

# **BADGER ARMY AMMUNITION PLANT**

Army Cleanup Program

Installation Action Plan Final

June 2024

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## STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

## INSTALLATION OVERVIEW

**Installation Name:** BADGER ARMY AMMUNITION PLANT

**Installation City:** BARABOO

**Installation County:** SAUK

**Installation State:** WI

**Regulatory Participation - Federal:** N/A

**Regulatory Participation - State:** Wisconsin Department of Natural Resources(WDNR)

## ACRONYMS

Acronym	Definition
2,6-DNT	2,6-Dinitrotoluene
AOC	Area of Concern
BAAP	Badger Army Ammunition Plant
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operations)
CMS	Corrective Measures Study
CRL	Cleanup Restoration & Liabilities
CS	Confirmation Sampling
CY	Cubic Yard
DBG	Deterrent Burning Ground
DBP	Di-n-butyl Phthalate
DD	Decision Document
DES	Design
DNT	Dinitrotoluene
DPA	Diphenylamine
ENV	Environmental
EVO	Emulsified Vegetable Oil
FS	Feasibility Study
FYR	Five-Year Review
GGB	Gruber's Grove Bay
GW	Groundwater
IAP	Installation Action Plan
IC	Institutional Controls
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
IRM	Interim Remedial Measure
LTC	Long-Term Care
LTM	Long-Term Management
LUC	Land Use Control
MIRM	Modified Interim Remedial Measures
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NG	Nitroglycerin
NPL	National Priority List
O&M	Operations and Maintenance

Acronym	Definition
PA	Preliminary Assessment
PBG	Propellant Burning Ground
PCB	Polychlorinated Biphenyls
PP	Proposed Plan
PR	Periodic Review
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SI	Site Inspection
SVE	Soil Vapor Extraction
TAPP	Technical Assistance for Public Participation
USACE	US Army Corps of Engineers
USCHPPM	US Army Center for Health Promotion and Preventive Medicine
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UU/UE	Unlimited Use/Unrestricted Exposure
WDNR	Wisconsin Department of Natural Resources

## PHASE TRANSLATION TABLE

CERCLA Phase	RCRA Phase	RCRA UST Phase
Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
Remedial Design (RD)	Design (DES)	Design (DES)
Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

## **PROGRAM SUMMARY**

**Number of Open Sites with Response Complete/Total Open IR Sites: 2/6**

**Number of Open Sites with Response Complete/Total Open MR Sites: 0/0**

**Number of Open Sites with Response Complete/Total Open CC Sites: 0/0**

## SITE-LEVEL INFORMATION

## 55125.1001\_BAAP-001\_SETTLING PONDS/SPOILS DISPOSAL

**Env Site ID:** BAAP-001

**Cleanup Site:** SETTLING PONDS/SPOILS DISPOSAL

**Alias:** BAAP-001

**Regulatory Driver:** CERCLA

**RIP Date:** 11/30/2025

**RC Date:** 11/30/2025

**RC Reason:** Not assigned

**SC Date:** 11/30/2025

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:**

**MRSPP:** N/A

Phase	Start	End
PA:	1/31/1977	5/31/1977
SI:	1/31/1977	11/30/2025
RI/FS:	--	--
RD:	--	--
IRA:	6/30/2007	10/31/2008
RA(C):	--	--
RA(O):	--	--
LTM:	--	--

**Site Narrative:** These settling ponds located along the installation's southern boundary were first used in 1942. During the years of production these man-made ponds received sanitary and industrial wastewater from the entire facility and surface runoff from the nitroglycerin (NG) Rocket Paste and Magazine areas. Spoils removed during dredging operations were placed alongside the ponds. In the 1994 FS in situ soil stabilization/solidification and soil cover was the proposed remedial method. The currently impacted pond area is 67 acres, and the spoils disposal areas cover 21 acres. Soil sampling data was received in 2000 and submitted in the form of a data report in May 2001 to the Wisconsin Department of Natural Resources (WDNR) in a comprehensive analysis indicates dinitrotoluene (DNT) is present throughout the site not in localized areas as was previously indicated. NG and mercury are present in isolated areas primarily Spoils Site 1. A site-specific soil cleanup standards proposal was developed and in May 2002 it was submitted to the WDNR for review and approval. The proposal was developed in accordance with the WDNR Chapter NR 700. Specifically, the proposal was developed following the guidance detailed in NR 720.19, which among other things recommends that the site-specific standards process be followed. In 2003, a follow-on RI was conducted to determine the condition of the soil in production areas across the installation. In 2004, a field study was completed to quantify the degradation of DNT in the vadose (unsaturated) soil under the settling ponds. In May 2005, the WDNR directed the Army to perform further ecological risk assessment work. In 2005, based on the WDNR's comments on the original risk assessment the Army began work on a reevaluation of the risk assessment. In 2006, an ecological risk assessment was conducted, and a US Army Center for Health Promotion and Preventive Medicine (USCHPPM) rodent sperm analysis was conducted. In 2007, an interim remedial action (IRA) (soil dig and haul) was completed to address the WDNR's concerns for soils slated to become part of the Gruber's Grove Bay (GGB) sediment in 2009 when Highway 78 is reconstructed through Settling Pond 4. In Spring 2008, per the WDNR's request to expedite the highway reconstruction land transfer an alternative feasibility report for Pond 4 was approved. Soil removal achieved site closure in October 2009 associated with Pond 4. In 2009, Badger conducted additional soil

sampling and submitted proposed remedial goals to WDNR. In addition, IRAs (soil dig and haul) began. Proposed soil cleanup levels agreed on with WDNR in 2010 allowed completion of soil removal actions in 2011 and site closure in 2012. In September 2020, a WDNR prescribed burn of the area encroached into the former settling ponds site. The department was unable to extinguish the fire and it burned for roughly 1.5 days producing yellow and orange smoke during the event. The Army conducted a site inspection of Settling Pond 2 in June 2021 and will be expanding the effort to Settling Ponds 1 and 3, the Final Creek area and Spoils Disposal Areas I, II, III, IV & V.

Cleanup/Exit Strategy - We expect to perform a SI. Continued site inspection with Institutional Controls (IC) to determine if further action is necessary. ICs consist of managing any future soil contamination, annual well inspections, and groundwater monitoring.

## 55125.1011\_BAAP-012\_GW Monitoring ON and OFF Post

**Env Site ID:** BAAP-012

**Cleanup Site:** GW Monitoring ON and OFF Post

**Alias:** BAAP-012

**Regulatory Driver:** CERCLA

**RIP Date:** 9/30/2028

**RC Date:** 9/30/2058

**RC Reason:** Not assigned

**SC Date:** 9/30/2058

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:** High

**MRSPP:** N/A

Phase	Start	End
PA:	3/31/1977	3/31/1977
SI:	3/31/1977	3/31/1977
RI/FS:	7/31/1991	9/30/2025
RD:	10/1/2025	9/30/2027
IRA:	1/1/1990	1/1/2015
RA(C):	10/1/2027	9/30/2028
RA(O):	10/1/2028	9/30/2058
LTM:	--	--

**Site Narrative:** Monitoring wells have been used since the 1980s to check groundwater conditions in and around BAAP. There are three Areas of Concern (AOC) identified. One originates at the PBG (BAAP-033) in the southwest part of BAAP; DNT. Two groundwater extraction systems captured groundwater from the Propellant Burning Ground (PBG) source area to the installation southern boundary. The area from the boundary to the Wisconsin River just below the Wisconsin Power and Light Dam is not treated. See BAAP-033 for more details on the treatment systems. The second major AOC is located in the northeast portion of BAAP near source areas Landfill No. 5 (BAAP-004) and the Landfill 3/Deterrent Burning Ground (DBG) area (BAAP-006). Capping of the DBG area in 2003 stopped infiltration of precipitation but isomers of DNT have been detected in the untreated shallow groundwater here and past the installation's eastern boundary moving toward Weigand's Bay on the Wisconsin River. There is no treatment in this area. The third AOC is the southeast quarter of the installation where 26-Dinitrotoluene (26-DNT) was detected at the enforcement standard on and off the installation; levels appear to be decreasing. No specific source has been found and there is no treatment in this area. The suspected source was discharge of production wash waters to unlined ditches in the rocket propellant production area that ended in 1976. Seven relatively shallow private residential water supply wells in the southern off-post area were affected by exceedances of state standards over the years- three effected by solvent contamination from the PBG were replaced with new wells drilled into bedrock in the 1990s. In 2017, the Army started a supplemental groundwater RI/FS. This document was finalized in 2nd quarter FY21. US Army Corps of Engineers (USACE) real estate office manages the off-site monitoring well leases.

Cleanup/Exit Strategy - A proposed plan and decision document (DD)are expected to be completed for the site. It is anticipated the remedy will be monitored natural attenuation augmented with emulsified vegetable oil (EVO) injections. Prior to obtaining a signed DD, groundwater will be monitored continuously, and it's use restricted. Five-year reviews (FYR) and land use controls (LUC) will be part of continued site management. Because hazardous substances, pollutants, or contaminants will remain at

the site at concentrations exceeding levels that allow for Unlimited Use/Unrestricted Exposure (UU/UE), five-year remedy reviews will continue until UU/UE is achieved.

## 55125.1028\_BAAP-33\_PROP BRNG GRD - CONTAMINATED WAS

**Env Site ID:** BAAP-33

**Cleanup Site:** PROP BRNG GRD - CONTAMINATED WAS

**Alias:** BAAP-33

**Regulatory Driver:** CERCLA

**RIP Date:** 9/30/2028

**RC Date:** 9/30/2058

**RC Reason:** Not assigned

**SC Date:** 9/30/2058

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:**

**MRSPP:** N/A

Phase	Start	End
PA:	1/31/1977	5/31/1977
SI:	1/31/1977	5/31/1977
RI/FS:	8/31/1988	9/30/2025
RD:	10/1/2024	9/30/2027
IRA:	1/1/1990	1/1/2015
RA(C):	10/1/2027	9/30/2028
RA(O):	10/1/2028	9/30/2058
LTM:	--	--

**Site Narrative:** The PBG waste pits are located in the southwestern portion of BAAP. The contaminated waste pits area is approximately three acres and contained three disposal pits and a large open area. From the 1950s through the 1970s, the pits were used to burn propellant-contaminated materials and organic solvents. The liquid waste materials migrated down through the sandy soil to the groundwater. A groundwater plume containing solvents and DNT has moved south past the installation boundary (see BAAP-012). Soil remedies originally selected in 1994 included soil vapor extraction (SVE) followed by soil removal washing and composting. In 1997, the soil washing was shown to be ineffective in removing DNT. In February 1998, an SVE system to remove solvents was installed operated successfully and was removed in September 1999. Shallow soils contaminated with the non-volatile DNT, and metals were removed from the waste pits in the fall of 1999 and a pilot biotreatment system was installed in Waste Pit 1 to treat DNT in the subsurface soil. The pilot system proved to successfully increase the rate of naturally occurring biological decomposition of the chemicals in the soil. A full-scale biotreatment system was installed and operated through 2005. A revised alternative FS was prepared to finalize the change in the soils remedy. The FS proposed the SVE system partial excavation and off-site incineration of soils a biotreatment system and installation of a cap as the final remedy. In February 2008, the WDNR approved this remedy. In the summer of 2008, installation of the pits area cap completed the soil remediation actions. Investigations in 2002 and 2003 for other potential sources of solvents in the area were completed; the results were negative. The groundwater remediation started in 1990 with the construction of a pump-and-treat system called the interim remedial measure (IRM) to capture contamination from the source (pits area). In 1996, groundwater capture along the BAAP southern boundary began with the construction of the Modified Interim Remedial Measures (MIRM). In 2005 and 2006, additional capture wells were installed within the plume and the distal boundary wells were abandoned. Biofouling of these wells required additional process measures in 2006 and 2007. Efforts to optimize groundwater capture continued. The Army's alternate FS proposed shutdown of the groundwater treatment systems (along with a district water system and MNA for the final groundwater

remedy tracked at BAAP-012). The alternate FS received WDNR approval June 28, 2012. The approved phased shutdown of the pump-and-treat systems started with the Interim Remedial Measure (IRM) shutdown/layaway in December 2012 and complete removal of the IRM in December 2014. Shutdown continued with the idling of the northern three MIRM extraction wells in September 2014. Monitoring to check specifically for problems from rebound of contaminant levels is underway. Shutdown of the remaining two pumping MIRM wells in 2015 and complete system removal in 2017 was achieved.

Cleanup/Exit Strategy - A proposed plan and decision document (DD) will be completed. It is anticipated the remedy will be monitored natural attenuation augmented with emulsified vegetable oil (EVO) injections. Prior to obtaining a signed DD, groundwater will be monitored continuously, and its use restricted. FYRs and LUCs will be part of continued site management. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved.

## 55125.1030\_BAAP-35\_CAP & COVER MAINTENANCE

**Env Site ID:** BAAP-35

**Cleanup Site:** CAP & COVER MAINTENANCE

**Alias:** BAAP-35

**Regulatory Driver:** CERCLA

**RIP Date:** 12/31/1998

**RC Date:** 12/31/1998

**RC Reason:** All Required Cleanup(s) Completed

**SC Date:** 9/30/2054

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:**

**MRSPP:** N/A

Phase	Start	End
PA:	1/31/1977	5/31/1977
SI:	1/31/1977	5/31/1977
RI/FS:	8/31/1988	12/31/1995
RD:	9/30/1995	7/31/1998
IRA:	--	--
RA(C):	7/31/1997	12/31/1998
RA(O):	--	--
LTM:	2/28/2010	9/30/2054

**Site Narrative:** This site is now used to track all long-term care to ensure all requirements are met. This includes the PBG racetrack area, 1949 pit, PBG waste pits, Landfill 1 area, Landfill #5, Landfill #3118, Landfill #3646 and deterrent burning ground (DBG). The DBG is a closed site of seven acres that is also referred to as Landfill #3. Approximately four acres of this area was used as a borrow pit and a fly ash disposal site from the 1940s through the 1970s. The remaining three acres consisted of three open burn pits that were used for the open burning of deterrent and other production waste. The landfills final closure construction year is 2003, when a geosynthetic clay liner and geomembrane barrier cap was constructed over the entire seven-acre site. The final remedy was approved in 2002, which recommended a 30-year Groundwater (GW) monitoring program. A 2008 WDNR letter recommended a 30-year Long-Term Care (LTC) Program. Landfill #5 was closed on 10/6/1986. However, as part of the closure for Landfill #5 the Army is responsible in perpetuity for long-term groundwater monitoring and surface care following the completion of the final abandonment of the existing sanitary landfill. The PBG racetrack area includes the area used to burn off-spec propellants over the years. This disposal operation was eventually permitted as the hazardous waste thermal treatment unit. It was closed to industrial cleanup standards in 1996 after soil removal with a soil cover placed over the area in 1994. Landfill #1, which received solid waste and ash from about 1944 to 1955, was capped in 1997 and closure approval was in 2014. The 1949 pit area used for open burning of wastes from 1944 through the 1950s was backfilled in 1962. It was formally closed with an engineered cap in 1999 (Phase 1). In 2008 (phase 2), the cap was extended as originally planned to cover the PBG waste pits. Conditional approval from WDNR was provided in 2009. Landfill #3118 was closed in 2009 and Landfill #3646 was closed in 2013. Both landfills contain construction and demolition material, asbestos, and impacted soils. The WDNR requires long-term operation and maintenance (O&M) of these two caps which includes landfill cover and leachate collection system maintenance, groundwater, lysimeter, leachate, inspections, and gas probe sampling. The DD/ROD does not require LUCs for site.

Cleanup/Exit Strategy - Landfill cover and leachate collection system maintenance, groundwater, lysimeter, leachate, inspections, and gas probe sampling and monitoring will continue along with FYRs. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved.

## 55125.1035\_BAAP-40\_GRUBER'S GROVE BAY

**Env Site ID:** BAAP-40

**Cleanup Site:** GRUBER'S GROVE BAY

**Alias:** BAAP-40

**Regulatory Driver:** RCRA-C

**RIP Date:** 9/30/2029

**RC Date:** 9/30/2029

**RC Reason:** Not assigned

**SC Date:** 9/30/2029

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:** High

**MRSPP:** N/A

Phase	Start	End
<b>RFA:</b>	5/31/1998	3/31/1999
<b>CS:</b>	4/30/1999	9/30/2000
<b>RFI/CMS:</b>	9/30/1999	9/30/2018
<b>DES:</b>	9/11/2000	10/31/2019
<b>IRA:</b>	3/31/2001	9/30/2007
<b>CMI(C):</b>	9/11/2000	9/30/2029
<b>CMI(O):</b>	--	--
<b>LTM:</b>	--	--

**Site Narrative:** The Gruber's Grove Bay (GGB) site received Badger discharge waters during production. State sampling of sediment in November 1998 showed elevated lead, mercury, zinc, and ammonia. The results were confirmed in a 1999 sampling. The RI was completed in 2000. The selected remedy was dredging of sediments with disposal on the installation. The dredged materials were pumped into fabric tubes for dewatering. The water was treated and sprayed on agricultural land on the installation. The dry filled tubes were buried-in-place in an area north of the settling ponds (Parcel M2). Dredging began in June 2001 and was completed in November 2001 with 88,000 cubic yards (cy) removed. The geotubes were covered over in September 2002 (Phase I). Bay restoration activities (fish cribs aquatic plants) were completed in September 2002. Final grading and seeding was completed in July 2003. In early 2003, the WDNR sampled the bay sediments and found some elevated levels of metals. In 2004 and 2005, the Army investigated residual concentrations and toxicity of metals in bay sediments. On May 5, 2005, the WDNR sent a letter to the Army recommending sediment removal or an additional ecological risk assessment. In 2006, the bay was dredged again following procedures similar to those used in 2001. Attention was given to shoreline areas within the dredge boundary. In addition, confirmation sampling was used to verify completion. Removal of 52,532 cy of sediment was completed in 2006. The laydown area was covered in 2007. The final report was submitted to the WDNR in February 2008. The WDNR previously established a state-wide lowest effect level for mercury of 0.2 mg/kg. The WDNR guidelines are based predominantly on ecological risks. The WDNR has requested that the Army remove all sediments with mercury concentrations above this level or background (whichever is higher) from GGB. The background concentration of mercury for the area is 0.36 mg/kg. Therefore, this value was selected for the cleanup level. Subsequent sampling by the Army and the WDNR revealed mercury above the cleanup level remains in the bay. In 2009, WDNR started review of all available information to determine if additional remediation is required. The WDNR sent a letter in May 2010 requesting that BAAP evaluate alternatives that address restoring GGB sediments to levels protective of benthic organisms. On Feb. 3, 2011, WDNR requested Army action. Alternatives were evaluated. Technical review meetings with the

WDNR were conducted in 2014 to make sure the remedy recommended (sediment treatment) would be technically suitable for the site or if another remedy will be needed. On April 1, 2014, WDNR and USEPA requested sediment samples from the entire bay before the WDNR and USEPA will close the site and remove GGB from the USEPA Section 303(d) list of endangered waters. The WDNR sent a letter on Aug. 27, 2014, stating that sampling sediment from GGB would be required. Sampling was conducted in 2016 and 2018 and indicated mercury contaminated sediments are still present. RCRA is the regulatory driver for now, even though the permit was terminated in 2009. Regulatory driver will be evaluated to CERCLA once there is a Decision Document. Cleanup/Exit Strategy - An FS, Proposed Plan (PP), a DD is anticipated to be completed.

## 55125.1038\_CC-BAAP-44\_Abandoned Industrial Sewer Ne

**Env Site ID:** CC-BAAP-44

**Cleanup Site:** Abandoned Industrial Sewer Ne

**Alias:** #

**Regulatory Driver:** CERCLA

**RIP Date:** 3/15/2015

**RC Date:** 3/15/2015

**RC Reason:** All Required Cleanup(s) Completed

**SC Date:** 9/30/2054

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** No

**Hazardous Ranking Score:** 0

**RRSE:**

**MRSPP:** N/A

Phase	Start	End
PA:	10/31/2000	12/31/2008
SI:	--	--
RI/FS:	5/31/2009	3/15/2015
RD:	--	--
IRA:	6/30/2009	7/15/2012
RA(C):	1/15/2015	3/15/2015
RA(O):	--	--
LTM:	3/15/2015	9/30/2054

**Site Narrative:** The estimated length of the abandoned production area sewers was documented to be 68.18 miles at depths from 4 to 30 feet (ft) below ground surface. Sewer pipe (in 3-ft tile sections) was found in poor condition with collapses and damage. In addition to the original estimated length, undocumented shallow drains were found. Previous spot investigations found DNT, lead, mercury propellants, di-n-butyl Phthalate (DBP), diphenylamine (DPA) and polychlorinated biphenyl (PCB) above required cleanup levels in pipes and surrounding soils. RI work included location surveys safety oversight removing overlying soil and structures rerouting active utility lines interfering with excavation collecting pipe and soil samples laboratory analysis disposal of investigation derived waste and reports. An active Bluffview sanitary sewer line serving 1,000 people rested atop sections of abandoned production sewer requiring relocation. In 2009, relocation of active sewer lines and inspection, removal, and closure of approximately 55% of sewers was completed. In 2012, the last of the sewer lines were investigated and remediated where necessary and closed. Site closure documentation by parcel was completed in FY15. Cleanup/Exit Strategy - Long-Term Management including inspections, FYRs, and ICs will continue indefinitely in accordance with state requirements. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved. An indefinite 30-year schedule is applied for the site.

## **SITE SUMMARY**

## SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
55125.1002	BAAP-002_ BALLISTICS POND and Ditches	4/30/2002
55125.1003	BAAP-003_ OLEUM PLANT AND POND	12/31/1998
55125.1004	BAAP-004_ EXISTING LANDFILL (LANDFILL #5)	12/31/2001
55125.1005	BAAP-005_ NITROGLYCERINE Pond	12/31/2000
55125.1006	BAAP-006_ DETERRENT BURNING GROUND	10/15/2012
55125.1007	BAAP-008_ ROCKET PASTE AREA	4/30/2003
55125.1008	BAAP-009_ OLD ACID AREA	5/31/2008
55125.1009	BAAP-010_ NEW ACID AREA	12/31/2001
55125.1010	BAAP-011_ OLD FUEL OIL TANKS	12/31/2001
55125.1012	BAAP-013_ UNDERGROUND STORAGE TANKS (10)	3/31/1977
55125.1013	BAAP-014_ LANDFILL #6 (NEW 1989)	8/31/1999
55125.1014	BAAP-015_ SANITARY LANDFILL #3 (CLOSED)	3/31/1977
55125.1015	BAAP-016_ Landfill#4/POWERHOUSE #2	3/31/1977
55125.1016	BAAP-020_ BALL POWDER PILOT PLANT	3/31/1977
55125.1017	BAAP-021_ BALLISTICS AND TESTING AREA	3/31/1977
55125.1018	BAAP-022_ BALL PROPELLANT PRODUCTION AREA	3/31/1977
55125.1019	BAAP-023_ INGREDIENT WAREHOUSE	3/31/1977
55125.1020	BAAP-024_ SMOKELESS POWDER PRODUCTION	3/31/1977
55125.1021	BAAP-025_ SALVAGE YARD	3/31/1977
55125.1022	BAAP-026_ HAZARDOUS WASTE STORAGE AREA	7/31/1991
55125.1023	BAAP-027_ WASTE PROCESSOR	3/31/1977
55125.1024	BAAP-029_ SOLVENT RECOVERY STILL AREA	3/31/1977
55125.1025	BAAP-030_ LABORATORIES-BLDG# 201,2556,403	3/31/1977
55125.1026	BAAP-031_ COAL YARD	3/31/1977
55125.1027	BAAP-032_ ABOVE GROUND STORAGE TANKS	3/31/1977
55125.1029	BAAP-34_ PROP BRNG GRD - THERM TRTMT UNT/	12/31/2001
55125.1031	BAAP-36_ EAST & WEST ROCKET AREA DITCHES	5/31/2003
55125.1032	BAAP-37_ POWERHOUSE # 1 SOIL OLD FUEL SPI	6/30/2006
55125.1033	BAAP-38_ TRANSFORMER YARD - PCB IN SOIL	12/31/1996
55125.1034	BAAP-39_ OLEUM LANDFILL	8/31/1998
55125.1036	BAAP-42_ Box Wash Accounts 1890-1&2	7/31/2007
55125.1037	BAAP-43_ Site-Wide RI	6/15/2015
55125.1039	CC-J-001_ Inert Disposal Area (Parcel J)	1/31/1999
55125.1040	CC-K-401_ East Ball Pwdr Pilot Plant (Par	1/31/1999
55125.1041	CC-O-401_ Solvent Recovery Still (Parcel	1/31/1999
55125.1042	CC-P-301_ New Acid & NG Area (Parcel P3)	1/31/1999
55125.1043	CC-Q-001_ NC Production Area (Parcel Q3)	1/31/2007
55125.1044	CC-R-001_ Production Support Area (Parcel	1/31/1999
55125.1045	CC-R-003_ Salvage Yard (parcel R)	1/31/1999

## COMMUNITY INVOLVEMENT

<b>Community Involvement Plan (Date Last Reviewed):</b>	5/1/2023
<b>Technical Review Committee Establishment Date:</b>	N/A
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	9/30/1993
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Reasons for Not Establishing RAB:</b>	N/A
<b>RAB Date of Solicitation from Community:</b>	N/A
<b>RAB Results of Solicitation:</b>	N/A
<b>Current Technical Assistance for Public Participation (TAPP):</b>	3/20/2023
<b>TAPP Title:</b>	TAPP Support at BAAP
<b>Potential TAPP:</b>	N/A
<b>Administrative Record Location:</b>	Ruth Culver Community Library, 540 Water Street, Prairie du Sac, WI 53578
<b>Information Repository Location:</b>	George Culver Community Library, 615 Phillips Blvd, Sauk City, WI 53583

## FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Planned	FYR	7/1/2018	7/1/2023	TBD	TBD	TBD
Completed	FYR	7/1/2022	2025	For GGB, prepare workplan to evaluate dredging/capping, and perform statistical calcs if CG been met. For site-wide GW, evaluate remedial alternatives including MNA.	This FYR includes the review of five sites: Landfill 3118 and Landfill 3646; Landfill Cap and Cover areas (Propellant Burning Ground subsurface soils; DBG/Landfill #3 subsurface soils; and subsurface soils for Landfills 2, 4, Oleum Landfill, and 5); Final Creek and Settling Ponds; Gruber's Grove Bay; and site-wide Groundwater.	Groundwater remedy is short term protective, GGB remedy is not protective, and all other remedies protect human health and the environment.