AECOM

Final
Record of Decision
Ridgway Training Site, Pennsylvania

Munitions Response Site PAE40-001-R-01
Pennsylvania Army National Guard

Army National Guard

Contract No. W9133L-14-D-0001
Delivery Order No. 0006

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Acronyms and Abbreviations

°F	degrees Fahrenheit
ARAR	Applicable or Relevant and Appropriate Requirement
ARNG	Army National Guard
BAT	Best Available Technology
BCY	bank cubic yards
bgs	below ground surface
BMP	Best Management Practices
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHE	Chemical Warfare Materiel Hazard Evaluation
COC	Chemicals of Concern
COPC	constituents of potential concern
CSM	Conceptual Site Model
CWM	Chemical Warfare Materiel
DoD	Department of Defense
DU	Decision Unit
EBS	Environmental Baseline Survey
EHE	Explosive Hazard Evaluation Module
FS	Feasibility Study
HHE	Health Hazard Evaluation
HHRA	Human Health Risk Assessment
ISM	Incremental Sampling Methodology
LTM	long-term management
LUC	Land Use Control
MC	munitions constituents
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
mm	millimeter
MMRP	Military Munitions Response Program
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
MSC	Medium Specific Concentrations
NCP	National Contingency Plan
NDNODS	Non-DoD Non-Operational Defense Sites
NFA	No Further Action
NGB	National Guard Bureau

NPS	National Park Service
NPW	net present worth
O&M	operations and maintenance
PAARNG	Pennsylvania Army National Guard
PADEP	Pennsylvania Department of Environmental Protection
PADMVA	Pennsylvania Department of Military and Veterans Affairs
PP	Proposed Plan
PTW	Principal Threat Waste
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
SI	Site Inspection
SLERA	Screening Level Ecological Risk Assessment
TCLP	toxicity characteristic leaching procedure
TMV	toxicity, mobility, or volume
U.S.	United States
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey
UU/UE	unlimited use and unrestricted exposure
WETS	Weekend Training Site
XRF	x-ray fluorescence

1 Declaration

1.1 Site Name and Location

Site Name: Ridgway Training Site Munitions Response Site (MRS) (PAE40-001-R-01).

Site Location: Ridgway Township, Elk County, Pennsylvania (**Figure 1-1**).

1.2 Statement of Basis and Purpose

This Record of Decision (ROD) is issued by the Army National Guard (ARNG) as the lead federal agency and presents the selected remedy for the Ridgway Training Site MRS (hereafter referred to as Ridgway Training Site), a former small arms training range. The selection of the remedy for the MRS resulted from the investigation and assessment of the site adhering to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, 42 United States (U.S.) Code §9601 et. seq., the Superfund Amendments and Reauthorization Act of 1986, and to the extent practical, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 Code of Federal Regulations (CFR) Part 300. The ROD is based on the administrative record for the MRS, which includes previously generated site-specific reports and investigations. Pennsylvania ARNG (PAARNG) maintains the administrative record file, which is available for public review.

The ARNG, in coordination with Pennsylvania Department of Environmental Protection (PADEP), developed this ROD and agree with the selected remedy. It is anticipated that the selected remedy will constitute the final response action for Ridgway Training Site.

1.3 Assessment of Ridgway Training Site MRS

The response action selected in this ROD is necessary to protect the public health and the environment from the potential exposure to munitions constituents (MC)-contaminated soil that is present from past munitions-related activities (e.g., small arms training). Under the Military Munitions Response Program (MMRP), a remedial investigation (RI) was conducted at the MRS in July 2018. The presence of unacceptable risks to human health and ecological receptors from MC- (specifically lead, antimony, and nitroglycerin) contaminated soil warranted a Feasibility Study (FS) for the Ridgway Training Site. The remedy selected in this ROD addresses the remediation of MC-contaminated soil at the MRS.

1.4 Description of Selected Remedy

The ARNG developed and evaluated remedial alternatives for the MRS through an FS (AECOM, 2020). Based on the results of the FS, the ARNG selected Alternative 3 - Soil Stabilization and Excavation with Off-site Disposal. Under Alternative 3, MC-contaminated soil with lead above 400 milligram per kilogram (mg/kg) or nitroglycerin above 0.63 mg/kg would be excavated and disposed of offsite. Soil with lead concentrations above landfill disposal criteria will undergo in-situ soil stabilization prior to excavation. This alternative mitigates lead in soil via stabilizing treatment and removal from the MRS, and it would achieve unlimited use and unrestricted exposure (UU/UE) at the MRS without the need for any continuing Land Use Control (LUC). LUCs are not enforceable by the ARNG because the MRS is privately owned, and were therefore eliminated as a remedial alternative. The excavation would eliminate the risk of encountering MC-contaminated soil at the MRS. If, after multiple soil stabilization efforts, areas of soil remain above alternative land disposal restrictions, then soil exceeding criteria from these areas will be disposed

of at an approved Resource Conservation and Recovery Act (RCRA) Subtitle C disposal facility, and a permit-by-rule notification form will be submitted to PADEP. Soil that has undergone stabilization successfully will be excavated and disposed of at an appropriate disposal facility.

Based on the results of the RI, the extent of MC-contaminated soil was determined to cover approximately 0.146 acres to a depth of 3 feet (AECOM, 2020). It is conservatively assumed that the extent of area identified for excavation based on RI results will be the same extent of area with lead concentrations above landfill disposal criteria. As such, approximately 1,061 tons would be stabilized, excavated, and disposed of based on waste classification analysis per the requirements of the RCRA Part 261.

Lead concentrations in soil across the excavation floor and walls will be evaluated in the field using x-ray fluorescence (XRF). Multiple XRF readings will be taken across each dimension of the excavation to verify completeness of removal. If XRF results indicate lead concentrations are above the field delineation value of 400 mg/kg, an additional 0.5 feet of soil will be removed, and the area will be reevaluated by XRF. Once XRF results indicate the lead concentration in the excavation is below 400 mg/kg, discrete confirmation samples will be collected and submitted for laboratory analysis.

Soil stabilization is not appropriate at the Firing Point DU due to the presence of nitroglycerin; therefore, this technology will not be implemented at the Firing Point DU. Confirmation samples will be collected and submitted for the Firing Point excavation perimeter to confirm nitroglycerin concentrations in soil are below 0.63 mg/kg. Soil excavation and subsequent sampling and analysis will proceed until the results indicate the contaminant concentrations are below their established screening criteria.

The results of waste classification by sampling and analysis conducted per the requirements of the RCRA Part 261 will determine how the soil from the Firing Point DU is disposed. Soil exceeding non-hazardous waste disposal criteria from the Firing Point DU will be disposed of at an approved RCRA Subtitle C disposal facility.

The estimated total cost of Alternative 3 is $389,108. The cost estimate includes the total cost for excavation and disposal of MC-contaminated soil.

1.5 Statutory Determinations

The selected remedy for the Ridgway Training Site (PAE40-001-R-01) satisfies the statutory requirements of CERCLA §121(b) and, to the extent practicable, NCP §300.130(f)(5)(ii). The selected remedy is protective of human health and the environment; complies with Federal and State requirements that are applicable and appropriate to the remedial action; is cost effective; utilizes permanent solutions to the maximum extent practicable, and satisfies the statutory preference for treatment through the removal and disposal of MC-contaminated soil. Five-year reviews are not required because the hazardous substances and pollutants or contaminants will be removed from the MRS, allowing UU/UE.

1.6 Data Certification Checklist

The following information in **Table 1-1** is included in this ROD's Decision Summary (**Section 2**). Additional information can also be found in the Ridgway Training Site administrative record by contacting the PAARNG Public Affairs Office (phone: 717-861-8829; email: ng.pa.paarng.list.pao@mail.mil).

TABLE 1-1 ROD DATA CERTIFICATION CHECKLIST

Data	Location
Chemicals of concern (COCs) and their respective concentrations	Sections 2.2.3 and 2.7
Baseline risk represented by the COC	Section 2.7
Cleanup levels established for COC and the basis for these levels	Section 2.8.1
How source materials constituting principal threats are addressed	Section 2.11
Current and reasonably anticipated future land use assumptions and potential future beneficial uses of groundwater used in the risk assessment	Section 2.5.8 and 2.6
Potential land and groundwater use that will be available at the site as a result of the selected remedy	Section 2.12.2
Estimated capital, operations and maintenance (O&M), and total net present worth (NPW) costs; discount rate; and number of years over which the remedy costs are projected	Section 2.10.7
Key factors that led to the selection of the remedy	Section 2.12

1.7 Authorizing Signature

On the basis of the RI and FS performed for the Ridgway Training Site MRS (PAE40-001-R-01), the selected remedy meets the requirements for remedial action set forth in CERCLA. The signature below documents the ARNG's approval of the selected remedy for the Ridgway Training Site MRS (PAE40-001-R-01).

APPROVED:

HAMMETT.ANTHONY.SCOTT.1116575562

Digitally signed by HAMMETT.ANTHONY.SCOTT.1116575562
Date: 2021.04.22 12:30:39 -04'00'

4/22/2021

Anthony Hammett
Colonel, U.S. Army
Chief, G-9 Army National Guard

Date

CLIENT	Army National Guard			
PROJECT	Record of Decision for Ridgway Traning Site, PA MRS			
REVISION NO	0	GIS BY	SK	4/12/2021
SCALE	1:126,720	CHK BY	JW	4/12/2021
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong),		PM	RG	4/12/2021

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Ridgway Training Site Location Map

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12420 Milestone Center Drive
Germantown, MD 20876

Figure 1-1

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2 Decision Summary

The Decision Summary identifies the selected remedy, explains how the remedy fulfills statutory and regulatory requirements, and provides a substantive summary of the Administrative Record File that supports the remedy selection.

2.1 Site Name, Location, and Description

The Ridgway Training Site is a 0.27-acre site located in Ridgway Township, Pennsylvania, on the west side of Grant Road, approximately 2 miles northwest of Ridgway Borough, and 5 miles southwest of Johnsonburg in Elk County, Pennsylvania (**Figure 1-1**). The MRS is surrounded by the 8-acre former Ridgway Weekend Training Site (**Figure 2-1**), which was recommended for No Further Action during the 2012 Site Inspection (SI) (Parsons, 2012).

The area surrounding the MRS is predominantly rural; the properties surrounding the MRS include agricultural, mining, residential, and recreational land (Parsons, 2012). Allegheny National Forest borders the western edge of the MRS, with various coniferous trees and some deciduous trees, the most common being birch. The range is primarily covered in grass, other vegetation, and the structures associated with the former baffled small-arms range. A community baseball/athletic field abuts the northern edge of the former Weekend Training Site. The MRS is located on privately owned property, and access to the range is partially restricted from public access by a locked gate, concrete walls on the north and southern side, and a fence on the east side.

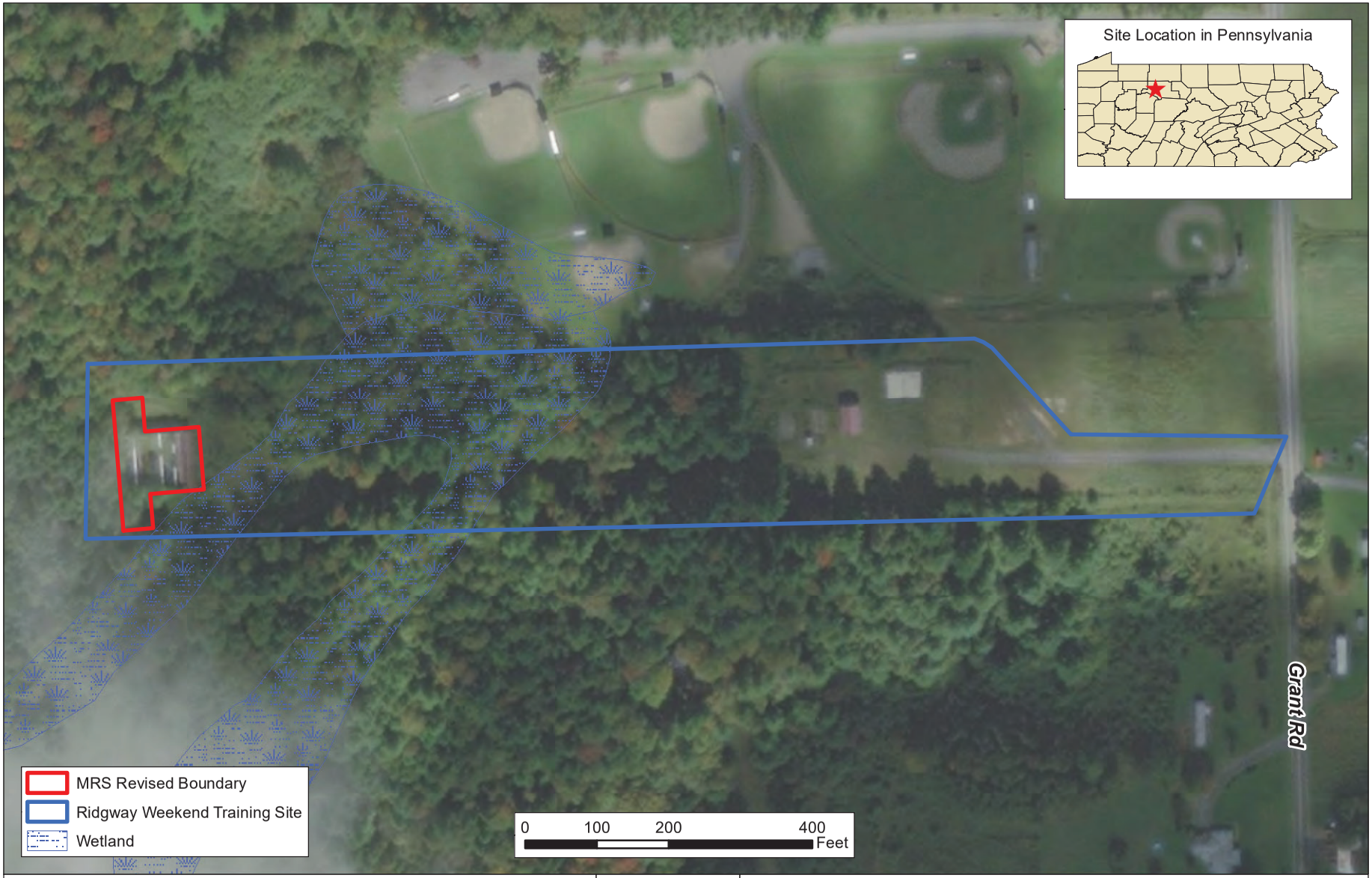
According to the 2012 SI report (Parsons, 2012), PAARNG documentation indicates that the range was constructed in 1987 as a small-arms range with sheltered firing points and a baffle system to retain firing activities. Observations made during the 2018 RI confirmed that the range is a baffled outdoor range that is surrounded by 15-foot tall concrete walls on the northern and southern edges of the range. The eastern portion of the MRS contains 12 sheltered firing positions covered by a metal roof; an 8-foot earthen berm is located on the western edge of the MRS. Above the earthen berm is a horizontal wooden baffle supported by large beams installed into the hillside. Within the range, two vertical wooden baffle walls are suspended from the top of the concrete sidewalls and hang down into the range floor area to prevent stray bullets from leaving the range.

2.2 Site History and Enforcement Activities

This section provides background information for the site, including a description of site activities and a general summary of the types of contamination found. There have been no enforcement actions at the site to date.

The Ridgway Training Site was used by the PAARNG for small-arms, live-fire weapons training from 1987 to 2005 (Parsons, 2012). Munitions use documentation was not found during the SI, but based on range type, timeframe of range use, and location, AECOM surmised that the following munitions were fired: .22 caliber, .38 caliber, .45 caliber, .50 caliber, 9 millimeter (mm), 5.56mm, and 7.62mm. In 1989, a temporary waiver was granted for one-time firing of 7.62mm machine gun rounds. The extent of the usage is unknown but is expected to be minimal (Earth Resources Technology, 2008).

Live-fire training occurred within the mostly enclosed 25-meter outdoor baffled M-16 rifle range. From 1987 to 1990, the range was used approximately four to five times a year, but range use from 1990 to 2001 is unknown. From 2001 to 2005, the range was used approximately two to three times a year. During that period, AECOM estimated that approximately 64,000 small-caliber



CLIENT	Army National Guard			
PROJECT	Record of Decision for Ridgway Traning Site, PA MRS			
REVISION NO	0	GIS BY	SK	4/12/2021
SCALE	1:2,400	CHK BY	JW	4/12/2021
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community		PM	RG	4/12/2021

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TITLE

Ridgway Training Site Layout

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12420 Milestone Center Drive
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Figure 2-1

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rounds were expended at the range. The range was last used in November 2005, and small-arms training was discontinued in March of the following year because it no longer met ARNG requirements (Pennsylvania Department of Military and Veterans Affairs [PADMVA], 2011). Request for formal closure occurred on September 9, 2011.

The property was originally conveyed to the Commonwealth of Pennsylvania from private owners on 26 September 1969 (PADMVA, 2011). PADMVA owned the property from 1969 to 2015. The property was approved for conveyance from the Commonwealth of Pennsylvania (with approval from the PADMVA through Act 56 of 2013 (House Bill 1112). Transfer of the property to a private owner was completed in 2015.

After taking over ownership in 2015, the current landowner installed a French drain parallel to the earthen berm to improve drainage in front of the Target Berm. In doing so, the top 12 to 18 inches of soil from the foot of the Target Berm were removed and stored in a pile near the north sidewall.

Five environmental investigations have been completed at the Ridgway Training Site since 2011. These investigations include the following:

- Ridgway Weekend Training Site (WETS) & Range, Environmental Baseline Survey Report (PADMVA, 2011)
- Final Pennsylvania Site Inspection Report, ARNG MMRP (Parsons, 2012)
- Final Remedial Investigation Report (AECOM, 2019)
- Feasibility Study (AECOM, 2020)
- Proposed Plan (AECOM, 2021)

2.2.1 Ridgway WETS & Range, Environmental Baseline Survey Report (PADMVA, 2011)

The Environmental Baseline Survey (EBS) included database and records reviews, site reconnaissance, and personnel interviews to document current and historic conditions at the Ridgway WETS, including the MRS. The EBS concluded that the MRS should be placed into the Non-Department of Defense (DoD) Non-Operational Defense Sites (NDNODS) program following range closure., and it identified the downrange and backstop areas as potential sources of lead in soil as a result of training. The EBS also found no evidence of discarded military munitions; however, site characterization was not a part of the EBS scope.

2.2.2 Site Inspection Report (Parsons 2012)

The SI approach included both visual survey and biased soil sampling for MC to evaluate the potential presence of munitions. Parsons performed a 0.66-mile magnetometer-assisted visual survey, collected biased composite and discrete surface soil samples, and collected sediment and surface water samples as part of the 2012 SI. A single .45 caliber bullet and a single 5.56mm casing were observed within the MRS. Slight depressions on the berm were also observed to be especially saturated with subsurface anomalies across from the firing points.

Eight soil samples were collected from the firing line, berm, and ambient areas outside of the MRS; two surface water and two sediment samples were collected from an upstream location as well as

a downstream location at the confluence of two on-site creeks. Samples were analyzed for small arms metals (antimony, copper, lead, and zinc) and nitroglycerin. Both lead and antimony concentrations exceeded the human health criteria (PADEP Medium Specific Concentrations [MSCs]) at all seven berm sample locations, while copper exceeded its MSC at two berm sample locations. Nitroglycerin was also detected slightly above its MSC at the firing point. There were no MC detections (metals or explosives) in surface water samples. In sediment, no explosives were detected, small arms MC were all detected below screening criteria, and downstream concentrations were equal to or less than the upstream concentrations.

No historical evidence of munitions and explosives of concern (MEC) has been documented or found at the site. It was determined during the SI that no explosive hazards are present at the MRS. As a result of the baseline survey and SI, the size and shape of the MRS were revised. The 7.78 acres comprising the Ridgway WETS were reassigned, for tracking purposes, as NDNODS Ridgway Training Site-PA (AEDB-R No. PAE40-001-R-02). No further action was required at the Ridgway Training Site-PA because no munitions were historically fired in that area. The remaining 0.22 acres comprising the Ridgway Training Site MRS (PAE40-001-R-01) include the firing points, Target Berm, and range floor in between, and they moved forward to RI.

2.2.3 Remedial Investigation (AECOM 2019)

The RI was conducted in July 2018 to characterize the nature and extent of MC contamination in soil and sediment in areas associated with historical small arms training activities conducted at Ridgway Training Site. For data interpretation purposes and for assessing risks, the MRS was divided into four decision units (DUs) (the Target Berm, Firing Point, Soil Pile, and French Drain Outfall area) that reflect the source areas of potential contamination as indicated by site history and remaining physical evidence of the target areas, as well as post-use construction by the landowner. Field investigation included XRF screening of soil at Target Berm to evaluate the lateral extent of MC, and the collection of surface soil samples at the Target Berm and Firing Point DUs using Incremental Sampling Methodology (ISM) for evaluating risks. XRF analysis was not performed at the Firing Point DU because XRF is not a suitable tool for screening nitroglycerin. A background reference area adjacent to the MRS that was not affected by historical training activities was also sampled using ISM. Discrete subsurface samples were collected at select locations at the Target Berm and Firing Point to determine the vertical extent of MC. Discrete soil and sediment were collected from the Soil Pile and French Drain Outfall DUs, respectively, in lieu of ISM samples due to the small size of the DUs. Discrete sediment samples were also collected from a drainage ditch within the MRS. Except for the Firing Point DU, all samples were analyzed for small arms metals: lead, antimony, copper, and zinc; samples from the Firing Point DU were analyzed for nitroglycerin only.

Analytical results were screened against their respective human and ecological screening criteria. RI results showed that small arms MC are present at the Target Berm, Soil Pile, and Firing Point at elevated levels above United States (U.S.) Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Residential Soil (USEPA, 2018). The maximum concentrations of MC in ISM soil samples from the Target Berm and Firing Point DUs, and the maximum concentrations of MC in discrete soil samples collected from the Soil Pile DU are presented in **Table 2-1**.

TABLE 2-1 RI SOIL SAMPLE RESULTS

Analyte	Soil Human Health Screening Level (mg/kg)	Maximum Detected Concentration (mg/kg)		
		Target Berm	Soil Pile	Firing Point
Metals				
Antimony	3.1	**40.1**	**1080**	NA
Copper	310	**636**	**2060**	NA
Lead	400	**8770**	**57200**	NA
Zinc	2,300	**165**	**443**	NA
Explosives				
Nitroglycerin	0.63	NA	NA	**21**

Notes:
Bold = Exceeds Background
Exceeds Screening Criteria

MC levels in sediment at the French Drain Outfall were not elevated above USEPA RSLs for Residential Sediment; however, concentrations were elevated above background concentrations and ecological screening criteria. Risk-based screening results identified antimony, copper, lead, and nitroglycerin as soil constituents of potential concern (COPCs).

The RI human health risk assessment (HHRA) assessed the COPCs and determined that there is some risk for the child visitor, adult/child resident, teen trespasser, construction/utility worker, and outdoor worker receptors from exposure to antimony, lead, and/or nitroglycerin via incidental ingestion and dermal contact with soil at the Target Berm, Soil Pile and Firing Points DUs.

The RI screening level ecological risk assessment (SLERA) determined that exposure to constituents of potential ecological concern in on-site soil resulted in substantial impact to both soil invertebrate and terrestrial wildlife populations. For the benthic macroinvertebrate community and the aquatic and semi-aquatic wildlife community, the potential for adverse effects is minimal.

The MRS boundary was revised to include the farthest extent of lead concentration exceedances of its human health screening criterion based on XRF data; the revised acreage is 0.32 acres (**Figure 2-2**). The entirety of the revised MRS was recommended to move forward to an FS.

2.2.4 Feasibility Study (AECOM 2020)

Potentially complete pathways for exposure and interactions between MC-contaminated soil and receptors were identified during the RI. Due to the presence of unacceptable risk to human and ecological receptors from MC-contaminated soil within the MRS, an FS was conducted to evaluate possible actions appropriate to remediate the Ridgway Training Site MRS (PAE40-001-R-01). The FS evaluated possible alternatives in detail and completed a comparative analysis based on criteria outlined in the NCP.

The three alternatives evaluated were:

- Alternative 1 – No Action, a baseline to which other alternatives are compared
- Alternative 2 – Soil Excavation with Off-Site Disposal (as Hazardous Waste)
- Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal

2.2.5 Proposed Plan (AECOM 2021)

The Proposed Plan (PP) presented the findings of the FS and identified the preferred alternative for addressing elevated MC in soil at Ridgway Training Site. The preferred alternative was

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PROJECT	Record of Decision for Ridgway Training Site, PA MRS			
REVISION NO	0	GIS BY	SK	4/12/2021
SCALE	1:480	CHK BY	JW	4/12/2021
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community		PM	RG	4/12/2021

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Ridgway Training Site Revised MRS Boundary

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Figure 2-2

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Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal. Alternative 3 is technically and administratively feasible, is protective of human health, and provides the best balance of long-term effectiveness and reduction of risk to human health, achieves the remedial action objective (RAO), is cost-effective, and achieves unlimited use and UU/UE.

2.3 Community Participation

The ARNG solicited public input on the PP (AECOM 2020) in the newspaper 'The Ridgway Record' on 19 December 2020. The public comment period was held from 19 December 2020 through 21 January 2021. The RI (AECOM 2019), FS (AECOM 2020), and PP (AECOM 2021) were made available to the public via the PAARNG Public Affairs Office (Building 8-41, Fort Indiantown Gap, Pennsylvania 17003; ng.pa.paarng.list.pao@mail.mil). No public comments or questions were received on the Ridgway Training Site MRS PP during the public comment period, and the public did not request a meeting. The public notice and affidavit of publication are included in **Appendix A**.

2.4 Scope and Role of Response Action

The selected remedy will be the final action for the Ridgway Training Site MRS (PAE40-001-R-01). ARNG's overall strategy is to eliminate the potential for direct contact with MC- contaminated soil by human receptors, considering the current and potential future land uses. This response will remove access to MC-contaminated soil, which constitutes the hazard at the MRS. No additional response actions will be needed upon implementation of the selected remedy.

2.5 Site Characteristics

This section summarizes the physical setting of the MRS and the Conceptual Site Model (CSM) (a tool for understanding how contaminants enter the environment and potentially affect human health or ecological resources).

2.5.1 Surface Topography

Elk County lies within the Appalachian Plateaus Physiographic Province, and the Ridgway Training Site lies within the High Plateau Section of the province. Broad, rounded to flat uplands and deep angular valleys characterize the section. The Ridgway Training Site is located on the western edge of one such upland, and Big Mill Creek lies within the valley immediately to the west of the MRS. The site is essentially flat and at an elevation of approximately 1,680 feet above mean sea level. The site drains toward the southwest (PADMVA, 2011).

2.5.2 Climate

The average maximum temperature ranges from 80 degrees Fahrenheit (°F) in July to 32°F in January. The average minimum temperature ranges from 54°F in July to 14°F in January. The average annual rainfall is 44.1 inches, and average annual snowfall is 48 inches. Average precipitation ranges from 4.84 inches in July to 2.4 inches in February (U.S. Climate Data, 2017).

2.5.3 Geology

The MRS is located in the High Plateau section of the Appalachian Plateaus Physiographic Province. The bedrock in the area of the Ridgway Training Site consists entirely of sedimentary rocks of Devonian, Mississippian, and Pennsylvanian age, with lithologies ranging from sandstone and conglomerate to shale, coal, and limestone. The site is underlain by the Pennsylvanian

Pottsville Formation, a predominantly gray sandstone and conglomerate. The rocks are gently folded, and the site lies less than two miles to the southeast of the axis of the northeast-trending Johnson Run Syncline. The rock strata dip slightly to the northwest of the site (PADMVA, 2011).

2.5.4 Hydrogeology and Hydrology

Principal aquifers are permeable sandstones of the Pennsylvanian age Pottsville Formation. Groundwater recharge is from precipitation that infiltrates to weathered bedrock and fractures in un-weathered bedrock. Groundwater flows vertically through fractures and laterally through permeable sandstone. Typical yields from wells range from 30 to 300 gallons per minute (Trapp and Horn, 1997).

As reported in the 2011 EBS, existing boring logs from wells in the area show depths to bedrock varying from 10 to 33 feet below ground surface (bgs). The static groundwater level in a former on-site well (now permanently sealed) was approximately 30 feet bgs as indicated on the driller's log. Static groundwater level data from two other wells located north of the range indicate a potentiometric surface sloping to the south, although there is likely a component of groundwater movement to the west, topographically. Groundwater is likely to emerge at the surface along Big Mill Creek, west of the site. Although there are approximately 40 domestic wells within 4 miles of the site, there are no recorded wells downgradient between the site and Big Mill Creek (PADMVA, 2011; PADCNR, 2021).

The MRS lies within the Big Mill Creek watershed. Surface water flows southwest off the MRS to Big Mill Creek located in the valley to the west. The EBS reports that any water flowing from the MRS's berm that can leave the MRS would follow this path to Big Mill Creek (PADMVA, 2011). A surface water feature is located on site approximately 30 ft east of the MRS and flows north to south (per PADMVA, as part of development of the EBS). The surface water feature is a freshwater forested/shrub wetland encompassing approximately 8.73 acres.

The landowner installed a French drain at the base of the berm to assist with drainage at the MRS. The drain daylights about 30 feet north of the north-side wall. During RI field activities, ponded water was observed at this location. It is anticipated that this water infiltrates into the ground. Because water at the MRS tends to drain in a southwesterly direction, any overland flow from this area would drain in the same manner as the rest of the MRS.

2.5.5 Vegetation

The MRS includes a small portion of wetland in the southeast corner. The majority of the MRS is vegetated with grasses with no trees present within the walled portion of the MRS. Allegheny National Forest borders the western edge of the MRS, with various coniferous trees and some deciduous trees, the most common being birch.

2.5.6 Wildlife

There is no federally designated critical habitat located within the Ridgway Training Site boundary. The freshwater mussel Rabbitsfoot (*Quadrula cylindrica cylindrical*) and Northern Long-Eared Bat (*Myotis septentrionalis*) are federally listed threatened species that have the potential to occur in Elk County, Pennsylvania (USFWS, 2018). Rabbitsfoot primarily inhabit small to medium sized streams and some larger rivers, and as such, are highly unlikely to be found within the MRS. Given the limited size of the MRS, it is unlikely that the Northern Long-Eared Bat would be found within the MRS.

2.5.7 Cultural Resources

According to the National Heritage Areas Program, the National Historic Landmarks Program, the National Register of Historic Districts, and the National Register of Historic Places, no nationally-recognized cultural or archaeological resources are listed within the MRS boundary (National Park Service [NPS], 2018).

2.5.8 Conceptual Site Model

Using the above site characteristics and the results of the RI sampling, the RI updated the CSM based on sampling results and assessed potential MC migration. The CSM was developed to depict the potential relationship or exposure pathway between MC sources and receptors. A pictorial CSM is presented on **Figure 2-3**, and a CSM diagram depicting exposure pathway relationships is presented on **Figure 2-4**.

Small arms MC have been released directly to berm soil during historical small arms training activities through fragmentation and pulverization of bullets on impact. MC appears to have been transported from Target Berm soil downgradient to the east within the MRS boundary on the range floor, and to the north and south of the MRS boundary via movement of soil by the landowner or runoff via precipitation. A drainage ditch downgradient and south of the MRS connects to a freshwater forested/shrub wetland that may potentially receive suspended MC during heavy rainfall. Additionally, the French drain Outfall area becomes inundated during precipitation and flows towards the same wetland.

Potential disturbance of the DU soil is also possible during maintenance (e.g., landscaping) activities that might occur within the MRS in the future. MC in soil at the Soil Pile and Firing Point is expected to remain in place due to the confining MRS walls.

XRF analysis and sediment sampling verified that impacted soil was not migrating away from source areas (Target Berm) north beyond the French Drain Outfall or south beyond the drainage ditch. Although heavy rain may facilitate standing water in the French Drain Outfall area to flow towards the wetland east of the MRS, MC concentrations are below human health screening criteria, and surface water and sediment samples collected during the SI did not indicate the presence of elevated MC in the wetland area. SI samples also indicated that MC concentrations in surface water and sediment in the wetland area downgradient from the MRS that confluences with the drainage ditch are below human health and ecological screening criteria (Parsons, 2012)

Nitroglycerin is present in soil at the Firing Point at levels that poses a risk to the hypothetical future child resident, but based on the absence of nitroglycerin exceedances in samples collected east of the Firing Point and the covered nature of the Firing Point, nitroglycerin is not anticipated to migrate beyond the covered DU. Additionally, nitroglycerin photodegrades over time, making the persistence of any nitroglycerin beyond the covered Firing Point extremely unlikely.

Metals and nitroglycerin MC also have the potential to be released to groundwater through leaching and/or infiltration mechanisms where groundwater is shallow (≤ 5 feet bgs). Groundwater

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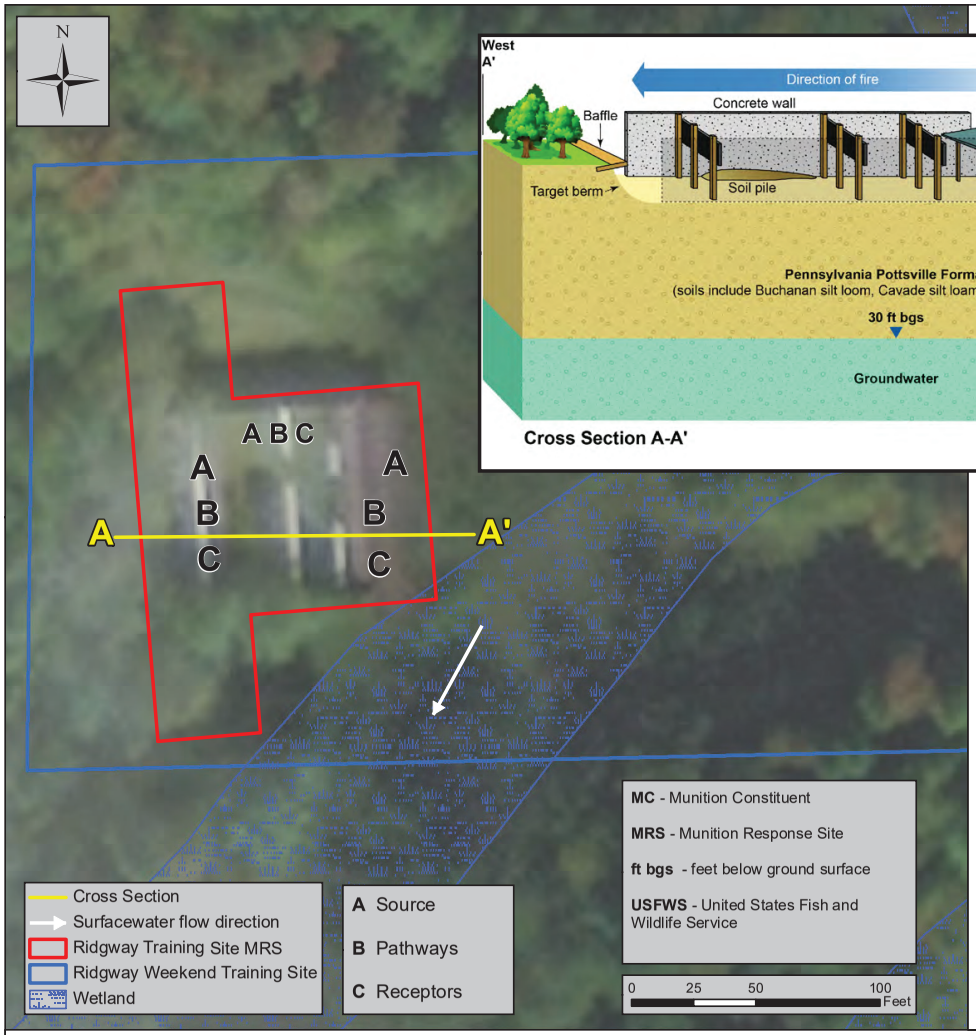

Site

Target Berm

A – Sources
Metals MC at the target berm and soil pile as well as nitroglycerin at the firing points as a result of historical small arms training.

Firing Point

B – Pathways
MC have limited potential to migrate from soil at the target berm, soil pile, and firing points. Due to MRS topography and range features (e.g., walled-in MRS, covered firing point), stormwater runoff from significant rain events is unlikely to transport suspended soil particles off site via the French drain outfall or to the nearby surface water/wetland area. Groundwater at the MRS is approximately 30 feet below ground surface (cross section A-A'). Groundwater pathways are incomplete because it is highly unlikely for MC to migrate based on soil type, depth to groundwater, and properties of MC (relevant metals do not migrate far, nitroglycerin breaks down readily). MC is anticipated to remain at the target berm, soil pile, and firing points. However, the risk assessments (human and ecological) have also evaluated the French drain outfall and the drainage area near the target berm.

Soil Pile

C - Receptors
The area surrounding the MRS is predominantly rural; the properties surrounding the MRS include agricultural, mining, residential, and recreational land, including a community baseball/athletic field that abuts the northern edge of the property. The property is privately owned. Access to the MRS is mostly restricted via a locked gate, so the public does not have access to the site. Potential human receptors include the landowner and visitors or workers (e.g., construction, commercial/industrial) that the landowner allows on site.

There is no federally-designated critical habitat located within the site. However, habitat supporting ecological receptors is present within the MRS. A tiny portion of a wetland is present within the MRS that could provide habitat for aquatic species. Allegheny National forest borders the western edge of the MRS, with various coniferous trees and some deciduous trees, the most common being birch. Although no federally-designated critical habitat is located within the MRS, there are state-listed endangered species in Pennsylvania. Many of these species will not be found on or near the MRS.

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Figure 2-4
Conceptual Site Model
Ridgway Training Site, Pennsylvania

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

Date.....November 2018
Prepared by.....AECOM

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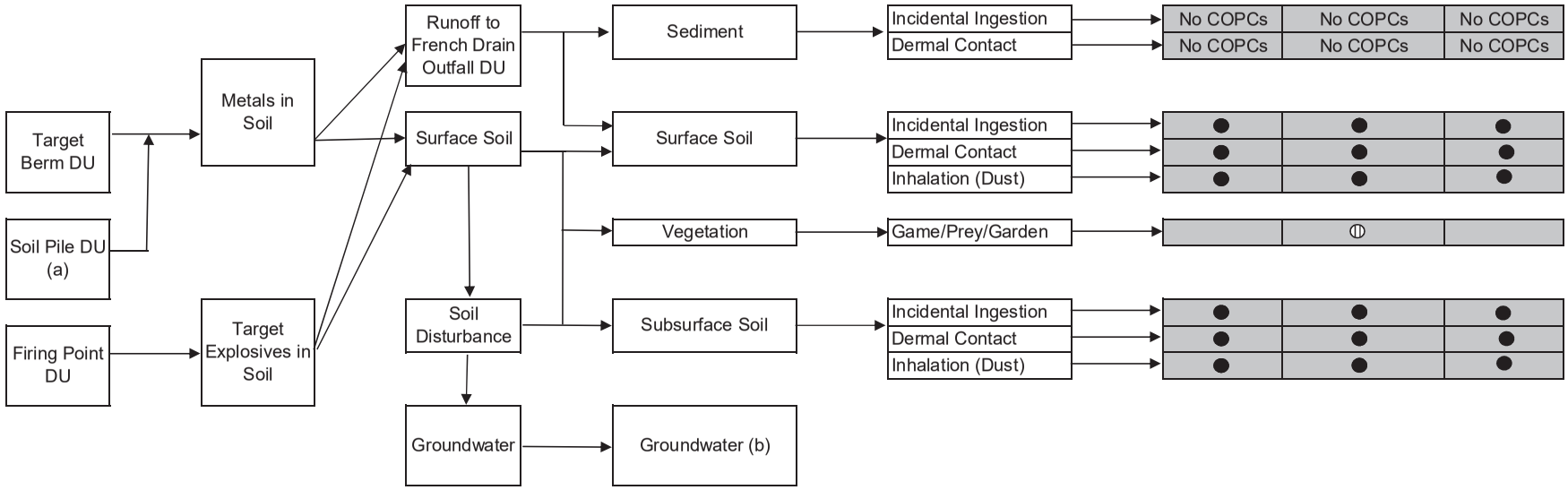

Notes:

COPC - chemical of potential concern; DU - Decision Unit; MC - munition constituent

(a) Landowner created soil pile when installing the french drain on the property.

(b) Depth to groundwater is approximately 30 feet below ground surface; unlikely for MC to migrate based on soil type and depth to groundwater.

Pathway:

● - Complete Pathway

◍ - Potentially Complete Exposure Pathway (Gardening for current landowner; landowner uses property for storing landscaping equipment and not for personal gardening)

▒ - Incomplete Exposure Pathway (Empty Cell)

No COPCs - Pathway is Potentially Complete (detected concentrations were below risk-based screening levels)

Figure 2-4

Human Health MC Exposure Pathway Analysis

Ridgway Training Site, Pennsylvania

at the MRS is approximately 30 feet bgs (**Figure 2-3**), precluding potential groundwater impacts. Moreover, most lead that is released to the environment is retained in the soil (Evans, 1989). The primary processes influencing the fate of lead in soil include adsorption, ion exchange, precipitation, and complexation with sorbed organic matter. These processes limit the amount of lead that can be transported to surface water or groundwater. Additionally, MC concentrations in the subsurface samples (24-30 inches bgs layer) from the two locations at the Target Berm DU where MC concentrations from the 12-18 inches bgs layer exceeded human health criterion indicated that subsurface impacts decrease with depth.

2.6 Current and Potential Future Land and Resources Uses

The area adjacent to the MRS is currently used as a staging area for equipment associated with a private landscaping company owned by the property owner. The area within the MRS concrete walls is currently unused. Since the current landowner has owned the property, the range has been used for firing with homemade small arms ammunition, distinct from historic use, which were fired into a trap. This use has stopped and will not occur again until this project concludes. Future land use is unlikely to significantly change.

2.7 Summary of Site Risks

MC analytical data generated during the RI (AECOM, 2019) were compared with human health and ecological risk screening criteria to evaluate whether past munitions-related practices have resulted in contaminant releases exceeding human health or ecological screening criteria. ISM samples were collected from surface soil at the Target berm and Firing Point DUs to determine the concentration of MC that a receptor visiting the site may be exposed to. These data were used to evaluate potential risk at each DU because the methodology provides a robust estimate of the true concentration for an area sampled. Discrete subsurface samples were collected for the purpose of conservatively determining the vertical extent of MC, not for risk assessment use. Discrete soil and sediment samples were also collected from the Soil Pile and French Drain DUs, respectively, to assess potential risk at these locations.

2.7.1 Human Health Risk Summary

The results of the ISM sampling showed that of the five analytes, antimony, copper, lead, and nitroglycerin exceeded their respective human health criteria for exposure to surface soils at the Target Berm DU (antimony, copper, and lead) and the Firing Point DU (nitroglycerin) (**Table 2-2**). Zinc was eliminated from further evaluation because its concentrations did not exceed human health screening criteria in any sample. Antimony, copper, and lead also exceeded their respective human health criteria for exposure in samples collected from the Soil Pile DU (**Table 2-2**); therefore, an HHRA was performed to further evaluate risk scenarios. No sediment samples showed concentrations of analytes exceeding their respective human health screening criteria. As a result, sediment was eliminated from further evaluation at the French Drain Outfall DU. The USEPA's Adult Lead Methodology and Integrated Exposure Uptake Biokinetic model was used to evaluate receptors exposed to lead in soil. Soil-related exposure pathways that were evaluated in the HHRA include incidental ingestion and dermal contact with soil. The inhalation exposure pathways were identified as incomplete (i.e., antimony, copper, and nitroglycerin do not have inhalation toxicity values). The HHRA determined that there is some risk for the child visitor,

adult/child resident, teen trespasser, construction/utility worker, and outdoor worker from exposure to antimony, lead, and/or nitroglycerin in soil at all three DUs.

TABLE 2-2 HUMAN HEALTH RISK SUMMARY

Receptor	Scenario Timeframe and Exposure Medium	Constituent of Concern
Target Berm DU		
Child Visitor	Current: Surface Soil	Lead [a, b]
	Future: Total Soil	Lead [a, b]
Outdoor Worker	Current: Surface Soil	Lead [b]
	Future: Total Soil	Lead [b]
Construction/Utility Worker	Current: Surface Soil	Lead [b, c]
Hypothetical Child Resident	Current: Surface Soil	Antimony Lead [b]
	Future: Total Soil	Antimony Lead [b]
Soil Pile DU		
Child Visitor	Current: Surface Soil	Lead [a, b]
	Future: Total Soil	Antimony Lead [a, b]
Construction Worker [c]	Future: Total Soil	Antimony Lead [b, c]
Utility Worker [c]	Future: Total Soil	Lead [b, c]
Outdoor Worker	Current: Surface Soil	Lead [b]
	Future: Total Soil	Lead [b]
Hypothetical Child Resident	Current: Surface Soil	Antimony Lead [b]
	Future: Total Soil	Antimony Lead [b]
Hypothetical Adult Resident	Future: Total Soil	Antimony
Firing Point DU		
Hypothetical Child Resident	Current: Surface Soil	Nitroglycerin

Notes:
(a) IEUBK model results for the hypothetical child resident were also used to be protective of the child visitor at the MRS.
(b) Lead modeling results are based on target PbB threshold of 10 µg/dL.
(c) If a target PbB threshold of 5 µg/dL was used, then lead would be identified as a surface soil and total soil COC for the construction and utility worker scenarios.

2.7.2 Ecological Risk Summary

A SLERA was conducted due to ecological screening criteria exceedances in concentrations of antimony, copper, lead, and zinc in soil at the Target Berm and Soil Pile DUs; exceedances in concentrations of nitroglycerin in soil at the Firing Point DU; and exceedances in concentrations of copper and lead in sediment at the French Drain Outfall DU. The risk characterization results determined that exposure to constituents of potential ecological concern in on-site soil resulted in substantial impact (*de manifestis*) to both soil invertebrate and terrestrial wildlife populations. The potential for adverse effects to the benthic macroinvertebrate community as well as the aquatic and semi-aquatic wildlife community was found to be *de minimus*.

2.7.3 Basis for Action

The RI risk assessments indicated that there are unacceptable risks to human health and ecological receptors from MC-contaminated soil within the MRS. The response action selected in this ROD is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

2.7.4 Munitions Response Site Prioritization Protocol

In 2005, DoD published the MRS Prioritization Protocol (MRSPP) as a Federal Rule (32 CFR Part 179) to assign a relative risk priority to each defense site in the MMRP Inventory for response activities. These response activities are based on the overall conditions at the MRS, taking into consideration various factors related to explosive safety and environmental hazards. In assigning a relative priority for response activities, DoD generally considers MRSs posing the greatest hazard as being the highest priority.

Investigative results undergo three different evaluations to determine the MRSPP priority. The Explosive Hazard Evaluation Module (EHE) assesses the explosive hazards of a site based on the known or suspected presence of an explosive hazard. The Chemical Warfare Materiel (CWM) Hazard Evaluation (CHE) Module provides an evaluation of the chemical hazards associated with the physiological effects of CWM. The Health Hazard Evaluation (HHE) Module provides a consistent approach for evaluating the relative risk to human health and the environment posed by munition-related contaminants (i.e., MC). The overall MRSPP priority for the Ridgway Training Site MRS (PAE40-001-R-01) is assigned a 4. Priority ranges from 1 to 8. Priority 1 indicates the highest potential hazard and Priority 8 indicates the lowest potential hazard. The EHE and CHE, module ratings were each No Known or Suspected Hazard, but the HHE rating was C, indicating an HMM media combination. The EHE, CHE, and HHE Module ratings are presented in **Table 2-3**.

TABLE 2-3 MUNITIONS RESPONSE SITE PRIORITY EVALUATION

Explosive Hazard Evaluation	Factors			EHE Combination Level	EHE Module Rating
	Explosive Hazard	Accessibility	Receptor		
Ridgway Training Site MRS (PAE40-001-R-01)	3	11	14	28	NKSH
Chemical Warfare Materiel Hazard Evaluation	**Factors**			**CHE Combination Level**	**CHE Module Rating**
	CWM Hazard	**Accessibility**	**Receptor**		
Ridgway Training Site MRS (PAE40-001-R-01)	0	0	0	0	NKSH

Health Hazard Evaluation	Factors			HHE Combination Level	HHE Module Rating
	HHE Hazard	Migration Pathway	Receptor		
Ridgway Training Site MRS (PAE40-001-R-01): Sediment/Human	L	L	M	LLM	**F**
Ridgway Training Site MRS (PAE40-001-R-01): Sediment/Ecological	M	H	M	MHM	**C**
Ridgway Training Site MRS (PAE40-001-R-01): Surface Soil	H	M	M	HMM	**C**

Munitions Response Site Priority	EHE Module Rating	CHE Module Rating	HHE Module Rating	MRSPP Priority
Ridgway Training Site MRS (PAE40-001-R-01)	NKSH	NKSH	C	**4**

Notes:
CHE = Chemical Warfare Materiel Hazard Evaluation
CWM = Chemical Warfare Materiel
EHE = Explosive Hazard Evaluation
HHE = Health Hazard Evaluation
L = Low
MRS = Munitions Response Site
MRSPP = Munitions Response Site Prioritization Protocol
NKSH = No Known or Suspected Hazard

2.8 Remedial Action Objectives

RAOs are site-specific cleanup objectives that are established based on the nature and extent of contamination, potential for human and environmental exposure, and Applicable or Relevant and Appropriate Requirements (ARARs).

2.8.1 Munitions Constituents

The general goal of an MC remedial action is to reduce the risk to ensure the protection of human health, public safety, and the environment. The RAO for MC is to prevent human exposure to lead and antimony above the human health screening criterion for lead (400 mg/kg) and nitroglycerin (0.63 mg/kg) within Ridgway Training Site (PAE40-001-R-01). Because the limits of detection for antimony are difficult to achieve in the field, the human health criterion for antimony (3.1 mg/kg) is not appropriate to use as a remediation criterion. It is anticipated that because antimony

is associated with lead, as they are derived from the same source (i.e., spent bullets), the cleanup goal for antimony will be concurrently achieved.

The primary remedial goal is to prevent human contact with MC-contaminated soil. The MC RAO will address the likelihood of exposure to workers, residents, visitors, and trespassers during work and construction such that an acceptable condition of negligible risk of injury or exposure due to dermal contact or incidental ingestion with MC-contaminated soil is achieved. It is anticipated that any remediation conducted to remove exposure risks to human receptors will also reduce the exposure risk to ecological receptors as well. This process is appropriate given the limited size of the revised MRS, the lack of critical habitats within, and the high degree of development (i.e., range infrastructure and range floor enhancements) within the MRS. It is anticipated that Preferred Alternative 3 will constitute the final response action for PAE40-001-R-01.

2.9 Description of the Alternatives for Elevated MC in Soil

The alternatives designed to satisfy the RAO for MC-contaminated soil at the Ridgway Training Site (PAE40-001-R-01) include the following:

- Alternative 1 – No Action
- Alternative 2 – Soil Excavation with Off-Site Disposal (as Hazardous Waste)
- Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal

The MRS consists of private property, not owned by ARNG; implementation of Alternatives 2 and 3 would require the approval and participation of the landowner.

2.9.1 Alternative 1 – No Action

The No Action alternative assumes that no remedial action will be taken to change the current existing condition at Ridgway Training Site (PAE40-001-R-01). This alternative would leave the MRS in its present condition, with no LUCs, remedial actions, or other mitigating activities. This alternative provides a comparative baseline against which other alternatives can be evaluated. This alternative is required by the NCP for baseline comparison purposes (40 CFR 300.430[e][6]). This alternative will have no capital, operations and maintenance (O&M), or periodic costs.

2.9.2 Alternative 2 – Soil Excavation with Off-Site Disposal (as Hazardous Waste)

Soil excavation and off-site disposal of lead-contaminated soil exceeding the established human health screening criterion (400 mg/kg) from the MRS would effectively eliminate the need for future management of wastes should soil be repurposed or removed from the site. The excavation would eliminate the risk of encountering MC-contaminated soil, including nitroglycerin-contaminated soil with concentrations above its human health screening criterion at the Firing Point DU, and achieve UU/UE at the MRS. Lead concentrations would be evaluated in the field using XRF and a standard of 400 mg/kg. Soil excavation and subsequent sampling and analysis would proceed until the results indicate the contaminant concentrations are below their established screening criteria. Based on the RI, the extent of MC-contaminated soil was determined to cover approximately 0.146 acres (**Figure 2-5)**, to a depth of 2.5 feet. Lead concentrations appear to decrease with depth based on RI sampling, however samples below 2.5 feet. could not be collected due to a gravel layer encountered. Therefore, excavation would be conducted to a minimum depth

of 3 feet. resulting in a minimum disposal volume of 707 bank cubic yards (BCY) or 1061 tons of soil.

Off-site disposal is an effective method for the disposal of soil containing MC and eliminates future management of waste at the MRS. Prior to excavation, soil will undergo waste classification by sampling and analysis conducted per the requirements of RCRA Part 261, which establishes standards for generators of solid and hazardous waste and Subtitle D and C solid waste disposal facilities, respectively. Soil exceeding criteria areas will be disposed of at an approved RCRA Subtitle C disposal facility. Off-site disposal is an effective method for the disposal of soil containing MC and eliminates future management of waste at the MRS.

The removal action is estimated to take approximately 11 days, which include one (1) day for characterization sampling, three (3) days for pre-, post-, and final-topographic surveys, five (5) days for excavation, XRF sampling, transport and disposal, one (1) day for confirmation sampling, and one (1) day for site restoration.

CLIENT	Army National Guard			
PROJECT	Record of Decision for Ridgway Traning Site, PA MRS			
REVISION NO	0	GIS BY	SK	1/15/2021
SCALE	1:600	CHK BY	JW	1/15/2021
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community		PM	RG	1/15/2021

N

Alternative 3 Excavation Area - Ridgway Training Site

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Figure 2-5

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2.9.3 Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal

Alternative 3 includes stabilization along with the excavation and off-site disposal of the lead-contaminated soil discussed in Alternative 2. Based on the results of the RI, the extent of MC-contaminated soil was determined to cover 0.146 acres (approximately 45% of the MRS) to a depth of 2.5 feet (AECOM, 2019). The initial estimate of contaminated soil to be stabilized and removed is 707 BCY.

All stabilization, excavation, transport and disposal activities will be completed in accordance with a waste analysis plan, which will be developed prior to excavation. The soil will undergo waste classification by sampling and analysis conducted per the requirements of the RCRA Part 261, which establishes standards for generators of solid and hazardous waste and Subtitle D solid waste disposal facilities.

Application of the "20 times rule" to the maximum detected total lead concentration indicates that soil may need to be stabilized in-situ for the excavated soil to pass TCLP criteria and allow disposal as nonhazardous waste. Soil with lead concentrations above landfill disposal criteria will undergo in-situ soil stabilization consisting of the following:

- Mixing a reagent (e.g., Portland cement), ensuring adequate reagent contact and distribution in soil, to stabilize lead prior to excavation. The addition of Portland cement
- to render the soil non-hazardous is not intended to create a waste processing or treatment facility. A soil pH probe will be used to monitor pH levels during stabilization to ensure that the pH does not exceed 12.5.
- Post-treatment sampling and toxicity characteristic leaching procedure (TCLP) analysis of stabilized soil to evaluate stabilization effectiveness.
- If the soil is determined to be a hazardous waste, it will be determined if RCRA Land Disposal Restrictions apply (40 CFR Part 268).

Following soil stabilization, characterization samples will again be collected and analyzed for federal TCLP. If contaminant concentrations remain above the USEPA's alternative land disposal restrictions (40 CFR Part 268.49) additional treatment, sampling, and analysis will be completed. If, after multiple soil stabilization efforts, areas of soil remain above alternative land disposal restrictions, then soil exceeding criteria from these areas will be disposed of at an approved RCRA Subtitle C disposal facility, and a permit-by-rule notification form will be submitted to PADEP. Soil that has undergone stabilization successfully will be excavated and disposed of at an appropriate disposal facility. For cost-estimation purposes, it is assumed that all excavated soil will be successfully stabilized.

Lead concentrations in soil across the excavation floor and walls will be evaluated in the field using XRF and a standard of 400 mg/kg. Multiple XRF readings will be taken across each dimension of the excavation to verify completeness of removal. Erosion control and air and dust monitoring will be implemented to prevent any contamination to the surrounding soils, site workers, and any run-off into the drainage ditch. Excavated soil will be mixed with stabilizers and then transported off-site to a licensed disposal facility. Measures will be taken to prevent contaminated soil particles from dispersing during transport.

Soil stabilization is not appropriate at the Firing Point DU due to the presence of nitroglycerin; therefore, this technology will not be implemented at the Firing Point DU. The disposal method of the soil from the Firing Point DU will depend on the results of waste classification. Soil exceeding non-hazardous waste disposal criteria from the Firing Point DU will be disposed of at an approved RCRA Subtitle C disposal facility.

The removal action is estimated to take approximately 12 days, which include one (1) day for characterization sampling, three (3) days for pre-, post-, and final-topographic surveys, six (6) days for stabilization, excavation, XRF sampling, transport and disposal, one (1) day for confirmation sampling, and one (1) day for site restoration.

2.10 Summary of Comparative Analysis of Alternatives for MC-Contaminated Soil

During the process of selecting the most appropriate remedial alternative for Ridgway Training Site (PAE40-001-R-01), a comparative analysis of the remedial alternatives was performed (**Table 2-4**). Section §300.430(e) of the NCP lists nine CERCLA criteria against which each remedial alternative must be assessed. The NCP (Section 300.430[f]) states that the first two criteria, protection of human health and the environment and compliance with ARARs, are 'threshold criteria', which must be met by the selected remedial action unless a waiver is granted under Section 121(d)(4) of CERCLA. The next five criteria are 'primary balancing criteria', and the trade-offs within this group must be balanced.

TABLE 2-4 COMPARATIVE ANALYSIS OF REMEDIAL ALTERNATIVES FOR MC-CONTAMINATED SOIL

Screening Criteria		Alternative 1 No Action	Alternative 2 Soil Excavation with Off-Site Disposal (as Hazardous Waste)	Alternative 3 Soil Stabilization and Excavation with Off-Site Disposal
Threshold	Overall Protection of Human Health and the Environment	○	●	●
	Compliance with ARARs	○	●	●
Balancing	Long-Term Effectiveness	○	●	●
	Reduction of TMV Through Treatment	○	●	●
	Short-Term Effectiveness	●	●	●
	Implementability	●	◘	●
	Cost (x1,000)	$0	$497	$389
Modifying (a)	State Acceptance	○	●	●
	Community Acceptance	No comments received from the community or landowner.		

Notes:
● Favorable ('YES' for threshold criteria)
◘ Moderately Favorable
○ Not Favorable ('NO' for threshold criteria)
ARAR = Applicable or Relevant and Appropriate Requirement
NA = Not Applicable
TBD = To Be Determined
TMV = toxicity, mobility, or volume

The selected alternative is the alternative that is protective of human health and the environment, complies with ARARs, and provides the best combination of primary balancing attributes. The final two criteria, state and community acceptance, are 'modifying criteria', which have been

considered based on any comments submitted by the public on the PP. The defining characteristics of the nine CERCLA criteria are listed below.

Threshold Criteria:

- Overall protection of human health and the environment – determines whether an alternative eliminates, reduces, or controls threats to public health and the environment.
- Compliance with or an applicable waiver of ARARs – evaluates whether the alternative meets selected federal and state environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.

Balancing Criteria:

- Long-term effectiveness and permanence – considers the ability of an alternative to maintain protection of human health and the environment over time.
- Reduction of toxicity, mobility, or volume (TMV) through treatment – evaluates an alternative's use of treatment technologies to reduce the TMV of a contaminant at a site.
- Short-term effectiveness – considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.
- Implementability – considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.
- Cost – includes estimated capital and annual O&M costs. Cost estimates are expected to be accurate within a range of +50 percent to –30 percent.

Modifying Criteria

- State acceptance – considers whether the State agrees with the remedial alternative.
- Community acceptance – considers whether the local community agrees with the remedial alternative. Comments received on the PP are an important indicator of community acceptance.

2.10.1 Overall Protection of Human Health and the Environment

Alternative 1 does not provide any means of mitigating MC-contaminated soil at the MRS, therefore, Alternative 1 does not achieve the RAO. Alternatives 2 and 3 are protective of human health and the environment by reducing or eliminating MC-contaminated soil from the MRS.

2.10.2 Compliance with Applicable or Relevant and Appropriate Requirements

There are no ARARs associated with Alternative 1 because the identified ARARs (**Table 2-5**) would only apply to alternatives that include active remediation. The USEPA RSL for lead is 400 mg/kg. The RSL value is based on complete exposure pathways and is considered by USEPA to be protective for human receptors over a lifetime. MC-contaminated soil will remain in-situ for

TABLE 2-5 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Standard, Requirement, Criteria or Limitation	Citations	Description	ARAR Type	Applicability to Site
Solid and Hazardous Waste Management				
RCRA Miscellaneous Units	40 CFR Part 264.601, Subpart X*	Environmental performance standards that require miscellaneous units be located, designated, constructed, operated, maintained and closed in a manner that will prevent any release that may have adverse effects on human health and the environment.	Chemical and Action	ARAR/Applicable to soils containing elevated levels of contaminants at concentrations that may affect human health.
RCRA Alternative Land Disposal Restrictions	40 CFR Part 268.49*	Identifies those solid wastes which are subject to regulation as hazardous wastes and establishes special management requirements for hazardous waste.	Action	ARAR/Applicable to soils containing elevated levels of contaminants at concentrations where the restrictions on land disposal exceeded.
Stream and Wetland				
25 Pa. Code 102.11 – Erosion and Sediment Control Best Management Practices (BMPs); General requirements	25 Pa. Code §§102.11 et seq.**	(a) A person conducting or proposing to conduct an earth disturbance activity shall design, implement and maintain BMPs to minimize the potential for accelerated erosion and sedimentation in order to protect, maintain, reclaim, and restore water quality and existing and designated uses. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (Manual), Commonwealth of Pennsylvania, Department of Environmental Protection, No. 363-2134-008 (January 1996), as amended and updated. (b) BMPs and design standard other than those listed in the Manual may be used when a person conducting or proposing to conduct an earth disturbance activity demonstrates to the Department or a county conservation district that the alternate BMP or design standard minimizes accelerated erosion and sedimentation to achieve the regulatory standards in subsection (a).	Location	ARAR/ Relevant and Appropriate as MC removal activities would require excavation of some kind. 25 Pa. Code 102 requires persons proposing or conducting earth disturbance activities to develop, implement and maintain BMPs to minimize the potential for accelerated erosion and sedimentation.

Notes:
* = The ARARs include 40 CFR Part 264.601 Subpart X and 40 CFR Part 268.49, to the extent that there is a cleanup standard, standard of control, or other substantive requirement that specifically addresses a hazardous substance, pollutant or contaminant, remedial action, location, or other circumstance found at a CERCLA site.
** = The portion of regulation 25 Pa. Code 102.11 that establishes actual standards of control is an ARAR (permitting requirements are not ARARs).
ARAR = Applicable or Relevant and Appropriate Requirement
CFR = Code of Federal Regulations
RCRA = Resource Conservation and Recovery Act
TBC = To be considered
USEPA = United States Environmental Protection Agency

Alternative 1. Removal of MC-contaminated soil under Alternatives 2 and 3 would be performed to comply with all ARARs.

2.10.3 Long-Term Effectiveness and Permanence

Alternative 1 does not provide long-term effectiveness or permanence, and this criterion is not met. Alternatives 2 and 3 provide a high level of long-term effectiveness and permanence through the implementation and completion of soil excavation and disposal, and they would immediately reduce the risks to acceptable levels for human receptors at the MRS.

2.10.4 Reduction of TMV through Treatment

Alternative 1 will not reduce the TMV of MC-contaminated soil. Should the property owner disturb the areas of MC-contaminated soil, they would risk transport and exposure to MC-contamination. Alternative 2 would reduce the TMV of MC-contaminated soil through excavation and disposal. Alternative 3 would reduce the TMV of MC-contaminated soil via treatment, excavation, and disposal.

2.10.5 Short-Term Effectiveness

For Alternative 1, no actions would be taken, so there would be no short-term risks to the community or workers during implementation. Alternatives 2 and 3 pose a temporary higher potential risk to site workers from the handling of MC-contaminated soil and excavation activities. The worker exposure duration during for Alternatives 2 and 3 is estimated to be approximately 11 and 12 days, respectively.

2.10.6 Implementability

Alternative 1 would be implementable as it requires no action. Implementation of Alternatives 2 and 3 require approval and participation of the landowner. Therefore, right-of-entry agreements would be required by PAARNG to access the property. Alternative 2 requires approval and acceptance of all excavated material by a disposal facility, which could impact the administrative implementability of Alternative 2.

2.10.7 Cost

The net present value costs for each remedial alternative are presented in **Table 2-6** below. Remedy costs are projected over a duration of 30 years.

TABLE 2-6 COST COMPARISON OF REMEDIAL ACTION ALTERNATIVES FOR MC-CONTAMINATED SOIL

Cost	Alternative 1 No Action	Alternative 2 Soil Excavation with Off-Site Disposal (as Hazardous Waste)	Alternative 3 Soil Stabilization and Excavation with Off-Site Disposal
Capital	$0	$496,625	$389,108
O&M / Periodic	$0	$0	$0
Total	**$0**	**$496,625**	**$389,108**
Total Present Value	$0	$496,625	$389,108

Notes:
O&M = operations and maintenance

As shown in **Table 2-6**, Alternative 1 incurs no cost to implement, while Alternative 2 would be the costliest to implement. The cost for each alternative includes:

- Alternative 1 – No Action: No associated capital, O&M, or periodic costs.
- Alternative 2 – Soil Excavation with Off-Site Disposal: Capital costs include labor and materials for mechanized excavation and disposal of soil containing elevated MC as hazardous waste. There are no associated O&M or periodic costs.
- Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal: Capital costs include labor and materials for mechanized excavation, stabilization and disposal of treated soil containing elevated MC. There are no associated O&M or periodic costs.

2.10.8 State Acceptance

PADEP supports the implementation of Alternative 3 at the Ridgeway Training Range MRS (PAE40-001-R-01).

2.10.9 Community Acceptance

No comments were received from the community or the private landowner, and there were no requests for a public meeting. No change to the proposed remedy is warranted based on the community response.

2.11 Principal Threat Wastes for Elevated MC in Soil

MC-contaminated soil present at the Ridgway Training Site (PAE40-001-R-01) may constitute a principal threat to human health due to the potential exposure to lead, antimony, and nitroglycerin in soil. The ARNG will make a determination if the material encountered poses a risk and should be classified as a Principal Threat Waste (PTW), as defined by CERCLA, the NCP, and USEPA guidance. If the material is determined to be a PTW, the ARNG will take the necessary actions to ensure protectiveness of human health and the environment to address unacceptable risks posed by the material designated as a PTW.

The principal threat identified at the Ridgway Training Site (PAE40-001-R-01) is addressed by Alternatives 2 and 3. Both alternatives address the potential for PTW to exist by taking actions to avoid such risk by physically removing MC-contaminated soil from the MRS.

2.12 Selected Remedy

The primary indicator of remedial action performance will be satisfying the RAO for the MRS. Performance measures are defined herein as the RAO plus the required actions to achieve the objectives, as defined in this section. It is anticipated that successful implementation, operation, maintenance, and completion of the performance measures will achieve a protective and legally compliant remedy for the Ridgway Training Site (PAE40-001-R-01).

Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal was selected based on its ability to achieve the RAO, its cost effectiveness, and ability to achieve UU/UE. The selected remedy would subject soil with lead concentrations above landfill disposal criteria to in-situ soil stabilization. Following stabilization, the soil would be excavated and disposed of at an approved facility.

2.12.1 Remedy Cost Estimate Summary

The estimated total cost of Alternative 3 is $389,108. This cost is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost. The cost estimates include the total cost for implementation of the residual small arms waste excavation and disposal. The cost estimate is based on a duration of 30 years and the best available information regarding the anticipated scope of the remedial alternative. Changes in the costs are likely to occur as a result of new information and data collected during the engineering design of the remedial alternative. Major changes may be documented in the form of a memorandum in the Administrative Record File, an Explanation of Significant Differences, or a ROD amendment.

2.12.2 Expected Outcomes of Selected Remedy

The expected outcome of Alternative 3 will be to reduce and/or eliminate exposure to MC-contaminated soil to human receptors and achieve UU/UE.

2.13 Statutory Determinations

The selected remedy for the MRS is protective of human health and the environment, complies with federal and state requirements that are ARARs (unless justified by a waiver), is cost effective, and uses permanent solutions and alternative treatment technologies to the maximum extent practicable.

The ARNG and PADEP have determined that the selected remedy meets the requirements of CERCLA §121 and the NCP. Based on the information available at this time, the ARNG and PADEP believe the selected remedy will be protective of human health and the environment, will comply with ARARs, will be cost-effective, and will utilize permanent solutions to the maximum extent practicable. This selected remedy also satisfies the statutory preference for treatment as a principal element of the remedy (i.e., reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment).

2.13.1 Protection of Human Health and the Environment

The selected remedy will protect human health and the environment by permanently removing MC-contaminated soil from the Ridgway Training Site (PAE40-001-R-01).

2.13.2 Compliance with Applicable or Relevant and Appropriate Requirements

Section 121(d) of CERCLA and NCP 40 CFR §300.430(f)(1)(ii)(B) state that on-site remedial actions selected in a ROD must attain those ARARs that are identified at the time of ROD signature or provide grounds for invoking a waiver under §300.430(f)(1)(ii)(C). Applicable requirements were previously defined in **Section 2.10.2**.

Table 2-5 summarizes the ARARs for the selected remedy at the Ridgway Training Site (PAE40-001-R-01). The selected remedy complies with the chemical-specific, location-specific, and action-specific ARARs. The implementation of the remedy is required to meet the substantive portions of these requirements at agreed-upon points of compliance.

2.13.3 Cost Effectiveness

In the ARNG's judgement, the selected remedy is cost-effective and represents a reasonable value for the money to be spent. In making this determination, the following definition was used: "A

remedy shall be cost-effective if its costs are proportional to its overall effectiveness" (40 CFR 300.430[f][1][ii][D]). This determination was accomplished by evaluating the "overall effectiveness" of those alternatives that satisfy the threshold criteria (i.e., protection of human health and the environment).

Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination: long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness. Overall effectiveness was then compared to costs to determine cost-effectiveness. The overall effectiveness of the selected remedy for the Ridgway Training Site (PAE40-001-R-01) was demonstrated in the comparative analysis of alternatives (**Section 2.10**). The estimated present value cost of the selected remedy (in 2020 dollars) is $389,108. Alternative 3 reduces or eliminates potential human exposure to MC-contaminated soil by direct removal and disposal and allows ARNG to pursue UU/UE for the MRS. Alternative 3 provides achievement of the RAO at a reasonable cost for implementation, making it the most cost-effective alternative to achieve the RAO for the MRS.

2.13.4 Use of Permanent Solutions and Alternative Treatment Technologies

The ARNG has determined that the selected remedy provides the best balance of trade-offs among the alternatives considered with respect to the five-balancing criteria set out in NCP §300.430(f)(1)(i)(B). The selected remedy represents the maximum extent to which permanence can be practicably applied at the Ridgway Training Site (PAE40-001-R-01). NCP §300.430(f)(1)(ii)(E) provides that the balancing will emphasize the factors of "long-term effectiveness" and "reduction of toxicity, mobility or volume through treatment", and will consider the preference for treatment and bias against off-site disposal.

The ARNG has determined that the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be used in a practicable manner at the MRS. Of the alternatives that are protective of human health and the environment and that comply with ARARs, the ARNG has determined that the selected remedy provides the best balance of trade-offs in terms of the five balancing criteria, while also considering the (a) statutory preference for treatment as a principal element; (b) the bias against off-site treatment; and (c) disposal and considering state and community acceptance.

The selected remedy, manages the potential risks to human health and the environment by permanently removing MC-contaminated soil from the MRS. The selected remedy results in a permanent reduction in exposure and can be implemented in a relatively short period of time. The selected remedy is technically and administratively feasible and provides the best balance of long-term effectiveness and reduction of risk to human health

2.13.5 Preference for Treatment as a Principal Element

The selected remedy and the remedial action at the Ridgway Training Site (PAE40-001-R-01) focuses on treatment of the principal site threat (i.e., lead in soil). The selected remedy for MRS satisfies the statutory preference for treatment as a principal element of the remedy. The selected remedy would subject soil with lead concentrations above landfill disposal criteria to in-situ soil stabilization prior to excavation and off-site disposal at an approved facility.

2.13.6 Recurring Review Requirements

Pursuant to CERCLA §121(c) and NCP §300.430(f)(5)(iii)(C), five year reviews are not required because the selected remedy achieves UU/UE by removing MC-contaminated soil from the MRS.

2.14 Documentation of Significant Changes

ARNG released the PP (AECOM 2021) for public comment and identified Alternative 3 – Soil Stabilization and Excavation with Off-Site Disposal as the preferred alternative for the Ridgway Training Site (PAE40-001-R-01) to address MC-contaminated soil. No comments were received from the community or landowner and there were no requests for a public meeting. No change to the proposed remedy is warranted based on the community response.

Site conditions, as well as current and potential future land and resource uses, have not changed at the MRS. Therefore, ARNG has determined that no significant changes to the selected remedy were necessary. Accordingly, ARNG has not made any significant changes to the preferred remedy identified in the PP.

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3 Responsiveness Summary

This section provides a summary of the public comments regarding the PP for the preferred alternative at the Ridgway Training Site (PAE40-001-R-01) and the ARNG response to comments. The public comment period was announced through a notice that was placed in the newspaper 'The Ridgway Record' on 19 December 2020 (**Appendix A**). The public comment period was held from 19 December 2020 through 21 January 2021. No public comments or questions were received during the public comment period and the public did not request a meeting.

3.1 Stakeholder Comments and Lead Agency Responses

No issues were identified by the public, the property owner, or by PADEP with the selected remedial alternative (**Appendix A**).

3.2 Technical and Legal Issues

No technical or legal issues were identified during the public review period of the PP.

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4 References

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Appendix A: Stakeholder Participation and Response

Witte, Joe

From: Marrs, Thomas <tmarrs@pa.gov>
Sent: Tuesday, November 24, 2020 12:25 PM
To: Witte, Joe; Haines, John B CTR (USA)
Cc: O'Neal, Dreama
Subject: [EXTERNAL] FW: RE: Draft Proposed Plan for the Ridgeway Property

ALCON:
I am forwarding the attached e-mail from Mr. Lawrie regarding the Ridgeway site.
I do not anticipate any additional response. Tom

Thomas O. Marrs PG
Pennsylvania Department of Military and Veterans Affairs
Bureau of Environmental Management
Building O-11 Fort Indiantown Gap
Annville, PA 17003

tmarrs@pa.gov

717-861-9414

From: Steve Lawrie <leftylawrie@hotmail.com> Landowner
Sent: Monday, November 23, 2020 5:23 PM
To: Marrs, Thomas <tmarrs@pa.gov> PAARNG
Cc: O'Neal, Dreama <droneal@pa.gov> PAARNG
Subject: [External] RE: Draft Proposed Plan for the Ridgeway Property

Tom,

I received the hard copy in today's mail, Thank you. Looks good to me. I'm looking forward to getting the project rolling – let me know if I can help out.

Thanks again and take care.

Steve Lawrie

Sent from Mail for Windows 10

From: Marrs, Thomas
Sent: Wednesday, November 18, 2020 3:02 PM
To: Steve Lawrie

Witte, Joe

From: Marrs, Thomas <tmarrs@pa.gov>
Sent: Tuesday, December 15, 2020 8:32 AM
To: Witte, Joe; Haines, John B CTR (USA)
Subject: [EXTERNAL] FW: Ridgway Final Proposed Plan

No issues at PADEP for Ridgway Final Proposed plan

From: Weber, Richard <riweber@pa.gov>
Sent: Tuesday, December 15, 2020 8:05 AM
To: Marrs, Thomas <tmarrs@pa.gov>
Cc: O'Neal, Dreama <droneal@pa.gov>; Moore, Jacob <jacmoore@pa.gov>
Subject: RE: Ridgway Final Proposed Plan

Hi Tom,

The document looks good from our perspective. We don't have any concerns.

Richard Weber I Environmental Protection Specialist
Environmental Cleanup and Brownfields I PA Dept. of Environmental Protection
Northwest Regional Office
230 Chestnut St.
Meadville, PA 16335
Phone: 814.332.6302
Fax: 814.332.6121

From: Marrs, Thomas <tmarrs@pa.gov>
Sent: Monday, December 14, 2020 10:45 AM
To: Weber, Richard <riweber@pa.gov>
Cc: O'Neal, Dreama <droneal@pa.gov>
Subject: Ridgway Final Proposed Plan

Mr. Weber:

I hope all is well. As a gentle reminder, we were hoping to hear from your organization by December 16 on the Ridgeway Proposed Plan. If you have already provided a response, please let me know- Thanks Tom Marrs

Thomas O. Marrs PG
Pennsylvania Department of Military and Veterans Affairs
Bureau of Environmental Management
Building O-11 Fort Indiantown Gap
Annville, PA 17003

tmarrs@pa.gov

717-861-9414

Witte, Joe

From: Marrs, Thomas <tmarrs@pa.gov>
Sent: Thursday, April 1, 2021 1:55 PM
To: Witte, Joe; Haines, John B CTR (USA)
Cc: O'Neal, Dreama
Subject: [EXTERNAL] FW: RE: Draft Proposed Plan for the Ridgeway Property

Comments on Ridgway ROD I spoke to him on the phone and he forwarded this – Tom Marrs

---

From: Steve Lawrie <leftylawrie@hotmail.com>
Sent: Thursday, April 1, 2021 1:40 PM
To: Marrs, Thomas <tmarrs@pa.gov>
Subject: [External] RE: Draft Proposed Plan for the Ridgeway Property

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Tom,

Plans for the project on Grant Rd. in Ridgway, PA. Looks good to me. Good plan , let's move forward.

Steve Lawrie

Sent from Mail for Windows 10

From: Marrs, Thomas
Sent: Wednesday, November 18, 2020 3:02 PM
To: Steve Lawrie
Cc: O'Neal, Dreama
Subject: Draft Proposed Plan for the Ridgeway Property

Mr. Lawrie,
A hard copy is in the mail, but this document is small and I thought you could also receive it by e-mail.
Thank you for your cooperation.

Tom

Thomas O. Marrs PG
Pennsylvania Department of Military and Veterans Affairs
Bureau of Environmental Management
Building O-11 Fort Indiantown Gap
Annville, PA 17003

tmarrs@pa.gov

717-861-9414

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

March 23, 2021

Thomas O. Marrs PG
Pennsylvania Department of Military and Veterans Affairs
Bureau of Environmental Management
Building O-11 Fort Indiantown Gap
Annville, PA 17003

Re: Record of Decision (ROD)
Ridgway Training Range Site
Ridgway Township, Elk County

Dear Mr. Marrs:

The Department of Environmental Protection (DEP) has received and reviewed the Record of Decision (ROD) for the Ridgway Training Range Site (Site) in Ridgway Township, Elk County. The ROD, drafted by the Army National Guard (ARNG), supported by the Pennsylvania Department of Military and Veterans Affairs, presents the selected remedial action for the Site, which address the following areas of contamination:

- Target Berm Decision Unit: Lead, Copper, and Antimony are present within the soil at the target berm above the Human Health Screening Level in concentrations that pose risk to human health and the environment.

- Firing Line Decision Unit: Nitroglycerin is present within the soil at the firing line above the Human Health Screening Level in concentrations that pose risk to human health and the environment.

- Soil Pile Decision Unit: Lead, Copper, Antimony and Zinc are present within the soil pile above the Human Health Screening Level in concentrations that pose risk to human health and the environment.

ARNG's selected remedial actions at the Site include:

- Target Berm:
  - Soil Stabilization and Excavation with Off-Site Disposal

- Firing Line:
  - Excavation with Off-Site Disposal

- Soil Pile:

- Soil Stabilization and Excavation with Off-Site Disposal

DEP hereby concurs with ARNG's proposed remedy with the following conditions:

- DEP will be given the opportunity to review and comment on documents and concur with decisions related to the design and implementation of the remedial action, to assure compliance with Pennsylvania's Applicable, Relevant and Appropriate Requirements (ARARs) and to be considered requirements.

- DEP will have the opportunity to review and comment before any modification to the ROD and the issuance of an Explanation of Significant Difference (ESD).

- This concurrence with the selected remedial action is not intended to provide any assurances pursuant to CERCLA Section 104(c)(3), 42 U.S.C. 9604(c)(3).

- Concurrence with the remedy should not be interpreted as acceptance of on-site Operation and Maintenance (O&M) by DEP. State O&M obligations will be determined during the completion of a Superfund State Contract.

- ARNG will assure that DEP is provided an opportunity to fully participate in any negotiations with responsible parties.

- DEP reserves the right and responsibility to take independent enforcement actions pursuant to state law.

Thank you for the opportunity to comment and concur on this ARNG Record of Decision. If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

John A. Holden
Acting Regional Director
Northwest Regional Office
PA Dept. of Environmental Protection

cc: Richard Weber, NWRO *(via e-mail)*
Jacob Moore, NWRO *(via e-mail)*
Chuck Byham, NWRO *(via e-mail)*
Anita Stainbrook, NWRO *(via e-mail)*
John B. Haines, National Guard Bureau *(via e-mail)*
File

AFFP
ARMY NATIONAL GUARD

Affidavit of Publication

STATE OF PENNSYLVANIA } SS
COUNTY OF ELK }

Christie Gardner, being duly sworn, says:

That she is publisher of the Ridgway Record, a daily newspaper of general circulation, printed and published in Ridgway, Elk County, Pennsylvania; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

December 19, 2020

That said newspaper was regularly issued and circulated on those dates.
SIGNED:

publisher

Subscribed to and sworn to me this 19th day of December 2020.

Mallory Bauer, , Elk County, Pennsylvania

My commission expires: June 27, 2024

Commonwealth of Pennsylvania - Notary Seal
MALLORY L BAUER - Notary Public
Elk County
My Commission Expires Jun 27, 2024
Commission Number 1299209

11108002 00278317

AECOM/GERMANTOWN
12420 MILESTONE CENTER DRIVE
GERMANTOWN, MD 20876

ARMY NATIONAL GUARD
Seeks Public Input on Proposed Plan
For Ridgway Training Range MRS (PAE40-001-R-01)

The Ridgway Training Range Munitions Response Site (MRS) was historically used by the National Guard for small arms training from 1987 to 2005. The Proposed Plan (PP) provides information on how the Army National Guard (ARNG) assessed munitions constituents (MC) in environmental media at the MRS and summarizes the multiple alternatives, evaluation process, and selection of the preferred alternative. The PP identifies Alternative 3 Soil Stabilization and Excavation with Off-Site Disposal as the preferred remedial alternative for addressing MC in environmental media at PAE4-001-R-01. This alternative achieves the most effective long-term results for ensuring the protection of human health, public safety, and the environment through the removal of affected environmental media. The ARNG is required to issue a PP and seek public comment and participation on the preferred decision.

The PP summarizes information that can be found in greater detail in the Final Remedial Investigation Report, Feasibility Study and other relevant documents that are available upon request. The ARNG encourages the public to review these documents to gain a more comprehensive understanding of the MRS and investigation activities that have been conducted. The public is invited to review and comment on the Ridgway Training Range MRS PP. The ARNG will consider all written comments or requests for a public meeting received during the public comment period (19 December 2020 through 21 January 2021) and will accept comments by e-mail or postal mail. All comments and requests must include the name, address, and telephone number of the person commenting. A public meeting will be held, if requested, to review the information provided in the PP. Public input to the PP will be documented in a Responsiveness Summary Report that will be included in a Record of Decision that documents the selected remedial action.

Written comments may be submitted to the following address:
Pennsylvania ARNG, Public Affairs Office
Bldg. 8-41, Fort Indiantown Gap, PA 17003
Phone: 717-861-8829; Email: ng.pa.paarng.list.pao@mail.mil

To request a copy of the Ridgway Training Range MRS PP and other relevant documents, contact the Pennsylvania ARNG Public Affairs Office. Hard copies may be delivered for review by mail and electronic copies may be delivered by email.
Dec, 19, adv.

Sky

From page 4

It will be the closest Jupiter-Saturn pairing since July 1623, when the two planets appeared a little nearer. This conjunction was almost impossible to see, however, because of its closeness to the sun.

Considerably closer and in plain view was the March 1226 conjunction of the two planets — when Genghis Khan was conquering Asia. Monday's conjunction will be the closest pairing that is visible since way back then.

Saturn and Jupiter have been drawing closer in the south-southwest sky for weeks. Jupiter — bigger and closer to Earth — is vastly brighter.

"I love watching them come closer and closer to each other and the fact that I can see it with my naked eyes from my back porch!" Virginia Tech astronomer Nahum Arav said in an email.

To see it, be ready shortly after sunset Monday, looking to the southwest fairly low on the horizon. Saturn will be the smaller, fainter blob at Jupiter's upper right. Binoculars will be needed to separate the two planets.

Despite appearances, Jupiter and Saturn will actually be more than 450 million miles (730 million kilometers) apart. Earth, meanwhile, will be 550 million miles (890 million kilometers) from Jupiter.

A telescope will not only capture Jupiter and Saturn in the same field of view, but even some of their brightest moons.

Their next super-close pairing: March 15, 2080.

Vaccine

From page 1

tients with COVID-19 as part of his job.

"It's been a very long nearly year since this started," Hoffman said. "I do most of my work in the emergency department and in the ICU. It is constant exposure to known COVID-positive patients, as well as assumably asymptomatic carriers of the disease, because, of course, not every single patient is being tested."

Hoffman added that he had no concerns about receiving the vaccine.

"This is very well-established science," Hoffman said. "It's a well-recognized molecular biological way of introducing a vaccine, so it's an old science that's being used in a new way for vaccine development. There's no microchip associated with it in any capacity. It's not the virus itself that's being injected into people. It's mRNA so that your body can build proteins and build a defense to attack the virus. It is well, well studied science that is applied in a novel way."

Hoffman has an undergraduate degree in biochemistry and molecular biology and has been following the development of the vaccine, including reading studies on the various vaccines being developed and the science behind them.

"It's very clear, even as a non-physician but as a biological scientist, that this is good science and good data behind it," Hoffman said. "I am recommending everyone in my family get the vaccine. I have gotten the vaccine. I couldn't be more of a vaccine proponent, particularly for this."

Hoffman encouraged others, regardless of whether they have had COVID-19, to look into getting vaccinated themselves.

"Unless there's a direct contraindication to getting the vaccine, as described by the manufacturer of the vaccine, everyone should be talking to their doctor about getting it," Hoffman said.

Working in areas that have been hard-hit by COVID-19 and seeing the impact of the virus firsthand, Hoffman described the release of the vaccine as being a provider of hope.

"It is a significant amount of hope for the world, which has been devastated by the virus," Hoffman said.

Help Wanted 14

Help Wanted 14

Help Wanted 14

Help Wanted 14

Public Notices 100

LEGAL NOTICE

Notice is hereby given that Letters of Administration upon the Estate of Richard C. Skellen, a/k/a Richard Charles Skellen or Richard Skellen, late of Ridgway Borough, Elk County, Pennsylvania, have been granted to the undersigned, and all persons having claims or demands against said estate are to make known the same and all persons indebted to the said decedent should make payment to the undersigned without delay:

Bonnie J. Skellen
425 E. Main Street
Ridgway, PA 15853

James H. DeVittorio, Esquire
P. O. Box 411
Ridgway, PA 15853
(Attorney for Bonnie J. Skellen)

Dec. 12, 19, 26, adv.

Miscellaneous 49

FOR SALE: 2018 17 Ft. Aspen Trail Camper. Bunk Beds, A/C And Heater, Microwave, Fridge, Stove, Dinette, Queen Bed, Shower, And Toilet. $10,950. 772-4111.

Personals 120

This newspaper makes every effort to confirm the validity of advertisers listed on our classified page. However, we strongly suggest researching any business prior to sending any money for goods or services.

Help Wanted 14

ADVERTISE YOUR EMPLOYMENT AD today in the Ridgway Record Classifieds. Call 814-773-3161 now to place your ad.

Public Notices 100

ARMY NATIONAL GUARD
Seeks Public Input on Proposed Plan
For Ridgway Training Range MRS (PAE40-001-R-01)

The Ridgway Training Range Munitions Response Site (MRS) was historically used by the National Guard for small arms training from 1987 to 2005. The Proposed Plan (PP) provides information on how the Army National Guard (ARNG) assessed munitions constituents (MC) in environmental media at the MRS and summarizes the multiple alternatives, evaluation process, and selection of the preferred alternative. The PP identifies Alternative 3 Soil Stabilization and Excavation with Off-Site Disposal as the preferred remedial alternative for addressing MC in environmental media at PAE4-001-R-01. This alternative achieves the most effective long-term results for ensuring the protection of human health, public safety, and the environment through the removal of affected environmental media. The ARNG is required to issue a PP and seek public comment and participation on the preferred decision.

The PP summarizes information that can be found in greater detail in the Final Remedial Investigation Report, Feasibility Study and other relevant documents that are available upon request. The ARNG encourages the public to review these documents to gain a more comprehensive understanding of the MRS and investigation activities that have been conducted. The public is invited to review and comment on the Ridgway Training Range MRS PP. The ARNG will consider all written comments or requests for a public meeting received during the public comment period (19 December 2020 through 21 January 2021) and will accept comments by e-mail or postal mail. All comments and requests must include the name, address, and telephone number of the person commenting. A public meeting will be held, if requested, to review the information provided in the PP. Public input to the PP will be documented in a Responsiveness Summary Report that will be included in a Record of Decision that documents the selected remedial action.

Written comments may be submitted to the following address:
Pennsylvania ARNG, Public Affairs Office
Bldg. 8-41, Fort Indiantown Gap, PA 17003
Phone: 717-861-8829; Email: ng.pa.paarng.list.pao@mail.mil

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Dec, 19, adv.