
- Modifying criteria are considered to the extent that information is available, but cannot be fully evaluated until after public comment is received on this Proposed Plan.

The following sections profile the relative performance of each alternative against the nine criteria, noting how the alternative compares to the other options under consideration. The nine evaluation criteria are discussed below and are listed in Table 1, Evaluation Criteria for Remedial Alternatives. The detailed analysis of alternatives can be found in the Remedial Investigation/Feasibility Study report. The four alternatives were initially screened for effectiveness, cost, and implementability to determine which alternatives should be carried forward to a detailed analysis.

Alternative 3 was dismissed from detailed analysis because of the high cost for such a small benefit. This determination is based on two primary factors – 1) the relatively low number of surface munitions items to be removed (based on the remedial investigation results), and 2) to remove the relatively low number of surface munitions, the removal operation much still include extensive preparation, training, and air monitoring provisions as well as maintaining a temporary waste storage facility. Although Alternative 4 would involve the same provisions, that alternative would result in removal of the hazards to the depth of land use at approximately 150% of the cost of Alternative 3. Alternatives 1, 2, and 4 were carried forward for detailed analysis. **Table 2** summarizes the evaluation of the retained alternatives against the threshold criteria and primary balancing criteria.

**Table 2
Evaluation Criteria for Superfund Remedial Alternatives**

Criteria	Threshold	Overall protectiveness of people and the environment determines whether an alternative eliminates, reduces, or controls threats to people and the environment through institutional controls, engineering controls, or treatment.
		Compliance with <i>Applicable or Relevant and Appropriate Requirements</i> 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
	Primary Balancing	Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of people and the environment over time.
		Reduction of toxicity, mobility, or volume of contaminants 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, visitors 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	State/support agency acceptance considers whether the state agrees with the analyses and recommendations, as described in the Remedial Investigation/Feasibility Study and Proposed Plan.
		Community acceptance considers whether the local community agrees with analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

Table 3
Evaluation of Alternatives Using Threshold Criteria for Test Area Munitions Response Site

Alternative 1: No Action							
Alternative 2: Land Use Controls (Education Program)							
Alternative 4: Remedial Action (MEC Removal)							

(As noted in text above, Alternative 3 was dismissed from the detailed analysis because of the high cost for such a small benefit.)

Shading shows alternative desirability with respect to that criterion.

Most desirable	Significantly desirable	Least desirable
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Discussion of Modifying Criteria

State Acceptance

State acceptance of the Preferred Alternative will be evaluated following a review of public comments, and the evaluation will be described in the Decision Document.

The Florida Forest Service which manages a large portion of the site reviewed the alternatives and recommended the Land Use Controls (Education Program) Alternative.

Community Acceptance

Community acceptance of the Preferred Alternative will be evaluated after the public comment period ends and will be described in the Decision Document.

Evaluation Summary

The three alternatives and associated options were evaluated in terms of the seven criteria. (Table 2 summarizes this evaluation.)

Alternative 1 does not reduce the potential hazard, but the potential to encounter munitions is very low. Implementation of this alternative does not provide protection of human health (people) or the environment. In addition, there is no reduction in volume of potential munitions present. Uncertainty exists about the long-term effectiveness of this approach for risk management. No costs are associated with this alternative.

Implementation of Alternative 2 achieves the Remedial Action Objectives since it protects people by reducing the risk through an education program. Although educational awareness can modify behavior to reduce the risk of exposure and long-term effectiveness will be monitored through five-year reviews, it does not remove any munitions that may potentially be present. The cost associated with implementing this alternative is relatively low when compared to the other alternatives.

The Remedial Action Objectives are achieved through implementation of Alternative 4, and it protects people and the environment. Under this alternative, munitions will be removed from accessible areas, but potentially left in inaccessible areas such as wetlands and swamps. Compliance with federal laws would be required for consolidation of munitions for demolition. Alternative 4 would be readily implemented from a technical perspective; however, there would be some safety risks posed to the field crew by implementing this alternative. The cost of this alternative would be the most expensive of the four alternatives to implement.

9.0 PREFERRED ALTERNATIVE

The Land Use Controls (Education Program) Alternative is the Preferred Alternative. This alternative is appropriate because it best balances protecting people through education and its long-term effectiveness with a moderate cost for implementation. The Preferred Alternative may change in response to public comments or new information. Based on the information currently available, the Corps believes that this Alternative protects people and the environment and satisfies the statutory requirements of CERCLA §121(b).

10.0 COMMUNITY PARTICIPATION

In March 2016, copies of the final Remedial Investigation Report and Feasibility Study Report were placed in the Administrative Record File. The report is a comprehensive document that describes the history of the site, the details of the Remedial Investigation, the associated risk assessments, and their conclusions. This and other information on this site are available for review in the Administrative Record file, which is located at the EC Rowell Public Library, 85 E. Central Avenue, Webster, Florida (Telephone: 352.568.1600).

The Corps is requesting public comments on all the alternatives identified for this project site. Public comments are considered before any action is selected and approved. A public meeting will be scheduled if there is sufficient public

interest. Written comments will be accepted throughout a public comment period from June 24 through July 26, 2016. Comments received during the public meeting (if one is requested) and the comment period will be considered in the final decision. This decision will be presented in a Decision Document. The Corps' responses to public comments will be the "Responsiveness Summary" section of the Decision Document.

For more information or to comment on this Proposed Plan, please call 866.279.4880 or email FUDS.Florida@usace.army.mil.

Comments received or postmarked before 5:00 pm July 26, 2016 will be considered.

REFERENCES

USA Environmental, 2016. Final Remedial Investigation Report, Former Withlacoochee CWS Field Trials & ATG Bombing & Gunnery Range. March.

USA Environmental, 2016. Final Feasibility Study, Former Withlacoochee CWS Field Trials & ATG Bombing & Gunnery Range. March.

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

GLOSSARY OF TERMS

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

Chemical Warfare Materiel (CWM) – Items generally configured as a munition containing a chemical intended to kill, seriously injure, or incapacitate a person.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – The federal law (also known as Superfund) that guides cleanup of hazardous waste sites. This is the law that governs remediation at Formerly Used Defense Sites.

Decision Document – The documentation of remedial action decisions at Formerly Used Defense Sites

Feasibility Study – The study following a Remedial Investigation which develops, considers, and evaluates alternatives for remedial actions.

Formerly Used Defense Site (FUDS) – Properties which were 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, for which the Secretary of Defense shall carry out all response actions with respect to releases of hazardous substance from that facility or site.

Munitions Constituents (MC) – Any materials originating from munitions, including explosives, metals and their breakdown products.

Munitions Response Site – A specific location within a Formerly Used Defense Site that may require a remedial action.

Preferred Alternative – The alternative that, when compared to other potential alternatives, is determined to best meet the 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 – The process of collecting data to determine the nature and extent of the problem presented by the release. The Remedial Investigation emphasizes data collection and site characterization and includes sampling and monitoring, and the gathering of sufficient information to determine the necessity for

remedial action and to support the evaluation of the remedial alternatives. It is generally performed concurrently and in an interactive fashion with the Feasibility Study.



Remember to practice the “3Rs” of Explosives Safety:

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

Retreat – carefully leave the area.

Report – immediately call police or sheriff – report what was found and its location.

PROPOSED PLAN



JUNE 2016

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM FOR FORMERLY USED DEFENSE SITES

Across the country, the Department of Defense acquired properties, often during times of war, to use for military training, testing and demonstrations. When no longer needed, many of these properties were cleaned up according to the best practices available at the time and then transferred to other owners such as private individuals or other government entities. These Formerly Used Defense Sites can range from privately owned farms to National Parks. They also include residential, industrial and educational properties. We are committed to protecting people and the environment and improving public safety by cleaning up these properties. The Defense Environmental Restoration Program for Formerly Used Defense Sites was established to evaluate and, if necessary, to remediate Formerly Used Defense Sites. The U.S. Army Corps of Engineers (Corps) manages the program on behalf of the Department of Defense.

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund, in 1980 and the Superfund Amendments and Reauthorization Act in 1986. These laws give the Corps the authority for certain cleanup activities and dictate the process we must follow. We conduct investigations to determine the potential risk to people and the environment from the military's use of the property. Public involvement and community participation are important components of the process. The Corps partners with stakeholders throughout the process, including congressional representatives, state and local governments, regulatory and environmental agencies, and affected property owners.

BACKGROUND

Between October 1943 and the fall of 1946, the military used approximately 18,240 acres in Sumter and Hernando Counties to create the Withlacoochee Chemical Warfare Service Field Trials and Air-to-Ground Bombing and Gunnery Range. The site, approximately 18 miles northeast of Zephyrhills, is now part of the Richloam Wildlife Management Area of the Withlacoochee State Forest. The Florida Division of Forestry manages the site for timber, and the public uses it for recreation. It also includes the Florida Bass Conservation Center offices and the Richloam State Fish Hatchery.

As the name implies, the site had two distinct purposes—as a practice range for conventional munitions and as a research and testing area for chemical agents and munitions. The Army Air Forces constructed targets for strafing, dive and skip bombing and rockets. In other areas of the site, the Chemical Warfare Service conducted carefully controlled experiments to determine the effectiveness of chemical agents with researchers noting the test results.

ENVIRONMENTAL INVESTIGATIONS

In 1950 the Corps investigated the site, removed munitions and recommended surface use only in some areas. Subsequently, the Corps has conducted a number of additional studies, and recently, the Corps completed a Remedial Investigation/Feasibility Study. The purpose of the study was to determine if anything remains in the area from the Army's activities, and if so, in what amounts and locations. This is known as characterizing the nature and extent of potential military-related materials.

FORMERLY USED DEFENSE SITES

Withlacoochee Chemical Warfare Service Field Trials and
Air-to-Ground Bombing and Gunnery Range

During the investigation, teams thoroughly searched the areas where the military trained using state-of-the-art tools. Two munitions were recovered; one was destroyed at the site, and one, which contained mustard agent, was packaged and transported out of state by a specially trained unit and taken to a research laboratory. Pieces of munitions, known as munitions debris, were found in 117 locations. The team also collected 166 soil samples to test for the explosives and metals that comprise munitions (known as munitions constituents) as well as chemical agents and their breakdown products. Teams also monitored the air for chemical agents and industrial chemicals while crews were searching. No chemical agents or related compounds were detected in the air or soil samples. Generally, no metals or explosives were detected above the levels the Florida Department of Environmental Protection has set for industrial/commercial settings. While arsenic in one sample was detected slightly above the industrial level, most of the levels were much lower. Arsenic occurs naturally in the environment and is likely attributable to cattle ranching activities rather than military munitions. A risk assessment was conducted, and it concluded there is no significant risk to people or the environment from munitions constituents.

The team analyzed the data collected during the investigation and drafted a Remedial Investigation/Feasibility Study report which includes an analysis of options for addressing the results. The Corps has divided the Withlacoochee site into two areas known as Munitions Response Sites: Remaining Areas (17,991 acres) and Testing Areas (249 acres).

PROPOSED PLAN AND PUBLIC COMMENT PERIOD

The next step in the federally mandated process is a Proposed Plan. The Proposed Plan presents the recommendations and alternatives. No munitions or munitions debris was found in Remaining Areas, so the Preferred Alternative is No Action. The Test Areas were searched thoroughly, and two munitions were identified. While the potential of encountering munitions associated with the military's training is low, the Corps' Preferred Alternative for the Test Areas is public awareness. This means the Corps will make every effort to inform the public about the military's use of the site and what to do should someone encounter a suspected munition.

The public has 30 days to review and comment on the Proposed Plan and the Preferred Alternatives the Corps is recommending.

YOUR OPINION MATTERS

The Corps encourages you to comment on the Proposed Plan during the public comment period. Please submit your comments no later than 5:00 pm on Tuesday, July 26, 2016, by calling (toll free) 866.279.4880, emailing FUDS.Florida@usace.army.mil or mailing your comments to US Army Corps of Engineers, ATTN: Frank Araico (CESAJ-PM-M), 701 San Marco Boulevard, Jacksonville, Florida 32207. Mail postmarked by July 26, 2016, will be accepted. Public comments received during this period will be considered in the final decision-making process.

SAFETY FIRST: Remember the 3Rs

While the potential of finding munitions is low, always use caution in areas where the military has trained. Remember and follow the 3Rs of Explosive Safety: Recognize, Retreat, Report.

RECOGNIZE - The object you found could be dangerous.

RETREAT - Leave the area without touching or moving the object.

REPORT - Call 911 immediately.



FOR MORE INFORMATION

Documents are available at:
EC Rowell Public Library
85 E Central Avenue, Webster, FL 33597
Telephone: 352.568.1600

US Army Corps of Engineers, Jacksonville District
Toll-Free 866.279.4880
FUDS.Florida@usace.army.mil
www.saj.usace.army.mil



DEFENSE ENVIRONMENTAL RESTORATION PROGRAM FORMERLY USED DEFENSE SITES

Across the country, the Department of Defense acquired properties, often during times of war, to use for military training, testing and demonstrations. When no longer needed, many of these properties were cleaned up according to the best practices available at the time and transferred to other owners such as private individuals or other government entities. These Formerly Used Defense Sites (FUDS) can range from privately-owned farms to National Parks to urban areas. They also include residential, industrial and educational properties. The Department of Defense is committed to correcting environmental damage caused by its activities and created the Defense Environmental Restoration Program for Formerly Used Defense Sites to evaluate and, if necessary, to remediate these sites. The U.S. Army Corps of Engineers (the Corps) is responsible for managing the Formerly Used Defense Site program on behalf of the Department of Defense.

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, in 1980 and the Superfund Amendments and Reauthorization Act (SARA) in 1986. These laws give the Department of Defense the authority for certain cleanup activities at Formerly Used Defense Sites and dictate the process the Corps must follow. The Corps conducts investigations to determine the potential risk to people and the environment from contamination such as underground storage tanks, unexploded ordnance and munitions constituents (material inside the munitions). Public involvement and community participation are important components of the process. The Corps partners with stakeholders throughout the process, including congressional representatives, state and local regulatory and environmental agencies and impacted property owners.

The U.S. Army Corps of Engineers is required by law to establish Administrative Records for environmental restoration projects when a Remedial Investigation/Feasibility Study is being conducted under the CERCLA process. A copy of the Record must be at or near the location where we are working. The location where the Record is kept is referred to as an Information Repository and is usually a local public library. Another set of the Administrative Record file is kept at the Jacksonville District office. The Record consists of information the government will use to determine the appropriate response for the project. The goal of placing documents in a convenient location is to provide members of the public with greater access to project materials so they have the necessary information to understand the issues relating to the selection of the response action at the property and to be able to comment on project activities.

We are required to put the Administrative Record file in a location that is reasonably available for public review during business hours, and the members of the public may make photocopies of the materials. However, the original documents in the Record have to stay in the designated Information Repository location. Many of reports are also posted on the Corps' website.

Public values and concerns are an important consideration in the cleanup process.

The Corps works closely with property owners and residents prior to and during the restoration of a site.

Personal contacts, small group meetings, workshops and public meetings facilitate the two-way communication that is critical to the decision-making process.

Through information meetings, web sites, brochures, fact sheets and other products, the public is apprised of the progress of the work.

Should you have any comments or questions about the documents in the Administrative Record File or our work, please contact us at 866.279.4880.



Women Working on a Plane



Instructor Explaining Fighter Demonstrations

FOR MORE INFORMATION



US ARMY CORPS OF ENGINEERS

FUDS.Florida@usace.army.mil

866.279.4880 (Toll Free)

www.saj.usace.army.mil

