

Ravenna Army Ammunition Plant Restoration Program

**Public Notification and Public Meeting Summary Packet
for:**

Proposed Plan for Soil, Sediment, and Surface Water at RVAAP-43 Load Line 10
(final version dated August 18, 2016)

Proposed Plan for Soil, Sediment, and Surface Water at CC RVAAP-68
Electric Substations (East, West, No. 3)
(final version dated September 30, 2016)

Proposed Plan for Soil, Sediment, and Surface Water for RVAAP-51 Dump Along Paris-Windham Road
(final version dated September 29, 2016)

Public Comment Period: November 14, 2016 to December 14, 2016

Public Meeting: November 29, 2016

Contract No. W912QR-15-C-0046

Prepared for:



**US Army Corps
of Engineers®**

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

Prepared by:



**Leidos
8866 Commons Boulevard, Suite 201
Twinsburg, Ohio 44087**

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PUBLIC NOTIFICATION

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Public Notice

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News Release

For Immediate Release
Contact: Camp Ravenna
Environmental Office

Camp Ravenna Joint Military Training Center
Camp Ravenna Environmental Office — 1438 State Route 534 SW — Newton Falls, OH 44444
614-336-6136.

**Public meeting to be held Tuesday November 29, 2016 for Army National Guard
Release of Proposed Plans for Soil, Sediment, and Surface Water at
Load Line 10, Electric Substations (East, West, and No. 3),
and Dump Along Paris-Windham Road**

Ravenna – The Army National Guard, in consultation with the Ohio Environmental Protection Agency, submits for public review and comment three proposed plans for soil, sediment, and surface water associated with former national defense program activities at the former Ravenna Army Ammunition Plant (RVAAP) in Portage and Trumbull counties, Ohio.

On Tuesday November 29, 2016, a public meeting will be held at the Shearer Community Center (Paris Township Hall) at 9355 Newton Falls Road, Ravenna, Ohio 44266 beginning at 6:00 p.m., with an informal open house when technical staff will be available to answer questions. At 6:30 p.m. the Army National Guard will briefly describe the areas of concern (AOCs) assessment, present the recommendations, and then request verbal comments from the public. Written comments regarding this recommendation may be submitted to the Army National Guard during the 30-day comment period from November 14, 2016 to December 14, 2016. All written comments should be addressed to Camp Ravenna Environmental Office; 1438 State Route 534 SW, Newton Falls, OH 44444.

The Load Line 10, Electric Substations (East, West, and No. 3), and Dump along Paris-Windham Road AOCs are at the former RVAAP in Ravenna, Ohio. These AOCs are being addressed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The proposed plans present the current status and information regarding the AOCs. The proposed plans detail the recommendation for no further action at Load Line 10 and Electric Substations and provide the rationale for these recommendations. The proposed plan for the Dump along Paris-Windham Road presents the preferred alternative (Land Use Controls) considered protective of human health and the environment.

In accordance with CERCLA, the preferred alternatives presented in the proposed plans are also presented in earlier remedial investigation (RI), site characterization (SC), feasibility study (FS) reports, as applicable. All reports are now available for public review at the RVAAP Information Repository at the Reed Memorial Library (167 East Main Street, Ravenna) and the Newton Falls Public Library (204 South Canal Street, Newton Falls). Copies of the reports are also available online at www.rvaap.org.

The final remedy for each AOC will be selected based, in part, on public comments. In coordination with Ohio Environmental Protection Agency, the Army National Guard will select a final remedy after reviewing and considering all public comments submitted during the 30-day public comment period from November 14, 2016 to December 14, 2016. The Army National Guard encourages the public to review and comment on the recommendation presented in this document.

For more information or to participate in the review, please visit the RVAAP website (www.rvaap.org) or call Katie Tait at 614-336-6136.

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Affidavits

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Notice of Document Availability
Proposed Plans for Load Line 10, Electric Substations (East, West, and No. 3), and Dump Along Paris-Windham Road, Ravenna Army Ammunition Plant (RVAAP)

The Proposed Plans for Load Line 10 and Electric Substations present the recommendations for no further action and provide the rationale for these recommendations. The Proposed Plan for the Dump Along Paris-Windham Road presents the preferred alternative (Land Use Controls) considered protective of human health and the environment.

Copies of the Proposed Plans are available at:
Newton Falls Public Library Read
204 South Canal Street
Newton Falls, Ohio 44444
Reed Memorial Library
167 East Main Street
Ravenna, Ohio 44266

These documents are also posted at:
www.rvaap.org

Please join us for an OPEN HOUSE and PUBLIC MEETING.

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Tuesday
November 29, 2016
6:00 pm Open House
6:30 pm Public Meeting
at:
Shearer Community Center (Paris Township Hall)
9355 Newton Falls Road Ravenna, OH 44266

For more information or if you need special accommodations to attend, please contact Becky Shreffler at 330-872-8010.
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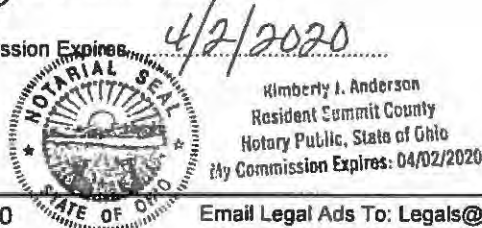
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Notice of Document Availability



Proposed Plans for Load Line 10, Electric Substations (East, West, and No. 3), and Dump Along Paris-Windham Road, Ravenna Army Ammunition Plant (RVAAP)

The Proposed Plans for Load Line 10 and Electric Substations present the recommendations for no further action and provide the rationale for these recommendations. The Proposed Plan for the Dump Along Paris-Windham Road presents the preferred alternative (Land Use Controls) considered protective of human health and the environment.

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Newton Falls, Ohio 44444

Reed Memorial Library
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Ravenna, Ohio 44266

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NIKOS FRAZIER | THE VINDICATOR

Ella Bevan of Austintown watches as Mahoning County Sheriff's Deputy Matt Ruse ladles some spaghetti onto her plate during a spaghetti dinner fundraiser for Mahoning County Deputy Sheriff Lenny Burke on Sunday at Western Reserve United Methodist Church in Canfield Township. Burke is battling stage-4 non-small cell cancer in his lungs and abdomen.

SPAGHETTI

Continued from A3

cancer in my family. This diagnosis came out of the blue," he said.

Since then, he has undergone chemotherapy at the Cleveland Clinic and Johns Hopkins Hospital in Baltimore, and is now participating in a clinical trial at The Ohio State University Medical Center to develop a drug for immunotherapy which helps the body learn to that its own cancer but doesn't cause the immune system to over-react.

"It takes a toll on the body and it is hard on the family. I've been going through this all year with my wife, Marta," who is also a Mahoning County sheriff's deputy.

The Burkes have three children: Lenny Jr. of Struthers, and Austin and Bria, both at home, and a grandchild, Mason Burke. His mother, Cherrill Stankorb and brother, Larry Stankorb, both of Struthers; a brother, Anthony Slocum of Columbus, and a sister, Nadine Stankorb of Hamilton.

"I've never been alone

through all of this. My family and the Lodge 141 brotherhood have helped me through the ups and downs. The letters and cards have made a big difference," Burke said.

Burke, 47, grew up on Youngstown's West Side, lived in Struthers for 20 years and has lived in Beaver Township for two years.

"We bought our dream home out there. It's beautiful. If I'm one of the lucky ones, maybe I'll beat this thing," he said.

People who want to donate to the Burkes can do so by mailing a check or

money order, with Lenny Burke on the memo line, to Fraternal Order of Police Lodge 141, 110 Fifth Ave., attention FOP, Youngstown, OH 44503.

Prosecutors ask agencies to recreate shooting scenes

Associated Press

COLUMBUS

A prosecutor has asked two outside criminal investigation agencies to recreate the scene in which two plainclothes officers fatally shot a man they say opened fire on them.

Columbus police say Henry Green, who was black, ignored commands to drop his gun during the June 6 shooting.

Green's family and a friend walking with him say police didn't identify themselves when they began yelling at Green.

Earlier this week, the state Bureau of Criminal Investigation created a 3-D scan of the scene where Green was shot, Franklin County Prosecutor Ron O'Brien said.

O'Brien says he also asked the state Ohio Organized Crime Investigating Commission to use the scan to recreate the scene in 3-D animation.

The decision was made after reviewing the case and consulting with Columbus police, who are investigating the shooting, O'Brien said.

The organized crime

commission "has employees that enhance photographic or video evidence and in particular a forensic audio-video graphics expert that analyzes crime scene information and 3-D scans of crime scenes to recreate them," O'Brien said in a letter sent to attorneys representing Green's family.

The analysis is a welcome step that will help the investigation but shouldn't be confused with an independent inquiry, said Green family attorney Sean Walton.

"It doesn't change the fact that the crux of what will be presented to a grand jury is an investigation led for the past four or five months by the Columbus police department," he said.

The officers were members of Mayor Andrew Ginther's Community Safety Initiative, a \$750,000 summer program meant to reduce violence, take illegal guns off the streets and build trust between residents and police.

Police critics want changes to the program, while the police department says statistics show it makes Columbus safer.

Notice of Document Availability



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 Ravenna, Ohio 44268

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Ravenna, OH 44266.

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PUBLIC MEETING

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US Army Corps
of Engineers
Louisville District

SIGN-IN SHEET

Camp Ravenna Public Meeting – Proposed Plans for Load Line 10, Electric Substations (East, West, and No. 3), and Dump Along Paris-Windham Road, Ravenna Army Ammunition Plant (RVAAP)

PLEASE PRINT

LOCATION: Shearer Community Center; Ravenna, OH

DATE: November 29, 2016

TIME: 6:30 p.m.

Name	Address/City/State/Zip	Phone	Email
Jed Thomas			
Sharon Roberts			
Amanda Sprinzel			
George Tompkins			
Greg Moon			
CRAIG COOMBS			
Angela Schmidt			
Ed D'Amato			
VICKI DEPPISCH			

CAMP RAVENNA PUBLIC MEETING SIGN-IN SHEET

Proposed Plans for Load Line 10, Electric Substations (East, West, and No. 3), and Dump Along Paris-Windham Road, Ravenna Army Ammunition Plant (RVAAP)

PLEASE PRINT

LOCATION: Shearer Community Center; Ravenna, OH

DATE: November 29, 2016

TIME: 6:30 p.m.

Name	Address/City/State/Zip	Phone	Email
Megan Oravel			
Kevin Palombo			
Dorita Stone			
Mik Stone			
Nathaniel Peters			
Katie Tait			
Mark Loeper			
Matthew Merchant			
HEATHER ADAMS			
Bob			

CAMP RAVENNA PUBLIC MEETING SIGN-IN SHEET

Proposed Plans for Load Line 10, Electric Substations (East, West, and No. 3), and Dump Along Paris-Windham Road, Ravenna Army Ammunition Plant (RVAAP)

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LOCATION: Shearer Community Center; Ravenna, OH

DATE: November 29, 2016

TIME: 6:30 p.m.

Name	Address/City/State/Zip	Phone	Email
Bob Princić	[REDACTED]		
Rock Wargo			
Kevin Sedlak			

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Presentation

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Proposed Plans for Soil, Sediment, and Surface Water at

Load Line 10, **Electric Substations (East, West, and No. 3),** and Dump Along Paris-Windham Road

Former Ravenna Army Ammunition Plant
Ravenna, Ohio

Presented by:
Heather Adams, P.G. - Leidos

November 29, 2016

Presentation Agenda

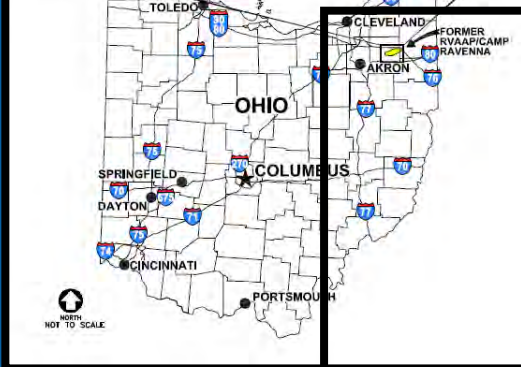
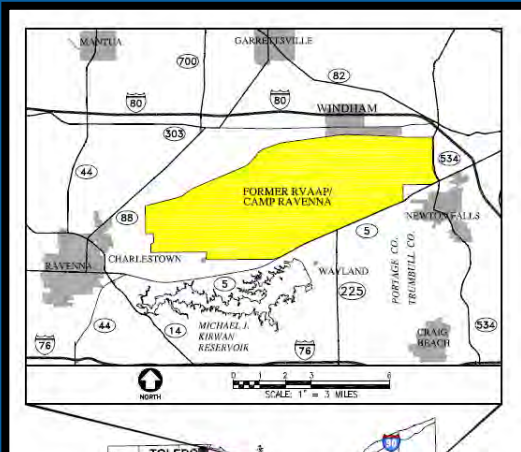
- Three Areas of Concern –
 - Load Line 10
 - Electric Substations (East, West, and No. 3) (ESS)
 - Dump Along Paris-Windham Road (PWD)
- Site Features
- Historical Operations
- Remedial Investigations
- Preferred Alternatives
- Public Participation
- Questions

Areas of Concern Location

Load Line 10 AOC is RVAAP-43

**Electric Substations (East, West, and No. 3)
AOC is RVAAP-68**

**Dump Along Paris-Windham Road AOC is
RVAAP-51**



Load Line 10

Site Features



- Approximately 36 acres
- All buildings, including slabs and foundations, were removed in 2007
- Access road and perimeter fence currently exist
- Overgrown with trees and shrubs
- No perennial surface water on site

Load Line 10

Historical Operations



- 1941–1945, produced 226,387,306 M36 percussion elements used during World War II.
- 1951–1957, produced 49,286,628 percussion elements and 135,262,465 primers.
- 1969–1971, unknown quantities of primers were produced.
- Load Line 10 was deactivated permanently in 1971, and production equipment was removed.
- No historical data or information exists to indicate Load Line 10 was used for any process other than percussion element/primer manufacturing.
- No fuel storage tanks or fuel materials were present, and no burning was conducted.

Load Line 10

Previous Investigations

- Installation Assessment (USATHAMA 1978);
- RCRA Facility Assessment (Jacobs 1989);
- Preliminary Assessment (USACE 1996);
- Relative Risk Site Evaluation (USACHPPM 1998);
- Lead Azide Screening (MKM 2007);
- 2004 Characterization of 14 AOCs (MKM 2007);
- 2007 Investigation of Under Slab Surface Soils (USACE 2009); and
- 2008 Performance-based Acquisition RI, as summarized in the *RI for Soil, Sediment, and Surface Water at the RVAAP 43 Load Line 10* (USACE 2015).



Load Line 10

Remedial Investigations



• 2004 Characterization of 14 Areas of Concern

- Collected 37 surface soil samples using incremental sampling method (ISM) around former production buildings and from ditches targeting areas where contamination was expected.
- Excavated 4 test trenches to 12-14 ft bgs.
- Collected 19 water and 6 sediment samples from sumps, sanitary sewers, and basements.
- Installed 6 monitoring wells.
- Conducted geotechnical evaluations and slug tests.
- Performed initial assessment of nature and extent of contamination.
- Conducted initial human health and ecological risk screening.

Conclusions:

- Recommended full risk assessments be performed to assist in overall management decision for the AOC.

Load Line 10

Remedial Investigations (continued)



• 2007 Investigation of Under Slab Surface Soil

- Performed investigation after the buildings and structures were demolished and removed to identify remaining contaminants.
- Collected 12 ISM surface soil samples from the footprints of 21 former production buildings.
- Collected surface soil and subsurface soil samples.

Conclusions:

- Identified potentially contaminated surface soil:
 - Building PE-15 footprint [benz(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene];
 - Building PE-19 footprint [benz(a)anthracene and benzo(b)fluoranthene]; and
 - Building PE-22 footprint [benzo(b)fluoranthene].
- Recommended additional evaluation of semi-volatile organic compounds (SVOCs)

Load Line 10

Remedial Investigations (continued)



• 2010 PBA08 Remedial Investigation

- Collected additional samples to supplement findings of previous investigations.
 - **Source Area Sampling Rationale-** Collected 3 ISM samples to determine extent of initial screening criteria exceedances and 3 discrete samples to evaluate total chromium characteristics.
 - **Large ISM Sampling Rationale-** Collected 11 large grid ISM samples to completely characterize the AOC.
 - **Subsurface Sampling Rationale-** Collected 21 subsurface soil samples from areas where surface soil exceeded initial screening criteria or from areas not previously sampled.
- Confirmed the lack of perennial surface water within the AOC.
- Collected 2 co-located sediment and surface water samples downgradient of Load Line 10 to assess potential contaminant migration.

Load Line 10

Remedial Investigations (continued)



- In summary, multiple evaluations or investigations were performed to assess Load Line 10. The total number of samples collected include:
 - 119 surface soil samples,
 - 21 subsurface soil samples,
 - 2 sediment samples,
 - 2 surface water samples,
 - 85 groundwater samples, and
 - Other: 21 sewer/sump water, 6 sump/sewer sediment.
- The following chemical groups were looked for during the investigation:
 - Metals, explosives, propellants, SVOCs, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and pesticides.

Load Line 10

Remedial Investigations Conclusions



- Nature and extent of contamination is defined - no further sampling is required to characterize soil at Load Line 10.
- No further action is required to protect human health.
 - The HHRA did not identify chemicals of concern (COCs) from previous Army activities requiring remediation under CERCLA to be protective of the Resident Receptor.
- No further action is required to protect ecological resources.
 - The ERA did not identify important or significant ecological places or resources.
- No further action for soil is required to protect groundwater.
 - The fate and transport assessment determined chemicals in soil are not impacting groundwater.
 - Groundwater will continue to be evaluated under the Facility-wide Groundwater Monitoring Program.

The Army, in coordination with Ohio EPA, is recommending no further action to attain Unrestricted (Residential) Land Use for soil, sediment, and surface water at Load Line 10.



Electric Substations (East, West, and No. 3)

The three Electrical Substations designated as CC RVAAP-68 were in use from the 1940s through 1993:

- **East Substation-** Serviced facilities on the eastern side of the facility, including Load Lines 1-4 and 12.
- **West Substation-** Serviced Fuze and Booster Hill area, including Load Lines 5-11, the Administration Area, and George Road Area.
- **Substation No. 3-** Serviced western portion of the facility, including the Depot Area.



Electric Substations (East, West, and No. 3) Background



- Electricity for the facility was purchased from the Ohio Edison Company and was supplied from Newton Falls and Garrettsville, Ohio.
- Distribution of electricity occurred through the substations, each at approximately 24,000 volts.
- Documented use of hazardous and regulated materials, including petroleum products (fuels and oils), polychlorinated biphenyls (PCBs), and lead acid batteries.
- Annual PCB inventory inspections and reporting were conducted on a facility-wide basis to document quantities of PCB oil located throughout the facility. The annual PCB inventory reports listed all PCB-containing items, including transformers, capacitors, contaminated soil from releases, and hydraulic equipment containing contaminated oil.
- Transformers and other oil-containing equipment typically contained PCBs prior to the 1990s when transformer oil was replaced with non-PCB oil. According to the annual PCB inventory reports, samples collected from oil-containing equipment did not contain PCBs greater than 50 parts per million (ppm).

Electric Substations (East, West, and No. 3)

East Substation



- 1,170 ft² brick Switch House (Building 25-27) constructed of a 6-inch-thick concrete floor.
- Lead acid batteries storage and transformers were located on adjacent gravel pad.
- Transformers were drained and moved to Building 854 in 1993.
- No wetlands, creeks, streams, or other water bodies are within the East Substation.
- No documented release.



Electric Substations (East, West, and No. 3) West Substation



- 964 ft² brick Switch House (Building 28-28) is currently being used by OHARNG.
- The area around the outside the building was evaluated in the RI.
- In 1997, approximately 1,500 gallons of transformer oil was spilled during salvage operations. The Army removed 449 tons of contaminated soil and confirmed the area to be clean.
- No wetlands, creeks, or streams are within the West Substation. However, a small ditch with intermittent surface water runs parallel to the southwest side of the building.

Electric Substations (East, West, and No. 3) Substation No. 3



- No buildings currently exist; however, concrete foundations used to support transformers remain onsite.
- Equipment was stored outside within a 10,000 ft² fenced area.
- No documented release.
- No wetlands, creeks, streams, or other water bodies are within the Substation No. 3 area. A wetland and an unnamed tributary to Sand Creek receive runoff just beyond the southeast site boundary.



Electric Substations (East, West, and No. 3) 2010 Phase I Remedial Investigation



- 2010 Historical Records Review Phase I RI (SAIC 2011)
 - Recommended further investigation at each of the substations based on:
 - The use of petroleum products (fuels and oils), PCBs, and lead acid batteries;
 - Documented release at the West Substation; and
 - Suspected undocumented release.
 - Target chemicals for further investigation were identified as:
 - TAL metals, PCBs, and SVOCs

Electric Substations (East, West, and No. 3) 2012/2013 Remedial Investigation



- Provided a full evaluation of nature and extent of contamination.
 - Collected surface and subsurface soil using ISM and discrete sampling techniques at each substation.
 - Sediment and surface water samples were collected from the downgradient wetland at Substation No. 3.
 - All samples collected for metals, SVOCs, and PCBs. In addition, RVAAP full-suite samples were collected.
- An HHRA was performed to identify COCs and provide a risk management evaluation to determine if remediation is required based on potential risks to human receptors.
- The ERA was conducted to evaluate the potential for chemicals to adversely affect ecological resources.
- The potential for soil and sediment contaminants to impact groundwater was evaluated in a fate and transport evaluation.

Electric Substations (East, West, and No. 3)



2012/2013 Remedial Investigation (continued)

- The summary below provides the total number of samples collected during the investigation of Electrical Substations (East, West, and No. 3):
 - 9 surface soil samples,
 - 41 subsurface soil samples,
 - 5 sediment samples, and
 - 5 surface water samples.
- The following chemical groups were looked for during the investigation:
 - Metals, explosives, propellants, SVOCs, VOCs, PCBs, and pesticides.

Electric Substations (East, West, and No. 3)



2012/2013 Remedial Investigation (continued)

Conclusions:

- Nature and extent of contamination is defined - no further sampling is required to characterize the Electrical Substations. (PCBs were not detected in soil at the three Electrical Substations.)
- No further action is required to protect human health.
 - The HHRA determined that total cancer risk and the total HQ are below the Ohio EPA and USEPA risk limits.
- No further action is required to protect ecological resources.
- No further action is required to be protective of groundwater.
 - The fate and transport assessment determined chemicals in soil and sediment are not impacting groundwater.
 - Groundwater will continue to be evaluated under the Facility-wide Groundwater Monitoring Program.

The Army, in coordination with Ohio EPA, is recommending no further action to attain Unrestricted (Residential) Land Use for soil, sediment, and surface water at the Electrical Substations (East, West and No.3).



Dump Along Paris-Windham Road

Site Features



- Steep embankment of buried debris on the west side of Paris-Windham Road
- Approximately 30 ft wide by 400 ft long and 0.25 acres in size.
- No perennial surface water.
- Surface water occurs only intermittently as storm water runoff in the drainage swale located at the base of the dump slope during and after rainfall events and periods of snow melt.

Dump Along Paris-Windham Road

Historical Operations



- Used as an open dump for a variety of miscellaneous construction and demolition material, including: asbestos-containing material (ACM) of transite roofing and siding, laboratory bottles and drums, concrete, brick, glass, scrap metal, fencing, and wood debris.
- There are no records indicating the quantities of material dumped at the AOC or the dates of operation.

Dump Along Paris-Windham Road

Previous Investigations and Actions



- Relative Risk Site Evaluation (USACHPPM 1998)
- 2003 Removal Action and Confirmation Sampling
- Site Characterization and Focused Feasibility Study (USACE 2015)



Dump Along Paris-Windham Road

Removal Action



- **2003 Decision Document for Removal Action**
 - Identified transite and debris in soil requiring removal.
 - Identified SVOCs as principle contaminants with potential impact to human health.
 - Identified cadmium, PCBs, and SVOCs as principle contaminants with potential impact to ecological resources.
 - Alternative 4 for implementing a removal action under a limited Remedial Design/Remedial Action (RD/RA) was selected.

Dump Along Paris-Windham Road

Removal Action (continued)



- Removal and off-site disposal of debris and visible transite was conducted in April 2003
- 300 tons of material and transite debris was removed and disposed.
- Test pits were excavated to ensure all subsurface transite was located.

- Excavated debris were loaded into trucks and roll-off boxes prior to removal and disposal.



Dump Along Paris-Windham Road Removal Action (continued)



- Final excavated area at the southern portion of the site.

- Confirmation samples were collected
 - 10 soil ISM samples from within the dump limits.
 - Six sediment and surface water samples from within the neighboring flood plain.



Dump Along Paris-Windham Road

Limited Remedial Design/Remedial Action Results

- Confirmation sample results and findings
 - Asbestos and metal concentrations in soil were within acceptable limits.
 - Benzo(a)pyrene concentration in one of the 10 samples exceeded Region IX PRG level at the time.
 - A small amount of transite was discovered during confirmation sampling after a heavy rain event eroded the embankment and exposed additional debris.

- Path forward
 - RVAAP stakeholders and the Akron Regional Air Quality Management District agreed to discontinue excavation because further excavation may undermine and compromise the integrity of Paris-Windham Road
 - Cover the transite material during AOC restoration activities.
 - Perform an additional risk evaluation of PAHs (e.g., benzo(a)pyrene) in soil through **Site Characterization/Focused Feasibility Study**.

Dump Along Paris-Windham Road

Removal Action (continued)



- Clean hard fill and approved soil backfill stabilized excavated areas and Paris-Windham Road.

- Removal area was seeded with OHARNG-approved seed mixture.



Dump Along Paris-Windham Road

Final Site Characterization



- Provided a full evaluation of nature and extent of contamination for soil and surface water. This included information from the previous investigations and confirmation sampling, including:
 - 16 surface soil samples,
 - 8 sediment samples, and
 - 7 surface water samples.

Conclusions:

- No further sampling is required to characterize soil, as nature and extent of contamination was defined.
- Human health risk assessment identified two PAHs, benzo(a)pyrene and dibenzo(a,h)anthracene, as COCs in soil for the Resident Receptor. No COCs in surface water.
- Ecological risk assessment concluded that no further action is required to protect ecological resources.

Dump Along Paris-Windham Road

Focused Feasibility Study



- The proposed remedies address soil contamination.
- Remedies are not needed for sediment and surface water since they do not pose a risk to human health or the environment.
- Groundwater will continue to be evaluated under the Facility-wide Groundwater Monitoring Program.

The Remedial Action Objective for the Dump Along Paris-Windham Road: Prevent exposure of the Resident Receptor to shallow surface soil (0–1 ft bgs) with COC levels exceeding the target risk of 1E-05 and a hazard index of 1.

- General response actions were considered for remediating contaminated soil :
 - Alternative 1- No Action (required by CERCLA)
 - Alternative 2- Land Use Controls
- The alternatives were evaluated with respect to nine comparative analysis criteria, as outlined by CERCLA.

Dump Along Paris-Windham Road

Preferred Alternative



Alternative 2: Land Use Controls

- Utilizes LUCs including posting signs to prevent exposure of the Resident Receptor to COCs in shallow surface soil.
- Prevent exposure to residual asbestos. Disturbance and potential exposure to residual ACM must also be controlled.
- O&M Plan- annual inspections in which the integrity of the soil cover and clean hard fill will be inspected for signs of erosion and disturbance.
- Continued Surveillance through five-year reviews.
- Estimated Cost = \$103,300.

Public Participation

Your Comments and Inputs are Appreciated!



- Public participation is an important component of remedy selection.
- The U.S. Army is soliciting input from the community as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
- Written comments will be accepted until December 14, 2016.

Questions?

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Court Reporter Transcript

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PROPOSED PLANS
FOR SOIL, SEDIMENT AND SURFACE WATER
AT LOAD LINE 10, ELECTRIC SUBSTATIONS
(EAST, WEST AND NO. 3)
AND
DUMP ALONG PARIS-WINDHAM ROAD

FORMER RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

Presented by:
Heather Adams, P.G. - Leidos

PUBLIC MEETING
Tuesday
November 29, 2016

Paris Township Hall
9355 Newton Falls Road
Ravenna, Ohio 44266

- - -

1 **APPEARANCES :**

2

3 Barbara Tittle, Facilitator

4

5 Jed Thomas, PE, PMP

6 Environmental Engineer

7 Leidos

8 8866 Commons Boulevard

9 Twinsburg, Ohio 44087

10 330/405-5802

11 E-mail: jed.h.thomas@leidos.com

12

13 **ALSO PRESENT :**

14 Ed D'Amato, Ohio EPA

15 Vicki Deppisch, Ohio EPA

16 Kevin Palombo, Ohio EPA

17 Nathaniel Peters, II, USACE

18 Sharon Robers, Leidos

19 Amanda M. Sprinzl, Leidos

20 - - -

21

22

23

24

25

1 **MS. TITTLE:** Good evening,
2 everyone. Welcome tonight. We are glad to have
3 all of you here at this evening's public meeting,
4 and this meeting will present the Army's proposed
5 plans for soil, sediment and surface water at
6 these sites within the former Ravenna Army
7 Ammunition Plant: Load Line 10, the Electrical
8 Substations and the dump along Paris-Windham
9 Road.

10 My name is Barb Tittle. I am from Kent. I
11 am here tonight to serve as the meeting
12 facilitator. I am not associated with anyone. I
13 am just a public citizen like you.

14 This public meeting serves as one of several
15 opportunities for public comment on the Army's
16 proposed plans. I am responsible for assuring
17 that everyone who wishes to comment or ask
18 questions about the proposed plans has an
19 opportunity to do so.

20 Comments received from the public on these
21 proposed plans will be considered when
22 determining the final remedy that will be
23 documented in a Record of Decision. The Record
24 of Decision will include a responsiveness summary
25 addressing the public comments.

1 Before we get started, of course we have to
2 go through the basics. The exits are on either
3 side of the room. The bathroom is back where you
4 came in. And water fountains are off the lobby
5 where you entered, also. And obviously help
6 yourself to the refreshments.

7 Tonight we have Nat Peters representing the
8 Army, and three people representing the EPA --
9 the Ohio EPA on the three different sites. For
10 Load Line 10, we have Vicki Deppisch. For the
11 Electrical Substations, Ed D'Amato. And for the
12 Paris-Windham Road Dump, we have Kevin Palombo.

13 Before we start, the Ohio EPA would like to
14 make an opening remark, so I will turn that over
15 to whoever wishes to do so.

16 **MR. PALOMBO:** Okay. Well, we as
17 representatives of Ohio EPA reviewed the proposed
18 plans for these three different sites. And we
19 concur with the recommendations and the findings,
20 and we approve them to go forward with the next
21 steps.

22 **MS. TITTLE:** Okay. Thank you.
23 So our presenter tonight will be Heather Adams.
24 She is a professional geologist from Leidos,
25 which is a contractor for the Army. Heather will

1 present information regarding the three areas of
2 concern and the Army's proposed plans for these
3 three sites.

4 And we do have a court reporter on hand to
5 record the proceedings for tonight. So we will
6 go from there, and I will leave you with
7 Heather.

8 **MS. ADAMS:** Thanks, Barb.

9 Welcome, everyone. It is nice to see a good
10 turnout this evening. As Barb mentioned, we are
11 going to be discussing three areas of concern at
12 the former Army Ammunition Plant. Load Line 10
13 is our first AOC. The second AOC is the
14 Electrical Substations, which is made up of three
15 separate sites: The East, West and the Number 3
16 Substation. And finally I will discuss the dump
17 along Paris-Windham Road.

18 For each of the sites, I will start off by
19 giving a brief description of the site features
20 and historical operations. And then I will
21 summarize the remedial investigations that have
22 been completed for each of the sites. And then I
23 will present the preferred alternative that we
24 are recommending. And then we will go over the
25 public's participation in this process, and then

1 open up the discussion for questions on all three
2 of the AOCs at the end.

3 In case anyone is not aware, which I doubt
4 that out of this room, the Ravenna Army
5 Ammunition Plant is located in Northeastern Ohio
6 here. The AOCs that we are going to discuss this
7 evening are Load Line 10, the Substation Number 3
8 and the West Substation are located in the
9 southwestern portion of the facility. And the
10 dump along Paris-Windham Road and the East
11 Substation is located along the eastern/central
12 portion of the AOC.

13 The first AOC we are going to discuss is
14 Load Line 10. By far, this is the largest AOC of
15 the three this evening that we will present. It
16 is approximately 36 acres in size. There are no
17 buildings remaining at the AOC. All slabs and
18 foundations and buildings were removed in 2007.

19 What remains at the AOC is a perimeter road
20 and a perimeter fence. In general, the AOC is
21 overgrown with small trees and lots of shrubs.
22 There are no perennial surface water features
23 within the AOC. However, during times of
24 significant precipitation or snow melt, surface
25 water has been known to accumulate in low-lying

1 areas.

2 The operational history of Load Line 10 is
3 rather significant. It began in 1941 where
4 percussion elements were produced to support
5 World War II. After that, in 1945 through 1951,
6 the AOC was not used. It was used again for six
7 years, until 1957, where additional percussion
8 elements and primers were produced. The AOC was
9 on hiatus again between 1957 and 1969, where it
10 then began ramp-up again for two short years
11 where unknown quantities of primers were
12 produced.

13 In 1971, Load Line 10 was ultimately
14 deactivated and permanently removed from
15 production, and all equipment was removed from
16 the AOC. No historical data exists or
17 information exists that indicates that Load Line
18 10 was ever used for any other process other than
19 percussion elements and primer manufacturing.

20 With that, there are no records of fuel
21 storage tanks, fuel materials were not present at
22 the AOC, and there are no records of burning
23 activities being conducted at Load Line 10.

24 As you can see from this slide, eight
25 different investigations have included Load

1 Line 10. They began in 1978. That was the
2 first investigation that included Load Line
3 10. The first five that you see here were more
4 facility-wide based investigations. These
5 investigations overall were evaluating various
6 AOCs and determining that Load Line 10 was an AOC
7 that would need additional investigation before
8 closure could be achieved.

9 The three investigations, which you see
10 highlighted in green, I am going to discuss in
11 additional detail next. The first of those was
12 the characterization of 14 AOCs that was
13 completed in 2004. Load Line 10 was included as
14 one of those 14 AOCs. After that investigation
15 in 2007, the under slab surface soil
16 investigation was completed, followed by the
17 final remedial investigation that was performed
18 under the PBA '08 Remedial Investigation.

19 The 2004 characterization of 14 AOCs
20 collected 37 surface soil samples using
21 Incremental Sampling Methodology. These samples
22 were focused around former production buildings
23 and ditches, which were the areas within the AOC
24 that contamination was expected to be found.

25 In addition to these 37 samples, four

1 trenches were excavated from 12 to 14 feet below
2 ground surface. They also collected 19 water and
3 6 sediment samples from the various sumps,
4 sanitary sewers and basements of the existing
5 buildings.

6 They installed six monitoring wells. They
7 conducted geotechnical evaluations and slug tests
8 to get hydrogeological parameters for the
9 investigation. They also performed an initial
10 assessment of nature and extent of contamination.
11 And they conducted an initial human health and
12 ecological risk screening evaluation.

13 The conclusions of this characterization
14 report were their recommendation of a full risk
15 assessment to be performed at the AOC.

16 After the 2004 characterization
17 investigation was completed, all of the
18 buildings, slabs and foundations were removed at
19 Load Line 10. Following the removal activities,
20 an investigation was completed in 2007. This
21 investigation evaluated the soil that was located
22 underneath the structures that had been removed.

23 During this investigation, the Army
24 collected 12 ISM surface soil samples that were
25 from the 21 former building -- production

1 building foundations. They also collected
2 surface soil and subsurface soil samples.

3 The conclusion of this investigation was
4 that potential PE contamination was found in
5 surface soil at three of the former production
6 buildings: PE-15, PE-19 and PE-22 were the three
7 buildings. This report recommended additional
8 evaluation of SVOCs.

9 This led the Army to the final remedial
10 investigation, which was completed in 2010. This
11 investigation collected additional samples to
12 supplement the findings of the previous
13 investigations.

14 There were three main goals for this 2010
15 remedial investigation. One was to collect
16 samples to further investigate those three areas
17 where we had initial screening criteria
18 exceedances from the previous documents. We also
19 collected three samples to evaluate total
20 chromium characteristics.

21 The second goal was to collect 11 large grid
22 ISM samples to ensure complete characterization
23 of the AOC.

24 Finally, the subsurface soil was evaluated
25 by collecting 21 subsurface soil samples from

1 areas where surface soil exceedances have been
2 identified and from areas where previous samples
3 were not collected.

4 The next goal of the 2010 RI was to confirm
5 the lack of perennial surface water within the
6 AOC. As I mentioned earlier, there was
7 documentation of surface water at the AOC. But
8 we determined that to just be intermittent
9 based on surface -- I am sorry -- based on
10 precipitation events.

11 With that conclusion, we had to collect two
12 co-located sediment and surface water samples
13 that were outside of Load Line 10 to assess
14 potential contaminant migration.

15 In summary, all of the investigations pulled
16 together collected 119 surface soil samples, 21
17 subsurface soil samples, 12 -- or, I am sorry, 2
18 sediment and 2 surface water samples from
19 off-site location, 85 groundwater samples and
20 then 21 sewer and sump water samples and 6 sump
21 and sewer sediment samples.

22 Each of these investigations were looking
23 for the following chemical groups: Metals --
24 thanks, Mark. Metals, explosives, propellants,
25 SVOCs, VOCs, PCBs and pesticides.

1 The conclusion of the Remedial
2 Investigation, which took into consideration all
3 three of the investigations and studies that I
4 just summarized, were that nature and extent of
5 contamination is defined for Load Line 10. And
6 no additional sampling is required to
7 characterize the AOC.

8 Additionally, no further action is required
9 to protect human health. The Human Health Risk
10 Assessment did not identify chemicals of concern
11 from previous Army activities requiring
12 remediation under CERCLA to be protective of the
13 Resident Receptor.

14 Also, no further action is required to
15 protect ecological resources. The Ecological
16 Risk Assessment did not identify important or
17 significant ecological places or resources within
18 Load Line 10.

19 Finally, no further action is required for
20 soil to be protective of groundwater. Two
21 reasons for this. The first is that the fate and
22 transport assessment determined that chemicals in
23 soils are not impacting groundwater. And,
24 finally, groundwater will continue to be
25 evaluated by the Facility-wide Groundwater

1 Monitoring Program.

2 The conclusions of this RI are that the
3 Army, in coordination with the Ohio EPA, is
4 recommending no further action to attain
5 Unrestricted Residential Land Use for soil,
6 sediment and surface water at Load Line 10.

7 The second AOC that I am going to discuss
8 is the Electric Substations. These are three
9 separate electrical substations that were in
10 operation from the 1940's through 1993. The East
11 Substation serviced the eastern portion of the
12 facility, Load Lines 1 through 4 and 12.

13 The West Substation serviced the western
14 portion of the facility, Fuze and Booster Hill
15 area, including the Administration Area down
16 here, and the George Road area.

17 Finally, the Substation Number 3 serviced
18 the Depot Area and the other western portion of
19 the facility.

20 The electricity for the facility was
21 purchased from Ohio Edison Company and was
22 supplied from Newton Falls and Garrettsville,
23 Ohio. In total, 24,000 volts of electricity were
24 distributed throughout the substations.

25 Documented use of the hazardous and

1 regulated materials, including petroleum
2 products such as fuels and oils, PCBs from
3 the transformers and lead acid batteries were
4 documented for each of the three substations.

5 The facility completes an annual PCB
6 inventory inspection and reports at the
7 facility -- I am sorry about that -- which
8 documents the quantities of PCB oil located
9 throughout the facility. This annual PCB
10 inventory report lists all PCB-containing items
11 within the facility, including transformers,
12 capacitors, any contaminated soil from a release
13 and any hydraulic equipment containing
14 contaminated oil.

15 From these reports, the transformers and
16 oil-containing equipment typically contained PCBs
17 prior to the 1990s. In the 1990s, the
18 transformer oil was replaced to a non-PCB oil.
19 According to the annual PCB inventory reports,
20 samples collected from the oil-containing
21 equipment did not contain PCBs greater than the
22 action level of 50 parts per million within any
23 of the transformers at the facility.

24 As I mentioned, there are three sites
25 included in this AOC. The first one I am going

1 to discuss is the East Substation. This is an
2 extremely small AOC compared to the Load Line 10,
3 which I just discussed. It consists of a brick
4 Switch House that is labeled Building 25-27. And
5 it was segmented into rooms. And one of the
6 rooms had a very large lead acid battery storage
7 area. And the transformers were actually stored
8 outside of the building here in this gravel area
9 where you can still see the transformer footers
10 are still present.

11 All of the transformers were drained and
12 removed and stored in Building 854 in 1993.
13 There are no water bodies within the East
14 Substation. And there are no documented releases
15 at this substation.

16 The West Substation is pretty much the same
17 as the Eastern Substation. It is a single
18 building made of brick -- a Switch House, which
19 is labeled as Building 28-28. The difference is
20 that this building is currently used by the Ohio
21 Army National Guard.

22 Therefore, the area around the outside of
23 the building was evaluated in the RI as the
24 building is still currently being used. This
25 site did have a documented release in 1997.

1 Approximately 1,500 gallons of transformer oil
2 was spilled during the salvage operations of the
3 transformers.

4 The Army was very proactive and did a
5 cleanup immediately of the spill. And during
6 that operation, they removed 449 tons of
7 contaminated soil and also collected samples to
8 confirm that the area was clean.

9 This substation does not have any surface
10 water within its boundaries. However, there is a
11 small ditch with intermittent surface water that
12 runs parallel to the southwest side of the
13 building.

14 The third and final substation that I will
15 present is Substation Number 3. No buildings
16 currently exist at this substation. However, the
17 concrete footers used to support the transformers
18 still remain, which you can kind of see in some
19 of these pictures.

20 The equipment was stored outside within an
21 area that was approximately 10,000 square feet.
22 And it was a fenced-in area. There are no
23 documented releases for this substation. There
24 are no wetlands or water bodies within the
25 Substation Number 3. However, there is a wetland

1 and an unnamed tributary to Sand Creek that
2 receives runoff just beyond the southeast side of
3 the site, which you can see in this photograph.

4 So to address that runoff, the Army did
5 collect surface water and sediment samples within
6 this area during the investigation.

7 The first investigation for the Electrical
8 Substations was completed in 2010. It was a
9 Historical Records Review and a Phase I RI. The
10 recommendations of this report were that further
11 investigations at each of the substations were
12 required. This was based on the use of the
13 petroleum products, the fuels, the oils, the PCBs
14 that were in the transformers and the lead acid
15 batteries that were in Switch Houses.

16 Also, we do have the documented release at
17 the West Substation that we wanted to confirm had
18 been properly addressed. And we wanted to
19 address some concerns of suspected undocumented
20 releases.

21 The 2010 Phase I RI recommended a target
22 chemical list of TAL metals, PCBs and SVOCs for
23 further investigation.

24 That recommended RI was completed in 2012
25 and 2013. This Remedial Investigation provided a

1 full evaluation of the nature and extent of
2 contamination. The Army collected surface and
3 subsurface soil samples using both ISM and
4 discrete sampling techniques.

5 Sediment and surface water samples were
6 collected from the downgradient wetland at
7 Substation 3, which I pointed out earlier. And
8 all samples were collected for the target
9 chemical list: metals, SVOCs and PCBs. In
10 addition, the RVAAP full-suite analysis was
11 performed on select samples.

12 The 2012/2013 Remedial Investigation
13 also presented a human health risk assessment
14 to identify COCs and provide a risk management
15 evaluation to determine if remediation would be
16 required based on potential risks to human health
17 receptors.

18 The report also presented an ecological
19 risk assessment to evaluate the potential for
20 chemicals to adversely affect ecological
21 resources.

22 Finally, the potential for soil and sediment
23 contaminants to impact groundwater was evaluated
24 in a fate and transport assessment.

25 In summary, 9 subsurface samples -- or, I am

1 sorry, 9 surface soil samples, 41 subsurface soil
2 samples, 5 sediment samples and 5 surface water
3 samples were collected at the three substations.

4 The following chemical groups that were
5 looked for during this investigation: Metals,
6 explosives, propellants, SVOCs, VOCs, PCBs and
7 pesticides.

8 The conclusions of the 2012/2013 Remedial
9 Investigation were that nature and extent of
10 contamination had been defined and that no
11 further sampling was required to characterize the
12 Electrical Substations. So PCBs, which was the
13 main chemical that most folks would be concerned
14 with at the substation, was actually not detected
15 in any of the soil samples that were collected at
16 the three electrical substations.

17 In addition, no further action is required
18 to protect human health. The Human Health Risk
19 Assessment determined that the total cancer risk
20 and the total hazard quotient were below the Ohio
21 EPA and the USEPA risk limits.

22 Additionally, no further action was required
23 to protect the ecological resources.

24 Similar to Load Line 10, no further action
25 was required to protect groundwater. The fate

1 and transport assessment determined chemicals in
2 the soil and sediment were not impacting
3 groundwater, and groundwater will be further
4 evaluated under the Facility-wide Groundwater
5 Monitoring Program.

6 Based on the results of the 2012/2013
7 Remedial Investigation, the Army, in coordination
8 with the Ohio EPA, is recommending no further
9 action to attain Unrestricted Residential Land
10 Use for soil, sediment and surface water at the
11 Electrical Substations East, West and Number 3.

12 The final and last AOC that I would like to
13 discuss is the Dump along Paris-Windham Road.
14 This AOC is a steep embankment of buried debris
15 on the west side of Paris-Windham Road. You
16 can't quite see it in this photograph. You will
17 be able to see it later in the presentation, but
18 Paris-Windham Road is just right beyond this tree
19 here.

20 This AOC, like the Electrical Substations,
21 is extremely small. It is approximately a
22 quarter of an acre in size. And it measures 30
23 feet wide by 40 feet long. There are no
24 perennial surface water features within the AOC.
25 However, surface water does occur intermittently

1 as storm water runoff in the drainage swale
2 located at the base of the dump slope during and
3 after rainfall events and periods of heavy snow
4 melt, which you can see --

5 **MR. PETERS:** Excuse me,
6 Heather. Is that 400 feet long?

7 **MS. ADAMS:** Yes.

8 **MR. PETERS:** Okay. I think you
9 said 40, but that --

10 **MS. ADAMS:** Oh, I am sorry.
11 30 feet by 400 feet.

12 **MR. PETERS:** Okay. Thank you.

13 **MS. ADAMS:** Uh-hum.

14 We do not have an extensive historical
15 operations history for this particular AOC,
16 but what we do know is that it was used as an
17 open dump for a variety of miscellaneous
18 construction and demolition material, including
19 asbestos-containing materials of transite roofing
20 and siding, laboratory bottles and drums were
21 found, concrete, brick, glass, scrap metal,
22 fencing and various wood debris.

23 We do not have records indicating the
24 quantities of the materials that were dumped at
25 the AOC or the dates of operation.

1 The Dump along Paris-Windham Road was
2 included in three previous investigations and one
3 remedial action, which took place in 2003, which
4 I will discuss in depth next.

5 In 2003, a Decision Document for Removal
6 Action was approved. This report identified that
7 transite and debris in soil required removal. It
8 also identified SVOCs as principle contaminants
9 with potential to impact human health. It
10 identified cadmium, PCBs and SVOCs as principle
11 contaminants with potential impact to ecological
12 resources.

13 This Decision Document presented Alternative
14 4 for implementing a removal action under a
15 limited Remedial Design and Remedial Action.

16 Shortly after the approval of the Decision
17 Document, removal and off-site disposal of debris
18 and visible transite was conducted in April of
19 2003. 300 tons of material and transite and
20 debris were removed and disposed.

21 Because of the limited knowledge that we had
22 about the dumping, test pits were installed to
23 excavate the area to ensure that subsurface
24 transite had all been located. The excavated
25 debris were loaded into trucks and roll-off boxes

1 and removed from the site for disposal.

2 And here are some pictures of the actual
3 removal action. And in this photograph, you can
4 see some workers removing the transite using the
5 proper health and safety equipment that is needed
6 to deal with those materials.

7 Up along this edge right here, this is
8 Paris-Windham Road. You see a worker standing on
9 the road. The excavator is actually working from
10 up on the road. So you can see how close debris
11 is to the road. This area here is the final
12 excavation of the southern portion of the site.

13 Once the removal action was complete,
14 confirmation samples were collected. As you can
15 see this gentleman down here collecting
16 confirmation samples. What the Army did was they
17 segmented the limits of the debris and collected
18 10 soil ISM samples over that quarter acre area.
19 And they also collected 6 sediment and surface
20 water samples from within the neighboring flood-
21 plain, which you can kind of see in this picture
22 here. This is the intermittent water that
23 sometimes accumulates at the slope.

24 This removal action basically resulted in
25 two things. It gave us some results for the

1 effectiveness of the removal action, and it also
2 had a recommended path forward.

3 Confirmation samples were collected and the
4 results of those samples were that the asbestos
5 and metal concentrations in the soil were now
6 within the acceptable limits, where previously
7 they were not.

8 It also identified Benzo(a)pyrene at a
9 concentration that exceeded the Region IX PRG
10 level at the time -- so the 2003 level -- in one
11 of the 10 samples that were collected.

12 A small amount of transite was also
13 discovered during the confirmation sampling after
14 a heavy rain event had eroded the embankment and
15 exposed additional debris. So they had removed
16 all the vegetation, had a rain event and it
17 washed it out.

18 Because of this, the Army had to make a
19 decision for the AOC. The RVAAP stakeholders and
20 the Akron Regional Air Quality Management
21 District, who were involved because of the ACM
22 removal, discussed and decided to discontinue the
23 excavation because further excavation would
24 undermine and compromise the integrity of
25 Paris-Windham Road. Which you can see in the

1 previous photograph how close that excavation was
2 to the road.

3 Based on this decision, the Army and the
4 Akron Regional Air Quality Management District
5 decided to cover the transite material during the
6 restoration activities and leave it in place.

7 Additionally, they recommended that a Site
8 Characterization and Focused Feasibility Study
9 report be completed to evaluate the risks to the
10 PAHs in the soil.

11 After those decisions were made -- you can
12 see the photographs here. So they brought in
13 clean hard fill and approved soil backfill to
14 stabilize the slope, which you can see they built
15 out nicely to both stabilize the road and to
16 cover any remaining transite in this area.

17 And then they seeded -- with the Ohio Army
18 National Guard, approved seed mixture and allow
19 the area to grow back up.

20 So one of the recommendations after the
21 Remedial Action was to complete a Final Site
22 Characterization. What this report did was it
23 provided a full evaluation of nature and extent
24 of contamination for soil and surface water.
25 This report used a total of 16 surface soil

1 samples, 8 sediment samples and 7 surface water
2 samples. These samples included the confirmation
3 samples after the Remedial Action.

4 The conclusions of the Final Site
5 Characterization were that no further sampling
6 was required to characterize the soil, that
7 nature and extent of contamination had been
8 defined.

9 Also, the Human Health Risk Assessment
10 identified two PAHs, Benzo(a)pyrene and
11 Dibenzo(a,h)anthracene, as COCs in soil for the
12 Resident Receptor. No COCs were identified for
13 surface water.

14 The Ecological Risk Assessment concluded
15 that no further action was required to protect
16 the ecological resources.

17 Based on the findings of the report, a
18 Focused Feasibility Study was needed. The
19 proposed remedies included the Focused
20 Feasibility Study to address the soil
21 contamination.

22 Remedies were not needed for sediment or
23 surface water since they did not pose a risk to
24 human health or the environment.

25 Groundwater, again, is going to continue to

1 be evaluated under the Facility-wide Groundwater
2 Monitoring Program.

3 Therefore, the Remedial Action objective for
4 Paris-Windham Road Dump is to prevent exposure of
5 the Resident Receptor to shallow surface soil
6 with COC levels exceeding the target risk of
7 1E-05 and a hazard index of 1.

8 The Focused Feasibility Study presented
9 the general response actions, which included
10 Alternative 1, which is a No Action alternative,
11 which is required by CERCLA to be used as the
12 basis for which all other alternatives are
13 compared to.

14 The second alternative was Land Use Control.
15 This alternative was evaluated -- both
16 alternatives were evaluated with respect to the
17 nine comparative analysis criteria as outlined by
18 CERCLA.

19 Based on the conclusions of the Focused
20 Feasibility Study, the preferred alternative for
21 the Dump along Paris-Windham Road is Alternative
22 2, which is Land Use Controls. This alternative
23 utilizes Land Use Controls including posting
24 signs to prevent exposure of the Resident
25 Receptor to COCs in shallow surface soil.

1 It also prevents exposure of the residual
2 asbestos. And disturbance and potential exposure
3 to residual ACM must be controlled.

4 Alternative 2 will also present an O&M Plan,
5 which will include annual inspections in which
6 the integrity of the soil cover and clean hard
7 fill will be inspected for signs of erosion and
8 disturbance to ensure that everything is still
9 intact.

10 Alternative 2 also includes continued
11 surveillance through five-year reviews. This
12 alternative has an estimated cost of \$103,300.

13 **MS. TITTLE:** Thank you,
14 Heather. So now it is your turn to participate.
15 And we welcome your comments and questions at
16 this time.

17 You can also -- if something comes up later,
18 if you think of something else, you can check
19 out -- for more information, you can go to the
20 Newton Falls Public Library on South Canal
21 Street, or the Reed Memorial Library in Ravenna.
22 Or you can check out the site at www.rvaap.org
23 for more information or to make further
24 comments. And comments will be accepted up to
25 December 14th of this year.

1 We solicit input from you, certainly,
2 because you are the community. You live here.
3 It is important. And like I said, comments
4 through December 14th.

5 So if you have any questions or comments,
6 please stand up, give us your name, and for the
7 benefit of the reporter, and the record, what
8 community you live in. And we will go from
9 there.

10 Well, I will have a drink to that, too.
11 Calling for all comments, questions or
12 quotations? Anything you have is welcome. And
13 as I said, there is plenty of time through
14 December 14th to make additional written or
15 e-mail comments.

16 Well, if we have no more questions, no
17 comments -- anything else?

18 **MR. THOMAS:** No.

19 **MS. SPRINZL:** If you haven't
20 signed in, please take a moment to sign in before
21 you leave. Thank you.

22 **MS. TITTLE:** Yes. Well, thank
23 you all. Enjoy the refreshments.

24 **MS. ADAMS:** Thank you all for
25 your time.

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(Thereupon, the meeting was
concluded at 7:11 p.m.)

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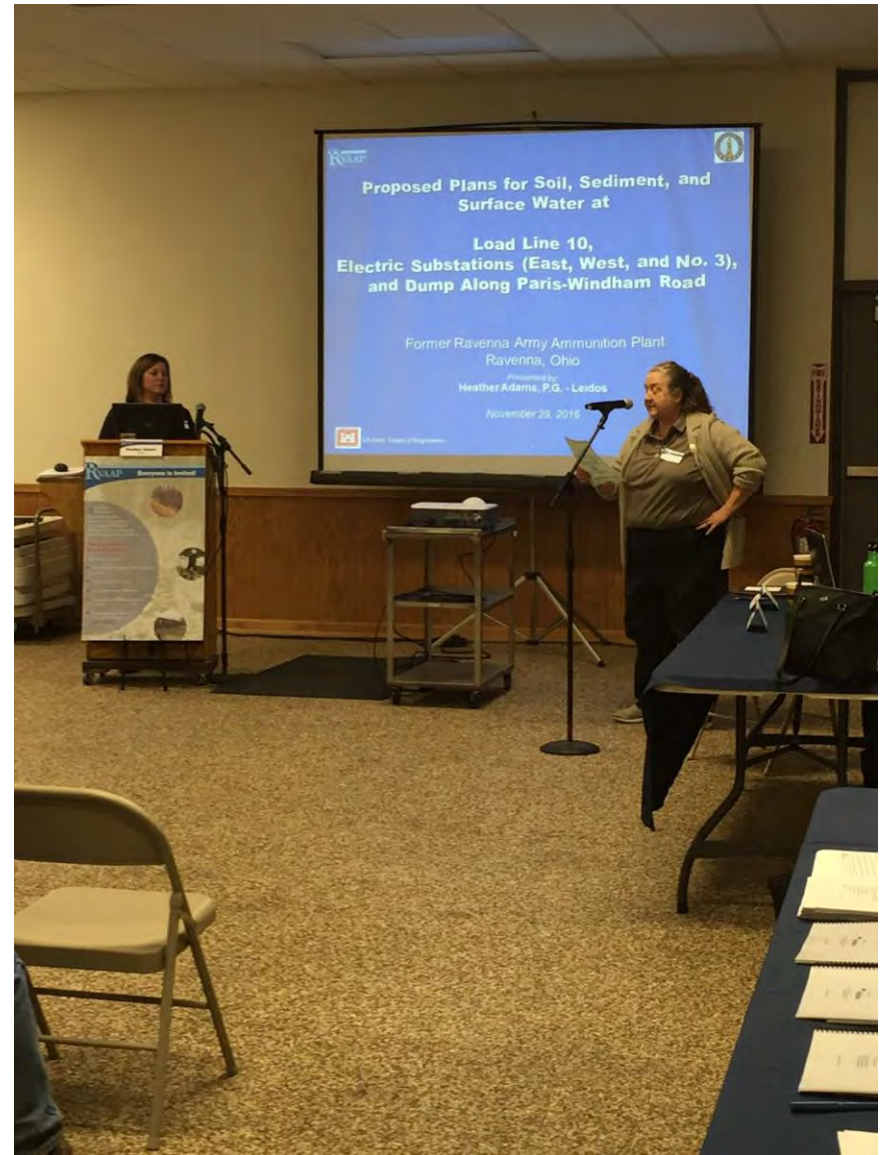
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WRITTEN PUBLIC COMMENTS

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No written comments were received during the public notification period.

No oral comments were provided during the public meeting.

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