



FINAL
Five-Year Review Report for

FORT A.P. HILL
FORT A.P. HILL, VIRGINIA

Prepared For:
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August 2020



**U.S. Army Corps
of Engineers®**

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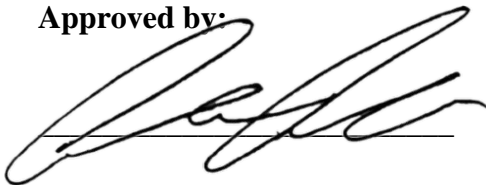
**Final
First Five Year Review Report
for the
Munitions Response Site FTAPH-003-R-01
Training Areas 20 and 21**

**Fort A.P. Hill
Fort A.P. Hill, Virginia**

August 2020

**Prepared for:
U.S. Army Environmental Command
Fort Sam Houston, Texas**

Approved by:

A handwritten signature in black ink, appearing to read 'Aswell', is written over a horizontal line.

Andrew P. Aswell
Lieutenant Colonel, U.S. Army
Commanding

Date:

11 August, 2020

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LIST OF ACRONYMS AND ABBREVIATIONS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DD	decision document
DMM	discarded military munitions
EOD	explosive ordnance disposal
FFS	focused feasibility study
HA	hazard assessment
LUC	land use controls
MEC	munitions and explosives of concern
MRS	Munitions Response Site
msl	mean sea level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
PBC	public benefit conveyance
PCRJ	Peumansend Creek Regional Jail
RAO	Remedial Action Objective
RI	remedial investigation
SI	site inspection
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UU/UE	unlimited use/unrestricted exposure
VDOT	Virginia Department of Transportation

EXECUTIVE SUMMARY

This is the first five-year review of the remedial actions taken at Munitions Response Site (MRS) FTAPH-003-R-01, Training Area 20 and 21 (referred to as “the MRS”) at Fort A.P. Hill.

Fort A.P. Hill is a military training installation encompassing approximately 76,000 acres and is located in Caroline County, Virginia, approximately 2 miles north of the town of Bowling Green. The MRS consists of approximately 150 acres near the central portion of the installation along U.S. Route 301 and is surrounded by operational areas of Fort A.P. Hill. In September 1996, the MRS property was transferred via public benefit conveyance (PBC) to Caroline County. The PBC transfer deed restricts the use of the MRS to the construction and operation of a correctional facility.

This review was conducted to determine if the remedy implemented at the MRS is and will continue to be protective of human health and the environment. Current conditions at the MRS do not allow for unlimited use/unrestricted exposure (UU/UE).

The selected remedy for munitions and explosives of concern (MEC) in subsurface soil at the MRS was land-use controls (LUCs) including the following components:

- Deed restriction (public benefit conveyance);
- Fencing;
- Signage;
- Dig policies;
- Munitions awareness/avoidance informational materials;
- Construction support; and
- LUC inspections.

Protectiveness Statement

The remedy at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 is protective of human health and the environment.

LUCs implemented at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 prevent exposure to potential MEC in subsurface soil through deed restrictions, physical controls, dig policies, distribution of munitions awareness and avoidance informational materials, and construction support provided by Fort A.P. Hill Range Control.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Fort A.P. Hill		
USEPA ID: VA2210020416		
Region: 3	State: VA	City/County: Caroline County
SITE STATUS		
NPL Status: Non-NPL		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: Other Federal Agency If “Other Federal Agency” was selected above, enter Agency name: U.S. Army		
Author name (Federal or State Project Manager): Gef Fisher		
Author affiliation: Compliance Chief, Environmental & Natural Resources Division, DPW, Fort A.P. Hill		
Review period: September 23, 2019 – March 2, 2020		
Date of site inspection: 29 October 2019		
Type of review: Statutory		
Review number: 1		
Triggering action date: 02 March 2015		
Due date (five years after triggering action date): 02 March 2020		

Issues/Recommendations		
Site without Issues Affecting Protectiveness:		
Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21		
Protectiveness Statement(s)		
AOC: MRS FTAPH-003-R-01	Protectiveness Determination: Protective	Addendum Due Date (if applicable):
The remedy at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 is protective of human health and the environment.		
LUCs implemented at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 prevent exposure to potential MEC in subsurface soil through deed restrictions, physical controls, dig policies, distribution of munitions awareness and avoidance informational materials, and construction support provided by Fort A.P. Hill Range Control.		

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1.0 INTRODUCTION

The Army, as the lead agency, has conducted this review to determine whether remedial actions at sites on Fort A.P. Hill are and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify issues found during the review, if any, and document recommendations to address them.

The Army National Guard prepared this five-year review pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

The U.S. Environmental Protection Agency (USEPA) interpreted this requirement further in the NCP; 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action.

This review is necessary due to the potential presence of MEC at the MRS which does not allow for unlimited use/unrestricted exposure (UU/UE).

This is the first five-year review of Fort A.P. Hill. The five-year review was conducted between September 2019 and March 2020. One site is included in this review, Training Range Areas 20 and 21 (Munitions Response Site [MRS] FTAPH-003-R-01).

This review was triggered by the signature date of the DD of 02 March 2015.

2.0 SITE CHRONOLOGY

The following table lists the dates of important events for the site.

Table 1 Chronology of Site Events

Event	Date
Fort A.P. Hill is established as an Army Training Facility.	June 11, 1941
Training range areas 20 and 21 used sporadically by the U.S. Army for light ground maneuver training.	1941-1996
Indirect firing training occurs on ranges set up to fire from the northern to southern side of the installation, crossing U.S. Route 301. Known target areas are to the east of the MRS.	1942-1959
A practice bomb run that overflies the MRS is in use by units training with fixed winged aircraft carrying small practice bombs with spotting charges or practice bombs with smoke charge and flares to practice air to ground combat missions.	1942-1955
Maneuver training ceases and the MRS property transferred to Caroline County via a public benefit conveyance.	1996
Peumansend Creek Regional Jail (PCRJ) constructed by Caroline County on northwest portion of the MRS property. A 500 pound practice bomb casing is found during construction.	1997-1999
The Range Rule and Historical Survey report is completed which provides detailed information on the types of ranges and training associated with the MRS.	1999
Historical records review report determined that based on historical maps and the Range Rule and Historical Survey document that the MRS was used for training and the determined firing point locations were of high quality and little uncertainty. The report determined that the MRS had sufficient evidence of potential munitions and MEC or MC to recommend it for a site inspection (SI) field investigation.	February 2008
Site inspection completed which concluded no further action is required for explosive compounds and a remedial investigation (RI) should be conducted to characterize MEC in subsurface soil.	December 2008
USACE instrument-aided visual inspection completed.	2010
RI report completed.	6 June 2012
Focused Feasibility Study (FFS) completed.	May 2014
Proposed Plan finalized.	October 2014
DD finalized and signed.	2 March 2015

Table 1 Chronology of Site Events

Event	Date
LUC plan is finalized and remedy is implemented.	April 2015
Caroline County enters a five year agreement with the United States Department of Homeland Security for the former PCRJ to house illegal immigrants at the Caroline Detention Facility.	July 2018

3.0 BACKGROUND

3.1 PHYSICAL CHARACTERISTICS

Fort A.P. Hill is located in Caroline County, Virginia, approximately 2 miles north of the town of Bowling Green (Figure 1). The SEMS ID number for Fort A.P. Hill is VA2210020416. Fort A.P. Hill encompasses approximately 76,000 acres and is bisected by U.S. Route 301.

The MRS consists of approximately 150 acres in the central portion of Fort A.P. Hill along U.S. Route 301 (Figure 2). The MRS is surrounded by operational areas of Fort A.P. Hill. The MRS is owned by Caroline County and is operated by the PCRJ authority. In 1997, the PCRJ was constructed on the northern two-thirds of the MRS.

The following sections describe the topography and surface water drainage, geology, and groundwater characteristics for Fort A.P. Hill as reported in the RI report (LATA-Matrix 2012).

3.1.1 Topography and Surface Water Drainage

Fort A.P. Hill is located in the Coastal Plain Physiographic Province. This terrain includes rolling countryside to mostly level plains, interrupted by numerous shallow valleys. The secure area of the MRS sits on a broad, open and level terrace with elevations ranging from 150 to 210 feet above mean sea level (msl). The land south of the secure area slopes steeply down to small seasonal stream valleys. A broad level terrace (200 feet above msl) also exists along the southeast boundary of the Site bordered by Route 301. The southern edge of the MRS contains a thin strip of land at an elevation of 200 feet above msl. A path for vehicles is present following the length of this strip of land.

No natural surface water features are present on the MRS and the potential for surface water is limited. Topography and the PCRJ and Route 301 storm water management systems direct surface water runoff to the west and north into the Mill Creek drainage system.

3.2 LAND AND RESOURCE USE

The MRS has been informally subdivided into four areas based on land use, land cover, and the findings of the RI. The four areas are shown on Figure 3 and are as follows:

- Secure Area – The secure area is 15 acres surrounded by high security fence and is occupied by the PCRJ facility. The facility is now in use as the Caroline Detention Facility operated by the PCRJ authority. Approximately 6 acres on this area is covered by pavement and buildings and the remaining area is covered by mowed lawn.
- Prison Garden Area – the prison garden area is approximately 9 acres of cultivated land northeast of the secure area. The area was used by PCRJ garden staff to grow produce. The garden area is not currently being used by the Caroline Detention Facility.
- Northern Area – the northern two-thirds of the MRS, excluding the secure area and the prison garden area, is approximately 89 acres. This area consists of 6 acres of parking lot and roads, 39 acres of undeveloped forested land, and 44 acres of landscaped/mowed lawn. Security fencing borders the north, south, and east sides.
- Southern Area – The southern area consists of 46 acres of undeveloped dense woodlands.

The site land use is restricted in the transfer deed to the construction and operation of a jail and therefore is not anticipated to change in the future.

3.3 HISTORY OF CONTAMINATION

The Army used the MRS sporadically for light ground maneuver training from its acquisition in 1941 until it was transferred to Caroline County in 1996. In addition, it was the location of an indirect firing point and was on the flight path of an aerial bombing run. The approximate locations of the firing points, range fan boundaries, and bombing run boundary are shown on Figure 4.

A 1999 Range Rule and Historical Survey compiled information from Army Publications, Army Regulations, Range Regulations, and Commercial Publications pertaining to Fort A.P. Hill. The report provides detailed information on the types of ranges and training associated with Training Range Areas 20 and 21. The types of ranges identified as impacting the MRS were indirect firing points and a bomb run.

Multiple firing points for indirect firing ranges were present to the west of the MRS (Figure 4). The indirect firing ranges were set up to fire from the north to south crossing Route 301. Indirect fire training occurred between 1942 and 1959. The known target areas were all located east of the MRS. Stray rounds, misfires, or discarded military munitions (DMM) from indirect firing ranges could have potentially impacted the MRS. The general category of artillery weaponry utilized included mortars and howitzers. The ammunitions for these weapon systems generally contained high explosives, illuminating ammunitions, incendiary flame, white phosphorous, and hexachlorethane.

The bomb run ranges were used by units training with fixed wing aircraft to practice air to ground combat missions. Airplanes using bomb run B-01 would overfly the MRS on their way to an off-site target area. These aircraft carried small practice bombs (including 50-, 100-, and 150 pound practice bombs) with spotting charges, 250 pound practice bombs with smoke charge, and flares. The practice bomb run was used from 1942 to 1955.

3.4 INITIAL RESPONSE

Several existing LUCs were in place at the MRS prior to the DD being issued. These LUCs included deed restrictions in the PBC, PCRJ contractor control policies, MEC identification support, fencing and signage, and physical barriers to access. The PBC was posted on the deed and restricted the property use to only a correctional facility and ownership/operations of the property to a government body in perpetuity. If the terms of the PBC were violated, the property would have reverted back to federal control. PCRJ contractor control policies required contractors to meet with PCRJ staff and agree to policy/procedures prior to the start of work. Contractor work activities were monitored by PCRJ staff. Fort A.P. Hill range control provided MEC identification support. Fort A.P. Hill provided initial inspection and evaluation of suspected MEC found at PCRJ and if needed, MEC disposal was provided by the Army Explosive Ordnance Disposal (EOD) from Fort Belvoir. Fencing restricted access to three sides of the northern area of the MRS. The secure area occupied by the PCRJ was surrounded by security fencing and was monitored by video surveillance and patrols. Signs included those reading “No Trespassing” along the eastern perimeter of the MRS and “No Stopping” along U.S. Route 301. Buildings and pavement covered approximately 12 acres of the MRS which provided a physical barrier to access and prevented incidental exposure to subsurface soil in these areas.

3.5 BASIS FOR TAKING ACTION

The site conceptual model determined potentially complete pathways for MEC exposure to include intrusive activities by construction/maintenance workers and prison gardeners/landscape workers (working outside the jail).

A MEC hazard assessment (HA) was completed for the MRS based on the characterization of the nature and extent of MEC during the RI. The HA is a qualitative evaluation of the explosive hazard due to MEC and is comprised of three basic components: severity, accessibility, and sensitivity. The MEC HA indicated a Hazard Level 4, the lowest hazard level.

LUCs existing prior to the DD did mitigate MEC hazards and when military munitions-related material was identified, it was properly addressed. However, LUCs existing prior to the DD did not provide hazard notification or MEC avoidance/encounter protocols to contractors/maintenance workers performing future intrusive activities.

4.0 REMEDIAL ACTIONS

4.1 REMEDY SELECTION

The remedy for the MRS was selected based on its ability to achieve the following remedial action objective (RAO):

Mitigate construction worker/maintenance worker/PCRJ garden staff contact with MEC potentially present in the subsurface soil.

A DD was signed on 2 March 2015 and selected the remedy to supplement existing LUCs with hazard notification and information distribution policies (US Army 2015).

The remedy includes the following major components:

- Maintaining the existing PBC deed restriction;
- Existing PCRJ contractor policies, fencing, and signage;
- Revising PCRJ intrusive dig policies to specifically include notification to construction/maintenance workers and provide them with informational pamphlets that include MEC avoidance and encounter protocols;
- Maintaining the existing construction support service provided by Fort A.P. Hill Range Control personnel; and
- Revising PCRJ policy to include a requirement to provide PCRJ garden staff performing intrusive activities (garden tilling or digging) with written or digital information on MEC avoidance and encounter protocols. PCRJ management and garden staff performing intrusive activities will review the MEC avoidance and encounter protocols on an annual basis. PCRJ policy will specifically prohibit inmates from performing intrusive activities.

4.2 REMEDY IMPLEMENTATION

The Final Land Use Controls Plan (Bay West 2015) describes the implementation and planned maintenance of the LUCs. The DD required the maintenance of existing LUCs including the deed restriction PBC, fencing and signage, and construction support provided by Fort A.P. Hill range control. The implementation of each additional LUC component required by the DD is discussed in the following sections.

4.2.1 PCRJ Dig Policies

PCRJ dig policies that were in place before the implementation of the remedial action included a requirement for contractors to attend a pre-work meeting with the PCRJ administrator to be advised of the dig policies and work restrictions. Contractor personnel are required to be supervised by the PCRJ staff while working at the facility to insure compliance.

Per the DD, the policy was revised to address MEC. Additional dig policies include notification of potential munition hazards and distribution of munitions awareness and avoidance informational materials are included as part of the pre-work meeting for contractor personnel performing intrusive work. Contractor personnel are required to sign off that they have been briefed on the potential hazards and have received the awareness and avoidance information. The revised policies also identifies PCRJ staff positions that may require intrusive work to be performed. The personnel in these positions receive informational materials on an annual basis and new employees in these positions are provided informational materials as soon as possible. The updated policies also prohibit inmates from performing intrusive work.

4.2.2 Munitions Awareness/Avoidance Informational Materials

PCRJ and Fort A.P. Hill worked together to develop a presentation that educates recipients about the MEC hazards at the MRS. The presentation material stresses the importance of the “3 Rs” which include recognizing MEC as a danger, retreating from MEC, and reporting the MEC to the proper authorities.

4.2.3 LUC Inspections

Fort A.P. Hill Environmental Division will perform LUC inspections at least every five years including an interview with the PCRJ administrator to evaluate the effectiveness of the LUCs.

4.3 OPERATION, MAINTENANCE AND MONITORING

The maintenance of each LUC component including the responsible party is discussed in the following sections.

4.3.1 Deed Restriction

Caroline County is responsible for submitting an annual self-certification to the regional GSA representative. If the property is found to be out of compliance with the PBC, the property title reverts back to the federal government. The PBC remains in effect until modified or terminated.

4.3.2 Fencing

All fencing is routinely inspected and maintained by the PCRJ as part of normal facility operations. No major maintenance activities have been required during the last five years.

4.3.3 Signs

“No Trespassing” signs are maintained by Fort A.P. Hill and “No Stopping” signs along U.S. Route 301 are maintained by VDOT. No maintenance activities have occurred during the last five years.

4.3.4 PCRJ Dig Policies

The PCRJ authority is responsible for obtaining and maintaining records of contractors and staff who have been provided a briefing/information and their signatures acknowledging receipt of the information. No intrusive activities were required during the period of this review. Therefore, there were no signature records to review.

4.3.5 Munitions Awareness/Avoidance Informational Materials

The PCRJ authority is responsible for maintaining and distributing MEC awareness/avoidance materials as needed in keeping with the dig policies. The security/maintenance staff of the Caroline Detention Facility distributes the materials to contractors as needed. A copy of the material is provided in Attachment 8.

4.3.6 Construction Support

Fort A.P. Hill Range Control will continue this role for the foreseeable future. No maintenance of these activities are required. Construction support have not been required during the five-year period of this review. No construction activities are currently planned by the Caroline Detention Facility (PCRJ authority).

4.3.7 LUC Inspections

Fort A.P. Hill is responsible for completing LUC inspections every five years. This five-year review serves as the first LUC inspection for the MRS.

5.0 PROGRESS SINCE THE LAST FIVE-YEAR REVIEW

This is the first five-year review for the MRS at Fort A.P. Hill.

6.0 FIVE-YEAR REVIEW PROCESS

6.1 ADMINISTRATIVE COMPONENTS

The following activities were performed in support of the five-year review:

- Potentially interested parties and the local community were notified of the start of the five-year review;
- Documents and site data were reviewed;
- A site inspection was performed; and
- Interviews were conducted to gain insight on decisions made and activities completed at the sites.

This five-year review report was conducted and written by staff of the U.S. Army Corps of Engineers (USACE) Buffalo District:

- Laura Rosten, Environmental Engineer
- Michael Senus, Project Manager

6.2 COMMUNITY NOTIFICATION AND INVOLVEMENT

A public notice was published in the Free Lance Star on 8 December 2019 stating that the five-year review process had begun. Proof of publication of the notice is provided in Attachment 7.

Once finalized, the five-year review report will be made available to the public. Copies of the document will be available at the Fort A.P. Hill Information Repository for the Training Range Areas 20 and 21 MRS located at the following locations:

Port Royal Library
419 King Street
Port Royal, Virginia 22535
Phone: 804-742-5254

Caroline County Regional Library
17202 Richmond Turnpike
Milford, Virginia 22514
Phone: 804-633-5455

Upon completion of the report, a public notice will be placed in the Free Lance Star to announce the availability of the final five-year review report in the document repository.

6.3 DOCUMENT REVIEW

Relevant, site-related documents were reviewed including DD, RI, FFS, and other relevant studies. A complete list of documents reviewed is provided in Attachment 2.

6.4 DATA REVIEW

No data is collected that is associated with the remedial actions at the MRS.

6.5 SITE INSPECTION

The site inspection of the MRS occurred on 29 October 2019. No issues affecting the protectiveness of the remedy at the MRS were documented during the site inspection.

The site inspection forms and photographs taken during the site inspection are included in Attachments 4 and 5.

Observations made at the MRS during the site inspection include:

- Fencing was in good condition but Caroline Detention Facility staff noted that in some areas trees on Fort A.P. Hill property are growing very close to or into the fence;
- Signage is present as required, however, some signs on the boundary fencing have been faded by the sun (see photos in Attachment 5);
- Access to the site is restricted by the Caroline Detention Facility and the surrounding Fort A.P. Hill;
- The garden on site at the Caroline Detention Facility is no longer being maintained.

6.6 INTERVIEWS

The USACE requested and received interviews from the following personnel with knowledge of the remedial actions completed at the site, decisions made, and ongoing O&M activities:

- Katie Watson, Environmental Scientist, Restoration Contract Support, Environmental Research Group, LLC
- Paul Perry, Superintendent, PCRJ Authority

Ms. Katie Watson feels that the project is straight-forward, simple LUC remedy and that the remedy is functioning as intended. She feels well informed about the site's activities and progress and has not reported any complaints, violations, or other incidents with the site. She is not aware of any information that could call into question the protectiveness of the remedy.

Colonel Paul Perry feels well informed with the project and feels that the project has been very thorough. He stated that his security/maintenance staff is aware of the MEC awareness and avoidance materials and that they are responsible for briefing any contractors performing intrusive work at the site. He also stated that the site garden is no longer being maintained so facility staff is no longer performing intrusive work in the garden area.

No information was brought to light through the interviews that indicate issues with remedy protectiveness. Ms. Watson and Colonel Perry both confirmed that construction support has not been required as no suspected MEC has been encountered at the site and no direct contact with MEC has occurred during the last five years. Complete interview records are presented in Attachment 6.

7.0 TECHNICAL ASSESSMENT

7.1 QUESTION A

Is the Remedy Functioning as Intended by the Decision Document?

Yes, the remedy is functioning as intended by the decision document. The information supporting this response is summarized below relative to the RAO established in the decision document:

- Mitigate construction worker/maintenance worker/PCRJ garden staff contact with MEC potentially present in the subsurface soil.

The remedy includes LUCs that mitigate contact with MEC potentially present in subsurface soil including deed restrictions, fencing and signage, dig policies, distribution of MEC awareness and avoidance information, construction support, and LUC inspections. Deed restrictions through a public benefit conveyance restrict land use to a correctional facility and restricts the possible receptors to construction/maintenance workers. Fencing, signage, and access restrictions in place by PCRJ authority restrict access to the MRS. Dig policies and distribution of MEC awareness and avoidance information materials ensure construction and maintenance workers performing intrusive activities are aware of hazards and reporting procedures. Garden staff are no longer at risk of contact with MEC because there is currently no garden at the site. If the garden area was to be utilized again in the future, dig policies include MEC awareness/avoidance training annually for garden staff. Dig policies also prohibit inmates from performing intrusive activities. Fort A.P. Hill Range Control is prepared to provide construction support if potential MEC is identified.

7.2 QUESTION B

Are the Exposure Assumptions, Toxicity Data, Cleanup Levels, and Remedial Action Objectives Used at the Time of the Remedy Still Valid?

The exposure assumptions and RAO developed at the time of the remedy are still valid. Land use at the site has not changed and the deed restrictions prevent incompatible land use. No possible MEC have been reported on the MRS in the last five years.

7.3 QUESTION C

Has any Other Information Come to Light That Could Call Into Question the Protectiveness of the Remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

8.0 ISSUES

No issues that affect the protectiveness of the remedy were identified at the MRS at Fort A.P. Hill.

9.0 RECOMMENDATIONS AND OTHER FINDINGS

9.1 RECOMMENDATIONS

No recommendations for issues that affect protectiveness were identified at the MRS at Fort A.P. Hill.

9.2 OTHER FINDINGS

Table 2 summarizes other findings and recommendations for the MRS which do not affect site protectiveness.

Table 2. Other Findings and Recommendations at the MRS

Findings	Recommendations
Wording on the “No Trespassing” signs placed along the boundary fence has faded and some signs are no longer fully legible.	Signs with faded text should be replaced.
Trees growing close to and against the boundary fence on Fort A.P. Hill may compromise the future integrity of the fence.	Fort A.P. Hill Roads and Grounds should address any concerns from the Caroline Detention Facility maintenance staff regarding trees close to or against the fence line.

10.0 PROTECTIVENESS STATEMENT

The remedy at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 is protective of human health and the environment.

LUCs implemented at Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21 prevent exposure to potential MEC in subsurface soil through deed restrictions, physical controls, dig policies, distribution of munitions awareness and avoidance informational materials, and construction support provided by Fort A.P. Hill Range Control.

11.0 NEXT REVIEW

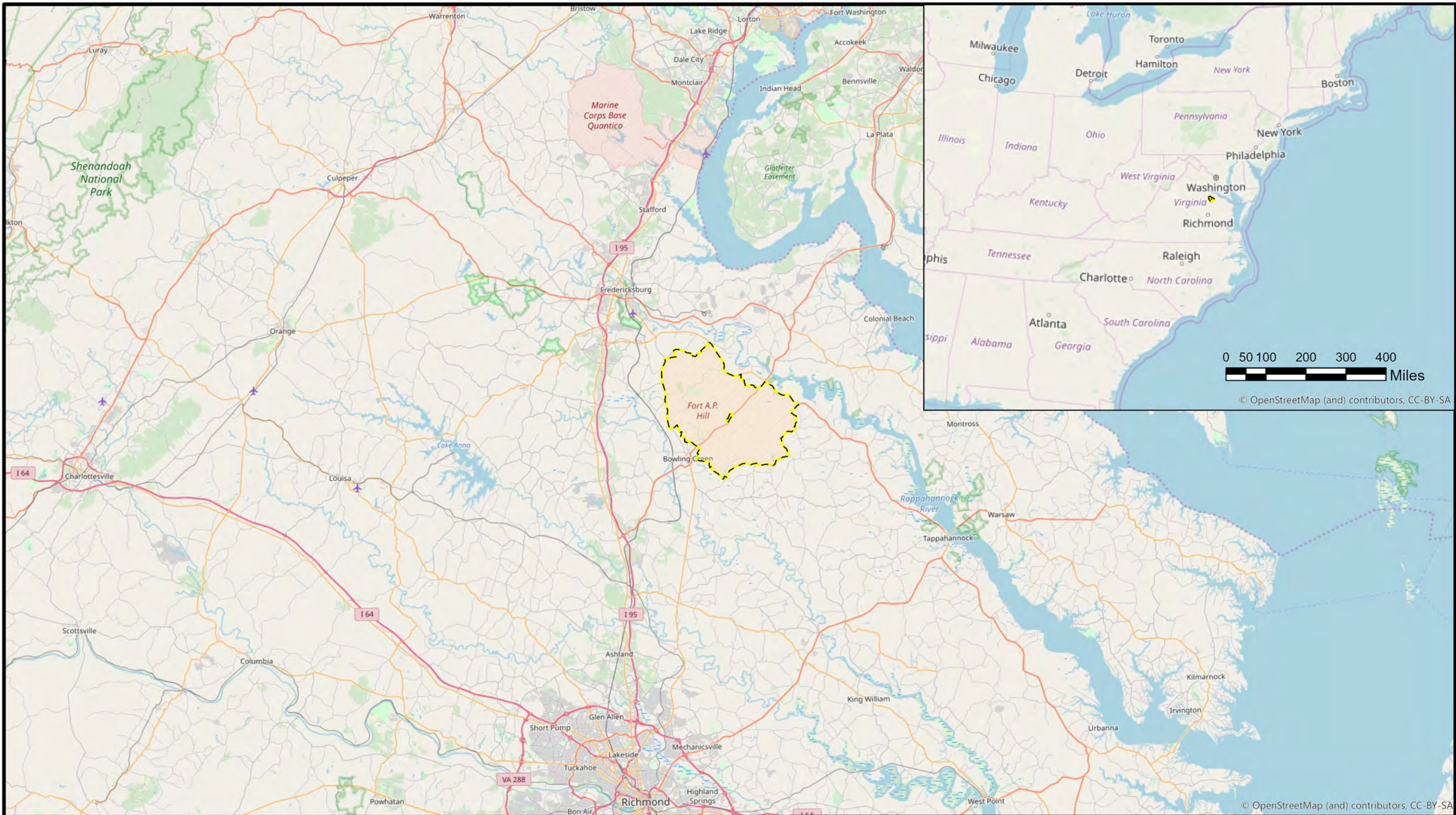
The next five year review for Fort A.P. Hill will be due on 02 March 2025, five years after the due date of this review.

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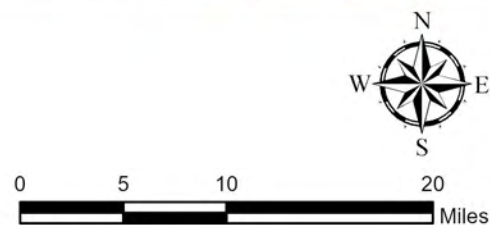
ATTACHMENT 1


Figures

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 Installation Boundary



 U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Document Name: FRY20_FTAPHILL.mxd
Drawn By: H5TDEEMP



Ft. A.P. Hill Installation Location

Fort A.P. Hill
Five Year Review
Port Royal, Virginia


Figure 1



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

-  MRS Boundary
-  Installation Boundary



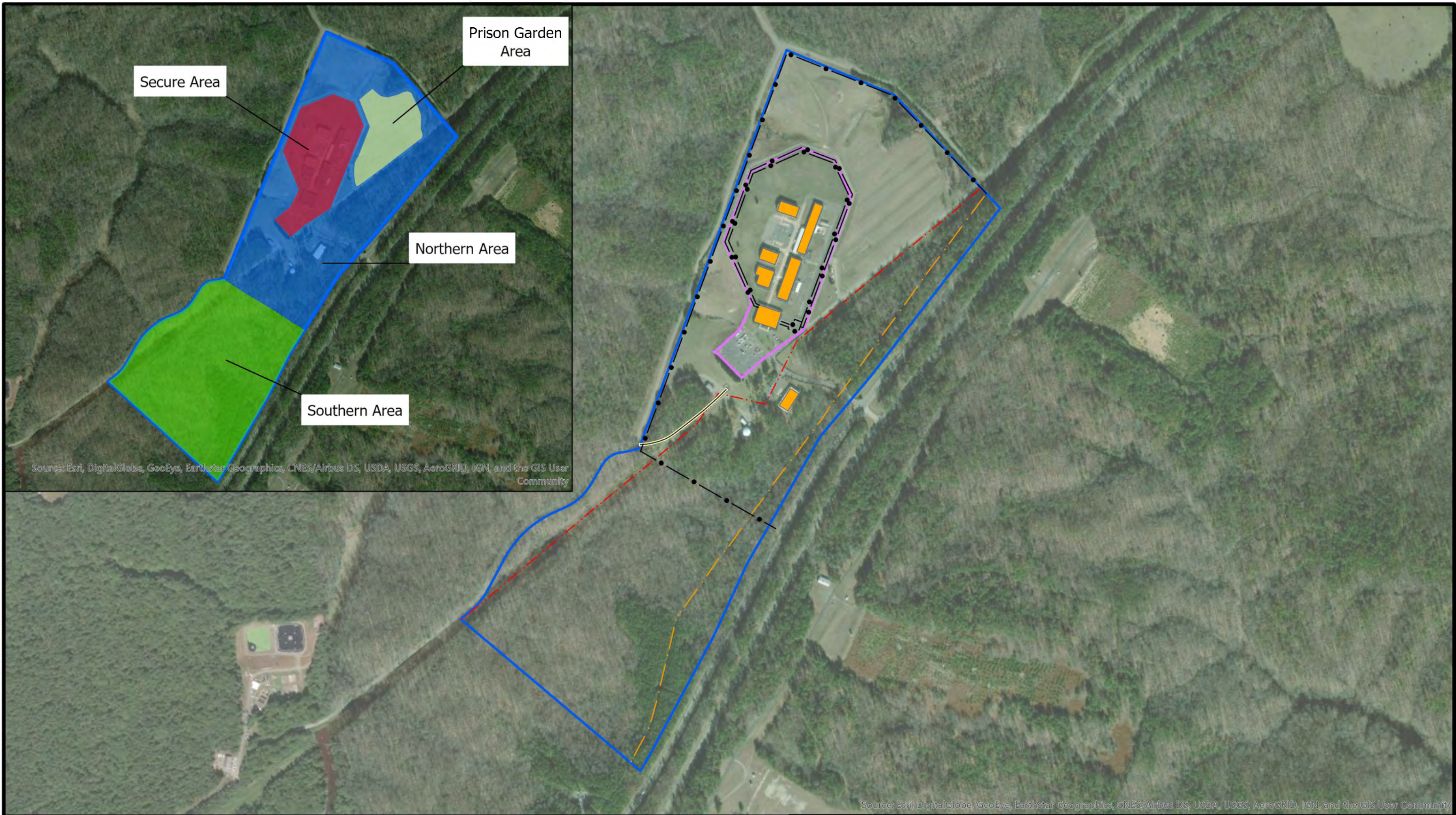
 U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Document Name: FRY20_FTAPHILL.mxd
Drawn By: H5TDEEMP

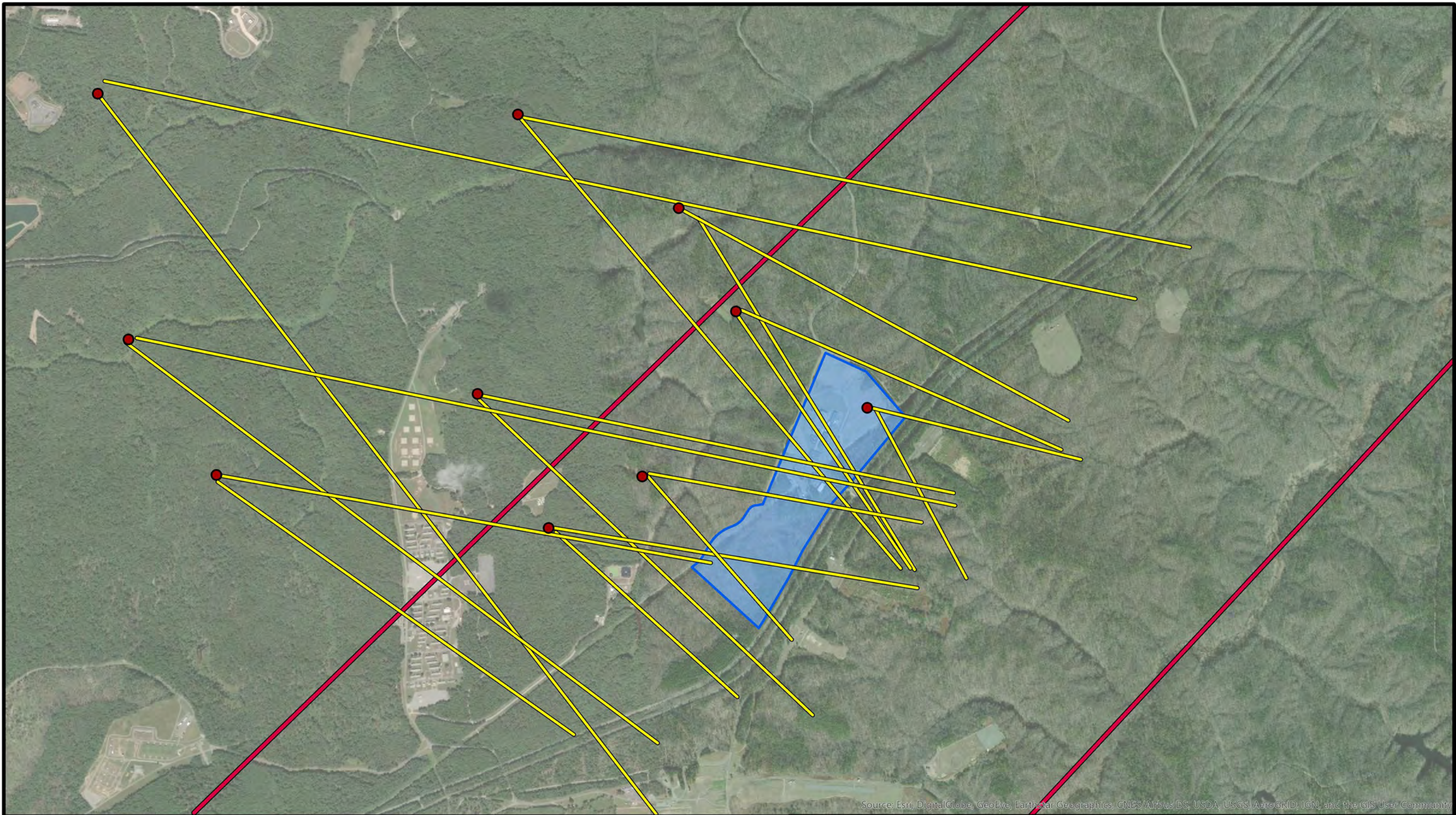
MRS Location at Ft. A.P. Hill

Fort A.P. Hill
Five Year Review
Port Royal, Virginia

Figure 2

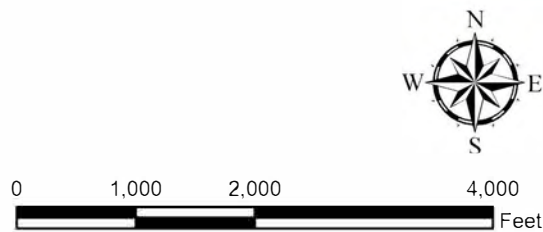



<div> <div> <div>—●— Fence</div> <div>— Wastewater Utility Segment</div> <div>--- Electrical Utility Segment</div> <div>--- Communication Utility Segment</div> </div> <div> <div>Buildings</div> <div>Southern Area</div> <div>Prison Garden Area</div> <div>Secure Area</div> </div> <div> <div>Northern Area</div> <div>MRS Boundary</div> <div>Jail Boundary</div> </div> </div>			<div> </div>	<div> <div> U.S. Army Corps of Engineers Buffalo District Buffalo, New York </div> </div>	<div> MRS Site Features and Areas </div>	
			<div> Fort A.P. Hill Five Year Review Port Royal, Virginia </div>	<div> Figure 3 </div>		
<div> Document Name: FRY20_FTAPHILL.mxd Drawn By: H5TDEEMP </div>						



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- FiringPoints
- Approximate Range Fan Boundary
- Approximate Bombing Range Boundary
- MRS Boundary



 U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Document Name: FRY20_FTAPHILL.mxd
Drawn By: H5TDEEMP

Range Fan Boundary and Bombing Range

Fort A.P. Hill
Five Year Review
Port Royal, Virginia

Figure 4

ATTACHMENT 2

List of Documents Reviewed

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Documents Reviewed

Bay West, LLC (Bay West) 2014. *Final Focused Feasibility Study, MMRP Focused Feasibility Study through Response Complete, Munitions Responses Services, Fort A.P. Hill, Bowling Green, Virginia.* May.

Bay West 2015. *Final Land Use Controls Plan, Munitions Response Site FTAPH-003-R-01 Training Range Areas 20 and 21, Fort A.P. Hill Bowling Green, Virginia.* April.

LATA-Matrix Environmental & Munitions Services, LLC (LATA-Matrix) 2012. *Fort A.P. Hill, Bowling Green, Virginia, FTAPH-003-R-01: Training Range Areas 20 and 21, Remedial Investigation Report, Military Munitions Response Program.* June 6.

United States Army (US Army) 2015. *Final Decision Document, Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21, Fort A.P. Hill, Bowling Green, Virginia.* February.

URS Group, Inc. (URS) 2008. *Final Site Inspection Report, Fort A.P. Hill, Virginia, Military Munitions Response Program.* December.

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ATTACHMENT 3

Decision Document Summary

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Table A3-1 Decision Document Summary
Component: Background/Basis for Taking Action at the MRS
Sheet 1 of 2

Decision Document Title:	Final Decision Document, Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21, Fort A.P. Hill, Bowling Green, Virginia
Regulatory Framework:	CERCLA, non-NPL
Remedy Chosen:	Land Use Controls with Hazard Notification and Information Distribution Policies
Media of Concern:	Munitions and explosives of concern (MEC) in subsurface soil
Chemicals of Concern:	N/A
Land Use:	Current: Correctional facility and undeveloped land Future: Expected to remain consistent with current use
Receptors:	Current: Construction/maintenance workers or prison gardener Hypothetical future: Construction/maintenance workers or prison gardener
Exposure Pathway:	Current: MEC exposure pathway potentially complete for receptors completing intrusive activities Future: MEC exposure pathway potentially complete for receptors completing intrusive activities
Ecological Risk:	No significant risk to potential ecological receptors were identified.

Table A3-2 Decision Document Summary
Component: Remedial Action at the MRS
Sheet 2 of 2

Decision Document Title:	Final Decision Document, Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21, Fort A.P. Hill, Bowling Green, Virginia
Remedy Chosen:	Land Use Controls with Hazard Notification and Information Distribution Policies
Remedial Action Objectives:	Mitigate construction worker/maintenance worker/Peumansend Creek Regional Jail (PCRJ) garden staff contact with MEC potentially present in the subsurface soil.
Clean-Up Goals:	N/A
Applicable or Relevant and Appropriate Requirements:	Identified potential ARARs are applicable only for actions associated with the transportation and disposal of MEC.
Components of the Remedy:	<p>The remedy selected was to supplement existing LUCs with hazard notification and information distribution policies which includes the following major components:</p> <ul style="list-style-type: none"> • Maintaining the existing public benefit conveyance (PBC) deed restriction; • Existing PCRJ contractor policies, fencing, and signage; • Revising PCRJ intrusive dig policies to specifically include notification to construction/maintenance workers and provide them with informational pamphlets that include anomaly avoidance and encounter protocols; • Maintaining the existing anomaly evaluation service provided by Fort A.P. Hill Range Control personnel; and • Revising PCRJ policy to include a requirement to provide PCRJ garden staff performing intrusive activities (garden tilling or digging) with written or digital information on anomaly avoidance and encounter protocols. PCRJ management and garden staff performing intrusive activities will review the anomaly avoidance and encounter protocols on an annual basis. PCRJ policy will specifically prohibit inmates from performing intrusive activities.

ATTACHMENT 4
Site Inspection Checklist

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Five-Year Review Site Inspection Checklist Fort A.P. Hill

I. SITE INFORMATION			
Site name: Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21		Date of inspection: October 29, 2019	
Location and Region: Caroline Country, VA		EPA ID: VA2210020416	
Agency, office, or company leading the five-year review: US Army Corps of Engineers, Buffalo District		Weather/temperature:	
Remedy Includes: (Check all that apply) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Landfill cover/containment <input checked="" type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input type="checkbox"/> Groundwater pump and treatment <input type="checkbox"/> Surface water collection and treatment <input type="checkbox"/> Other _____ </div> <div style="width: 50%;"> <input type="checkbox"/> Monitored natural attenuation <input type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls </div> </div> _____ _____ _____			
Attachments: <input type="checkbox"/> Inspection team roster attached <input type="checkbox"/> Site map attached			
II. INTERVIEWS (See Attachment 6)			
III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)			
1.	O&M Documents <input type="checkbox"/> O&M manual <input type="checkbox"/> As-built drawings <input type="checkbox"/> Maintenance logs Remarks: _____ _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A
2.	Site-Specific Health and Safety Plan <input type="checkbox"/> Contingency plan/emergency response plan Remarks: _____ _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A
3.	O&M and OSHA Training Records Remarks: _____ _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A
4.	Permits and Service Agreements <input type="checkbox"/> Air discharge permit <input type="checkbox"/> Effluent discharge <input type="checkbox"/> Waste disposal, POTW <input type="checkbox"/> Other permits _____ Remarks: _____ _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A
5.	Gas Generation Records Remarks: _____ _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> N/A

Five-Year Review Site Inspection Checklist Fort A.P. Hill

6.	Settlement Monument Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				

7.	Groundwater Monitoring Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				

8.	Leachate Extraction Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				

9.	Discharge Compliance Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Air		<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water (effluent)		<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				

10.	Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: <u>Access to the MRS is restricted by the PCRJ authority and Fort A.P. hill.</u> _____				

Five-Year Review Site Inspection Checklist Fort A.P. Hill

IV. O&M COSTS																																																					
1.	O&M Organization <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> State in-house <input type="checkbox"/> PRP in-house <input type="checkbox"/> Federal Facility in-house <input checked="" type="checkbox"/> Other: </div> <div> <input type="checkbox"/> Contractor for State <input type="checkbox"/> Contractor for PRP <input type="checkbox"/> Contractor for Federal Facility <u>Fort A.P. Hill, Caroline County, and the PCRJ Authority.</u> </div> </div>																																																				
2.	O&M Cost Records <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Readily available <input type="checkbox"/> Funding mechanism/agreement in place </div> <div> <input type="checkbox"/> Up to date <input type="checkbox"/> Breakdown attached </div> </div> <p>Original O&M cost estimate: _____</p> <p>Total annual cost by year for review period if available _____</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">From _____ to _____</td> <td style="width: 30%;"></td> <td style="width: 30%;"></td> <td style="width: 10%; text-align: right;">Total cost</td> <td style="width: 10%; text-align: right;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td>From _____ to _____</td> <td></td> <td></td> <td style="text-align: right;">Total cost</td> <td style="text-align: right;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td>From _____ to _____</td> <td></td> <td></td> <td style="text-align: right;">Total cost</td> <td style="text-align: right;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td>From _____ to _____</td> <td></td> <td></td> <td style="text-align: right;">Total cost</td> <td style="text-align: right;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td>From _____ to _____</td> <td></td> <td></td> <td style="text-align: right;">Total cost</td> <td style="text-align: right;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td></td> <td></td> <td></td> </tr> </table>			From _____ to _____			Total cost	<input type="checkbox"/> Breakdown attached	Date	Date				From _____ to _____			Total cost	<input type="checkbox"/> Breakdown attached	Date	Date				From _____ to _____			Total cost	<input type="checkbox"/> Breakdown attached	Date	Date				From _____ to _____			Total cost	<input type="checkbox"/> Breakdown attached	Date	Date				From _____ to _____			Total cost	<input type="checkbox"/> Breakdown attached	Date	Date			
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Date	Date																																																				
3.	Unanticipated or Unusually High O&M Costs During Review Period Describe costs and reasons: <u>O&M costs were not available due to O&M responsibility being spread across Caroline County, Fort A.P. Hill, and the Caroline Detention Center (former PCRJ).</u>																																																				
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A																																																					
A. Fencing																																																					
1.	Fencing damaged <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Gates secured <input type="checkbox"/> N/A Remarks: <u>Fencing surrounds the secure area and the boundary area and is in good condition and is maintained by the Caroline Detention Center (formerly PCRJ).</u> _____ _____																																																				
B. Other Access Restrictions																																																					
1.	Signs and other security measures <input type="checkbox"/> Location shown on site map <input type="checkbox"/> N/A Remarks: <u>“No Trespassing” signs are present along the boundary fence. The words “No Trespassing” are faded on many of the signs. Photos of the signs are included in Attachment 5.</u> _____ _____																																																				
C. Institutional Controls (ICs)																																																					

Five-Year Review Site Inspection Checklist Fort A.P. Hill

1.	Implementation and enforcement	
	Site conditions imply ICs not properly implemented	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Site conditions imply ICs not being fully enforced	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Type of monitoring (<i>e.g.</i> , self-reporting, drive by) <u>LUC Inspection</u>	
	Frequency <u>Every 5 Years</u>	
	Responsible party/agency <u>Fort A.P. Hill</u>	
	Contact	
	Name	Title
	Date	Phone no.
	Reporting is up-to-date	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Reports are verified by the lead agency	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	Specific requirements in deed or decision documents have been met	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Violations have been reported	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Other problems or suggestions: <input type="checkbox"/> Report attached	
2.	Adequacy	<input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A
D. General		
1.	Vandalism/trespassing	<input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident
	Remarks: 	
2.	Land use changes on site	<input type="checkbox"/> N/A
	Remarks: <u>Caroline Detention Center (formerly PCRJ) no longer uses a portion of the site for gardening. No intrusive activities currently occur at the site.</u>	
3.	Land use changes off site	<input checked="" type="checkbox"/> N/A
	Remarks: 	
VI. GENERAL SITE CONDITIONS		
	A. Roads	<input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A
1.	Roads damaged	<input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A
	Remarks: 	
B. Other Site Conditions		
	Remarks: 	
VII. LANDFILL COVERS		
	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
IX. GROUNDWATER/SURFACE WATER REMEDIES		
	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
X. OTHER REMEDIES		

Five-Year Review Site Inspection Checklist Fort A.P. Hill

	<p>If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.</p> <p>Remarks: <u>N/A</u></p>
XI. OVERALL OBSERVATIONS	
A.	Implementation of the Remedy
	<p>Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).</p> <p><u>The remedy includes Land Use Controls that are intended to mitigate construction work/maintenance worker/PCRJ garden staff contact with MEC potentially present in subsurface soil. LUCs have been implemented and maintained as described in the LUC Plan. Any contractors that are doing intrusive work at the site are briefed on MEC awareness and avoidance. Gardening is no longer performed at the site. Access is controlled with fencing and signage. During the site inspection, it was noted that some wording as faded on the signage.</u></p>
B.	Adequacy of O&M
	<p>Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.</p> <p><u>Requirements of the Public Benefit Conveyance continue to be met. Fencing and dig policies are maintained by the detention facility and are effective and well maintained. Signage along the boundary fencing is maintained by Fort A.P. Hill. Some wording on signage has faded. Construction support has not been required during the last 5 years.</u></p>
C.	Early Indicators of Potential Remedy Problems
	<p>Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.</p> <p><u>No issues were identified with unexpected changes in cost or scope of O&M.</u></p>
D.	Opportunities for Optimization
	<p>Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.</p> <p><u>No opportunities for optimization were identified.</u></p>

Five-Year Review Site Inspection Checklist Fort A.P. Hill

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ATTACHMENT 5
Photographic Record

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PHOTOGRAPHIC RECORD
Fort A.P. Hill

Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21

Photo No. 1
(29-October-
2019)

Description:
View of the
southwest
corner of the
boundary
fence.



Photo No. 2
(29-October-
2019)

Description:
Boundary
fencing along
the west side
of the MRS
showing
spacing of “No
Trespassing”
signage.



PHOTOGRAPHIC RECORD
Fort A.P. Hill

Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21

Photo No. 3
(29-October-
2019)

Description:
Northwest
corner of the
boundary
fence with
signage.



Photo No. 4
(29-October-
2019)

Description:
View showing
signage
indicating
boundary of
training area
21. Southern
portion of site
is wooded.



PHOTOGRAPHIC RECORD
Fort A.P. Hill

Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21

Photo No. 5
(29-October-2019)

Description:
Example of
“No
Trespassing”
sign where
wording has
faded.



Photo No. 6
(29-October-2019)

Description:
Example of
“No
Trespassing”
sign without
faded words.



PHOTOGRAPHIC RECORD
Fort A.P. Hill

Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21

Photo No. 7
(29-October-
2019)

Description:
View from the
parking lot at
the Caroline
Detention
Center
(formerly
PCRJ). View
shows fencing
surrounding
the secure area
and a portion
of the
detention
center
buildings.



Photo No. 8
(29-October-
2019)

Description:
Boundary
fence along the
north side of
site from the
Caroline
Detention
Center
property
(formerly
PCRJ).





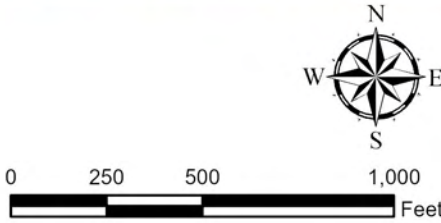
PHOTOGRAPHIC RECORD Fort A.P. Hill	
Munitions Response Site FTAPH-003-R-01 Training Area 20 and 21	
<p>Photo No. 9 (29-October-2019)</p>	
<p><u>Description:</u> Boundary fence from the southern end of the Caroline Detention Center (formerly PCRJ) property.</p>	
<p>Photo No. 10 (29-October-2019)</p>	
<p><u>Description:</u> View showing area previously used for gardening by PCRJ. Area is not currently being used. Secure area shown in background.</p>	


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Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

 Photo Location & Direction
 MRS Boundary



 U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Document Name: FRY20_FTAPHILL.mxd
Drawn By: H5TDEEMP

MRS Photo Locations

Fort A.P. Hill
Five Year Review
Port Royal, Virginia

Figure A5-1



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Photo Location & Direction



0 150 300 600 Feet



U.S. Army Corps of Engineers
Buffalo District
Buffalo, New York

Document Name: FRY20_FTAPHILL.mxd
Drawn By: H5TDEEMP

MRS Photo Locations
(Photograph #4)

Fort A.P. Hill
Five Year Review
Port Royal, Virginia

Figure A5-2

ATTACHMENT 6

Interview Forms

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INTERVIEW RECORD			
Site Name: Fort A.P. Hill		EPA ID No.: VA2210020416	
Subject: Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21		Time: 9am	Date: 10/29/2019
Type: <input type="checkbox"/> Telephone <input checked="" type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input type="checkbox"/> Outgoing	
Location of Visit: Fort AP Hill			
Contact Made By:			
Name: Laura Rosten		Title: Project Engineer	Organization: US Army Corps of Engineers, Buffalo District
Individual Contacted:			
Name: Katie Watson		Title: Environmental Scientist, Restoration Contract Support	Organization: Environmental Research Group, LLC
Telephone No: 865-323-8201 Fax No: E-Mail Address: Katie.Watson@envrg.com		Street Address: 7927 Camberley Drive City, State, Zip: Powell, TN 37849	
Summary Of Conversation			
1. What is your overall impression of the project (general sentiment)? <u>It is a straight-forward, simple LUC requiring fence inspection once every five years. Not difficult.</u>			
2. Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? If so, please give purpose and results. <u>The inspection was performed at the five-year mark to support the five-year review.</u>			
3. Have there been any complaints, violations, or other incidents related to the site requiring a response by your office? If so, please give details of the events and results of the responses. <u>No</u> _____ _____ _____			
4. Do you feel well informed about the site's activities and progress? <u>Yes</u> _____ _____ _____			
5. Is the remedy functioning as intended? <u>Yes</u> _____ _____ _____			

INTERVIEW RECORD

Site Name: Fort A.P. Hill	EPA ID No.: VA2210020416	
Subject: Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21	Time: 9am	Date: 10/29/2019
<p>6. Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives used at the site at the time of the remedy still valid?</p> <p><u>Yes</u></p> <p>_____</p> <p>_____</p>		
<p>7. Has any other information come to light that could call into question the protectiveness of the remedy?</p> <p><u>No</u></p> <p>_____</p> <p>_____</p>		
<p>8. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?</p> <p><u>No comments</u></p>		

INTERVIEW RECORD			
Site Name: Fort A.P. Hill		EPA ID No.: VA2210020416	
Subject: Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21		Time: 9am	Date: 10/29/2019
Type: <input type="checkbox"/> Telephone <input checked="" type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input type="checkbox"/> Outgoing	
Location of Visit: Fort AP Hill			
Contact Made By:			
Name: Laura Rosten		Title: Project Engineer	Organization: US Army Corps of Engineers, Buffalo District
Individual Contacted:			
Name: Colonel Paul Perry		Title: Superintendent	Organization: PCRJ Authority
Telephone No: 804-633-0043		Street Address: 11093 S.W. Lewis Memorial Drive	
Fax No:		City, State, Zip: Bowling Green, VA 22427	
E-Mail Address:			
Summary Of Conversation			
1. What is your overall impression of the project (general sentiment)? <u>The project has been very thorough including the use of ground penetrating radar during investigation. Security staff supports awareness training program. Garden program is no longer active.</u>			
2. Have there been routine communications or activities (site visits, inspections, reporting activities, etc.) conducted by your office regarding the site? If so, please give purpose and results. <u>Yes, staff remains well informed on procedures and security staff is prepared to provide MPPEH awareness/avoidance materials. Nothing has been disturb outside the secure perimeter and no construction is currently planned. Colonel Perry will inform Fort A.P. Hill if any construction is planned.</u>			
3. Have there been any complaints, violations, or other incidents related to the site requiring a response by your office? If so, please give details of the events and results of the responses. <u>No, potential munitions has not been reported.</u> _____ _____ _____			
4. Do you feel well informed about the site's activities and progress? <u>Yes</u> _____ _____ _____			
5. Is the remedy functioning as intended? <u>Yes</u> _____ _____ _____			
6. Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives used at the site at the time of the remedy still valid? <u>N/A</u> _____ _____ _____			

INTERVIEW RECORD

Site Name:	Fort A.P. Hill	EPA ID No.: VA2210020416	
Subject:	Munitions Response Site FTAPH-003-R-01, Training Area 20 and 21	Time: 9am	Date: 10/29/2019
7. Has any other information come to light that could call into question the protectiveness of the remedy? <u>No</u> _____ _____			
8. Do you have any comments, suggestions, or recommendations regarding the site's management or operation? <u>No comments</u>			

ATTACHMENT 7

Public Notice

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Transportation



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Hatchback, Sport
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22407	Falmouth
22408	Spotsylvania
22534	Chancellor
22551	Massaponax
22553	Partlow
22565	Spotsylvania
22427	Spotsylvania
22501	Thornburg
22514	Caroline
22535	Bowling Green
22546	Ladysmith
22580	Milford
23015	Port Royal
22448	Ruther Glen
22485	Woodford
22443	Beaverdam
22508	King George
22567	Dahlgren
22701	King George
22960	Other Areas
23024	Colonial Beach
23117	Locust Grove
	Unionville
	Culpeper
	Orange
	Bumpass/Lake Anna
	Mineral

Transportation



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Escape SE
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Legal Display Ads

Fort A.P. Hill Munitions Response Site FTAPH-003-R-01 ARMY BEGINS FIRST FIVE-YEAR REVIEW

The United States Army has begun the first five-year review of the environmental remedy undertaken at Munitions Response Site FTAPH-003-R-01, Training Areas 20 and 21 (known as "the MRS") at Fort A.P. Hill in Caroline County, Virginia.

The MRS was used by the U.S. Army for light ground maneuver training from 1941 through 1997. Additionally, the MRS was an indirect firing point and was on the flight path of an aerial bombing run. In 1996, the property was transferred to Caroline County via a public benefit conveyance and in 1997 the Peumansend Creek Regional Jail was constructed. Unacceptable risk to public health or welfare was identified due to explosive hazards associated with munitions and explosives of concern (MEC) in subsurface soil. A Decision Document issued in March 2015 established a remedy of land-use controls (LUCs) that included deed restrictions, access controls and signage, hazard notification, and information distribution policies.

The five-year review will be conducted to determine whether the remedy remains protective of human health and the environment and is functioning as intended according to the decision document. The five-year review will also assess factors to determine if the remedy will continue to be protective in the future. The Army is required to evaluate the remedy at least every five years unless it is determined that site conditions allow for unrestricted use. The report is scheduled for completion by March 2, 2020.

If you have any questions or would like additional information about the site, please contact:

Fort A.P. Hill
Environmental & Natural Resources Division
Directorate of Public Works
19952 North Range Road
Fort A.P. Hill, Virginia 22427
Phone: 804-633-8255
Email: usarmy.aphill.incom-northeast.mail.ernd@mail.mil

Copies of the final report will be available at the Fort A.P. Hill Information Repository for the Training Range Areas 20 and 21

Port Royal Library
419 King Street
Port Royal, Virginia 22535
Phone: 804-742-5254

Caroline County Regional Library
17202 Richmond Turnpike
Milford, Virginia 22514
Phone: 804-633-5455

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Relation to you: _____ Age: _____ Branch: _____ Unit: _____
Ranks/Specialty/Area of Service: _____ Reg. Duty Station: _____

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ATTACHMENT 8
MEC Awareness/Avoidance Informational Material

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MEC/UXO AWARENESS SAFETY BRIEF

Peumansend Creek Regional Jail Bowling Green, VA



 **RECOGNIZE**
 **RETREAT**
 **REPORT**



®

US Army Corps of Engineers Baltimore District
BUILDING STRONG®

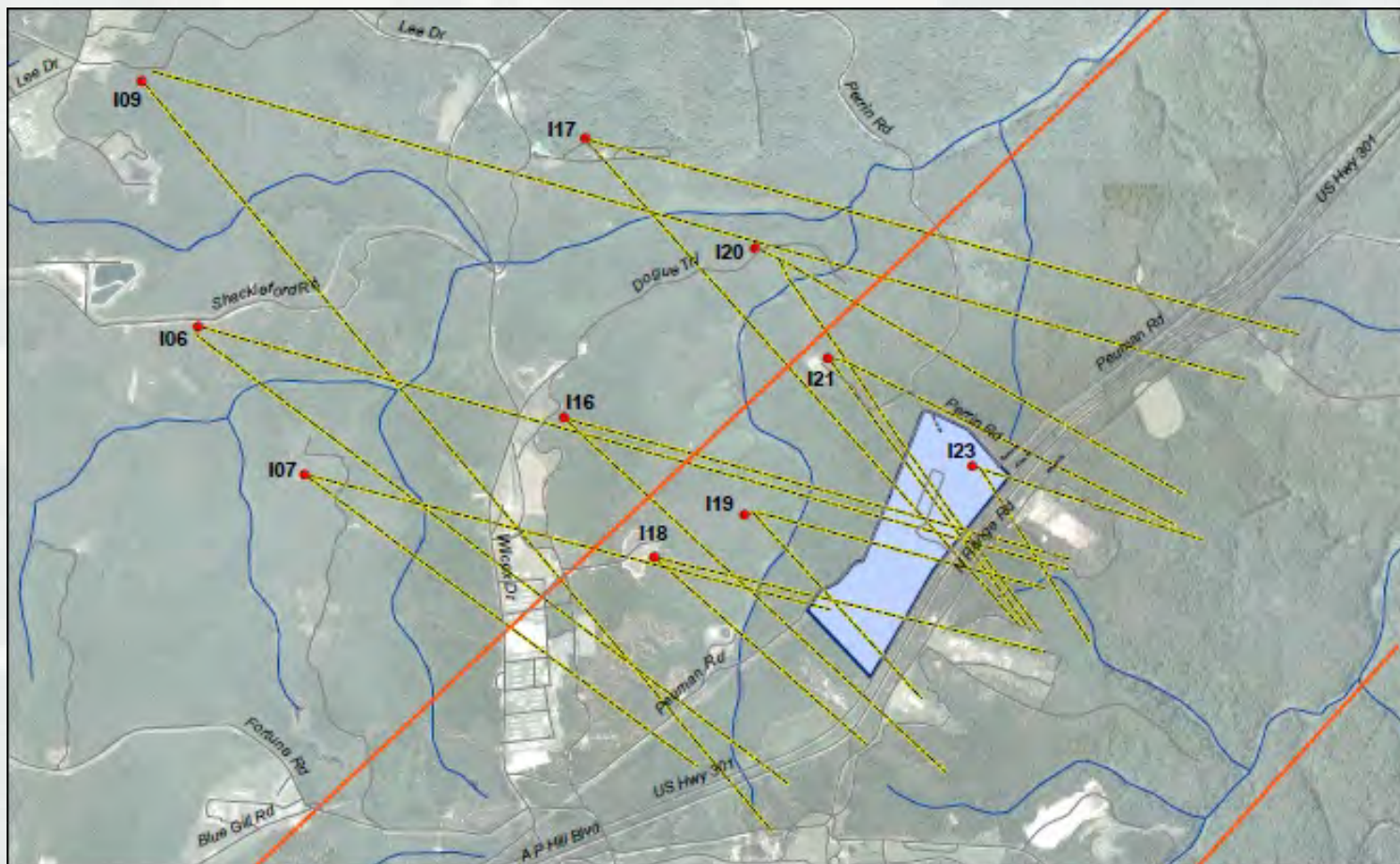


Background

The surrounding area of the Correctional facility are former Training Ranges which were sporadically used by the United States Army between 1942 and 1959, for light ground maneuver, indirect firing and a flight path of an aerial bombing run. The Site is surrounded by operational ranges out of Fort A.P. Hill.

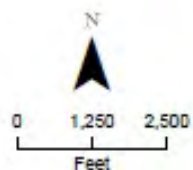
The Army transferred the Site to Caroline County, Virginia approximately 150 acres adjacent to Route 301 via a public benefit conveyance in September 1996. The transfer deed restricts use of the Site to the construction and operation of a correctional facility, the secure area and parking lot occupies approximately 20 acres of the Site.





Legend

- Firing Points
- Range Fan Boundary
- Bombing Run Boundary
- MRS Boundary
- Roads



Projection: UTM Zone 18N, Meters



U.S. ARMY
CORPS OF ENGINEERS
BALTIMORE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE
NUMBER
2-3

Former Range Fans and Bombing Run

LATA-Matrix Environmental &
Munitions Services, LLC



Munitions and Explosives of Concern (MEC)

This term distinguishes specific categories of military munitions that may pose unique explosives safety risks:

- ▶ **Unexploded Ordnance or (UXO)** A munition that is primed, fuze, armed, or otherwise prepared for action. This is the most hazardous category
- ▶ **Discarded Military Munitions (DMM)** abandon munition that has NOT been armed or prepared for action
- ▶ **Munitions constituents (MC)** (e.g. TNT, RDX) present in high enough concentrations to pose an explosives hazard.



The following slides display the types of munitions related material that were recovered during an investigation.

No live munitions were recovered



Training Grenades



**Practice
MK II**



60mm illumination Mortar





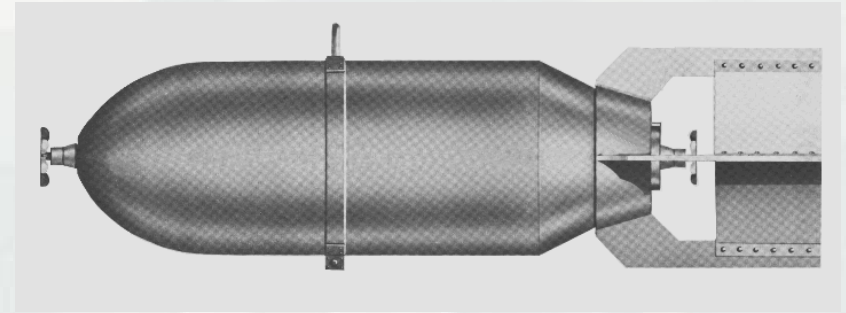
M48 Surface trip flare





M1A1 Practice Landmine

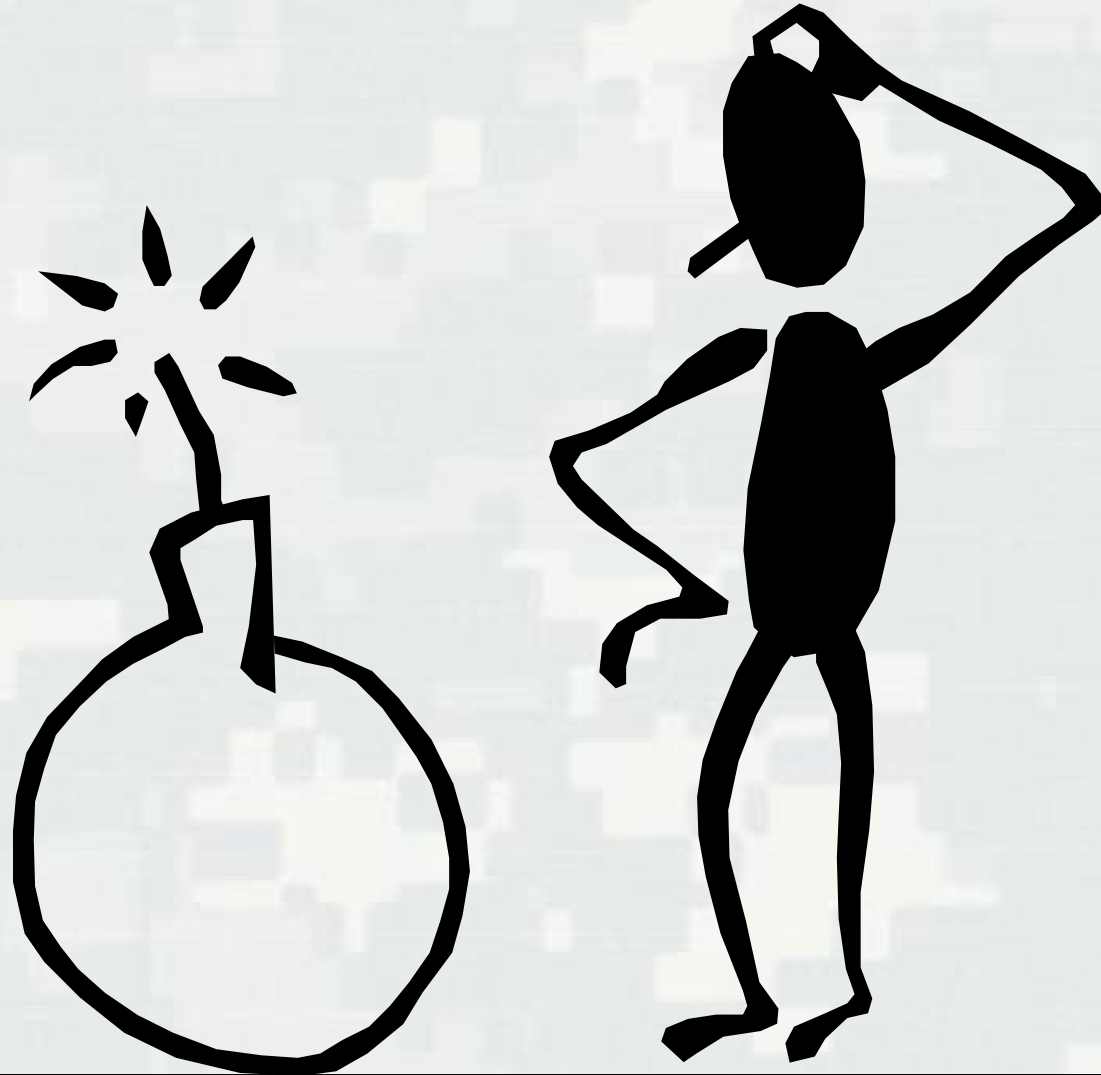




Mk 86 250lbs Practice bomb



NOW WHAT?



BUILDING STRONG 

When it comes to Military Munitions
ALWAYS remember the

3 R's

- RECOGNIZE
- RETREAT
- REPORT



•RECOGNIZE

Once you **RECOGNIZE** a possible UXO, do not continue to move any closer.



•RETREAT

RETREAT and move back at least 300 feet from a UXO hazard and tell others to stay away!



•REPORT

REPORT to your immediate supervisor who will contact the local authorities.



Information to have on hand when you **REPORT the UXO**

REPORTING AGENCY: Your name and who you work for.

CONTACT METHOD: Your cell/telephone phone number.

LOCATION: The location of the suspect UXO and your location (if different).

DESCRIPTION MUNITION: Give a general description of the item you have.
Don't worry if you don't know the exact size or type of UXO.



UXO SAFETY GUIDELINES

- **Do not collect souvenirs**
- **Do not pick up or disturb unknown or unfamiliar objects**
- **Do not handle UXO**
- **Remember that a UXO can have familiar shapes**
- **If you suspect a UXO do not move closer**
- **Keep others away from the area until proper authorities take control**
- **If someone picks up a UXO: Calmly tell them to put it down not to panic and drop it**
- **Finally if you **DID NOT DROP IT, DON'T PICK IT UP!****



UXO SAFETY GUIDLINES

Do not operate **CELL PHONES** or radios near UXO.

Make all cell phone/radio transmissions from outside your 50' safety zone.



REMEMBER THE

3 R's




RECOGNIZE- you have a possible UXO

RETREAT- to a safe area

REPORT- it to local authorities





**If you have more questions concerning
UXO's, Contact the USACE Baltimore
Ordnance and Explosive Safety Office:**

410-962-6741

QUESTIONS

