

**FY2015**

**JOLIET AAP**

**Installation Action Plan**

# Table of Contents

Statement Of Purpose.....	1
Acronyms.....	2
Installation Information.....	4
Cleanup Program Summary.....	6
5-Year / Periodic Review Summary.....	7
Land Use Control (LUC) Summary.....	9
Parcel Summary.....	11
Installation Restoration Program.....	12
IRP Summary.....	13
IRP Contamination Assessment.....	15
IRP Previous Studies.....	16
Installation Restoration Program Site Descriptions.....	19
JAAP-001 SOUTHERN ASH PILE.....	20
JAAP-005 M5 - TETRYL PRODUCTION AREA.....	21
JAAP-006 M6 TNT DITCH COMPLEX.....	22
JAAP-007 M7 - RED WATER AREA SOUTH OF TNT DITCH.....	23
JAAP-008 ACID MANUFACTURING AREA.....	24
JAAP-009 NORTHERN ASH PILE.....	25
JAAP-011 M11 LANDFILL.....	26
JAAP-013 M13 GRAVEL/EXCAVATION PITS.....	27
JAAP-0L1 GROUP 61 TNT - RIDGE & FURROW SYSTEM.....	28
JAAP-0L2 EXPLOSIVE BURNING GROUND.....	29
JAAP-0L3 DEMO AREA.....	30
JAAP-GWM INSTALLATION-WIDE LTM.....	31
JAAP-L14 GROUP 4 - FUSE PRODUCTION.....	32
IRP Site Closeout (No Further Action) Summary.....	33
Installation Restoration Program Schedule.....	35
Installation Restoration Program Milestones.....	35
Installation Restoration Program Schedule Chart.....	38

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## Table of Contents

<b>Military Munitions Response Program.....</b>	<b>39</b>
<b>MMRP Summary.....</b>	<b>40</b>
<b>MMRP Contamination Assessment.....</b>	<b>41</b>
<b>MMRP Previous Studies.....</b>	<b>42</b>
<b>Military Munitions Response Program Site Descriptions.....</b>	<b>43</b>
<b>JAAP-001-R-01 L3 Buffer Area.....</b>	<b>44</b>
<b>JAAP-001-R-02 L2-L3 Extended Buffer.....</b>	<b>45</b>
<b>JAAP-001-R-03 Capped L3 Area.....</b>	<b>46</b>
<b>JAAP-002-R-01 L2 Buffer Area.....</b>	<b>47</b>
<b>JAAP-004-R-01 FORMER BURNING AREA (L34).....</b>	<b>48</b>
<b>MMRP Site Closeout (No Further Action) Summary.....</b>	<b>49</b>
<b>Military Munitions Response Program Schedule.....</b>	<b>50</b>
<b>Military Munitions Response Program Milestones.....</b>	<b>50</b>
<b>Military Munitions Response Program Schedule Chart.....</b>	<b>51</b>
<b>Community Involvement.....</b>	<b>52</b>

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## Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the US Army Environmental Command (USAEC), the Joliet Army Ammunition Plant (JOAAP), the Base Realignment and Closure (BRAC) Division, the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

## Acronyms

AEDB-R	Army Environmental Database - Restoration
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
cy	cubic yard
DD	Decision Document
DERP	Defense Environmental Restoration Program
DNT	2,4-Dinitrotoluene
EE/CA	Engineering Evaluation/Cost Analysis
FFA	Federal Facility Agreement
FRA	Final Remedial Action
FS	Feasibility Study
FY	Fiscal Year
GMZ	Groundwater Management Zone
GW	Groundwater
HRS	Hazard Ranking System
IAP	Installation Action Plan
IC	Institutional Control
ID	Identification
IEPA	Illinois Environmental Protection Agency
IL	Illinois
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
JAAP	Joliet Army Ammunition Plant (AEDB-R designation)
JADA	Joliet Arsenal Development Authority
JOAAP	Joliet Army Ammunition Plant
K	thousand
LAP	Load, Assemble, and Pack
LTM	Long-Term Management
LUC	Land Use Controls
MEC	Munitions and Explosives of Concern
mm	millimeter
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MPPEH	Material Presenting Potential Explosive Hazard
MR	Munitions Response
MRSP	Military Response Site Prioritization Protocol
N/A	Not Applicable
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List
OB	Open Burning
OD	Open Detonation
ORSC	Ordnance Removal and Site Characterization
OU	Operable Unit

## Acronyms

PA	Preliminary Assessment
PBC	Performance-Based Contract
PCB	Polychlorinated Biphenyl
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDX	Cyclotrimethylenetrinitramine
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SRU	Soil Remediation Unit
SVOC	Semi-volatile Organic Compound
SWDRIP	Site-wide Deed Restriction Implementation Program
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
Tetryl	Trinitrophenylmethylnitramine
TNT	Trinitrotoluene
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USDA	US Department of Agriculture
USEPA	US Environmental Protection Agency
UXO	Unexploded Ordnance
VA	Veterans' Affairs
VOC	Volatile Organic Compound
WCLF	Will County Landfill

# Installation Information

## Installation Locale

**Installation Size (Acreage):** 23,544.00

**City:** Joliet

**County:** Will

**State:** Illinois

## Other Locale Information

The JOAAP is located in northeastern Illinois, approximately 60 miles southwest of Chicago and 10 miles south of Joliet in Will County. Nearby communities include Channahon to the northwest, Elwood to the north, Manhattan to the northeast, Symerton to the southeast, and Wilmington to the south. The installation, which is divided by Illinois Route 53, once occupied a total of 23,544 acres (about 37 square miles). Approximately 1,068 acres are currently under US Army control.

## Installation Mission

The JOAAP is a US Army-owned industrial facility that is currently excess property and is completely inactive. Following construction in the early-1940s, the eastern side of the plant was used to load, assemble, and pack (LAP) bombs, shells, mines, and supplementary charges, and the western side of the plant was equipped to produce explosives such as trinitrotoluene (TNT), dinitrotoluene (DNT), trinitrophenylmethylnitramine (tetryl), and constituent chemicals. No production has occurred since 1977. During periods of inactivity, many areas and facilities were leased out for commercial operations.

## Lead Organization

Base Realignment and Closure Division

## Lead Executing Agencies for Installation

USAEC - Investigation Phase

US Army Corps of Engineers (USACE), Louisville District - RA Phase

## Regulator Participation

**Federal** US Environmental Protection Agency (USEPA), Region V

**State** Illinois Environmental Protection Agency (IEPA)

## National Priorities List (NPL) Status

A score of 35.2 was recorded on 01-MAR-89.

**Final RA(C) Completion Date:** 202003

**Date for NPL Deletion:** TBD

## Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

RAB established 1995

## Installation Program Summaries

### IRP

**Primary Contaminants of Concern:** Explosives, Metals, Munitions and explosives of concern (MEC), Semi-volatiles (SVOC), Volatiles (VOC)

**Affected Media of Concern:** Groundwater, Soil

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## Installation Information

### MMRP

**Primary Contaminants of Concern:** Munitions and explosives of concern (MEC)

**Affected Media of Concern:** Soil



# Cleanup Program Summary

## Installation Historic Activity

The JOAAP was constructed in the early-1940s. It originally consisted of the Kankakee ordnance works and the Elwood ordnance plant and was located in southwestern Will County, Illinois. The installation originally encompassed approximately 36,000 acres that were divided by Illinois Route 53. Approximately 13,000 acres were excessed and disposed of in the early-1960s. The eastern side of the plant was used to LAP bombs, shells, mines, and supplementary charges, and was known as the LAP area. The western side of the plant was equipped to produce explosives such as TNT, DNT, tetryl, and constituent chemicals and was known as the manufacturing area.

In the past, production output at JOAAP varied as the demand for munitions fluctuated. The plant was used extensively during World War II. Production was reactivated in support of the conflicts in Korea and Vietnam. No production has occurred since 1977. During times of inactivity, many areas and facilities were leased out for commercial operations. The JOAAP is now a US Army-owned industrial facility that is excess property and is completely inactive.

In accordance with the Illinois Land Conservation Act of 1995, P.L. 104-106, Div. B, Title 2901-2932, Feb. 10, 1996, the US Army will transfer the remaining 23,544 acres of land at JOAAP to various federal, local, and state jurisdictions. In 1997, approximately 982 acres were transferred to the Department of Veterans' Affairs (VA) to establish a veterans' cemetery; in 2002 455 acres were transferred to Will County, Illinois to establish the Will County Landfill (WCLF). Approximately 19,100 acres will be transferred to the US Department of Agriculture (USDA) to establish the Midewin National Tallgrass Prairie. To date, 17,620 acres of the total have been conveyed to the USDA. Approximately 3,000 acres will be transferred to the state of Illinois to establish two industrial parks. To date, transference of 2,935 acres to the state of Illinois has been completed. A total of 22,767 acres (approximately 94 percent) have been disposed.

The second five-year review under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) was completed in 2009.

## Installation Program Cleanup Progress

### IRP

**Prior Year Progress:** Long-term management (LTM) and RA(O) continued in fiscal year (FY)15. A five-year review is underway.

**Future Plan of Action:** RA(O) and LTM will continue.

### MMRP

**Prior Year Progress:** For sites JAAP-001-R-01, JAAP-002-R-01, and JAAP-004-R-01, the remedial investigation (RI) is underway. The work plan for the TCR for JAAP-001-R-03 is underway.

**Future Plan of Action:** LTM will continue for JAAP-001-R-01, JAAP-002-R-01, and JAAP-004-R-01. Removal of the L3 capped area (JAAP-001-R-03) will occur.

# 5-Year / Periodic Review Summary

## 5-Year / Periodic Review Summary

Status	Begin Date	End Date	End FY
Complete	200310	200406	2004
Complete	200810	200910	2010
Underway	201210	201509	2015

## Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
ROD (1998) for Joliet AAP	JAAP-001, JAAP-002, JAAP-003, JAAP-004, JAAP-005, JAAP-006, JAAP-007, JAAP-008, JAAP-009, JAAP-010, JAAP-011, JAAP-012, JAAP-013, JAAP-014, JAAP-015, JAAP-016, JAAP-017, JAAP-018, JAAP-0L1, JAAP-0L2, JAAP-0L3, JAAP-0L4, JAAP-0L5, JAAP-0L6, JAAP-0L7, JAAP-0L8, JAAP-0L9, JAAP-GWM, JAAP-L10, JAAP-L11, JAAP-L12, JAAP-L13, JAAP-L14, JAAP-L15, JAAP-L16, JAAP-L17, JAAP-L18, JAAP-L19, JAAP-L20, JAAP-L21, JAAP-L22, JAAP-L23, JAAP-L24, JAAP-L25, JAAP-L26, JAAP-L27, JAAP-L28, JAAP-L29, JAAP-L30, JAAP-L31, JAAP-L32, JAAP-L33, JAAP-L34, JAAP-L35

**Results** The final remedy for groundwater (monitored natural attenuation) is protective and is complying with the ROD. Exposure pathways are being controlled and ICs are preventing exposure to contaminated groundwater.

**Actions** Improve maintenance of the monitoring network, provide better communications and better recordkeeping for verifying ICs on transferred property.

**Plans** Repair and maintain well pads, repair well casings, install new locks, sample monitoring well MW361R at Site M8 for sulfate, verify whether additional sampling is required at MW124, notify property owners of ICs and document this (2009-2010).

### Recommendations and Implementation Plans:

This is the second five-year review report for the groundwater operable unit (OU) at JOAAP. The selected remedy for groundwater was monitored natural attenuation (MNA) and institutional controls (IC) within designated groundwater management zones (GMZ). Compounds of concern include explosives, volatile organic compounds (VOC), sulfate and metals.

Current monitoring data indicate that the remedy is functioning as required and is expected to be protective of human health and the environment. Plumes are expected to remain within the GMZs. Long-term protectiveness of the RA will be verified by long-term monitoring.

Detailed issues, recommendations, and follow-up actions include the following:

- LTM contractor maintained well pads as needed since five-year review.
- LTM contractor repaired well casings at MW410, MW411, and MW159 and installed new locks at MW410, MW411, MW803 and MW805.
- LTM contractor sampled monitoring well MW361R at site M8 for sulfate.
- Additional sampling was completed as required at MW124 (site M7).
- Soil and groundwater OUs will be combined for the next five-year review.

Additional five-year review findings included the following:

- Notified property owners in areas subject to ICs to ensure and document that they are aware of the environmental condition of property, ICs, and of the duties and obligations imposed by the memorandum of agreement. Owners should provide

## 5-Year / Periodic Review Summary

### **Recommendations and Implementation Plans:**

documentation to the Army to verify that they understand and comply with the ICs and deed restrictions placed on their property. This program was begun in and the first summary report has been produced in 2013. This action will continue under JAAP-GWM.

- Analyze metals. Groundwater at sites L2 and L3 had not been monitored for metals since 2003. Metals were added to the sampling in the subsequent semiannual sampling event and continue at L3 but were determined to be unnecessary at L2.

## Land Use Control (LUC) Summary

**LUC title:** EBA LUC

**Site(s):** JAAP-001-R-02

**ROD/DD title:** Expanded Buffer Area DD

**Location of LUC**

EBA around the L2-L3 OB/OD Area

**Land Use Restriction:** Media specific restriction - Prohibit, or otherwise manage excavation, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Signs

**Types of Institutional Controls:** Deed Notices, Deed Restrictions

**Date in Place:** 201810

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Other Federal Agency

**Record of LUC:** ECOP (Fed to Fed)

**Documentation Date:** 201810

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Transferee Reporting

**Contaminants:** Unexploded Ordnance(UXO)

**Additional Information**

N/A

**LUC title:** L2-L3 Buffer MR LUCs

**Site(s):** JAAP-001-R-01, JAAP-002-R-01

**ROD/DD title:** DD for 001R01, 002R01, and 004R01

**Location of LUC**

L2 and L3 original buffer area

**Land Use Restriction:** Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Deed Restrictions, Restrictions on land use

**Date in Place:** 201610

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Other Federal Agency

**Record of LUC:** ECOP (Fed to Fed)

**Documentation Date:** 201612

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Transferee Reporting

**Contaminants:** Unexploded Ordnance(UXO)

**Additional Information**

N/A

**LUC title:** Land and GW Restriction

## Land Use Control (LUC) Summary

**Site(s):** JAAP-001, JAAP-002, JAAP-003, JAAP-004, JAAP-005, JAAP-006, JAAP-007, JAAP-008, JAAP-009, JAAP-010, JAAP-011, JAAP-012, JAAP-013, JAAP-014, JAAP-015, JAAP-016, JAAP-017, JAAP-018, JAAP-0L1, JAAP-0L2, JAAP-0L3, JAAP-0L4, JAAP-0L5, JAAP-0L6, JAAP-0L7, JAAP-0L8, JAAP-0L9, JAAP-GWM, JAAP-L10, JAAP-L11, JAAP-L12, JAAP-L13, JAAP-L14, JAAP-L15, JAAP-L16, JAAP-L17, JAAP-L18, JAAP-L19, JAAP-L20, JAAP-L21, JAAP-L22, JAAP-L23, JAAP-L24, JAAP-L25, JAAP-L26, JAAP-L27, JAAP-L28, JAAP-L29, JAAP-L30, JAAP-L33, JAAP-L34, JAAP-L35

**ROD/DD title:** ROD (1998) for Joliet AAP

### Location of LUC

Entire former installation for land re-use. Within ROD-defined Groundwater Management Zones for GW.

**Land Use Restriction:** Media specific restriction - Prohibit groundwater extraction that interferes with Remedial Action system, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No residential use

**Types of Engineering Controls:** None

**Types of Institutional Controls:** Affirmative covenants, Deed Notices, Deed Restrictions, Fed to Fed Transfer Agreement, Restrictions on land use

**Date in Place:** 199810

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** Installation

**Record of LUC:** ECOP (Fed to Fed)

**Documentation Date:** 199810

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Transferee Reporting

**Contaminants:** METALS, NITROAROMATICS, ORGANICS

### Additional Information

N/A

## Summary of Parcel Prioritization and Transfer Strategy

**Parcel Name: JADA 8**

**Parcel Size:** 19.00

**Associated Sites:** JAAP-013

**Transfer Date:** 201009

**Current Land Use:** N/A

**Future Land Use:** N/A

**Encumbrances:** N/A

**Leases/Permits/Licenses:** N/A

**Transfer Strategy:** Special Legislation

**Recipient Organization:** State of Illinois (JADA)

**Other Issues Affecting Transfer:**N/A

**Parcel Name: USDA 7**

**Parcel Size:** 442.00

**Associated Sites:** JAAP-GWM

**Transfer Date:** 200909

**Current Land Use:** N/A

**Future Land Use:** N/A

**Encumbrances:** N/A

**Leases/Permits/Licenses:** N/A

**Transfer Strategy:** Transfer to Other Federal Agencies

**Recipient Organization:** USDA Forest service

**Other Issues Affecting Transfer:**N/A

**Parcel Name: USDA 8**

**Parcel Size:** 423.00

**Associated Sites:** JAAP-GWM, JAAP-011, JAAP-0L3

**Transfer Date:** 201009

**Current Land Use:** N/A

**Future Land Use:** N/A

**Encumbrances:** N/A

**Leases/Permits/Licenses:** N/A

**Transfer Strategy:** Transfer to Other Federal Agencies

**Recipient Organization:** USDA Forest Service

**Other Issues Affecting Transfer:**N/A

**JOLIET AAP**  
**Non-BRAC Excess**  
**Installation Restoration Program**

# IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 55/42

## Installation Site Types with Future and/or Underway Phases

- 1 Burn Area  
(JAAP-0L2)
- 1 Contaminated Buildings  
(JAAP-008)
- 1 Contaminated Ground Water  
(JAAP-GWM)
- 1 Contaminated Sediments  
(JAAP-006)
- 5 Landfill  
(JAAP-001, JAAP-009, JAAP-011, JAAP-013, JAAP-0L3)
- 2 Spill Site Area  
(JAAP-005, JAAP-L14)
- 1 Surface Disposal Area  
(JAAP-0L1)
- 1 Surface Impoundment/Lagoon  
(JAAP-007)

## Most Widespread Contaminants of Concern

Explosives, Metals, Munitions and explosives of concern (MEC), Semi-volatiles (SVOC), Volatiles (VOC)

## Media of Concern

Groundwater, Soil

## Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
JAAP-001	SOUTHERN ASH PILE	IRA	CAPPING	1994	TBD
JAAP-007	M7 - RED WATER AREA SOUTH OF TNT DITCH	IRA	CAPPING	1994	TBD
JAAP-009	NORTHERN ASH PILE	IRA	CAPPING	1994	TBD
JAAP-011	M11 LANDFILL	IRA	CAPPING	1994	TBD
JAAP-L21	SANITARY LANDFILL	IRA	CAPPING	1994	TBD
JAAP-008	ACID MANUFACTURING AREA	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1996	TBD
JAAP-001	SOUTHERN ASH PILE	IRA	CAPPING	1997	TBD
JAAP-006	M6 TNT DITCH COMPLEX	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1997	TBD
JAAP-0L2	EXPLOSIVE BURNING GROUND	IRA	WASTE REMOVAL - SOILS	1997	TBD
JAAP-0L3	DEMO AREA	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1997	TBD
JAAP-0L6	GROUP 70 - MOTOR POOL	FRA	WASTE REMOVAL - SOILS	1998	TBD
JAAP-005	M5 - TETRYL PRODUCTION AREA	FRA	WASTE REMOVAL - SOILS	1999	TBD
JAAP-005	M5 - TETRYL PRODUCTION AREA	FRA	INSTITUTIONAL CONTROLS	1999	TBD
JAAP-008	ACID MANUFACTURING AREA	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	1999	TBD
JAAP-010	TOLUENE TANK FARMS (3)	FRA	NATURAL ATTENUATION	1999	TBD
JAAP-0L1	GROUP 61 TNT - RIDGE & FURROW SYSTEM	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-0L7	GROUP 1	FRA	WASTE REMOVAL - SOILS	2000	TBD



## IRP Summary

### Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
JAAP-0L8	GROUP 2	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-0L9	GROUP 3	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-GWM	INSTALLATION-WIDE LTM	FRA	NATURAL ATTENUATION	2000	TBD
JAAP-L10	GROUP 3A	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-L11	TEST SITE	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-L17	GROUP 7	FRA	WASTE REMOVAL - SOILS	2000	TBD
JAAP-007	M7 - RED WATER AREA SOUTH OF TNT DITCH	FRA	INSTITUTIONAL CONTROLS	2002	TBD
JAAP-007	M7 - RED WATER AREA SOUTH OF TNT DITCH	FRA	WASTE REMOVAL - SOILS	2002	TBD
JAAP-L16	GROUP 6	FRA	WASTE REMOVAL - SOILS	2003	TBD
JAAP-006	M6 TNT DITCH COMPLEX	FRA	WASTE REMOVAL - SOILS	2005	TBD
JAAP-006	M6 TNT DITCH COMPLEX	FRA	INSTITUTIONAL CONTROLS	2005	TBD
JAAP-0L1	GROUP 61 TNT - RIDGE & FURROW SYSTEM	FRA	INSTITUTIONAL CONTROLS	2006	TBD
JAAP-0L1	GROUP 61 TNT - RIDGE & FURROW SYSTEM	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-0L7	GROUP 1	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-0L8	GROUP 2	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-0L9	GROUP 3	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-L10	GROUP 3A	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-L14	GROUP 4 - FUSE PRODUCTION	FRA	WASTE REMOVAL - SOILS	2006	TBD
JAAP-001	SOUTHERN ASH PILE	FRA	WASTE REMOVAL - SOLIDS (NON- SOILS)	2007	TBD
JAAP-001	SOUTHERN ASH PILE	FRA	CAPPING	2007	TBD
JAAP-003	FLASHING GROUNDS	FRA	WASTE REMOVAL - SOILS	2007	TBD
JAAP-004	LEAD AZIDE AREA	FRA	BIOREMEDIATION	2007	TBD
JAAP-004	LEAD AZIDE AREA	FRA	WASTE REMOVAL - SOILS	2007	TBD
JAAP-009	NORTHERN ASH PILE	FRA	DRAINAGE CONTROLS	2007	TBD
JAAP-009	NORTHERN ASH PILE	FRA	REMOVAL	2007	TBD
JAAP-011	M11 LANDFILL	FRA	INSTITUTIONAL CONTROLS	2007	TBD
JAAP-013	M13 GRAVEL/EXCAVATION PITS	FRA	INSTITUTIONAL CONTROLS	2007	TBD
JAAP-0L3	DEMO AREA	FRA	WASTE REMOVAL - SOILS	2008	TBD
JAAP-0L3	DEMO AREA	FRA	CAPPING	2008	TBD
JAAP-0L3	DEMO AREA	FRA	INSTITUTIONAL CONTROLS	2008	TBD
PBC at Joliet	PBC	FRA	OTHER	2010	TBD

#### Duration of IRP

Year of IRP Inception: 198711

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201003/205909

Date of IRP completion including Long Term Management (LTM): 205909

# IRP Contamination Assessment

## Contamination Assessment Overview

The main concerns of the Installation Restoration Program (IRP) have been contamination of soils and groundwater by explosives and metals. There has been no migration of contamination off-post.

Contaminants at the installation include waste products from the production of sulfuric and nitric acids, sodium sulfite, TNT, DNT, tetryl, cyclotrimethylenetrinitramine (RDX), metals, VOCs, SVOCs, and polychlorinated biphenyls (PCB).

The goal of the overall cleanup activities at JOAAP is to eliminate or reduce the levels of contaminants to concentrations that are protective to human health and the environment, such that unacceptable health effects or ecological impacts will not result from future uses of the JOAAP property.

The JOAAP IRP began at the time of the installation assessment in 1978 when a records search was conducted to identify past contamination and to assess the potential for contaminant migration, if any, beyond the installation boundary.

In July 1987 the manufacturing area was placed on the NPL with a hazard ranking score (HRS) of 32.08. In March 1989 the LAP area was placed on the NPL with an HRS of 35.23. In June 1989 the US Army, the USEPA Region V, and the IEPA signed a federal facility agreement (FFA).

Of the 53 sites originally identified for study in the early investigations, 27 were recommended for RA in the feasibility study (FS) completed in late-1997. The other 26 were found to meet the requirements that allowed them to be recommended for no further action (NFA). Currently, three sites have RIP with LTM, and 24 sites are RC.

In November 1998 the record of decision (ROD) was finalized, with the exception of certain soil issues on USDA land. The ROD specifies RAs such as bioremediation, waste removal, source removal, and capping for contaminated soils. The ROD specified natural attenuation with ICs for groundwater because some contaminant concentrations exceed safe levels, specifically at sites JAAP-001, JAAP-003, JAAP-005, JAAP-006, JAAP-007, JAAP-008, JAAP-0L1, JAAP-0L2, JAAP-0L3, and JAAP-L14.

In 1998, based upon concerns raised by USDA and other stakeholders, the US Army, the USEPA, and the IEPA agreed to reevaluate the risk to human and ecological receptors. In 1999 multi-agency work groups were formed to evaluate these risks, and in 2000 they recommended preliminary remediation goals. These goals were evaluated by a multiagency management group.

Appropriate final remedial actions (FRA) for USDA soils were developed, evaluated, and selected in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). A 2004 final ROD addresses the interim USDA soil component. All other decisions within this document are considered final.

Since finalizing the 2004 ROD, the following sites have reached RIP/RC for prairie use:

JAAP-0L1, JAAP-0L2, JAAP-0L5, JAAP-0L7, JAAP-0L8, JAAP-0L9, JAAP-L10, JAAP-L14, JAAP-L23A, JAAP-M02, JAAP-M03, JAAP-M04, JAAP-M12.

## Cleanup Exit Strategy

LTM and five-year reviews will continue at sites where required. LTM optimization and ramp-down will occur where practical.

## IRP Previous Studies

Year	Title	Author	Date
1978	Installation Assessment	Office of the Project Manager for Chemical Demilitarization and Installation Restoration	SEP-1978
1982	Installation Restoration Survey	Donohue and Associates	NOV-1982
1983	JAAP Phase II Technical Report: TNT Ditch Complex, Red Water Area, Explosive Burning Grounds, Group 61	Donohue and Associates	AUG-1983
	JAAP Phase II: Technical Report, Excessing Parcels	Donohue and Associates	AUG-1983
1985	JAAP Red Water Lagoon Sampling and Analysis, Remedial Action	Donohue and Associates	OCT-1985
1986	Midwest Site Confirmatory Survey, Sampling Report, Round 1	Dames and Moore	AUG-1986
	Midwest Site Confirmatory Survey, Sampling Report, Round 2	Dames and Moore	SEP-1986
	Midwest Site Confirmatory Survey Assessment Report	Dames and Moore	NOV-1986
1989	Assessment Report, PCB Spill Area, Group 70, LAP Area	Dames and Moore	FEB-1989
1990	Phase I Results Report, Remedial Investigation, Manufacturing Area	Dames and Moore	SEP-1990
1993	Phase II Remedial Investigation Report, Manufacturing Area	Dames and Moore	MAY-1993
	Phase I Remedial Investigation Results Report, LAP Area	Dames and Moore	JUL-1993
1994	Baseline Risk Assessment (Final), RI/FS, Manufacturing Area	Dames and Moore	MAR-1994
	Health Risk Assessment for Consumption of Deer Muscle and Liver from JAAP, (Final)	US Army Environmental Hygiene Agency	JUN-1994
	Phase I Ecological Risk Assessment (Final)	US Army Environmental Hygiene Agency	NOV-1994
	Phase II Aquatic Ecological Risk Assessment	US Army Environmental Hygiene Agency	NOV-1994
	Phase II Remedial Investigation (Final), LAP Area	Dames and Moore	NOV-1994
1995	Baseline Risk Assessment (Final), RI/FS, LAP Area	Dames and Moore	FEB-1995
	Baseline Risk Assessment (Final), RI/FS, LAP Area	Dames and Moore	APR-1995
1996	JAAP Preliminary Remediation Goals	OHM Remediation Services Corp.	APR-1996
1997			

## IRP Previous Studies

	Title	Author	Date
<b>1997</b>	Phase II, Aquatic Ecological Risk Assessment	USACHPPM	JAN-1997
	Project Management Plan for the Environmental Removal Action, L6/Group 70	IT Corporation	AUG-1997
	Feasibility Study, Groundwater Operable Unit, LAP Area	Dames and Moore	AUG-1997
	Feasibility Study, Groundwater Operable Unit, Manufacturing Area	OHM Corporation, Inc.	SEP-1997
	Final Feasibility Study Report, LAP Area, Soil Operable Units and Groundwater Operable Units	Dames and Moore	SEP-1997
	Final Feasibility Study Report, Mfg Area, Soil Operable Units and Groundwater Operable Units	OHM Corporation, Inc.	SEP-1997
	Proposed Plans for the Groundwater Operable Unit and the Soil Operable Unit for JOAAP	US Army	DEC-1997
<b>1998</b>	Record of Decision, Soil and Groundwater Operable Units, Manufacturing and Load-Assembly-Package Areas	US Army	NOV-1998
<b>1999</b>	Final RD/RA Work Plan for Groundwater and Soil	MWH	DEC-1999
<b>2000</b>	Final Closure Report - Site M5	MWH	SEP-2000
	Prairie Worker and Ecological PRG Reports	Human Health Workgroup	SEP-2000
<b>2001</b>	Final Ordnance Removal and Site Characterization	US Army Engineering and Support Center	SEP-2001
<b>2004</b>	Final Feasibility Study	US Army Corps of Engineers, Louisville District	FEB-2004
	Proposed Plan for the Soil Operable Unit, Interim Sites	US Army	MAR-2004
	5-Year Review, Soil & GW	MWH	APR-2004
	Final Record of Decision for SOU, Interim Sites	US Army	JUN-2004
<b>2005</b>	Final Project Management Plan, PBC	MKM	JUN-2005
	Final Quality Control Plan, PBC	MKM	AUG-2005
	Final Accident Prevention Plan, PBC	MKM	AUG-2005
	Final Site M9 Work Plan	MKM	SEP-2005
	Final LTM/LTO Plan, PBC	MKM	SEP-2005
	Final RD/RA Work Plan, Interim Sites	MWH	OCT-2005
	Final Site L4 Work Plan	MKM	NOV-2005
<b>2006</b>	Final Closure Report - Site M6	MWH	JAN-2006
	Final Treatment Report - Tetryl Soils	MWH	MAY-2006
	Final M6 Closure Report	MWH	JUN-2006

## IRP Previous Studies

	Title	Author	Date
<b>2006</b>	Final Closure Report - Sites L1, L7, L8, L9, L10, L14, and M2	MWH	AUG-2006
<b>2007</b>	Final Remedial Action Completion Report - L4 Landfill	MKM	APR-2007
	Final M9 RIP Report	MKM	SEP-2007
	Final Remedial Action Completion Report - M9 North Ashpile	MKM	SEP-2007
<b>2008</b>			
<b>2009</b>	Final Historical Records Review Addendum, Joliet Army Ammunition Plant, Wilmington, Illinois	Malcolm Pirnie, Inc.	NOV-2008
	Final M11 RIP Report	MKM	MAR-2009
	Final M13 RIP Report	MKM	MAY-2009
	Final 5YR Review Groundwater OU	Aerostar	AUG-2009
	Final 5YR Review Soil OU	Aerostar	AUG-2009
	M13 RIP Report	MKM	SEP-2009
	L2/L3/L23A/M3/M4/M12 Closure Report	MWH	OCT-2009
<b>2010</b>			
	Final L3 Closure Rpt	MWH	JUN-2010
	Final Bioremediation Report	MWH	JUL-2010
<b>2011</b>			
	Final 2009 Semi-annual GW Monitoring Report	Toltest	SEP-2011
	2009 Final Annual GW Monitoring Report	Toltest	SEP-2011
	Final 2010 Semi-annual GW Monitoring Report	Toltest	DEC-2011
<b>2012</b>			
	Final 2010 Annual GW Monitoring Report	Toltest	MAY-2012
	Final 2011 Semi-Annual GW Monitoring Report	Toltest	JUN-2012
<b>2013</b>			
	2011 Annual GW Monitoring Report	Toltest	MAR-2013
	2012 Annual GW Monitoring Report	Toltest	OCT-2013
	Site-wide Deed Restriction report	Toltest	NOV-2013
<b>2014</b>			
	2013 Semi Annual GW Monitoring Report	Toltest	APR-2014

**JOLIET AAP**  
**Non-BRAC Excess**  
**Installation Restoration Program**  
**Site Descriptions**

**Site ID: JAAP-001**

**Site Name: SOUTHERN ASH PILE**

## STATUS

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** LOW

**Contaminants of Concern:** Explosives, Metals, Other (Sulfates)

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198712.....	198803
RI/FS.....	199001.....	199710
RD.....	199806.....	199906
IRA.....	198711.....	199704
RA(C).....	199904.....	200709
RA(O).....	200709.....	204509

**RIP Date:** 200709

**RC Date:** 204509

## SITE DESCRIPTION

The Southern Ash Pile site covers an area of approximately 50 acres, though the pile itself covers about eight acres. This is in the southwestern corner of the manufacturing area. The pile contains the solid residue from the incineration of red water and is comprised primarily of inorganic salts, mostly sodium sulfate. The pile was completed and initially capped in 1976. The cap has been repaired twice due to settling which caused breaching of the cap. A flexible membrane cap was installed in 1996, and then replaced in 1999.

Both groundwater and surface water have been impacted by past discharges. A GMZ and remedial goals were established in the 1998 ROD and the GMZ was revised in FY03.

This site is part of Soil Remediation Unit (SRU) 6 for landfills. The landfill cap was removed and contents (approximately 326,000 cubic yards (cy)) were excavated in 2007 and disposed at the WCLF.

The cost of groundwater RA(O) monitoring is tracked under site JAAP-GWM.

This site is intended to be transferred to the USDA.

## CLEANUP/EXIT STRATEGY

Groundwater monitoring, funded under the JAAP-GWM site, will continue.

**Site ID: JAAP-005**

**Site Name: M5 - TETRYL PRODUCTION AREA**

## STATUS

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

**Contaminants of Concern:** Explosives

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198712.....	199710
RD.....	199806.....	199906
RA(C).....	199907.....	199909
LTM.....	199909.....	204509

**RIP Date:** N/A

**RC Date:** 199909

## SITE DESCRIPTION

The final 1998 ROD established GMZ and remedial goals. The property was transferred to state of Illinois for industrial park in 2001.

Soils contaminated with explosives (5,900 cy) were removed in September 1999 and taken to JAAP-004 for remediation. No further remedial action is required.

The remedial goals for the site have been met and a closure document was submitted in FY15.

## CLEANUP/EXIT STRATEGY

LTM, including LUC monitoring and five-year reviews, is funded under the JAAP-GWM site and will continue.



**Site ID: JAAP-006**

**Site Name: M6 TNT DITCH COMPLEX**

## STATUS

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

**Contaminants of Concern:** Explosives, Metals

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198712.....	199710
RD.....	199806.....	199906
IRA.....	199606.....	199708
RA(C).....	199606.....	200509
RA(O).....	200509.....	205909

**RIP Date:** 200509

**RC Date:** 205909

## SITE DESCRIPTION

The final 1998 ROD established GMZ and remedial goals.

The property has been transferred to the state of Illinois for an industrial park.

Soils with explosives (estimated 175,000 cy) were removed and taken to site JAAP-004 for remediation.

## CLEANUP/EXIT STRATEGY

Groundwater monitoring, funded under the JAAP-GWM site, will continue.

**Site ID: JAAP-007**

**Site Name: M7 - RED WATER AREA SOUTH OF TNT DITCH**

## STATUS

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

**Contaminants of Concern:** Explosives

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198912.....	199710
RD.....	199806.....	199906
IRA.....	198711.....	199311
RA(C).....	200104.....	200112
RA(O).....	200201.....	202509

**RIP Date:** 200201

**RC Date:** 202509

## SITE DESCRIPTION

The final 1998 ROD established GMZ and remedial goals.

The property was transferred to the state of Illinois for industrial park.

The redwater lagoon was remediated in 1985. Explosive soils in the TNT ditch and redwater treatment area (16,000 cy) were removed and taken to site JAAP-004 for bioremediation in 2001.

## CLEANUP/EXIT STRATEGY

Groundwater monitoring and five-year reviews will continue.

**Site ID: JAAP-008**  
**Site Name: ACID MANUFACTURING AREA**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** LOW

**Contaminants of Concern:** Explosives, Semi-volatiles (SVOC)

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198803.....	199710
RD.....	199806.....	199906
IRA.....	199606.....	199608
RA(C).....	199606.....	199907
LTM.....	200001.....	204509

**RIP Date:** N/A

**RC Date:** 199912

**SITE DESCRIPTION**

The 1998 final ROD established a GMZ and remedial goals. Sulfur was removed in 1999. The property was transferred to the state of Illinois for an industrial park on Aug. 10, 2000. Four wells were monitored semiannually.

**CLEANUP/EXIT STRATEGY**

Groundwater monitoring and five-year reviews will continue.

**Site ID: JAAP-009**

**Site Name: NORTHERN ASH PILE**

## STATUS

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** LOW

**Contaminants of Concern:** Other (Sulfate)

**Media of Concern:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198803.....	199710
RD.....	199806.....	199907
IRA.....	198711.....	199311
RA(C).....	199904.....	200709
LTM.....	200709.....	204509

**RIP Date:** N/A

**RC Date:** 200709

## SITE DESCRIPTION

Northern Ash Pile is approximately 6 acres in the north end of the manufacturing area. The contents are very similar to the Southern Ash Pile (JAAP-001), but this area was first capped in 1968.

As a result of erosion, the site was recapped in 1985 with an additional 12 inches of clay and 6 inches of topsoil. The cap was repaired in 1993, and a leachate control system was installed in 1999. In 2001, as part of a maintenance action, the cap drainage was improved by increasing grade (mixture of clay and treated soil from the biotreatment facility).

This property will be transferred to the state of Illinois. It is part of SRU6 (landfills).

In early 2006, the site was excavated (50,535 cy), disposed at WCLF (Prairie View) and re-graded using biotreated soils.

## CLEANUP/EXIT STRATEGY

Groundwater monitoring and five-year reviews will continue.

**Site ID: JAAP-011**  
**Site Name: M11 LANDFILL**

**STATUS**

**Parcel:** USDA 8 (423 acres)

**Regulatory Driver:** CERCLA

**RRSE:** LOW

**Contaminants of Concern:** Metals

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198803.....	199710
RD.....	199806.....	199906
IRA.....	198711.....	199311
RA(C).....	200409.....	200709
LTM.....	200709.....	203709

**RIP Date:** N/A

**RC Date:** 200709

**SITE DESCRIPTION**

The original study site covered 100 acres in the southwestern portion of the manufacturing area. The area was mined for gravel and it later received a variety of wastes. The landfill area of approximately 20 acres was used from 1952 to 1978 and contains mostly construction debris. Manganese and sulfate waste pose a risk to the groundwater.

The consolidation of site debris resulted in capping about 11 acres of the site. It is part of SRU 6 (landfills). In 2007 construction of a Resource Conservation and Recovery Act (RCRA) Subtitle D cap was begun and was completed in 2008.

Per Illinois (IL) Administrative Code, 30 years of monitoring is required for the landfill.

The remaining 89 acres are managed as tall grass prairie and LUCs are reported annual by the USDA.

89 acres have been transferred to the USDA; the 11-acre landfill area is intended to be transferred to the USDA.

Costs associated with LTM are tracked under site JAAP-GWM.

**CLEANUP/EXIT STRATEGY**

LTM (including groundwater monitoring, cap maintenance, and LUCs) is funded under site JAAP-GWM.

LTM will continue for a fixed 30 years after the 2008 cap installation based on the 1998 ROD.

**Site ID: JAAP-013**  
**Site Name: M13 GRAVEL/EXCAVATION PITS**

**STATUS**

**Parcel:** JADA 8 (19 acres)

**Regulatory Driver:** CERCLA

**RRSE:** LOW

Contaminants of Concern: Metals, Semi-volatiles (SVOC)

Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	198803.....	199710
RD.....	199806.....	199906
RA(C).....	200409.....	200709
<b>LTM.....</b>	<b>200709.....</b>	<b>202209</b>

**RIP Date:** N/A

**RC Date:** 200709

**SITE DESCRIPTION**

This area totals 130 acres in the central portion of the manufacturing area and contains four pits that were originally mined for gravel. Later, the unused pits received various disposals. Thirteen acres required a RCRA Subtitle D cap. The soil is contaminated with metals and SVOCs.

The site is part of SRU6 (landfills). In 2007, construction of a RCRA Subtitle D cap was begun and was completed in 2008. In August 2000 the acreage outside of the landfill area was transferred to the state of IL. The 13-acre landfill area will be transferred to the state.

Soils- 117 acres were part of the 1998 ROD for soils. All remedial goals have been met. Industrial use continues at the site. LUCs will be covered under the site-wide deed restriction verification program (SWDRIP), which is covered under JAAP-GWM.

Groundwater- The groundwater at this site is being monitored for two purposes. Fifteen years of groundwater monitoring is required to show the cap is protective. In addition, groundwater monitoring at this site is ongoing as part of the neighboring JAAP-006 site remediation. Groundwater for this site was covered in the 1998 ROD.

Groundwater costs are covered under JAAP-GWM.

**CLEANUP/EXIT STRATEGY**

LTM costs (including groundwater monitoring, LUCs and cap maintenance) will be captured under site JAAP-GWM.

Landfill post-closure monitoring is necessary for 15 years. However, groundwater monitoring at M13 may be required beyond that date until RGs have been met as part site JAAP-006.

Site ID: JAAP-0L1

## Site Name: GROUP 61 TNT - RIDGE & FURROW SYSTEM

### STATUS

Parcel: NONE

Regulatory Driver: CERCLA

RRSE: HIGH

Contaminants of Concern: Explosives, Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	199001.....	200312
RD.....	199806.....	200506
RA(C).....	199908.....	200606
RA(O).....	200606.....	204509

RIP Date: 200606

RC Date: 204509

### SITE DESCRIPTION

Group 61 is a demilitarization process area that covers 80 acres in the north central portion of the LAP Area and is part of SRU1 for explosives-contaminated soil. The site contains the Ridge-and-Furrow System, where ammunition washout effluent was allowed to evaporate.

This site is intended to be transferred to the USDA.

PCB-contaminated soil (155 cy) was removed in August 1999.

This is a 2004 ROD site for contaminated soil and final remedial goals have been established.

A GMZ and remedial goals were established in the 1998 ROD.

In FY06, approximately 12,000 cy of explosives-contaminated soils was excavated and transported to site JAAP-004 for treatment. Approximately 1,900 cy of TPH-contaminated soils was excavated and transported to site JAAP-004 for treatment.

### CLEANUP/EXIT STRATEGY

Groundwater monitoring, funded under the JAAP-GWM site, will continue.

**Site ID: JAAP-0L2**  
**Site Name: EXPLOSIVE BURNING GROUND**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

**Contaminants of Concern:** Explosives, Metals

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	199001.....	200312
RD.....	199806.....	200506
IRA.....	199606.....	199702
RA(C).....	200504.....	200709
RA(O).....	200709.....	204509

**RIP Date:** 200709

**RC Date:** 204509

**SITE DESCRIPTION**

This site consists of 45 acres in the west central portion of the LAP area. It was used for the open combustion of munitions and explosive wastes. It also contained popping furnaces and oil disposal pits. Soils containing metals near popping furnaces are part of SRU2. Soils around burning pads with explosives and metals are part of SRU3. MEC were found at the site.

A GMZ and remedial goals have been established. This is a 2004 ROD site and final remedial goals have been established for soils. This site is intended to be transferred to the USDA.

Cleanup began in FY06 and was completed in FY07. Approximately 2,400 cy of metals-contaminated soils were excavated and disposed at WCLF. A total of 946 cy of explosives-contaminated soils were excavated and treated at the BTF.

The MEC removal was completed in 2007.

**CLEANUP/EXIT STRATEGY**

Groundwater monitoring, funded under the JAAP-GWM site, will continue.



**Site ID: JAAP-0L3**  
**Site Name: DEMO AREA**

**STATUS**

**Parcel:** USDA 8 (423 acres)

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC)

Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	199001.....	200312
RD.....	199806.....	200506
IRA.....	199610.....	199702
RA(C).....	200410.....	200809
RA(O).....	200809.....	202709

**RIP Date:** 200809

**RC Date:** 202709

**SITE DESCRIPTION**

This site comprises 50 acres in the west central portion of the LAP area. It was used for open combustion of refuse and contained a fire training site. The fire training area and soils east of demolition pits have metals (SRU2). Areas within the berms have metals and explosives (SRU3). Berm soil was capped as part of SRU 6. MEC are present.

In 1997, the site was fenced as part of an IRA. A GMZ has been established. This is a 1998 and 2004 ROD site and final remedial goals have been established for soils. About 3,330 cy of explosives- and metals-contaminated soil was excavated and disposed of at the WCLF. Construction of a seven-acre landfill was completed in 2008. Approximately 28,800 cy of soil and debris were consolidated under the cap.

Soil on the site was addressed under the 2004 ROD. All RGs have been met for soil on this site. Current and anticipated use of the site is tall grass prairie and that use is protective under the RGs. Site restrictions are verified in the annual report provided by the USDA confirming to the Army that deed restrictions are being met.

A landfill was driven by a decision in the 1998 ROD. The solid waste co-mingled with munitions provided an unacceptable risk. The co-mingled waste was consolidated and capped in 2007. The ROD dictates 30 years of groundwater monitoring. The landfill is bound by Prairie Creek on the west. The original bank was designed for a 100-year storm. In 2010 and 2011 large storms compromised the stability of the bank armoring. Approximately 50 percent of the riprap was sent down stream.

Groundwater standards were set by the 1998 ROD. Groundwater RGs for this site have not been met. According to the 2009 five--year review, the anticipated date to meet RGs was 2027. This date was based on RDX concentrations, the slowest to meet RGs.

This site is intended to be transferred to the USDA. The landfill portion of the site was renamed JAAP-001-R-03 due to the munitions present. In FY14, a contract was awarded to deconstruct the landfill. This action is captured under JAAP-001-R-03.

**CLEANUP/EXIT STRATEGY**

Groundwater monitoring, funded under the JAAP-GWM site, will continue.

**Site ID: JAAP-GWM**  
**Site Name: INSTALLATION-WIDE LTM**

**STATUS**

**Parcel:** USDA 8 (423 acres),USDA 7 (442 acres)  
**Regulatory Driver:** CERCLA  
**RRSE:** HIGH  
 Contaminants of Concern: Explosives, Metals, Volatiles (VOC)  
 Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	199806.....	199906
RD.....	199906.....	199912
RA(C).....	199906.....	199912
RA(O).....	200001.....	204509
<b>RIP Date:</b>	200001	
<b>RC Date:</b>	204509	

**SITE DESCRIPTION**

This site was created to address RA(O) and LTM at all JOAAP sites. Installation-wide, five-year reviews for soil and groundwater will be captured under this site. Groundwater monitoring will be conducted at six GMZs (including sites JAAP-0L1, 0L2, 0L3, L14, 001, 005, 006, 007, 008, 009, 011, and 013) and three landfills (JAAP-011, JAAP-013, and JAAP-0L3) as well as the SWDRIP and future five-year reviews.

The groundwater activities are being evaluated to optimize the program.

**CLEANUP/EXIT STRATEGY**

Groundwater monitoring will continue at all sites identified above. Wells not required for monitoring will be properly closed and abandoned. This site will cover all out-year RA(O), LTM, and deed restriction verification activities.

**Site ID: JAAP-L14**  
**Site Name: GROUP 4 - FUSE PRODUCTION**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**RRSE:** HIGH

**Contaminants of Concern:** Explosives

**Media of Concern:** Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	198711.....	198803
SI.....	198711.....	198803
RI/FS.....	199001.....	200312
RD.....	199806.....	200509
RA(C).....	200410.....	200606
RA(O).....	200606.....	202709

**RIP Date:** 200606

**RC Date:** 202709

**SITE DESCRIPTION**

This site is in the southwestern portion of the LAP area and covers approximately 60 acres. This site was part of the fuze and booster area.

A GMZ and remedial goals were established in the 1998 ROD.

This site is intended to be transferred to the USDA.

This site is in the 2004 ROD which established final soil remedial goals.

In FY05, approximately 780 cy of explosives-contaminated soil was excavated and transported to site JAAP-004 for treatment.

**CLEANUP/EXIT STRATEGY**

Groundwater monitoring, funded under the JAAP-GWM site, will continue.

## IRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
JAAP-002	EXPLOSIVE BURNING GROUNDS	200610	Final Closure Report - Sites L1, L7, L8, L9, L10, L14, and M2, October 2006
JAAP-003	FLASHING GROUNDS	200706	Final Closure Report - Sites L2, L5, L23A, M3, M4 and M12. Phase 2 Remedial Action - Soils OU, MWH, October 2009.
JAAP-004	LEAD AZIDE AREA	200712	Final Closure Report - Sites L2, L5, L23A, M3, M4 and M12. Phase 2 Remedial Action - Soils OU, MWH, October 2009.
JAAP-010	TOLUENE TANK FARMS (3)	200004	Final Closure Report - Site M10, JOAAP, March 2003
JAAP-012	SELLITE MANUFACTURING AREA	200706	Final Closure Report - Sites L2, L5, L23A, M3, M4 and M12. Phase 2 Remedial Action - Soils OU, MWH, October 2009.
JAAP-014	FORMER POND AREA	199305	1998 ROD
JAAP-015	FORMER SEWAGE TREATMENT PLANT	199305	1998 ROD
JAAP-016	MOTOR POOL AREA	199305	1998 ROD
JAAP-017	LAUNDRY FACILITY	199305	1998 ROD
JAAP-018	HERBICIDE STORAGE AREA	199305	1998 ROD
JAAP-0L4	L4 LANDFILL AREA	200708	Final Remediation Report for Soil Operable Unit Number 6 - L4 Landfill, MKM Engineers, August 2007.
JAAP-0L5	SALVAGE YARD	200709	Final Closure Report - Sites L2, L5, L23A, M3, M4 and M12. Phase 2 Remedial Action - Soils OU, MWH, October 2009.
JAAP-0L6	GROUP 70 - MOTOR POOL	199711	1998 ROD
JAAP-0L7	GROUP 1	200606	Joliet Army Ammunition Plant; Wilmington, Illinois; Final Closure Report - Sites L1, L7, L8, L10, L14, M2; Phase II Remedial Action; Soils Operable Unit; Revision 1, Montgomery, Watson, Harza, October 2006.
JAAP-0L8	GROUP 2	200606	Joliet Army Ammunition Plant; Wilmington, Illinois; Final Closure Report - Sites L1, L7, L8, L10, L14, M2; Phase II Remedial Action; Soils Operable Unit; Revision 1, Montgomery, Watson, Harza, October 2006.
JAAP-0L9	GROUP 3	200608	Joliet Army Ammunition Plant; Wilmington, Illinois; Final Closure Report - Sites L1, L7, L8, L10, L14, M2; Phase II Remedial Action; Soils

## IRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			Operable Unit; Revision 1, Montgomery, Watson, Harza, October 2006.
JAAP-L10	GROUP 3A	200606	Final Closure Report - Sites L1, L7, L8, L9, L10, L14, M2, October 2006.
JAAP-L11	TEST SITE	199912	Final Closure Report - Sites L11 and L16, December 2003
JAAP-L12	DOYLE LAKE AREA	199412	Final Record of Decision, October 1998
JAAP-L13	GROUP 68	199412	1998 ROD
JAAP-L15	GROUP 5	199604	1998 ROD
JAAP-L16	GROUP 6	200212	Final Closure Report - Site L11, L16, December 2003
JAAP-L17	GROUP 7	199912	Final PCB Sites RA Report, December 2001
JAAP-L18	GROUP 8	199412	1998 ROD
JAAP-L19	GROUP 9	199604	1998 ROD
JAAP-L20	GROUP 20	199412	1998 ROD
JAAP-L21	SANITARY LANDFILL	199412	1998 ROD
JAAP-L22	GROUP 25 RAILROAD CLASSIFICATION YARD	199412	1998 ROD
JAAP-L23	DISPOSAL PIT AT GROUP 27	200706	1998 ROD
JAAP-L24	GROUP 29	199412	1998 ROD
JAAP-L25	GROUP 62	199412	1998 ROD
JAAP-L26	GROUP 63	199412	1998 ROD
JAAP-L27	GROUP 64	199412	1998 ROD
JAAP-L28	GROUP 65	199412	1998 ROD
JAAP-L29	RCRA HAZARDOUS STORAGE (GROUP 66)	199412	1998 ROD
JAAP-L30	GROUP 66A	199412	1998 ROD
JAAP-L31	EXTRACTION PITS	199412	1998 ROD
JAAP-L32	GROUP 60	199510	1998 ROD
JAAP-L33	PVC AREA	199412	1998 ROD
JAAP-L34	FORMER BURNING AREA	199412	1998 ROD
JAAP-L35	FILL AREA	199412	1998 ROD
PBC at Joliet	PBC	201403	All CLINs awarded

# IRP Schedule

Date of IRP Inception: 198711

## Past Phase Completion Milestones

1988

PA (JAAP-001 - SOUTHERN ASH PILE, JAAP-002 - EXPLOSIVE BURNING GROUNDS, JAAP-003 - FLASHING GROUNDS, JAAP-004 - LEAD AZIDE AREA, JAAP-005 - M5 - TETRYL PRODUCTION AREA, JAAP-006 - M6 TNT DITCH COMPLEX, JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH, JAAP-008 - ACID MANUFACTURING AREA, JAAP-009 - NORTHERN ASH PILE, JAAP-010 - TOLUENE TANK FARMS (3), JAAP-011 - M11 LANDFILL, JAAP-012 - SELLITE MANUFACTURING AREA, JAAP-013 - M13 GRAVEL/EXCAVATION PITS, JAAP-014 - FORMER POND AREA, JAAP-015 - FORMER SEWAGE TREATMENT PLANT, JAAP-016 - MOTOR POOL AREA, JAAP-017 - LAUNDRY FACILITY, JAAP-018 - HERBICIDE STORAGE AREA, JAAP-0L1 - GROUP 61 TNT - RIDGE & FURROW SYSTEM, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L3 - DEMO AREA, JAAP-0L4 - L4 LANDFILL AREA, JAAP-0L5 - SALVAGE YARD, JAAP-0L6 - GROUP 70 - MOTOR POOL, JAAP-0L7 - GROUP 1, JAAP-0L8 - GROUP 2, JAAP-0L9 - GROUP 3, JAAP-GWM - INSTALLATION-WIDE LTM, JAAP-L10 - GROUP 3A, JAAP-L11 - TEST SITE, JAAP-L12 - DOYLE LAKE AREA, JAAP-L13 - GROUP 68, JAAP-L14 - GROUP 4 - FUSE PRODUCTION, JAAP-L15 - GROUP 5, JAAP-L16 - GROUP 6, JAAP-L17 - GROUP 7, JAAP-L18 - GROUP 8, JAAP-L19 - GROUP 9, JAAP-L20 - GROUP 20, JAAP-L21 - SANITARY LANDFILL, JAAP-L22 - GROUP 25 RAILROAD CLASSIFICATION YARD, JAAP-L23 - DISPOSAL PIT AT GROUP 27, JAAP-L24 - GROUP 29, JAAP-L25 - GROUP 62, JAAP-L26 - GROUP 63, JAAP-L27 - GROUP 64, JAAP-L28 - GROUP 65, JAAP-L29 - RCRA HAZARDOUS STORAGE (GROUP 66), JAAP-L30 - GROUP 66A, JAAP-L31 - EXTRACTION PITS, JAAP-L32 - GROUP 60, JAAP-L33 - PVC AREA, JAAP-L34 - FORMER BURNING AREA, JAAP-L35 - FILL AREA)

SI (JAAP-001 - SOUTHERN ASH PILE, JAAP-002 - EXPLOSIVE BURNING GROUNDS, JAAP-003 - FLASHING GROUNDS, JAAP-004 - LEAD AZIDE AREA, JAAP-005 - M5 - TETRYL PRODUCTION AREA, JAAP-006 - M6 TNT DITCH COMPLEX, JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH, JAAP-008 - ACID MANUFACTURING AREA, JAAP-009 - NORTHERN ASH PILE, JAAP-010 - TOLUENE TANK FARMS (3), JAAP-011 - M11 LANDFILL, JAAP-012 - SELLITE MANUFACTURING AREA, JAAP-013 - M13 GRAVEL/EXCAVATION PITS, JAAP-014 - FORMER POND AREA, JAAP-015 - FORMER SEWAGE TREATMENT PLANT, JAAP-016 - MOTOR POOL AREA, JAAP-017 - LAUNDRY FACILITY, JAAP-018 - HERBICIDE STORAGE AREA, JAAP-0L1 - GROUP 61 TNT - RIDGE & FURROW SYSTEM, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L3 - DEMO AREA, JAAP-0L4 - L4 LANDFILL AREA, JAAP-0L5 - SALVAGE YARD, JAAP-0L6 - GROUP 70 - MOTOR POOL, JAAP-0L7 - GROUP 1, JAAP-0L8 - GROUP 2, JAAP-0L9 - GROUP 3, JAAP-GWM - INSTALLATION-WIDE LTM, JAAP-L10 - GROUP 3A, JAAP-L11 - TEST SITE, JAAP-L12 - DOYLE LAKE AREA, JAAP-L13 - GROUP 68, JAAP-L14 - GROUP 4 - FUSE PRODUCTION, JAAP-L15 - GROUP 5, JAAP-L16 - GROUP 6, JAAP-L17 - GROUP 7, JAAP-L18 - GROUP 8, JAAP-L19 - GROUP 9, JAAP-L20 - GROUP 20, JAAP-L21 - SANITARY LANDFILL, JAAP-L22 - GROUP 25 RAILROAD CLASSIFICATION YARD, JAAP-L23 - DISPOSAL PIT AT GROUP 27, JAAP-L24 - GROUP 29, JAAP-L25 - GROUP 62, JAAP-L26 - GROUP 63, JAAP-L27 - GROUP 64, JAAP-L28 - GROUP 65, JAAP-L29 - RCRA HAZARDOUS STORAGE (GROUP 66), JAAP-L30 - GROUP 66A, JAAP-L31 - EXTRACTION PITS, JAAP-L32 - GROUP 60, JAAP-L33 - PVC AREA, JAAP-L34 - FORMER BURNING AREA, JAAP-L35 - FILL AREA)

1993

RI/FS (JAAP-014 - FORMER POND AREA, JAAP-015 - FORMER SEWAGE TREATMENT PLANT, JAAP-016 - MOTOR POOL AREA, JAAP-017 - LAUNDRY FACILITY, JAAP-018 - HERBICIDE STORAGE AREA)

1994

IRA (JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH, JAAP-009 - NORTHERN ASH PILE, JAAP-011 - M11 LANDFILL, JAAP-L21 - SANITARY LANDFILL)

1995

## 1995

RI/FS (JAAP-L12 - DOYLE LAKE AREA, JAAP-L13 - GROUP 68, JAAP-L18 - GROUP 8, JAAP-L20 - GROUP 20, JAAP-L21 - SANITARY LANDFILL, JAAP-L22 - GROUP 25 RAILROAD CLASSIFICATION YARD, JAAP-L24 - GROUP 29, JAAP-L25 - GROUP 62, JAAP-L26 - GROUP 63, JAAP-L27 - GROUP 64, JAAP-L28 - GROUP 65, JAAP-L31 - EXTRACTION PITS, JAAP-L29 - RCRA HAZARDOUS STORAGE (GROUP 66), JAAP-L30 - GROUP 66A, JAAP-L33 - PVC AREA, JAAP-L34 - FORMER BURNING AREA, JAAP-L35 - FILL AREA)

## 1996

IRA (JAAP-008 - ACID MANUFACTURING AREA)

RI/FS (JAAP-L15 - GROUP 5, JAAP-L17 - GROUP 7, JAAP-L19 - GROUP 9, JAAP-L32 - GROUP 60)

## 1997

IRA (JAAP-001 - SOUTHERN ASH PILE, JAAP-006 - M6 TNT DITCH COMPLEX, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L3 - DEMO AREA)

RI/FS (JAAP-0L6 - GROUP 70 - MOTOR POOL)

RD (JAAP-0L6 - GROUP 70 - MOTOR POOL)

## 1998

RI/FS (JAAP-001 - SOUTHERN ASH PILE, JAAP-005 - M5 - TETRYL PRODUCTION AREA, JAAP-006 - M6 TNT DITCH COMPLEX, JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH, JAAP-008 - ACID MANUFACTURING AREA, JAAP-009 - NORTHERN ASH PILE, JAAP-010 - TOLUENE TANK FARMS (3), JAAP-011 - M11 LANDFILL, JAAP-013 - M13 GRAVEL/EXCAVATION PITS, JAAP-0L4 - L4 LANDFILL AREA, JAAP-L11 - TEST SITE, JAAP-L16 - GROUP 6)

RA(C) (JAAP-0L6 - GROUP 70 - MOTOR POOL)

## 1999

RI/FS (JAAP-GWM - INSTALLATION-WIDE LTM)

RD (JAAP-001 - SOUTHERN ASH PILE, JAAP-005 - M5 - TETRYL PRODUCTION AREA, JAAP-006 - M6 TNT DITCH COMPLEX, JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH, JAAP-008 - ACID MANUFACTURING AREA, JAAP-009 - NORTHERN ASH PILE, JAAP-010 - TOLUENE TANK FARMS (3), JAAP-011 - M11 LANDFILL, JAAP-013 - M13 GRAVEL/EXCAVATION PITS, JAAP-0L4 - L4 LANDFILL AREA, JAAP-L11 - TEST SITE, JAAP-L16 - GROUP 6, JAAP-L17 - GROUP 7)

RA(C) (JAAP-005 - M5 - TETRYL PRODUCTION AREA, JAAP-008 - ACID MANUFACTURING AREA, JAAP-010 - TOLUENE TANK FARMS (3))

## 2000

LTM (JAAP-010 - TOLUENE TANK FARMS (3))

RA(C) (JAAP-GWM - INSTALLATION-WIDE LTM, JAAP-L11 - TEST SITE, JAAP-L17 - GROUP 7)

RD (JAAP-GWM - INSTALLATION-WIDE LTM)

## 2001

PA (PBC at Joliet - PBC)

## 2002

RA(C) (JAAP-007 - M7 - RED WATER AREA SOUTH OF TNT DITCH)

## 2003

RI/FS (JAAP-0L5 - SALVAGE YARD)

RA(C) (JAAP-L16 - GROUP 6)

## 2004

# IRP Schedule

## 2004

RI/FS (JAAP-002 - EXPLOSIVE BURNING GROUNDS, JAAP-003 - FLASHING GROUNDS, JAAP-004 - LEAD AZIDE AREA, JAAP-012 - SELLITE MANUFACTURING AREA, JAAP-0L1 - GROUP 61 TNT - RIDGE & FURROW SYSTEM, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L3 - DEMO AREA, JAAP-0L7 - GROUP 1, JAAP-0L8 - GROUP 2, JAAP-0L9 - GROUP 3, JAAP-L10 - GROUP 3A, JAAP-L14 - GROUP 4 - FUSE PRODUCTION, JAAP-L23 - DISPOSAL PIT AT GROUP 27)

## 2005

RD (JAAP-002 - EXPLOSIVE BURNING GROUNDS, JAAP-003 - FLASHING GROUNDS, JAAP-004 - LEAD AZIDE AREA, JAAP-012 - SELLITE MANUFACTURING AREA, JAAP-0L1 - GROUP 61 TNT - RIDGE & FURROW SYSTEM, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L3 - DEMO AREA, JAAP-0L5 - SALVAGE YARD, JAAP-0L7 - GROUP 1, JAAP-0L8 - GROUP 2, JAAP-0L9 - GROUP 3, JAAP-L10 - GROUP 3A, JAAP-L14 - GROUP 4 - FUSE PRODUCTION, JAAP-L23 - DISPOSAL PIT AT GROUP 27)

RA(C) (JAAP-006 - M6 TNT DITCH COMPLEX)

## 2006

RA(C) (JAAP-0L1 - GROUP 61 TNT - RIDGE & FURROW SYSTEM, JAAP-0L7 - GROUP 1, JAAP-0L8 - GROUP 2, JAAP-0L9 - GROUP 3, JAAP-L10 - GROUP 3A, JAAP-L14 - GROUP 4 - FUSE PRODUCTION)

## 2007

RA(C) (JAAP-001 - SOUTHERN ASH PILE, JAAP-002 - EXPLOSIVE BURNING GROUNDS, JAAP-003 - FLASHING GROUNDS, JAAP-004 - LEAD AZIDE AREA, JAAP-009 - NORTHERN ASH PILE, JAAP-011 - M11 LANDFILL, JAAP-012 - SELLITE MANUFACTURING AREA, JAAP-013 - M13 GRAVEL/EXCAVATION PITS, JAAP-0L2 - EXPLOSIVE BURNING GROUND, JAAP-0L4 - L4 LANDFILL AREA, JAAP-0L5 - SALVAGE YARD, JAAP-L23 - DISPOSAL PIT AT GROUP 27)

## 2008

RA(O) (JAAP-004 - LEAD AZIDE AREA)

RA(C) (JAAP-0L3 - DEMO AREA)

## 2010

RA(O) (PBC at Joliet - PBC)

RA(C) (PBC at Joliet - PBC)

## 2014

LTM (PBC at Joliet - PBC)

### Projected Phase Completion Milestones

See attached schedule

### Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 201003

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of IRP at Installation (including LTM phase): 205909



## JOLIET AAP IRP Schedule

  = phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-001	SOUTHERN ASH PILE	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-005	M5 - TETRYL PRODUCTION AREA	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-006	M6 TNT DITCH COMPLEX	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-007	M7 - RED WATER AREA SOUTH OF TNT DITCH	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-008	ACID MANUFACTURING AREA	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-009	NORTHERN ASH PILE	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-011	M11 LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-013	M13 GRAVEL/EXCAVATION PITS	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-0L1	GROUP 61 TNT - RIDGE & FURROW SYSTEM	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-0L2	EXPLOSIVE BURNING GROUND	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-0L3	DEMO AREA	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-GWM	INSTALLATION-WIDE LTM	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-L14	GROUP 4 - FUSE PRODUCTION	RA(O)						

**JOLIET AAP**  
**Non-BRAC Excess**  
**Military Munitions Response Program**

# MMRP Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 6/1

**Installation Site Types with Future and/or Underway Phases**

- 3 Burn Area  
(JAAP-001-R-01, JAAP-002-R-01, JAAP-004-R-01)
- 1 Open Burning/Open Detonation (OB/OD)  
(JAAP-001-R-03)
- 1 Unexploded Munitions/Ordnance  
(JAAP-001-R-02)

**Most Widespread Contaminants of Concern**

Munitions and explosives of concern (MEC)

**Media of Concern**

Soil

**Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))**

Site ID	Site Name	Action	Remedy	FY	Cost
JAAP-001-R-01	L3 Buffer Area	IRA	UXO CLEARANCE	2008	TBD
JAAP-001-R-01	L3 Buffer Area	IRA	INSTITUTIONAL CONTROLS	2008	TBD
JAAP-002-R-01	L2 Buffer Area	IRA	INSTITUTIONAL CONTROLS	2008	TBD
JAAP-002-R-01	L2 Buffer Area	IRA	UXO CLEARANCE	2008	TBD
JAAP-004-R-01	FORMER BURNING AREA (L34)	IRA	UXO CLEARANCE	2008	TBD

**Duration of MMRP**

**Year of MMRP Inception:** 200304

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 202003/202003

**Date of MMRP completion including Long Term Management (LTM):** 204909

# MMRP Contamination Assessment

## Contamination Assessment Overview

The main concern of the Military Munitions Response Program (MMRP) is to ensure that the lands are safe for their intended public re-use. The five sites in the program have been transferred or will transfer to the USDA (US Forest Service) and are to be included in the Midewin National Tallgrass Prairie. As such, MEC clearance is required.

All five sites were associated with various OB/OD operations. Sites JAAP-001-R-01, JAAP-001-R-02, and JAAP-002-R-01 are buffer areas around what were active OB/OD grounds. Site JAAP-004-R-01 was a series of burning pads. Site JAAP-001-R-03 is the capped area within L3 and will provide a site for removing the capped area.

The concern at sites JAAP-001-R-01, JAAP-001-R-02, and JAAP-002-R-01 is that burning operations within the active areas may have caused items to be scattered outwardly. This can occur if any munitions pop during the burn causing an adjacent item to become airborne. There is known ordnance scrap in boundary areas.

The concern at JAAP-004-R-01 stems from intact cases of non-metallic ordnance items being located there. Conventional ordnance detection practices may have failed to locate nonmetallic items.

Three of the five sites have undergone and passed investigations that addressed the potential for soil or groundwater contamination.

In September 2002, the closed, transferring, or transferred range inventory was completed.

In May 2005, the site inspection (SI) was completed for JAAP-001-R-01, JAAP-002-R-01, and JAAP-004-R-01. These three sites were recommended for further RA. A contract was awarded and the necessary responses were completed.

JAAP-001-R-02, established in January 2008, is the result of physical observation of MEC beyond the boundaries set for JAAP-001-R-01 and JAAP-002-R-01 during the IRA of those two sites. The SI for JAAP-001-R-02 was completed in fall of 2009. The RI is currently underway for this site.

JAAP-001-R-03 was established in 2011. This site is the capped area within IRP site L3. This site was created to spend MMRP money on just the MEC capped area of L3, therefore, differentiating the fact that the rest of L3 is not in need of attention.

## Cleanup Exit Strategy

JAAP-001-R-02 is expected to require site clearance. LTM and five-year reviews will be performed as required for all MMRP sites.

## MMRP Previous Studies

	Title	Author	Date
2001	Ordnance Removal and Site Characterization (ORSC) Report	US Army Engineering and Support Center	SEP-2001
2002	Final Closed, Transferring and Transferred Range Inventory	e2M	SEP-2002
2005	Final SI, MMRP	e2M	MAY-2005
2008	Final, Historical Records Review Addendum	Malcom Pirnie	NOV-2008
2009	Final Site Inspection Addendum Work Plan	Malcom Pirnie	FEB-2009
	Final Site Inspection Addendum Report	Malcolm Pirnie	SEP-2009
2010	L3 Site Specific Final Report	MKM	MAY-2010
	L2 Site Specific Final Report	MKM	MAY-2010
	L34 Site Specific Final Report	MKM	MAY-2010
2011	MMRP RI Work Plan JOAAP-001-R-02	Advent	NOV-2011

**JOLIET AAP**  
**Non-BRAC Excess**  
**Military Munitions Response Program**  
**Site Descriptions**

**Site ID: JAAP-001-R-01**  
**Site Name: L3 Buffer Area**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**MRSP Score:** No longer required

**Contaminants of Concern:** Munitions and explosives of concern (MEC)

**Media of Concern:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	200304.....	200305
SI.....	200309.....	200505
RI/FS.....	200709.....	200809
IRA.....	200510.....	200809
LTM.....	200810.....	204909

**RIP Date:** N/A

**RC Date:** 200809

**SITE DESCRIPTION**

This 25-acre site consists of a buffer of about 200 feet surrounding the demolition area site in the west central portion of the LAP area that was used from 1940 to 1975. The area is of concern because of the possibility of kick-out from demolition operations.

The demolition area was used for OB of combustible refuse and munitions crates and was also the location of a fire training area consisting of less than one acre.

During the ORSC study, one-half of a BLU-26/B munition was discovered as well as 30 other UXO items including 40 millimeter (mm) rifle grenades, M-T83 PD fuses, 57 mm projectiles, 155 mm projectiles, and 105 mm projectiles. The site characterization was not completed, so there is a possibility that more UXO are present at this site. This MMRP site surrounds the site identified under the AEDB-R program as JAAP-L3 and is currently undeveloped. It is scheduled to transfer to the USDA.

In 2007, an IRA of a 1 foot deep clearance across the site was completed.

To complete proper closure under CERCLA, an RI/FS will be completed to summarize the work completed on the site and document LUCs as the selected remedy. The contract for RI/FS through DD was awarded in 2014. It was recommended to keep the LTM phase open, even though an RI/FS is underway.

The five-year review is going to be included in the installation-wide five-year review.

**CLEANUP/EXIT STRATEGY**

LTM will include the completion of the RI through DD documentation, five-year reviews, and LUCs. The cost of the five-year reviews and LUCs will be captured under site JAAP-GWM.

**Site ID: JAAP-001-R-02**  
**Site Name: L2-L3 Extended Buffer**

**STATUS**

Parcel: NONE

Regulatory Driver: CERCLA

MRSP Score: 03

Contaminants of Concern: Munitions and explosives of concern (MEC)

Media of Concern: Soil

<u>Phases</u>	<u>Start</u>	<u>End</u>
PA.....	200710.....	200711
SI.....	200803.....	200909
RI/FS.....	200910.....	201706
RD.....	201501.....	201712
RA(C).....	201709.....	202003

RIP Date: N/A

RC Date: 202003

**SITE DESCRIPTION**

In 1999 an engineering evaluation/cost analysis (EE/CA) was prepared which recommended clearing a 200-foot buffer around IRP sites JAAP-0L2 and JAAP-0L3. The EE/CA was implemented; the findings and recommendations of the EE/CA were carried through the initial MMRP process.

The L2-L3 extended buffer is the result of physical observation of MEC beyond the boundaries set for JAAP-001-R-01 and JAAP-002-R-01 during the IRA of those two sites. Based on the types of munitions found at the Installation Restoration (IR) and Munitions Response (MR) sites, and the perimeters of the IR sites, a blast distance diagram was constructed. This resulted in an area of approximately 396 acres which does not include either the IR or MR sites inside this newly established site.

Both contractor and USACE personnel walked the property and found MEC similar to that found at both the IR and MR sites.

The SI was completed in September 2009 and recommended approximately 200 acres for further study.

An RI is underway and due to be completed in FY15. After completion of the investigation of the 200 acres proposed in the SI, it was determined the investigation need to be expanded to include the original proposed 396 acres. The fieldwork was completed in 2014, and the RI document is being prepared.

**CLEANUP/EXIT STRATEGY**

Pending the results of the RI, the following actions may be required:

- an FS,
- a remedial design (RD)
- a MEC RA,
- ICs, and
- five-year reviews.

One-foot UXO clearance, based on future land use, is anticipated.



**Site ID: JAAP-001-R-03**  
**Site Name: Capped L3 Area**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**MRSP Score:** 04

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	200606.....	200607
SI.....	200606.....	200712
RI/FS.....	201201.....	201712
IRA.....	201303.....	201612

**RIP Date:** N/A

**RC Date:** 201712

**SITE DESCRIPTION**

This MMRP site addresses the munitions aspect of the Joliet L3 capped area. In 2007, it was determined that 7 acres of IRP site L3 contained MEC and material presenting potential explosive hazard (MPPEH) at a higher density than the rest of the site. The remainder of the site was undergoing a 1-foot removal action to address MEC that was deposited during OB/OD operations. When approaching these 7 acres, the amount of metallic debris had increased such that a 1-foot clearance would no longer be sufficient to address MEC concerns. Due to the limited technology at the time, the decision was made to cap this area of higher density material. The RA (cap) was captured under site JAAP-0L3.

Fill material from the popping furnace was placed over the seven acres as a soil cover and then the area was capped. The soil cover was certified as munitions debris and scrap prior to placement.

In 2011, heavy rains compromised the edge of the cap that runs along Prairie Creek. An action memorandum was signed Aug. 26, 2014 calls for excavation and removal of the site.

**CLEANUP/EXIT STRATEGY**

The landfill will be removed, and a RI through DD will be completed.

**Site ID: JAAP-002-R-01**  
**Site Name: L2 Buffer Area**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**MRSP Score:** No longer required

**Contaminants of Concern:** Munitions and explosives of concern (MEC)

**Media of Concern:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	200304.....	200305
SI.....	200309.....	200505
RI/FS.....	200709.....	200809
IRA.....	200510.....	200809
LTM.....	200810.....	204509

**RIP Date:** N/A

**RC Date:** 200809

**SITE DESCRIPTION**

This site of approximately 22 acres consists of a band of about 200 feet surrounding the explosive burning ground in the west central portion of the LAP area. The area was used between 1940 and 1975 and is of concern because of the possibility of kickout from the burning grounds.

The explosive burning ground was used for the open combustion of munitions and explosive wastes and also contained popping furnaces and oil disposal pits.

The burning grounds were suspected of containing BLU-26/B sub-munitions; however, only miscellaneous parts were located during the ORSC study. During the site characterization, 92 additional UXO items were discovered including M48 nose fuses, M66 base fuses, miscellaneous fuse boosters, and 75mm projectiles. The site characterization was not completed, so there is a possibility that more UXO is present. This site is intended to transfer to the USDA.

In 2007, an IRA of a 1 ft deep clearance across the site was completed.

The decision was made to keep the LTM phase open even though an RI is currently underway.

To complete proper closure under CERCLA, a contract for RI through DD was awarded in FY14 and will document LUCs as the selected remedy.

**CLEANUP/EXIT STRATEGY**

LTM will include the completion of the RI through DD documentation, five-year reviews, and LUCs. The cost of the five-year reviews and LUCs will be captured under site JAAP-GWM.

**Site ID: JAAP-004-R-01**  
**Site Name: FORMER BURNING AREA (L34)**

**STATUS**

**Parcel:** NONE

**Regulatory Driver:** CERCLA

**MRSP Score:** No longer required

**Contaminants of Concern:** Munitions and explosives of concern (MEC)

**Media of Concern:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	200304.....	200305
SI.....	200309.....	200505
RI/FS.....	200709.....	200809
IRA.....	200510.....	200809
LTM.....	200810.....	201610

**RIP Date:** N/A

**RC Date:** 200809

**SITE DESCRIPTION**

This site covers approximately 4.5 acres in the central portion of the LAP area. It was used to burn raw explosives and backfill materials. In 2007, an IRA was completed. During the ORSC study, ceramic items believed to be the bodies of nonmetallic mines containing explosive residues were located. Although UXO was not located during the study, 15 related scrap items were located consisting of ceramic and glass M5 mines and nose and base fuses. Less than 10 percent of this site was cleared, so there is a possibility that UXO may still be present. The site is identified under the AEDB-R program as JAAP- L34 and requires NFA relative to hazardous, toxic, and radiological waste. The site is scheduled to transfer to the USDA.

To complete proper closure under CERCLA, a desktop RI/FS will be completed to summarize the work completed on the site and document NFA as the selected remedy in a DD. The work was awarded in FY14. The decision was made to keep the LTM phase open even though RI work is currently underway.

**CLEANUP/EXIT STRATEGY**

LTM will include the completion of the RI through DD documentation.

## MMRP Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
JAAP-003-R-01	TRAINING AREA 7	200505	MMRP Final Site Inspection by e2M.

# MMRP Schedule

**Date of MMRP Inception** 200304

## Past Phase Completion Milestones

### 2003

PA (JAAP-001-R-01 - L3 Buffer Area, JAAP-002-R-01 - L2 Buffer Area, JAAP-003-R-01 - TRAINING AREA 7, JAAP-004-R-01 - FORMER BURNING AREA (L34))

### 2005

SI (JAAP-001-R-01 - L3 Buffer Area, JAAP-002-R-01 - L2 Buffer Area, JAAP-003-R-01 - TRAINING AREA 7, JAAP-004-R-01 - FORMER BURNING AREA (L34))

### 2006

PA (JAAP-001-R-03 - Capped L3 Area)

### 2008

SI (JAAP-001-R-03 - Capped L3 Area)

IRA (JAAP-002-R-01 - L2 Buffer Area, JAAP-004-R-01 - FORMER BURNING AREA (L34), JAAP-001-R-01 - L3 Buffer Area)

RI/FS (JAAP-001-R-01 - L3 Buffer Area, JAAP-002-R-01 - L2 Buffer Area, JAAP-004-R-01 - FORMER BURNING AREA (L34))

PA (JAAP-001-R-02 - L2-L3 Extended Buffer)

### 2009

SI (JAAP-001-R-02 - L2-L3 Extended Buffer)

## Projected Phase Completion Milestones

See attached schedule

## Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
JAAP-004-R-01	FORMER BURNING AREA (L34)	DD for 001R01, 002R01, and 004R01	20160115
JAAP-001-R-01	L3 Buffer Area	DD for 001R01, 002R01, and 004R01	20160115
JAAP-002-R-01	L2 Buffer Area	DD for 001R01, 002R01, and 004R01	20160115
JAAP-001-R-02	L2-L3 Extended Buffer	Expanded Buffer Area DD	20160915

**Final RA(C) Completion Date:** 202003

**Schedule for Next Five-Year Review:** 2015

**Estimated Completion Date of MMRP at Installation (including LTM phase):** 204909

## JOLIET AAP MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-001-R-01	L3 Buffer Area	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-001-R-02	L2-L3 Extended Buffer	RI/FS						
		RD						
		RA(C)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-001-R-03	Capped L3 Area	RI/FS						
		IRA						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-002-R-01	L2 Buffer Area	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
JAAP-004-R-01	FORMER BURNING AREA (L34)	LTM						

## Community Involvement

**Technical Review Committee (TRC):** None

**Community Involvement Plan (Date Published):** 201102

**Restoration Advisory Board (RAB):** RAB established 1995

**RAB Adjournment Date:**

**RAB Adjournment Reason:**

### Additional Community Involvement Information

Community involvement was initiated with the TRC that began in July 1988, after the manufacturing area was placed on the NPL. The TRC was replaced with a RAB that began in December 1995 and met monthly until June 1999. The RAB then met bi-monthly through September 2007.

The mission of the RAB is to:

- represent the community by facilitating communications and coordination between the community and the appropriate government agencies in the environmental cleanup of the JOAAP;
- critically review and comment on pertinent environmental cleanup documents;
- make recommendations to the US Army and other appropriate governmental agencies regarding cleanup methods and priorities; and
- encourage public participation in accomplishing these goals.

Past meeting activities have included several installation tours, media coverage (radio, television, newspaper), an open house, special training events, and guest speakers. Individual RAB members participated in the first IAP workshop, Region V RAB forum, Defense Environmental Restoration Program (DERP) workshops, public speaking engagements, and radio and newspaper interviews.

Several RAB members participated in ecological and human health workgroups formed to finalize interim ROD issues.

A RAB meeting is called annually. An adjournment meeting will be held after the final land transfer. The last RAB meeting was September 2009. In the interim, an annual summary of events within the IRP and MMRP is distributed to the RAB annually in October. Feedback from these, if any, will be used to gauge the value of resuming regular meetings.

### Administrative Record is located at

Joliet Army Ammunition Plant  
Administrative Building  
29401 South Route 53  
Wilmington, IL 60481  
(815)423-2870

### Information Repository is located at

Joliet Army Ammunition Plant  
Administrative Building  
29401 South Route 53  
Wilmington, IL 60481  
(815)423-2870

**Current Technical Assistance for Public Participation (TAPP):** N/A

**TAPP Title:** N/A

**Potential TAPP:** N/A

