

REPORT DOCUMENTATION PAGE					Form Approved OMB No. 0704-0188							
<p>The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Service Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p><b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.</b></p>												
1. REPORT DATE (DD-MM-YYYY) 01-09-2010		2. REPORT TYPE Final		3. DATES COVERED (From - To) August 2009 - September 2010								
<b>4. TITLE AND SUBTITLE</b>  Public Involvement Plan Addendum for Military Munitions Response Program Remedial Investigation Environmental Services				<b>5a. CONTRACT NUMBER</b> W912DR-09-D-0005								
				<b>5b. GRANT NUMBER</b> N/A								
				<b>5c. PROGRAM ELEMENT NUMBER</b> N/A								
<b>6. AUTHOR(S)</b>  Greg McGraw, David Crispo, P.E.				<b>5d. PROJECT NUMBER</b> 136147								
				<b>5e. TASK NUMBER</b> 01003300								
				<b>5f. WORK UNIT NUMBER</b> N/A								
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Shaw Environmental & Infrastructure, Inc. 100 Technology Center Drive Stoughton, MA 02072				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>  N/A								
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> U.S. Army Corps of Engineers Baltimore District 10 S. Howard Street, Room 7000 Baltimore, MD 21201				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>  NAB								
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>  N/A								
<b>12. DISTRIBUTION/AVAILABILITY STATEMENT</b> Available for Army and Ohio EPA review.												
<b>13. SUPPLEMENTARY NOTES</b> The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless designated by other documentation.												
<b>14. ABSTRACT</b> The purpose of this Public Involvement Plan (PIP) Addendum is promote communication between RVAAP and the community surrounding the Installation during environmental services to be performed under the Military Munitions Response Program (MMRP). This PIP Addendum has been developed as an addendum to the 2003 RVAAP Community Relations Plan that was prepared by the U.S. Army Corps of Engineers, Louisville District. This PIP Addendum addresses how the public will be informed and involved in the remedial investigation and munitions response services activities at the RVAAP under the MMRP. Included in this plan is the following; public involvement goals and objectives, site location, description, ownership and history of the 14 Munitions Response Sites (MRSs) under the MMRP, community background and profile, and the proposed public involvement program.												
<b>15. SUBJECT TERMS</b> Public Involvement Plan, Community Relations Plan, Military Munitions Response Program												
<b>16. SECURITY CLASSIFICATION OF:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding: 2px;">a. REPORT</td> <td style="width: 33%; padding: 2px;">b. ABSTRACT</td> <td style="width: 33%; padding: 2px;">c. THIS PAGE</td> </tr> <tr> <td style="text-align: center;">Unclassified</td> <td style="text-align: center;">Unclassified</td> <td style="text-align: center;">Unclassified</td> </tr> </table>			a. REPORT	b. ABSTRACT	c. THIS PAGE	Unclassified	Unclassified	Unclassified	<b>17. LIMITATION OF ABSTRACT</b>  UL		<b>18. NUMBER OF PAGES</b>  114	
a. REPORT	b. ABSTRACT	c. THIS PAGE										
Unclassified	Unclassified	Unclassified										
			<b>19a. NAME OF RESPONSIBLE PERSON</b> David Cobb									
			<b>19b. TELEPHONE NUMBER (Include area code)</b> 617.589.5561									

Reset

## INSTRUCTIONS FOR COMPLETING SF 298

**1. REPORT DATE.** Full publication date, including day, month, if available. Must cite at least the year and be Year 2000 compliant, e.g. 30-06-1998; xx-06-1998; xx-xx-1998.

**2. REPORT TYPE.** State the type of report, such as final, technical, interim, memorandum, master's thesis, progress, quarterly, research, special, group study, etc.

**3. DATES COVERED.** Indicate the time during which the work was performed and the report was written, e.g., Jun 1997 - Jun 1998; 1-10 Jun 1996; May - Nov 1998; Nov 1998.

**4. TITLE.** Enter title and subtitle with volume number and part number, if applicable. On classified documents, enter the title classification in parentheses.

**5a. CONTRACT NUMBER.** Enter all contract numbers as they appear in the report, e.g. F33615-86-C-5169.

**5b. GRANT NUMBER.** Enter all grant numbers as they appear in the report, e.g. AFOSR-82-1234.

**5c. PROGRAM ELEMENT NUMBER.** Enter all program element numbers as they appear in the report, e.g. 61101A.

**5d. PROJECT NUMBER.** Enter all project numbers as they appear in the report, e.g. 1F665702D1257; ILIR.

**5e. TASK NUMBER.** Enter all task numbers as they appear in the report, e.g. 05; RF0330201; T4112.

**5f. WORK UNIT NUMBER.** Enter all work unit numbers as they appear in the report, e.g. 001; AFAPL30480105.

**6. AUTHOR(S).** Enter name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. The form of entry is the last name, first name, middle initial, and additional qualifiers separated by commas, e.g. Smith, Richard, J, Jr.

**7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES).** Self-explanatory.

**8. PERFORMING ORGANIZATION REPORT NUMBER.** Enter all unique alphanumeric report numbers assigned by the performing organization, e.g. BRL-1234; AFWL-TR-85-4017-Vol-21-PT-2.

**9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES).** Enter the name and address of the organization(s) financially responsible for and monitoring the work.

**10. SPONSOR/MONITOR'S ACRONYM(S).** Enter, if available, e.g. BRL, ARDEC, NADC.

**11. SPONSOR/MONITOR'S REPORT NUMBER(S).** Enter report number as assigned by the sponsoring/monitoring agency, if available, e.g. BRL-TR-829; -215.

**12. DISTRIBUTION/AVAILABILITY STATEMENT.** Use agency-mandated availability statements to indicate the public availability or distribution limitations of the report. If additional limitations/ restrictions or special markings are indicated, follow agency authorization procedures, e.g. RD/FRD, PROPIN, ITAR, etc. Include copyright information.

**13. SUPPLEMENTARY NOTES.** Enter information not included elsewhere such as: prepared in cooperation with; translation of; report supersedes; old edition number, etc.

**14. ABSTRACT.** A brief (approximately 200 words) factual summary of the most significant information.

**15. SUBJECT TERMS.** Key words or phrases identifying major concepts in the report.

**16. SECURITY CLASSIFICATION.** Enter security classification in accordance with security classification regulations, e.g. U, C, S, etc. If this form contains classified information, stamp classification level on the top and bottom of this page.

**17. LIMITATION OF ABSTRACT.** This block must be completed to assign a distribution limitation to the abstract. Enter UU (Unclassified Unlimited) or SAR (Same as Report). An entry in this block is necessary if the abstract is to be limited.



**Final Public Involvement Plan Addendum for Military Munitions Response Program  
Remedial Investigation Environmental Services  
Version 1.0**

**Ravenna Army Ammunition Plant  
Ravenna, Ohio**

**Contract No. W912DR 09 D 0005  
Delivery Order 0002**

**Prepared for:**



**US Army Corps  
of Engineers®  
Baltimore District  
10 S. Howard Street, Room 7000  
Baltimore, MD 21201**

**Prepared by:**

**Shaw Environmental & Infrastructure, Inc.  
100 Technology Center Drive  
Stoughton, MA 02072**

**September 1, 2010**



## DOCUMENT DISTRIBUTION

Name/Organization	Number of Printed Copies	Number of Electronic Copies
AEC Program Manager	0	1
BRACD Program Manager	0	1
NGB Program Manager	0	1
OHARNG/Camp Ravenna	1	1
Ohio EPA Project Manager	2	2
RVAAP Facility Manager	2	2
USACE – Baltimore District	6	6
USACE – Louisville District	3	3
Shaw Project Manager	3	3


AEC – U.S. Army Environmental Command  
BRACD – Base Realignment and Closure Division  
NGB – National Guard Bureau  
OHARNG – Ohio Army National Guard  
Ohio EPA – Ohio Environmental Protection Agency  
RVAAP – Ravenna Army Ammunition Plant  
USACE – U.S. Army Corps of Engineers  
Shaw – Shaw Environmental & Infrastructure, Inc.




## CONTRACTOR'S STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Shaw Environmental & Infrastructure, Inc. has completed the *Final Public Involvement Plan Addendum for Military Munitions Response Program Remedial Investigation Environmental Services* for the Ravenna Army Ammunition Plant, Ravenna, Ohio. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy, principles, and procedures, utilizing justified and valid assumptions, was verified. This included review of technical assumptions; methods, procedures, and materials to be used; and whether the product meets customer's needs consistent with law and existing Corps policy.

Reviewed/Approved by:  Date: September 1, 2010  
Dave Cobb  
Project Manager

Reviewed/Approved by:  Date: September 1, 2010  
David Crispo, P.E.  
Senior Environmental Engineer

Prepared/Approved by:  Date: September 1, 2010  
Gregory McGraw  
Public Affairs Specialist



## Table of Contents

---

List of Figures .....	ii
List of Tables .....	ii
List of Appendices .....	ii
Acronyms and Abbreviations .....	iii
1.0 Overview of the Public Involvement Plan .....	1-1
1.1 Overview of the Public Involvement Plan .....	1-1
1.2 Public Involvement Goals and Objectives .....	1-2
2.0 Property Description .....	2-1
2.1 RVAAP Site Location, Description, and History .....	2-1
2.2 Past MMRP Activities at RVAAP .....	2-7
2.3 MRS Descriptions and History .....	2-8
2.3.1 Ramsdell Quarry Landfill MRS (RVAAP-001-R-01) .....	2-8
2.3.2 Erie Burning Grounds MRS (RVAAP-002-R-01) .....	2-8
2.3.3 Open Demolition Area #2 MRS (RVAAP-004-R-01) .....	2-11
2.3.4 Load Line #1 MRS (RVAAP-008-R-01) .....	2-11
2.3.5 Fuze and Booster Quarry MRS (RVAAP-016-R-01) .....	2-13
2.3.6 Landfill North of Winklepeck Burning Grounds MRS (RVAAP-019-R-01) .....	2-16
2.3.7 40mm Firing Range MRS (RVAAP-032-R-01) .....	2-16
2.3.8 Firestone Test Facility MRS (RVAAP-033-R-01) .....	2-16
2.3.9 Sand Creek Disposal Road Landfill MRS (RVAAP-034-R-01) .....	2-19
2.3.10 Atlas Scrap Yard MRS (RVAAP-050-R-01) .....	2-19
2.3.11 Block D Igloo MRS (RVAAP-060-R-01) .....	2-23
2.3.12 Block D Igloo – TD MRS (RVAAP-061-R-01) .....	2-25
2.3.13 Water Works #4 Dump MRS (RVAAP-062-R-01) .....	2-25
2.3.14 Group 8 MRS (RVAAP-063-R-01) .....	2-25
2.4 MMRP Activities and Performance Objectives .....	2-28
3.0 Community Background .....	3-1
3.1 Community Profile .....	3-1
3.2 History of Community Involvement .....	3-1
3.3 Key Community Concerns .....	3-3
3.4 Responses to Community Concerns .....	3-3
4.0 RVAAP's Public Involvement Program .....	4-1
4.1 Public Involvement Program .....	4-1
4.2 Public Involvement Activities .....	4-3

## List of Figures

---

Figure 2-1	Location Map .....	2-2
Figure 2-2	Munitions Response Site Locations .....	2-5
Figure 2-3	Ramsdell Quarry Landfill MRS Location .....	2-9
Figure 2-4	Erie Burning Grounds MRS Location .....	2-10
Figure 2-5	Open Demolition Area #2 MRS Location .....	2-12
Figure 2-6	Load Line #1 MRS Location .....	2-14
Figure 2-7	Fuze & Booster Quarry MRS Location .....	2-15
Figure 2-8	Landfill North of Winklepeck Burning Grounds MRS Location .....	2-17
Figure 2-9	40mm Firing Range MRS Location .....	2-18
Figure 2-10	Firestone Test Facility MRS Location .....	2-20
Figure 2-11	Sand Creek Disposal Road Landfill MRS Location .....	2-21
Figure 2-12	Atlas Scrap Yard MRS Location .....	2-22
Figure 2-13	Block D Igloo and Block D Igloo-TD MRS Locations .....	2-24
Figure 2-14	Water Works #4 Dump MRS Location .....	2-26
Figure 2-15	Group 8 MRS Location .....	2-27

## List of Tables

---

Table 4-1	Community Relations Responsibilities under the CERCLA Process .....	4-2
-----------	---	-----

## List of Appendices

---

Appendix A	Government Officials Contact List
Appendix B	Regulatory Agencies and Interested Parties
Appendix C	Restoration Advisory Board Members
Appendix D	Media Contact List
Appendix E	Interview Questions
Appendix F	Glossary
Appendix G	Meeting Locations
Appendix H	Repository Locations
Appendix I	Other Resources
Appendix J	Comment Response Table
Appendix K	Ohio EPA Approval Letter



## Acronyms and Abbreviations

---

AEDB-R	Army Environmental Database-Restoration
AOC	Area of Concern
ASR	Archive Search Report
AR	Administrative Record
BIP	blown-in-place
BRAC	Base Realignment and Closure
Camp Ravenna	Camp Ravenna Joint Military Training Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Community Relations Plan
CTT	closed, transferring or transferred
DERP	Defense Environmental Restoration Program
DMM	discarded military munitions
DoD	Department of Defense
e <sup>2</sup> M	engineering-environmental Management, Inc.
EPA	Environmental Protection Agency
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
HE	high-explosive
HRR	Historical Records Review
IR	Information Repository
IRP	Installation Restoration Program
lb	pound
LTM	Long-Term Management
MAMMS	Multiple Award Military Munitions Services
MC	munitions constituents
MD	munitions debris
MEC	munitions and explosives of concern
MMRP	Military Munitions Response Program
MRS	Munitions Response Site
NCP	National Oil and Hazardous Substances Contingency Plan
NFA	No Further Action
NGB	National Guard Bureau
OB/OD	open burning/open detonation
ODA	Open Demolition Area
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code
O&M	Operation and Maintenance
PA	Preliminary Assessment
PIKA	PIKA International, Inc.
PIP	Public Involvement Plan

**Acronyms and Abbreviations** *(continued)* 

---

RA	Remedial Action
RA(O)	Remedial Action (Operations)
RAB	Restoration Advisory Board
RC	Response Complete
RDX	cyclotrimethyltrinitramine a.k.a. royal demolition explosive
RI	Remedial Investigation
RIP	remedy-in-place
ROD	Record of Decision
RVAAP	Ravenna Army Ammunition Plant
SARA	Superfund Amendments and Reauthorization Act
Shaw	Shaw Environmental & Infrastructure, Inc.
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TCRA	Time-Critical Removal Action
TNT	Trinitrotoluene
TOW	tube-launched, optically-tracked, wire-guided
USACE	U.S. Army Corps of Engineers
UXO	Unexploded Ordnance

## 1.0 Overview of the Public Involvement Plan

---

### 1.1 Overview of the Public Involvement Plan

Shaw Environmental & Infrastructure, Inc. (Shaw) is submitting this *Final Public Involvement Plan Addendum for Military Munitions Response Program Remedial Investigation Environmental Services (PIP Addendum)* to the U.S. Army in accordance with the *Performance Work Statement (PWS)* section included in Multiple Award Military Munitions Services (MAMMS) Contract No. W912DR-09-D-0005, Task Order 0002 for performance based, firm fixed-price remedial investigation (RI) and munitions response services at 14 Military Munitions Response Program (MMRP) sites at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio. The Delivery Order was issued by the United States Army Corps of Engineers (USACE), North Atlantic Division, Baltimore District on May 27, 2009.

The purpose of this *PIP Addendum* is to promote communication between RVAAP and the community surrounding the Installation during environmental services to be performed under the MMRP. This *PIP Addendum* has been developed as an addendum to the 2003 *Ravenna Army Ammunition Plant, Ravenna Ohio, Community Relations Plan (CRP)* prepared by the USACE, Louisville District. The USACE began using the term “Public Involvement” in 2004 to denote the Army’s approach to working with communities. This plan identifies issues of community concern about the RVAAP and serves as a guide for public involvement goals and objectives.

Federal agencies develop public involvement programs to be consistent with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) Section 113(k)(2), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It is the policy of the Department of Defense (DoD) to involve the local community in the environmental restoration process. These requirements are the basis for more comprehensive and effective community relations activities. By identifying the public’s concerns, the RVAAP is able to fashion a response that more effectively addresses the community’s needs.

This plan addresses how the public will be informed and involved in the RI and munitions response services activities for the RVAAP under the MMRP. Included in this plan will be:

- Public involvement goals and objectives
- Site location, description, ownership and history
- Community background and profile
- Proposed public involvement program

This information is based on research conducted in the community, the past record of RVAAP activity, and interviews conducted with key stakeholders during preparation of the 2003 *CRP*. The RVAAP will be forthright, responsive, clear, and proactive in their communications involving the stakeholders. Stakeholders include members of the general public, elected officials, interest groups, and the media who express an interest in this site.

## **1.2 Public Involvement Goals and Objectives**

It is the goal of the RVAAP is to be honest, forthright, responsive, and clear in dealing with the public, elected officials, interest groups, and the media. It is important to nurture public participation in site activities for the RVAAP and Camp Ravenna Joint Military Training Center; increase public awareness of the program and its activities; decrease misunderstanding about environmental problems and potential dangers; and foster community trust in the RVAAP's ability to perform this mission in the most effective and efficient manner.

Based upon the identified goals, the objectives of the RVAAP's public involvement efforts are as follows:

- Facilitate two-way communications between the community and the RVAAP's project delivery team
- Inform the community of the environmental progress at the former RVAAP and involve the community in the process
- Develop and maintain relationships with media to report accurate, thorough information about the former RVAAP and the MMRP process

## **2.0 Property Description**

---

### **2.1 RVAAP Site Location, Description, and History**

The RVAAP (Federal Facility Identification number: OH213820736) is located in northeastern Ohio within Portage and Trumbull counties, approximately 4.8 kilometers (3 miles) east-northeast of the city of Ravenna (Figure 2-1). All MMRP sites are located solely within Portage County. The installation is approximately 17.7 kilometers (11 miles) long and 5.6 kilometers (3.5 miles) wide. It is bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad on the south; Garret, McCormick, and Berry roads on the west; the Norfolk Southern Railroad on the north; and State Route 534 on the east. The installation is surrounded by several communities: Windham on the north, Garrettsville 9.6 kilometers (6 miles) to the northwest, Newton Falls 1.6 kilometers (1 mile) to the southeast, Charlestown to the southwest, and Wayland 4.8 kilometers (3 miles) to the south.

Constructed in 1940, production at RVAAP began in December 1941, with the primary missions of depot storage and ammunition loading. The Installation was divided into two separate units: the Portage Ordnance Depot and the Ravenna Ordnance Plant. The depot's primary mission was storage of munitions and components, while the mission of the ordnance plant was loading and packing major-caliber artillery ammunition and the assembly of munitions-initiating components that included fuzes, boosters, and percussion elements. In August 1943, the Installation was redesignated the Ravenna Ordnance Center and again, in November 1945, as the Ravenna Arsenal. The plant was placed in standby status in 1950 and reactivated during the Korean Conflict to load and pack major caliber shells and components. All production ended in August 1957, and in October 1957 the installation again was placed in a standby condition. In October 1960 the ammonium nitrate line was renovated for demilitarization operations, which involved melting explosives out of bomb casings for subsequent recycling. These operations began in January 1961. In July 1961, the plant was deactivated again. In November 1961, the installation was divided into the Ravenna Ordnance Plant and an industrial section, with the entire Installation designated as the RVAAP.

In May 1968, RVAAP began loading, assembling, and packing munitions on three load lines and two component lines to support the Southeast Asia conflict. These facilities were deactivated in August 1972. The destruction of M71A1 90-millimeter (mm) projectiles extended from June 1973 until March 1974. Destruction of various munitions was conducted from October 1982 through 1992.



**Figure 2-1**  
**Location Map**  
**Ravenna Army Ammunition Plant**  
**Ravenna, Ohio**

Until 1993, RVAAP maintained the capability to load, assemble, and pack military ammunition. As part of the RVAAP mission, the Army maintained inactive facilities in a standby status by keeping equipment in a condition to allow resuming production within prescribed limitations. In September 1993, the Army placed RVAAP in inactive caretaker status, which subsequently changed to modified caretaker status. The load lines and associated real estate were determined to be excess by the Army.

As of February 2006, a total of 20,403 acres of the former 21,683-acre RVAAP has been transferred to the National Guard Bureau (NGB) and subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site. Currently, RVAAP consists of 1,280 acres in several distinct parcels scattered throughout the confines of the Camp Ravenna. These 1,280 acres consist of former industrial facilities that are being remediated and managed by the Base Realignment and Closure (BRAC) Division that has; among other responsibilities, the task of overseeing inactive status installations. MMRP work will be performed on both NGB and BRAC parcels at RVAAP that consist of 14 active Munitions Response Sites (MRSs) (Figure 2-2).

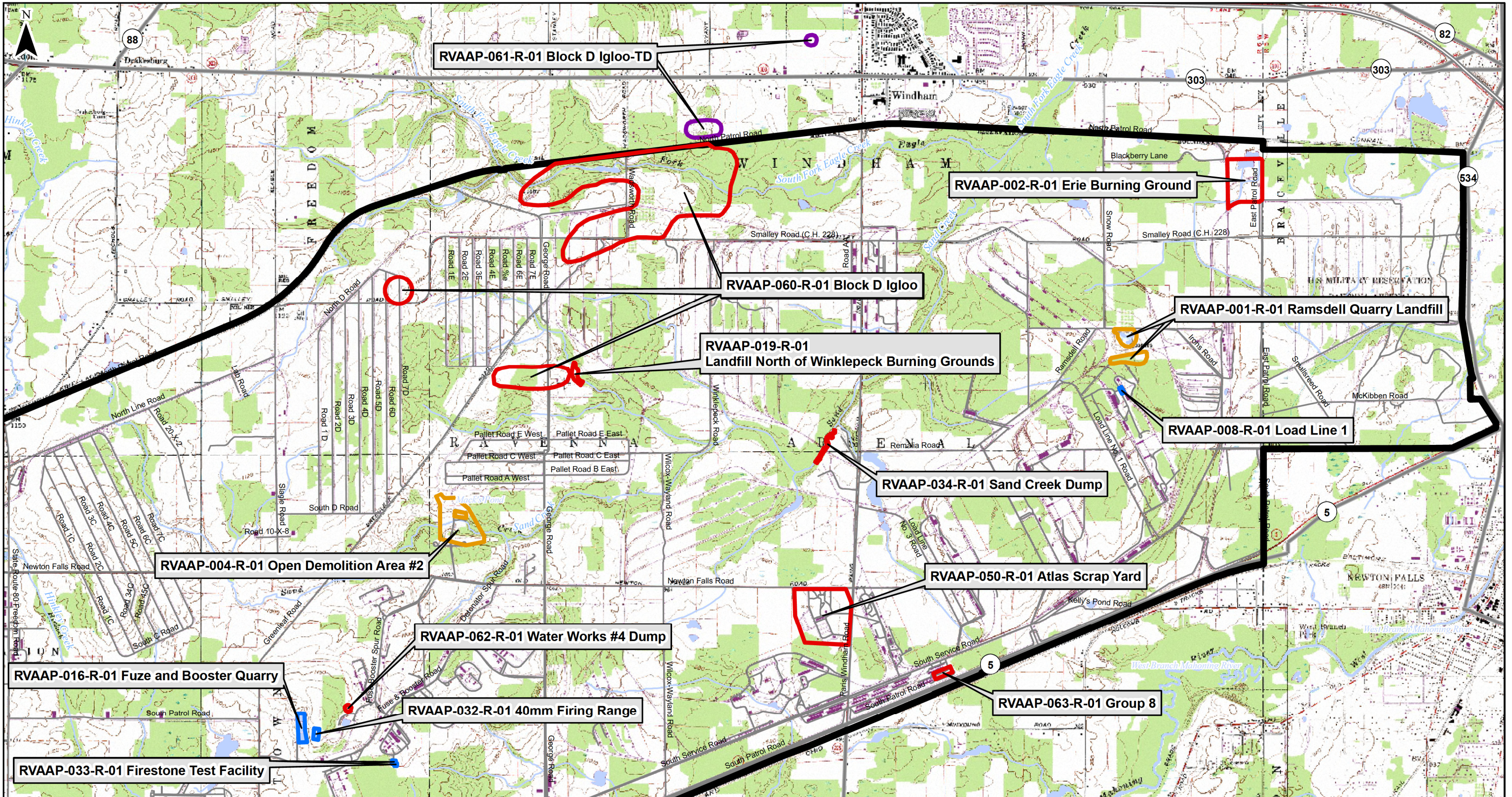
During the operational years, prior to Camp Ravenna, the entire 21,683 acre property was a government-owned, contractor-operated industrial facility. The RVAAP MMRP encompasses investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP; therefore, references to the RVAAP in this plan are considered to be inclusive of the historical extent of the RVAAP, which is inclusive of the combined acreages of the current Camp Ravenna and RVAAP, unless otherwise specifically stated.

It is important to note that RVAAP is bound to the Director's Final Findings and Orders issued June 10, 2004 by the Ohio Environmental Protection Agency (Ohio EPA) pursuant to the authority vested under Chapters 3734, 3745, and 6111 of the Ohio Revised Code (ORC). The objective of the Orders is to ensure the public health, safety, welfare, and the environment, are protected from the disposal, discharge, or release of potential contaminants. This includes munitions and explosives of concern (MEC), which include unexploded ordnance (UXO); discarded military munitions (DMM), or munitions constituents (MC) at explosive concentrations; and MC at or from the installation. These types of munitions and constituents are investigated and managed under guidelines of a CERCLA-based environmental remediation program. The Ohio EPA is the lead regulatory agency at RVAAP.

The MMRP was established under the Defense Environmental Restoration Program (DERP) to address MEC and MC located on current and former defense sites such as the RVAAP. The lead Army agency for the MMRP at the RVAAP is the USACE, Louisville District. As a new program, some elements of the MMRP are still under development at the Installation.

**This page intentionally left blank.**

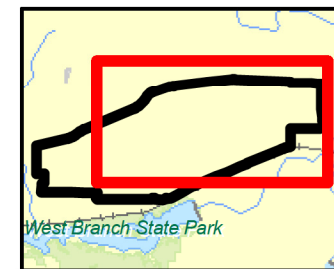




- Ravenna Army Ammunition Plant Boundary
- BRAC Property
- NGB Property
- BRAC/NGB Property
- Non-DoD Control
- Surface Water
- Stream

0 1,500 3,000 6,000 Feet

Projection : NAD\_1983\_UTM\_Zone\_17N



U.S. ARMY  
CORPS OF ENGINEERS  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
2-2

MUNITIONS RESPONSE SITE LOCATIONS  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

Shaw Environmental, Inc.



**This page intentionally left blank.**

## 2.2 Past MMRP Activities at RVAAP

In 2006, engineering-environmental Management, Inc. (e<sup>2</sup>M) conducted a Historical Records Review (HRR) to document historical and other known information on MRSs identified at the RVAAP to supplement U.S. Army inventory of closed, transferring, or transferred (CTT) military training and defense sites (U.S. Army CTT Range/Site Inventory). The HRR included a review of historical documents, maps, drawings, photographs, and investigation reports comprising the Administrative Record (AR), interviews with installation personnel, and reviews of the U.S. Army CTT Range/Site Inventory, Archive Search Report (ASR) and supporting documentation. The HRR originally identified 19 MRSs; however, a determination was made based on information collected during the HRR that two MRSs, Winklepeck Burning Grounds and the Old Hayfield, were not MMRP-eligible because they are currently considered active ranges under OHARNG. These ranges are currently managed by the OHARNG and will be closed by the OHARNG when the ranges are no longer needed. Therefore, a total of 17 MRSs were retained due to demolition and/or disposal activities that were conducted that resulted in the potential presence of MEC and/or MC where releases occurred prior to September 2002.

In 2007, e<sup>2</sup>M conducted a site investigation (SI) at each the 17 MRSs under the MMRP. The primary objectives of the SI was to collect the appropriate amount of information to support recommendations of No Further Action (NFA), Immediate Response or Further Characterization concerning the presence of MEC and/or MC at each of the MRSs. Recommendations for the MRSs following the SI activities are presented in the *Final Site Inspection Report, Ravenna Army Ammunition Plant* prepared by e<sup>2</sup>M in May 2008. Out of the 17 MRSs originally identified to require further evaluation in the SI, 14 were recommended for Further Characterization. These 14 active MMRP sites at the RVAAP have the following MRS designations:

- RVAAP-001-R-01, Ramsdell Quarry Landfill MRS
- RVAAP-002-R-01, Erie Burning Grounds MRS
- RVAAP-004-R-01, Open Demolition Area #2 MRS
- RVAAP-008-R-01, Load Line #1 MRS
- RVAAP-016-R-01, Fuze and Booster Quarry MRS
- RVAAP-019-R-01, Landfill North of Winklepeck Burning Grounds MRS
- RVAAP-032-R-01, 40mm Firing Range MRS
- RVAAP-033-R-01, Firestone Test Facility MRS
- RVAAP-034-R-01, Sand Creek Disposal Road Landfill MRS
- RVAAP-050-R-01, Atlas Scrap Yard MRS
- RVAAP-060-R-01, Block D Igloo MRS
- RVAAP-061-R-01, Block D Igloo–TD MRS

- RVAAP-062-R-01, Water Works #4 Dump MRS
- RVAAP-063-R-01, Group 8 MRS

More information on the history of environmental activities at each of the MRSs as well as the aforementioned referenced e<sup>2</sup>M *SI Report* can be obtained from documents located in the Information Repository (IR) identified in Appendix G and on the RVAAP web site at [www.rvaap.org](http://www.rvaap.org).

## **2.3 MRS Descriptions and History**

Historical descriptions and summaries of previous investigations and activities for the each of the 14 active MRSs are presented in the following subsections.

### **2.3.1 Ramsdell Quarry Landfill MRS (RVAAP-001-R-01)**



The Ramsdell Quarry Landfill is a 13.41-acre site originally operated as quarry mined for rock material. Operations at the quarry ceased in 1941 and the quarry was used from 1946 to 1950 to thermally treat waste explosives from Load Line #1, and approximately 18,000 500-pound (lb) incendiary or napalm bombs through surface burning. From 1976 to its closure in 1990, the quarry was operated as an Ohio state-permitted non-hazardous solid waste landfill. The MRS (Figure 2-3) encompasses the former open burning/open detonation (OB/OD) area (Area 1) and the small borrow pit and wooded area (Area 2). Area 1 is co-located with an area of concern (AOC), Ramsdell Quarry Landfill [Army Environmental Database-Restoration (AEDB-R) #RVAAP-01] that includes a landfill; the landfill is not part of the MRS.

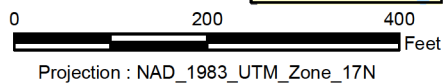
Subsurface anomalies have been detected at the Area 1, specifically around the pond; however, no evidence of MEC was observed at Area 2. One empty 105mm ceremonial shot cartridge and one empty 155mm shot round, both munitions debris (MD), were found at two locations in Area 2 during the SI field work. Lead and manganese have been identified as MC in surface soil in the southern soil borrow pit. The SI recommended further characterization at the MRS based on the presence of MEC in and around Area 1 and MC in Area 2.

### **2.3.2 Erie Burning Grounds MRS (RVAAP-002-R-01)**

The Erie Burning Grounds MRS is an undeveloped area covering approximately 35 acres in the northeastern corner of RVAAP (Figure 2-4). The MRS operated between 1941 and 1951 and was used to thermally treat bulk, obsolete, off-spec propellants, conventional explosives, rags, and large explosives contaminated items (e.g., railcars) through open burning on the ground surface. The ash residue was left onsite after the burns. Prior to its acquisition by the Army in 1940, the area may have been used for brick manufacturing. As of September 2007, high-quality wetlands cover approximately 60 percent of the MRS.



-  MRS Boundary
-  Surface Water



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

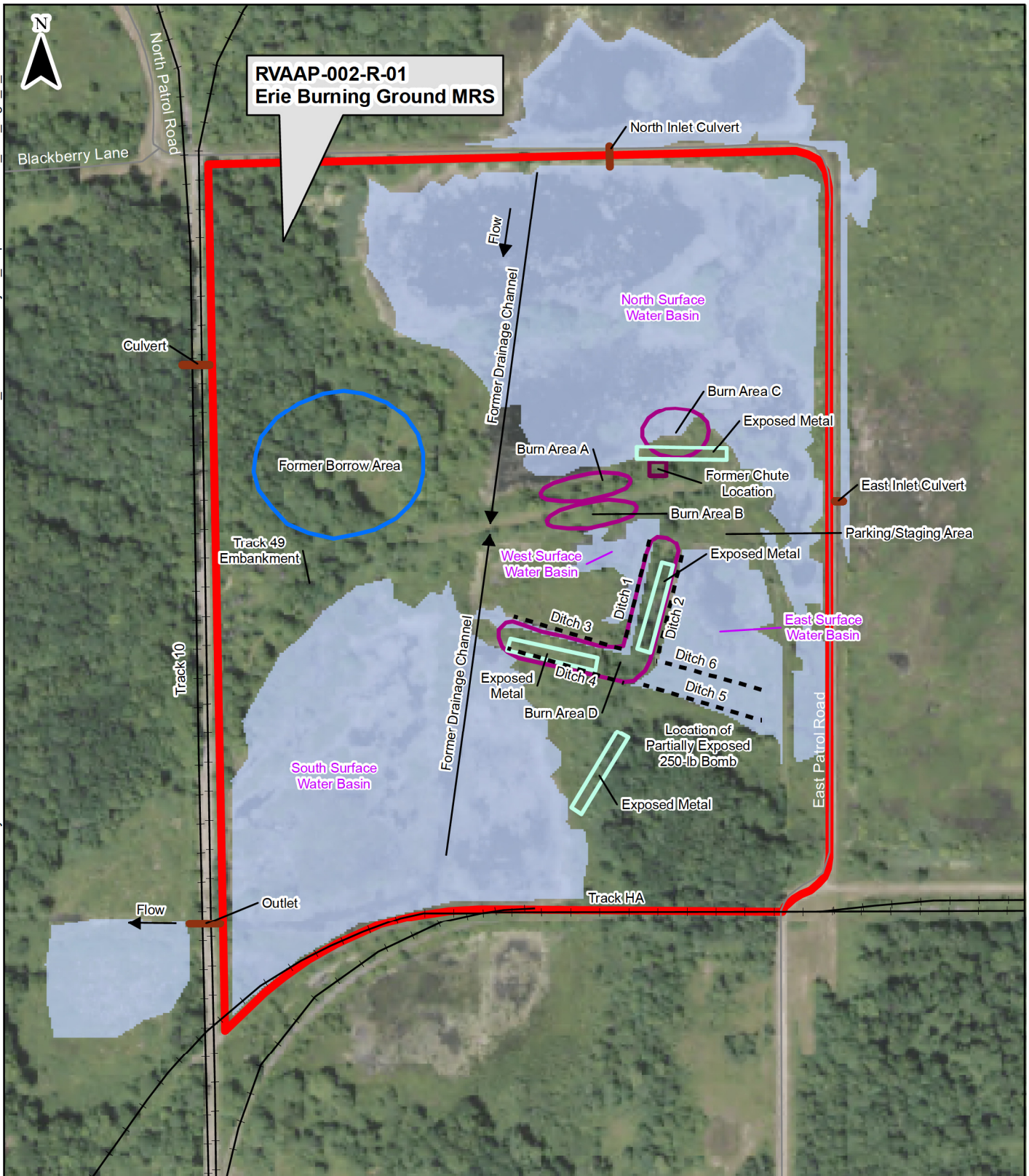
MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-3**

**RAMSDELL QUARRY LANDFILL MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

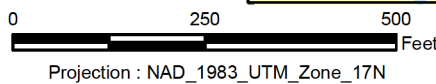
 **Shaw** Shaw Environmental, Inc.





- MRS Boundary
- Burn Area
- Exposed Metal
- Former Borrow Area
- Former Chute Location
- Surface Water

- Culvert/Outlet
- Ditch
- Direction of Flow
- Former Railroad



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-4**

**ERIE BURNING GROUND MRS LOCATION  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO**

**Shaw** Shaw Environmental, Inc.

One partially buried large caliber casing and several subsurface anomalies were identified during the investigation. No samples were collected during the SI for MC. Surface water, groundwater, soil, and dry sediment sampling was conducted under the Installation Restoration Program (IRP); however, further characterization of wet sediments will be required under the MMRP.

### **2.3.3 Open Demolition Area #2 MRS (RVAAP-004-R-01)**

The Open Demolition Area (ODA) #2 is a 35-acre area used from 1948 to 1991 to detonate large caliber munitions and off-specification bulk explosives, and for burial of white phosphorus and bombs of unknown types (Figure 2-5). The MRS consists of the former demolition area, the 40mm test range, Burial Sites 1 and 2, the Rocket Ridge Area, the Bomb Disposal Area located adjacent to the northwestern section of the MRS; and all the areas in between.

At Rocket Ridge, MEC consisting of T-bar fuzes, white phosphorus grenades, and three potential 500-lb bombs were previously identified. A partially buried fuze was also found at Burial Site 2. Two 40mm cartridges with intact primers were found on the hill directly across from Rocket Ridge and MD was found throughout the MRS that consisted of 155mm projectiles, remnants of 40mm rounds, casing fragments from large caliber projectiles, and remnants of donor charge bags.

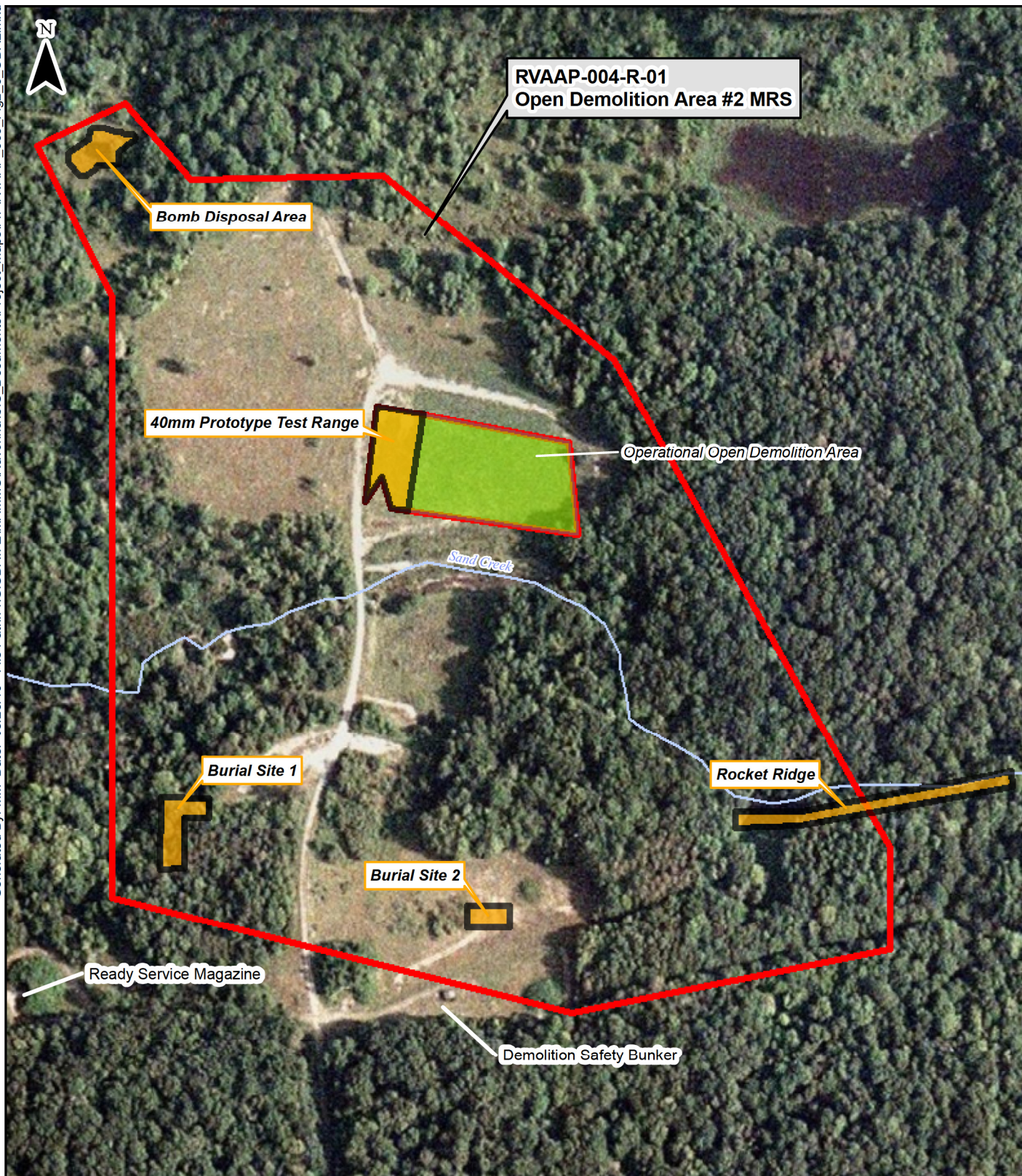
In July 2009, PIKA International, Inc. (PIKA) conducted a Time-Critical Removal Action (TCRA) to mitigate immediate explosive hazards and evaluate MEC and MD in the Rocket Ridge area. As part of these activities, PIKA determined that the three 500-lb bombs previously identified at Rocket Ridge were not fuzed and were acceptable to move. PIKA also removed a 105mm projectile at Rocket Ridge using Blow-in-Place (BIP) techniques.

A RI is being conducted at ODA #2 under the MMRP to evaluate the nature and extent of MEC and MC contamination within the MRS including Rocket Ridge, the Bomb Disposal Area, Burial Site 1 and 2, the hill across Sand Creek from Rocket Ridge and kick-out areas surrounding the ODA #2 MRS boundary.

### **2.3.4 Load Line #1 MRS (RVAAP-008-R-01)**

Load Line #1 was used to melt and load trinitrotoluene (TNT) and Composition B explosives into large-caliber shells during World War II and the Korean War. As a result of load operation, explosive dust, spills, and vapors collected on the floors and walls of several buildings were periodically washed from the walls and floors with water and steam. In 1971, the load line was declared inactive when the buildings with residual explosive dusts were washed down, and the freestanding equipment was removed. From 1996 through 1998, salvage operations continued with the removal of the overhead steam lines and major rail spurs, and the removal of all





- MRS Boundary
- MRS Sub-Areas/Source Areas
- Operational Open Demolition Area
- Stream



0 250 500 Feet  
Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-5**

**OPEN DEMOLITION AREA #2 MRS LOCATION  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO**

 **Shaw** Shaw Environmental, Inc.



telephone lines. The majority of the buildings were demolished and removed by 2000. The remainder of the floor slabs were demolished and removed in 2009.

The Load Line #1 MRS was originally a 4.63-acre area composed of several areas associated with former buildings CB-13/CB-13B, the area near the former elevated building slab at CB-14 and areas where triple-base propellant have historically been found. The MRS has been reduced to a 0.41-acre area located on the northwest side of former Building CB-14 (Figure 2-6). This MRS is located within the Load Line #1 IRP AOC (AEDB-R #RVAAP-08).

MEC consisting of triple-base propellant (1-inch by ¼-inch each) has been previously found on the ground surface at the MRS. Lead was the only MC detected in surface soil; however, a low concentration of TNT was also detected. Based on the UXO survey and MC results for lead and low detects for explosives, the SI recommended further characterization to address MEC and MC concerns at the Load Line #1 MRS.


### **2.3.5 Fuze and Booster Quarry MRS (RVAAP-016-R-01)**

The Fuze and Booster Quarry MRS is an undeveloped 5-acre area that consists of three elongated ponds, situated end to end and separated by berms constructed within an abandoned rock quarry. The quarry was used for open burning of various types of munitions from 1945 to 1975 (Figure 2-7). The MRS is co-located with an IRP AOC at the Fuze and Booster Quarry (AEDB-R #RVAAP-16).

The HRR conducted by e<sup>2</sup>M for the MRS identified that munitions produced at RVAAP could have been disposed at the site. These munitions include rockets, bombs, fuzes, detonators, flares, missiles, grenades, landmines, medium- and large-caliber ammunition, explosives, mortars, propellant, practice ordnance, pyrotechnics, and small arms.

No suspect MEC has been identified at the MRS; however, MD was found on the northeastern side of the southern pond. Further, multiple closely spaced subsurface anomalies considered to be suspect MD and possibly MEC have been detected alongside the southeastern and east sides of the southern pond, the east side of the central pond, and the eastern and northeastern sides of the northern pond. The e<sup>2</sup>M SI reported that RVAAP personnel have observed munitions items in the northern and southern ponds when water levels are low. The SI recommended further characterization to assess buried anomalies that may be potential MD or MEC located on the southeastern, eastern, and northeastern banks of the three ponds, and the presence of MEC on the submerged portions of the northern and southern ponds. The submerged portions of all three ponds will be investigated during the RI phase under the MMRP.



 MRS Boundary



0 50 100 Feet

Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM




FIGURE  
NUMBER  
**2-6**

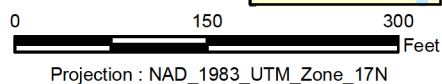
LOAD LINE #1 MRS LOCATION  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.





-  MRS Boundary
-  Suspected Location of Debris Pile
-  Surface Water



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-7**

**FUZE & BOOSTER QUARRY MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.

### **2.3.6 Landfill North of Winklepeck Burning Grounds MRS (RVAAP-019-R-01)**

The Landfill North of Winklepeck Burning Grounds MRS is a 2.3-acre area adjacent to the north of the inactive landfill (Figure 2-8). The MRS is sloped, heavily wooded, and located adjacent to an unnamed stream. The landfill itself is approximately 7.5-acres and unlined. It accepted general plant refuse, explosive waste residue, and open burn waste, including flares and booster cups from Winklepeck Burning Grounds. The landfill is excluded from the revised MRS footprint and will continue to be assessed under the IRP.

No MEC has been identified at the MRS; however, MD consisting of empty flare canisters have been discovered along the hillside adjacent to the former landfill; a partially buried fragment of an unidentified bomb casing was found adjacent to the creek in the southeastern portion of the MRS; and one empty 105mm projectile (i.e., empty of energetic material) was found lying on the ground surface on the southeastern wooded area. Multiple concentrated subsurface anomalies were detected along the length of the hillside adjacent to the former landfill. Concentrations of lead and iron were identified as MC in surface soil. The SI recommended that further characterization be conducted under the MMRP to address MEC and MC concerns at the MRS.

### **2.3.7 40mm Firing Range MRS (RVAAP-032-R-01)**

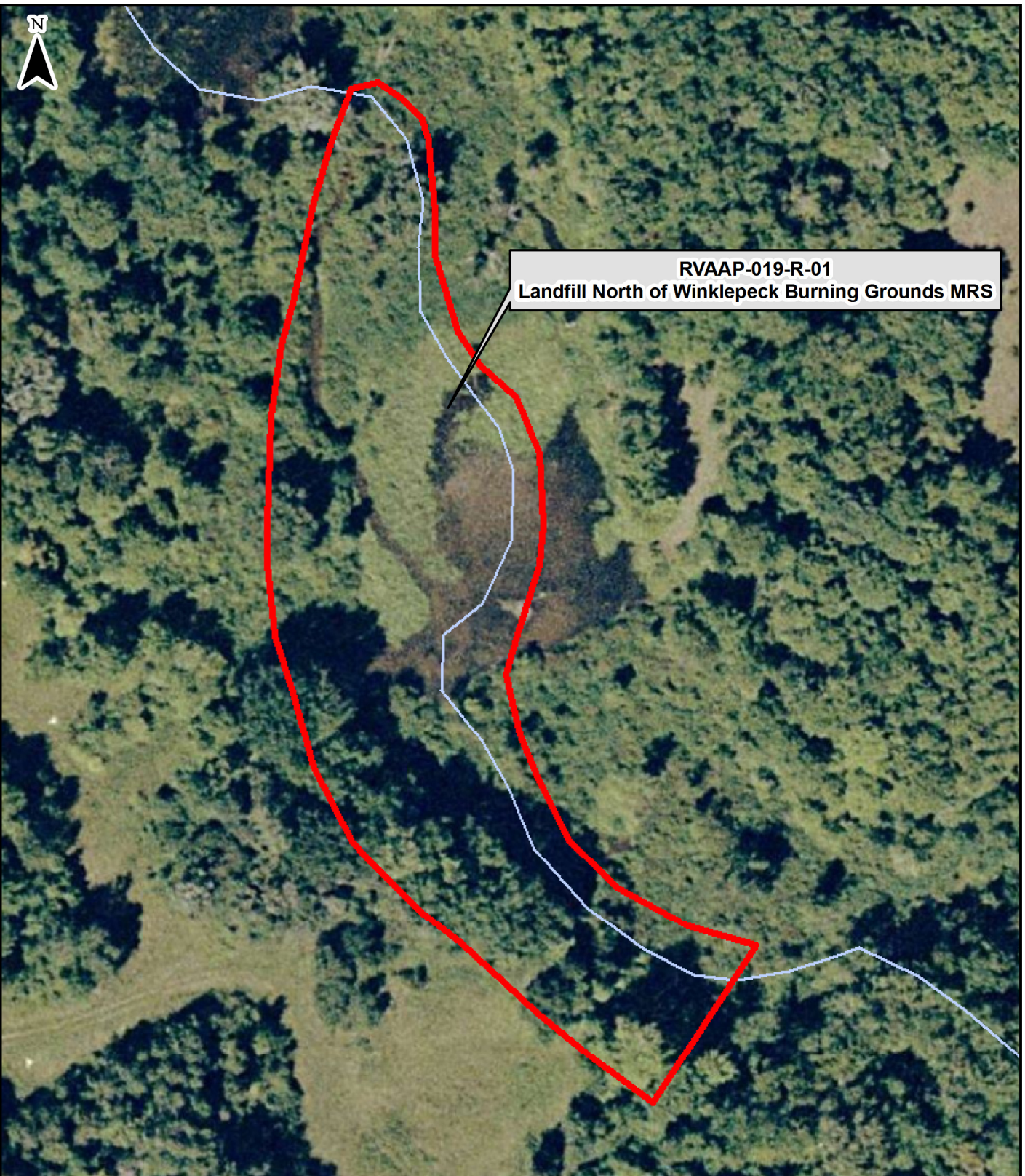
The 40mm Firing Range MRS is a former test range that was used from approximately 1969 to 1971 to test the 40mm cartridge. The MRS is undeveloped and encompasses an open field approximately 1.3 acres in size surrounded by forest (Figure 2-9). A wooden structure located at the firing point is believed to be the former storage shed. The impact area was located in the western part of the MRS, just uphill from the ponds at the Fuze and Booster Quarry. The impact area consisted of a single impact berm, which has been removed.



Rounds tested may have included both the M407A1 practice round and the M406 high-explosive (HE) round. Practice rounds contain yellow marker dye, M9 propellant, and royal demolition explosive (RDX) booster pellets. The M406 HE rounds contain Composition B and M9 propellant. The e<sup>2</sup>M SI Report states that RVAAP personnel reported that UXO is present beyond the impact point, on the slope that leads down to the Fuze and Booster Quarry MRS. MD consisting of aluminum 40mm nose caps and casings have been found at the impact area and approximately 100 feet beyond the impact area (assumed to be overshoot). The majority of the detections were remnants of 40mm rounds (casing and nose fragments) covered by leaves and other forest detritus.

### **2.3.8 Firestone Test Facility MRS (RVAAP-033-R-01)**

The Firestone Test Facility is situated in Load Line #6 and consisted of two buildings used as test chambers for the tube-launched, optically-tracked, wire-guided (TOW) and Dragon missiles,





-  MRS Boundary
-  Stream



0 100 200 Feet  
Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM



FIGURE  
NUMBER  
**2-8**

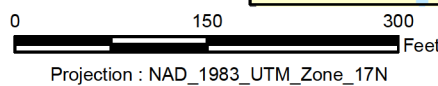
LANDFILL NORTH OF WINKLEPECK  
BURNING GROUNDS MRS LOCATION  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.





-  MRS Boundary
-  Suspected Firing Point Location



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-9**

**40MM FIRING RANGE MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.

and a pond and test chamber used for the testing of shape charges. Previous investigations at the MRS indicated limited impact from MEC-related activities in areas within the Firestone Test Facility with the exception of the small pond located at the southernmost boundary of the Firestone Test Facility, which has not yet been investigated (Figure 2-10).

Although no visible evidence of MEC debris has been observed at the MRS, the presence of dense pockets of buried metallic and unidentified items have been detected during previous investigations. The pond was not surveyed for MEC-related material during the SI. No MC was identified in the soil samples collected during the SI and soils around the test chamber will be addressed under the IRP. The MRS acreage has been reduced to 0.41 acres – approximately the area of the shape charge test pond and the area around it. The SI recommended further characterization at the revised MRS to address MEC concerns.

### **2.3.9 Sand Creek Disposal Road Landfill MRS (RVAAP-034-R-01)**

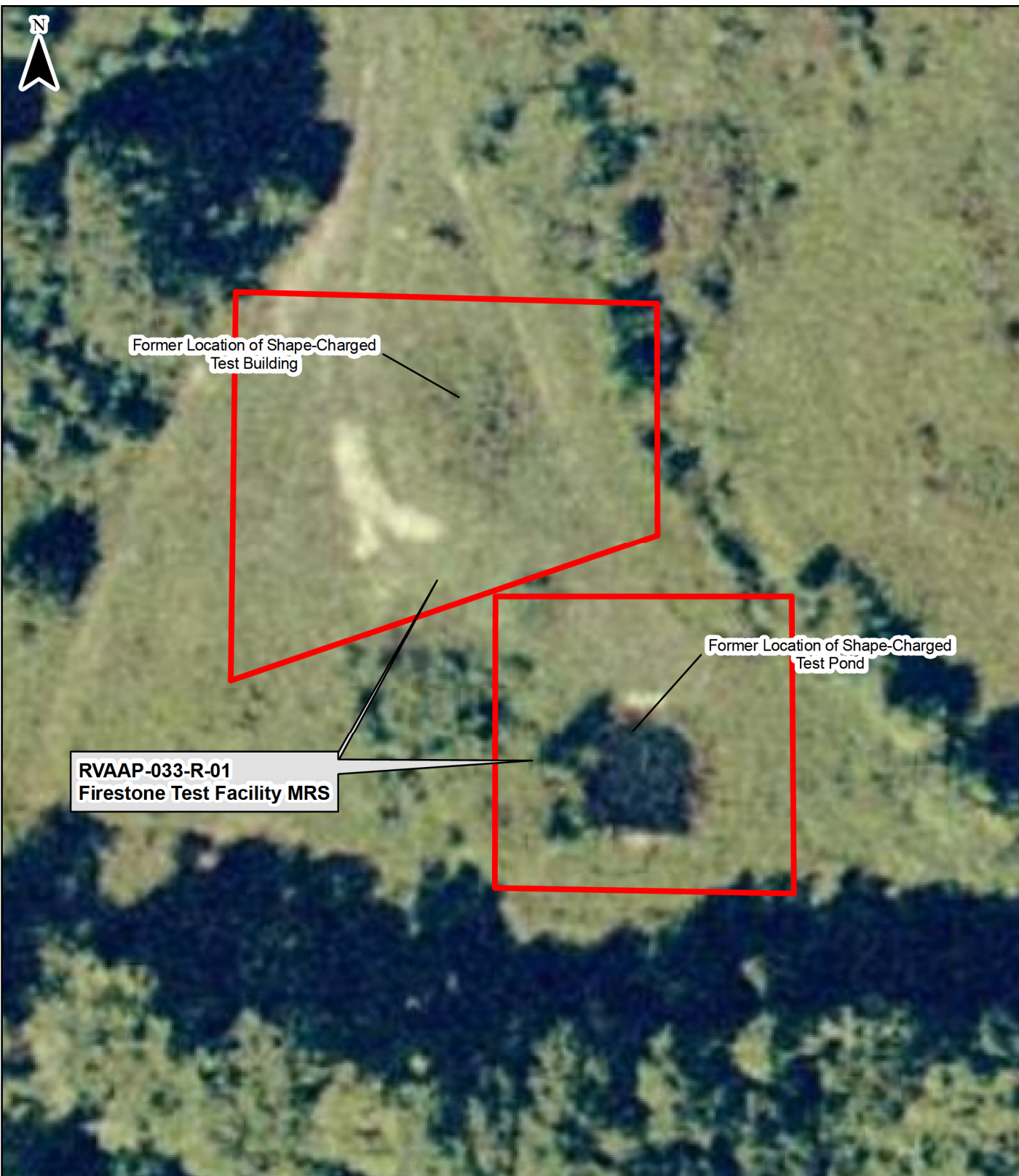
The Sand Creek Disposal Road Landfill MRS is co-located with an IRP AOC (AEDB-R #RVAAP-34) consisting of 0.85-acres of undeveloped land that stretches approximately 1,000 feet along the banks of Sand Creek (Figure 2-11). A removal action (RA) was conducted at the site in 2003 under the IRP to remove surface debris and limited subsurface debris associated with former use of the site as a construction dump. During confirmation sampling following the RA, two 75mm projectile shells (i.e. MD) were discovered at the northern portion of the site. Multiple subsurface anomalies were recorded as part of the meandering path magnetometer and metal detector assisted UXO survey that was conducted for all open areas at the site for the e<sup>2</sup>M SI in 2007; however, a definitive determination of the nature of the anomalies could not be made. Although no MEC was identified at the site during the SI UXO survey, one empty 105mm projectile MD was found in Sand Creek downstream of the former dump area.


Based on historical findings and field observations made, the potential for MEC at the MRS could not be ruled out and the SI recommended additional characterization work is required to address the MEC concerns. MC at this MRS will continue to be addressed under the IRP.

### **2.3.10 Atlas Scrap Yard MRS (RVAAP-050-R-01)**

This Atlas Scrap Yard MRS encompasses 66 acres of mostly open land that contains a network of roads (Figure 2-12). The MRS was originally used as a construction camp and became a storage area/scrap yard for non-explosive scrap materials, MEC scrap, and wooden ammunition boxes. Reported disposal practice involved removing material from trucks and leaving it at the edge of the road. The HRR indicated that UXO consisting of 40mm fragmentation shells was reportedly uncovered at the southwest corner of the MRS and is buried in the central portion of the site. The site is currently used to store scattered piles of scrap metal debris and railroad ties.





 MRS Boundary



0 40 80 Feet  
Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-10**

**FIRESTONE TEST FACILITY MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.





- MRS Boundary
- Stream
- Direction of Flow



0 150 300 Feet  
Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM



FIGURE  
NUMBER  
**2-11**

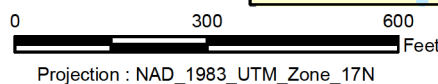
SAND CREEK DISPOSAL ROAD LANDFILL  
MRS LOCATION  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO



Shaw Environmental, Inc.





-  MRS Boundary
-  Suspect Areas



	<b>U.S. ARMY CORPS OF ENGINEERS</b> LOUISVILLE DISTRICT
	MILITARY MUNITIONS RESPONSE PROGRAM
FIGURE NUMBER <b>2-12</b>	<b>ATLAS SCRAP YARD MRS LOCATION</b> RAVENNA ARMY AMMUNITION PLANT RAVENNA, OHIO
 <b>Shaw</b> Shaw Environmental, Inc.	

No surface MEC or MD were found during the e<sup>2</sup>M SI in the 12 acres surveyed at the south-central, northern, and eastern portions of the MRS. During the SI, the presence of demolition debris limited access at the south-central portion of the site. A few scattered subsurface anomalies were detected within this area and multiple subsurface anomalies were detected around three piles of debris; however, interference from the metal scrap in the debris piles may have been significant. Very few subsurface anomalies were recorded at the east-central portion of the site. The disclosure of the 40mm fragmentation shell burial site was provided to e<sup>2</sup>M following the completion of the SI field activities and was not included in the SI survey. Based on the newly provided information regarding the buried 40mm shells and the detection of multiple surface anomalies, the SI recommended further characterization to address MEC concerns at this MRS.

### **2.3.11 Block D Igloo MRS (RVAAP-060-R-01)**

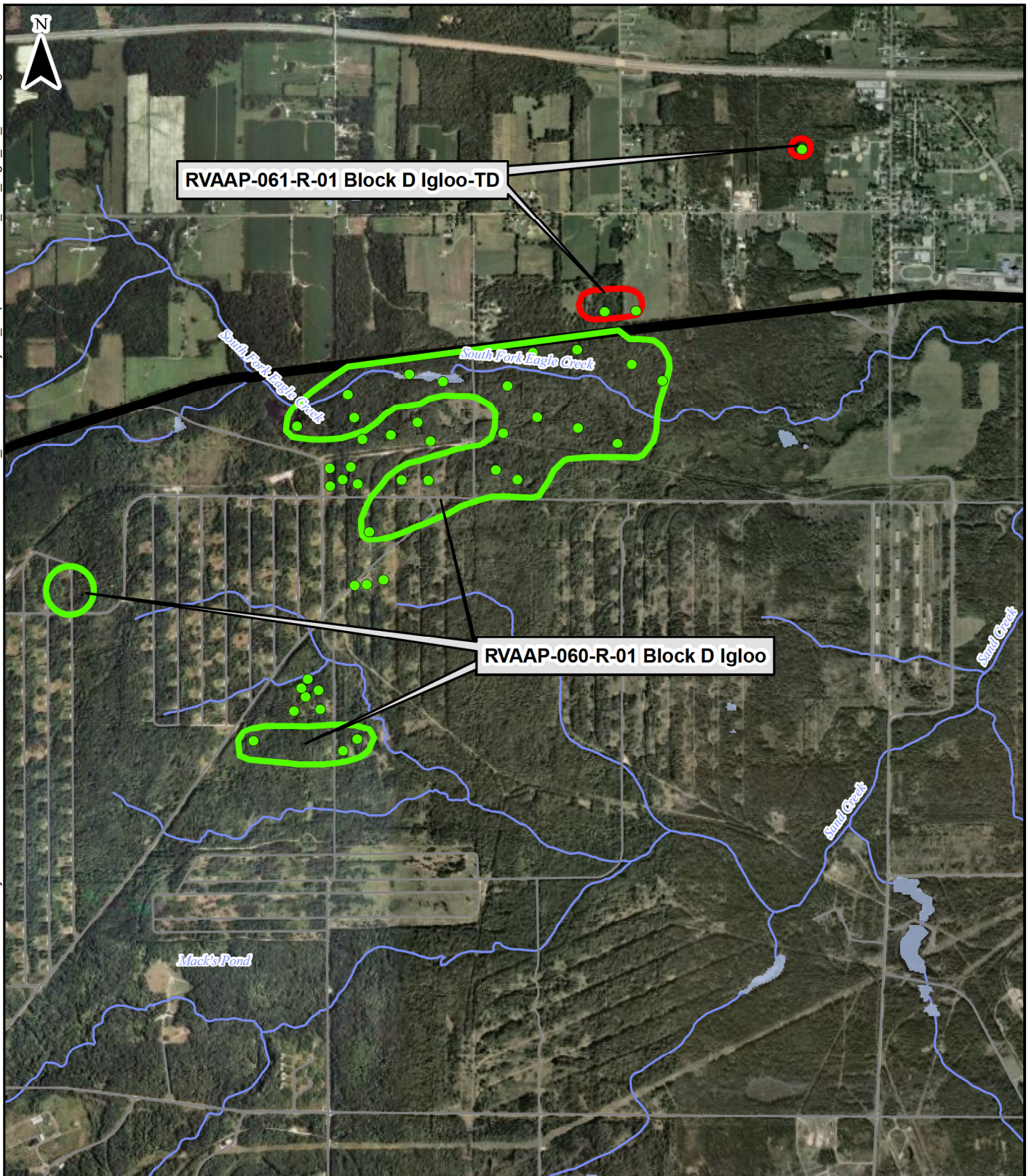
The Block D Igloo MRS formerly included 622.24 acres, containing Igloo 7-D-15, which accidentally exploded in 1943. The explosion was the result of the detonation of 2,516 clusters of 20-lb fragmentation bombs (M-41). The 60-foot long igloo was constructed of reinforced concrete with a steel door. The side walls of the igloo were sheared off at the footings during the explosion. The original MRS boundary was established by USACE, Huntsville District to capture the probable debris field resulting from the explosion and was based on the type of munitions stored in the bunker at the time of the explosion.

Meandering path magnetometer and metal detector assisted UXO surveys were conducted during the e<sup>2</sup>M SI around the former igloo and four documented debris locations. No MEC or MD was observed on the ground surface within the interior of the former igloo or within a circumference of 100 feet surrounding the area. Several subsurface anomalies were recorded within the former igloo footprint; however, those may be attributed to the remnants of the former reinforced concrete floor.

No subsurface anomalies were detected within 100 feet surrounding the former igloo. At the four documented debris locations, no visual evidence of MEC or MD was found and very few subsurface anomalies were detected. At locations where subsurface anomalies were recorded, the findings were attributed to debris associated with the former rail lines and roadway. One multi increment surface soil sample was collected from the former igloo area during the SI and lead and arsenic were identified as MC concerns.

The SI recommended further characterization at the MRS to address MEC and MC concerns at all remaining document debris locations (and areas in between) that were not investigated during the SI. The MRS footprint has been reduced from 622.24 acres to 340.2 acres to include all documented debris locations that were not investigated during the SI or included in the U.S. Army CTT Range/Site Inventory and HRR defined MRS boundary (Figure 2-13).





- Ravenna Army Ammunition Plant
- Block D Igloo-TD MRS Boundary
- Block D Igloo MRS Boundary
- Stream
- Historical Fragment Location



0 2,500 5,000 Feet  
Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-13**

**BLOCK D IGLOO AND BLOCK D IGLOO-TD  
MRS LOCATIONS  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO**

**Shaw** Shaw Environmental, Inc.

### **2.3.12 Block D Igloo – TD MRS (RVAAP-061-R-01)**

Two new off-post areas (Area 1 and Area 2) have been identified where MD or MEC may be present as a result of the accidental explosion of Igloo 7-D-15 in 1943 and will require additional characterization work under the MMRP. Both areas are located to the northeast of Igloo 7-D-15 and have not been previously investigated (Figure 2-13). The total area of the MRS encompasses 14.13 acres; Area 1 consists 12 acres of agricultural land and Area 2 is 2.13 acres of densely wooded land. Based on aerial photographs, these areas do not appear to encompass surface water or sediment media.

### **2.3.13 Water Works #4 Dump MRS (RVAAP-062-R-01)**

The Water Works #4 Dump MRS site originally encompassed approximately 6.15-acres of mostly forested area that included a small clearing, located immediately west of the Water Works #4 and Load Line #7 in the southwestern portion of the RVAAP. Large caliber casings were reportedly found scattered throughout the wooded portion of the former MRS footprint lying on the ground surface and partially buried, as were metal parts defined as ogives from World War I-era 155mm shrapnel projectiles.

Subsequent SI activities (magnetometer survey, visual surface inspection, and limited surface soil sampling) did not indicate the presence of MEC burial areas or MC impact to environmental media; however, 20 inert ogives were found scattered through the northern wooded area of the MRS. Several closely spaced subsurface anomalies have also been detected in the open field portion of the MRS.

Based on SI results, the MRS footprint has been reduced from 6.15 acres to 0.77 acres (Figure 2-14). The SI recommended further characterization for MEC and MC concerns at this MRS that consists of the open field portion of the MRS where the detections of buried anomalies were encountered.


### **2.3.14 Group 8 MRS (RVAAP-063-R-01)**

The 2.65-acre Group 8 MRS consists of the area between Buildings 846 and 849 (Figure 2-15). This area consists of disturbed land that is currently being used as an OHARNG vehicle staging area, though it may have historically been used for burning construction debris and rubbish. In 1996, one anti-personnel fragmentation bomb loaded with HE was found at the MRS. In addition, one demilitarized (i.e., cut into two halves) 175mm projectile was found on the ground surface at the MRS.

Potential MEC identified during subsequent SI activities at the MRS included two unidentifiable T-bar fuzes. No other MEC has been found; however, a large amount of MD was identified in three areas of the MRS. All three of these areas were littered with large amounts of debris





 MRS Boundary



0 70 140 Feet

Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-14**

**WATER WORKS #4 DUMP MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO

 **Shaw** Shaw Environmental, Inc.





- MRS Boundary
- Former Railroad



0 125 250 Feet

Projection : NAD\_1983\_UTM\_Zone\_17N



**U.S. ARMY  
CORPS OF ENGINEERS**  
LOUISVILLE DISTRICT

MILITARY MUNITIONS RESPONSE PROGRAM

FIGURE  
NUMBER  
**2-15**

**GROUP 8 MRS LOCATION**  
RAVENNA ARMY AMMUNITION PLANT  
RAVENNA, OHIO



Shaw Environmental, Inc.

including metal trash, fencing materials, and wood scrap. The remaining areas of the MRS were clear of visible debris and very few subsurface anomalies have been identified at these areas. MC consisting of lead, antimony, arsenic, aluminum, cadmium, copper, iron and manganese has been identified in surface soil at the MRS. The SI recommended further characterization at this MRS to address MEC and MC concerns.

## **2.4 MMRP Activities and Performance Objectives**

The overall objective of this task order is to complete site investigations and characterization of MEC and MC under the MMRP. Shaw will perform all CERCLA phases of RI and characterize nature and extent of MEC and MC contamination at the MRSs. For the applicable sites where remedy-in-place (RIP) is required (Load Line #1 MRS, Firestone Test Facility MRS, Sand Creek Dump MRS, and Water Works #4 MRS) Shaw will implement the necessary remedial strategies. Shaw's proposed RI strategies have been developed to determine whether the MRSs warrant further response action pursuant to CERCLA and the NCP. The RIs will accomplish the following objectives:

- Determine the nature and extent and fate and transport of MEC.
- Determine the nature and extent and fate and transport of MC.
- Determine the risk posed to human health and the environment by MEC and MC.
- Collect or develop additional data for the Feasibility Study (FS), as appropriate, to determine remediation alternatives for mitigation, including no action.

General tasks for the MRSs under this task order include the following:

1. Coordinate Public Affairs and community relations support for the project.
2. Prepare and submit *Project Management Plan*, *Project Work Plan*, *Site Specific Health and Safety Plan* and this *PIP Addendum*.
3. Conduct magnetometer-assisted surface sweep as part of site preparation for geophysical transect work.
4. Perform limited vegetation removal as necessary in coordination with OHARNG, RVAAP and Ohio EPA to facilitate field activities.
5. Conduct a geophysical test strip survey to select the correct instruments for performing instrument-assisted density surveys at select sites.
6. Implement instrument-assisted density surveys to determine the site boundaries and the extent of MEC contamination.
7. Perform additional surveys outside of established MRS boundaries at select sites where potential kick-out from demolition or explosive activities may have occurred.
8. Perform reacquisition and investigation of target anomalies.



9. Destroy MEC/MMPEH encountered during the investigation.
10. Conduct sampling and analysis to evaluate MC in environmental media (surface soil/dry sediment, wet sediment, and surface water), as needed.
11. Develop a comprehensive *Remedial Investigation Report* for each MRS containing a description of all data collected.

For the MRSs requiring RIP (Load Line #1, Firestone Test Facility, Sand Creek Disposal Road Landfill and Water Works #4 Dump), additional MMRP activities beyond the RI phase may include the following.

1. Prepare the required CERLCA documents (*FS* and *Proposed Plan*) and issue for public comment prior to preparation of the *Record of Decision (ROD)* and subsequent *Remedial Design/Remedial Action* reports, as necessary.
2. Implement the recommended strategy at each RIP site, which may include a MEC or MC remedial action and implementation of Land Use Controls.
3. Prepare a comprehensive *Remedial Action Report* that will document the implemented remedy.
4. Perform Remedial Action (Operations) (RA(O)) for the duration of the task order or until achievement of Response Complete (RC), whichever comes first. Upon achievement of RC, perform any necessary Long-Term Management (LTM) for the duration of the task order.

As the selected contractor for the MMRP, Shaw will coordinate with the RVAAP, the OHARNG and the Ohio EPA during the implementation of this task order. MMRP field activities are scheduled to commence in the fall of 2010; however, the actual start dates will be contingent on approval of the project work plans by all the project stakeholders.

**This page intentionally left blank.**

## **3.0 Community Background**

---

### **3.1 Community Profile**

In 1808, Portage County, Ohio was organized from Trumbull County. Today, the 492.4 square miles that make up Portage County have a population of 152,061, according to the U.S. Census Bureau in 2000. Portage County is located in northeast Ohio, a 45-minute drive south of Cleveland, Ohio. The RVAAP opened in 1940, covering 21,683 acres of land surrounded by Ravenna, Charlestown, Paris, Newton Falls, Freedom, Windham, and Braceville Townships. The facility provided much needed jobs to Portage and Trumbull counties. It supplied immeasurable munitions to the U.S. troops abroad during World War II. The community witnessed an industrial boom that included companies such as the Enduro Rubber, Duracote, and Allen Aircraft.

Today, Portage County employment has shifted from manufacturing jobs to 68.1 percent service and other jobs. The unemployment statistics show the unemployment rate for Portage at 10.4 percent, which is higher than the 10.2 percent unemployment for the State of Ohio. The percentage of Caucasians is 93.2 percent with African Americans making up 4.1 percent and American Indians, Alaska Natives, and others making up the remaining 2.7 percent of the population. The majority of Portage County, Ohio residents (71.3 percent) own their own homes.

The median household income, based on a 2007 estimate, is \$50,629 with 2.56 persons per household. Only 10.8 percent of the population in Portage County is living below the poverty level.

### **3.2 History of Community Involvement**

In 1996, a survey was mailed and articles appeared in the local newspapers to solicit interest in forming a Restoration Advisory Board (RAB). A selection committee reviewed the applications and chose the new RAB members. The RVAAP RAB was established with 25 members made up of community members and appointed representatives. The RAB consists of a representative from each of the surrounding six townships (Braceville, Newton Falls, Paris, Charlestown, Freedom and Windham), two county representatives (Trumbull and Portage), a representative of the Ohio EPA, and the RVAAP facility manager, who serves as co-chair. The RAB held its first meeting November 13, 1996 and has had 58 meetings as of March 2010. The RAB serves as the main component of the RVAAP public involvement program.

The purpose of the RAB is to promote community involvement in the DoD environmental cleanup activities and to allow the public to review and discuss the progress with decision makers. The RAB rotates its quarterly meetings among the township halls located in Paris,

Freedom, Windham and Charlestown. Meetings are held quarterly on the third Wednesday of the month from 6 to 8 p.m. A news release announcing each meeting is sent to the local media. The public is invited to attend the RAB meetings, which are structured to include presentations and a question-and-answer period. The RVAAP records the meetings and prepares minutes for approval by the board. The minutes are available for review in the information repositories located at Reed Memorial Library, Newton Falls Public Library, and at [www.rvaap.org](http://www.rvaap.org).

“Technical Assistance for Public Participation (TAPP) in Defense Environmental Restoration Activities” was established to assist RABs in reviewing technical documents. This assistance may enhance the RAB’s understanding of the environmental process and provide an outside independent source of information on DoD restoration activities. The DoD approved RVAAP as eligible for TAPP funding. Selection of a new TAAP provider is in process.

To keep the RAB and the media aware of RVAAP activities, the RVAAP holds tours of specific areas of concern. The first tour was held in October 1996. Subsequent tours were held in 1999 for Erie Burning Ground; in 2000 for Winklepeck Burning Grounds, Demolition Area #2, and Load Line #12; 2001 for Cobbs Pond, Central Burn Pits, and Load Line #11. In 2002, the media and RAB toured Load Lines #2 and #6. They were able to view various ordnance produced at RVAAP that was inert or had been detonated or burned.

Additional media and RAB tours include:

- 2004: Fuze and Booster Quarry Ponds, Fuze and Booster Load Lines for Open Burning, Winklepeck Burning Grounds UXO Clearance site, and the Melt Pour Load Lines #2, #3, and #4 that were being prepped for demolition operations
- 2005: Load Lines #2, #3, and #4 and Winklepeck Burning Grounds
- 2006: Load Lines #2 and #3 and Winklepeck Burning Grounds
- 2007: Load Lines #1, #2, #3 and #4 and Winklepeck Burning Grounds
- 2008: Load Line #4, Central Burn Pits, Winklepeck Burning Grounds Removal Action sites along Lane 1 and the Sand Creek Barriers
- 2009: Load Lines #1, #2 & #12, Rocket Ridge Area of Open Demolition Area #2, Winklepeck Burning Grounds, Sand Creek TCRA and Ramsdell Quarry Landfill

The most recent RAB tour was conducted on September 15, 2009. Overall, the tours received positive media coverage and enabled the RAB members to voice their approval of the environmental progress being made at RVAAP.

### 3.3 Key Community Concerns

An example of some recent concerns expressed by the community came from the May 20, 2009, RAB meeting on the topic of the Rocket Ridge TCRA. At the meeting, RAB members and others asked 23 questions after the presentation. The key concerns voiced were:

- Worker safety during the project
- The possibility of a white phosphorus grenade explosion setting off other munitions items
- Potential extent of blast effects of the 500lb bombs if detonation occurred
- The possibility for more bombs and munitions to be buried at the site
- The possibility of igniting other munitions during the site investigation activities
- Effect Rocket Ridge has on Sand Creek

Questions and concerns about the RVAAP have been recorded and responded to at the RAB meetings. Additionally, community concerns were gathered during community interviews conducted for the Ravenna *CRP* in 2003. In general, the local community is concerned about the following:

- Health concerns centering on the potential for cancer clusters downgradient from the site
- The amount of chemicals of concern at RVAAP and whether all sources are known
- The potential for dust from National Guard activities
- Protection of watershed drainage, river protection, and groundwater
- Protection of the health of National Guardsmen from potential effects of site constituents
- Availability of federal funding to complete the cleanup
- Potential of improper handling of asbestos removed for disposal
- Potential conflicts in site usage between the National Guard and the RVAAP cleanup
- Future use of the property.

### 3.4 Responses to Community Concerns

Regular communication among the community, stakeholders, and the Project Team allows for greater understanding of different perspectives regarding military munitions response activities for the RVAAP. This includes timely notification of community involvement opportunities of various types so that the community can share its questions and concerns with project staff.

The RVAAP uses multiple methods to address and respond to questions and concerns expressed by the community. These methods include:

### **1. Information Repository and Administrative Record File**

Current information and final documents are placed in the information repository and maintained by the RVAAP facilities manager. An information repository has been established at the following locations:

Reed Memorial Library 167 East Main Street Ravenna, OH 44266 (330) 296-2827 Hours: Monday-Friday 10 a.m.-9 p.m. Saturday 10 a.m.-6 p.m.	Newton Falls Public Library 204 South Canals Newton Falls, OH 44444 (330) 872-1282 Hours: Monday-Thursday 9 a.m.-8 p.m. Friday-Saturday 9 a.m.-5 p.m.
--	--

The AR File is established and maintained by the RVAAP facilities manager and is located at:

RVAAP Building 1037  
Conference Room 8451  
State Route 5  
Ravenna, Ohio 44266-9297  
(330) 358-7311

Because the AR File is located at the installation, access is restricted, but it can be obtained with prior notice by contacting the RVAAP facility manager.

### **2. Revised Public Involvement Plan**

This *PIP Addendum* will be revised as necessary, to keep facts current and to verify information, to assess the community relations program to determine whether the same or different communication approaches will continue to be taken, and to develop strategies preparing the community for possible remediation activities at the former RVAAP.

### **3. Restoration Advisory Board**

The RVAAP RAB serves as the main conduit for the exchange of information about the project and the work being conducted at RVAAP, as well as answering questions and concerns from the community. The RAB meetings are scheduled quarterly and meeting announcements are placed in the local newspaper prior to the meeting. RAB meetings are open to the public and community members are encouraged to attend.

#### **4. Fact Sheets and Newsletters**

##### **a. Fact Sheets**

Comprehensive fact sheets are developed as needed to convey information about the RVAAP site and related issues in easily understood terms. These may be distributed at RAB meetings, used in media kits for tours, and posted on the RVAAP web site at [www.rvaap.org](http://www.rvaap.org).

#### **5. Information Contact**

##### **a. Media Spokesperson and Point of Contact:**

Mark Patterson, RVAAP Facility Manager  
Building 1037  
8451 State Route 5  
Ravenna, OH 44266-9297  
Office: (330) 358-7312  
Fax: (330) 358-7314

#### **6. Media Kit**

The RVAAP prepares a media kit to distribute information to the media at a press conference, tour or before an event. This tool helps provide accurate, current information about the specific announced activity. The media kit is a folder containing:

##### **a. News Release or Media Advisory**

A news release explains the major event announced, provides background information on RVAAP and lists a contact person with phone numbers. A shorter media advisory addresses very briefly the “Who, What, When, Where, Why” of the event and a contact person to reach for more information.

##### **b. Fact sheets**

These are prepared on a specific topic and should include facts about the topic. It is written in a brief format (usually no more than two pages) and provides concise information in simple terms.

##### **c. Newsletters**

These are developed to provide detailed information about an area of concern or give an update on the entire environmental investigation.

##### **d. Maps and photographs**

These may be included in the media kit. If using digital photographs, provide high resolution (or high-quality photographs on disk or CD.) A map is useful in identifying the areas of concern or where an event will be held.

**e. Brochures**

A brochure may be produced to address a specific issue or provide general information about the RVAAP.

**f. Business cards**

A business card of a media contact person should be included in the folder.

**7. Web site**

The RVAAP has established a web site to inform and educate the public about the RVAAP. The public site contains information about the history of RVAAP, a description of the current environmental investigation, and the areas of concern, previous newsletters, maps and photographs, a list of RAB members, meeting locations and dates and approved meeting minutes, a news page highlighting upcoming public activities, links to other relevant sites, final technical documents, a contact page, and a search option. The web site is updated as information changes and is located at: [www.rvaap.org](http://www.rvaap.org).

**8. News Releases and Press Conferences**

Currently, news releases announcing the RAB meetings and inviting media and the public on scheduled tours of the RVAAP site are sent to local media before the event. These are sent on a timely basis to feature important environmental activities being conducted at the RVAAP. News conferences with designated speakers also may to highlight key messages and announce significant events.

**9. Speaker's Bureau**

An informal speaker's bureau exists to reach out to the community and provide information on the environmental progress at RVAAP. The speaker's bureau may consist of individuals from the RVAAP team or RAB members that have extensive knowledge of the environmental activities and can accommodate a scheduled request. A simple, non-technical PowerPoint® presentation may be developed to provide groups with an overview of the RVAAP. Fact sheets or a newsletter with current information including the location of the information repositories, contact name and number, and RAB meeting dates may be prepared and distributed to groups.

**10. Site Tours**

To continue to keep the RAB, the community, and the media aware of the environmental activities, tours of specific areas of concern have been held on a periodic basis and will be scheduled as the project continues.



## **4.0 RVAAP's Public Involvement Program**

---

### **4.1 Public Involvement Program**

Munitions response services, including the RVAAP's public involvement program under the MMRP, follow CERCLA. CERCLA requires activities at certain milestones to keep the public informed and to provide for an exchange of information. Table 4-1 describes these activities and the milestones at which they occur under CERCLA.

Under the public involvement program established for RVAAP, the RVAAP will be honest, forthright, responsive, clear, and proactive in its communications. The RVAAP will promote and maintain a two-way dialogue between the community and the RVAAP. Inviting open and honest communications with the community enables the project delivery team to understand and address stakeholder concerns about the project as well as possible remediation or cleanup goals that pay special attention to health, safety, and environmental issues. Public involvement activities were based in part on responses to key concerns raised during the community interviews conducted in 2003 and on questions and concerns raised at subsequent RAB meetings.

The target audiences for this plan include:

- Stakeholders made up of members of the general public who express an interest in RVAAP
- Elected officials
- Interest groups
- Landowners
- Media

The public involvement program for RVAAP will:

- Provide local officials, residents, and the media with accurate, timely, and understandable information
- Provide for an open dialogue between the RVAAP and the public on site-related munitions response issues
- Provide avenues for public participation in the decision-making process related to munitions response at each site
- Notify local officials, residents, and businesses about fieldwork being planned in their community or near their property before work begins

- Seek to increase the level of understanding in the community of the munitions response services process under the MMRP, the roles of the various government agencies involved, and the technologies used

**Table 4-1**  
**Community Relations Responsibilities under the CERCLA Process**

Community Relations Activities	Remedial Response Phases									
	PA	SI	ASR	Pre-Remedial Investigation	RI	FS	Proposed Plan	Pre-Record of Decision	ROD	Remedial Design, Remedial Action, and O&M
Contact State/Local Officials	D	R	R		R	R			D	D
News Release	D	D	D		D	D	D			D
Workshops		D	D		D	D				
Community Interviews				D	D					
Community Relations Plan		R	R	R	R	R	R	R	R	R
Determine need for Restoration Advisory Board (RAB)					R					
Initiate and Maintain the Admin Record	R	R	R	R	R	R	R	R	R	D
Establish Information Repository and Inform Public		R	R	R	R	R	R	R	R	
Publicize Technical Assistance Opportunities				R						
Fact Sheets	D	D	D	D	D	D	R			R
Public Notice			R		R		R		R	
Public Meeting			D				R			
Public Comment Period (30-60 days)			R				R			
Responsiveness Summary			R					R		
Revise Proposed Plan (if needed)								R		
Second Comment Period (30-60 days)								R		
Revise Community Relations Plan				R	R	R	R	R	R	R

**Notes:**

Chart from Ravenna Community Relations Plan (2003) and revised from Public Participation in the DERP-Formerly Utilized Defense Sites (FUDS) Program, Engineer Pamphlet, 1110-3-8, Dec 1999.

**D = Desirable, R = Required**

PA= Preliminary Assessment

SI= Site Inspection

ASR= Archive Search Report

RI= Remedial Investigation

FS= Feasibility Study

ROD= Record of Decision

Proposed Plan= Recommended Cleanup Alternative

O&M= Operation and Maintenance

## **4.2 Public Involvement Activities**

### **Activity 1: Establish a point of contact**

**Objective:** To provide citizens with an individual(s) to address questions and concerns.

**Method:** As a first step in providing the community with opportunities to comment and ask questions throughout the munitions response process, the contact person for RVAAP is Mark Patterson, RVAAP Facility Manager (see Appendix B).

**Timing:** Ongoing.

### **Activity 2: Establish an administrative record file/information repository.**

**Objective:** To provide complete, factual documentation on the methods and results of all munitions response activities.

**Method:** The AR is kept at RVAAP and may be viewed by appointment. The IRs are located at two local libraries. Information on the AR/IR can be found in Appendix G.

**Timing:** Ongoing.

### **Activity 3: Create a site-specific mailing list.**

**Objective:** To provide a means of direct communication with interested and concerned citizens.

**Method:** To address the concerns of the community by making more information available to the public on a regular basis, the RVAAP has created, maintains, and updates a mailing list of interested members of the community. The list consists of local residents; local, state, and federal regulatory agencies; elected officials; government offices; news media contacts; and other interested parties. A list of the regulatory contacts; federal-, state-, and local-elected officials; and associated agencies and parties are listed in Appendices A and B. Because of privacy concerns, the RVAAP does not release the addresses of private citizens on its mailing list.

**Timing:** Ongoing

### **Activity 4: Prepare and distribute informational materials.**

**Objective:** To provide community members with accurate and understandable information about the investigation and cleanup at RVAAP.

**Method:** To address the community's needs for timely, accurate, and understandable information about RVAAP, the MMRP process, and opportunities for community involvement, the RVAAP prepares and distributes fact sheets at key project

milestones or to address specific informational needs of the community. The RVAAP also issues fact sheets to explain new technologies or technical issues, to explain regulatory requirements, and to provide updates and progress reports whenever needed to ensure accurate and timely information for the community. Fact sheets are mailed to RAB members and to the RVAAP mailing list for distribution.

**Timing:** As needed.

**Activity 5:     *Restoration Advisory Board.***

**Objective:** To provide community members with a meaningful way to become actively involved in the munitions response process under the MMRP and participate in the decision-making process.

**Method:** One of the more important forms of community involvement activities is the RAB. The RAB serves to promote community awareness and obtain community input on environmental restoration issues. RAB meetings include updates of progress, funding issues, regulatory requirements, munitions response technologies, and other technical and administrative issues. The RAB is made up of interested and concerned community members, Army restoration project managers, Ohio EPA representatives, city and county health and environmental officials, elected officials, and other public representatives. RAB meetings are held quarterly on the third Wednesday of the month from 6:00 p.m. to 8:00 p.m. The meetings are open to the public. Public notices and news releases about the meetings are placed in the local weekly papers, and a meeting announcement is sent to the mailing list. Minutes of the RAB meeting are written and mailed to the mailing list. A list of government officials is presented in Appendix A. Regulatory agency contacts and interested parties are presented in Appendix B. Names of RAB members are listed in Appendix C. Meeting locations are located in Appendix F.

**Timing:** The RAB meets quarterly. Specific dates are announced before the meeting.

**Activity 6:     *Conduct community outreach activities.***

**Objective:** To enable the RVAAP to educate and inform a broad audience of community members on the RVAAP munitions response activities under the MMRP. Participation in outreach events serves to build relationships within different segments of the communities.

**Method:** The RVAAP conducts periodic site tours for the RAB and the media.

**Timing:** Outreach activities are conducted as the need requires and timing permits.

**Activity 7:     Media relations.**

**Objective:** To provide the news media with accurate and factual information to encourage accurate coverage of munitions response events and milestones under the MMRP.

**Method:** Before the RAB meetings and other significant milestones in the munitions response process at RVAAP, the RVAAP mails fact sheets and faxes news releases and meeting announcements to local newspapers and radio and television stations. The RVAAP provides local news media with up-to-date information on site investigation and cleanup activities as well as upcoming RAB meetings. Important events at RAB meetings, such as the announcement of field investigations or changes in use of technologies, are announced in news releases. Media contacts are listed in Appendix D.

**Timing:** As needed.

**Activity 8:     Public meetings, availability sessions, informational meetings, and workshops.**

**Objective:** To provide a means for both formal and informal communication with the community. To provide the community an opportunity to meet with environmental managers in a one-on-one or small-group setting and to allow community members to comment on proposed munitions response activities.

**Method:** Holding public meetings is required at specific milestones during the munitions response activities conducted under the MMRP. These meetings are held to explain the nature of the milestone, answer citizens' questions, and to accept public comments. The date, time, and location of these meetings are announced in news releases, public notices, and general mailings to interested parties. Transcripts of the meetings are taken and provided in the AR/IR. Availability sessions and informational meetings or workshops are held during the munitions response process as a means to enhance communication with the public. Meeting locations are listed in Appendix F.

**Timing:** As needed.

**Activity 9:     Public Involvement Plan Addendum.**

**Objective:** To identify community interests and concerns regarding the MMRP and to develop a plan to address these concerns.

**Method:** Periodic reviews of this *PIP Addendum* will be conducted to document and address community interest and concerns and to ensure the chronologies and activities schedules are kept current. Additionally, the RVAAP will conduct community

interviews to address changing or new concerns as the MMRP progresses. The RVAAP is responsible for determining when revisions are necessary. At a minimum, revisions will occur whenever conditions change significantly, when more effective community relations needs are identified or every 3 years.

**Timing:** As needed.

# ***Appendix A***

## ***Government Officials Contact List***





## GOVERNMENT OFFICIALS

### 1. Federal Legislators and Ohio Governor

**Governor Ted Strickland**

Riffe Center, 30th Floor  
77 South High Street  
Columbus, OH 43215-6108  
Office: (614) 466-3555  
Fax: (614) 466-9354  
Contact Gov. Strickland via Web Form  
Website: [governor.ohio.gov](http://governor.ohio.gov)

**Senator George Voinovich, R-Ohio**

37 W. Broad St., Rm 310  
Columbus, OH 43215  
Office: (614) 469-6697  
Contact Sen. Voinovich via Web Form  
Website: [Voinovich.senate.gov](http://Voinovich.senate.gov)

**Senator Sherrod Brown, D-Ohio**

200 N High St. Room 614  
Columbus, OH 43215  
Office: (614) 469-2083  
Fax: (614) 469-2171  
Toll Free 1-888-896-OHIO (6446)  
Contact Sen. Sherrod Brown via [Web Form](#).  
Website: [brown.senate.gov](http://brown.senate.gov)

**Representative Tim Ryan, D-17<sup>th</sup>**

222 Cannon Office Building  
Washington, DC 20515  
Office: (202) 225-5261  
Fax: (202) 225-3719  
Toll Free: (800) 856-4152  
Contact Rep. Ryan via Web Form  
Website: <http://timryan.house.gov>

**Representative Steven C. LaTourette, R-14<sup>th</sup>**

2453 Rayburn House Office Bldg.  
Washington, DC 20515  
Office: (202) 225-5731  
Contact Rep. LaTourette via Web Form  
Website: <http://latourette.house.gov>

### 2. State Legislators

**Senator Tom Sawyer, D-28<sup>th</sup>**

Senate Building  
Room #049, Ground Floor  
Columbus, OH 43215-6111  
Office: (614) 466-7041  
Email: [sensorsawyer@maild.sen.state.oh.us](mailto:sensorsawyer@maild.sen.state.oh.us)

**Representative Steven Dryer, D-43<sup>rd</sup>**

77 S. High Street, 12<sup>th</sup> Floor  
Columbus, OH 43215-6111  
Office: (614) 466-1790  
Fax (614) 719-6943  
Email: [district43@ohr.state.oh.us](mailto:district43@ohr.state.oh.us)

**Representative Kathleen Chandler, D-68<sup>th</sup>**

77 S. High Street, 11<sup>th</sup> Floor  
Columbus, OH 43215-6111  
Office: (614) 466-2004  
Fax (614) 719-3968  
Email: [district68@ohr.state.oh.us](mailto:district68@ohr.state.oh.us)

## LOCAL OFFICIALS

### 1. Portage County Officials

Portage County Officials  
 449 South Meridian Street.  
 P.O. Box 1217 Ravenna, Ohio 44266-1217  
 Phone: (330) 297-3600  
 Fax: (330) 297-3610

#### County Commissioners

Chuck Keiper, President  
 Maureen Frederick, Vice-President  
 Christopher Smeiles, Board Member

### 2. Ravenna City Officials

City of Ravenna  
 210 Parkway  
 P.O. Box 1215 Ravenna, OH 44266  
 (330) 296-3864  
[www.ravenna-oh.com](http://www.ravenna-oh.com)

**Mayor Kevin Poland**  
 (Same Address as above)  
 Phone: (330) 296-3864  
 Fax: (330) 297-2164

City Council Members	Phone Number	Email Address
Fran Ricciardi, Council President	(330) 297-9035	<a href="mailto:fricciardi@ci.ravenna.oh.us">fricciardi@ci.ravenna.oh.us</a>
Kevin Poland, Mayor	(330)-296-3864	<a href="mailto:kpoland@ci.ravenna.oh.us">kpoland@ci.ravenna.oh.us</a>
Bruce Ribelin, At Large	(330) 296-3397	<a href="mailto:bribelin@ci.ravenna.oh.us">bribelin@ci.ravenna.oh.us</a>
Joseph Bica, At Large	(330) 297-0204	<a href="mailto:jbica@ci.ravenna.oh.us">jbica@ci.ravenna.oh.us</a>
Gene Brown, At Large	(330) 297-1995	<a href="mailto:gbrown@ci.ravenna.oh.us">gbrown@ci.ravenna.oh.us</a>
Steve Bailey, Ward I	(330) 296-5219	<a href="mailto:sbailey@ci.ravenna.oh.us">sbailey@ci.ravenna.oh.us</a>
Frank Seman, Ward II	(330) 296-9222	<a href="mailto:fseman@ci.ravenna.oh.us">fseman@ci.ravenna.oh.us</a>
Jack Ferguson, Ward III	(330) 297-7320	<a href="mailto:jferguson@ci.ravenna.oh.us">jferguson@ci.ravenna.oh.us</a>
Scott Rainone, Ward IV	(330) 297-1821	<a href="mailto:srainone@ci.ravenna.oh.us">srainone@ci.ravenna.oh.us</a>
Kathryn Hann, Council Clerk	(330) 297-2155	<a href="mailto:khan@ci.ravenna.oh.us">khan@ci.ravenna.oh.us</a>

## **City of Ravenna Health Commissioner**

Lynette Blasiman

Phone: (330) 297-2163

[lblasiman@ci.ravenna.oh.us](mailto:lblasiman@ci.ravenna.oh.us)

**This page intentionally left blank.**



## ***Appendix B***

### ***Regulatory Agencies and Interested Parties***



## INTERESTED PARTIES

### a. Ravenna Army Ammunition Plant

**RVAAP Facility Manager: Mark Patterson**  
Ravenna Army Ammunition Plant  
Building 1037  
8451 St. Route 5  
Ravenna, OH 44266-9297  
Office: (330) 358-7312  
Fax: (330) 358-7314  
Email: [mark.c.patterson@us.army.mil](mailto:mark.c.patterson@us.army.mil)

**RAB Administrative Officer: Christy Esler**  
(same address as above)  
Office: (330) 358-7311  
Fax: (330) 358-7314  
Mobile: (330) 980-4466  
Email: [christy.esler@us.army.mil](mailto:christy.esler@us.army.mil)

### b. U.S. Army Environmental Center

**AEC Restoration Manager: Mark Krivansky**  
SFIM-AEC-BRC  
U.S. Army Environmental Center  
4480 Beal Rd  
Aberdeen Proving Ground, MD 21010-5401  
Office: (410) 436-0454  
Email: [mark.krivansky@us.army.mil](mailto:mark.krivansky@us.army.mil)

### c. Ohio Army National Guard Camp Ravenna Joint Military Training Center

**Camp Ravenna Garrison Commander: LTC Ed Meade,**  
Camp Ravenna  
1438 State Route 534, SW  
Newton Falls, OH 44444  
Office: (614) 336-6560  
E-mail: [william.meade1@us.army.mil](mailto:william.meade1@us.army.mil)

**Camp Ravenna Environmental Supervisor: Tim Morgan**  
(same address as above)  
Office: (614) 336-6568  
E-mail: [timothy.m.morgan@us.army.mil](mailto:timothy.m.morgan@us.army.mil)

**Camp Ravenna Environmental Specialist:** **Katie Tait**  
(same address as above)  
Office: (614) 336-6136  
E-mail: [kathryn.s.tait@us.army.mil](mailto:kathryn.s.tait@us.army.mil)

**d. Base Realignment and Closure (BRAC) Office**

**BRAC Program Manager:** **William O'Donnell**  
Assistant Chief of Staff for Installation Management  
2530 Crystal Drive  
Arlington, VA 22202  
Office: (703) 601-1570  
Email: [william.odonnell@us.army.mil](mailto:william.odonnell@us.army.mil)

**e. National Guard Bureau**

**Cleanup Program Manager:** **Kim Harriz**  
NGB-AR-EI  
111 S. George Mason Drive  
Arlington, VA 22206  
Office: (703) 607-7991  
Email: [kim.harriz@us.army.mil](mailto:kim.harriz@us.army.mil)

**f. U.S. Army Corps of Engineers Contacts**

**U.S. Army Corps of Engineers,  
Louisville District:**

**Glen Beckham, USACE LRL IRP/MMRP  
Project Manager**  
CELRL-PM  
600 Dr. Martin Luther King Jr. Drive  
Louisville, KY 40202-2232  
Office: (502) 315-6799  
Fax: (502) 315-6309  
Email: [Glen.Beckham@usace.army.mil](mailto:Glen.Beckham@usace.army.mil)

**Jay Trumble, USACE LRL MMRP  
Technical Manager**  
(same address as above)  
Office: (502) 315-6349  
Fax: (502) 315-6309 fax  
Email: [Jay.N.Trumble@usace.army.mil](mailto:Jay.N.Trumble@usace.army.mil)

**Jenn Domashevich, Public Affairs  
Specialist**

(same address as above)

Office: (502) 315-7452

Fax: (502) 315-6771 Fax

Email: [Jenn.S.Domashevich@usace.army.mil](mailto:Jenn.S.Domashevich@usace.army.mil)

**U.S. Army Corps of Engineers,  
Baltimore District:**

**Jeffrey May, USACE Contracting Officer  
CENAB-CT**

600 Dr. Martin Luther King Jr. Drive

Louisville, KY 40202-2232

Office: (410) 962-5617

Email: [Jeffrey.B.May@usace.army.mil](mailto:Jeffrey.B.May@usace.army.mil)

**Christopher Evans, Contracting Officer's  
Representative**

CENAB-EN-HM

(same address as above)

Office: (410) 962-2252

Email: [Christopher.L.Evans@usace.army.mil](mailto:Christopher.L.Evans@usace.army.mil)

**Travis McCoun, MMDC Technical  
Manager**

CENAB-CT

(same address as above)

Office: (410) 962-6728

Email: [Travis.McCoun@usace.army.mil](mailto:Travis.McCoun@usace.army.mil)



## REGULATORY AGENCIES

### **Ohio Environmental Protection Agency, NE District – DERR**

Eileen Mohr, Project Manager

2110 East Aurora Rd

Twinsburg, OH 44087

Phone: (330) 963-1221

Email: [eileen.mohr@epa.state.oh.us](mailto:eileen.mohr@epa.state.oh.us)

### **Ohio Environmental Protection Agency, NE District – DERR**

Todd Fisher, Project Coordinator

2110 East Aurora Rd

Twinsburg, OH 44087

Phone: (330) 963-1148

Email: [todd.fisher@epa.state.oh.us](mailto:todd.fisher@epa.state.oh.us)

## ***Appendix C***

### ***Restoration Advisory Board Members***



## **RVAAP RESTORATION ADVISORY BOARD**

Dr. Jay Abercrombie  
2321 Bixler Dr.  
Suffield, Ohio 44260

Ms. Rebecca Carter  
132 Laubert Rd.  
P.O. Box 427  
Randolph, Ohio 44265

Mr. Walter Landor  
204 S. Aspen Ct., Unit 1  
Warren, OH 44484

Ms. Irene Glavies-Lutz  
5488 Liberty Ave.  
Newton Falls, Ohio 44444

Ms. Nina Miller  
789 State Route 534, SW  
Newton Falls, Ohio 44444

Mr. Thomas Smith  
5975 McClintocksburg Rd.  
Ravenna, Ohio 44266

Mr. Bill Steiner  
2581 Hartville Rd.  
Rootstown, Ohio 44272

Mr. George Tompkins  
8940 Creamery St.  
Wayland, Ohio 44285

### **MUNICIPALITIES:**

Mr. Mark Patterson  
RVAAP Facility Manager/Co-Chairman  
8451 State Route 5, Bldg. 1037  
Ravenna, OH 44266

Mr. Howard Furl  
Windham Township Representative  
9450 Bryant Rd.  
Windham, Ohio 44288

Ms. Sue Boles  
8800 Cable line Rd.  
Ravenna, Ohio 44266

Mr. James DiPaola  
3201 Summit Rd.  
Ravenna, Ohio 44266

Ms. Sarah Lock  
9786 Min-Young Rd.  
Ravenna, Ohio 44266

Mr. James Mayer  
P.O. Box 148363 Center Street  
Garrettsville, Ohio 44231

Mr. Richard Poots  
10232 Hopkins Rd.  
Garrettsville, Ohio 44231

Mr. Dan Spicer  
6180 State Rt. 225  
Ravenna, Ohio 44266

Ms. Nancy Taylor  
5761 State Route  
225 Ravenna, Ohio 44266

Mr. Delbert Woloski  
2422 Ridgewood  
Newton Falls, Ohio 44444

Mr. Joseph Beutler  
Charleston Township Representative  
5950 Knapp Rd.  
Ravenna, Ohio 44266

Mr. JJ Leet  
Freedom Township Representative  
9386 Limeridge Rd.  
Mantua, Ohio 44255

Ms. Eileen Mohr Ohio EPA  
2110 East Aurora Rd.  
Twinsburg, Ohio 44087

Mr. Bill Miller  
Trumbull County Commissioner Rep.  
347 North Park Ave.  
Warren, Ohio 44481

Mr. Jon Barber  
Portage County Commissioner Representative  
Office of Homeland Security & Emergency Mgmt. Agency  
8240 Infirmary Rd.  
Ravenna, Ohio 44266

Ms. Dorene Spicer  
Paris Township Trustee  
6180 State Rt. 225  
Ravenna, Ohio 44266

Mr. Thomas Tadsen, Retired OHARNG LTC  
Community Co-Chairman  
7657 West Lake Blvd.  
Kent, Ohio 44240-6342

#### **NON-MEMBER**

Christy Esler  
RVAAP RAB Administrator  
8451 State Route 5, Bldg. 1038  
Ravenna, Ohio 44266

**Updated: September 2009**



## ***Appendix D***

### ***Media Contact List***



## Television Stations

**WEWS TV ABC News Channel 5**

44 E Exchange St  
Akron, OH 44328  
Station: (330) 434-0616  
Fax: (216) 431-3666

**WVIZ PBS Ideastream**

Idea Center @ Playhouse Square  
1375 Euclid Avenue  
Cleveland OH 44115-1835  
Station: (216) 961-6100

**WBNX – WB**

2690 State Rd Cuyahoga Falls, OH 44223  
Station: (440) 843-5555  
Fax: (330) 929-2410

**WYTV – ABC**

3930 Sunset Blvd  
Youngstown, OH 44512  
Station: (330) 783-2930  
Fax: (330) 782-5261

**WKBN - FOX**

3930 Sunset Blvd.  
Youngstown, OH 44512  
Station: (330) 782-1144  
Fax: (330) 782-5261

## Radio Stations

**WJMP 1520 AM**

2449 State Route 59  
Ravenna, OH 44266  
Station: (330) 678-1520

**WNIR – 100 – Talk**

P.O. Box 2170  
Akron, OH 44309  
Station: (330) 673-2323  
Fax: (330) 673-0301

**WVPX 23 TV**

1 S Main Street  
Akron, OH 44308  
Station: (330) 434-2323

**WEAO TV Channel 49**

1750 Campus Center Dr Kent, OH 44240  
Station: (330) 677-4549  
Fax: (330) 678-0688  
<http://www.ch4549.org>

**WOIO- CBS**

1717 E 12<sup>th</sup> Street Cleveland, OH 44114  
Station: (216) 771-1943  
Fax: (216) 436-5460

**WKYC- NBC**

1333 Lakeside Ave Cleveland, OH 44114  
Station: (216) 344-3333  
Fax: (216) 344-3326

**WAPS 91.3 - Quality Rock**

Public Radio 65 Steiner Avenue  
Akron, OH 44301  
Office: 330-761-3099  
Studio: 330-761-9277

**Clear Channel Radio**

6200 Oak Tree Blvd  
Independence, OH 44131  
Newsroom: (216) 520-2600  
Newsroom Fax: (216) 901 8133

## Newspapers

**Youngstown Publishing Co**

PO Box 714 Youngstown, OH 44501

News: (330) 744-5023

Fax: (330) 744-5838

<http://www.business-journal.com>**Record-Courier**

126 N Chestnut St

Ravenna, OH 44266

Newsroom: (330) 296-9657

Newsroom fax: (330) 296-2698

<http://www.recordpub.com/>**Associated Press**

815 Superior Ave E Suite 1203

Cleveland, OH 44114-2768

Newsroom: (216) 771-2172

Newsroom fax: (216) 771-4218

**Akron Beacon Journal**

44 E Exchange St

Akron, OH 44308

Newsroom: (330) 996-3600

Newsroom fax: (330) 376-9235

<http://www.ohio.com/bj/>**Tribune Chronicle**

240 Franklin St SE

Warren, OH 4448

Newsroom: (330) 841-1600

Newsroom fax: (330) 841-1717

<http://www.tribunechronicle.com/>**The Vindicator**

135 Pine Ave SE # 208

Warren, OH 44481

Newsroom: (330) 392-0176

Newsroom fax: (330) 747-6712

<http://www.vindy.com/>**Akron Legal News Inc**

60 S Summit Street

Akron, OH 44308

Newsroom: (330) 376-0917

Newsroom fax: (330) 376-7001



## ***Appendix E***

### ***Interview Questions***



## Interview Questions

Note: Interviews were conducted for the Facility-wide Community Relations Plan in 2003 and are scheduled to be conducted for the next Facility-wide Community Relations Plan Update.

**Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Interviewee:** \_\_\_\_\_

**Affiliation:** \_\_\_\_\_

**Interviewer:** \_\_\_\_\_

**Script:** Hello. I am calling on behalf of the U.S. Army Corps of Engineers.

Would you have a few minutes to visit with me?

The Corps wants to understand what the folks in your community want to know about their environmental remediation efforts at the former Ravenna Army Ammunition Plant, and how the community would like to get information.

May I ask you a few questions, so your opinions and any questions you may have can be included as they plan for this effort? I expect this to take us about 15 minutes.

(If this is not convenient, is there a time that you would like for me to call you back? Or we can meet personally, during the week of August 25, if you would prefer that.)

---

1) How long have you lived in the area?

1A) What name do local people use to refer to the Ravenna Army Ammunition Plant?

1B) Are you familiar with the former Ravenna Army Ammunition Plant?

1C) How did you first learn about the site?

2) Have you ever talked with any Corps of Engineers, state, or environmental officials about their ongoing work at the former Ravenna Army Ammunition Plant? If yes, did they contact you or did you contact them? What was the nature of the contact and were you satisfied with their information?

3) Are you aware that the former Ravenna Army Ammunition Plant site is involved in environmental restoration activities? If yes, what do you know about those activities?

4) Do you have any interests or concerns about the Ravenna Army Ammunition Plant site remediation activities?

5) Are you aware of any interests or concerns that any of your neighbors or friends may have about the site? If so, what are they?

6) Do you know where information about environmental restoration activities at the former Ravenna Army Ammunition site can be obtained? If yes, where?

7) Have you received any information about the environmental restoration activities at the former Ravenna Army Ammunition Plant site? If yes, how did you receive it? Are you satisfied with the information?

8) Would you like to be added to the site's mailing list to receive newsletters and other general information about the proposed plans? Yes \_\_\_\_ No \_\_\_\_

If yes:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: (H) \_\_\_\_\_ (W) \_\_\_\_\_

E-mail: \_\_\_\_\_

9) How does the community receive information about local events and news (i.e. radio, television, newspaper, other and what particular stations or papers)?

10) What method and frequency of information would you prefer?

**Method**

**Frequency**

Mail \_\_\_\_\_

\_\_\_\_\_

Telephone \_\_\_\_\_

\_\_\_\_\_

Newspaper \_\_\_\_\_

\_\_\_\_\_

Radio \_\_\_\_\_

\_\_\_\_\_

Television \_\_\_\_\_

\_\_\_\_\_

E-Mail \_\_\_\_\_

\_\_\_\_\_

Web Site \_\_\_\_\_

\_\_\_\_\_

Local Information Repository \_\_\_\_\_

Suggested location: \_\_\_\_\_

Community Hotline \_\_\_\_\_

Other \_\_\_\_\_

11) Would you be interested in attending a meeting about the environmental restoration activities at the former Ravenna Army Ammunition Plant site? If yes, what days and times are convenient for you? Are there certain community locations (buildings or meeting rooms) that you would recommend public meetings be held?

12) Do you have a particular meeting style you prefer? (Probes: discussions, formal presentations followed by Q&As, informal, open house, workshops, small groups, coffees)

13) Is there anyone else you think we should interview concerning the site? May we use your name? (Get names and phone numbers)

14) Is there anything else about the former Ravenna Army Ammunition Plant site that you would like to comment on?

Thank you for your time. Your information will be used as the Army plans their public involvement activities.



**This page intentionally left blank.**

## ***Appendix F***

### ***Glossary***



## GLOSSARY

**Administrative Record File (AR):** A file containing documents that were considered or relied on by USACE to form the basis for the selection of a response action. This file is to be available for public review.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** A federal law enacted by Congress in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

**Defense Environmental Restoration Program (DERP):** A Comprehensive Environmental Response, Compensation and Liability Act environmental cleanup program. It was established to identify, assess, investigate and clean up substances at past disposal and spill sites.

**Discarded Military Munitions (DMM):** Military munitions that have been abandoned without proper disposal or removed from storage or in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations.

**Environmental Protection Agency (EPA):** The primary federal agency responsible for enforcement of federal laws protecting the environment.

**Information Repository (IR):** A place where current information, technical reports, and reference documents concerning a U.S. Army Corps of Engineers Environmental Restoration Program site are stored. The information repository is usually in a public library near the site and is available for public access and review.

**Military Munitions (MM):** All ammunition products and components produced or used by or for DoD or the U.S. Armed Services for national defense and security, including MM under the control of the DoD, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemicals, rockets, guided and ballistic missiles, bombs, war heads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. MM do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices and nuclear components, thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program, after all required sanitation operations under the Atomic Energy Act of 1954, as amended, have been completed.

**Military Munitions Response Program (MMRP):** Congress established the Military Munitions Response Program under the Defense Environmental Restoration Program (DERP) to address unexploded ordnance (UXO), discarded military munitions (DMM) and munitions constituents (MC) located on current and former defense sites. MMRP eligible sites include other than operation ranges where UXO, DMM, or MC are known or suspected and the release

occurred prior to September 30, 2002. The DoD is currently establishing policy and guidance for munitions response actions under the MMRP. However, key program drivers developed to date conclude that munitions response actions will be conducted under the process outlined in the National Contingency Plan (NCP) (40 CFR 300) as authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 United States Code (U.S.C.) 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter CERCLA).

**Munitions Constituents (MC):** Any materials originating from unexploded ordnance, DMM, or other military munitions, including explosive and non-explosive materials and emission, degradation, or breakdown elements of such ordnance and munitions.

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

**Munitions and explosives of concern (MEC):** This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means: (A) Unexploded ordnance (UXO), as defined in 10 U.S.C. 101(e)(5)(A) through (C); Discarded military munitions (DMM), as defined in 10 U.S.C. 2710 (e)(2); or (C) Munitions constituents (e.g., TNT, RDX) as defined in 10 U.S.C. 2710 (e)(3), present in high enough concentrations to pose an explosive hazard.

**Munitions response:** A response action, including investigation, removal actions, and remedial actions, to address the explosives safety, human health, and/or environmental risks presented by munitions and explosives of concern (MEC) and/or munitions constituents (MC).

**National Contingency Plan (NCP):** The federal regulation that guides determination of the sites to be corrected under both the Superfund program and the program to prevent or control spills into the surface waters or elsewhere.

**Ohio Environmental Protection Agency (Ohio EPA):** The state agency responsible for enforcement of environmental protection laws. The Ohio EPA is the lead regulatory agency for RVAAP.

**Public Involvement Plan (PIP):** A plan specifically designed to address the public's communication needs during investigation and response activities. The plan is designed to encourage stakeholder input into the decision-making process.

**RDX:** Cyclotrimethylenetrinitramine, also known as royal demolition explosive (RDX), is an [explosive nitroamine](#) widely used in military and industrial applications.

**Remedial Action (Operations):** The remedial phase in which the remedy is in place and operating to achieve the cleanup objective identified in the Record of Decision (ROD) or other formal decision document. Any system operation (long-term operations) or monitoring (long-term monitoring) requirements during this time are considered Remedial Action (Operations) (RA(O)). RA(O) includes development and implementation of an exit or ramp down strategy for LTM activities at each site.



**Remedy-In-Place:** A final remedial action that has been constructed and implemented and is operating as planned in the remedial design. Because operation of the remedy is ongoing, the site cannot be considered Response Complete (RC)

**Restoration Advisory Board (RAB):** RABs are to serve as forums for discussion and exchange of information between agencies and affected communities. They provide an opportunity for stakeholders to have a voice and actively participate in the review of technical documents, to review restoration progress, and to provide individual advice to decision makers regarding restoration activities.

**Superfund Amendments and Reauthorization Act (SARA):** A federal law enacted by Congress in 1986. The Superfund Amendments and Reauthorization Act amended the Comprehensive Environmental Response, Compensation and Liability Act of 1980. This Act sets cleanup standards that strongly favor permanent remedies, gives the Environmental Protection Agency more control over cleanup procedures and provides an opportunity for the State EPA and the community to comment on the recommended cleanup alternative. This Act sets health and safety standards for workers at cleanup sites.

**Surface water:** Ground-level bodies of water, such as rivers, lakes, and streams.

**Technical Assistance for Public Participation (TAPP):** A DoD program aimed at providing community members of RABs and Technical Review Committees (TRCs) with access to independent technical consultants using government-supported acquisitions. The TAPP program is designed to help community members understand scientific and engineering issues pertinent to the installation's environmental restoration activities.

**TNT:** Trinitrotoluene is a useful [explosive material](#) with convenient handling properties. The explosive yield of TNT is considered the [standard measure of strength](#) of [bombs](#) and other [explosives](#).

**Unexploded Ordnance (UXO):** Military munitions that have been primed, fuzed, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

**This page intentionally left blank.**

## ***Appendix G***

### ***Meeting Locations***



## MEETING LOCATIONS

The Restoration Advisory Board meetings are rotated every quarter to one of four area Township Halls. The meetings are usually held in March, June, September and November with a tour of a specific area of concern of RVAAP scheduled in July or August. The RAB meets from 6:00 p.m. to 8:00 p.m.

### **Paris Township**

Shearer Community Center  
9355 Newton Falls Road  
Ravenna, OH 44266  
Office: (330) 358-2600  
Linda Shaulis, Fiscal Officer

### **Freedom Township Hall**

Town Hall  
Triangle of Routes 700, 303 & 88  
Windham, OH 44288  
Office: (330) 297-1709  
Fax: (330) 676-6758  
Rosemary Nicholas, Fiscal Officer

### **Windham Town Hall**

9011 North Main Street  
Windham, OH 44288  
Office: (330) 326-2971  
Jayme Neikirk, Clerk

### **Charlestown Town Hall**

6735 Rock Spring Road  
Ravenna, OH 44266  
Office (330) 296-2018  
Ruth Craft, Fiscal Officer



**This page intentionally left blank.**

## ***Appendix H***

### ***Repository Locations***



## REPOSITORY LOCATIONS

### **Administrative Record File and Information Repository**

The Administrative Record File is established and maintained by the RVAAP Facilities Manager and is located at:

#### **RVAAP**

Building 1037, Conference Room 8451  
State Route 5  
Ravenna, Ohio 44266-9297  
Office: (330) 358-7311

Because the Administrative Record File is located at the installation, access is restricted, but can be obtained with prior notice.

Current information and final documents are placed in the information repository and maintained by the RVAAP Facilities Manager. Information repositories have been established at:

#### **Reed Memorial Library**

167 East Main St  
Ravenna, OH 44266  
Office: (330) 296-2827  
Hours: Mon-Fri 10 a.m.-9 p.m., Sat 10 a.m.-6 p.m.

#### **Newton Falls Public Library**

204 South Canals  
Newton Falls, OH 44444  
Office: (330) 872-1282  
Hours: Mon-Thurs 9 a.m.-8 p.m., Fri-Sat 9 a.m.-5 p.m.

**This page intentionally left blank.**

## ***Appendix I***

### ***Other Resources***





## OTHER RESOURCES

A web site has been established where project documents and other information pertinent to the project are located. The website is at: [www.rvaap.org](http://www.rvaap.org)



## ***Appendix J***

### ***Comment Response Table***

**This page intentionally left blank.**

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 1 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
<i><b>OHARNG – Katie Tait (August 13, 2010)</b></i>					
R-1	Figure 2-2		Please delete the operational ranges on this figure as they are not needed in a public involvement plan	Delete operational range polygons.	Operational range polygons will be removed from Figure 2-2
R-2	Pg 2-7, Line 17		“Area 1 is co-located with an Installation Restoration Program area of concern... that was a former landfill; this area is not part of the MRS.” This statement is confusing. Please revise.	Suggested revision: “Area 1 is co-located with an Area of Concern, Ramsdell Quarry Landfill (RVAAP-01), that includes a landfill; the landfill is not part of the MRS.”	This sentence will be revised as suggested.
R-3	Pg 2-7, Line 27		Change ‘This’ to ‘The’		‘This’ will be changed to ‘The’ on line 27.
R-4	Pg 2-10, Line 1		“One possible MEC item identified as a 250 lb bomb has been found and several subsurface anomalies have been recorded.” It needs to be indicated here that the item was partially buried and was not identifiable.	Suggested revision: “One partially buried, large caliber casing and several subsurface anomalies were identified during the investigation.”	This sentence will be revised as suggested.
R-5	Pg 2-10, Line 19		Change ‘MKM’ to ‘PIKA’.		‘MKM’ will be changed to ‘PIKA’.
R-6	Pg 2-11, Figure 2-5		The RCRA unit is not considered operational range. Please delete this reference from the figure.	Delete ‘Operational Range’.	This comment conflicts with previous comments made by USACE during the preparation of the work plan. In particular, Shaw was told that this is a RCRA-permitted



**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 2 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
					OB/OD area and it was recommended that Shaw consistently illustrate this location as an “operational range” on all figures for the ODA2. Shaw requests clarification from the Army as to the correct terminology for the permitted RCRA area at ODA2.  Revised Response: Shaw will revise the reference to this location on the figure as ‘Operational Open Demolition Area’
R-7	Pg 2-12, Line 7		“This MRS is collocated with the 450-acre area Load Line 1 IRP AOC (AEBD-R RVAAP-08).” Load Line 1 is not 450 acres. Please revise.	Suggested revision: “The MRS is collocated with the Load Line 1 AOC.”	Reference to the Load Line #1 area will be removed. Please see response to comment O-16 regarding text change.
R-8	Pg 2-12, Line 3		“The MRS has since been reduced to a 0.41 acre area located adjacent to the northwest side of the former Building CB-14 declared inactive when buildings with residual explosive dust washed down and the elevated building slab based on results of the e2M SI in 2007.” This sentence is confusing. Please revise.	Suggested revision: “The MRS has been reduced to a 0.41 acre area located on the northwest side of former Building CB-14.”	This sentence will be revised as suggested.
R-9	Pg 2-19, Line 11	Pg 2-18	“A removal action (RA) was conducted at the site...” Please include the year that the RA was completed.	Insert year RA was completed.	This sentence will be revised as follows: “A removal action (RA) was conducted at the site in 2003 under the IRP.....”

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 3 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
R-10	Pg 2-19, Line 16	Pg 2-18	“...at the site for e2M SI;” Please include the year. Insert ‘in 2008’ after ‘SI’.	Insert year SI was completed.	The SI field activities were completed in 2007. This sentence will be revised as follows: “.....at the site for the e2M SI in 2007.”
R-11	Pg 2-20, Figure 2-11		The MRS shape on this figure is incorrect. It matches the geophysical work boundary that you completed for the IRP program but it does not match the shape of the MRS from the e2M SI. Please check the SI to get the correct MRS shape.		Shaw’s work under the IRP was to conduct a geophysical survey throughout the entire Sand Creek Dump AOC as defined by the Army in the scope of work. The MRS is co-located with the AOC according to the SI. However, the two figures (the IRP and SI figures) do not appear similar even though according to the SI they represent the same area. Given that this document is related to the MMRP contract, the SI figure will be used going forward for consistency until the exact boundaries are defined during RI field activities.
R-12	Pg 2-23, Figure 2-13		Please delete the operational ranges polygons from this figure as they are not needed in this public involvement plan.	Delete operational range polygons.	The operational range polygons will be removed from Figure 2-13.
R-13	Pg 2-25, Figure 2-14		Please check the MRS shape on this figure for Water Works 4 Dump MRS. The MRS shape in the SI report appears to have a tail on the north portion of the site.		The shape in Figure 2-14 is correct. The “tail” noted in the SI (Figure 5-11) are munitions debris (MD) locations that were previously identified. The MD locations were investigated and sampled for MC. The results were favorable and the MRS was reduced to the shape shown on Figure 2-14.
R-14	Pg 3-1, Line		Acreage of the facility is incorrect.	Correct acreage.	The acreage will be corrected to ‘21,683’.

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 4 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
	6		Total acreage is 21,683 acres.		
R-15	Appendix B, Pg B-1		The contact information (address) is incorrect for LTC Meade, Tim Morgan and Katie Tait. Our address should be: 'Camp Ravenna, 1438 State Route 534 SW, Newton Falls, OH 44444.' Please revise.	Correct contact address.	The address for LTC Meade, Tim Morgan and Katie Tait will be revised as directed.
<b><i>Ohio EPA – Eileen Mohr (August 16, 2010)</i></b>					
O-1	i/19		Change requested.	Change to Landfill North of Winklepeck Burning Grounds.	Title of Section 2.3.6 will be changed to 'Landfill North of Winklepeck Burning Grounds'
O-2	ii/9		Change requested.	Change to Landfill North of Winklepeck Burning Grounds.	Title for Figure 2-8 will be changed to 'Landfill North of Winklepeck Burning Grounds'.
O-3	iii/23		Change requested.	Change to Installation Restoration Program.	IRP will be changed to 'Installation Restoration Program'.
O-4	iii/43		Clarification.	Why is Public Involvement Plan italicized?	The technical editor italicized all document titles in the Acronyms list but to avoid further confusion, the italics will be removed.
O-5	iv/9		Clarification.	Why is Record of Decision italicized?	See response to comment O-4
O-6	1-2/3-4		Recommendation.	Remove this sentence as it duplicates the first sentence in Section 1.2. Then change the following sentence to read: "Stakeholders include members of the	Lines 3-4 will be removed and lines 4-5 will be revised to state: 'Stakeholders include members of the general public, elected officials.....'.

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 5 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
				general public...”	
O-7	1-2/6-18		Recommendation.	Much of the language in these 2 paragraphs is redundant. Please streamline.	<p>Lines 6-18 will be streamlined and revised as follows: ‘It is the goal of the RVAAP to be honest, forthright, responsive, and clear in dealing with the public, elected officials, interest groups, and the media. It is important to nurture public participation in site activities for the RVAAP and Camp Ravenna Joint Military Training Center; increase public awareness of the program and its activities; decrease misunderstanding about environmental problems and potential dangers; and foster community trust in the RVAAP’s ability to perform this mission in the most effective and efficient manner.</p> <p>Based upon the identified goals, the objectives of the RVAAP's public involvement efforts are as follows:</p> <ul style="list-style-type: none"> <li>• Facilitate two-way communications between the community and the RVAAP's project delivery team</li> <li>• Inform the community of the environmental progress at the former RVAAP and involve the community in the process</li> <li>• Develop and maintain relationships with media to report accurate, thorough information about the former RVAAP and the MMRP process</li> </ul>

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 6 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
O-8	1-2/22		Change requested.	Revise text to read: "... Involve the community in the process."	The second bullet will be revised to state: 'Inform the community of the environmental progress at the former RVAAP and involve the community in the process'
O-9	Pgs 2-1 and 2-3		Confirmation requested.	Please confirm that this is the currently accepted version of the property description.	This section has been reviewed by the Army, including OHARNG, and no comments have been received regarding the property descriptions on page 2-1 and 2-3.
O-10	2-6/29		Change requested.	Change to Landfill North of Winklepeck Burning Grounds.	Line 29 will be revised to: 'Landfill North of Winklepeck Burning Grounds'
O-11	2-7/31		Change requested.	Change burn to burns.	'burn' in line 31 will be revised to 'burns'.
O-12	2-10/3		Change requested.	Change text to read: "...and dry sediment was sampled during the..." (Otherwise it sounds like the area was NFA'ed or remediated.)	Lines 2-3 will be revised to: 'Surface water, groundwater, soil, and dry sediment sampling was conducted under the IRP; however, further characterization of wet sediments will be required under the MMRP.'
O-13	2-10/3		Change requested.	Change text to read: "...and 3 potential..."	Note – appears comment is actually referencing pg 2-10/11-12. This sentence will be revised to state: 'At Rocket Ridge, MEC consisting of T-bar fuzes, white phosphorus grenades, and three potential 500-lb bombs were previously identified.'
O-14	2-10/22-25		Confirmation requested.	Confirm all areas to be looked at in ODA2 are listed. (For example, Burial Site #1 is	Lines 22-25 will be revised to state: 'A RI is being conducted at ODA#2 under the MMRP to

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 7 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
				not mentioned.)	evaluate the nature and extent of MEC and MC contamination within the MRS including Rocket Ridge, the Bomb Disposal Area, Burial Sites 1 and 2, the hill across Sand Creek from Rocket Ridge and kick-out areas surrounding the ODA#2 MRS boundary.'
O-15	2-12/5-6		Change requested.	End sentence on line 14 after CB-14. Remove the rest of the sentence on lines 5-6 as it is confusing.	Please see response to comment R-8.
O-16	2-12/6-7		Change requested.	Change sentence to read: "This MRS is located within the...."	The sentence will be revised to state: 'This MRS is located within the Load Line #1 IRP AOC (AEDB-R #RVAAP-08).
O-17	2-12/7		Revision requested.	Change acreage to correct size.	Please see responses to comment R-7 and O-16.
O-18	2-12/31		Addition requested.	Investigate the submerged portion of the middle pond.	The following sentence will be added after the last sentence in line 31: 'The submerged portions of all three ponds will be investigated during the RI phase under the MMRP.'
O-19	2-12/35		Change requested.	Change text to read: "It accepted general plant..."	This sentence will be revised to remove 'and'.
O-20	2-16/31	Pg 2-15	Change requested.	Change to read: "...used for the testing of shape..."	'of' will be included after 'testing' in line 31.
O-21	2-16/34		Addition to text requested.	Add: "... Firestone Test Facility, which has not yet been investigated."	Lines 31-34 will be revised to state: 'Previous investigations at the MRS indicated limited



**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 8 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
					impact from MEC-related activities in areas within the Firestone Test Facility with the exception of the small pond located at the southernmost boundary of the Firestone Test Facility, which has not yet been investigated.'
O-22	2-19/6	Pg 2-18	Change requested.	Revise text to read: "...area around, and including, the shape charge...."	The sentence will be revised to state: 'The MRS acreage has been reduced to 0.41 acres – approximately the area of the shape charge test pond and the area around it.'
O-23	2-22/29		Change requested.	Change document to documented.	'document' will be revised to 'documented' in line 29.
O-24	2-24/5-24		Overarching question.	So what is the disposition of the WWI-era ogives that are present in the wooded area? Is the proposal to just leave them there? If that is the case, discussion is needed.	This comment is more applicable to the RI than the CRP. However, it is agree further discussion is needed in advance of final approval of the work plan where the path forward for these items will be included. Previous SI activities included sampling and inspection of the ogives. The ogives have been described as inert and are believed to be munitions debris.
O-25	2-27/14-16		Revision requested.	Remove the sentence appearing in these lines. Otherwise it sounds like the purpose of the entire RI is to sample areas where we know there isn't anything so that a NFA can be achieved, which is not the case.	Lines 14-16 will be removed.

**DRAFT**  
**PUBLIC INVOLVEMENT PLAN ADDENDUM FOR MILITARY MUNITIONS RESPONSE PROGRAM REMEDIAL INVESTIGATION**  
**ENVIRONMENTAL SERVICES, VERSION 1.0**  
**RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO**  
**COMMENT RESPONSE TABLE**  
**July 19, 2010**

Page 9 of 9

<b>Comment Number</b>	<b>Page or Sheet</b>	<b>New Page or Sheet</b>	<b>Comment</b>	<b>Recommendation</b>	<b>Response</b>
O-26	3-4/7		Change needed? (I may have missed it.)	Is this the first time that the acronym AR is used? If so, please define.	This is not the first time AR appears in the document. The first time is on page 2-6, line 7.
O-27	3-5/8-9		Remove text.	Remove the text referencing the ¼ newsletters as that no longer happens. (Although I have to admit, it might be a good idea to re-institute (if there is funding) as they were well received.)	Reference to the quarterly newsletters in lines 6-10 will be removed from the text.
O-28	3-5/9-10		Text change or removal.	Either remove the text since we no longer have the newsletters or make sure that you revise the sentence to give a little more information about them... and make it past tense.	Please see response to comment O-27.
O-29	3-5/20-21		Clarification requested.	Not sure what is meant by this sentence especially with respect to the reference to other important environmental activities.	Note – appears comment is referencing page 3-6/20-21. It is suggested this sentence be revised to state: ‘These are sent on a timely basis to feature important environmental activities being conducted at the RVAAP.’
O-30	3-6/23-30		Clarification/removal requested.	We do not have a formal speakers bureau.	It is suggested that the first sentence be revised to state: ‘An informal speaker’s bureau exists to reach out....’
O-31	4-3/5		Text change requested.	Change to read: “munitions response process,...”	‘services’ will be removed from the sentence in line 5.

**This page intentionally left blank.**

***Appendix K***  
***Ohio EPA Approval Letter***





**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director

September 14, 2010

RE: RAVENNA ARMY AMMUNITION PLANT  
PORTAGE/TRUMBULL COUNTY  
FINAL MMRP PIP  
ID # 267000859085

Mr. Mark Patterson  
Facility Manager  
Ravenna Army Ammunition Plant  
8451 State Route 5  
Ravenna, OH 44266

**CERTIFIED MAIL**  
**7008 3230 0003 5419 9826**

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final Public Involvement Plan, Addendum for Military Munitions Response Program Remedial Investigation Environmental Services, Version 1.0, Ravenna Army Ammunition Plant." This document, dated September 01, 2010 and received at Ohio EPA's NEDO on September 03, 2010, was prepared for the U.S. Army Corps of Engineers by Shaw Environmental & Infrastructure, Inc.

This document was compared to the draft version, dated July 19, 2010, and the approved comment response table. The final document is approved.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr  
Project Manager  
Division of Emergency and Remedial Response

ETM/kss

ec: Glen Beckham, USACE Louisville  
Greg Moore, USACE Louisville  
Jay Trumble, USACE Louisville  
Travis McCoun, USACE Baltimore  
Mark Krivansky, AEC  
LTC Ed Meade, OHARNG  
Katie Tait, OHARNG  
Christy Esler, US Army/VISTA  
Dave Cobb, Shaw  
Dave Crispo, Shaw  
Mike Eberle, Ohio EPA, NEDO, DERR  
Todd Fisher, Ohio EPA, NEDO, DERR

**Northeast District Office**  
2110 East Aurora Road  
Twinsburg, OH 44087-1924

330 | 963 1200  
330 | 487 0769 (fax)  
[www.epa.ohio.gov](http://www.epa.ohio.gov)

**This page intentionally left blank.**