

TOBYHANNA ARMY DEPOT

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: TOBYHANNA ARMY DEPOT

Installation City: TOBYHANNA

Installation County: Monroe

Installation State: PA

Regulatory Participation - Federal: Environmental Protection Agency

Regulatory Participation - State: Pennsylvania Department of Environmental Protection

ACRONYMS

Acronym	Definition
AOPI	Area of Potential Interest
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CRL	Cleanup Restoration & Liabilities
DD	Decision Document
EE	Engineering Evaluation
ENV	Environmental
FS	Feasibility Study
FY	Fiscal Year
FYR	Five-Year Review
IAP	Installation Action Plan
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
LTM	Long-Term Management
LUC	Land Use Control
MCL	Maximum Contaminant Level
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRSP	Munitions Response Site Prioritization Protocol
NPL	National Priorities List
OU	Operable Unit
PA	Preliminary Assessment
PA	Pennsylvania
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PP	Proposed Plan
PR	Periodic Review
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RD	Remedial Design

Acronym	Definition
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SI	Site Inspection
SVOC	Semi-Volatile Organic Compound
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TYAD	Tobyhanna Army Depot
USAEC	US Army Environmental Command
UU/UE	Unlimited Use/Unlimited Exposure
UXO	Unexploded Ordinance
VOC	Volatile Organic Compound

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: 0/5

Number of Open Sites with Response Complete/Total Open MR Sites: 1/1

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

SITE-LEVEL INFORMATION

42780.1001_TBAD-001_SANITARY LANDFILL 1963

Env Site ID: TBAD-001

Cleanup Site: SANITARY LANDFILL 1963

Alias: TBAD-001

Regulatory Driver: CERCLA

RIP Date: 9/15/2001

RC Date: 9/15/2054

RC Reason: Not assigned

SC Date: 9/16/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 38

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	4/30/1979	1/31/1980
SI:	3/31/1990	7/31/1990
RI/FS:	8/15/1995	9/15/2000
RD:	9/15/2000	9/15/2000
IRA:	--	--
RA(C):	9/15/2000	9/15/2001
RA(O):	9/15/2001	9/15/2054
LTM:	--	--

Site Narrative: This site is a former landfill that is located adjacent to the rail classification yards near the western boundary of the installation. The landfill is approximately 2,000 feet by 600 feet. It was operated from 1963 to 1979 and reportedly received all types of wastes that were generated at Tobyhanna Army Depot (TYAD) including plating wastes sewage treatment plant sludge ashes from trash burning pits, construction rubble, paints solvents, oils, sanitary wastes, and pesticide containers. Groundwater at this site appears to have been affected by previously disposed waste materials. A remedial investigation (RI) and feasibility study (FS) were completed, and the record of decision (ROD) was approved in September 2000. Volatile organic compounds (VOC), metals, and semi-volatile organic compounds (SVOC) have been detected above maximum contaminant levels (MCL) in groundwater; however, after several rounds of detections below the MCLs; monitoring for SVOCs ceased in 2014. The remedy that was selected was monitored natural attenuation (MNA); and institutional controls captured under the phase of remedial action (operations) (RA(O)). RA(O) will be maintained until such time as contaminant levels are sufficiently reduced to allow beneficial use. This site is also referred to as Operable Unit (OU) 5. The ROD was signed in September 2000. The RA(O) groundwater monitoring is underway and will continue until groundwater concentrations are below the site cleanup levels. Five-year reviews and institutional controls will continue.

42780.1004_TBAD-004_BURNING AREAS E/NE OF BARNEY'S

Env Site ID: TBAD-004

Cleanup Site: BURNING AREAS E/NE OF BARNEY'S

Alias: AREA A

Regulatory Driver: CERCLA

RIP Date: 9/15/1998

RC Date: 9/15/2054

RC Reason: Not assigned

SC Date: 9/16/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 38

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	4/30/1979	1/31/1988
SI:	3/31/1990	7/31/1990
RI/FS:	7/31/1987	9/15/1997
RD:	9/15/1997	9/15/1997
IRA:	6/15/1981	6/15/1989
RA(C):	9/15/1997	9/15/1998
RA(O):	9/15/1998	9/15/2054
LTM:	--	--

Site Narrative: This site is one of two sites that comprise OU 1 and is in the southeast corner of the installation. The site is 1,250 feet by 400 feet. It was used from the 1950s to early 1960s. Past operations included the excavation of trenches; burning of wastes; and in-place burial of ash residue. This site is directly adjacent to 42780.1007, which was determined to be the source of the off- post groundwater contamination. Soil samples indicated that the level of contamination in the soil at this site is below the MCL. VOC contamination was detected in on post water supply well ON 3 and Area A was determined to be its source. The ROD for this site was approved in September 1997. The remedies that were selected are MNA, long-term monitoring and institutional controls. Contaminant plume areas have decreased over time through natural attenuation at the site, but site cleanup goals have not been attained within the 15-year time frame estimated in the ROD. Cleanup guidance levels, remedial action objectives, exposure assumptions, and toxicity data used at the time of remedy selection are still valid. No new changes to federal or state regulations or environmental laws have occurred that would potentially change the current remedial option. Exit Strategy- RA(O) remedy of MNA sampling and land use controls (LUC) will remain in place while groundwater contaminant levels exceed unlimited use/unrestricted exposure (UU/UE) levels. Five-year reviews will continue until site closeout.

42780.1007_TBAD-007_AREA B, STAGING AREA

Env Site ID: TBAD-007

Cleanup Site: AREA B, STAGING AREA

Alias: TBAD-007

Regulatory Driver: CERCLA

RIP Date: 9/15/1998

RC Date: 9/15/2054

RC Reason: Not assigned

SC Date: 9/16/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 38

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	3/31/1990	7/31/1990
SI:	3/31/1990	7/31/1990
RI/FS:	8/31/1990	9/15/1997
RD:	9/15/1997	9/15/1997
IRA:	12/31/1990	1/15/1996
RA(C):	9/15/1997	9/15/1998
RA(O):	9/15/1997	9/15/2054
LTM:	--	--

Site Narrative: This site is one of two sites that comprise OU 1 and is in the southeast corner of the installation, just south of Area A (42780.1004) and southwest of the 700-series buildings. The entire area is approximately 320 feet by 350 feet. This area was used for drum staging and disposal during the construction of the present depot in the 1950s. VOC contamination of off-post drinking water sources has been attributed to disposal at this site. Soil excavation began in 1990 to extend water lines for 23 residents and one business surrounding the installation in addition to removal of soil and several 55-gallon drums. The ROD for this site was approved in September 1997 with the remedial action objectives to (1) minimize the potential for future migration of VOCs in groundwater; and (2) restore groundwater in the glacial till and bedrock aquifers to beneficial use and to levels protective of human health and the environment. The remedies that were selected are MNA and institutional controls. Contaminant plume areas have decreased over time through natural attenuation at the site, but site cleanup goals have not been attained within the 15-year time frame estimated in the ROD. Cleanup guidance levels, remedial action objectives, exposure assumptions, and toxicity data used at the time of remedy selection are still valid. No new changes to federal or state regulations or environmental laws have occurred that would potentially change the current remedial option. RA(O) remedy of MNA sampling and LUCs will remain in place while groundwater contaminant levels exceed UU/UE levels. Five-year reviews will continue until site closeout.

42780.1067_TBAD-067_U AREA

Env Site ID: TBAD-067

Cleanup Site: U AREA

Alias: #

Regulatory Driver: CERCLA

RIP Date: 2/15/2030

RC Date: 9/30/2060

RC Reason: Not assigned

SC Date: 9/30/2060

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 38

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	9/30/2001	10/15/2002
SI:	10/15/2002	7/15/2004
RI/FS:	7/15/2014	1/15/2026
RD:	1/15/2026	1/15/2028
IRA:	1/15/2006	1/15/2007
RA(C):	1/15/2028	2/15/2030
RA(O):	2/15/2030	9/30/2060
LTM:	--	--

Site Narrative: This site is in TYADs industrial area just south of Building 1A. Analysis of groundwater from previously established monitoring wells indicated the presence of tetrachloroethylene. A preliminary assessment (PA) was conducted to characterize the extent of contamination at this site. In August 2002, five additional groundwater monitor wells were installed, and soil and groundwater samples were collected. In October 2002, two additional groundwater monitoring wells were installed. A site investigation was conducted and during that time, the monitoring wells were sampled quarterly for VOCs, SVOCs, metals, and cyanide. This site was not identified as an area of concern in the initial site assessment of the facility; therefore, this site is not part of the federal facility agreement. An RI/FS for this site is underway. A proposed plan (PP) and decision document (DD) will be completed for this site in fiscal year (FY)26. A final remedial action will be implemented, if needed, after the DD is finalized. The anticipated RA(O) of enhanced in situ bioremediation will be the final action at the site based on the discussions with Army personnel and the sites regulatory agencies. This site is not located in an OU. The site is currently undergoing FS/PP/ROD. Based on previous sampling and risk, a groundwater cleanup with LUCs is expected. Once the ROD is final, the remedial design remedial action (construction) (RA(C)) and RA(O) will be implemented.

42780.1075_TBAD-068_PFAS

Env Site ID: TBAD-068

Cleanup Site: PFAS

Alias: #

Regulatory Driver: CERCLA

RIP Date: 2/2/2029

RC Date: 2/2/2029

RC Reason: Not assigned

SC Date: 2/2/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 38

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	9/30/2017	9/15/2019
SI:	12/15/2019	9/15/2022
RI/FS:	1/3/2022	2/2/2029
RD:	--	--
IRA:	--	--
RA(C):	--	--
RA(O):	--	--
LTM:	--	--

Site Narrative: A uniform Army-wide response is being coordinated by US Army Environmental Command (USAEC) to assess the presence of per- and polyfluoroalkyl substances (PFAS) in drinking water caused by Army operations. PFAS denotes a wide array of chemicals and compounds, the focus of USAEC's efforts is on perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). The PA viewed historical records of operations, spills, and storage of materials containing PFOS/PFOA and isolated six areas of potential interest (AOPI) to further evaluate. The AOPIs are as follows Building 1A – Former Chromium Plating (Building 1A) and Historical Industrial Wastewater Pre-Treatment Plant (Building 1 Bay 1 (1BB1)) (42780.1067); OU-1 Area B – Former Drum Storage Area (42780.1007); OU5 - Inactive Sanitary Landfill (42780.1001); Building 17 – Fire Station; Historical Fire Training Area - Burn Pit (42780.1058); and Temporary Dewatered Sludge Storage Site (42780.1033). Currently a site inspection (SI) is underway to identify presence or absence of PFAS to the environment. The SI began January 2020. The final quality assurance project plan and the site safety and health plan were delivered to the Army in October 2020. Sampling started on December 2020. The combined PA/SI report was delivered at the end of FY22 and the RI started at the beginning of FY23.

42780.1068_TYAD-001-R-01_FAR-A, Powder Smoke Ridge

Env Site ID: TYAD-001-R-01

Cleanup Site: FAR-A, Powder Smoke Ridge

Alias: UXO AREA

Regulatory Driver: CERCLA

RIP Date: 10/30/2005

RC Date: 10/30/2005

RC Reason: Eligible for MMRP Funding

SC Date: 9/16/2054

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 10

Phase	Start	End
PA:	7/30/2002	5/1/2003
SI:	9/30/2003	3/31/2005
RI/FS:	--	--
RD:	--	--
IRA:	--	--
RA(C):	1/31/2005	10/30/2005
RA(O):	--	--
LTM:	10/31/2005	9/15/2054

Site Narrative: This is a former artillery range also known as Operable Unit - 4. The ROD for TYAD-001-R-01 was finalized in September 2000. The remedial action objectives are long-term monitoring to reduce potential exposure to unexploded ordinance (UXO) by onsite workers or trespassers, ensure the proper UXO clearance procedures are followed if any portion of this area is to be developed by the Army in the future, restrict future uses of the land unless the UXO is mitigated and educate the public/employees on the dangers at 42780.1068. The selected remedy was institutional controls including the following components physical controls, security monitoring, UXO support, public/employee education, and periodic review. After the creation of the Military Munitions Response Program, TYAD-001-R-01 was created in FY02 and carries the actions at former TBAD-055 (OU-4). The long-term management (LTM) phase is open to address LUCs and five-year reviews. LTM is anticipated to last indefinitely.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
42780.1002	TBAD-002_LANDFILL AREA	7/31/1990
42780.1003	TBAD-003_ASH PITS	7/31/1990
42780.1005	TBAD-005_ORIGINAL BURNING AREA	9/30/1998
42780.1006	TBAD-006_BORROW PITS	7/31/1990
42780.1008	TBAD-008_OAKES SWAMP DISPOSAL AREA	9/30/2000
42780.1009	TBAD-009_CYANIDE SUMP	7/31/1990
42780.1010	TBAD-010_CYANIDE OXIDATION TANKS	7/31/1990
42780.1011	TBAD-011_CHROMIUM SUMP	7/31/1990
42780.1012	TBAD-012_CHROMIUM REDUCTION TANK	7/31/1990
42780.1013	TBAD-013_ACID/ALKALI SUMP	7/31/1990
42780.1014	TBAD-014_SURGE TANK	7/31/1990
42780.1015	TBAD-015_SULFIDE PRECIPITATION PRETREATM	7/31/1990
42780.1016	TBAD-016_ACID/ALKALI SURGE TANK	7/31/1990
42780.1017	TBAD-017_CHROMIUM SURGE TANK	7/31/1990
42780.1018	TBAD-018_OVERFLOW/EXCESS BACKWASH TANK	7/31/1990
42780.1019	TBAD-019_ORIGINAL STP	7/31/1990
42780.1020	TBAD-020_STP BAR SCREEN	7/31/1990
42780.1021	TBAD-021_STP PARSHALL FLUME	7/31/1990
42780.1022	TBAD-022_STP PRIMARY SETTLING TANK	7/31/1990
42780.1023	TBAD-023_STP DOSING TANK	7/31/1990
42780.1024	TBAD-024_STP SECONDARY SETTLING TANK	7/31/1990
42780.1025	TBAD-025_STP RECIRCULATION PIT	7/31/1990
42780.1026	TBAD-026_FLASH MIX/FLOCCULATION TANK	7/31/1990
42780.1027	TBAD-027_FINAL SETTLING TANK	7/31/1990
42780.1028	TBAD-028_SLUDGE THICKENER	7/31/1990
42780.1029	TBAD-029_SAND FILTER	7/31/1990
42780.1030	TBAD-030_STP CHLORINE CONTACT CHAMBER	7/31/1990
42780.1031	TBAD-031_STP DIGESTERS	7/31/1990
42780.1032	TBAD-032_SEWAGE DRYING BEDS	12/31/1999
42780.1033	TBAD-033_DEWATERED SLUDGE/SLUDGE STORAGE	7/31/1990
42780.1034	TBAD-034_EQUALIZATION BASIN	7/31/1990
42780.1035	TBAD-035_SEWAGE SLUDGE ROLL-OFF	7/31/1990
42780.1036	TBAD-036_DRUM/DUMPSTER STORAGE AREA	7/31/1990
42780.1037	TBAD-037_INDUSTRIAL WASTE STORAGE AREA B	7/31/1996
42780.1038	TBAD-038_BUILDING S-90	7/31/1996
42780.1039	TBAD-039_BUILDING S-91	5/31/1987
42780.1040	TBAD-040_BUILDING 9	7/31/1990
42780.1041	TBAD-041_BANNED PESTICIDE STORAGE AREA	7/31/1990
42780.1042	TBAD-042_WASTE MOTOR OIL/STORAGE AREA,BL	2/29/1996
42780.1043	TBAD-043_OUTSIDE DRUM STORAGE, BLDG 86 S	2/29/1996
42780.1044	TBAD-044_DRUM STAGING AREA/DRUM STORAGE	7/31/1990
42780.1045	TBAD-045_PESTICIDE SHOP	7/31/1990
42780.1046	TBAD-046_RADIOACTIVE WASTE SHELTERS	7/31/1990
42780.1047	TBAD-047_DRMO HW STORAGE FACILITY	7/31/1990

42780.1048	TBAD-048_DRUM STORAGE - BUILDING 700	7/31/1990
42780.1049	TBAD-049_DRUM STORAGE - BUILDING 702	7/31/1990
42780.1050	TBAD-050_DRUM STORAGE - BUILDING 703	7/31/1990
42780.1051	TBAD-051_DRUM STORAGE - BUILDING 10-C	7/31/1990
42780.1052	TBAD-052_DRUM STORAGE - BUILDING 23	7/31/1990
42780.1053	TBAD-053_BATTERY ACID NEUTRALIZATION/BAT	7/31/1990
42780.1054	TBAD-054_PHOTO LAB BUILDING 11	5/31/1987
42780.1055	TBAD-055_UXO AREA IN NORTH END OF INSTAL	5/31/1987
42780.1056	TBAD-056_FACILITY SANITARY SEWERS	5/31/1987
42780.1057	TBAD-057_INCINERATOR	7/31/1990
42780.1058	TBAD-058_FIRE FIGHTING TRAINING AREA	9/30/1999
42780.1059	TBAD-059_SMALL ARMS & MACHINE GUN RANGE	4/30/2000
42780.1060	TBAD-060_RAD STORAGE AREA	7/31/1990
42780.1061	TBAD-061_BARNEY'S LAKE/HUMMLER RUN	4/30/2000
42780.1062	TBAD-062_NPDES OUTFALLS	5/31/1987
42780.1063	TBAD-063_PCB TRANSFORMERS	9/30/1996
42780.1064	TBAD-064_COAL PILE/HEATING PLANT	5/31/1987
42780.1065	TBAD-065_SANDBLASTING UNIT	5/31/1987
42780.1066	TBAD-066_UST SITE RESTORATION AREAS	3/31/1996
42780.1069	TYAD-002-R-01_FAR-B-1 (FP #6)	2/15/2013
42780.1070	TYAD-001-R-02_FAR-A-2	3/31/2005
42780.1071	TYAD-001-R-03_FAR-A-3	3/31/2005
42780.1072	TYAD-002-R-02_FAR-B-1 (Fan)	3/31/2005
42780.1073	TYAD-003-R-01_Machine Gun Range	3/31/2005
42780.1074	CC-1A_Tobyhanna Army Depot	2/28/2009

COMMUNITY INVOLVEMENT

Community Involvement Plan (Date Last Reviewed):	1/15/2016
Technical Review Committee Establishment Date:	1/31/1991
Restoration Advisory Board (RAB) Establishment Date:	3/31/1995
RAB Adjournment Date:	10/31/2005
RAB Adjournment Reason:	All environmental restoration remedies are in place and are operating properly and successfully
Reasons for Not Establishing RAB:	N/A
RAB Date of Solicitation from Community:	8/31/2023
RAB Results of Solicitation:	No interest
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A
Administrative Record Location:	Tobyhanna Army Depot Bldg 41 Environmental Branch, 11 Hap Arnold Blvd, Tobyhanna, PA 19466-5086
Information Repository Location:	Pocono Mountain Public Library, 5500 Municipal Dr, Tobyhanna, PA 18466

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Future	FYR	9/15/2025	9/15/2027	TBD	TBD	TBD
Completed	FYR	8/20/2022	11/29/2022	Evaluate the potential presence of 1,4-dioxane and the associated risk, if present and complete the ongoing site inspection to determine the presence of PFAS and the associated risk, if present.	The remedy at OU4 currently protects human health and the environment. The protectiveness at all other sites is deferred until completion of PFAS RI/FS.	The remedy at OU-4 is protective of human health. The protectiveness at all other sites is deferred until completion of PFAS RI/FS.