

# **WELDON SPRING TRAINING AREA**

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:** WELDON SPRING TRAINING AREA

**Installation City:** WELDON SPRING

**Installation County:** ST. CHARLES

**Installation State:** MISSOURI

**Regulatory Participation - Federal:** US ENVIRONMENTAL PROTECTION AGENCY (USEPA), REGION 7

**Regulatory Participation - State:** MISSOURI DEPARTMENT OF NATURAL RESOURCES (MoDNR)

## ACRONYMS

Acronym	Definition
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminants of Concern
CRL	Cleanup Restoration & Liabilities
DD	Decision Document
DNT	Dinitro-Toluene
ENV	Environmental
ESD	Explanation of Significant Differences
FS	Feasibility Study
FYR	Five-Year Review
IAP	Installation Action Plan
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MoDNR	Missouri Department of Natural Resources
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NPL	National Priorities List
OU	Operable Unit
PA	Preliminary Assessment
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
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
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TNT	Trinitrotoluene

Acronym	Definition
USACE	US Army Corps of Engineers
USDOE	US Department of Energy
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UU/UE	Unlimited Use/Unrestricted Exposure
WSOW	Weldon Spring Ordnance Works
WSTA	Weldon Spring Training Area

## 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: 0/1**

**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

## 6153A.1001\_WSTA-001\_Former TNT/DNT Production Area

**Env Site ID:** WSTA-001

**Cleanup Site:** Former TNT/DNT Production Area

**Alias:** WSTA-001

**Regulatory Driver:** CERCLA

**RIP Date:** 9/15/2005

**RC Date:** 9/30/2054

**RC Reason:** Not assigned

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

**Program:** ENV Restoration, Army

**Subprogram:** IR

**NPL Status:** Yes

**Hazardous Ranking Score:** 58.6

**RRSE:**

**MRSPP:** N/A

Phase	Start	End
PA:	1/15/1988	2/15/1988
SI:	3/15/1988	4/15/1988
RI/FS:	1/15/1990	10/15/2004
RD:	10/15/2004	6/15/2005
IRA:	--	--
RA(C):	5/15/2005	9/15/2005
RA(O):	9/15/2005	9/30/2054
LTM:	--	--

**Site Narrative:** Weldon Spring Ordnance Works (WSOW) was a 17,000-acre former trinitrotoluene (TNT)/dinitrotoluene (DNT) manufacturing plant that was operational from 1941 through 1945. After declaring most of the site excess to its mission, the US Army retained the contaminated production area of approximately 1,655 acres, which now makes up the Weldon Spring Training Area (WSTA). The Army transferred about 217 acres to the US Department of Energy (USDOE). Fort Leonard Wood had been historically responsible for WSTA, but the property was transferred to the 89th Regional Readiness Command in 2004. The WSTA is currently part of the 88th Readiness Division. The area is used primarily as an administrative support facility and training site for the Army Reserve. In February 1990, WSTA was part of the Weldon Spring Former Army Ordnance Works placed on the US Environmental Protection Agency (USEPA) National Priority List (NPL) of uncontrolled hazardous waste sites. The Army owns the WSTA, and the USDOE, Missouri Department of Conservation, Francis Howell School District, and others now own other portions of the former WSOW site. The remediation of WSOW, including WSTA, is governed by the Federal Facilities Agreement between the USEPA Region 7, the Missouri Department of Natural Resources (MoDNR), and the US Army (Fort Leonard Wood). The location of WSOW chemical contaminants was refined. A record of decision (ROD) for Operable Unit (OU) 1 was signed in 1996, and an Explanation of Significant Differences (ESD) was signed in 2004. OU1 addressed contaminated soils and wooden pipelines associated with the former WSOW. Contaminants of concern (COC) released to the soils during the operation of WSOW consisted of DNT; 2,4,6- TNT; polychlorinated biphenyls (PCBs); lead; and polycyclic aromatic hydrocarbons (PAHs). Groundwater was addressed as OU2 on a separate schedule. COCs in the groundwater consist of 1,3-dinitrobenzene; DNT (refers to 2,4-DNT and 2,6-DNT); 2,4,6- TNT; and nitrotoluenes (o-NT, m-NT and p-NT). The areas that require soil remediation have been fully remediated according to the remedial goals identified in the OU1 ROD; however, due to new screening levels, an ESD was prepared in 2023 to address the soils. The contaminant sources for OU2 groundwater are residual nitro-aromatic compounds released to the soils from the WSOW production facilities. These sources were removed during OU1 remediation. The area known as T-13 has soil waste left in place at depth with COC concentrations above remedial goals. The 88th Readiness Division has

implemented internal land use controls (LUC) in the T-13 area, including digging restrictions and signage. Institutional controls for contaminated groundwater and springs exist at the WSTA and other portions of the former WSOW. They are documented in the remedial design (RD)/remedial action (RA) work plan completed in January 2006. Contaminated groundwater is located at the WSTA and on state-owned land at the August A. Busch Memorial Conservation Area and the Weldon Spring Conservation Area. Cleanup of OU2 was initiated as a joint effort with the USDOE, and a remedial investigation (RI) was completed as part of the collaborative effort. Subsequently, a supplemental feasibility study (FS) and proposed plan for OU2 were developed by the US Army Corps of Engineers (USACE). In September 2004, the ROD for OU2 was signed. The selected remedy was monitored natural attenuation (MNA) with the collection of groundwater data to assess the effectiveness of the process. MNA modeled to achieve cleanup goals in 160 years. The environmental indicators currently listed for the Weldon Spring Former Army Ordnance Works site are as follows, Human exposure under control and groundwater migration under control. FYRs will be required for the entire site if hazardous substances do not allow unlimited use and unrestricted exposure (UU/UE). The RGs established in the OU1 ROD do not reflect residential use, and their achievement does not allow the Army to conclude that any portion of OU1 has reached UU/UE conditions. The remedy at OU2 currently protects human health and the environment because ICs have been implemented on federally-owned property. The remedy protectiveness issue regarding OU2 Institutional Controls (ICs) was resolved in the Spring of 2021 with the MoDNR by filing an environmental covenant on state-owned conservation property. Cleanup and Exit Strategy - Remedial action operation (RA(O)), including groundwater monitoring and reporting, will continue annually. The Draft Final OU1 ESD was completed in September 2023, and addresses the 2021 Addendum Fourth Five-Year Review (FYR) findings.

## SITE SUMMARY

## SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
6153A.1002	WSTA-002_Building S-28	12/15/2012

## COMMUNITY INVOLVEMENT

<b>Community Involvement Plan (Date Last Reviewed):</b>	07/01/2010
<b>Technical Review Committee Establishment Date:</b>	N/A
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	01/15/1997
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Reasons for Not Establishing RAB:</b>	Lack of community interest.
<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>	N/A
<b>TAPP Title:</b>	N/A
<b>Potential TAPP:</b>	N/A
<b>Administrative Record Location:</b>	88TH RD HEADQUARTERS - 60 SOUTH O STREET, FORT MCCOY, WISCONSIN 54656
<b>Information Repository Location:</b>	MIDDENDORF-KREDELL BRANCH OF ST. CHARLES CITY COUNTY LIBRARY BRANCH

**FIVE-YEAR / PERIODIC REVIEW SUMMARY**

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Completed	FYR	11/06/2019	September 2021 (5YR Addendum, December 2021).	Complete actions through a contract with USACE/AEC.	For the remedy to be protective in the long-term, the extent of contamination at Area T13 must be confirmed; LUCs must be documented; RGs for 2,4,6- and Lead must be revised; and verification soil data must be evaluated to determine if unacceptable risk remains and for compliance with ARARs (ESD is draft final).	The remedies for OU1 and OU2 remain protective of human health and the environment.
Planned	FYR	11/01/2024	09/01/2026	N/A	N/A	N/A