Final

Modified Proposed Plan for Soil and Dry Sediment at the RVAAP-01 Ramsdell Quarry Landfill

Ravenna Army Ammunition Plant
Ravenna, Ohio

Contract No. GS-10F-0076J
Delivery Order No. W912QR-12-F-0020

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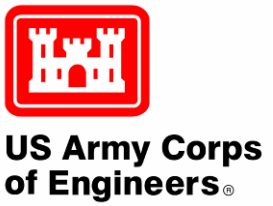

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Louisville District

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April 10, 2012

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None.

14. ABSTRACT

This modified Proposed Plan presents the recommended new alternative to address soil and dry sediment at RVAAP-01 Ramsdell Quarry Landfill. During implementation of original Alternative 3 - Excavation and Off-site Disposal ~ Security Guard/Maintenance Worker Land Use, unforeseen conditions were encountered that impacted the Overall Protection of Human Health and the Environment, short-term effectiveness, implementability, and cost of the alternative. In accordance with USEPA guidance, the U.S. Army considered these conditions and declared a Fundamental Post-ROD Change was warranted. An Engineering Evaluation was developed to re-evaluate remedial alternatives to address these new conditions and achieve remedy-in-place (RIP) at Ramsdell Quarry Landfill (RQL). Consequently, the U.S. Army, in consultation with the Ohio Environmental Protection Agency, is recommending Alternative 8 - Perimeter Fence ~ Security Guard/Maintenance Worker with Restricted Land Use.

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600 Martin Luther King, Jr. Place
Louisville, Kentucky 40202

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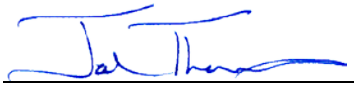
April 10, 2012

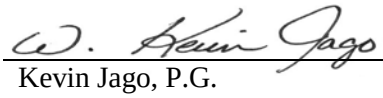
CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Science Applications International Corporation (SAIC) has completed the Modified Proposed Plan for Soil and Dry Sediment at the RVAAP-01 Ramsdell Quarry Landfill at 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 data quality objectives; technical assumptions; methods, procedures, and materials to be used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing United States Army Corps of Engineers (USACE) policy.



Jed Thomas, P.E. — 02/01/12

Study/Design Team Leader — Date

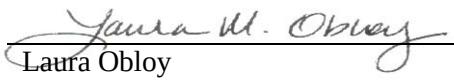


Kevin Jago, P.G. — 02/01/12

Independent Technical Review Team Leader — Date

Significant concerns and the explanation of the resolution are as follows:

Internal SAIC Independent Technical Review was conducted on the Draft version of this document. Subsequent versions of this document (e.g., Final) incorporated changes based on the technical reviews of USACE, the Ohio Army National Guard, and the Ohio Environmental Protection Agency. Internal SAIC Independent Technical Review comments are recorded on a Document Review Record per SAIC quality assurance procedure QAAP 3.1. This Document Review Record is maintained in the project file. Changes to the report addressing the comments have been verified by the Study/Design Team Leader. As noted above, all concerns resulting from independent technical review of the project have been considered.



Laura Obloy — 02/01/12

Principal w/ A-E firm — Date

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Ravenna Army Ammunition Plant
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SAIC Project File W912QR-12-F-0020	1	1
SAIC Central Records Facility	0	1

NGB = National Guard Bureau
OHARNG = Ohio Army National Guard
Ohio EPA-NEDO = Ohio Environmental Protection Agency-Northeast District Office
REIMS = Ravenna Environmental Information Management System
RVAAP = Ravenna Army Ammunition Plant
SAIC = Science Applications International Corporation
USACE = United States Army Corps of Engineers
USAEC = United States Army Environmental Command

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LIST OF ACRONYMS

ACM	Asbestos-containing Material
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirement
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
COC	Chemical of Concern
CUG	Cleanup Goal
FS	Feasibility Study
IRP	Installation Restoration Program
ISM	Incremental Sampling Method
HHRA	Human Health Risk Assessment
LUC	Land Use Control
MRS	Munitions Response Site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGB	National Guard Bureau
O&M	Operations and Maintenance
OAC	Ohio Administrative Code
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
PPE	Personal Protective Equipment
RAFLU	Reasonable and Anticipated Future Land Use
RI	Remedial Investigation
ROD	Record of Decision
RQL	Ramsdell Quarry Landfill
RVAAP	Ravenna Army Ammunition Plant

1.0 INTRODUCTION

This modified Proposed Plan presents new remedial alternatives and identifies a modified preferred alternative for remediation of contaminated soil and dry sediment within the Ramsdell Quarry Landfill (RQL) at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio (Figure 1). The U.S. Army, in consultation with the Ohio Environmental Protection Agency (Ohio EPA), issues this Proposed Plan, providing the rationale for this preference and modification.

In March 2009, the U.S. Army published the *Record of Decision for Soil and Dry Sediment for the RVAAP-01 Ramsdell Quarry Landfill* (USACE 2009) that documents the originally recommended Alternative 3: Excavation and Off-site Disposal (Security Guard/Maintenance Worker Land Use) to remediate soil and dry sediment at RQL. This alternative was presented to the public on April 10, 2007 and approved by the Ohio EPA on October 13, 2009 and U.S. Army on August 20, 2009. During implementation of this alternative in July 2010, it was discovered that site conditions were different than originally anticipated, as large amounts of subsurface construction and miscellaneous debris (containing asbestos) were identified within the remedial action excavation footprint. The U.S. Army identified this as a Fundamental Post-Record of Decision (ROD) Change, as prescribed under the *Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA 1999). Consequently, the U.S. Army, in consultation with the Ohio EPA, re-evaluated remedial alternatives using current site knowledge to address soil and dry sediment and amend the original ROD.

This Proposed Plan provides the public with information necessary to comment on the selection of a modified remedial alternative to address soil and dry sediment at RQL. The U.S. Army, in consultation with Ohio EPA, will select the remedy for this area of concern (AOC) after reviewing and considering all

Public Comment Period:
Month XX, 2012 to Month XX, 2012

Public Meeting:
The U.S. Army will hold an open house and public meeting to explain the modified Proposed Plan and new alternatives presented in the *Engineering Evaluation for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill* (USACE 2011). Oral and written comments will also be accepted at the meeting. The open house and public meeting is scheduled for 6:00PM, Month XX, 2012, at the Newton Falls Community Center, 52 East Quarry Street, Newton Falls, Ohio 44444.

Information Repositories:
Information used in selecting the preferred alternative is available for public review at the following locations:

Reed Memorial Library
167 East Main Street
Ravenna, Ohio 44266
(330) 296-2827
Hours of operation:
9AM – 8PM Monday – Friday
9AM – 5PM Saturday
1PM – 5PM Sunday (between Labor Day and Memorial Day)

Newton Falls Public Library
204 South Canal Street
Newton Falls, Ohio 44444
(330) 872-1282
Hours of operation:
10AM – 8PM Tuesday - Friday
9AM – 5PM Friday and Saturday

The **Administrative Record File**, containing information used in selecting the preferred alternative, is available for public review at the following location:

RVAAP
Building 1037
8451 State Route 5
Ravenna, Ohio 44266-9297
(330) 358-7311
Fax: (330) 358-7314
Note: Access is restricted to the RVAAP, but the file can be obtained or viewed with prior notice to RVAAP.

comments submitted during the 30-day public comment period. Therefore, the public is encouraged to review and comment on all alternatives presented in this Proposed Plan.

The U.S. Army is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 *Code of Federal Regulations* 300). Selection and implementation of a remedy will also satisfy the requirements of the Ohio EPA *Director's Final Findings and Orders* dated June 10, 2004 (Ohio EPA 2004).

This Proposed Plan summarizes information that can be found in greater detail in the combined *Phase I Remedial Investigation Report for Ramsdell Quarry Landfill* (USACE 2005), *Feasibility Study for Ramsdell Quarry Landfill* (USACE 2006), *Engineering Evaluation for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill* (USACE 2011), and other documents contained in the Administrative Record file for RQL. The U.S. Army encourages the public to review these documents to gain a more comprehensive understanding of the AOC and activities that have been conducted to date.

2.0 RVAAP BACKGROUND

When the RVAAP Installation Restoration program (IRP) began in 1989, RVAAP was identified as a 21,419-acre installation. The property boundary was resurveyed by Ohio Army National Guard (OHARNG) over a 2-year period (2002 and 2003) and the total acreage of the property was found to be 21,683.289 acres. 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 OHARNG for use as a military training site.

The current RVAAP consists of 1,260 acres scattered throughout the OHARNG Camp Ravenna Joint Military Training Center, herein referred to as Camp Ravenna. Camp Ravenna is in northeastern Ohio, within Portage and Trumbull counties, approximately 3 miles (4.8 km) east-northeast of the city of Ravenna and approximately 1 mile (1.6 km) northwest of the city of Newton Falls. The RVAAP portions of the property are solely located within Portage County. RVAAP/Camp Ravenna is a parcel of property approximately 11 miles (17.7 km) long and 3.5 miles (5.6 km) wide 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 (Figures 1 and 2). Camp Ravenna is surrounded by several communities: Windham on the north; Garrettsville 6 miles (9.6 km) to the northwest; Newton Falls 1 mile (1.6 km) to the southeast; Charlestown to the southwest; and Wayland 3 miles (4.8 km) to the south.

When RVAAP was operational, Camp Ravenna did not exist, and the entire 21,683-acre parcel was a government-owned, contractor-operated industrial facility. The RVAAP IRP encompasses investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP. References to RVAAP in this document are considered to be inclusive of the historical extent of RVAAP, which is inclusive of the combined acreages of the current Camp Ravenna and RVAAP, unless otherwise specifically stated.

3.0 RAMSDELL QUARRY LANDFILL HISTORY, DESCRIPTION, AND CHARACTERISTICS

RQL was initially a stone quarry that operated until 1941. During operations, the quarry was excavated 30 to 40 ft below existing grade. The excavated sandstone and quartzite pebble conglomerate was used for road and construction ballast. From 1946 to the 1950s, the bottom of the quarry was used to burn waste explosives from Load Line 1. Reportedly, 18,000 500-lb (225-kg) incendiary or napalm

bombs were burned in the quarry, and liquid residues from annealing operations were disposed there.

Between 1941 and 1989, the western and southern sections of the abandoned quarry were used for landfill operations (USATHAMA 1978). Following World War II, napalm bombs were burned in Ramsdell Quarry. In 1978, a portion of the abandoned quarry was permitted as a sanitary landfill by the State of Ohio. Only nonhazardous solid waste was placed in the sanitary landfill until it was closed in 1990 under State of Ohio solid waste regulations. A clay cap was placed on the landfill, covering approximately 4 acres of the AOC. Five groundwater monitoring wells were installed and are monitored semi-annually, in accordance with State of Ohio post-closure requirements for the landfill.

RQL encompasses approximately 14 acres in the northeastern portion of RVAAP. The environmental setting at RQL includes old-field communities, with patches of forests and grasslands. The land surface in a large portion of the AOC slopes into the quarry bottom, which occupies most of the AOC.

The quarry bottom is approximately 40 ft below the surrounding area. Former quarry operations resulted in the removal of much of the original soil. Surface water runoff collects in an isolated, low quality wetland in the bottom of the quarry bottom. There is no surface water drainage outlet from the quarry bottom. The extent of the wetland varies widely, depending on the season and rainfall, and it is sometimes completely dry. When water is present in the wetland, the depth is usually less than 4 ft. The drainage ways and ditch lines outside of the quarry, located along access roads and the rail line in the southern part of the AOC, only contain water during rain events.

The habitat at RQL supports a variety of wildlife, including small mammals, birds, and insects. There are currently no federally-listed species or critical habitats on the facility. RQL has not been previously surveyed for state-listed species; therefore, none have been documented at RQL.

The quarry bottom of RQL is considered a Munitions Response Site (MRS). Future activities under the Military Munitions Response Program may lead to additional remedial work to achieve remedy for munitions-related contamination.

4.0 SCOPE AND ROLE OF RESPONSE ACTION

The U.S. Army intends to transfer RQL to NGB following the remediation of contaminated soil and dry sediment. The NGB will subsequently license the land to OHARNG for military use. The Reasonable and Anticipated Future Land Use (RAFLU) of Ramsdell Quarry Landfill AOC is Restricted Access, No Digging. Post-closure care of the RQL cap and monitoring must be continued in accordance with State of Ohio solid waste management regulations. Excavation into or disturbance of the landfill contents is prohibited without prior approval of Ohio EPA.

The remedial alternative for groundwater, surface water, and wet sediment will be addressed in separate documentation. However, the selected remedy for soil and dry sediment at RQL must also be protective of groundwater, which is routinely monitored under the post-closure provisions of State of Ohio solid waste management regulations and the RVAAP Facility-Wide Groundwater Monitoring Program conducted in accordance with the Ohio EPA *Director's Final Findings and Orders* (Ohio EPA 2004).

5.0 SUMMARY OF REMEDIAL ACTIONS TO DATE

The originally selected remedy in the RQL ROD (dated March 24, 2009) was Alternative 3: Excavation and Off-site Disposal ~ Security Guard/Maintenance Worker Land Use. This alternative involved the removal of RQL soil with chemical of concern (COC) concentrations identified in the human health

risk assessment (HHRA) that exceed cleanup goals (CUGs) for the Security Guard/Maintenance Worker (presented in Table 1). The removal of soil with COCs above CUGs was to reduce soil concentrations to acceptable risk levels for this receptor. There were no ecological risks identified at RQL, and the fate and transport modeling indicated no contaminants were predicted to migrate beyond the AOC boundary at concentrations above risk-based concentrations or drinking water maximum contaminant levels. Consequently, only soil remediation for COCs identified in the HHRA was required for RQL.

Table 1. COCs and Cleanup Goals for a Security Guard/Maintenance Worker for Soil/Dry Sediment at RQL

COC	Cleanup Goal (mg/kg)
Benz(a)anthracene	**13**
Benzo(a)pyrene	**1.3**
Benzo(b)fluoranthene	**13**
Dibenz(a,h)anthracene	**1.3**
Indeno(1,2,3-cd)pyrene	**13**

COC = Chemical of Concern
RQL = Ramsdell Quarry Landfill

Implementing Alternative 3 also required land use controls (LUCs) and five-year reviews to be conducted by the U.S. Army, under a 30-year Operations and Maintenance (O&M) period.

5.1 Contaminant Area and Volume Estimate

The RQL ROD identified two areas (RQL-039M and RQL-040M, see Figure 3) requiring removal, for an estimated disposal volume (ex situ) of 423 yd^3. However, Alternative 3 also required sampling of the entire quarry bottom to re-assess Incremental Sampling Method (ISM) samples collected during the Phase I Remedial Investigation (RI). In May 2009 and January 2010, soil samples were collected from the bottom of RQL in accordance with the RQL ROD. These sample results were presented to the U.S. Army and Ohio EPA in technical memorandums and identified seven ISM areas that exceeded CUGs presented in the RQL ROD: RQL-039M, RQL-040M, RQL-041M, RQL-042M, RQL-043M, RQL-044M, and RQL-045M (Figure 3).

To assist in volume estimations during implementation of the remedial actions, soil depth to bedrock was measured using a push probe at multiple, random locations. Soil depth at the quarry bottom varied from 0 ft (exposed bedrock) to greater than 2 ft. The average depth of soil overlying bedrock at the quarry bottom was 7 inches; this average depth was used to estimate soil removal quantities. Based on the remedial design sampling and walkover survey, the area requiring soil removal increased from 282 ft^2 (0.006 acres) to 49,300 ft^2 (1.13 acres), increasing the estimated volume for soil removal from 423 yd^3 to 1,597 yd^3.

5.2 Implementation of Soil Removal

Implementation of soil removal within the quarry bottom was initiated in July 2010. The excavation activities began with removing soil at the eastern edge of area RQL-043M.

During soil removal activities, a large amount of construction and miscellaneous debris was encountered. Some of the debris (e.g., transite and roofing materials) was suspected to contain asbestos; therefore, the materials were sampled and analyzed for asbestos. Results revealed that transite and roofing materials within the excavation were to be handled and disposed as asbestos-containing material (ACM), as they contained greater than 1% asbestos. Approximately 1,100 tons (estimated 1,000 yd^3) of soil and construction debris (all considered friable ACM) was removed from RQL and disposed at a sanitary landfill licensed to accept asbestos-containing waste.

6.0 JUSTIFICATION FOR ALTERNATIVE MODIFICATION

The discovery of ACM in RQL during the implementation of Alternative 3 invokes relevant and appropriate requirements stated in Ohio Administrative Code (OAC), Asbestos Emissions Control ~ OAC 3745-20-01. Those relevant and appropriate requirements are as follows:

1. Discharge no visible emissions to the outside air; or

2. Cover ACM with at least 6 inches of compacted non-ACM, and establish and maintain a cover of vegetation on the area adequate to prevent exposure to the ACM; or

3. Cover ACM with at least 2 ft compacted non-ACM and maintain the cover to prevent exposure to the ACM.

In addition, Ohio EPA National Emission Standards for Hazardous Air Pollutants (NESHAPs) guidance is also considered, wherein if excavation has occurred that exposes ACM, then ACM must be removed as encountered or addressed (regardless of whether it occurs outside of the areas requiring remediation to address COCs identified in the RQL ROD). Removal is confirmed through visual inspection and soil sampling.

The *Engineering Evaluation for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill* (USACE 2011) re-evaluated the originally selected remedial alternative and evaluated additional alternatives to determine if the remedy for soil at RQL required change, given the change of site conditions. Re-evaluation of remedial alternatives is allowed under the *Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (USEPA 1999). The change in waste type encountered (ACM) falls under Significant or Fundamental Change. As defined in Section 7.2 of the guidance document, the change in conditions included an appreciable change in scope, performance, and cost. The discovery of ACM provided a basis for re-evaluation of alternatives in the Engineering Evaluation with respect to potential ARARs. The additional alternatives evaluated in the Engineering Evaluation provided potential remedies for the identified COCs in the RQL quarry bottom and addressed the relevant and appropriate requirements established from the identification of ACM in the contaminated areas.

7.0 SUMMARY OF ADDITIONAL REMEDIAL ALTERNATIVES

The additional alternatives were developed in the *Engineering Evaluation for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill* (USACE 2011) and are summarized below.

7.1 Alternative 5 – Excavation of Soil and Off-site Disposal as Friable ACM ~ Security Guard/Maintenance Worker Land Use

Estimated Implementation Cost: $644,309
30-year O&M Cost: $112,846
Estimated Total Cost: $757,155

Alternative 5 consists of excavating soil with COCs exceeding CUGs for the Security Guard/Maintenance Worker in addition to other locations within RQL that contain ACM. The Engineering Evaluation estimates 1,614 yd^3 of contaminated soil requires excavation for off-site disposal, in addition to the 1,100 tons of soil and construction debris removed in July 2010. The remedy requires placement of soil for backfill and adequate restoration of the low quality wetland within the quarry bottom.

Upon completion of this alternative, potential for exposure to contaminated soil and ACM for National Guard receptors will be reduced. LUCs would be necessary, as planned excavation will not attain CUGs for Residential Land Use and would not include excavation of contaminated soil below 1 ft, unless ACM is also encountered at that depth.

Alternative 5 requires coordination of excavation and LUC activities with Ohio EPA, OHARNG, and the U.S. Army. Coordinating with stakeholders during the implementation of the excavation minimizes health and safety risks to on-site personnel and potential disruptions of RVAAP/Camp Ravenna activities. The amount of time to complete this removal action is estimated to be 2 months. In addition, this alternative contains a 30-year O&M period to implement LUCs.

7.2 Alternative 6 – Capping ~ Security Guard/Maintenance Worker

Estimated Implementation Cost: $239,533
30-year O&M Cost: $101,057
Estimated Total Cost: $340,590

Alternative 6 consists of putting a 12-inch compacted cover (cap) of native fill and topsoil on the remaining areas within RQL that exceed CUGs for the COCs, with the exception of the area identified on the existing sanitary landfill cap. An estimated 33,200 ft^2 requires capping. Capping will leave soil containing COCs and ACM in place. The purpose of this cap is to prevent exposure of the Security Guard/Maintenance Worker to COCs and to be in compliance with OAC requirements to "cover the asbestos-containing waste material with at least six inches of compacted non-ACM." A cover of vegetation would be established on the area adequate to prevent exposure of the ACM, and adequate restoration of the low quality wetland within the quarry bottom would be conducted.

Alternative 6 requires coordination of excavation and LUC activities with Ohio EPA, OHARNG, and the U.S. Army. Once capping is complete, this alternative mitigates risk by physically preventing exposure of National Guard receptors to contaminated soil and ACM. LUCs would be necessary to prevent digging and because the cap will not reduce exposure to meet residential CUGs. The amount of time to complete this removal action is estimated to be 2 months. In addition, this alternative contains a 30-year O&M period to implement LUCs.

7.3 Alternative 7 – Quarry Bottom Fence ~ Security Guard/Maintenance Worker with Restricted Land Use

Estimated Implementation Cost: $157,217
30-year O&M Cost: $91,936
Estimated Total Cost: $249,153

Alternative 7 consists of installing a fence (e.g., chain link security fence or five-strand high tensile wire fence) and signage around the quarry bottom at RQL (to restrict access to the AOC) and removing ACM at the ground surface within the quarry bottom. Installation of chain link security fence and signage provides a physical control for the AOC. This physical control will be combined with administrative LUCs for access control into the quarry bottom and use restrictions to ensure there is no digging. These controls will eliminate or reduce receptor exposure to COCs and comply with requirements of OAC 3745-20-07(A)(1) by reducing the potential of discharging visible emissions to the outside air due to disturbance of the AOC. Signage notifying personnel of the presence of asbestos in the quarry bottom will be placed on the fence.

The physical and administrative controls under this alternative further restrict access to soil at the AOC that exceeds CUGs. Administrative LUCs include access and digging restrictions and personnel training or briefings for access-authorized persons on potential hazards and safety precautions [e.g., appropriate personal protective equipment (PPE) usage to prevent dermal exposure to soil, and appropriate steps to avoid disturbing ACM]. All individuals unfamiliar with RQL would be properly briefed on the hazards/restrictions prior to entry into the AOC.

Workers accessing the fenced area would be required to use appropriate PPE to prevent dermal exposure to soil and take appropriate steps to avoid disturbing ACM.

Installing a fence (with signage) around the area containing ACM is adequate protection for future land use of general foot traffic by

U.S. Army and OHARNG personnel who have awareness that ACM was left in place. After the fence is put in place, there is no additional requirement for ACM removal. However, as part of this remedy, a best management practice (BMP) to remove surficial ACM through non-intrusive, no digging methods will be implemented.

7.4 Alternative 8 – Perimeter Fence ~ Security Guard/Maintenance Worker with Restricted Land Use

Estimated Implementation Cost: $154,349
30-Year O&M Cost: $95,613
Estimated Total Cost: $249,962

Alternative 8 consists of installing a security fence and signage around the perimeter of RQL and removing ACM at the ground surface within the quarry bottom. The fence will be a combination of a chain link security fence and high tensile wire fence. The fence specifications would be finalized in a Remedial Design. However, specifications used for alternative evaluation include a chain-link security fence and 6 ft high gate with a 1⅝" frame at the northern perimeter of RQL and a five-strand, high tensile wire fence at the eastern, southern, and western perimeters. Installation of this fence encompasses all areas contaminated with COCs and ACM. Signage notifying personnel of the presence of asbestos in the quarry bottom will be placed on the fence. The fence will also provide the U.S. Army and NBG access control for, and protection of, the adjacent closed, sanitary landfill. After the fence is put in place, there is no additional requirement for ACM removal, as access and land use restrictions at RQL will ensure no visible emissions will be released to the outside air in accordance with OAC 3745-20-01. However, as part of this remedy, a BMP to remove ACM at the ground surface will be implemented. The ACM will be removed by a licensed asbestos professional using non-intrusive, no digging methods (e.g., removal by hand) to minimize the potential for personnel exposure in the event the ACM is disturbed. Removed ACM will be containerized for transportation in accordance with OAC Standard for Asbestos Waste Handling and will be placed at a disposal facility licensed to obtain ACM.

Physical control provided by the fence will be combined with administrative LUCs. Administrative LUCs include access and digging restrictions and personnel training or briefings on potential hazards and safety precautions (e.g., appropriate PPE usage to prevent dermal exposure to soil, and appropriate steps to avoid disturbing ACM) for access-authorized persons. RQL is managed as "restricted access" due to post-closure care and monitoring requirements for the closed, sanitary landfill until the year 2040. RQL is closed to all standard training and administrative activities, and installation of this fence will help enforce these restrictions. Surveying; sampling; and essential security, safety, periodic maintenance, natural resources management, and other directed activities may be conducted at RQL only after personnel have been properly briefed on potential hazards/sensitive areas. Appropriate personnel will be granted access to the AOC after being properly briefed on the hazards/restrictions. Once the fence is complete and LUCs are in place, this alternative will result in reduced potential for exposure to contaminated soil by National Guard receptors. This alternative will also protect the MRS and landfill cap on the closed, sanitary landfill within RQL.

8.0 EVALUATION AND COMPARATIVE ANALYSIS OF ALTERNATIVES

The alternatives were evaluated with respect to the nine comparative analysis criteria, as outlined by CERCLA (Table 2). The nine criteria are categorized into three groups: threshold criteria, primary balancing criteria, and modifying criteria. These criteria are as follows:

Threshold Criteria – must be met for the alternative to be eligible for selection as a remedial option.

1. Overall protection of human health and the environment.
2. Compliance with applicable or relevant and appropriate requirements (ARARs).

Balancing Criteria – used to weigh major trade-offs among alternatives.

3. Long-term effectiveness and permanence.
4. Reduction of toxicity, mobility, or volume through treatment.
5. Short-term effectiveness.
6. Implementability.
7. Cost.

Modifying Criteria – may be considered to the extent that information is available during development of the feasibility study (FS) but can be fully considered only after public comment on this Proposed Plan.

8. State acceptance.
9. Community acceptance.

The comparative analysis evaluates the relative performance of Alternatives 5 through 8 with respect to each of the nine criteria. Identifying the advantages and disadvantages of each alternative, with respect to each other, helps identify the relative strengths of the preferred alternative. These strengths, combined with risk management decisions made by the U.S. Army and Ohio EPA, as well as input from the community, will serve as the basis for selecting the remedy.

Table 3 presents a summary for the comparative analysis of remedial alternatives for RQL from the Engineering Evaluation. Criterion 1, Overall Protectiveness, is rated as either "protective" or "not protective." Criterion 2, Compliance with ARARs, is rated as either "compliant" or "not compliant." The remaining five primary balancing criteria are rated as high, medium, or low, with a rating of high indicating alternative(s) that performs the best and a rating of low indicating alternative(s) that performs the worst (e.g., an alternative with a high cost will be scored "low" for Criterion 7, Cost).

Table 2. CERCLA Evaluation Criteria

Overall Protection of Human Health and the Environment – considers whether or not an alternative provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) – considers how a remedy will meet all the applicable or relevant and appropriate requirements of other federal and state environmental statutes and/or provide grounds for invoking a waiver.

Long-term Effectiveness and Permanence – considers the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals (CUGs) have been met.

Reduction of Toxicity, Mobility, or Volume Through Treatment – considers the anticipated performance of the treatment technologies that may be employed in a remedy.

Short-term Effectiveness – considers the speed with which the remedy achieves protection, as well as the potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

Implementability – considers the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.

Cost – considers capital costs and operation and maintenance costs associated with the implementation of the alternative.

State Acceptance – indicates whether the state concurs with, opposes, or has no comment on the preferred alternative.

Community Acceptance – will be addressed in the Record of Decision (ROD) following a review of the public comments received on the remedial investigation (RI) report, focused feasibility study report, and the Proposed Plan.

Table 3. Summary of Comparative Analysis of Remedial Alternatives

NCP Evaluation Criteria	Alternative 5: Excavation of Soil and Off-site Disposal as Friable ACM ~ Security Guard/Maintenance Worker		Alternative 6: Capping ~ Security Guard/Maintenance Worker		Alternative 7: Quarry Bottom Fence ~ Security Guard/Maintenance Worker with Restricted Land Use		Alternative 8: Perimeter Fence ~ Security Guard/Maintenance Worker with Restricted Land Use	
Threshold Criteria	***Result***		***Result***		***Result***		***Result***	
1. Overall Protectiveness of Human Health and the Environment	Protective		Protective		Protective		Protective	
2. Compliance with ARARs	Compliant		Compliant		Compliant		Compliant	
Balancing Criteria	***Ranking***	***Score***	***Ranking***	***Score***	***Ranking***	***Score***	***Ranking***	***Score***
3. Long-Term Effectiveness and Permanence	High	3	Medium	2	Medium	2	Medium	2
4. Reduction of Toxicity, Mobility, or Volume through Treatment	Medium	2	Low	1	Low	1	Low	1
5. Short-Term Effectiveness	Low	1	Medium	2	Medium	2	High	3
6. Implementability	Low	1	Low	1	Medium	2	High	3
7. Cost	Low	1	Medium	2	High	3	High	3
Balancing Criteria Score		*8*		*8*		*10*		*12*

ACM = Asbestos-Containing Material
ARAR = Applicable or relevant and appropriate requirement
NCP = National Oil and Hazardous Substances Pollution Contingency Plan

"High" = highly favorable situation
"Medium" = moderately favorable situation
"Low" = situation that is not favorable
Scoring for the Balancing Criteria is as follows:
High = 3, Medium = 2, Low = 1

Alternatives 5 and 6 provide overall protectiveness and long-term effectiveness and permanence for a Security Guard/Maintenance Worker Land Use by removing contaminated soil in Alternative 5 and capping contaminated soil in Alternative 6. These alternatives have significant short-term risks associated with these alternatives, as these activities will be conducted in the presence of friable ACM. Alternative 5 has a high cost associated with disposal of ACM and restoration of the excavated area. Both Alternatives 5 and 6 will impact the low quality wetland and have costs associated with restoration and future monitoring of co-located wetlands.

Alternative 7 provides overall protectiveness and long-term effectiveness and permanence for the Security Guard/Maintenance Worker with Restricted Land Use. Administrative controls will be put in place to prevent access to COCs and ACM in the quarry bottom. There are moderate risks associated with fence installation in Alternative 7, as it will be installed near the ACM and within the MRS.

Alternative 8 provides overall protectiveness and long-term effectiveness and permanence for the Security Guard/Maintenance Worker with Restricted Land Use. Administrative controls will be put in place to prevent access to COCs and ACM in the quarry bottom. In addition, this alternative provides protection to the adjacent sanitary landfill. Implementation of Alternative 8 can be done with little risk to workers, as the fence will be installed outside

of the MRS and sanitary landfill and away from the ACM. Alternative 8 will have less short-term impacts to the environment, as most of the fence will be installed bordering the wood-line surrounding RQL.

9.0 PREFERRED ALTERNATIVE

The U.S. Army, in consultation with Ohio EPA, is recommends Alternative 8: Perimeter Fence ~ Restricted Land Use is implemented as the modified preferred remedy at RQL. This remedy for soil and dry sediment includes installation of a fence at the perimeter of RQL and implementing a BMP to remove surficial ACM through non-intrusive, no digging methods. Installation of the fence and signage provides a physical control for the AOC to minimize or eliminate the potential for exposure to receptors that are not granted access to RQL. Additionally, this preferred alternative will also provide access restrictions and protection to the landfill cap on the closed, sanitary landfill within RQL.

The physical and administrative controls under this alternative will further restrict access to the portion of the AOC with soil containing COCs exceeding CUGs. The fence and signage will further deter entry by any other receptors that are not granted access to RQL. Once the fence is complete and LUCs are in place, this alternative will result in reduced potential for exposure to contaminated soil and ACM by National Guard receptors. Fencing will ensure compliance with the requirement that all personnel be properly briefed on potential hazards, including the use of appropriate PPE to prevent dermal exposure to soil, and appropriate steps to take to avoid disturbing ACM.

Alternative 8 has an estimated cost of $249,962 that includes a $154,349 implementation cost and $95,613 O&M cost.

This recommendation is not a final decision. The U.S. Army, in consultation with Ohio EPA, will select the remedy for this AOC after reviewing and considering all comments submitted during the 30-day public comment period.

10.0 COMMUNITY PARTICIPATION

10.1 Community Participation

Public participation is an important component of remedy selection. The U.S. Army and Ohio EPA are soliciting input from the community on the preferred alternative. The comment period extends from Month XX, 2012 to Month XX, 2012. This period includes a public meeting at which the U.S. Army will present the Proposed Plan as agreed to by Ohio EPA. The U.S. Army will accept both oral and written comments at this meeting.

10.2 Public Comment Period

The 30-day comment period is from Month XX, 2012 to Month XX, 2012, and provides an opportunity for public involvement in the decision-making process for the modified proposed action. All public comments will be considered by the U.S. Army and Ohio EPA before selecting the final remedy. The public is encouraged to review and comment on this Proposed Plan. During the comment period, the public is encouraged to review documents pertinent to RQL. This information is available at the Information Repository and online at www.rvaap.org. To obtain further information, contact the RVAAP Facility Manager.

10.3 Written Comments

If the public would like to comment in writing on the Proposed Plan or other relevant issues, please deliver comments to the U.S. Army at the public meeting or mail written comments (postmarked no later than Month XX, 2012).

POINT OF CONTACT FOR WRITTEN COMMENTS

Facility Manager
Ravenna Army Ammunition Plant
Building 1037
8451 State Route 5
Ravenna, Ohio 44266-9297
Office: (330) 358-7311
Fax: (330) 358-7314

10.4 Public Meeting

The U.S. Army will hold an open house and public meeting on this Proposed Plan on Month XX, 2012 at 6:00PM, in the Newton Falls Community Center, 52 East Quarry Street, Newton Falls, Ohio, 44444 to accept comments. This meeting will provide an opportunity for the public to comment on the proposed action. Comments made at the meeting will be transcribed.

INFORMATION REPOSITORIES

Reed Memorial Library
167 East Main Street
Ravenna, Ohio 44266
(330) 296-2827
Hours of operation:
9AM – 8PM Monday – Friday
9AM – 5PM Saturday
1PM – 5PM Sunday (between Labor Day and Memorial Day)

Newton Falls Public Library
204 South Canal Street
Newton Falls, Ohio 44444
(330) 872-1282
Hours of operation:
10AM – 8PM Tuesday - Friday
9AM – 5PM Friday and Saturday

10.5 U.S. Army Review of Public Comments

The U.S. Army will review the public's comments as part of the process in reaching a final decision on the most appropriate action to be taken. A Responsiveness Summary, a document that summarizes the U.S. Army's responses to comments received during the public comment period, will be included in an amendment to the original ROD. The U.S. Army's final choice of action will be documented in the ROD Amendment. The ROD Amendment will be added to the RVAAP Administrative Record and information repositories.

ADMINISTRATIVE RECORD FILE

RVAAP
Building 1037
8451 State Route 5
Ravenna, Ohio 44266-9297
(330) 358-7311
Fax: (330) 358-7314

Note: Access is restricted to the Ravenna Army Ammunition Plant (RVAAP), but the file can be obtained or viewed with prior notice to RVAAP.

GLOSSARY OF TERMS

Administrative Record: a collection of documents, typically reports and correspondence, generated during site investigation and remedial activities. Information in the Administrative Record represents the information used to select the preferred alternative. It is available for public review at RVAAP, Building 1037; call (330) 358-7311 for an appointment.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): a federal law passed in 1980, commonly referred to as the Superfund Program. It provides liability, compensation, cleanup, and emergency response in connection with the cleanup of inactive hazardous substance release sites that endanger public health or the environment.

Chemical of Concern (COC): site-specific chemical substance that potentially poses significant human health or ecological risks. COCs are typically further evaluated for remedial action.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): the regulations that implement CERCLA and address responses to hazardous substances and pollutants or contaminants.

Receptor: a hypothetical person, based on current or potential future land use, who may be exposed to an adverse condition.

Record of Decision (ROD): legal record signed by the U.S. Army and Ohio EPA. It describes the cleanup action or remedy selected for a site, the basis for selecting that remedy, public comments, responses to comments, and the estimated cost of the remedy.

Remedial Investigation (RI): CERCLA investigation that involves sampling environmental media, such as air, soil, and water, to determine the nature and extent of contamination and to calculate human health and environmental risks that result from the contamination.

Responsiveness Summary: a section of the ROD where the U.S. Army documents and responds to written and oral comments received from the public about the Proposed Plan.

Risk Assessment: an evaluation that determines potential harmful effects, or lack thereof, posed to human health and the environment due to exposure to chemicals found at a CERCLA site.

REFERENCES

Ohio EPA (Ohio Environmental Protection Agency) 2004. *Director's Final Findings and Orders in the Matter of US Army, Ravenna Army Ammunition Plant*, June 2004.

USACE (United States Army Corps of Engineers) 2005. *Phase I Remedial Investigation Report for Ramsdell Quarry Landfill (RVAAP-01), Ravenna Army Ammunition Plant, Ravenna, Ohio.* September 2005.

USACE 2006. *Feasibility Study for Ramsdell Quarry Landfill (RVAAP-001), Ravenna Army Ammunition Plant, Ravenna, Ohio.* March 2006.

USACE 2009. *Record of Decision for Soil and Dry Sediment for the RVAAP-01 Ramsdell Quarry Landfill*. March 2009.

USACE 2011. *Engineering Evaluation for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill*. September 2011.

USATHAMA (United States Army Toxic and Hazardous Materials Agency) 1978. *Installation Assessment of Ravenna Army Ammunition Plant. Records Evaluation Report No. 132*. November 1978.

USEPA (United States Environmental Protection Agency) 1999. *Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*. July 1999.

FIGURES

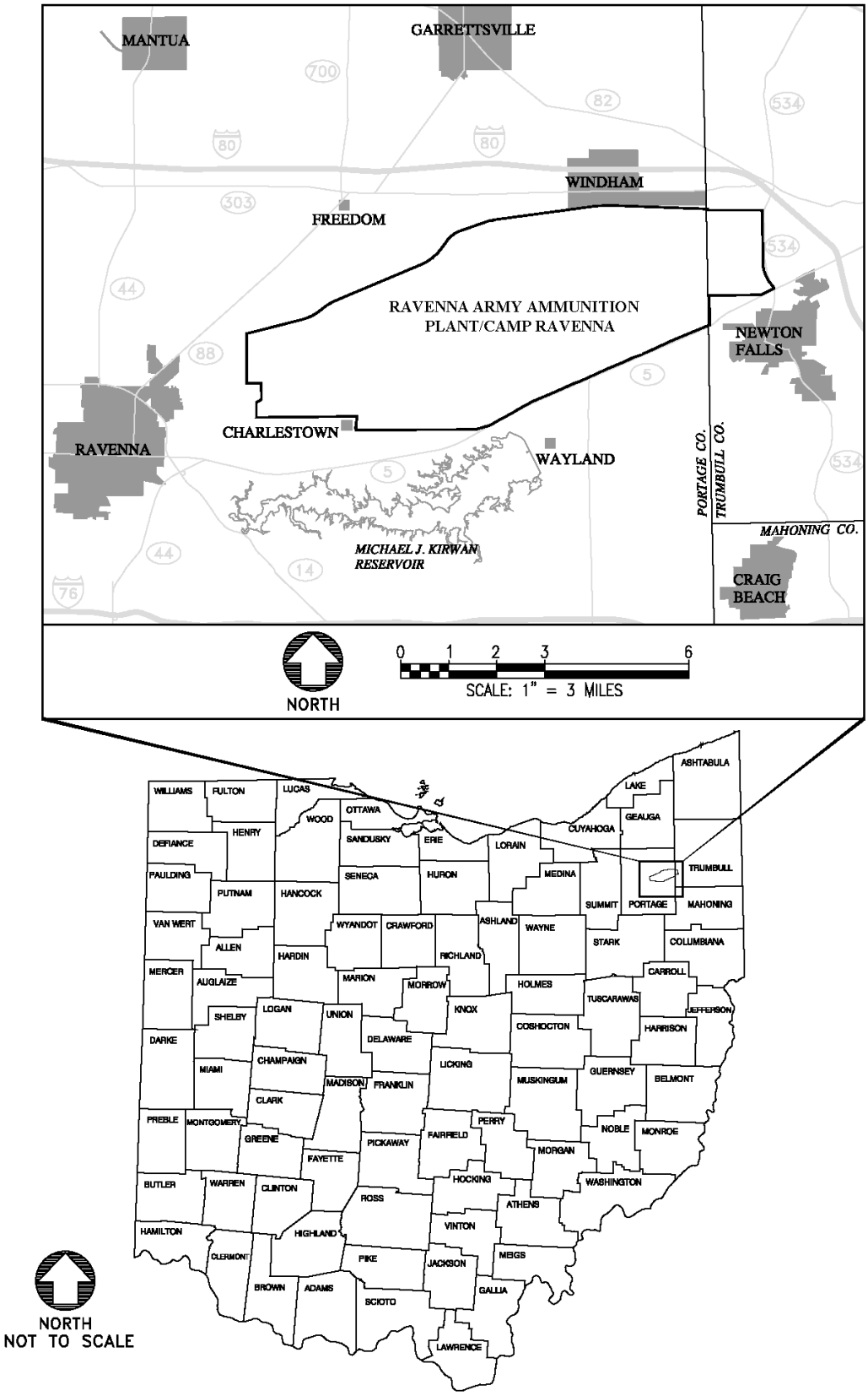
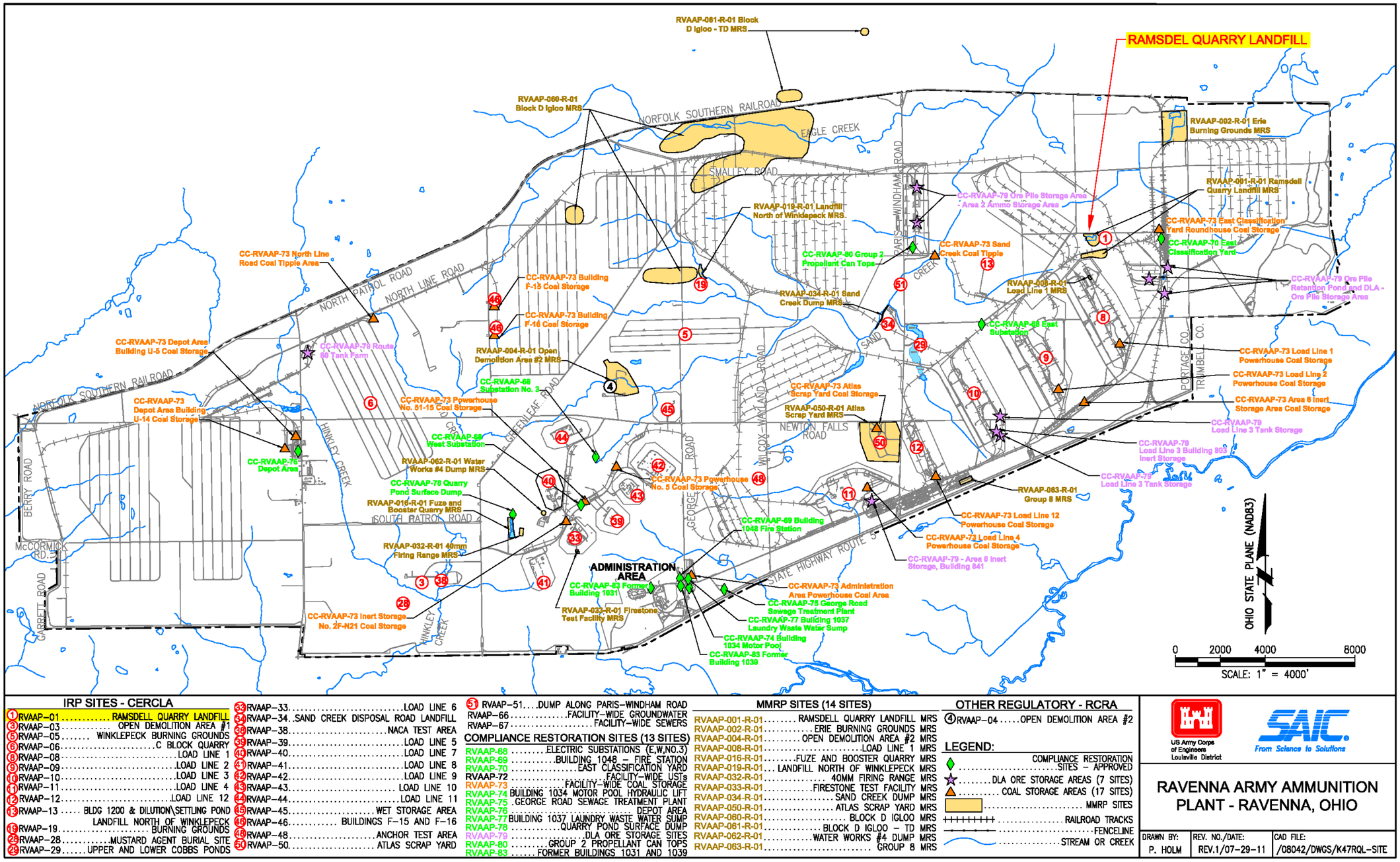


Figure 1. General Location and Orientation of RVAAP/Camp Ravenna



IRP SITES - CERCLA

- (1) RVAAP-01 ..... RAMSDELL QUARRY LANDFILL
- (3) RVAAP-03 ..... OPEN DEMOLITION AREA #1
- (5) RVAAP-05 ..... WINKLEPECK BURNING GROUNDS
- (6) RVAAP-06 ..... C BLOCK QUARRY
- (8) RVAAP-08 ..... LOAD LINE 1
- (9) RVAAP-09 ..... LOAD LINE 2
- (10) RVAAP-10 ..... LOAD LINE 3
- (11) RVAAP-11 ..... LOAD LINE 4
- (12) RVAAP-12 ..... LOAD LINE 12
- (13) RVAAP-13 ..... BLDG 1200 & DILUTION\SETTLING POND
- LANDFILL NORTH OF WINKLEPECK
- (19) RVAAP-19 ..... BURNING GROUNDS
- (28) RVAAP-28 ..... MUSTARD AGENT BURIAL SITE
- (29) RVAAP-29 ..... UPPER AND LOWER COBBS PONDS
- (33) RVAAP-33 ..... LOAD LINE 6
- (34) RVAAP-34 ..SAND CREEK DISPOSAL ROAD LANDFILL
- (38) RVAAP-38 ..... NACA TEST AREA
- (39) RVAAP-39 ..... LOAD LINE 5
- (40) RVAAP-40 ..... LOAD LINE 7
- (41) RVAAP-41 ..... LOAD LINE 8
- (42) RVAAP-42 ..... LOAD LINE 9
- (43) RVAAP-43 ..... LOAD LINE 10
- (44) RVAAP-44 ..... LOAD LINE 11
- (45) RVAAP-45 ..... WET STORAGE AREA
- (46) RVAAP-46 ..... BUILDINGS F-15 AND F-16
- (48) RVAAP-48 ..... ANCHOR TEST AREA
- (50) RVAAP-50 ..... ATLAS SCRAP YARD
- (51) RVAAP-51 ....DUMP ALONG PARIS-WINDHAM ROAD
- RVAAP-66 ..... FACILITY-WIDE GROUNDWATER
- RVAAP-67 ..... FACILITY-WIDE SEWERS

COMPLIANCE RESTORATION SITES (13 SITES)

- RVAAP-68 ..... ELECTRIC SUBSTATIONS (E,W,NO.3)
- RVAAP-69 ..... BUILDING 1048 - FIRE STATION
- RVAAP-70 ..... EAST CLASSIFICATION YARD
- RVAAP-72 ..... FACILITY-WIDE USTs
- RVAAP-73 ..... FACILITY-WIDE COAL STORAGE
- RVAAP-74 BUILDING 1034 MOTOR POOL HYDRAULIC LIFT
- RVAAP-75 .GEORGE ROAD SEWAGE TREATMENT PLANT
- RVAAP-76 ..... DEPOT AREA
- RVAAP-77 BUILDING 1037 LAUNDRY WASTE WATER SUMP
- RVAAP-78 ..... QUARRY POND SURFACE DUMP
- RVAAP-79 ..... DLA ORE STORAGE SITES
- RVAAP-80 ..... GROUP 2 PROPELLANT CAN TOPS
- RVAAP-83 ..... FORMER BUILDINGS 1031 AND 1039

MMRP SITES (14 SITES)

- 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 MRS
- RVAAP-032-R-01 ..... 40MM FIRING RANGE MRS
- RVAAP-033-R-01 ..... FIRESTONE TEST FACILITY MRS
- RVAAP-034-R-01 ..... SAND CREEK DUMP 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

OTHER REGULATORY - RCRA

- (4) RVAAP-04 ..... OPEN DEMOLITION AREA #2

LEGEND:

- COMPLIANCE RESTORATION SITES - APPROVED
- DLA ORE STORAGE AREAS (7 SITES)
- COAL STORAGE AREAS (17 SITES)
- MMRP SITES
- RAILROAD TRACKS
- FENCELINE
- STREAM OR CREEK

US Army Corps of Engineers Louisville District

SAIC. From Science to Solutions

RAVENNA ARMY AMMUNITION PLANT - RAVENNA, OHIO

DRAWN BY:	REV. NO./DATE:	CAD FILE:
P. HOLM	REV.1/07-29-11	/08042/DWGS/K47RQL-SITE

Figure 2. RVAAP/Camp Ravenna Installation Map

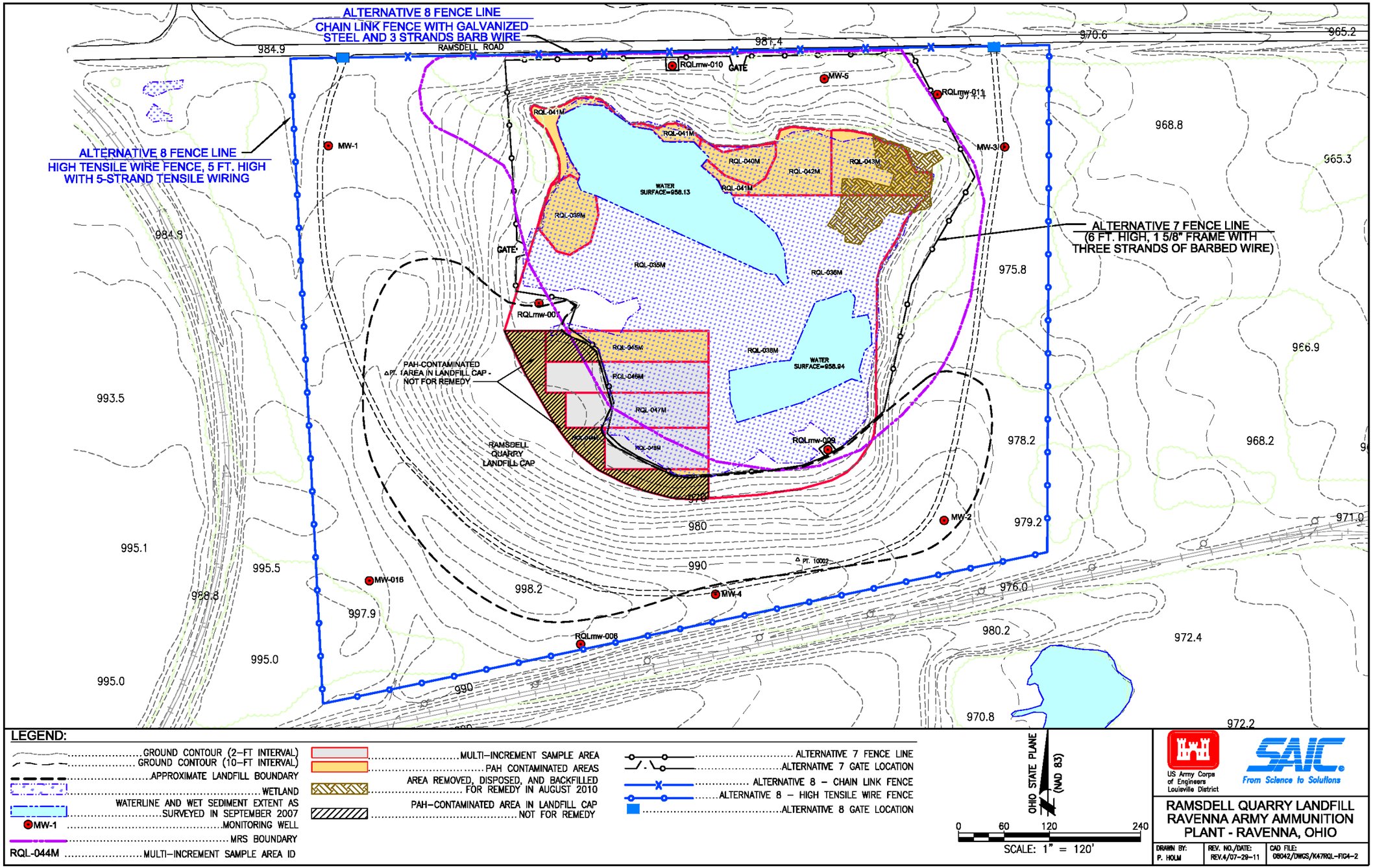


Figure 3. RQL Site Features and Fencing Extent Under Alternative 8

COMMENT RESPONSE TABLE

DRAFT MODIFIED PROPOSED PLAN FOR SOIL AND DRY SEDIMENT AT THE RVAAP-01 RAMSDELL QUARRY LANDFILL
RAVENNA ARMY AMMUNITION PLANT, RAVENNA OHIO
COMMENT RESPONSE TABLE ~ REVISION 0

Comment Number	Page or Sheet	Comment	Recommendation	Response
		Ohio EPA (Andrew Kocher)		
O-1.	Page 1, Lines 53 – 54 (ALL RPTS)	The call-out box is not consistent with previous Proposed Plans that are final. See Proposed Plan for ODA#2.	Please include information of the Information Repositories in the call-out box.	Agree. The Information Repository information has been put in the call out box on Page 1.
O-2.	Page 4, Line 20	There is a Figure 3, but no Figure 3-1.	Please revise the text.	Agree. Text has been revised to say "Figure 3".
O-3.	Page 4, Line 55	The text states that approximately 1,100 tons of soil was removed. However, in previous sections, it describes the soil by volume not weight.	Please be consistent with units and revise the text (add the estimated cubic yards in parenthesis after 1,100 tons).	Agree. Text on Page 4, line 55 has been revised as follows: "Approximately 1,100 tons (estimated 1,000 yd^3) of soil and construction debris (all considered friable ACM) was removed…"
O-4.	Page 5, Lines 72 - 73	In Alternative 6, there is no paragraph that describes O&M and 5-Yr Review obligations.	Please add a paragraph that details the obligations to maintain the cap and conduct 5-Yr Reviews.	Agree. The last paragraph in Section 7.2 has been revised as follows: "Alternative 6 requires coordination of excavation and LUC activities with Ohio EPA, OHARNG, and the U.S. Army. Once capping is complete, this alternative mitigates risk by physically preventing exposure of National Guard receptors to contaminated soil and ACM. LUCs would be necessary to prevent digging and because the cap will not reduce exposure to meet residential CUGs. The amount of time to complete this removal action is estimated to be 2 months. In addition, this alternative contains a 30-year O&M period to implement LUCs."
O-5.	Page 6, Lines 64 -102	In Alternative 8, please add a brief description assuring that the air pathway would not be complete. Note: this comment is to confirm that wind would not blow asbestos out of the AOC.	Please add a brief statement.	Agree. Text has been revised in accordance with comment CR-7.

Comment Number	Page or Sheet	Comment	Recommendation	Response
O-6.	Page 6, Lines 71 -76	A description of the fence was not included.	Please include a description of the fence (e.g., type, height, etc.).	Agree. The first paragraph of Section 7.4 has been revised as follows to match text in the Engineering Evaluation: "Alternative 8 consists of installing a security fence and signage around the perimeter of RQL and removing ACM at the ground surface within the quarry bottom. The fence will be a combination of a chain link security fence and high tensile wire fence. The fence specifications would be finalized in a Remedial Design. However, specifications used for alternative evaluation include a chain-link security fence and 6 ft high gates with a 1⅝" frame at the northern perimeter of RQL and a a five-strand high tensile wire fence at the eastern, southern, and western perimeter."
O-7.	Page 6, Lines 87 - 92	The text states that ACM will be removed. It does not state how this material will be removed and how it will be disposed? Also, will the AOC be inspected and certified by a professional licensed asbestos inspector?	Please include answers to these questions in the text.	Agree. Text has been revised as follows: "However, as part of this remedy, a BMP to remove ACM at the ground surface will be implemented. The ACM will be removed by a licensed asbestos professional using non-intrusive, no digging methods (e.g., removal by hand) to minimize the potential for personnel exposure in the event the ACM is disturbed. Removed ACM will be containerized for transportation in accordance with OAC Standard for Asbestos Waste Handling and will be placed at a disposal facility licensed to obtain ACM."
O-8.	General	Since the Army/NGB has not finalized the PMP, there is no final defined land use and restrictions to ensure the property assumptions are appropriate or will remain appropriate through restrictions in the future. Therefore, please be advised that if this document	None needed.	Comment noted.

Comment Number	Page or Sheet	Comment	Recommendation	Response
		is not consistent with the final, approved PMP, the PP will need to be revised accordingly. This may require a change in the defined remedy and revising all documents as appropriate, including the PP/ROD for the project.		
			Camp Ravenna (Katie Tait)	
CR-1.	Pg 1, Line 22	"This alternative was presented to the public and approved by the Ohio EPA and US Army." Please indicate when this was presented and approved.		Agree. Text has been revised as follows: "This alternative was presented to the public on April 10, 2007 and approved by the Ohio EPA on October 13, 2009 and U.S. Army on August 20, 2009."
CR-2.	Pg 1, Line 24	"During implementation of this alternative in July 2010, it was discovered that site conditions were different than originally anticipated as large amount of subsurface construction and miscellaneous debris were identified within the remedial action excavation footprint."	Change to "During implementation of this alternative in July 2010, it was discovered that site conditions were different than originally anticipated as large amount of subsurface construction and miscellaneous debris (containing asbestos) were identified within the remedial action excavation footprint."	Agree. Text has been revised as recommended.
CR-3.	Pg 3, Line 13	"There are currently no federally-listed species or critical habitats on RVAAP property."	Change to "There are currently no federally-listed species or critical habitats on the facility."	Agree. Text has been revised as recommended.
CR-4.	Pg 3, Line 20	"Future activities under the Military Munitions Response Program may lead to remedial work to achieve remedy."	Change to "Future activities under the Military Munitions Response Program may lead to additional remedial work to achieve remedy for munitions related contamination."	Agree. Text has been revised as recommended.
CR-5.	Pg 3, Line 59	"The originally selected remedy in the RQL ROD was…" Please include the ROD date.		Agree. Text has been revised as follows: "The originally selected remedy in the RQL ROD (dated March 24, 2009) was Alternative 3: Excavation and Off-site Disposal ~ Security Guard/Maintenance

Comment Number	Page or Sheet	Comment	Recommendation	Response
				Worker Land Use."
CR-6.	General-Alternatives	Alternatives 5 and 6 mention the security guard maintenance worker as the receptor. Alternatives 7 and 8 do not mention the receptor. Please also identify the receptor in these alternatives.		Agree. Alternative 7 has been further described in the title as Quarry Bottom Fence ~ Security Guard/Maintenance Worker with Restricted Land Use and Alternative 8 has been further described in the title as Perimeter Fence ~ Security Guard/Maintenance Worker with Restricted Land Use. Page 8, lines 34-36 have been revised as follows. "Alternative 7 provides overall protectiveness and long-term effectiveness and permanence for the Security Guard/Maintenance Worker with Restricted Land Use." Page 8, lines 44-46 have been revised as follows: "Alternative 8 provides overall protectiveness and long-term effectiveness and permanence for the Security Guard/Maintenance Worker with Restricted Land Use."
CR-7.	Alternative 8 Description	ARARs are mentioned in Section 6. How does Alternative 8 meet the mentioned ARARs? May want to discuss somewhere in the text.		Agree. Page 6, line 85 has been revised as follows: After the fence is put in place, there is no additional requirement for ACM removal, as access and land use restrictions at RQL will ensure no visible emissions will be released to the outside air in accordance with OAC 3745-20-01. However, as part of this remedy, a BMP to remove ACM at the ground surface will be implemented.
CR-8.	Pg 8, Line 55	"Alternative 8 will have less impact to the environment, as most of the fence will be installed inside the woods surrounding RQL." What is the justification that it will have less impact in the woods vs in a field? Recommend deleting this statement.		Clarification and agree. The short-term impact on the environment, as less tree clearing will be required for implementation of Alternative 8. Text has been revised as follows, also in accordance with comment A-5: "Alternative 8 will have less short-term impacts to the environment, as most of the fence will be installed bordering the wood-line~~inside of the woods~~

Comment Number	Page or Sheet	Comment	Recommendation	Response
				surrounding RQL."
CR-9.	Pg 10, Line 1	"In addition, fencing around the perimeter of RQL mal also provide a remedy for surface water and wet sediment media that currently exists at the AOC. Although the CERCLA process for these two media has not been fully implemented, a fencing option for soil and dry sediment may be a suitable remedy for surface water and wet sediment." Although this may be true surface water and wet sediment will be properly evaluated in the MMRP program and facility-wide surface water assessment. Therefore recommend deleting this statement as it seems like speculation.		Agree. Text has been deleted as recommended.
			USACE (Thomas Chanda)	
A-1.	Contractor Statement of Independent Technical Review	Last paragraph 2nd Line, being that subsequent versions of the PP occur in the future change "incorporated" to "will incorporate" and in the second to the last line change "have been verified" to "will be verified".		Clarification. This statement is made as to be published in the Final document. At that point, the past tense of the ITR statement would be appropriate. The template presented in this Proposed Plan is consistent with what is being used in the PBA08 reports. No text change recommended.
A-2.	Page 1 Bordered Text Box	The public meeting is in Trumbull Co. ; RQL is in Portage Co. – Acknowledge previous comment concerns about a large attendance but there are places in Portage Co. that can suffice to hold a projected attendance number	As noted earlier, the reader will accept the consensus of the stakeholder body that decides the public meeting location	Comment noted. As discussed with the stakeholders, the insertion of the Newton Falls Community Center in the Draft Proposed Plan is a placeholder for the review process and the location may be different by the time the plan is issued to the public. As noted by the stakeholders, use of the Newton Falls Community Center would be acceptable for the public meeting.

DRAFT MODIFIED PROPOSED PLAN FOR SOIL AND DRY SEDIMENT AT THE RVAAP-01 RAMSDELL QUARRY LANDFILL
RAVENNA ARMY AMMUNITION PLANT, RAVENNA OHIO
COMMENT RESPONSE TABLE ~ REVISION 0

Comment Number	Page or Sheet	Comment	Recommendation	Response
A-3.	Page 2 Line 17 (ALL RPTS)	RVAAP formally released 20 acres of WBG in June 2010 to the Nat. Guard Bureau	Please change "1,280" to "1,260" acres and wherever applicable annotating the subsequent gain to Camp Ravenna's total acreage	Agree. The acreage has been revised as recommended.
A-4.	Page 4 Lines 4 -5		Add to the parentheses caption as follows: "(RQL-039M and RQL-040M; See Figure - 3)"	Agree. Text has been revised as recommended.
A-5.	Page 8 Line 57		Remove "inside of the woods" and replace with "bordering the wood-line". It then makes better sense and quicker understanding for the reader	Agree. Text has been revised as recommended.
A-6.	Page 10 Lines 1-9	The mention given to protecting wet sediment and surface water implementing Alternative 8 should be given more of an introduction before immediately saying that the fencing will be a remedy f/ wet sediment & surface water.	One suggestion; begin the paragraph with: "As noted earlier within this Plan, wet sediment and surface water remediation were to be addressed in separate future documentation. However. Fencing around the perimeter of RQL" Please consider something to this effect	Clarification. As noted in comment CR-9, the reference text has been deleted from the Proposed Plan.