Draft
Proposed Plan
RVAAP-03 Open Demolition Area #1
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

Contract No.: W912QR-12-D-0002
Delivery Order: 0003

Prepared for:

United States Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202

Prepared by:

PARSONS

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Huntsville, AL 35806
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None.

14. ABSTRACT
This PP presents the conclusions and recommendations from the RVAAP-03 ODA1 RI Report for soil, surface water, and sediment within RVAAP-03 ODA1 at Camp Ravenna. The AOC has no COCs that pose unacceptable risk. The preferred alternative at the ODA1 is NFA for soil, surface water, and sediment to attain Unrestricted (Residential) Land Use for soil, surface water, and sediment.

15. SUBJECT TERMS
PP = Proposed Plan, ODA1 = Open Demolition Area #1, RI = Remedial Investigation, AOC = Area of Concern, COCs = chemicals of concern, NFA = No Further Action, Unrestricted (Residential Land Use)

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CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Parsons has completed the Draft Proposed Plan for RVAAP-03 Open Demolition Area #1 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 this 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 the level of data obtained; and the reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing United States Corps of Engineers policy.

Independent Technical Reviewer:

Dan Griffiths, CPG	_____	22 June 2017
Technical Director	(Signature)	(Date)

Plan Approver:

Edward Heyse, Ph.D., P.E.	_____	22 June 2017
Project Manager	(Signature)	(Date)

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Prepared for:

U.S. Army Corps of Engineers, Louisville District
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for RVAAP-03 Open Demolition Area #1
Ravenna Army Ammunition Plant Restoration Program
Camp Ravenna, Ohio

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Kevin Mieczkowski, USACE – Louisville District	2	1

ARNG = Army National Guard

OHARNG = Ohio Army National Guard

RVAAP = Ravenna Army Ammunition Plant

USACE = United States Army Corps of Engineers

REIMS = Ravenna Environmental Information Management System

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LIST OF ACRONYMS

AOC	Area of Concern
ARNG	Army National Guard
bgs	below ground surface
Camp Ravenna	Camp Ravenna Joint Military Training Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMCOPCs	Contaminant Migration Chemicals of Potential Concern
COCs	Chemicals of Concern
COPECs	Chemicals of Potential Ecological Concern
COPCs	Chemicals of Potential Concern
EPA	Environmental Protection Agency
FWCUGs	Facility-wide Cleanup Goals
HHRA	Human Health Risk Assessment
HQ	Hazard Quotient
IRA	Interim Removal Action
ISM	incremental sampling method
MEC	munitions and explosives of concern
MKM	MKM Engineers, Inc.
MMRP	Military Munitions Response Program
NACA	National Advisory Committee for Aeronautics
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NTA	NACA Test Area
OB/OD	open burn/open demolition
ODA1	Open Demolition Area #1
OE	Ordnances and Explosives
OHARNG	Ohio Army National Guard
PP	Proposed Plan
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SARA	Superfund Amendments and Reauthorization Act
Shaw	Shaw Environmental & Infrastructure, Inc.
SLERA	Screening Level Ecological Risk Assessment
SRCs	Site-related Chemicals
SVOC	Semi-volatile Organic Compound
TEC-Weston	TEC-Weston Joint Venture
TNT	trinitrotoluene
USACE	United Stated Army Corps of Engineers

LIST OF ACRONYMS (Continued)

USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAPHC	US Army Public Health Center
U.S. Army	United States Department of the Army
USATHMA	U.S. Army Toxic and Hazardous Materials Agency
UXO	unexploded ordnance

1.0 INTRODUCTION

This Proposed Plan (PP) presents the conclusions and recommendations for soil, surface water, and sediment within the RVAAP-03 Open Demolition Area #1 (ODA1) area of concern (AOC) at the former Ravenna Army Ammunition Plant (RVAAP). The former RVAAP is now known as Camp Ravenna Joint Military Training Center (Camp Ravenna) and is located in Portage and Trumbull Counties, Ohio (Figure 1). The United States Department of the Army (U.S. Army), in coordination with the Ohio Environmental Protection Agency (EPA), issues this PP to provide the public with information to comment upon the selection of an appropriate response action. The remedy will be selected for RVAAP-03 ODA1 after all comments submitted during the 30-day public comment period are considered. Therefore, the public is encouraged to review and comment on the selected remedial action presented in this PP.

The U.S. Army is issuing this PP as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) 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 be consistent with the requirements of the Ohio EPA *Director's Final Findings and Orders*, dated June 10, 2004 (Ohio EPA 2004).

This PP summarizes information that can be found in greater detail in the *Remedial Investigation (RI) Study for Soil, Surface Water, and Sediment at RVAAP-03 Open Demolition Area #1* (USACE 2017), and other documents contained in the Administrative Record file for the RVAAP-03 ODA1. No Chemicals of Concern (COCs) were identified in the human health risk for the Resident Receptor for soil, surface water, or sediment. The U.S. Army's preferred Alternative at RVAAP-03 ODA1 is no further action for soil, surface water, and sediment. Groundwater is

Public Comment Period:
Month DD, YYYY, to Month DD, YYYY

Public Meeting:
The Army will hold an open house and public meeting to present the conclusions and additional details presented in the *Remedial Investigation Study for Soil, Surface Water, and Sediment at RVAAP-03 Open Demolition Area #1* (United States Army Corps of Engineers [USACE] 2017). Oral and written comments will also be accepted at the meeting. The open house and public meeting are scheduled for __PM, Month DD, YYYY, at the Ravenna High School Community Room, 6589 North Chestnut Street, Ravenna, Ohio 44266.

Information Repositories:
Information used in selecting the remedy 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:
9 AM-9 PM Monday-Thursday
9 AM-6 PM Friday
9 AM-5 PM Saturday
1 PM-5 PM Sunday

Newton Falls Public Library
204 South Canal Street
Newton Falls, Ohio 44444
(330) 872-1282

Hours of operation:
10 AM-8 PM Monday-Thursday
9 AM-5 PM Friday and Saturday

Online
http://www.rvaap.org/

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

Camp Ravenna Joint Military Training Center (former Ravenna Army Ammunition Plant)
Environmental Office
1438 State Route 534 SW
Newton Falls, Ohio 44444
(330) 872-8003

Note: Access is restricted to Camp Ravenna, but an appointment to review the Administrative Record File can be scheduled.

addressed under the Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater. The U.S. Army encourages the public to review the site background documents to gain a more comprehensive understanding of the AOC, activities that have been conducted to date, and the rationale for the preferred Alternative.

2.0 RVAAP DESCRIPTION AND BACKGROUND

Camp Ravenna, located in northeastern Ohio within Portage and Trumbull counties, is approximately three (3) miles east/northeast of the City of Ravenna and one (1) mile north/northwest of the Village of Newton Falls. The facility is federally owned, approximately 11 miles long, and 3.5 miles wide. The facility is bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad to the south; Garret, McCormick, and Berry Roads to the west; the Norfolk Southern Railroad to the north; and State Route 534 to the east. In addition, the facility is surrounded by the communities of Windham, Garrettsville, Charlestown, and Wayland.

As of September 2013, administrative accountability for the entire 21,683-acre facility has been transferred to the United States Property and Fiscal Officer for Ohio and the property subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site, Camp Ravenna.

3.0 RVAAP-03 OPEN DEMOLITION AREA #1 DESCRIPTION

RVAAP-03 ODA1 is located in the southwestern portion of the former RVAAP, north of Hinkley Creek, within the southern portion of RVAAP-38 National Advisory Committee for Aeronautics (NACA) Test Area (NTA) AOC (Figure 2). RVAAP-03 ODA1 was used from 1941 to 1949 primarily for the thermal destruction of munitions, explosives, and associated materials through the operation of open burn/open demolition (OB/OD) practices. The OB/OD area within RVAAP-03 ODA1 was surrounded by an oval shaped earthen berm (Figure 3).

In addition to RVAAP-03 ODA1 being used for OB/OD operations, the surrounding area adjacent to RVAAP-03 ODA1 was used to stage aircraft for NTA operations. The NTA was constructed and used between 1947 and 1953. Aircraft have been observed to be parked atop the earthen berm and areas east of the berm in historic aerial photographs from 1952 (SAIC 2001). The berms around the OB/OD area have since been removed.

During the 2001 Phase I RI (SAIC 2001), areas outside of the berm contained shrapnel, fuzes, booster cups, and other debris on the soil surface. The occurrence of these materials on the ground surface outside the OB/OD area suggested that kickouts and shrapnel were generated during thermal destruction of ammunition. Historical operations also indicated that, when congested with debris, burning areas were cleared using heavy equipment by pushing the debris to the periphery of the area (SAIC 2001).

Slag is present in fill material around the former berm and adjacent NTA runway. This aluminum-rich slag (the use of which was widespread throughout the former RVAAP/Camp Ravenna) may account for some elevated concentrations of metals (especially aluminum, barium, beryllium, and manganese). However, Ohio Administrative Code 3745-2701(B)40 specifically exempts slag as a solid waste (Ohio EPA 2000).

The OHARNG does not currently use RVAAP-03 ODA1 for training purposes due to the concerns related to potential munitions and explosives of concern (MEC) hazards. However, the OHARNG uses the surrounding adjacent NTA for training purposes.

The following environmental investigations have been completed for RVAAP-03 ODA1:

- *Ravenna Army Ammunition Plant Water Quality Surveillance Program* (USATHMA 1980–1992).
- *Ravenna Army Ammunition Plant Water Quality Surveillance Program* (USATHMA 1980–1992).
- *Final Preliminary Assessment for*

Ravenna Army Ammunition Plant, Ravenna, Ohio (U.S. Army Center for Health Promotion and Preventive Maintenance [USACHPPM; now known as United States Army Public Health Center; USAPHC] 1996).

- *Phase I Remedial Investigation Report for Demolition Area #1 at the Ravenna Army Ammunition Plant, Ohio* (SAIC 2001).
- *Final Ordnance and Explosives (OE)/Unexploded Ordnance (UXO) Removal and Interim Removal Action (IRA) Report for the Open Demolition Area #1* (MKM 2004).
- *Final Facility-Wide Biological and Water Quality Study 2003 (*USACE 2005b).
- *Final Digital Geophysical Mapping Report for the RVAAP-34 Sand Creek Disposal Road Landfill, RVAAP-03 Open Demolition Area #1, and RVAAP-28 Mustard Agent Burial Site Version 1.0* (Shaw 2011)
- *Remedial Investigation Study for Soil, Surface Water, and Sediment at RVAAP-03 Open Demolition Area #1* (Phase II, USACE 2017).

4.0 RVAAP-03 OPEN DEMOLITION AREA #1 CHARACTERISTICS

The AOC characteristics, nature and extent of contamination, and conceptual site model are based on the investigations conducted from 1996 through 2017. RVAAP-03 ODA1 covers approximately 6 acres and consisted of an oval OB/OD area, which was surrounded by a 25 foot wide by 1.5 foot tall earthen berm, and a plane storage area previously located on the south side of the site (Figure 3). The berms around the OB/OD area have been removed, and a low area immediately south and east of the former berm collects runoff during rainfall events (USACE 2017).

Currently, the AOC occupies an open parcel of land that is bounded to the south, east, and west by woodlands. Topography across RVAAP-03 ODA1 is relatively flat with little change in elevation. The elevation at RVAAP-03 ODA1 is approximately 1,085 feet above mean sea level. The AOC is slightly elevated as compared to its immediate surroundings, and surface drainage outside the former berm is to the east, west, and south. Drainage from within the former bermed OB/OD area is south via a culvert towards a shallow ditch, which ultimately discharges at ground surface within the Hinkley Creek drainage area.

Soil at RVAAP-03 ODA1 consist of the Fitchville silt loam series. This series exhibit 2 to 6% slopes, is somewhat poorly drained, and has low permeability. The surficial geology at RVAAP-03 ODA1 consists of the Lavery Till, which is a mix of approximately 28% sand and 30% clay, but percentages can vary. RVAAP-03 ODA1 lies within the Sharon Sandstone Conglomerate. However, bedrock was not encountered in any of the Phase II RI borings; therefore, depth to bedrock is unknown in the AOC (USACE, 2017).

No monitoring wells have been installed as part of the 2017 (Phase II) RI, and site-specific groundwater data is not available at RVAAP-03 ODA1. However, there are monitoring wells screened in the unconsolidated aquifer in the NTA AOC, located adjacent to RVAAP-03 ODA1, and groundwater flow in this area is southerly (TEC-Weston Joint Venture [TEC-Weston] 2017). One groundwater grab sample (DA1-27-GW) was collected under the Phase I RI as a direct-push boring, and the depth to the water table was measured at approximately 16 feet below ground surface (bgs). Groundwater was encountered in a majority of the Phase II RI direct-push soil borings at RVAAP-03 ODA1. The depth to groundwater at these borings ranged from 4 to 11 feet bgs, with an average groundwater depth of approximately 6 feet bgs.

Data collected during the Phase I RI indicated that sediment and surface water in Hinkley Creek had not been contaminated as a result of former operations at RVAAP-03 ODA1; therefore, sediment and surface water were not evaluated further in the Final Phase II RI (USACE 2017).

Phase I and II RI data were used to determine site-related chemicals (SRCs). SRCs were selected by consideration of background concentrations, essential nutrients, and

frequency of detection. A total of 23 SRCs were identified in surface soil (0-1 foot bgs) and 33 SRCs were identified in subsurface soil (greater than 1 foot bgs) (USACE 2017).

The potential for soil contaminants to impact groundwater was evaluated in a fate and transport evaluation presented in the Phase II RI Report (USACE 2017). The fate and transport evaluation included modeling and comparing the model results to background concentrations and maximum contaminant levels/EPA RSLs. The model prediction identified the maximum concentrations of the SRCs expected in groundwater under RVAAP-03 ODA1. Modeling evaluated the potential for contaminants to leach from soil to groundwater beneath the AOC and eventually impact Hinckley Creek.

The conclusions of the fate and transport leaching analysis and modeling are that some of the SRCs in soil may leach to groundwater beneath the AOC. The final list of Contaminant Migration Chemicals of Potential Concern (CMCOPCs) for RVAAP-03 ODA1 are presented below:

- Two explosives and propellants (2,4,6-trinitrotoluene (TNT) and 2-amino-4,6-dinitrotoluene)
- One semi-volatile organic compound (SVOC) (isophorone)
- Ten metals (antimony, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and thallium)

A single groundwater sample was collected during the Phase I RI using direct-push boring techniques. Results from this sample did not indicate any impact to groundwater from RVAAP-03 ODA1 activities (USACE 2017). Groundwater is addressed under the Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater.

5.0 SCOPE AND ROLE OF RESPONSE ACTION

The AOC is not currently used for military training activities; however, the OHARNG uses the surrounding adjacent NTA for training purposes. The OHARNG projected future Land Use for RVAAP-03 ODA1 is Military Training Land Use. The Representative Receptor is the Residential Receptor for Unrestricted (Residential) Land Use. Only the Unrestricted (Residential) Land Use was evaluated fully and discussed in the Human Health Risk Assessment (HHRA) because it is considered protective for all categories of Land Use at Camp Ravenna, such as Military Training Land Use. The response action evaluated Alternatives to attain Unrestricted (Residential) Land Use for soil, surface water, and sediment.

Groundwater is addressed under the Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater as a separate decision. However, the selected remedy for soil at RVAAP-03 ODA1 must also be protective of groundwater.

6.0 SUMMARY OF HUMAN AND ECOLOGICAL RISKS

6.1 Human Health Risk Assessment

A HHRA was performed during the Phase II RI to identify COCs and provide a risk management evaluation to determine if remediation is required under CERCLA based on potential risks to human receptors. The exposure media and depths evaluated in the HHRA for the Resident Receptor (Adult and Child) were surface soil (0-1 foot bgs) and subsurface soil (1-13 feet bgs). The evaluation of surface water and sediment was not necessary in the HHRA as no SRCs were identified. The Phase I RI (SAIC 2001) concluded that surface water and sediment were not impacted from RVAAP-03 ODA1 operations.

Phase I and II RI data were used to determine SRCs, chemicals of potential concern (COPCs), and COCs. The final list of COPCs includes those SRCs where sample results from any depth exceeded the May 2016 EPA Residential or Industrial Regional Screening Levels (RSLs) for target cancer risk level of 1 X 10^{-6} or non-carcinogenic target hazard quotient (HQ) of 0.1. Because the FWCUGs were not updated at the time the HHRA was

written, the May 2016 Residential RSLs were used for the Resident Receptor. The determination of COPCs and COCs in the risk assessment was conducted in accordance with the RVAAP *Final Position Paper for the Application and Use of Facility-Wide Cleanup Goals* (USACE 2012) and modified to reflect changes in the Risk Assessment Technical Memo. The Unrestricted (Residential) Land Use is required under CERCLA and is outlined in the *Facility-Wide Human Health Risk Assessor Manual* (USACE 2005a).

The COPCs were determined for the Residential Receptor for expected depth of exposure; therefore, discrete and incremental sampling method (ISM) samples were considered separately. The COPCs identified for the Resident Receptor in RVAAP-03 ODA1 are presented below:

- Surface soil
  - ISM data - Cobalt and 2,4,6-TNT
  - Discrete data - None
- Subsurface soil
  - Composited discrete (ISM) data - 2,4,6-TNT
  - Discrete data - aluminum, antimony, arsenic, cadmium, copper, lead, silver, and 2,4,6-TNT

A COPC was identified as a COC by screening its Exposure Point Concentration to the EPA Residential RSL of 10^{-5} cancer risk level for carcinogenic effects and HQ equal to 1 for noncarcinogenic effects. The Sum of Ratios for all carcinogens and all non-carcinogens that may affect the same organ must be less than or equal to 1.0 as well. If the Sum of Ratios for all carcinogens and all non-carcinogens (that may affect the same organ or do not have a specific target organ identified) were greater than 1, then the chemicals contributing at least 10% to the sum were considered COCs.

The HHRA did not identify COCs from previous Army activities requiring remediation under CERCLA to be protective of the Resident Receptor.

6.2 Screening-Level Ecological Risk Assessment

The purpose of the Screening Level Ecological Risk Assessment (SLERA) performed during the Phase II RI was to evaluate the potential for adverse ecological effects posed to ecological receptors from chemical constituents detected in surface soil from RVAAP-03 ODA1. The evaluation of surface water and sediment was not necessary as the Phase I RI (SAIC 2001) deemed surface water/sediment not to be impacted as a result of historical RVAAP-03 ODA1 operations. Chemicals of potential ecological concern (COPECs) are analytes whose concentrations are great enough to pose potential adverse effects to ecological receptors.

The SLERA included characterizing the ecological communities in the vicinity of the site, determining the particular contaminants present, identifying pathways for receptor exposure, and estimating the likelihood of potential adverse effects to identified receptors. Data from the ISM samples and discrete samples were analyzed separately, and not combined in the SLERA. Only surface soil (0 to 1 foot bgs sampling interval) samples were used in the SLERA because most ecological exposure occurs within the top 1 foot of soil. HQs less than 10 are considered to represent a low potential for environmental effects, HQs from 10 up to, but less than 100 are considered to represent a significant potential that effects could result from greater exposure, and HQs greater than 100 represent the highest potential for expected effects.

For the discrete samples, all five identified COPECs (cadmium, cobalt, copper, mercury, and zinc) were detected at relatively low concentrations that, with the exception of mercury, approximated their background screening values, or ecological screening values, or both. Mercury had an elevated HQ value of over 100, which is attributable to its extremely conservative ecological screening value. However, the mean concentration of mercury in discrete samples was lower than its background screening value. Also, when a more realistic ecological screening value was used, the mercury HQ was less than one.

Similarly, although 14 chemicals were identified as COPECs (nine inorganic

chemicals, two explosives compounds, three pesticides, and one SVOC) in the ISM surface soil samples, none appear to warrant further investigation for ecological purposes alone. Eight of the nine metal COPECs had HQs that did not exceed 10, which, given the conservative nature of the Level II Screening, suggests that they are not present at sufficiently high concentrations to warrant concern. The HQ for mercury exceeded 100, but this HQ is likely overestimated due to the conservative ecological screening value that was used for this SLERA. Of the six organic chemicals identified as COPECs, only 2,4,6-TNT had an HQ slightly greater than one; the other five chemicals were selected as COPECs either because they lacked an ecological screening value or because they are persistent, bioaccumulative, and toxic compounds that were detected at low concentrations below their ecological screening values. However, given their low concentrations, it is unlikely that these chemicals have the potential to cause adverse ecological effects to populations.

Because the terrestrial area evaluated for RVAAP-03 ODA1 is less than one acre in size, and the Phase II Level Screening in the SLERA uses highly conservative assumptions, it is unlikely that exposure to the surface soil COPECs identified in the SLERA would adversely impact populations of ecological receptors at RVAAP-03 ODA1. Therefore, no further investigation (e.g., Level III Baseline Ecological Risk Assessment) or removal action is considered necessary at RVAAP-03 ODA1 for the protection of ecological receptors.

7.0 CONCLUSIONS

Based on results of the Phase II RI, and in particular the HHRA and the SLERA, no additional remedial actions are required for this AOC. Further investigation is not warranted for the following reasons: (1) the nature and extent of chemicals detected in the media (soil, surface water, and sediment) at the AOC has been characterized; (2) no COCs for human health were identified at the AOC; and (3) the SLERA ended at a Level II assessment and no further investigation or action was recommended. Therefore, No Further Action is required for soil, sediment and surface water at RVAAP-03 ODA1 and Unrestricted (Residential) Land Use is attained for this AOC. Groundwater is addressed under the Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater.

RVAAP-03 ODA1 was identified in the real property records and the OHARNG Federal Installation Support Plan as an operational (active) range. Under this classification, RVAAP-03 ODA1 is not eligible to be included in the Military Munitions Response Program (MMRP). Because it is part of the maneuver area which is an operational and active range, the additional MEC clearance will be completed by the OHARNG. It is believed that little, if any, MEC remains, but this cannot be confirmed until a complete MEC clearance is conducted. Therefore, the AOC will be properly managed and maintained according to Army policy (USACE 2017).

This recommendation is not a final decision. The U.S. Army, in coordination with Ohio EPA, will select the remedy for RVAAP-03 ODA1 after reviewing and considering all comments submitted during the 30-day public comment period.

8.0 COMMUNITY PARTICIPATION

8.1 Community Participation

Public participation is an important component of the remedy selection. The U.S. Army, in coordination with Ohio EPA, is soliciting input from the community on the preferred Alternative. The comment period extends from Month DD, YYYY to Month DD, YYYY. This period includes a public meeting at which the U.S. Army will present this PP. The U.S. Army will accept oral and written comments at this meeting.

8.2 Public Comment Period

The 30-day comment period is from Month DD, YYYY to Month DD, YYYY, and provides an opportunity for public

involvement in the decision-making process for the proposed action. The public is encouraged to review and comment on this PP.

All public comments will be considered by the U.S. Army and Ohio EPA before selecting a remedy. During the comment period, the public is encouraged to review documents pertinent to RVAAP-03 ODA1.

This information is available at the Information Repository and online at www.rvaap.org. To obtain further information, contact Kathryn Tait of the Camp Ravenna Environmental Office at kathryn.s.tait.nfg@mail.mil.

8.3 Written Comments

If the public would like to comment in writing on this PP 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 DD, YYYY).

POINTS OF CONTACT FOR WRITTEN COMMENTS

Mailing Address:
Camp Ravenna Joint Military Training Center
Environmental Office
Attn: Kathryn Tait
1438 State Route 534 SW
Newton Falls, Ohio 44444

Email Address:
kathryn.s.tait.nfg@mail.mil

8.4 Public Meeting

The U.S. Army will hold an open house and public meeting on this PP on Month DD, YYYY, at ___PM, in the Ravenna High School Community Room, 6589 North Chestnut Street, Ravenna, Ohio 44266 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.

8.5 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 for the most appropriate action to be taken. The Responsiveness Summary, a document that summarizes the U.S. Army's responses to comments received during the public comment period, will be included in the Record of Decision (ROD). The U.S. Army's final choice of action will be documented in the ROD.

ADMINISTRATIVE RECORD FILE

Camp Ravenna Joint Military Training Center (former Ravenna Army Ammunition Plant)
Environmental Office
1438 State Route 534 SW
Newton Falls, Ohio 44444
(330) 872-8003
Note: Access is restricted to Camp Ravenna, but an appointment to review the Administrative Record File can be scheduled.

INFORMATION REPOSITORIES

Reed Memorial Library
167 East Main Street
Ravenna, Ohio 44266
(330) 296-2827

Hours of operation:
9 AM-9 PM Monday-Thursday
9 AM-6 PM Friday
9 AM-5 PM Saturday
1 PM-5 PM Sunday

Newton Falls Public Library
204 South Canal Street
Newton Falls, Ohio 44444
(330) 872-1282

Hours of operation:
10 AM-8 PM Monday-Thursday
9 AM-5 PM Friday and Saturday

Online
http://www.rvaap.org/

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 preferred Alternatives.

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.

Contaminant Migration Chemical of Potential Concern (CMCOPC): a chemical substance specific to an area of concern that potentially poses significant potential to leach to groundwater at a concentration above human health risks goals. CMCOPCs are typically further evaluated for remedial action.

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

Chemical of Potential Concern (COPC): a chemical substance specific to an area of concern that potentially poses human health risks and requires further evaluation in the RI. COPCs are typically not evaluated for remedial action.

Chemical of Potential Ecological Concern (COPEC): a chemical substance specific to an area of concern that potentially poses ecological risks and requires further evaluation in the RI. Chemicals of Potential Ecological Concern are typically not evaluated for remedial action.

Ecological Receptor: a plant, animal, or habitat exposed to an adverse condition.

Hazard Quotient (HQ): the ratio of the potential exposure to a substance and the level at which no adverse effects are expected.

Human Receptor: a hypothetical person, based on current or potential future Land Use, who may be exposed to an adverse condition. For example, the National Guard Trainee is considered the hypothetical person when evaluating Military Training Land Use at the former RVAAP.

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

Record of Decision (ROD): a legal record signed that describes the cleanup action or remedy selected for a site, the basis for selecting that remedy, public comments, and responses to comments.

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 that 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.

Sum of Ratios: an approach to account for the potential additive effects from exposure to multiple chemicals or exposure to multiple chemicals that can cause the same effect (e.g., cancer) or affect the same target organ. The Sum of Ratios approach compares the chemical concentration (e.g., 95 % upper confidence limit of the mean concentration, ISM result or concentration in confirmation samples) of the COPC to the individual cleanup goal to determine a ratio.

Unrestricted (Residential) Land Use: A Land Use defined for the former RVAAP restoration that is considered protective for all three Land Uses at Camp Ravenna Joint Military Training Center (Camp Ravenna). If an AOC meets the requirements for Unrestricted (Residential) Land Use, then the AOC can also be used for Military Training

and Commercial/Industrial purposes.

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FIGURES

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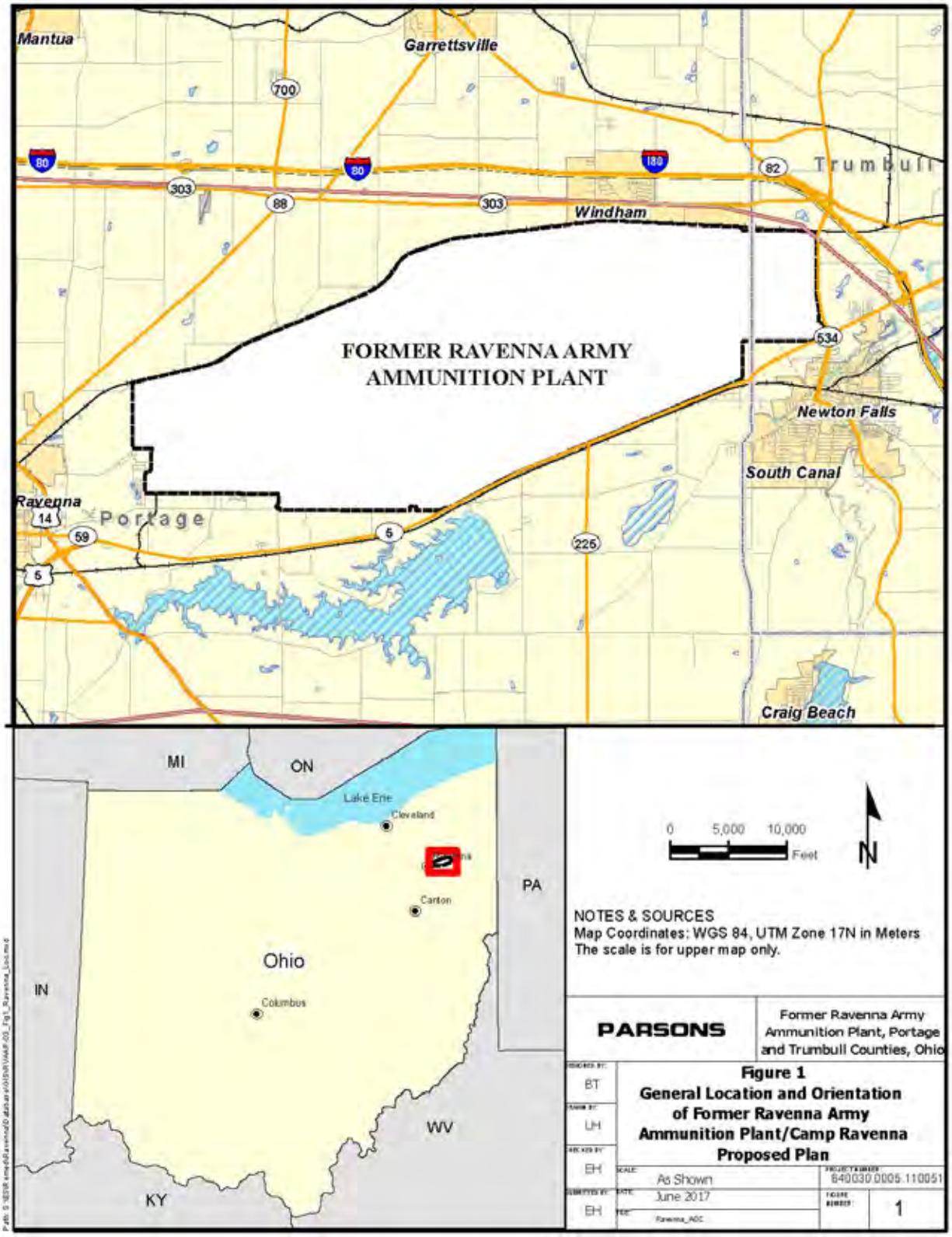

Figure 1 General Location and Orientation of Former RVAPP/Camp Ravenna

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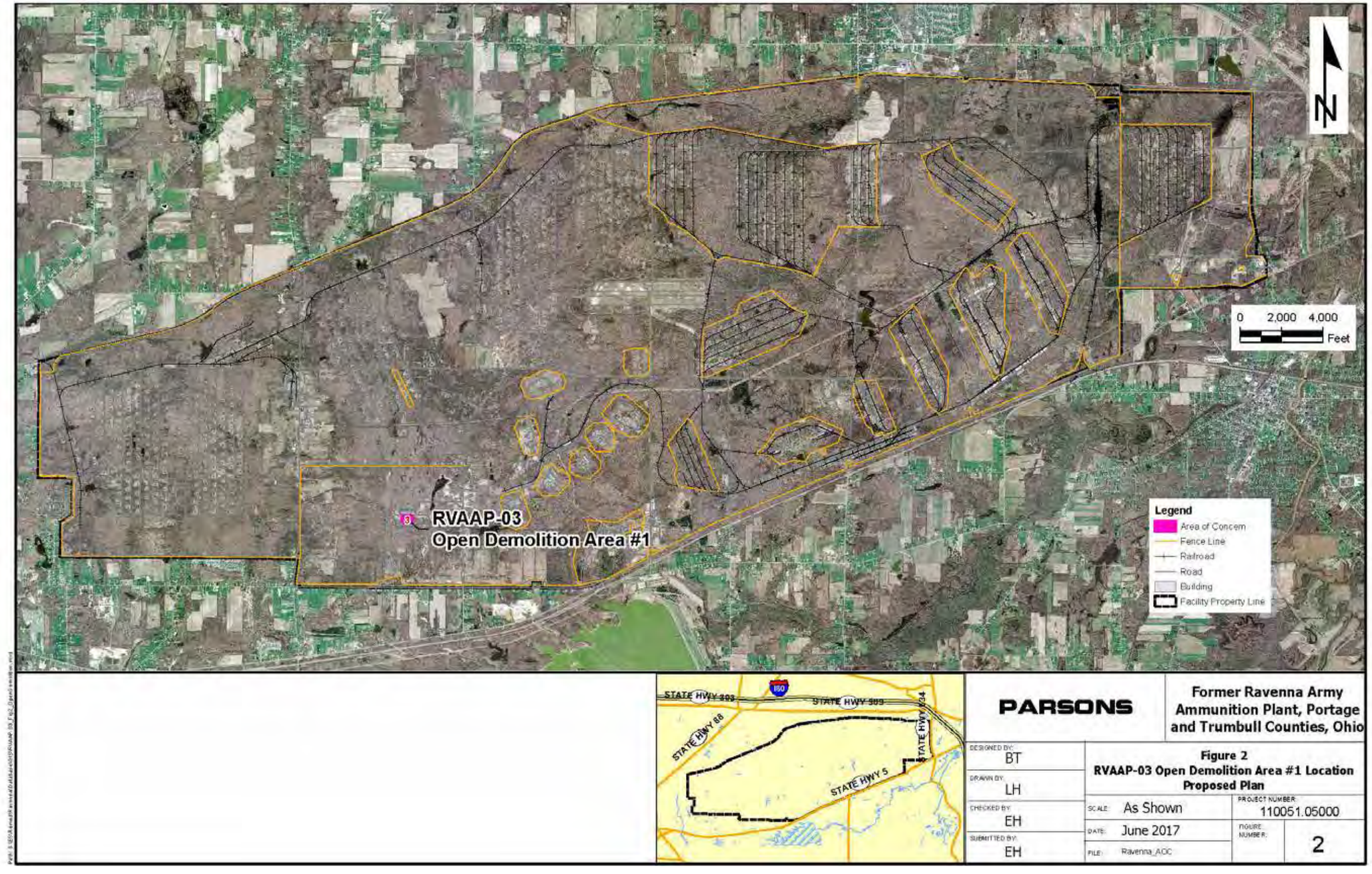

Figure 2 RVAAP-03 Open Demolition Area #1 Location

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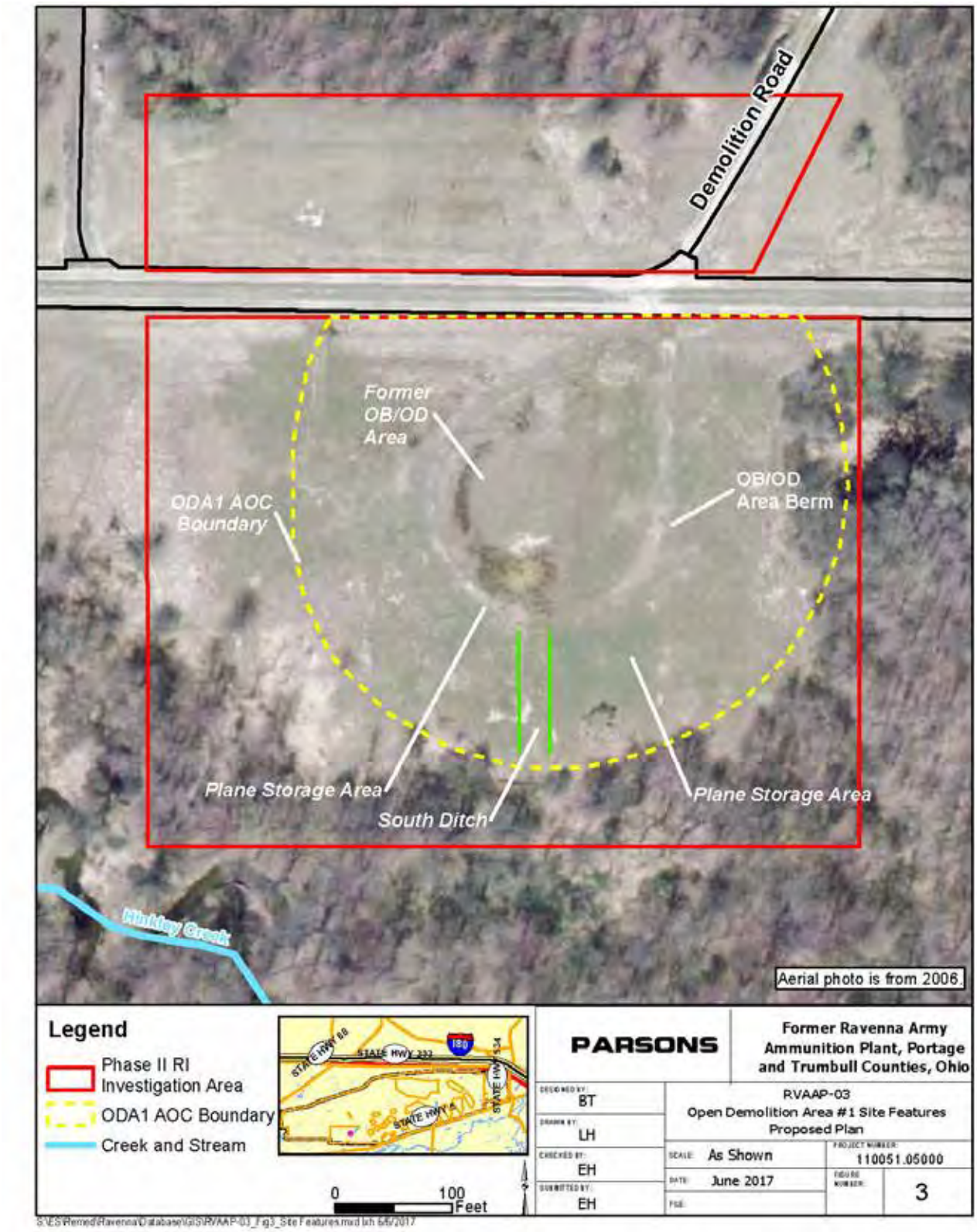

Figure 3 RVAAP-03 Open Demolition Area #1 Site Features

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Figure 4 RVAAP-03 Open Demolition Area #1 Sample Locations

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