

# **JFHQ MT ARNG**

## **Army Cleanup Program**

### **Installation Action Plan**

2023

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## Acronyms

Acronym	Definition
AC	Advanced Classification
AEDB-R	Army Environmental Database - Restoration
ARNG	Army National Guard
BLM	Bureau of Land Management
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DCIA	Dempsey Creek Impact Area
DD	Decision Document
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DITA	Dismounted Infantry Training Area
ENV	Environmental
ERRIA	Elk Ridge Road Impact Area
FS	Feasibility Study
GIS	Geographical Information System
HE	High Explosive
HEAT	High Explosive Anti-Tank
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTA	Local Training Area
LTM	Long-Term Management
LUC	Land Use Control
MC	Munitions Constituent
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mg/kg	Milligrams/Kilogram
mm	Millimeter
MR	Munitions Response

Acronym	Definition
MRA	Munitions Response Area
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
MTARNG	Montana Army National Guard
NDNODS	Non-Department of Defense, Non-Operational Defense Sites
PA	Preliminary Assessment
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
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
SI	Site Inspection
UST	Underground Storage Tank
UU/UE	Unlimited Use/Unrestricted Exposure
UXO	Unexploded Ordnance
WBS	Work Breakdown Structure

## PHASE TRANSLATION TABLE

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

## SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
6900A.1042	CC_MTHQ-010-R-01_NDNODS_DAWSON COUNTY LT	
6900A.1043	CC_MTHQ-013-R-01_NDNODS_FRYING PAN BASIN	
6900A.1044	CC_MTHQ-014-R-01_NDNODS_GOBBS LOCAL TRAI	
6900A.1045	CC_MTHQ-016-R-01_NDNODS_HELMVILLE ARTILL	
6900A.1046	CC_MTHQ-021-R-01_NDNODS_LANE RANCH RANG	
6900A.1047	CC_MTHQ-025-R-01_NDNODS_LIVINGSTON TARGE	
6900A.1048	CC_MTHQ-026-R-01_NDNODS_LOST HORSE RIFLE	
6900A.1050	CC_MTHQ-036-R-01_NDNODS_SCRATCHGRAVEL HI	
6900A.1051	CC_MTHQ-012-R-01_DEER LODGE LOCAL	RRMT000012
6900A.1053	CC_MTHQ-026-R-03_NDNODS_LOST HORSE RIFLE	
6900A.1055	CC_MTHQ-040-R-01_BANNACK ARTILLERY RANGE	
6900A.1056	CC_MTHQ-016-R-02_NDNODS_HELMVILLE ARTILLERY RANGE Buffer area	

# JFHQ MT ARNG

## COMPLIANCE CLEANUP SITES

## CC\_MTHQ-010-R-01\_NDNODS\_DAWSON COUNTY LT

**HQAES ID:** 6900A.1042

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

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

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

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	9/15/2012
<b>RI/FS</b>	3/15/2014	6/15/2019
<b>RD</b>	6/1/2025	8/1/2025
<b>IRA</b>	--	--
<b>RA(C)</b>	6/1/2025	9/30/2029
<b>RA(O)</b>	--	--
<b>LTM</b>	10/1/2029	9/30/2059

### Site Narrative

The Dawson County Local Training Area (LTA) is a 10.4-acre Munitions Response Site (MRS) located on North Merrill Street in Glendive, Dawson County, Montana. The site was used by the Montana Army National Guard (MTARNG) for small arms and sub-caliber artillery training from 1982 until 1998. Training at MRS included wheeled and tracked vehicle maneuvers and air mobile training.

During the 2011 Site Inspection (SI) multiple, 40-millimeter (mm) practice rounds were observed.

Soil samples were collected and analyzed for lead during the Remedial Investigation (RI) begun in 2013. Sample results ranged from 4.9 milligrams/kilogram (mg/kg) to 16.8 mg/kg. These results were below the Montana Soil Lead Background level of 29.8 milligram/kilogram so no further action was required for munitions constituents (MC) at this site. During the RI, digital geophysical mapping was completed at 2.8 acres of the site to characterize the nature and extent of the munitions and explosives of concern (MEC) hazards. No MEC items were identified. Due to the amount of munitions debris (MD) observed on the surface and the potential interaction with human receptors, the site was considered to have a potential explosive safety hazard and has been recommended for remedial action.

A Record of Decision (ROD) was finalized for this site in November 2018. The Army National Guard (ARNG) selected Alternative 5 – Surface and Subsurface Removal of Military Munitions (Advanced Classification [AC]) as the preferred remedy.

### Cleanup Strategy

MEC/MD surface and subsurface removal will be completed followed by Land Use Controls (LUCs) and Five Year Reviews.



## CC\_MTHQ-013-R-01\_NDNODS\_FRYING PAN BASIN

**HQAES ID:** 6900A.1043

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 9/30/2033

**RC Date:** 9/30/2033

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	10/15/2012
<b>RI/FS</b>	3/15/2014	4/15/2019
<b>RD</b>	6/1/2029	8/1/2029
<b>IRA</b>	--	--
<b>RA(C)</b>	6/1/2029	9/30/2033
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

The Frying Pan Basin Training Area is located along Bond Road approximately six miles northwest of Dillon, Beaverhead County, Montana. The munitions response site (MRS) was used by the MTARNG for small, medium, and large caliber munitions training from 1950 until the mid 1990s. The MRS is located on publicly and privately owned property used for agricultural purposes. Numerous munitions and explosives of concern (MEC) and munitions debris (MD) items, including Unexploded Ordnance (UXO), have been identified within the MRS boundaries.

During the SI begun in 2011, two MEC items (40-mm M407A1 rounds) were found. Hundreds of training rounds, MD, a bullet-riddled wall, brass, stripper clips, magazine loader and belt were also observed. Based on the SI, the site is 125.9 acres. The SI recommended no further action for MC, but further evaluation for MEC and MD.

During the RI begun in 2015, digital geophysical mapping was completed at 8.9 acres of the site to characterize the nature and extent of the MEC hazards. MEC and MD were identified. This site is considered to have a potential explosive safety hazard and has been recommended for remedial action.

A ROD was finalized in 2018. The ARNG selected *Alternative 6 – Surface and Subsurface Removal of Military Munitions (AC)* as the preferred remedy.

### Cleanup Strategy

MEC/MD surface and subsurface removal will be completed at this site to achieve unlimited use/unrestricted exposure (UU/UE).

## CC\_MTHQ-014-R-01\_NDNODS\_GOBBS LOCAL TRAI

**HQAES ID:** 6900A.1044

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 12/31/2038

**RC Date:** 12/31/2038

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	9/15/2012
<b>RI/FS</b>	1/1/2029	12/31/2033
<b>RD</b>	1/1/2034	1/31/2034
<b>IRA</b>	--	--
<b>RA(C)</b>	1/1/2034	12/31/2038
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

The Gobbs LTA is located on the Gobbs Ranch approximately two miles west of Culbertson on First Street, in the city of Culbertson, Roosevelt County, Montana. Gobbs LTA was identified during the Research Site Visit and associated research during interviews with retired Montana National Guardsmen. Information provided by the Guardsmen indicated that the MTARNG used the site as a target range for 0.45 caliber, 0.233 caliber, 0.308 caliber, and 5.56mm small arms. The range was approximately 25 meters in length and direction of fire was from east to west toward an approximately 40-foot high natural backstop. The training area was active from 1969 until approximately 1991.

Prior to the SI, Geographical Information System (GIS) data obtained from the ARNG Directorate was reviewed and as a result, the original 1.0-acre size of the MRS stated in the Preliminary Assessment (PA) was decreased to 0.9 acres. During the 2011 SI, two lead exceedances in soil were documented. Lead was observed at 850 and 3,300 mg/kg. The regulatory limit is 400 mg/kg. As a result, the site was recommended for additional investigation for MC, initiating the requirement for a RI/Feasibility Study (FS).

Defense Environmental Restoration Program (DERP) funding was used to complete work through the SI at this site. Non-Department of Defense Owned, Non-Operational Defense Sites (NDNODS) sites moving forward with the RI/FS phase are reprogrammed into Compliance-related Cleanup.

### Cleanup Strategy

A RI/FS will be completed at this site. Once the RI/FS is completed it is assumed a soil excavation will be required.

## CC\_MTHQ-016-R-01\_NDNODS\_HELMVILLE ARTILL

**HQAES ID:** 6900A.1045

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 11/30/2021

**RC Date:** 11/30/2021

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	4/15/2007	9/15/2009
SI	7/15/2010	9/15/2012
RI/FS	3/15/2016	9/1/2021
RD	10/1/2021	10/30/2021
IRA	--	--
RA(C)	11/1/2021	11/30/2021
RA(O)	--	--
LTM	12/1/2021	11/30/2053

### Site Narrative

The Helmville Artillery Range is located south of the intersection of State Highway 271 and North Nevada Creek Road in Helmville, Powell County, Montana. The 453.5-acre MRS was used by the MTARNG as a possible target area for artillery training from 1949 until 1953. Firing was directed from the northwest to the southeast towards targets up to four miles away.

During the 2008 PA, 2011 SI, and RI completed in 2021, numerous 105-mm projectile fragments were identified. At the completion of the RI, although no Department of Defense (DoD) military munitions were observed, numerous fragments from high explosive rounds were observed, suggesting that DoD military munitions are potentially present at the MRS.

The ROD was finalized in September 2021. The ARNG has selected *Alternative 2 – Land Use Controls for the Helmville Artillery Range MRS (453.5 acres) and the Helmville Artillery Range Buffer Area MRS (1,636.8 acres)* as the preferred remedial alternative. Educational controls in the form of a fact sheet were submitted to the property owners.

### Cleanup Strategy

Five year reviews will be completed. Costs for CC\_MTHQ-016-R-02 (6900A.1056) are also tracked at this site.

## CC\_MTHQ-021-R-01\_NDNODS\_LANE RANCH RANG

**HQAES ID:** 6900A.1046

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 10/15/2027

**RC Date:** 10/15/2027

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	4/15/2007	9/15/2009
SI	7/15/2010	9/15/2012
RI/FS	3/15/2016	6/26/2023
RD	7/30/2024	9/30/2024
IRA	--	--
RA(C)	7/30/2024	10/15/2027
RA(O)	--	--
LTM	--	--

### Site Narrative

The Lane Ranch Range is located along Red Badge Road, east of Harlowton, Montana. The MRS was used by the MTARNG for small arms training and artillery training with the M31 sub-caliber device, during the 1960s. This portion of the munitions response area (MRA) is 0.15 acres and is referred to as the Lane Ranch Range MRS.

During the 2011 SI, lead was observed in soils at 840 mg/kg. The regulatory limit is 400 mg/kg. The SI recommended the MRS be evaluated in a RI for both MEC and MC.

MC sampling analytical results from the RI begun in 2018 confirmed that levels of lead and antimony are present above screening levels. No evidence of MEC were found. Based on the results of the RI, it was recommended that the original Lane Ranch Range MRS be converted to a MRA made up of the subject site Lane Ranch Range MRS (MTHQ-021-R-01/6900A.1046, 0.15 acres) and Lane Ranch Buffer Area MRS (MTHQ-021-R-02/6900A.1056, 59.55 acres).

A ROD was finalized/signed in June 2023, completing the RI/FS study phase. The ARNG selected remedy is Alternative 3 – Excavation and Off-Site Disposal of MC-Contaminated Soil.

### Cleanup Strategy

A soil removal action will be completed to remove MC-contaminated soil.

## CC\_MTHQ-025-R-01\_NDNODS\_LIVINGSTON TARGE

**HQAES ID:** 6900A.1047

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 4/15/2024

**RC Date:** 4/15/2024

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	9/15/2012
<b>RI/FS</b>	3/15/2014	10/29/2018
<b>RD</b>	4/15/2019	6/15/2019
<b>IRA</b>	--	--
<b>RA(C)</b>	6/15/2019	4/15/2024
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

The Livingston Target Range is located along US Highway 89, two miles south of Livingston, Park County, Montana. The initially 18.2-acre MRS was used by the MTARNG for sub-caliber artillery training, mortar training, and small arms training during the 1930s.

During the 2011 SI, multiple MD discoveries were made including 37mm high explosive (HE) and practice and 3-inch stokes HE and practice. Based on observation of MD from large caliber munitions at the NDNODS Livingston Target Range MRS, the site was recommended for additional investigation for MEC. No metals were detected above applicable screening criteria and no explosives were detected in the samples collected, therefore the site was recommended for no further action for MC.

During the RI/FS completed in 2018, MEC and MD were identified. The site was increased from 18.2 acres to 28.02 acres. The site was considered to have a potential explosive safety hazard and was recommended for remedial action.

A ROD was finalized in October 2018. In 2020, an additional 9.7 acres was added to the MRS, bringing the site to 37.72 acres. The ARNG selected remedy is Alternative 5 – Surface and Subsurface Removal of Military Munitions (Advanced Classification [AC] with Mag/Dig).

### Cleanup Strategy

MEC/MD surface and subsurface removal will be completed at this site.

## CC\_MTHQ-026-R-01\_NDNODS\_LOST HORSE RIFLE

**HQAES ID:** 6900A.1048

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

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

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

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	4/15/2007	9/15/2009
SI	7/15/2010	9/15/2012
RI/FS	9/15/2013	10/28/2018
RD	10/15/2024	12/15/2024
IRA	--	--
RA(C)	6/15/2025	9/30/2029
RA(O)	--	--
LTM	--	--

### Site Narrative

The 0.2-acre Lost Horse Rifle Range is transferred and is located in Hamilton, Ravalli County, Montana. The site was used as a small arms target range by the 230th Vertical Engineering Detachment from Missoula and other local guard units. The Lost Horse Rifle Range was operational from the end of World War II until the 1970s when the property owner constructed a home there; exact use dates are unknown. A small target berm and/or area for the placement of target holders is visible at the base of a natural hillside. The firing line was approximately 100 yards to the southwest from the target berm. The area is currently used as a horse pasture and consists of low grass. Granite cobbles are visible at the surface on the pasture and on the hillside behind the target area.

Based on a personal interview and observations of MD during the site visit, the MRS was used for small arms training, with the potential for pyrotechnics/obscurants. During the 2011 SI one lead sample exceeded the 400 mg/kg screening level at 1,800 mg/kg. During the SI, no evidence of MEC was observed. MD from expended Grenade, 40mm, TP, M407A1, and small arms debris was present in the historical target area. Given the presence of MD and the lead exceedance in one of the samples, the MRA was recommended for additional investigation for MEC and MC.

A RI/FS was completed in 2018 and lead concentrations exceeded both the human health screening criteria (400mg/kg) and ecological screening criteria (11 mg/kg). A ROD was finalized in 2018. The ARNG selected remedies chosen were MEC Alternative 4- Surface and Subsurface Removal of Military Munitions (Mag/Dig) and MC Alternative 3 - Soil Excavation with Off-Site Disposal.

### Cleanup Strategy

A MEC surface and subsurface removal will be completed followed by a soil excavation. Costs for subject site MTHQ-026-R-01 (6900A.1048) and MTHQ-026-R-03 (6900A.1053) are tracked at subject site CC\_MTHQ-026-R-01 (6900A.1048).

## CC\_MTHQ-036-R-01\_NDNODS\_SCRATCHGRAVEL HI

**HQAES ID:** 6900A.1050

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 4/15/2024

**RC Date:** 4/15/2024

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	9/15/2012
<b>RI/FS</b>	9/15/2013	4/15/2018
<b>RD</b>	10/01/2018	6/15/2019
<b>IRA</b>	--	--
<b>RA(C)</b>	10/01/2018	4/15/2024
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

The 2,206.1-acre Scratchgravel Hills Artillery Range is transferred and is located in Lewis and Clark County, Montana. The site was used by 163rd Armored Cavalry of the MTARNG stationed at Helena, Montana during the 1950s. The MRS was also used as a maneuvers training area from 1972 until 1984. According to a retired MTARNG Guardsman, 105 mm munitions, including HE and white phosphorous, were used during annual encampment training during the 1950s.

During the SI, MD was observed including a tail boom from a 81mm mortar, grenade canister and 5.56mm blanks. During the RI, digital geophysical mapping was completed at 10.6 acres of the site to characterize the nature and extent of the MEC hazards. Two MEC items were identified. The RI recommended remedial action. The site was reduced from 2,206.1 acres to 41.34 acres.

A ROD was finalized in 2018, and the preferred remedy selected was Alternative 6 - MEC Surface and Subsurface Removal to achieve UU/UE.

A Remedial Design (RD)/Remedial Action (Construction) (RA(C)) contract was issued in late FY18. RA(C) phase is underway.

DERP funding was used to complete work through the SI at this site. NDNODS sites moving forward with the RI/FS phase are reprogrammed into Compliance-related Cleanup.

### Cleanup Strategy

MEC/MD surface and subsurface removal will be completed at this site to achieve UU/UE.

## CC\_MTHQ-012-R-01\_DEER LODGE LOCAL

**HQAES ID:** 6900A.1051

**Alias:** RRMT000012

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 12/31/2030

**RC Date:** 12/31/2030

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	4/15/2007	9/15/2009
<b>SI</b>	7/15/2010	9/15/2012
<b>R/FS</b>	2/15/2012	2/15/2018
<b>RD</b>	1/1/2026	1/31/2026
<b>IRA</b>	--	--
<b>RA(C)</b>	1/1/2026	12/31/2030
<b>RA(O)</b>	--	--
<b>LTM</b>	1/1/2031	12/31/2061

### Site Narrative

The Deer Lodge LTA is 23,191 acres located in Powell County, Montana several miles west and south of the town of Deer Lodge. The LTA is located at the base of the eastern slope of the Pintler Mountains on portions of both the Montana State Prison Ranch and the Beaverhead National Forest. The Deer Lodge LTA range was used by elements of the MTARNG from the mid-1950s until approximately 1970.

Company C, 19th Special Forces Group of the MTARNG stationed at Missoula, Montana conducted joint live-fire training exercises on the Deer Lodge LTA with active duty Special Forces personnel on a regular basis.

There are three discrete impact ranges associated with the Deer Lodge LTA. The first is near Dempsey Creek in the southern portion of the state prison ranch (Dempsey Creek Impact Area). The second is along La Marche Creek in the Northern portion of the Prison Ranch (Elk Ridge Road). The third is situated between the Dempsey Creek Impact Area and the Elk Ridge Road Impact Area along the western edge of the Deer Lodge LTA MRS and the eastern slopes of the Flint Creek Range (Dismounted Infantry Training Area).

#### Dempsey Creek Impact Area (DCIA)

According to historical documents and personal interviews, the firing practice at Dempsey Creek primarily consisted of 76mm and 90mm tank-fired munitions. In addition 4.2 Inch, 60mm and 81mm mortars, 105mm and 155mm artillery projectiles have been recovered during surface sweeps in 1996 and during annual site reconnaissance. In addition to mortars and projectiles, as many as several hundred inert 3.5-inch rockets have been recovered from the area and one live M31 rifle grenade was recovered in 1997.

#### Elk Ridge Road Impact Area (ERRIA)

During the initial surface reconnaissance of the area on July 23, 1998, a 105mm M67 High Explosive Anti-Tank (HEAT) projectile was discovered. The projectile was located on the surface very close to a large boulder used by locals for target practice. During the summer of 2003 a clearance was completed on either side of the Elk Ridge Road. Dozens of anomalies were validated as blast points during this validation effort and one intact inert 105 mm M67 HEAT projectile was validated.



## Dismounted Infantry Training Area (DITA)

This area was used by MTARNG from the middle 1950's until approximately 1970 as a dismounted infantry training area. The SI report documented recovery of 81mm mortars and 76mm, 90mm and 105mm projectiles from this area.

In FY13 and FY14 geophysical studies and anomaly investigations were completed across all of the transects. The FS was completed in August 2015. The ROD was finalized in February 2018. The Deer Lodge LTA MRS was referred to as MTHQ-012-R-01 MRS prior to the ARNG Directorate and MTARNG separating it into three MRSs (Deer Lodge LTA MRS A (3,711 acres), Deer Lodge LTA MRS B (5,015 acres) and Deer Lodge LTA MRS C). These three divisions are geographic regions separate from the impact range areas discussed above. Although the MTARNG separated the Deer Lodge LTA MRS into three MRSs, the separated MRSs are collectively addressed within the ROD as the Deer Lodge LTA MRS. The selected remedy for MRS A and MRS B (total of 8,726 acres) is Alternative 3-Surface Removal DoD Military Munitions, with land use controls (LUCs). The selected remedy also includes annual inspections, construction support, and CERCLA 5-year review. No further action was recommended for MRS C.

### Cleanup Strategy

A MEC removal action will be completed over 8,726 acres. LUCs and Five Year Reviews will be completed for 30 years.

## CC\_MTHQ-026-R-03\_NDNODS\_LOST HORSE RIFLE

**HQAES ID:** 6900A.1053

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

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

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

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	4/15/2007	9/15/2009
SI	7/15/2010	9/15/2012
RI/FS	9/1/2013	12/31/2017
RD	10/15/2024	12/15/2024
IRA	--	--
RA(C)	6/15/2025	9/30/2029
RA(O)	--	--
LTM	--	--

### Site Narrative

The 0.2-acre Lost Horse Rifle Range is transferred and is located in Hamilton, Ravalli County, Montana. The site was used as a small arms target range by the 230th Vertical Engineering Detachment from Missoula and other local guard units. The Lost Horse Rifle Range was operational from the end of World War II until the 1970s when the property owner constructed a home there; exact use dates are unknown. Based on a personal interview and observations of MD during the site visit, the MRS was used for small arms training, with the potential for pyrotechnics/obscurants.

During the RI, geophysical mapping was completed to characterize the nature and extent of the MEC hazards. No MEC items were identified. Due to the amount of MD observed on the surface and the potential interaction with human receptors, the site was considered to have a potential explosive safety hazard and has been recommended for remedial action.

DERP funding was used to complete work through the SI at this site. NDNODS sites moving forward with the RI/FS phase were reprogrammed into Compliance-related Cleanup.

A ROD was finalized in 2018.

### Cleanup Strategy

A MEC surface and subsurface removal will be completed. Costs for MTHQ-026-R-01 (6900A.1048) and subject site MTHQ-026-R-03 (6900A.1053) are tracked at MTHQ-026-R-01 (6900A.1048).

## CC\_MTHQ-040-R-01\_BANNACK ARTILLERY RANGE

**HQAES ID:** 6900A.1055

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 9/16/2028

**RC Date:** 9/16/2028

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	7/26/2019	9/18/2019
<b>SI</b>	9/01/2020	2/28/2021
<b>RI/FS</b>	9/17/2023	9/16/2028
<b>RD</b>	--	--
<b>IRA</b>	--	--
<b>RA(C)</b>	--	--
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

On July 26, 2019 a fire was reported 25 miles southwest of Dillon, MT, near the ghost town of Bannack/Bannack State Park. The Bureau of Land Management (BLM) responded to the fire. While conducting firefighting duties a firefighter discovered two potential UXO items on the surface.

The MTARNG was notified by BLM personnel and was advised to halt firefighting activities until UXO items could be identified. Lewis and Clark County Sheriff bomb squad and the 120<sup>th</sup> Air Guard Explosive Ordnance Disposal responded and determined the UXO items to be empty 105mm Illumination rounds. Locations of the rounds were recorded, and the items were removed.

On September 18, 2019, MTARNG with coordination from the Dillon BLM office, conducted a site visit of the fire and locations of the two munition items. While walking to the location, MD was noticeable on the surface. A sensor-aided sweep in a 15 to 20-acre area found two M49 fuzes (T-Bar fuze), a blast footprint, large MD, and three .50 caliber balls. Approximately 30-40 MD items were identified to be from HE munitions. The target and firing points are still unknown, and MTARNG has deemed the site to be a potential training area.

A new RI/FS contract was awarded at the end of FY23, and includes an RI/FS for MEC and MC at Bannack Artillery Range.

### Cleanup Strategy

A RI/FS is underway. At this time there isn't sufficient documentation to plan for further actions.

## CC\_MTHQ-016-R-02\_NDNODS\_HELMVILLE ARTILLERY RANGE Buffer area

**HQAES ID:** 6900A.1056

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 11/30/2021

**RC Date:** 11/30/2021

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	4/15/2007	9/15/2009
SI	7/15/2010	9/15/2012
RI/FS	3/15/2016	9/1/2021
RD	10/1/2021	10/30/2021
IRA	--	--
RA(C)	11/1/2021	11/30/2021
RA(O)	--	--
LTM	12/1/2021	11/30/2053

### Site Narrative

The Helmville Artillery Range is located south of the intersection of State Highway 271 and North Nevada Creek Road in Helmville, Powell County, Montana. This portion of the MRA is referred to as the Helmville Artillery Range Buffer Area and consists of 1636.8-acres.

During the 2008 PA, 2011 SI, and RI completed in 2021, 105-mm projectile fragments were identified at lower densities than the suspected target area. At the completion of the RI, although no DoD military munitions were observed, fragments from HE rounds were observed, suggesting that DoD military munitions are potentially present at the MRS.

The ROD was finalized in September 2021. The ARNG has selected *Alternative 2 – Land Use Controls for the Helmville Artillery Range MRS (453.5 acres) and the Helmville Artillery Range Buffer Area MRS (1,636.8 acres)* as the preferred remedial alternative. Educational controls in the form of a fact sheet were submitted to the property owners.

### Cleanup Strategy

Five year reviews will be completed. Costs for this site are tracked at parent site CC\_MTHQ-016-R-01 (6900A.1045).

## SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
6900A.1001	MTHQ-019-R-01_NDNODS KEIL-FRETHEIM LTA	1/8/2019	ENV Restoration, Army
6900A.1002	MTHQ-028-R-01_NDNODS MARSHALL FARMS LTA	9/30/2012	ENV Restoration, Army
6900A.1003	MTHQ-031-R-01_NDNODS NOONAN LOCAL TRAINI	9/15/2012	ENV Restoration, Army
6900A.1004	MTHQ-038-R-01_NDNODS STEWART LOCAL TRAIN	9/30/2012	ENV Restoration, Army
6900A.1005	MTHQ-039-R-01_NDNODS TERRY LOCAL TRAININ	11/9/2021	ENV Restoration, Army
6900A.1006	MTHQ-004-R-01_NDNODS BAINVILLE TARGET RA	9/30/2012	ENV Restoration, Army
6900A.1007	MTHQ-005-R-01_NDNODS Birch Creek CCC Cam	9/30/2012	ENV Restoration, Army
6900A.1008	MTHQ-006-R-01_NDNODS CULBERTSON LTA I	9/30/2012	ENV Restoration, Army
6900A.1009	MTHQ-007-R-01_NDNODS CHINOOK SOUTH FIRIN	11/9/2021	ENV Restoration, Army
6900A.1010	MTHQ-008-R-01_NDNODS Choteau Rifle Range	9/30/2012	ENV Restoration, Army
6900A.1011	MTHQ-009-R-01_NDNODS CULBERTSON CFA	9/30/2012	ENV Restoration, Army
6900A.1013	MTHQ-012-R-01_Deer Lodge Local Training	5/15/2017	ENV Restoration, Army
6900A.1014	MTHQ-013-R-01_NDNODS Frying Pan Basin Tr	10/15/2012	ENV Restoration, Army
6900A.1015	MTHQ-014-R-01_NDNODS Gobbs Local Trainin	9/15/2012	ENV Restoration, Army
6900A.1016	MTHQ-015-R-01_NDNODS Harlowton Artillery	10/31/2015	ENV Restoration, Army
6900A.1017	MTHQ-016-R-01_NDNODS Helmville Artillery	9/15/2012	ENV Restoration, Army

HQAES ID	Site Name	Site Closeout Date	Program Code
6900A.1018	MTHQ-020-R-01_NDNODS LAMMERS RANCH TRAIN	9/30/2012	ENV Restoration, Army
6900A.1019	MTHQ-021-R-01_NDNODS Lane Ranch Range	9/15/2012	ENV Restoration, Army
6900A.1020	MTHQ-022-R-01_NDNODS CULBERTSON LTA 2	9/30/2012	ENV Restoration, Army
6900A.1021	MTHQ-023-R-01_NDNODS Livingston Rocket R	9/30/2012	ENV Restoration, Army
6900A.1022	MTHQ-024-R-01_NDNODS Livingston Small Ar	9/30/2012	ENV Restoration, Army
6900A.1023	MTHQ-025-R-01_NDNODS Livingston Target R	9/15/2012	ENV Restoration, Army
6900A.1024	MTHQ-026-R-01_NDNODS Lost Horse Rifle Ra	9/15/2012	ENV Restoration, Army
6900A.1025	MTHQ-027-R-01_NDNODS LUCKETT LOCAL TRAIN	9/30/2012	ENV Restoration, Army
6900A.1026	MTHQ-029-R-01_NDNODS MCGUIRE LOCAL TRAIN	9/30/2012	ENV Restoration, Army
6900A.1027	MTHQ-030-R-01_NDNODS Muir Ranch Range	9/30/2012	ENV Restoration, Army
6900A.1028	MTHQ-033-R-01_NDNODS PLENTYWOOD TARGET R	9/30/2012	ENV Restoration, Army
6900A.1029	MTHQ-034-R-01_NDNODS ROUNDUP TARGET RANG	11/9/2021	ENV Restoration, Army
6900A.1030	MTHQ-035-R-01_NDNODS RUMSEY TARGET RANGE	9/30/2012	ENV Restoration, Army
6900A.1031	MTHQ-036-R-01_NDNODS SCRATCHGRAVEL HILLS	9/15/2012	ENV Restoration, Army
6900A.1032	MTHQ-037-R-01_NDNODS SOUTH GATE MEADOWS	9/30/2012	ENV Restoration, Army
6900A.1033	MTHQ-007-R-02_NDNODS CHINOOK SOUTH FIRIN	9/15/2012	ENV Restoration, Army
6900A.1034	MTHQ-010-R-02_NDNODS DAWSON COUNTY LTA	9/15/2012	ENV Restoration, Army

HQAES ID	Site Name	Site Closeout Date	Program Code
6900A.1035	MTHQ-013-R-02_NDNODS FRYING PAN BASIN TR	9/15/2012	ENV Restoration, Army
6900A.1036	MTHQ-016-R-02_NDNODS HELMVILLE ARTILLERY	9/15/2012	ENV Restoration, Army
6900A.1037	MTHQ-019-R-02_NDNODS KEIL-FRETHEIM LTA	9/15/2012	ENV Restoration, Army
6900A.1038	MTHQ-025-R-02_NDNODS LIVINGSTON TARGET R	9/15/2012	ENV Restoration, Army
6900A.1039	MTHQ-031-R-02_NDNODS NOONAN LOCAL TRAINI	9/15/2012	ENV Restoration, Army
6900A.1040	MTHQ-036-R-02_NDNODS SCRATCHGRAVEL HILLS	9/15/2012	ENV Restoration, Army
6900A.1041	MTHQ-039-R-02_NDNODS TERRY LOCAL TRAININ	9/15/2012	ENV Restoration, Army
6900A.1052	CC_MTHQ-026-R-03_NDNODS_LOST HORSE RIFLE	12/31/2017	Compliance Cleanup
6900A.1054	CC_MTHQ-031-R-03_NOONAN LOCAL TRAINING A	3/12/2020	Compliance Cleanup
6900A.1057	CC_MTHQ-016-R-03_NDNODS_HELMVILLE ARTILLERY RANGE North	9/21/2021	Compliance Cleanup
6900A.1058	CC_MTHQ-021-R-02_NDNODS_LANE RANCH RANGE BUFFER	6/26/2023	Compliance Cleanup

## COMMUNITY INVOLVEMENT

<b>Technical Review Committee (TRC) Establishment Date:</b>	N/A
<b>Community Involvement Plan (Date Published):</b>	Deer Lodge – 5/13/2016 Lane Ranch – 10/26/2018 Helmville – 10/26/2018 Noonan – 4/17/17
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	N/A
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Additional Community Involvement:</b>	A RAB solicitation was posted for: Deer Lodge – 5/13/15 Lane Ranch – January 2019 Helmville – January 2019 Noonan – 5/18/17
<b>Administrative Record is located at:</b>	MT Army National Guard ATTN: Environmental Office 1956 Mount Majo Street P.O. Box 4789 Fort Harrison, Montana 59636-4789 (406)324-3089(DSN 324-3089)
<b>Information Repository is located at:</b>	MT Army National Guard ATTN: Environmental Office 1956 Mount Majo Street P.O. Box 4789 Fort Harrison, Montana 59636-4789 (406)324-3089(DSN 324-3089)
<b>Current Technical Assistance for Public Participation (TAPP):</b>	N/A
<b>TAPP Title:</b>	N/A
<b>Potential TAPP:</b>	N/A



## **FIVE-YEAR / PERIODIC REVIEW SUMMARY**

### **Review Summary Table**

None

### **ROD/DDs associated with the last Five-Year/Periodic Review**

None

### **Results, Actions & Plans**

None

## LAND USE CONTROLS (LUC) SUMMARY

None

# **FORT WILLIAM HENRY HARRISON**

**Army Cleanup Program**

**Installation Action Plan**

2023

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## ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOI	Area of Interest
ARNG	Army National Guard
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
ENV	Environmental
FS	Feasibility Study
HE	High Explosive
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mm	Millimeter
MR	Munitions Response
MRA	Munitions Response Area
MRS	Munitions Response Site
MRSP	Munitions Response Site Prioritization Protocol
MTARNG	Montana Army National Guard
MTDEQ	Montana Department of Environmental Quality
ng/L	Nanogram/Liter
PA	Preliminary Assessment
PFAS	Pre and Poly-fluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
POL	Petroleum, Oils and Lubricants

Acronym	Definition
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
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
SI	Site Inspection
UST	Underground Storage Tank
UU/UE	Unlimited Use/Unrestricted Exposure
UXO	Unexploded Ordnance
WBS	Work Breakdown Structure
WP	White Phosphorous

## PHASE TRANSLATION TABLE

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

## SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
30655.1017	CCMTHLN03_HELENA NORTH HILLS	--
30655.1018	FWHH-005_OLD ORDNANCE BURIAL TRENCH	--
30655.1022	MT2019-01-P PFAS CONTAMINATION	--



# **FORT WILLIAM HENRY HARRISON**

## **COMPLIANCE CLEANUP SITES**

## CCMTHLN03\_HELENA NORTH HILLS

**HQAES ID:** 30655.1017

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 12/31/2030

**RC Date:** 12/31/2030

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	7/15/2014	4/15/2015
SI	7/15/2014	4/15/2015
R/FS	10/15/2015	11/19/2021
RD	1/30/2026	6/30/2026
IRA	--	--
RA(C)	1/30/2026	12/31/2030
RA(O)	--	--
LTM	--	--

### Site Narrative

The Helena North Hills Munitions Response Area (MRA) comprises 6,847 acres in Lewis and Clark County, Montana. It is adjacent to and northwest of the North Helena Valley MRA. Live fire training occurred from approximately 1948 to the mid-1950s. Firing points and fans identified in the North Helena Valley MRA were a former Tank Firing Fan, Mortar Firing Fan, and Towed Artillery Firing Fan. The three estimated firing fans overlap portions of the North Hills MRA.

The North Hills MRA was subdivided into three areas in the Remedial Investigation (RI). This portion of the site includes most of section 21 and 22 and portions of section 15 and 16 in Township 12N, Range 4W for a total of 1,103 acres.

This site along with other sites in the North Helena Valley were created under a state lease circa 1948 to allow for live-fire training and maneuvers by elements of the Montana Army National Guard (MTARNG) 163rd Infantry Regiment. It was contaminated by Munitions and Explosives of Concern (MEC) and Unexploded Ordnance (UXO) as a result of artillery, tank and mortar live-fire training. Since approximately 1972, the area of the North Helena Valley, including this site, has been responsible for over 200 incidental discoveries of MEC by private citizens leading to over 200 emergency response actions by local first responders. The site was formerly under single private owner (Chevallier Ranch Corporation) but was sold to developers in 2004 for low-density residential development and has been divided so that the site has at least three affected owners. The site is currently open space (farmland) with low density residential development planning as a potential. UXO pose both a potential threat to human health and an environmental threat due to potential for energetic compounds to be released to the environment.

An abbreviated Site Inspection (SI) was completed in 2015. The types of ordnance believed to have been fired into the site include 155 millimeter (mm) high explosive (HE), White Phosphorous (WP), Illum; 105mm HE, WP, Illum; 76mm HE, WP, Armor Piercing, Armor Piercing, Capped.

MEC and Munitions Debris (MD) items were identified on the soil surface and the upper few inches of the soil during the RI. A 2021 Proposed Plan presented the Army National Guard's (ARNG's) selected remedy as *Alternative 4 - Sensor-Aided Surface Sweep and Removal* for the 1,103 acres at the subject site.

## Cleanup Strategy

A MEC removal action will be completed to achieve unlimited use and unrestricted exposure (UU/UE)

## FWWH-005\_OLD ORDNANCE BURIAL TRENCH

**HQAES ID:** 30655.1018

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSP:** Not assigned

**RIP Date:** 4/15/2029

**RC Date:** 4/15/2029

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
<b>PA</b>	3/31/1993	7/31/1993
<b>SI</b>	2/28/1995	9/30/1996
<b>RI/FS</b>	3/15/2010	10/15/2018
<b>RD</b>	03/15/2027	04/15/2027
<b>IRA</b>	--	--
<b>RA(C)</b>	04/15/2027	04/15/2029
<b>RA(O)</b>	--	--
<b>LTM</b>	--	--

### Site Narrative

This site was initially investigated under the Military Munitions Response Program (identified as FWWH-003-R-01) due to suspected burial of munitions. Different site assessment reports, personnel interviews, and pictures identified a burial pit approximately 200 feet north of the Combined Support Maintenance Shop building. It is approximately 0.16 acres. According to personnel interviews, two 2.5-ton truckloads of inert/expended ordnance, specifically, 76mm, 90mm, 105mm, 155mm, and 4.2 inch ammunition were dumped in this area and covered in 1983.

Intrusive sampling activity for the purpose of definitively locating the ordnance burial trench occurred in 1998. This occurred because additional geophysical information was obtained following digital geophysical survey work which also occurred in 1998.

Intrusive sampling was done in several suspect areas based on magnetic anomaly contour maps. One of the suspect areas intrusively sampled was found to contain spent inert munitions and the other contained solid waste. Medical waste and several drums were intermingled with artillery and mortar rounds, but no further action was taken to remove items until the Montana Department of Environmental Quality (MTDEQ) was notified of the discovery. UXO was not observed in the test pit, but anecdotal stories suggest that UXO could be present among the inert/expended ordnance. The MTDEQ was formally advised of the discovery. There are approximately 11 wells being monitored annually. In 2013, trichloroethylene was detected above DEQ-7 regulatory levels in the well immediately down gradient of the burial trench. This area is currently undeveloped.

Based on information gathered, the SI that was completed in August 2008 recommended that the "ordnance burial trench" munitions response site (MRS) continue forward to RI.

The RI was completed in November 2012. The test pit excavations confirmed the location of a suspected MEC cache and buried drums containing petroleum, oils and lubricants (POLs) with associated POL-contaminated soils, but did not fully characterize the extent of soil contamination at the site. A Supplemental RI was completed in 2017. The Record of Decision (ROD) was finalized in October 2018.

## Cleanup Strategy

Soil and debris removal will be completed at the site to achieve UU/UE.

# **FORT WILLIAM HENRY HARRISON**

**INSTALLATION RESTORATION PROGRAM SITES**

## MT2019-01-P PFAS CONTAMINATION

**HQAES ID:** 30655.1022

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 9/30/2025

**RC Date:** 9/30/2025

**RC Reason:** Not assigned

**Program:** ENV Restoration, Army

**Subprogram:** IR

Phases	Start	End
PA	7/15/2014	4/15/2015
SI	9/19/2018	8/31/2021
RI/FS	9/30/2018	9/30/2025
RD	--	--
IRA	--	--
RA(C)	--	--
RA(O)	--	--
LTM	--	--

### Site Narrative

A Preliminary Assessment (PA) was completed for pre and poly-fluoroalkyl substances (PFAS) at Fort William Henry Harrison in Helena, MT, to assess potential PFAS release areas and exposure pathways to receptors. The PA identified three areas of interest (AOIs) related to PFAS releases at Fort William Henry Harrison.

Based on documented potential PFAS releases at these AOIs, there is potential for exposure to PFAS contamination in surface soil and intermittent surface water and sediments to site and construction workers and trespassers via ingestion and inhalation, subsurface soil to site and construction workers via inhalation, and groundwater to residents via ingestion.

A SI was completed at the site. Based on the results of the SI, two AOIs were recommended for RI. At AOI 1, perfluorooctanesulfonic acid (PFOS) concentrations ranged from 2.61 nanograms per liter (ng/L) to 62.2 ng/L in groundwater. At AOI 2, PFOS concentrations ranged from non-detect to 118 ng/L. The risk-based screening level for PFOS is 40 ng/L.

A RI/Feasibility Study (FS) and Decision Document (DD) were placed under contract in Fiscal Year 2018 (FY18). The RI is underway, but FS and DD have since been descoped under this prior contract.

The subject site was tracked as 30655.1019 under the Compliance-related Cleanup (CC) program. In June 2022, the site became Defense Environmental Restoration Program (DERP) eligible and is tracked as 30655.1022.

### Cleanup Strategy

A RI/FS is required at the site, and RI portion is almost complete (tracked under CC program). A FS and DD will follow and will be tracked under the DERP program at the subject site. Once the RI/FS is completed, future actions will be evaluated.

## SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
30655.1001	FWHH-001_UNIT TRAINING EQUIPMENT SITE	9/30/1996	ENV Restoration, Army
30655.1002	FWHH-002_COMBINED SUPPORT MAINTENANCE SH	9/30/1996	ENV Restoration, Army
30655.1003	FWHH-003_SOUTHWEST ASIA REBUILD CENTER	9/30/1996	ENV Restoration, Army
30655.1004	FWHH-004_WILLIAMS STREET GRAVEL PIT	9/30/1996	ENV Restoration, Army
30655.1005	FWHH-005_OLD ORDNANCE BURIAL TRENCH	6/15/2018	ENV Restoration, Army
30655.1006	FWHH-006_SCATTERED PITS AREA	9/30/1996	ENV Restoration, Army
30655.1007	FWHH-007_LANDFILL BURIAL CELLS	9/30/1996	ENV Restoration, Army
30655.1008	FWHH-008_RAILROAD TRACK SPILL AREA	9/30/1996	ENV Restoration, Army
30655.1009	FWHH-009_RANCH TRASH SITES	9/30/1996	ENV Restoration, Army
30655.1010	FWHH-010_MUSCLE MOUNTAIN DUMPS	9/30/1996	ENV Restoration, Army
30655.1011	FWHH-011_FIRE TRAINING PIT	9/30/1996	ENV Restoration, Army
30655.1012	FWHH-002-R-01_.30 CALIBER RANGE-TD	8/31/2008	ENV Restoration, Army
30655.1013	FWHH-003-R-01_ORDNANCE BURIAL TRENCH	9/30/2015	ENV Restoration, Army
30655.1014	FWHH-001-R-01_.30 CALIBER RANGE	8/31/2008	ENV Restoration, Army
30655.1015	CCMTHLN01_North Helena Valley 01	9/15/2017	Compliance Cleanup
30655.1016	CCMTHLN02_Helena Valley Northeast	11/12/2019	Compliance Cleanup
30655.1019	CCMT2019-01-P PFAS CONTAMINATION	06/30/2022	Compliance Cleanup



## COMMUNITY INVOLVEMENT

<b>Technical Review Committee (TRC) Establishment Date:</b>	N/A
<b>Community Involvement Plan (Date Published):</b>	OLD ORDNANCE BURIAL TRENCH – April 2011 HELENA VALLEY NORTHEAST – January 18, 2017 HELENA NORTH HILLS – April 2017
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	RAB Solicitation Completion Dates: OLD ORDNANCE BURIAL TRENCH - December 2015 HELENA VALLEY NORTHEAST – July 16, 2017
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Additional Community Involvement:</b>	N/A
<b>Administrative Record is located at:</b>	MT ARMY NATIONAL GUARD ATTN: ENVIRONMENTAL OFFICE, 1956 MOUNT MAJO STREET, P.O. BOX 4789, FT HARRISON, MT 59636
<b>Information Repository is located at:</b>	MT ARMY NATIONAL GUARD ATTN: ENVIRONMENTAL OFFICE, 1956 MOUNT MAJO STREET, P.O. BOX 4789, FT HARRISON, MT 59636
<b>Current Technical Assistance for Public Participation (TAPP):</b>	N/A
<b>TAPP Title:</b>	N/A
<b>Potential TAPP:</b>	N/A

## **FIVE-YEAR / PERIODIC REVIEW SUMMARY**

### **Review Summary Table**

None

### **ROD/DDs associated with the last Five-Year/Periodic Review**

None

### **Results, Actions & Plans**

None

## LAND USE CONTROLS (LUC) SUMMARY

None

# **HELENA/AASF**

## **Army Cleanup Program**

### **Installation Action Plan**

2023

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## ACRONYMS

Acronym	Definition
AASF	Army Aviation Support Facility
AEDB-R	Army Environmental Database - Restoration
AOI	Area of Interest
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
ENV	Environmental
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
ng/L	Nanograms/Liter
PA	Preliminary Assessment
PFAS	Per- and Poly-fluoroalkyl substances
PFBS	Perfluorobutanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation

Acronym	Definition
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SL	Screening Level
UST	Underground Storage Tank
WBS	Work Breakdown Structure

## PHASE TRANSLATION TABLE

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



## SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4025A.1002	CCMT2020-01-P_HELENA PFAS CONTAMINATION	--
4025A.1003	MT2020-01-P_HELENA PFAS CONTAMINATION	--

# HELENA/AASF

## INSTALLATION RESTORATION PROGRAM SITES

## MT2020-01-P\_HELENA PFAS CONTAMINATION

**HQAES ID:** 4025A.1003

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 9/17/2028

**RC Date:** 9/17/2028

**RC Reason:** Not assigned

**Program:** ENV Restoration, Army

**Subprogram:** IR

Phases	Start	End
PA	8/11/2017	10/22/2018
SI	12/6/2019	8/31/2021
RI/FS	9/17/2021	9/17/2028
RD	--	--
IRA	--	--
RA(C)	--	--
RA(O)	--	--
LTM	--	--

### Site Narrative

Helena Army Aviation Support Facility (AASF) is on a 75-acre parcel of land adjacent to the Helena Regional Airport in Lewis and Clark County. The AASF is on the eastern city limits of Helena, east of Interstate Highway 15, south of Canyon Ferry Road, and north of the Burlington Northern Railroad Tracks.

A Preliminary Assessment (PA) was completed at Helena AASF to assess potential per- and poly-fluoroalkyl substances (PFAS) release areas and exposure pathways to receptors. One area of interest (AOI) related to potential PFAS release was identified at the current Helena AASF during the PA. Based on potential PFAS releases at this AOI, there is potential for exposure to PFAS contamination in surface soil and intermittent surface water and sediments to all receptors via ingestion and inhalation of dust, subsurface soil to site and construction workers via inhalation, and groundwater to residents via ingestion.

A Site Inspection (SI) was performed in July 2020 and field activities included collection of soil and groundwater samples. Perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorobutanesulfonic acid (PFBS) were detected in groundwater at the AOI and PFOS exceeded the individual screening level (SL) of 40 nanograms per liter (ng/L), with maximum concentrations of 775 ng/L (814 ng/L duplicate) and 175 ng/L at locations HAASF-MW005 and HAASF-MW003, respectively. The detected concentrations of PFOA, PFOS, and PFBS in soil samples from the AOI were below the SLs. Based on the results of the SI, the site was warranted for Remedial Investigation (RI), and a RI was funded in late FY21.

The subject site was tracked as 4025A.1002 under the Compliance-related Cleanup (CC) program. In June 2022, the site became Defense Environmental Restoration Program (DERP)-eligible.

### Cleanup Strategy

A RI/Feasibility Study (FS) is underway, and the RI portion has been funded. The FS is still required. Future actions cannot be determined until the RI/FS is complete.

# HELENA/AASF

## COMPLIANCE CLEANUP SITES

## CCMT2020-01-P\_HELENA PFAS CONTAMINATION

**HQAES ID:** 4025A.1002

**Alias:** None

**Regulatory Driver:** CERCLA

**RRSE:** Not assigned

**MRSPP:** Not assigned

**RIP Date:** 9/17/2028

**RC Date:** 9/17/2028

**RC Reason:** Not assigned

**Program:** Compliance Cleanup

**Subprogram:** CC

Phases	Start	End
PA	8/11/2017	10/22/2018
SI	12/6/2019	8/31/2021
RI/FS	9/17/2021	9/17/2028
RD	--	--
IRA	--	--
RA(C)	--	--
RA(O)	--	--
LTM	--	--

### Site Narrative

Helena AASF is on a 75-acre parcel of land adjacent to the Helena Regional Airport in Lewis and Clark County. The AASF is on the eastern city limits of Helena, east of Interstate Highway 15, south of Canyon Ferry Road, and north of the Burlington Northern Railroad Tracks.

A PA was completed at Helena AASF to assess PFAS release areas and exposure pathways to receptors. One AOI related to potential PFAS release was identified at the current Helena AASF during the PA. Based on potential PFAS releases at this AOI, there is potential for exposure to PFAS contamination in surface soil and intermittent surface water and sediments to all receptors via ingestion and inhalation of dust, subsurface soil to site and construction workers via inhalation, and groundwater to residents via ingestion.

A SI was performed in July 2020 and field activities included collection of soil and groundwater samples. PFOA, PFOS, and PFBS were detected in groundwater at the AOI and PFOS exceeded the individual SL of 40 ng/L, with maximum concentrations of 775 ng/L (814 ng/L duplicate) and 175 ng/L at locations HAASF-MW005 and HAASF-MW003, respectively. The detected concentrations of PFOA, PFOS, and PFBS in soil samples from the AOI were below the SLs. Based on the results of the SI, the site was warranted for RI, and a RI was funded in late FY21.

The subject site was tracked as 4025A.1002 under the CC program. In June 2022, the site became DERP-eligible.

### Cleanup Strategy

A RI/FS is underway, and the RI portion has been funded. The FS is still required. Future actions cannot be determined until the RI/FS is complete.

## SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
4025A.1001	CCMT-AASF_Old AASF Drywells	7/31/2000	Compliance Cleanup

## COMMUNITY INVOLVEMENT

<b>Technical Review Committee (TRC) Establishment Date:</b>	N/A
<b>Community Involvement Plan (Date Published):</b>	TBD
<b>Restoration Advisory Board (RAB) Establishment Date:</b>	N/A
<b>RAB Adjournment Date:</b>	N/A
<b>RAB Adjournment Reason:</b>	N/A
<b>Additional Community Involvement:</b>	Community Involvement Plan, Administrative Record and Information Repository will all be developed as the project progresses.
<b>Administrative Record is located at:</b>	TBD
<b>Information Repository is located at:</b>	TBD
<b>Current Technical Assistance for Public Participation (TAPP):</b>	N/A
<b>TAPP Title:</b>	N/A
<b>Potential TAPP:</b>	N/A

## **FIVE-YEAR / PERIODIC REVIEW SUMMARY**

### **Review Summary Table**

None

### **ROD/DDs associated with the last Five-Year/Periodic Review**

None

### **Results, Actions & Plans**

None



## LAND USE CONTROLS (LUC) SUMMARY

None