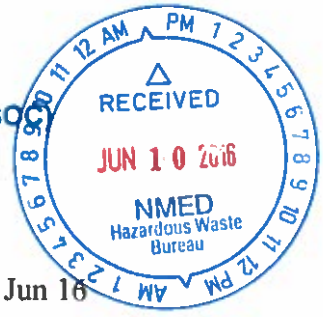
DEPARTMENT OF THE AIR FORCE
27TH SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON (AFSOC)
CANNON AIR FORCE BASE NEW MEXICO



Sheen Thomas Kottkamp
Environmental Program Manager/Scientist
27 SOCES/CEIER
402 S. Chindit Blvd.
Cannon AFB NM 88103-5003

09 Jun 16

Mr. Gabriel Acevedo
Environmental Scientist & Specialist-Operational
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe NM 87501

Dear Mr. Acevedo

Cannon Air Force Base is pleased to provide a copy of the *"Proposed Plan"* for the MMRP site TS835 for your record as requested by NMED.

Cannon AFB appreciates the valued working relationship established with you and your department. If you have further comments or questions pertaining to the referenced documents, please contact Sheen T. Kottkamp, sheen.kottkamp.ctr@us.af.mil (575) 904-6743 or Brandy Chavez, brandy.chavez@us.af.mil, (575) 904-6747.

Sincerely

Sheen Thomas Kottkamp

Attachments:
Proposed Plan MMRP Site TS835

PROPOSED PLAN

MILITARY MUNITIONS RESPONSE PROGRAM

TS835 – 1940'S SKEET RANGE MUNITIONS RESPONSE SITE

CANNON AIR FORCE BASE

NEW MEXICO

PERFORMANCE BASED REMEDIATION
Contract Number: FA8903-13-C-0008

Prepared for:

AIR FORCE CIVIL ENGINEER CENTER
2261 Hughes Ave., Suite 155
Joint Base San Antonio Lackland, Texas 78236-9853

Prepared by:

FPM Remediations, Inc.
181 Kenwood Avenue
Oneida, NY 13421

June 2016

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PROPOSED PLAN
TS835 – 1940's Skeet Range Munitions Response Site
Cannon Air Force Base, New Mexico

1.0 INTRODUCTION

This Proposed Plan (PP) concerning TS835 – 1940's Skeet Range Munitions Response Site (MRS), located at Cannon Air Force Base (AFB) in Clovis, New Mexico (**Figure 1**) is submitted for public review and comment. The PP at this MRS recommends No Further Action (NFA) following completion of an Engineering Evaluation/Cost Analysis (EE/CA), a Non-Time Critical Removal Action (NTCRA) as recommended by the EE/CA, and a NTCRA After Action Report (AAR). The NTCRA After Action Report documented that polycyclic aromatic hydrocarbons (PAHs) levels in soil are below the United States Environmental Protection Agency (USEPA) Residential Regional Screening Levels (RSLs) and the New Mexico Environment Department (NMED) Residential Soil Screening Levels (SSLs) at the MRS.

The purpose of the NTCRA was to mitigate any potential hazards to human health and the environment associated with PAH-impacted soils present within the MRS. The specific objective of the NTCRA was to eliminate residual PAH contamination above the USEPA residential RSLs at the TS835 MRS. The NTCRA After Action Report documented that PAHs levels in soil are below the USEPA RSLs and the less stringent NMED SSLs at the MRS. Detailed NTCRA activities and conclusions have been documented in the After Action Report and briefly summarized in this document in **Section 2.0**

As shown in **Figure 1**, the TS835 MRS encompasses approximately 2.45 acres of open field and is located in the northeastern portion of the Base just north of the current Munitions Storage Area. The MRS consists primarily of a relatively flat open field with no structures and no threatened or endangered species inhabit the site.

This document has been prepared by the Air Force Civil Engineering Center (AFCEC) in coordination with the USEPA and NMED. This PP meets the requirements of CERCLA Section 117(a), Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). These references allow for a site to be recommended for NFA if no unacceptable risks exist under the residential use scenario.

When a Removal Action is accomplished that results in unlimited use and unrestricted exposure levels being attained, the NCP requires that the actions taken are documented by publishing a PP and Record of Decision (ROD) that demonstrates that such levels have been attained.

The Cleanup Process at TS835

Comprehensive Site Evaluation (CSE) Phase I and CSE Phase II
Identify possible contaminant releases that need further investigation/mitigation

Engineering Evaluation/Cost Analysis
Evaluate alternatives and associated costs to mitigate hazards to human health and the environment associated PAH-impacted soils

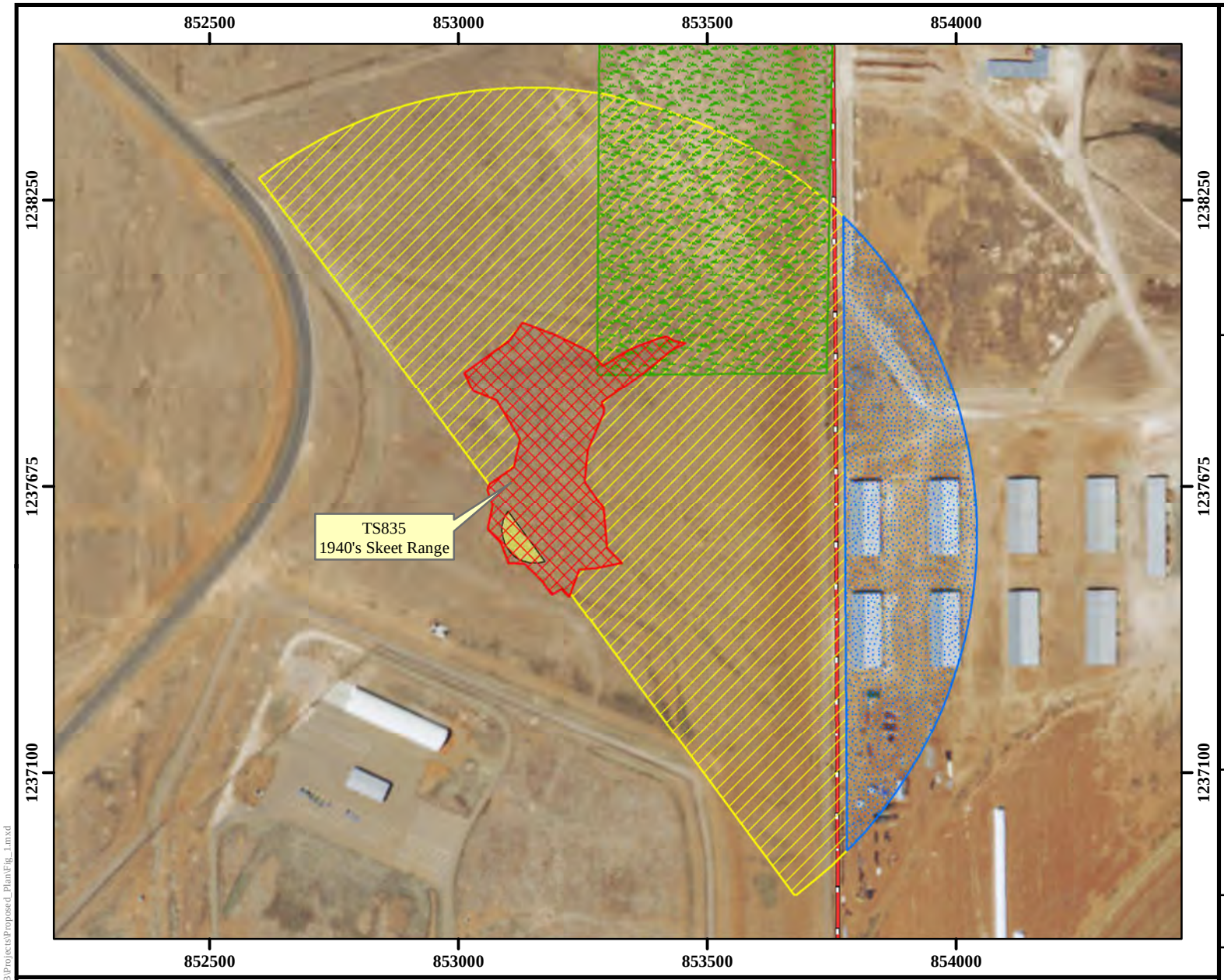
Action Memorandum
Requests and documents approval of selected NTCRA to address/mitigate hazards associated with PAH-impacted soils

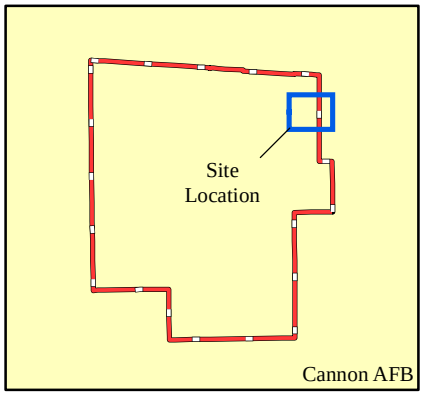
Non-Time Critical Removal Action
Removal Response Action to remove PAH-impacted soils, followed by AAR

Proposed Plan
Presents the proposed alternative(s) or NFA plan for public comments

Record of Decision
Documents the agreed upon alternative/NFA

Site Closeout
Provide overall summary of investigations and results showing no unacceptable risks to human health and the environment, meaning there are no restrictions on future land use.





Legend

- LF-02
- TS835
- TS835a
- TS835b
- Suspected Historic Firing Line
- Base Boundary

Performance Based Remediation
New Mexico-Arizona
Cannon Air Force Base
Clovis, NM
AFCEC

FIGURE 1

TS835
1940's Skeet Range MRS Site Features

FPM Remediations, Inc.

2016

NOTES:
Revision Date: 3/31/2016

Coordinate System:NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
False Easting: 541,337.5000
Central Meridian: -104.3333
Latitude Of Origin: 31.0000
Horizontal Datum: North American 1983
False Northing: 0.0000
Scale Factor: 0.9999
Units: Foot US

1 inch = 300 feet

0 45.5 91 Meters

0 150 300 Feet

N W E S

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This PP may be modified based on any new information acquired during the 30-day public comment period. The Air Force, as lead agency, will make a final decision on the need for additional action following consultation with the USEPA and NMED. This decision will be made after reviewing and considering all information submitted during the public comment period. Therefore, the public is encouraged to review and comment on all information presented in this document.

Additional information can be found in the approved After Action Report which recommended NFA *(FPM, 2015).* This document and others pertinent to this site (those documents listed in the "Cleanup Process at TS835" box on page 1) are retained in the Administrative Record (http://afcec.publicadmin-record.us.af.mil/). The public is also encouraged to review the documents to gain a better understanding of investigations conducted at this MRS (See the Section "Mark Your Calendar" for information regarding submitting comments. Written comments can be sent to the address listed on the bottom of that page).

2.0 BACKGROUND

A Comprehensive Site Evaluation (CSE) Phase I for the 1940's Skeet Range indicated that the range was likely active from at least 1943 to at least 1946 (*USACE, 2009*). During operation, munitions use was suspected to be limited to 12-, 16-, or 20-gauge shotgun rounds. The firing direction was oriented northeast. During the active time period for the range, clay targets were composed of various PAH compounds. Typically, skeet ranges were used for training and/or recreational target shooting. During the CSE Phase II, a non-intrusive visual survey was completed to identify physical evidence of potential range-related activities. Clay target debris and several slabs of concrete were observed within the boundary during this investigation.

A CSE Phase II investigation was also conducted at the Munitions Response Area (MRA) (*VERSAR, 2012*). During the visual reconnaissance surveys, fluctuating densities of clay target fragments were observed on the ground surface. Localized areas of these fragments were delineated according to medium and low density and marked using a global positioning system. During the CSE Phase II, the site was surveyed utilizing X-ray fluorescence (XRF) screening of in-situ soil samples at 41 locations for potential lead contamination from previous range related activities. Twenty-five soil samples were also collected for analysis of PAHs by a fixed base laboratory.

The CSE Phase II sampling results indicated that there were no elevated concentrations of lead present in the soil samples that were screened with the XRF. Lead was below the NMED SSL of 400 milligram per kilogram (mg/kg) and USEPA residential RSL for unrestricted /residential land use of 400 mg/kg, in all samples collected. All XRF results were less than 50 mg/kg, and concentrations ranged from 0 mg/kg to a maximum of 26 mg/kg in the samples collected for laboratory analysis. Fourteen (14) of the 25 samples collected and analyzed for PAHs yielded at least one PAH concentrations greater than NMED SSLs, and 20 of the 25 samples yielded concentrations greater than the USEPA RSLs. The results of the Human Health Risk Screening conducted during the investigation indicated potential risks to receptors due to elevated PAH concentrations in soil.

Based on the CSE Phase II findings, the 1940's Skeet Range MRA was recommended to be divided into 3 smaller MRSs: TS835a (21.7 acres) comprised of the on-base portion that is not impacted by PAH or lead contamination and was recommended for NFA due to the lack of Munitions and Explosives of Concern (MEC) (potentially explosive items) and Munitions Constituents (MC) exceeding residential RSLs and/or SSLs, TS835b (6.32 acres) defined as the off-base portion was also recommended for NFA, and TS835 (~2.45 acres) which was recommended for further munitions response action based on elevated PAH concentrations and visual confirmation of clay target debris. The boundary of the TS835 MRS also extends slightly beyond the original boundary to the south and to the northeast into Installation Restoration Program Site LF-02 (**Figure 1**).

Following the recommendations from the CSE Phase II, a determination was made that a

Removal Action was warranted at the site. An EE/CA was prepared that evaluated the alternatives and associated costs to mitigate the hazards to human health and the environment associated with PAH-impacted soils present within the MRS. The EE/CA recommended excavation with off-site disposal as the preferred alternative. The recommendation was documented in an EE/CA Action Memorandum (EE/CA Action Memorandum, FPM, 2015). The NTCRA was conducted in April-May 2015, with the goal of site closure with unlimited use and unrestricted exposure. The NTCRA mechanically excavated and disposed of approximately 5,238 cubic yards of PAH contaminated soil from the TS835 MRS. The entire MRS was excavated to approximately 18-inches below ground surface. A total of 47 "floor" and 36 "wall" confirmatory soil samples were collected and analyzed for PAHs at a fixed base laboratory (**Figure 2**). Upon results indicating remaining soil PAH concentrations were below USEPA residential screening levels, the site was restored with laboratory tested clean fill soil and seeded with native vegetation. The NTCRA After Action Report recommending NFA received NMED concurrence without comments on 20 January 2015.

3.0 SITE CHARACTERISTICS

Located in the northeast portion of Cannon Air Force Base the TS835 – 1940's Skeet Range MRS is currently situated on the active base property and consists of a relatively flat grassy open field. The MRS does not contain any structures and the only remnants of the range observed during previous investigations included clay target debris, expended small arms shells and several slabs of concrete (*VERSAR, 2012*).

As previously stated, the TS835 – 1940's Skeet Range MRS is relatively flat with no topographic relief. Soils at Cannon AFB and consequently the TS835 MRS consist mainly of Amarillo fine sandy loam. This soil is well-drained, and the depth of the underlying water table is approximately 250ft. The vegetation at the base is typical of semiarid short grass prairies and is limited by water availability (*USACE, 2009*).

There are no site specific drainage features associated with this MRS. Drainage in the vicinity of the AFB is poorly developed due to low annual rainfall and lack of topographic relief. The only significant surface water features at the Base are several playas and storm water ponds, located in the northern, eastern, and southern portions of the Base (*USACE, 2009*).

Access to Cannon AFB requires admittance through one of two manned security checkpoint entrance gates. Furthermore, a perimeter security fence surrounds the entire installation. No fencing or other controls are associated with the MRS. Access to the Base is limited to authorized personnel and contractors. The TS835 MRS is accessible to anyone with access to Cannon AFB. Due to manned security access gates, trespasser access to the MRS is unlikely.

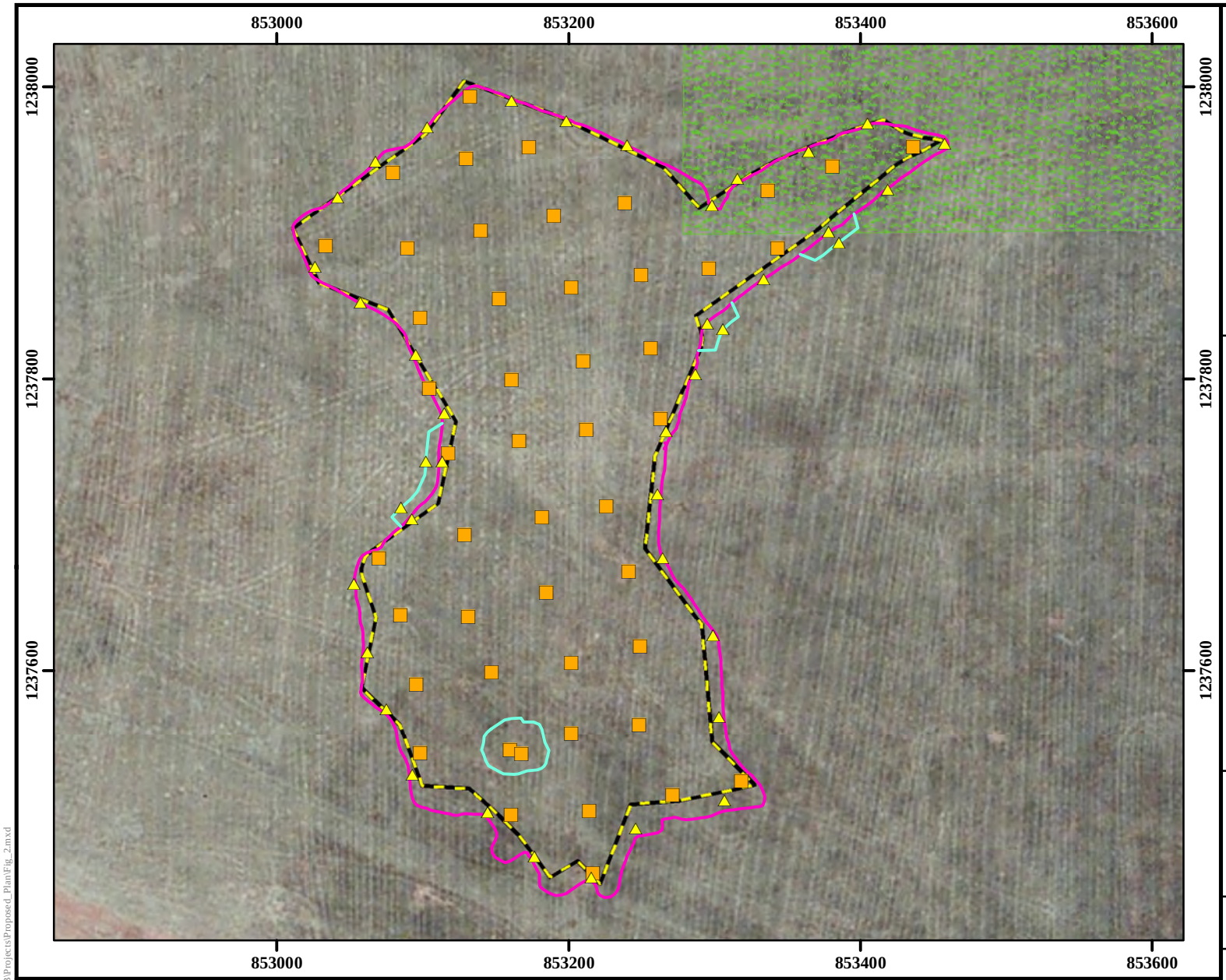
4.0 SUMMARY OF SITE RISKS

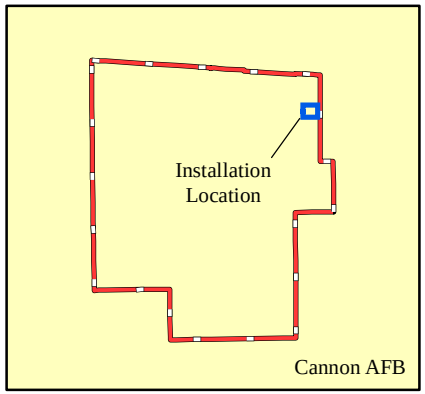
Based on the CSE Phase II results, PAH compounds were detected in the surface and shallow subsurface soils at concentrations that exceeded the human health screening criteria (NMED SSLs and USEPA residential RSLs). PAH compounds were identified as the contaminants of concern at the MRS and the results from the streamlined risk assessment indicated potential risks to receptors due to elevated concentrations if the PAH contaminated soils were left in place.

The NTCRA performed in April-May 2015 eliminated the risk by removing all PAH-contaminated soils at the site. This was confirmed by the collection of excavation endpoint soil samples to document that the remaining PAH concentrations in the soil are now below the USEPA and NMED residential soil screening levels. **Figure 2** illustrates excavation boundaries and confirmatory soil sample locations.

5.0 DESCRIPTION OF THE PREFERRED REMEDY

The Air Force recommends NFA for the TS835 – 1940's Skeet Range MRS based on the conducted NTCRA that removed the residual PAH-contaminated soil to residential cleanup levels. This NFA designation requires no land-use controls or restrictions, and no capital, operational, or maintenance costs.





Legend

Confirmatory Sample Locations

- Floor - Below USEPA RSL
- Sidewall - Below USEPA RSL

Post Excavation Boundary

- Over Excavation - Actual
- Excavation Extent - Actual
- LF-02
- TS835 MRS Boundary
- Base Boundary

Performance Based Remediation
New Mexico-Arizona
Cannon Air Force Base
Clovis, NM
AFCEC

FIGURE 2

TS835
1940's Skeet Range MRS
Excavation Boundaries and
Confirmatory Sample Locations

FPM Remediations, Inc.

2016

NOTES:
Revision Date: 3/31/2016

Coordinate System:NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
False Easting: 541,337.5000
Central Meridian: -104.3333
Latitude Of Origin: 31.0000
Horizontal Datum: North American 1983
False Northing: 0.0000
Scale Factor: 0.9999
Units: Foot US

1 inch = 103 feet

N W E S

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An NFA recommendation for the TS835 MRS is supported by the following facts:

Based on the operational history of the MRS, there is no record that explosives were ever used at this site; nor was any MEC discovered during any field activities including the Phase I and II;

- The removal and disposal of a large volume (5,238 cubic yards) of soil that contained PAHs has been excavated from the site; and
- Confirmation sampling, as documented in the NTCRA AAR, has confirmed that PAH levels in soil are below the USEPA and NMED Soil Remediation Levels for residential soil.

6.0 COMMUNITY PARTICIPATION

AFCEC will provide information on the selected remedy at the TS835 – 1940's Skeet Range MRS to the public through inclusion of the PP and other site-related documents in the Administrative Record file, public notices published in local newspapers; a public meeting to discuss this PP (if requested).

This PP, EE/CA, EE/CA Action Memorandum, and the NTCRA AAR will be made available for public review at the document repositories for TS835 – 1940's Skeet Range MRS located at the Clovis-Carver Public Library and in the AFCEC Administrative Record at (http://afcec.publicadmin-record.us.af.mil/).

A notice for a minimum 30-day public comment period will be printed in the *Clovis News Journal* and/or *Portales News Tribune* at least two (2) days prior to the beginning of the public comment period, which will be held from 17 July through 16 August 2016 [See the next section for details]. Based on the level of public interest, AFCEC may schedule a public meeting and provide an overview of TS835 MRS NTCRA After Action Report findings, answer questions, and accept public comments on the PP.

AFCEC strongly encourages the public to review and comment on this PP. If any significant new information or public comments are received during the public comment period, the PP may be modified to incorporate new information. Information regarding the NTCRA performed at the TS835 MRS is also available to the public through the Information Repository.

AFCEC will consider the public comments on this PP during the preparation of the Record of Decision (ROD).

If you have any written comments to this PP or have any questions or concerns about environmental activities at TS835 MRS, please contact the following:

27 SOW Public Affairs
110 Alison Ave Ste 1150
Cannon AFB, NM 88103
575-784-4131

27SOWPA.publicaffairs@us.af.mil

MARK YOUR CALENDAR!

PUBLIC COMMENT PERIOD:
17 July – 16 August, 2016
AFCEC will accept written comments on the Proposed Plan during the public comment period.

PUBLIC MEETING:
16 August, 2016
Based on the level of interest, AFCEC will hold a public meeting to explain the Proposed Plan and the reasons for No Further Action (NFA) recommendations for the TS835 – 1940's Skeet Range MRS. All comments will be accepted at the meeting. If scheduled, the meeting will be held at the Clovis-Carver Public Library at 6:00 to 8:00 PM.

ADMINISTRATIVE RECORD FILE:
For more information on the TS835 MRS, see the Administrative Record file for the site online at http://afcec.publicadmin-record.us.af.mil/ or in the Reference Materials section at the Clovis-Carver Public Library, 701 N. Main St., Clovis, New Mexico 88101
Phone: (575) 769-7840
Contact: Information Desk Librarian.

INFORMATION REPOSITORY LOCATION:
Community members interested in the full technical details beyond the scope of this Proposed Plan can also find key supporting documents that pertain to TS835 MRS at the Clovis-Carver Public Library.

7.0 REFERENCES

EPA 540-R-98-031, Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents; USEPA, July 1999.

FPM Remediations, Inc. 2014. Final Engineering Evaluation/Cost Analysis TS835 - 1940's Skeet Range MRS, Cannon AFB, New Mexico. September 2014.

FPM Remediations, Inc. 2014. Engineering Evaluation/Cost Analysis Action Memorandum TS835 - 1940's Skeet Range MRS, Cannon AFB, New Mexico. February 2015a.

FPM Remediations, Inc. 2015b. Final Non-Time Critical Removal Action After Action Report TS835 - 1940's Skeet Range MRS, Cannon AFB, New Mexico. June 2015.

United States Army Corps of Engineers (USACE), ITSI, Shaw. Modified Comprehensive Site Evaluation Phase I Report Cannon AFB, New Mexico. December 2009.

VERSAR, 2012. Comprehensive Site Evaluation Phase II Report, Version 2.0 Military Munitions Response Program, Cannon AFB, NM, August 2012.

8.0 GLOSSARY AND TERMS

Administrative Record - The body of documents that "forms the basis" for the selection of a particular response at a site. Documents that are included are relevant documents that were relied upon in selecting the response action as well as relevant documents that were considered but were ultimately rejected. Until the Administrative Record is certified, it shall be referred to as the "Administrative Record file."

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 created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

Military Munitions – Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof.

Military Munitions Response Program (MMRP) - The MMRP category is defined as response actions (i.e., the identification, investigation, and Remedial Actions, or a combination of removal and Remedial Actions) to address MEC or MC. This includes the removal of foreign military munitions if it is incidental to the response addressing DoD military munitions at a Formerly Used Defense Site (FUDS) property (ER 200-3-1).

Munitions and Explosives of Concern (MEC) – Specific categories of military munitions that may pose unique explosives safety risks, including Unexploded Ordnance, Discarded Military Munitions, or Munitions Constituents present in high enough concentrations to pose an explosive hazard.

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

Munitions Response Site (MRS) - A discrete location within a Munitions Response Area that is known to require a munitions response.

National Oil and Hazardous Substance Pollution Contingency Plan (NCP) - Revised in 1990, the NCP is the regulation that provides the regulatory framework for responses under CERCLA. The NCP designates the DoD as the removal response authority for ordnance and explosives hazards.

Non-Time-Critical Removal Action (NTCRA) - An action initiated in response to a release or threat of a release that poses a risk to human health and welfare, or the environment. Initiation of removal cleanup actions may be delayed for six months or more.

Range – A designated land or water area that is set aside, managed, and used for range activities by the DoD. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use.