



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON
4551 LLEWELLYN AVENUE, SUITE 5000
FORT GEORGE G. MEADE, MARYLAND 20755-5000

REPLY TO
ATTENTION OF:

December 31, 2014

Environmental Division

Mr. John Burchette
NPL/BRAC/Federal Facilities Branch
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. Burchette:

This letter serves as notification that the December *Draft 2014 Annual Land Use Control Inspection Report, Former Mortar Range Munitions Response Area* (Report), has been finalized. The United States Environmental Protection Agency (USEPA) submitted comments for the Draft Report on December 22, 2014. Given the simplicity of the regulatory comments and responses, revisions to the report were not necessary and submission of a "Draft Final" version is not warranted. These replacement pages serve as the "Final" submission of the Report. As stated in the Response to Comment Table, the follow up Site visit completed on December 17, 2014 will be documented in the 2015 Annual Land Use Control Inspection Report. Copies of the replacement pages have been furnished to Francis Coulters (U.S. Army Environmental Command), Elisabeth Green (Maryland Department of the Environment), and the Fort Meade Restoration Advisory Board.

If you have any questions, please feel free to contact Ms. Denise Tegtmeier at (301) 677-9559 or me at (301) 677-7999.

Sincerely,

George B. Knight, P.G.
Program Manager, Installation Restoration Program
Directorate of Public Works-Environmental
Division

Enclosure

Response to Comments Table

Draft 2014 LUC Inspection Report, Mortar Range, Fort George G. Meade, MD

December 2014

Response Code: A = Agree with comment D = Disagree with comment C = Comment requires clarification N = Comment noted, no action required or taken

Comment Number	Commenter	Date of Comment	Page(s)	Section	Comment	Response Code	Response
1	EPA	12/22/14			The document should include a short conclusions and recommendations sections. The issues that were documented, such as signs missing or damaged and erosion should be listed and a path forward to address them should be briefly explained. I couldn't clearly gather whether the damaged or missing signs had been replaced as presented.	A	A site visit to replace the signs was conducted on 17 December 2014, following the issuance of the Report. One sign and sign post (at the location of Sign 2) was replaced. The other two missing signs were not replaced; rather, replacement signs were given to FGGM DPW to install once construction has been completed in the area. This work will be documented in the 2015 LUC Inspection Report.



FINAL 2014 Annual Land Use Control Inspection Report

Former Mortar Range Munitions Response Area, Fort George G. Meade, Maryland

December 2014





Katherine M. Keough
Geologist II



Shelly K. Morris
Phase Manager



Tim Llewellyn
Project Manager

**Final 2014 Annual Land Use
Control Inspection Report**
Former Mortar Range Munitions
Response Area

Fort George G. Meade, Maryland

Prepared for:
U.S Army

Prepared by:
ARCADIS U.S., Inc.
1114 Benfield Boulevard
Suite A
Millersville
Maryland 21108
Tel 410 987 0032
Fax 410 987 4392

Date:
December 2014

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Table of Contents

Executive Summary	ES-1
1. Introduction and Site Background	1-1
1.1 Installation Overview	1-1
1.2 Former Mortar Range MRA Location and History	1-1
2. Site Activities	2-1
2.1 Summary of Activities	2-1
2.1.1 Annual Site Inspections / Surface Sweeps	2-1
2.2 Maintenance and Inspection Results	2-1
2.2.1 Visual Inspection / Surface Sweep	2-1
2.2.2 Condition of Warning Signs	2-1
2.2.3 Evaluation of Changes in Land Use	2-2
3. References	3-1

Table

Table 2-1: Warning Sign Inspection Results

Figure

Figure 1-1: 2014 Land Use Controls Annual Inspection

Appendices

- A Inspection Checklists and Field Documentation
- B Annual Certification of Land Use Controls Form
- C EOD Incident Reports

Acronyms and Abbreviations

ARCADIS	ARCADIS U.S., Inc.
DoD	U.S. Department of Defense
EC	Engineering Control
EOD	Explosive Ordnance Disposal
FGGM	Fort George G. Meade
GPS	Global Positioning System
LTM	Long-Term Management
LUC	Land Use Control
MD	Maryland
MEC	Munitions and Explosives of Concern
MPPEH	Material Potentially Presenting an Explosive Hazard
MRA	Munitions Response Area
MRS	Munitions Response Site
RI	Remedial Investigation
ROD	Record of Decision
SI	Site Inspection
U.S.	United States

**2014 Annual Land Use Control
Inspection Report**
Former Mortar Range Munitions
Response Area

Fort George G. Meade, Maryland

Executive Summary

This report presents the results of the 2014 annual Land Use Controls (LUC) inspection of the former Mortar Range Munitions Response Area (MRA) at Fort George G. Meade. The LUC inspection was conducted on 16 September 2014 by ARCADIS U.S., Inc. The annual LUC inspection complies with the Record of Decision (ROD) signed 27 September 2012. The selected remedy for the former Mortar Range MRA includes LUCs with long term management. The purpose of the annual inspections is to confirm the land use of the site has not changed, the no dig warning signage is still in place and to ensure no Munitions and Explosives of Concern / Material Potentially Presenting an Explosive Hazard (MEC/MPPEH) or munitions debris has been exposed through erosion or frost heave. The following observations were made during the inspection:

- Sign 2 is peeling and illegible;
- Sign 8 was missing (post remains in place);
- Sign 12 was not located where originally installed, additional efforts to locate sign 12 were thwarted as a result of road closures associated with a water main break. An additional effort to locate the sign will be made;
- No exposed MEC/MPPEH or munitions debris was observed; and
- Land use remains consistent with the ROD.

1. Introduction and Site Background

ARCADIS U.S., Inc. (ARCADIS) has been retained by the United States (U.S.) Army Environmental Command to support the Installation Restoration Program and Military Munitions Response Program activities at Fort George G. Meade (FGGM), located in Anne Arundel County, Maryland (MD). This work is conducted under a Performance Based Contract associated with the environmental restoration program at FGGM. The full scope of services for this contract is defined in Contract W91ZLK-05-D-0015.

This 2014 Annual Land Use Controls (LUCs) Inspection Report is submitted as dictated by the Record of Decision (ROD), signed September 27, 2012, in accordance with the Comprehensive Environmental Response, Compensation and Liability Act and relevant and appropriate provisions of the National Oil and Hazardous Substances Pollution Contingency Plan.

1.1 Installation Overview

FGGM is located in Anne Arundel County, MD, almost midway between the cities of Baltimore, MD, and Washington, District of Columbia. The installation is situated approximately four miles east of Interstate 95 and immediately east of the Baltimore-Washington Parkway (MD Route 295), between MD Routes 175 and 32.

Following implementation of the requirements of the 1988 Base Realignment and Closure Act, the installation boundary was reduced to what currently occupies approximately 5,100 acres. The present-day boundaries encompass the area previously referred to as the cantonment area which is used for administrative, recreation, and housing facilities.

1.2 Former Mortar Range MRA Location and History

The former Mortar Range Munitions Response Area (MRA) is a former training range and training area located in the west-central portion of FGGM (**Figure 1-1**). The former Mortar Range MRA (FGGM-003-R) is comprised of the 62-acre Mortar Area (FGGM-003-R-01) and the 260-acre Training Area (FGGM-003-R-02) Munitions Response Sites (MRSs).

Based on the 2007 Site Inspection (SI) and the 2011 Remedial Investigation (RI) Reports, the site was used as a practice/training mortar range beginning in the early

1920s (Malcolm Pirnie, 2007). Training was assumed to have ended in the 1940s based on munitions debris found during the RI (ARCADIS/Malcolm Pirnie, 2011).

During the RI field activities, no Munitions and Explosives of Concern (MEC) (except small arms ammunition not presenting a unique explosive hazard) were found on the MRA; however, a variety of munitions debris from 60 and 81 millimeter training mortar rounds, 3-inch Stokes training mortar rounds, a training landmine, flares, practice grenades, a dummy grenade, discarded small arms ammunition, and casings from expended small arms ammunition were found. The training mortar rounds, identified during the RI MEC field activities, were concentrated in an area corresponding to the original location of the former Mortar Range shown on maps from the 1920s. An analysis of historical aerial photographs, performed during the RI, confirmed the Mortar Area MRS boundary. Additionally, a number of training areas within the former Mortar Range MRA were observed, and the former Mortar Range MRA boundary was determined to extend east to Taylor Avenue beyond the boundary established during the SI. As a result of these findings, the boundary was revised and the overall acreage of the former Mortar Range MRA was increased from a total of 291 acres to 322 acres. Based on the evidence of two distinct historical uses as a general troop training area and a training range, the former Mortar Range MRA (FGGM-003-R) was divided into the 62-acre Mortar Area (FGGM-003-R-01) and the 260-acre Training Area (FGGM-003-R-02) MRSs.

The majority of the former Mortar Range MRA had been used as a golf course since 1956. The northwestern portion of the site is a secure U.S. Department of Defense (DoD) facility and is developed with buildings and associated paved surfaces (i.e., roadways, parking lots, and walkways). As of early 2012, construction of additional DoD buildings began on the area that had been the golf course.

The ROD for the former Mortar Range MRA documented LUCs and Long Term Management (LTM) as the selected remedy. LUCs for the site included institutional controls and engineering controls (ECs). ECs included no dig warning signage, and the LTM includes annual site inspections. The purpose of the annual inspections is to confirm the land use of the site has not changed, to verify the no-dig warning signage is still in place, and to ensure no MEC / Material Potentially Presenting an Explosive Hazard (MPPEH) or munitions debris has been exposed through erosion or frost heave.

2. Site Activities

2.1 Summary of Activities

2.1.1 Annual Site Inspections / Surface Sweeps

There is the potential for MEC/MPPEH/munitions debris to resurface through mechanisms such as erosion or frost heaves; therefore, LTM is necessary. LTM includes annual LUC inspections to comply with administrative requirements to ensure the remedy remains protective. The 2014 annual LUC inspection occurred on September 16, 2014. Inspection details are illustrated on **Figure 1-1**.

The 2014 annual LUC inspection activities included:

- Visual inspection / surface sweep for MEC/MPPEH/munitions debris;
- Inspection of condition of warning signs; and,
- Evaluation of land use.

2.2 Maintenance and Inspection Results

Field documentation of site activities is included as **Appendix A**. **Appendix B** includes the 2014 annual certification of LUCs.

2.2.1 Visual Inspection / Surface Sweep

A visual inspection and magnetometer-assisted surface sweep of 100 percent of accessible, undeveloped areas (**Figure 1-1**) was conducted by meandering path with an Unexploded Ordnance Technician III to ensure no MEC/MPPEH/munitions debris have been uncovered by erosion or frost heave. A large portion of the site was inaccessible due to construction activities. No MEC/MPPEH/munitions debris was observed during the 2014 inspection.

2.2.2 Condition of Warning Signs

A total of 16 signs were installed throughout the undeveloped areas of the MRA in July and August of 2013 as part of the remedy implementation outlined in the ROD (ARCADIS, 2012). Sixteen sign locations were located with Global Positioning System

(GPS) and inspected during the 2014 LUC inspection (**Figure 1-1**). All sign location data and inspection results are detailed in **Table 2-1**. Three signs were identified as missing or needing repair:

- The text on Sign 2 is peeling and illegible;
- Sign 8 was missing (post remains); and,
- Sign 12 could not be located from the northwestern secure portion of the installation (GPS coordinates were inconsistent with the sign position). A second attempt to locate the sign from the FGGM side was made, but due to road closures associated with a water main break, the sign location was inaccessible.

A second site visit will be made on 17 December 2014 to locate Sign 12 (or replace as appropriate) and repair damaged or missing signs to ensure the effectiveness of the remedy in accordance with the ROD (ARCADIS, 2012).

2.2.3 Evaluation of Changes in Land Use

During the 2014 annual inspection no changes in land use were reported; however, industrial construction activities are underway, and the amount of undeveloped area requiring inspection continues to decrease as development across the MRA expands. Construction activities are anticipated to be completed at the end of fiscal year 2015.

Two erosional areas are depicted on **Figure 1-1**. The first erosional area was located near Sign 14 and was actively being eroded as a result of the water main break. As depicted on **Figure 1-1**, this erosional area is located outside of the MRA boundary. The second erosional area is located between signs 7 and 8 (East Campus side). This area is sloped towards the adjacent road (unnamed road) and appears to be runoff erosion as a result of construction activities.

Explosive ordnance disposal (EOD) incident reports recorded at times other than the inspection are included in **Appendix C**. There were no EOD incidents recorded during this inspection.

3. References

- ARCADIS. 2010a. Performance Based Acquisition – Fort Meade Sitewide Health and Safety Plan. February 2010.
- . 2010b. Performance Based Acquisition – Fort Meade Sitewide Health and Safety Plan, Addendum 1. March 2010.
- . 2014. Final Remedial Action Report – Former Mortar Range Munitions Response Area, Fort George G. Meade, Maryland. February.
- ARCADIS/Malcolm Pirnie. 2011. *Final Former Mortar Range Munitions Response Area Remedial Investigation Report*. September.
- . 2012. *Final Former Mortar Range Munitions Response Area Record of Decision*. September.
- Department of the Army, 2004. *EP 75-1-2. Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic, And Radioactive Waste and Construction Activities*. 1 August 2004.
- . 2011. *DA PAM 385–64: Ammunition and Explosives Safety Standards*. 24 May 2011.
- Atkins. 2011. *Real Property Master Plan Update. 90% Submission*. October.
- Malcolm Pirnie, Inc. 2006. *Final Historical Records Review, Fort George G. Meade, Maryland*.
- . 2007. *Final Site Inspection, Fort George G. Meade, Maryland*.
- United States Army Corps of Engineers. 2002. *Environmental Baseline Survey United States Army Residential Communities Initiative Properties Fort George G. Meade, Maryland*.
- United States Environmental Protection Agency. 2000. *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups. Office of Solid Waste and Emergency Response Directive No. 9355.0-74*.
- . 2010. *Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites. Office of Solid Waste and Emergency Response Directive No. 9355.0-89*. November.

Tables

Table 2-1
Warning Sign Inspection Results
 2014 Annual Land Use Control Inspection Report
 Former Mortar Range Munitions Response Area
 Fort George G. Meade, Maryland

Label	UTM Zone 15N		General Location	Condition
	Easting	Northing		
Sign 01	1907236.2164	4456444.2603	Current Secure DoD Facility (West Campus); Between Cochrane Road and Rockenbach Rd.	Good
Sign 02	1907464.6985	4456466.9698	Current Secure DoD Facility (West Campus); Between Cochrane Road and Rockenbach Rd.	Text is peeling
Sign 03	1907634.5542	4456563.6832	Current Secure DoD Facility (West Campus); Where 3rd Cavalry Road once crossed Rockenbach Rd.	Good
Sign 04	1907767.4226	4456657.4576	Current Secure DoD Facility (West Campus); East of Day Care Center (Not on Day Care Center Property)	Good
Sign 05	1907813.8518	4456151.5854	Current Secure DoD Facility (West Campus); Undeveloped area at intersection of Love Road and O'Brien Road	Good
Sign 06	1907877.9211	4456146.0192	Current Secure DoD Facility (West Campus); Undeveloped area at intersection of Love Road and O'Brien Road	Good
Sign 07	1908012.6748	4456245.9214	Future Secure DoD Facility; Southwest of clearing near water towers off of O'Brien Road	Good
Sign 08	1908161.9767	4456282.9955	Future Secure DoD Facility (East Campus); Adjacent to fence separating East and West campuses	Located sign post, missing sign
Sign 09	1907923.7712	4455994.5358	Current Secure DoD Facility (West Campus); Along East median of O'Brien Rd.	Good
Sign 10	1907979.6362	4456000.9484	Current Secure DoD Facility (West Campus); Approximately 250 feet East of Sign 10	Good
Sign 11	1907937.2362	4455864.0738	Current Secure DoD Facility (West Campus); Eastern portion of undeveloped area between the parking lot East of O'Brien Rd.	Good
Sign 12	1908084.6816	4455658.0472	Future Secure DoD Facility	Not inspected / inaccessible road closed due to water main break
Sign 13	1908096.4854	4455405.9023	Fort Meade Campus; Between Mapes Rd and Perimeter Rd.	Good
Sign 14	1908489.5426	4455636.1219	Fort Meade Campus; Northeast of the gas station located at the intersection of Mapes Rd. and 6th Armored Cavalry Rd.	Good
Sign 15	1908364.4491	4455491.7507	Fort Meade Campus; West of the gas station located at the intersection of Mapes Rd. and 6th Armored Cavalry Rd.	Good
Sign 16	1908503.4237	4455544.2667	Fort Meade Campus; East of the gas station located at the intersection of Mapes Rd. and 6th Armored Cavalry Rd.	Good

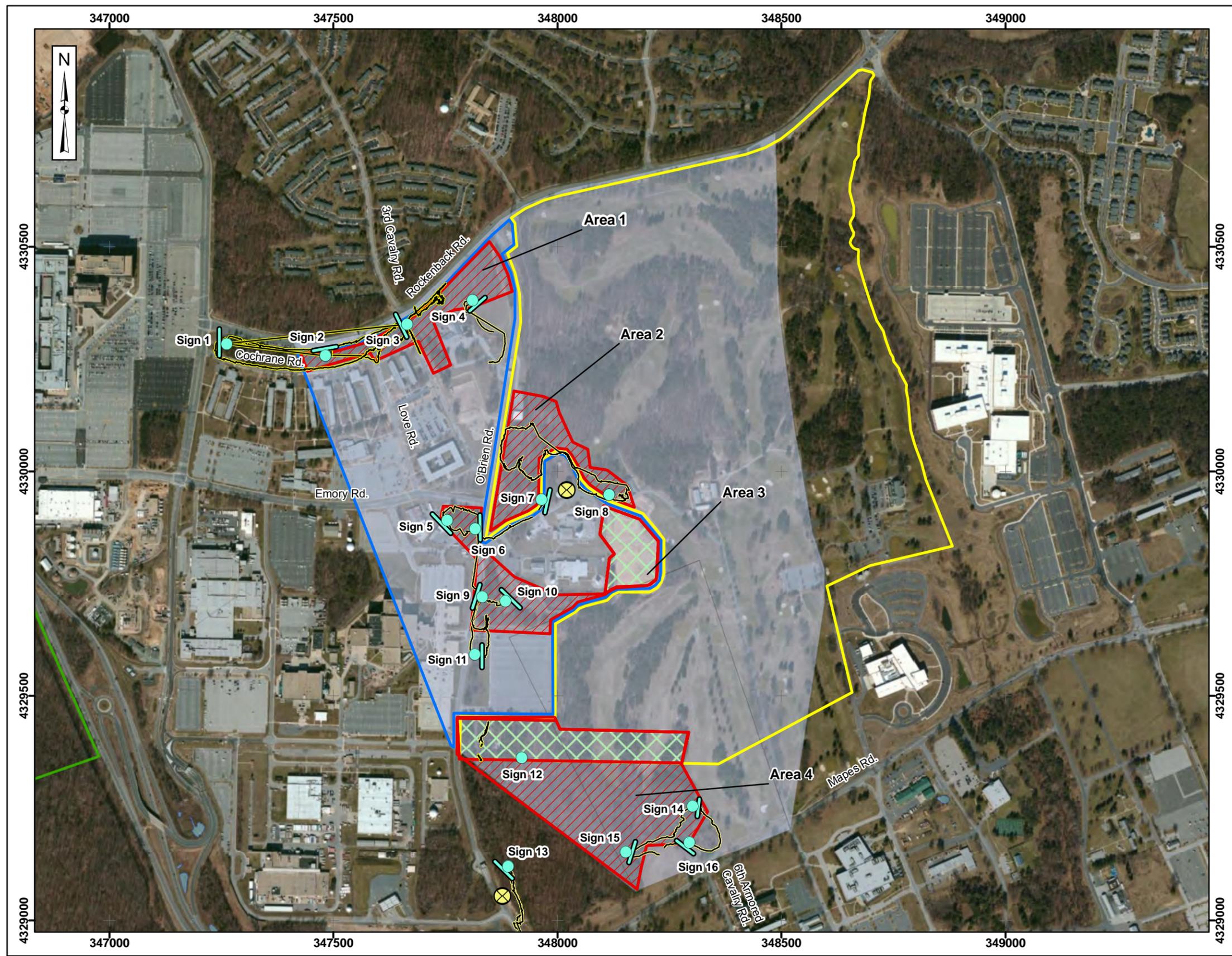
Note:

The coordinates of Signs 2, 8, and 12 have been corrected.

The signs have been renumbered to eliminate the gaps for missing Signs 9 and 16. The signs will follow this numbering scheme going forward.

Figures

\\arcadis-us.com\office\data\WhitePlains-NY\WHI_GIS\GIS_data\Projects\ARM\1\Installations\Fort_Meade_MD2118130_Mortar_Range\MXD\Annual_Inspection_2014\Figure_1-1_Inspection.mxd



**Fort George G. Meade
2014 Annual Land Use Control Inspection**



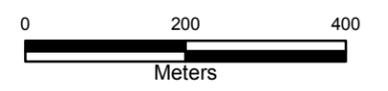
ARCADIS

**Figure 1-1
2014 Land Use Controls
Annual Inspection**

Legend

- Mortar Range MRA: Land Use Controls with on-call construction support for all intrusive construction projects, and anomaly avoidance procedures for any other intrusive activity
- Current Secure DoD Facility
- Future Secure DoD Facility
- Undeveloped / Inspection Area
- Area No Longer Undeveloped
- Sign Location
- Sign Orientation - direction indicates Sign Orientation
- Sign Inspection Reconnaissance Path
- Erosion

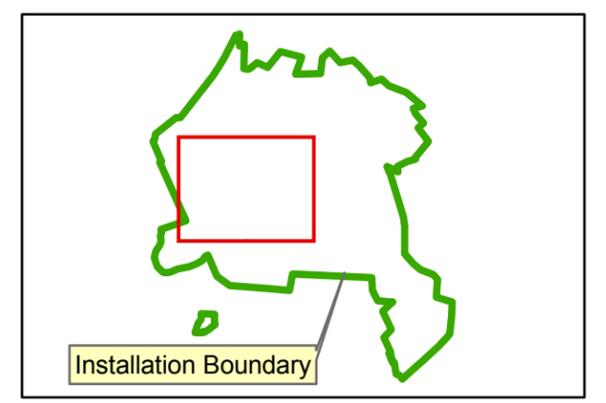
Notes:
 Sign 2 - Sign Is Peeling / Illegible
 Sign 8 - Sign Missing / Post Remains
 Sign 12 - Inaccessible Road Closed Due to Water Main Break



Data Sources: ESRI, ArcGIS Online, Aerial Imagery
FGGM, GIS Data, 2005

Coordinate System: UTM Zone 15N
Datum: NAD 1983
Units: Meters

Contract: W912DR-05-D-0004



Appendix A

Inspection Checklists and Field
Documentation

AREA I
Annual Inspection Checklist for Land Use Evaluation

1. Land Use Evaluation

Date: 9/16/2014

1. Inspector walked over entire site. Yes ___ No

Reason why not?

NA

2. Check for any sign of the following conditions – note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Intrusive activities	<u>NO</u>	<u>NA</u>	<u>NA</u>
MEC/MPPEH/munitions debris	<u>NO</u>	<u>NA</u>	<u>NA</u>
Signs of vegetative stress	<u>NO</u>	<u>NA</u>	<u>NA</u>
Construction activities	<u>NO</u>	<u>NA</u>	<u>NA</u>
Signs of erosion	<u>NO</u>	<u>NA</u>	<u>NA</u>
Other	<u>NA</u>	<u>NA</u>	<u>NA</u>
No residential / no change in land use	<u>NO</u>	<u>NA</u>	<u>NA</u>

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/# (16 total)</u>	<u>Corrective Action*</u>
Warning Sign (16)	<u>yes - 4 total</u>	<u>sign 2 needs repair</u>

Katherine K. Malone, geologist II
 Printed Name & Title of Inspector
 Katherine K. Malone, Geologist II, ARCADIS-US, Inc.

Dan Hains UXO Technician III
 Printed Name & Title of UXO Technician
 Dan Hains, Unexploded Ordnance (UXO) Technician III, ARCADIS-US, Inc.

K Malone Date 9/16/2014
 Signature of Inspector
 Katherine K. Malone

Dan Hains Date 9/16/2014
 Signature of UXO Technician
 Dan Hains

Approved by George Knight, Program Manager
 Installation Restoration Program
 DPW-ED
 Date _____

*Note if sign is not useful in its current condition with location coordinates.

sign 2 1907464.6985 E
 445466.9698 N

pg 1 of 1

(km)

sign 2 needs repair
 - sticker is peeling
 *couldn't locate
 sign 4 on main
 campus
 *sign 4
 coordinates
 were incorrect
 ↳ collected
 new waypoint

AREA II
Annual Inspection Checklist for Land Use Evaluation

1. Land Use Evaluation

Date: 9/16/2014

1. Inspector walked over entire site. Yes No

Reason why not?

2. Check for any sign of the following conditions – note whether corrective action was taken:

Condition	Yes/No	Corrective Action Taken	Designation of Location Shown on Attached Map
Intrusive activities	yes	^(km) None - construction activities	
MEC/MPPEH/munitions debris	NO	NA	NA
Signs of vegetative stress	NO	area NA	NA
Construction activities	yes	site-wide construction (not residential)	
Signs of erosion	yes	^(km) NA none	NA (X) on map
Other	-	NA	NA
No residential / no change in land use	NO	construction (industrial)	

3. Signs appropriately posted

Sign noting the following (# of signs installed)	Yes/No/# (16 total)	Corrective Action*
Warning Sign (16)	yes - 2	sign #1 sign #8 is missing on East side of property

Katherine K. Malone, Geologist II

Printed Name & Title of Inspector
 Katherine K. Malone, Geologist II, ARCADIS-US, Inc.

Dan Hains, UXO

Printed Name & Title of UXO Technician
 Dan Hains, Unexploded Ordnance (UXO) Technician III, ARCADIS-US, Inc.

K Malone Date 9/16/2014

Signature of Inspector
 Katherine K. Malone

K Malone ^(km) see above Date 9/16/2014

Signature of UXO Technician
 Dan Hains

Approved by George Knight, Program Manager
 Installation Restoration Program
 DPW-ED

*Note if sign is not useful in its current condition with location coordinates.

(NAD 83/)
 (UTM 15A)

sign 8 1908161.9767 E
 4456282.9955 N

pg 1 of 1
 (km)

AREA III
Annual Inspection Checklist for Land Use Evaluation

1. Land Use Evaluation

Date: 9/16/2014

1. Inspector walked over entire site. Yes No

Reason why not?

construction in area - areas w/in polygon are no longer undisturbed

2. Check for any sign of the following conditions – note whether corrective action was taken.

Condition	Yes/No	Corrective Action Taken	Designation of Location Shown on Attached Map
Intrusive activities	NO YES	NA none	NA construction &
MEC/MPPEH/munitions debris	NO	NA	NA
Signs of vegetative stress	NO	NA	NA
Construction activities	YES	none	X
Signs of erosion	YES NO	none	NA
Other	NO	none	NA
No residential / no change in land use	NO	only industrial	none

construction activities

3. Signs appropriately posted

Sign noting the following (# of signs installed)	Yes/No/# (16 total)	Corrective Action*
Warning Sign (16)	5 (including sign 12)	none

Katherine K. Malone, Geologist II
 Printed Name & Title of Inspector
 Katherine K. Malone, Geologist II, ARCADIS-US, Inc.

Dan Hains UXOSO
 Printed Name & Title of UXO Technician
 Dan Hains, Unexploded Ordnance (UXO) Technician III, ARCADIS-US, Inc.

K Malone Date 9/16/2014
 Signature of Inspector
 Katherine K. Malone

see above Date 9/16/2014
 Signature of UXO Technician
 Dan Hains

Approved by George Knight, Program Manager
 Installation Restoration Program
 DPW-ED

*Note if sign is not useful in its current condition with location coordinates.

pg 1 of 1

(bui)

AREA IV
Annual Inspection Checklist for Land Use Evaluation

1. Land Use Evaluation

Date: 9/16/2014

1. Inspector walked over entire site. Yes ___ No

Reason why not?

2. Check for any sign of the following conditions – note whether corrective action was taken:

<u>Condition</u>	<u>Yes/No</u>	<u>Corrective Action Taken</u>	<u>Designation of Location Shown on Attached Map</u>
Intrusive activities	NO	NA	NA
MEC/MPPEH/munitions debris	NO	NA	NA
Signs of vegetative stress	NO	NA	NA
Construction activities	YES	none	X
Signs of erosion	YES	none	(X) (water main break)
Other	-	-	-
No residential / no change in land use	NO	NA	NA

3. Signs appropriately posted

<u>Sign noting the following (# of signs installed)</u>	<u>Yes/No/# (16 total)</u>	<u>Corrective Action*</u>
Warning Sign (16)	5 signs - 1 (tribe didn't + located sign 13 missing)	

Katherine K. Malone, Geologist II
 Printed Name & Title of Inspector
 Katherine K. Malone, Geologist II, ARCADIS-US, Inc.

↳ may have been removed during construction activities

Dan Hains UXO
 Printed Name & Title of UXO Technician
 Dan Hains, Unexploded Ordnance (UXO) Technician III, ARCADIS-US, Inc.

K Malone Date 9/16/2014
 Signature of Inspector
 Katherine K. Malone

see above Date 9/16/2014
 Signature of UXO Technician
 Dan Hains

Approved by George Knight, Program Manager
 Installation Restoration Program
 DPW-ED
 Date _____

*Note if sign is not useful in its current condition with location coordinates.

sign 13

1908084, 6816 E
 4455658, 0472 N

pg 1 of 1
 (km)

Label	NAD 83		UTM Zone 15N	
	Latitude	Longitude	Easting	Northing
Sign 01	39.10830000000	-76.76651700000	1907236.21640000000	4456444.26030000000
Sign 02	39.10813300000	-76.76393300000	1907464.69850000000	4456466.96980000000
Sign 03	39.10870000000	-76.76185000000	1907634.55420000000	4456563.68320000000
Sign 04	39.10930000000	-76.76018300000	1907767.42260000000	4456657.45760000000
Sign 05	39.10485000000	-76.76070000000	1907813.85180000000	4456151.58540000000
Sign 06	39.10470000000	-76.76000000000	1907877.92110000000	4456146.01920000000
Sign 07	39.10535000000	-76.75830000000	1908012.67480000000	4456245.92140000000
sign 08	39.10543300000	-76.75656700000	1908161.97670000000	4456282.99550000000
Sign 10	39.10331700000	-76.75980000000	1907923.77120000000	4455994.53580000000
Sign 11	39.10328300000	-76.75916700000	1907979.63620000000	4456000.94840000000
Sign 12	39.10216700000	-76.75991700000	1907937.23620000000	4455864.07380000000
Sign 13	39.10015000000	-76.75870000000	1908084.68160000000	4455658.04720000000
Sign 14	39.09795000000	-76.75908300000	1908096.48540000000	4455405.90230000000
Sign 15	39.09931700000	-76.75425000000	1908489.54260000000	4455636.12190000000
Sign 17	39.09826700000	-76.75593300000	1908364.44910000000	4455491.75070000000
Sign 18	39.09850000000	-76.75428300000	1908503.42370000000	4455544.26670000000

Appendix B

Annual Certification of Land Use
Controls Form

**Annual Certification of Land Use
Former Mortar Range MRA
Fort George G. Meade, Maryland
December 2014**

This certification is being made in accordance with the Remedial Design (RD) for the former Mortar Range MRA. The RD is in accordance with the former Mortar Range MRA Record of Decision (ROD) signed by the Fort George G. Meade (FGGM) garrison commander and USEPA Region 3 Director of the Emergency and Remedial Response Division on September 26, 2012 and September 27, 2012, respectively.

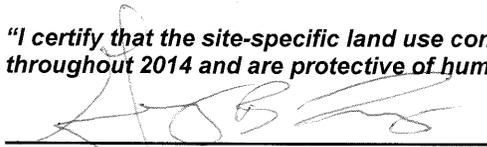
1. **Certification of Point of Contact:** The FGGM Installation Restoration Program Manager is the designated point-of-contact for monitoring, maintaining, and enforcing the site-specific LUCs as specified in Section 4 of the RD.
2. **Certification of Commitment to Funding:** Funding for the proposed LUCs has not yet been awarded.
3. **Certification of how LUC objectives outlined in Section 4.2 of the RD:**
 - A. **LUC Objective: To maintain a land use that is protective from risks associated with MEC/MPPEH:**
 - i. *Pit Removal:* The pit removal will be coordinated through FGGM Safety and Environmental Division (ED), with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. This will be done as a preliminary maintenance activity to prepare the Training Area MRS for the LUC program.
 - ii. *FGGM Master Plan:* The FGGM Master Plan will be updated based on the new land use requirements. As planned, construction is currently underway over a large portion of the MRA.
 - iii. *The FGGM Geographic Information System (GIS):* The FGGM GIS incorporates the area of applicability existing land and environmental restrictions, locations of known contamination, and locations of MRAs / MRSs. The plan is to incorporate the GIS into the new Master Plan by reference.
 - iv. *Dig Permits:* No excavation of soil without approval of the FGGM Department of Public Work and the secure DoD facility; no excavation of soil without the proper safety equipment and a health and safety plan.
 - v. *FGGM Access Regulations:* Access regulations are in place at FGGM. Although not closed to the public, access to FGGM is strictly controlled. Trespassing and unauthorized activities on FGGM are illegal.
 - vi. *Unexploded Ordnance (UXO) On-Call Construction Support:* Institutional controls will be supplemented by the requirement for UXO on-call construction support for all intrusive Military Construction projects, and anomaly avoidance procedures for any other intrusive activity. UXO procedures will be coordinated through FGGM Safety and ED, with additional support from the USACE Huntsville Division, Ordnance and Explosives Center of Expertise. All intrusive activities (e.g., investigations involving any digging, clearing activities, and construction activities) must be authorized prior to the commencement of work.
 - vii. *Posted Signs:* Signs will be posted around the site to prevent unauthorized digging. The conditions of these signs will be verified and documented annually.

- viii. *Education Program:* An education program will be initiated for potential future site workers, users, and emergency responders of the MRA. This will be coordinated through FGGM ED.
- ix. *Inspections:* Annual Inspection forms were developed and approved by the USEPA. These forms have been included with the RD.
- x. *Notification Requirements:* If the land use at the former Mortar Range MRA were to change, any and all notifications, as described in Section 4.5.3.5 of the RD, will be made to the regulators. Currently the land use has not changed (construction remains underway); therefore, there was no need to notify the USEPA or Maryland Department of the Environment (MDE) of any land use changes in the past year.
- xi. *CERCLA Five –Year Reviews:* The Army will conduct Five Year Reviews as required by CERCLA and the NCP to determine if the LUC have remained protected of human health under the currently and reasonably anticipated future use. The Army will not modify or terminate LUCs, implementation actions, or land use with approval by USEPA and MDE.

B. LUC Objective: Prohibit the development and use of the MRA for residential housing:

- i. *Prohibit residential land use:* Residential land use at the former Mortar Range MRA will be prohibited as part of LUCs. No future residential development is planned within the MRA boundary. Residential land use at the former Mortar Range MRA will be prohibited. Due to the fact that the former Mortar Range MRA is a site entirely included within the FGGM property boundary and this property will remain under ownership and control of the federal government, a deed notice will not be necessary.

"I certify that the site-specific land use controls for the former Mortar Range MRA have been in effect throughout 2014 and are protective of human health and the environment."



Program Manager
Installation Restoration Program
DPW-ED

12/10/14

Date

Attachments:

Appendix C

EOD Incident Reports

Appendix C
EOD Incidents Summary Table
Former Mortar Range
Fort George G. Meade, Maryland

Date	Location Identified	Description	Disposition	Incident Report Available
12/16/2011	East Campus construction	3" Trench Stokes mortar practice (no fuze)	Removed & detonated by EOD	N
2/8/2012	East Campus construction	munition as Mk1 shrapnel projectile with Mk3A1 fuze. TL deemed round too degraded for transport	Removed & detonated by EOD	Y
11/13/2012	Mortar Area MRS	60 mm practice mortar. No explosives or spotting charges are in this item (solid item).	USACE Baltimore	NA
5/13/2013	southwest portion of Shopette construction site (Mapes Rd)	Practice 3" Stokes uncovered during construction at 6-8" bgs	Removed & detonated by EOD	N
May-13	Shopette construction site (Mapes Rd)	Second practice 3" Stokes uncovered during construction	Identified by UXO contractor	N
9/22/2014	East Campus construction	found in soil stockpile at site	Removed & detonated by EOD	N
7/24/2014	East Campus construction	none available	Removed & detonated by EOD	N

UCN	Title
AFDANDR1202091616Z	UXO - Fort Meade, MD
Status	Incident Type
Pending MAJCOM Staff Approval	Request of EOD Evaluation of Possible Hazardous/Damaged Munition (UXO)
Attachments	
Yes	

EOD Personnel:	2
Other Personnel:	0

EOD Manhours:	14:20
Other Manhours:	0:00
Admin Manhours:	1:00
Tot. Manhours:	15:20

Requestor
SSG Antwanette Marin
Department of Emergency Services 241st MP Detachment 6619 Mapes Rd Fort Meade, MD 20755

	Date and Times	
	Date	Time
Report:	2/8/12	1115
Start:	2/8/12	1115
Stop:	2/8/12	1825

Participating Personnel		
Name	Job	Status
Juhnke, Matthew J. SrA	EOD Team Member	Active Duty
Weber, James A. SSgt	EOD Team Chief	Active Duty

Narrative	
<p>8FEB2012</p> <p>1115 - Command post notified team that one UXO was found on Fort Meade, MD. Team prepared for mission.</p> <p>1200 - Team picked up explosive at Munitions Storage Area.</p> <p>1215 - Team departed Andrews AFB.</p> <p>1315 - Team arrived at Fort Meade. MP escorted to incident site.</p> <p>1330 - Team arrived at incident site. TL verified minimum 500' evacuation. Sgt Deford of MP briefed situation.</p> <p>1345 - TL performed initial reconnaissance of UXO.</p> <p>1445 - Team identified munition as Mk1 shrapnel projectile with Mk3A1 fuze. TL deemed round too degraded for transport and round was disposed of by detonation. TL dug 4-foot deep hole next to round to remotely move the round into the hole lessen the effects of the disposal on the surrounding area.</p> <p>1500 - TL prepared for remote pull. Rope was placed around projectile. TL took cover 150' away behind berm.</p>	

1515 - TL perfords remote pull of projectile. Team observed 30 minute wait time. Team prepared explosive charges.

1545 - TL verified remote pull was successful. TL checked caps, placed charges, primed in, and walked out firing wire.

1605 - Team disposed of round by detonation.

1610 - TL verified shot is successful. Team packed up equipment. TL meeted with MP.

1640 - Team departed incident site.

1825 - Team arrived at Andrews EOD shop. Mission complete.

Special Identification	
Ordnance:	US Military Conventional Munitions/Components/Bulk Explosives
Support:	US ARMY
Category:	N/A Category Not Assigned

Location	
Latitude: 39.104019	Longitude: -76.755590
Grid Zone: 18S	Grid Square: UJ
Easting: 48198	Northing: 29786

Injuries	
Types:	None
Numbers	
EOD:	0
DoD:	0
Civilian:	0
Other Agn:	0

Property	
Damage:	N
Amount:	0

EPA Information	
Permit Required:	N
Permit Type:	
Permit Number:	
EPA Contact:	

Deficiencies				
Tracking Nbr	Type	POC	Status	Est Comp Dt
Description				

MAJCOM Remarks
AFCESA Remarks

Ordnance Involved						
Nationality	Class	Nomenclature	Qty	RSP	DP	Tech data
United States	Fuze/Firing Device	MK 3 A1	1	NA	Yes	OP 1664
Ordnance Details						
Actuation						
Actuation Method	Initial Type	Initial SubType	Other	Range	Remarks	
No Actuations Available						

Power Sources											
Source	Other	Quantity	Connection				Remarks				
No Power Sources Available											
Explosives Found											
Cat	Type	Other	Qty	Color	Wt	Len	Ht	Wid	Dia	Remarks	
No Explosives Found Available											
Fragmentations											
Type	Other	Remarks									
No Fragmentations Available											
Device Housing & Description											
Package Placement:					Primary Device Housing Material:					Secondary Device Housing Material:	
Other:									Color/Markings:		
Device Description:											
Device Position:											
Dimensions						Vehicles					
Length:						Make:					
Height:						Model:					
Width:						Year:					
Diameter:						Tag:					
Weight:						VIN:					
						Country:					
						State:					
						Other:					
Delivery Details											
Device Placed/Delivered:					Other:					Final Evacuation Distance:	
Device/Item placed to entice action from individual?						N	Explain:				
RSP Details											
RSP Conducted?		RSP Successful?		RSP Narrative:							
RSP Conducted By											
Last Name						SIPR Email					
First Name						NIPR Email					
Rank						Phone					
Final Disposition											
Dispose by detonation?	Y	Parts/Pieces Detonated:				Whole Devices					
Other:						Name of Disposal Site					
Exact Location of Disposal Site						Parts/Pieces Transferred to Someone?				N	
Parts/Pieces Transferred						Other:					
Disposition Narrative		Munition was remote-pulled with rope into 4-foot deep hole. Venting procedure was utilized as a protective work against damage to adjacent property.									

4 blocks M112 were stacked vertically atop the round to direct frag into the ground. Charges were initiated by 2 electric blasting caps.

Post-blast revealed successful disposal by detonation. No components or pieces of the ordnance was present.

Custody Transfer To										
Name:				Organization:						
Address:				Components forwarded to CEXC?						N
Ordnance Involved										
Nationality	Class	Nomenclature			Qty	RSP	DP	Tech data		
United States	Projectile	MK 1			1	NA	Yes	D-2-1-9		
Ordnance Details										
Actuation										
Actuation Method	Initial Type	Initial SubType			Other	Range	Remarks			
No Actuations Available										
Power Sources										
Source	Other	Quantity	Connection			Remarks				
No Power Sources Available										
Explosives Found										
Cat	Type	Other	Qty	Color	Wt	Len	Ht	Wid	Dia	Remarks
No Explosives Found Available										
Fragmentations										
Type	Other	Remarks								
No Fragmentaions Available										
Device Housing & Description										
Package Placement:		Primary Device Housing Material:			Secondary Device Housing Material:			Color/Markings:		
Other:										
Device Description:										
Device Position:										
Dimensions					Vehicles					
Length:					Make:					
Height:					Model:					
Width:					Year:					
Diameter:					Tag:					
Weight:					VIN:					
					Country:					
					State:					
					Other:					
Delivery Details										
Device Placed/Delivered:		Other:			Final Evacuation Distance:					

Device/Item placed to entice action from individual?	N	Explain:	
RSP Details			
RSP Conducted?		RSP Successful?	RSP Narrative:
RSP Conducted By			
Last Name		SIPR Email	
First Name		NIPR Email	
Rank		Phone	
Final Disposition			
Dispose by detonation?	Y	Parts/Pieces Detonated:	Whole Devices
Other:		Name of Disposal Site	
Exact Location of Disposal Site		Parts/Pieces Transferred to Someone?	N
Parts/Pieces Transferred		Other:	
Disposition Narrative	<p>Munition was remote-pulled with rope into 4-foot deep hole. Venting procedure was utilized as a protective work against damage to adjacent property.</p> <p>4 blocks M112 were stacked vertically atop the round to direct frag into the ground. Charges were initiated by 2 electric blasting caps.</p> <p>Post-blast revealed successful disposal by detonation. No components or pieces of the ordnance was present.</p>		
Custody Transfer To			
Name:		Organization:	
Address:		Components forwarded to CEXC?	N

Explosives Used			
Nomenclature	DODIC	Qty	LotNbr
Charge, Demolition, 1.25 lb, C-4, M112	M023	4	MA-08E036-001
Cap, Blasting, Electric, Special, M6	M130	6	IRI91A006Y003

Post Mission			
Intended Physical Targets			
Physical Target	Other	Target Type	Target Remarks
No Intended Physical Targets Available			
Actual Physical Targets			
Physical Target	Other	Target Type	Target Remarks
No Actual Physical Targets Available			
Lessons Learned			
Problems Encountered	Solutions		
No Lessons Learned Available			
Comments			
Title	Modified By	Modified Date	Text Note Data
No Comments Available			

Routing Information		
To:	Thru:	From:
HQ AFCESA/CEXD HQ AFCESA/CEXD 139 BARNES DRIVE, SUITE 1 TYNDALL AFB, FL 32403-5319 DSN: 523- 6410/6478/6128/6191/6156/6281/6120/6306 EMAIL: AFCESA_CEXD@tyndall.af.mil	AFDW A7XC AFDW/A4/7XC 1535 Command Drive, Suite D-309 Andrews AFB, MD 20762 DSN: 857-1657 EMAIL: gary.hunt@afncr.af.mil	11 CES/CED 3445 North Carolina Ave Andrews AFB, MD 20762-5000 DSN: 858-8200 EMAIL: 316ces.ced@afncr.af.mil

Approvals		
	Approver	Date
Team Chief:	Weber, James A. SSgt	2/16/12
Supervisor:	Pearce, Christopher S. MSgt	2/17/12
MAJCOM Staff:		