



U.S. ARMY



Iowa Army Ammunition Plant Operable Unit 11 Proposed Plan

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Project Team

U.S. Army

- IAAAP – Jen Busard, Restoration Project Manager
- Army Environmental Command – Jonathan Harrington, Environmental Support Manager
- USACE, Omaha District – Seth Reedy, Project Manager

Project Contractor

- Jacobs – Jeff Morrison, Project Manager

Regulatory Agencies

- Environmental Protection Agency Region VII – Wesley March
- Iowa Department of Natural Resources – Shelly Nellesen





Agenda

- ✓ Purpose
- ✓ Regulatory Overview
- ✓ History of these sites
- ✓ Evaluation of Risk
- ✓ Community Participation
- ✓ Questions and Answers



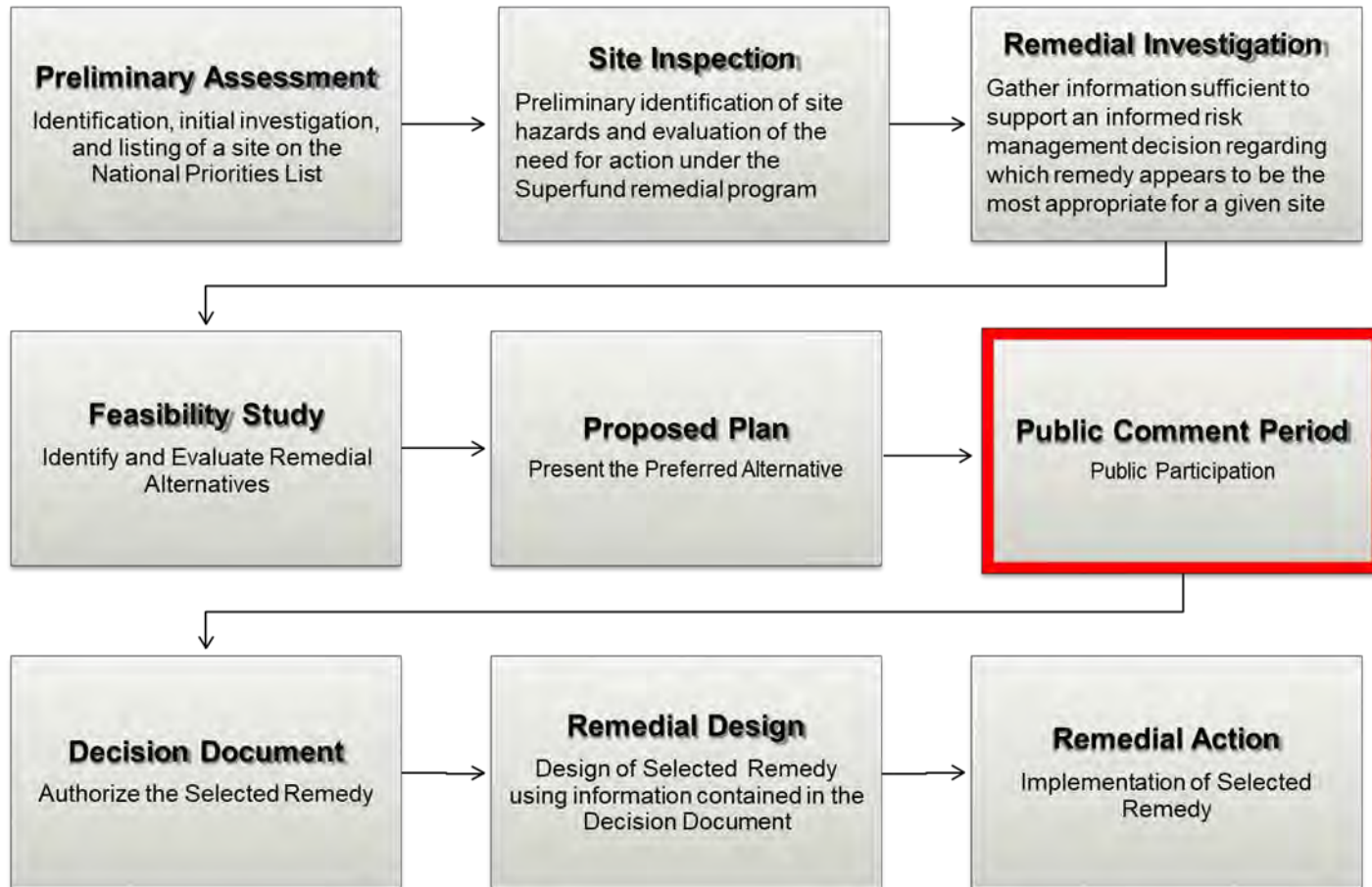


Meeting Purpose

- ✓ **The purpose of this meeting is to provide:**
 - Summary of environmental investigations for 27 sites over 22 areas.
 - Rationale for No Further Action (NFA) recommendation.
 - An opportunity for public to comment on the proposed plans and recommendations.



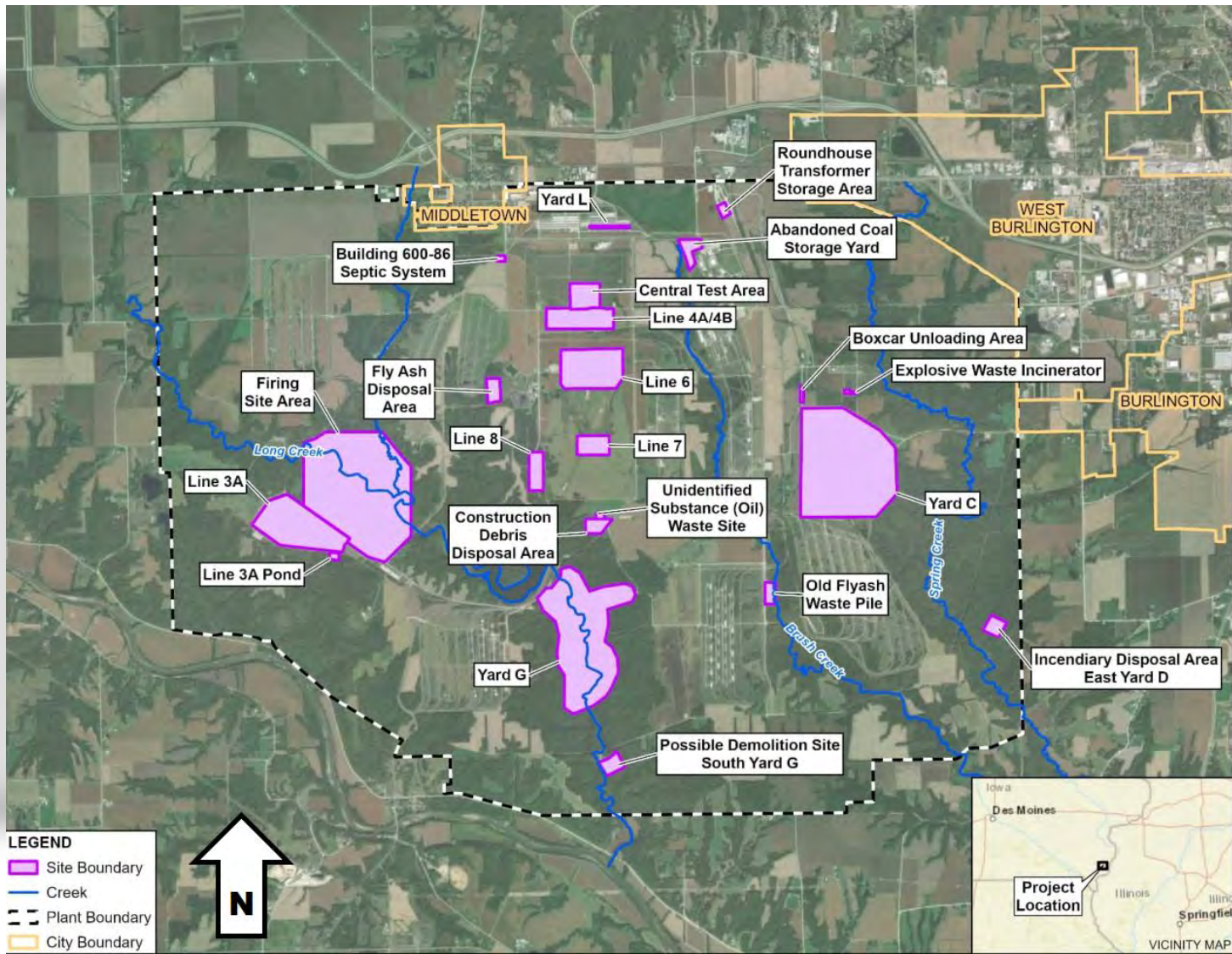
CERCLA Process



Location of OU-11 Sites



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Sites History

- ✓ **The sites discussed in this Proposed Plan were investigated in the Remedial Investigation (RI) Report for Operable Unit 11 (OU-11), the RI Report for OU-6, the OU-11 Supplemental RI Report for Line 6, and the RI Report for OU-7.**
- ✓ **All of these sites were recommended for No Further Action for specific media and grouped together in OU-11.**
 - Media: groundwater, soil, surface water or sediment
- ✓ **Many of these sites were used for storage, disposal or treatment of waste and debris. Others were identified as potential areas of concern based on being used as production lines.**





Soil and Groundwater Sites

- **Boxcar Unloading Area (BCU) IAAP-014 and IAAP-014G.**
- **Unidentified Substance Waste Site (USWS) IAAP-022 and IAAP-022G.**
- **Explosive Waste Incinerator (EWI) IAAP-025 and IAAP-025G.**
- **Construction Debris Disposal Area (CDDA) IAAP-028 and IAAP-028G.**
- **Abandoned Coal Storage Yard (ACSY) IAAP-042 and IAAP-42G.**





Groundwater Only Sites

- **Line 3A Ammo IAAP-004G.**
- **Lines 4A/4B Ammo Assembly IAAP-005G.**
- **Line 6 Ammo Production IAAP-007G.**
- **Line 7 LAP IAAP-008G.**
- **Line 8 Ammo LAP IAAP-009G.**
- **Incendiary Disposal Area (InDA) IAAP-013G.**
- **Old Fly Ash Waste Pile (OFAWP) IAAP-015G.**
- **Possible Demolition Site (PDS) South Yard G IAAP-018G.**
- **Building 600-86 Septic System IAAP-038G.**
- **Roundhouse Transformer Storage Area (Roundhouse) IAAP-040G.**
- **Fly Ash Disposal Area (FADA) IAAP-043G.**
- **Central Test Area (CTA) IAAP-47G.**
- **Yard L (Unassigned ID).**





Other Sites

Soil-Only Site:

- **Line 3A Pond IAAP-041.**

Surface Water (SW) - Only Site:

- **Firing Sites Area IAAP-030.**

Groundwater (GW) and Surface Water Sites:

- **Yard C (Unassigned ID).**
- **Yard G (Unassigned ID).**



BCU (IAAP-14, IAAP-14G)



- ✓ Approximately 7 acres.
- ✓ Unloading and storage of dunnage lumber.
- ✓ Previous investigations in 1987, 1992 and 2006.
- ✓ Low level detections in soil samples were below risk screening levels and background.
- ✓ No release occurred.



USWS (IAAP-22, IAAP-22G)



- ✓ Site is 0.42 acres, with alleged spill area 20x20 foot area south of railroad track and near Construction Debris Landfill (CDL) site.
- ✓ Alleged oil spill occurred in 1985.
- ✓ Soil samples collected in 1986, 1991 and 2018.
- ✓ Low level detections found but no evidence of a release.





EWI (IAAP-25, IAAP-25G)



- ✓ 2-acre site boundary
- ✓ EWI operated from Nov 1981 to June 1997.
- ✓ Underwent RCRA closure in 1998.
- ✓ Soil and groundwater sampling conducted from 1991 to 2010.
- ✓ Detections of chemical of concern (COCs) were below risk screening levels.





CDDA (IAAP-28, IAAP-28G)



- ✓ **5.7-acre recreational area operated from the 1940s to 1992.**
- ✓ **Soil, sediment, SW and GW samples collected over 1991 to 2019.**
- ✓ **Jacobs conducted human health risk assessment (HHRA) and ecological risk assessment (ERA) in 2018 RI.**





ACSY (IAAP-42, IAAP-42G)



- ✓ 15-acre site boundary but coal was only stored on 3-4 acres.
- ✓ Site used from 1940s to 1968 and coal removal and soil excavation in 1992.
- ✓ Soil, sediment and SW samples collected in 1995, 2012 and 2018.
- ✓ No release has been confirmed in any of the media evaluated.





Line 3A (IAAP-004G)



- ✓ 119-acre site with an active munitions line.
- ✓ In operation since 1940s and investigation since the 1980s.
- ✓ Soil removal performed as part of OU-1 remedy.
- ✓ GW investigated from 1981 through 2018.
- ✓ RDX present in GW at low concentrations.



Lines 4A and 4B (IAAP-005G)



- ✓ **57.8-acre site.**
- ✓ **Line 4A operated from early 1940s to 1998 and Line 4B is still active.**
- ✓ **Groundwater sampling conducted from 1981 to 2003.**
- ✓ **No principal threat waste or COCs exist at Lines 4A/4B groundwater.**





Line 6 (IAAP-007G)



- ✓ 95.2-acre site bordered by agricultural lands.
- ✓ Operated 1941-1992
- ✓ Sampling from 1981 to 2006 with sporadic metals above regional screening levels (RSLs).
- ✓ Supplemental RI in 2020 included redevelopment and resampling for manganese.
- ✓ Detections found within range of background threshold value (BTV).





Line 7 (IAAP-008G)



- ✓ **25-acre site operated from 1941-1970.**
- ✓ **By 2006 all Line 7 buildings demolished and concrete slabs were removed.**
- ✓ **Groundwater sampling from 1991-2006.**
- ✓ **No COCs exist for Line 7 groundwater.**





Line 8 (IAAP-009G)



- ✓ 22-acre inactive site
- ✓ All buildings have been demolished and the site inactive since 1950.
- ✓ Intermittent tributary to Long Creek also runs north-south, parallel to the road.
- ✓ Extensive soil, SW, Sediment sampling 1992-2006.
- ✓ RI concluded no GW impacts.





InDA (IAAP-013G)



- ✓ 34-acre site; densely wooded area adjacent to intermittent tributary of Spring Creek.
- ✓ Used from 1940-1946 as a demolition area and for burial of unknown materials.
- ✓ GW grab sampling from soil borings in 2006 and from a MW in 2018 RI.
- ✓ No metals exceeded their site characterization project action limit (PALs).



Old Fly Ash Waste Pile (IAAP-015G)



- ✓ 6.3-acre site
- ✓ Fly ash from the coal-fired heating plants deposited at site from 1940-1976.
- ✓ RI from 1991-2006 focused on soil, fly ash, SW and Sediment.
- ✓ GW not sampled until 2013 feasibility study (FS) when 3 MWs were installed. Polycyclic aromatic hydrocarbons (PAHs) not detected but metals were below PALs.
- ✓ No principal threat waste or COCs exist.



PDS South Yard G (IAAP-018G)



- ✓ **South Yard G is a 15-acre area within the PDS to the south of Plant Rd K and is associated with demo.**
- ✓ **Used from 1940s to early 1950s.**
- ✓ **Direct-push technology (DPT) grab GW samples collected in 2004 and 2008, and 4 MWs installed in 2018.**
- ✓ **Metals and explosives below PALs and BTVs.**



Building 600-86 Septic (IAAP-038G)



- ✓ 1.7-acre site used from 1941-1986 as a chemical laboratory and to store hazardous waste.
- ✓ Soil and groundwater samples collected between 1991-2020.
- ✓ Low levels of metals and PAHs below PALs for groundwater.



Roundhouse (IAAP-040G)



- ✓ **4.5-acre site**
- ✓ **Before 1980, the Roundhouse stored unused transformers. Starting in 1980, any transformers that contained high levels of polychlorinated biphenyls (PCBs) were moved to an offsite warehouse.**
- ✓ **Soil samples collected in 1996 and 2006. No PCBs detected.**



Fly Ash Disposal Area (IAAP-043G)



- ✓ 6-acre area located adjacent to and directly west of the existing Fly Ash Landfill.
- ✓ Used in 1940s/1950s.
- ✓ SW, sediment, soil and groundwater sampled from 1991 to 2018.
- ✓ No principal threat waste or COCs exist at the FADA.





CTA (IAAP-047G)

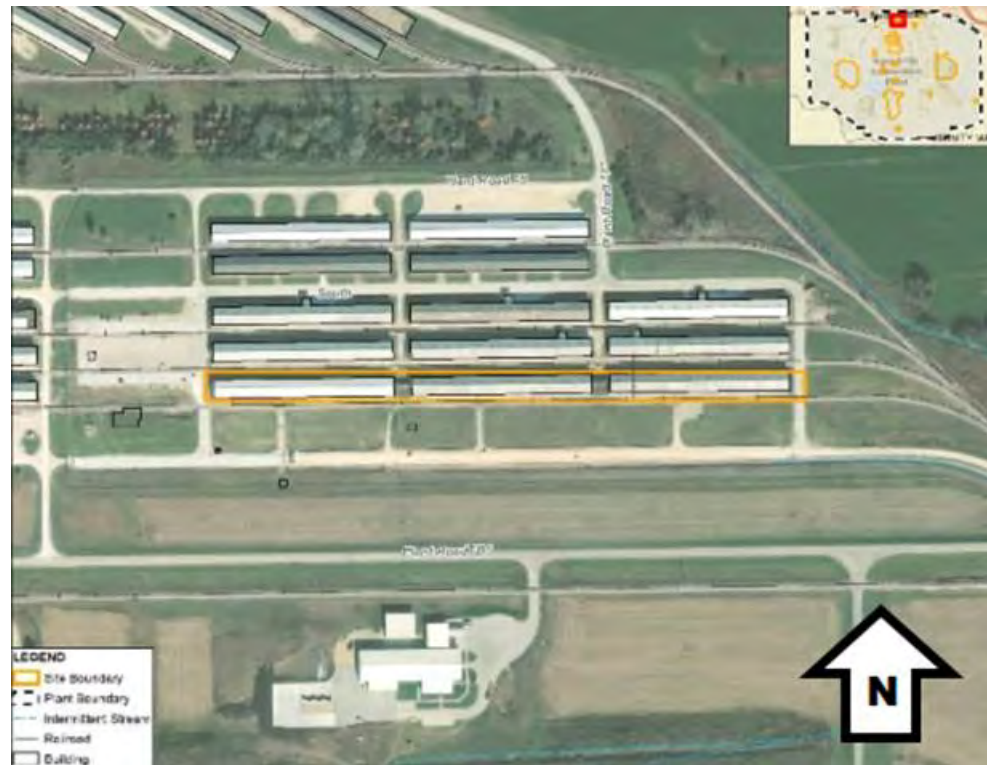


- ✓ 31 acres and comprises the former CT Lab and two former test areas.
- ✓ Operated from 1941-1963.
- ✓ GW sampled 2005, 2006 and 2018 from DPT and temporary wells.
- ✓ Elevated total metals concentrations were due to elevated turbidity and not representative of groundwater at the CTA.





Yard L (Unassigned)



- ✓ Used by Atomic Energy Commission for classified components.
- ✓ Radioactive materials handled on Line 1 were received sealed.
- ✓ Investigations to date focused on Rad and Gamma Walkover surveys 2002-2005.
- ✓ No evidence of CERCLA release to groundwater.





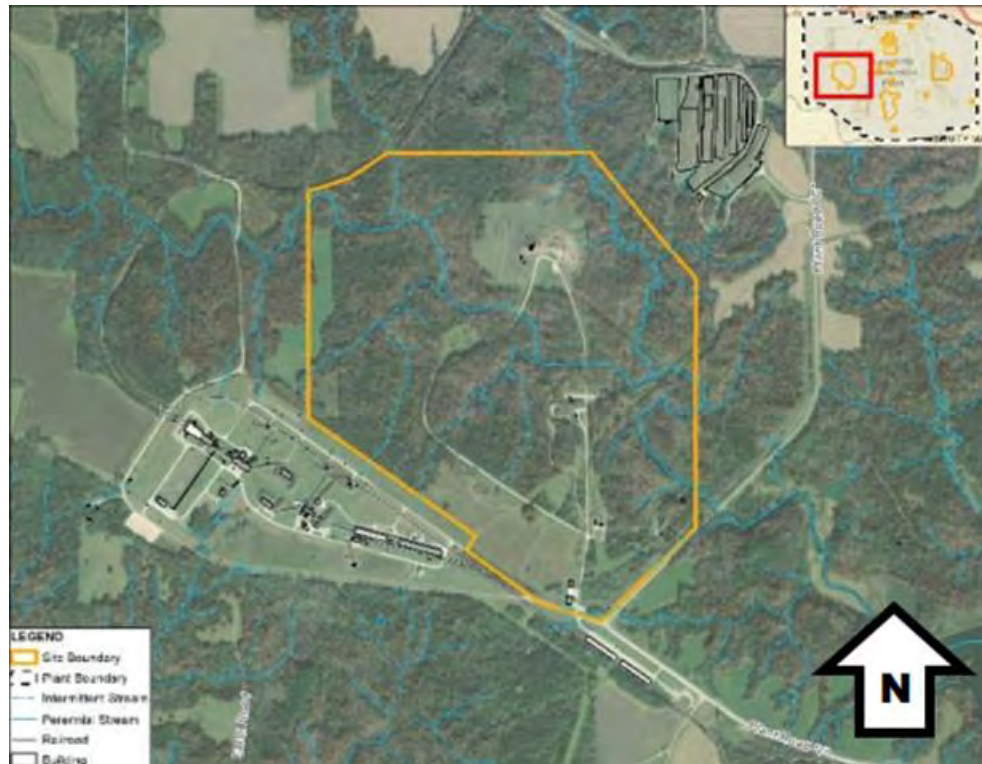
Line 3A Pond (IAAP-041)



- ✓ **2.5-acre site is a former leach field and covered by grass and trees.**
- ✓ **Operated 1956-1959 and 1977 to 1985.**
- ✓ **Samples collected for soil, sediment, SW and GW from 1991-2018.**
- ✓ **HHRA and ERA were conducted and found no risk in soil.**



Firing Sites Area (IAAP-030)



- ✓ 437-acre FSA is active firing range used for large munitions testing.
- ✓ AEC test fired depleted uranium munitions from 1948-1974.
- ✓ SW sampled from 1991 to 2019 and metals detected below BTVs.





Yard C (Unassigned Site)



- ✓ 301 acres primarily an open field containing over 40 storage igloos.
- ✓ AEC stored raw explosive materials and sealed radiological components 1947-1974.
- ✓ SW and GW sampled in 2007 and 2019 and results below PALs.





Yard G (Unassigned Site)



- ✓ 259 acre heavily forested valley of Long Creek containing multiple igloos along the main access road.
- ✓ AEC stored classified products 1948-1954.
- ✓ SW samples collected in 1992 and 2019.
- ✓ No principal threat waste or surface water COCs exist at Yard G; GW does not occur at Yard G.





Risk Assessments

- ✓ During the Human Health Risk Assessments (HHRAs), risks and hazards for residents, hunters/recreators, and construction/utility workers at the site were found to be acceptable.
 - **Below screening levels and PALs**
- ✓ During screening level ecological risk assessments (SLERAs) no adverse effects on ecological receptors were identified, and no actions are required from an ecological perspective.
 - **Below screening levels and PALs**





Next Steps in CERCLA Process

- ✓ **Consider public comments on the Proposed Plan**
- ✓ **Publish a Decision Document that presents the selected site remedy**
 - Including responses to Proposed Plan comments
- ✓ **Site restoration and closure**





Community Participation

- ✓ How can the community participate?
- ✓ Review the Revised Proposed Plan and historical records for **OU-11**. These documents are available in the Administrative Record and available online at: <https://iaaaprestoration.com/adminrecord/>.
- ✓ All comments can be emailed or post parked by **April 30, 2026**, to:
 - US Army Environmental Restoration Manager
Iowa Army Ammunition Plant
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Middletown, Iowa 52638-5000
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Comments or Questions?

