



REGION 8

DENVER, CO 80202

Ref: 8SEM-EMR

ACTION MEMORANDUM

SUBJECT: Approval and Funding for a Removal Action at the East Helena Lead Removal Site, East Helena, Lewis and Clark County, Montana

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TO: Aaron Urdiales, Director
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Site ID # 0830

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the removal action described herein for the East Helena Lead Removal Site in East Helena, Lewis and Clark County, Montana. This time-critical removal action involves removing lead contaminated soils from residential yards and a school playground and replacing them with clean soils. Conditions existing at the Site present a threat to public health or welfare or the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

This removal action involves no nationally-significant or precedent-setting issues. This time-critical removal action will not establish any precedent for how future response actions will be taken and will not commit the US Environmental Protection Agency (EPA) to a course of action that could have a significant impact on future responses or resources.

II. SITE CONDITIONS AND BACKGROUND

Site Name: East Helena Lead Removal
Removal Category: Time Critical
Site Spill ID (SSID): 0830
NRC Case Number: N/A
CERCLIS Number: MTD006230346
Site Location: Valley Drive and Lewis Street
Lat/Long: 46.595038, -111.914502
Potentially Responsible Party (PRP):
NPL Status: NPL
Removal Start Date: FY 2024, Q3

A. Site Description

1. Removal site evaluation

East Helena Superfund Site is an EPA Remedial site addressing the contamination from a historic smelter that operated for over 100 years (1888 to 2001). The lead and zinc smelter operated on the southern edge of town. The operation led to the deposition of heavy metal contamination throughout East Helena. A Superfund Site Investigation (SSI) was completed in 1981 and the site was listed on the National Priority List (NPL) in 1984. EPA's Remedial team has completed and/or overseen multiple phases of response work, including extensive remedial action, including groundwater cleanup and residential yard clean up. The Region's current focus is lead-contaminated soils with exposure pathways to sensitive demographics. During a 2023 soil sampling event at the Site, EPA's Remedial team discovered eight unaddressed properties with high concern of exposure. These properties are occupied by highly sensitive demographics (children and women of childbearing ages) and have high concentrations of lead in their yards. In some cases, the children have shown elevated blood lead levels. EPA's Remedial team asked that the Removal team address these properties in advance of a more comprehensive remediation effort. A list of addresses is provided in the administrative record; it includes seven residential homes and one elementary school playground.

2. Physical location

The NPL site encompasses the entirety of East Helena, Montana, a town with a population of 6,000 residents. East Helena is approximately six miles east of Helena in West-Central Montana, the capital city of the state. In addition to the town itself, the NPL Site also includes outlying suburbs and farmland of East Helena, about 4 square miles in all. East Helena is described as a semi-arid climate with relatively low amounts of precipitation throughout the year. The month with the highest rainfall on average is June with 2.4" and the month with the highest snowfall on average is January with 2.9" (source:

<https://weatherspark.com/y/2780/Average-Weather-in-East-Helena-Montana-United-States-Year-Round>).

The Removal Site boundaries lie entirely within the NPL Site boundaries. The Removal Site is comprised of the eight prioritized addresses, the on-site Smelter Road Repository and the necessary roads connecting the addresses to the repository for proper disposal.

3. Site characteristics

The Removal Site is multi-use, including a school and residential homes. The roads necessary for disposal at the on-Site repository pass by small businesses, government buildings, through industrial areas and school zones, and includes sections of high-speed freeways.

According to EPA's Environmental Justice (EJ) Screening and Mapping Tool for this Site, the data indicates potential areas of EJ concern at or near the Site.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant.

Lead is the main contaminant of concern at the Site. It is listed as a hazardous substance in 40 CFR § 302.4. At the prioritized properties, lead contaminated soils have been sampled with concentrations ranging from 563 ppm to 1,065 ppm (see Attachment 2). This is over five times greater than the residential soil lead Removal Management Level (RML) concentration of 200 ppm and more than twice the East Helena Superfund Site Remedial Clean Up level of 400 ppm.

The prioritized properties are occupied by sensitive demographics of children and women of childbearing age. Ingestion of lead contaminated soils commonly occurs when children are playing in contaminated yards and when those children enter the home after playing. Pets entering the home after time spent in a contaminated yard is also a common exposure pathway.

In the highest priority residential cases at the Site, children have tested positive for elevated blood lead levels. Elevated blood lead levels in children can result in behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems and anemia. In rare cases, ingestion of lead can cause seizures, coma and even death. During pregnancy, elevated lead in the blood can result in serious effects to the mother and her developing fetus, including reduced growth of the fetus and premature birth. Lead is also harmful to adults and can cause cardiovascular effects, increased blood pressure and incidence of hypertension, decreased kidney function and reproductive problems (source: <https://www.epa.gov/lead/learn-about-lead#:~:text=Adults%20exposed%20to%20lead%20can,in%20both%20men%20and%20women>).

5. NPL Status

The East Helena Superfund Site was listed on the NPL in 1984 and has since completed considerable remediation efforts. The most recent Five-Year Review was in 2021. The Site is

currently undergoing Remedial Action at Operable Unit 2 addressing residential and agricultural lands with soil amendments, excavations, institutional controls, and disposal events.

6. Maps, pictures, and other graphic representations

A map of the Site is available in Attachment 1.

B. Other Actions to Date

1. Previous actions

Aside from Response actions previously discussed, no other clean up actions have been taken at the Site.

2. Current actions

Aside from the ongoing Remedial actions previously discussed, no other clean up actions are currently underway.

C. State and Local Authorities' Roles

1. State and local actions to date

State and Local Authorities have historically been in consultation with the EPA Remedial team at the Site but have not had any involvement with the scope of this action under the EPA Removal team.

2. Potential for continued State/local response

State and local entities do not have the resources or authority to conduct this removal action and are involved in a consultation role only.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions at the Site present a threat to public health and the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the NCP. EPA has considered all the factors described in 40 CFR 300.415(b)(2) of the NCP and determined that the following factors apply at the Site.

“(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.”

High levels of lead have been identified in residential yards and at a school playground. Sampling data from 2023 at the Site shows lead concentrations of up to 1,065 ppm. This is over five times greater than the residential soil lead Removal Management Level (RML) concentration of 200 ppm and more than twice the East Helena Superfund Site Remedial

Clean Up level of 400 ppm. Additionally, children have been tested with elevated blood lead levels at the Site (see Attachment 2).

Common exposure pathways at the Site include children playing in contaminated yards and women of childbearing age inhaling lead contaminated dirt tracked into the home by children and pets.

“(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.”

As previously stated, lead contaminated soils at the Site are nearly five times the current lead RML’s and more than double the Remedial Clean Up Levels for the East Helena Superfund Site and present health risks to sensitive demographics. Soils can be expected to migrate during dry windy periods at the Site.

“(vii) The availability of other appropriate federal or state response mechanisms to respond to the release.”

Local and state governments do not have the capability to conduct the action in a timely manner.

IV. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

To mitigate the threat of exposure to affected populations at the Site, EPA’s Removal team will excavate contaminated soils down to 18” from the eight properties of concern and properly dispose of them. The 18” depth will be adjusted as needed in the field to account for tree roots, driveways, road aprons, and other nuanced circumstances. At each property, the Removal team and homeowner will agree on the extent of excavation to protect any significant personal properties while still mitigating the risk of exposure. After excavation, the team will backfill each excavated area with clean gravel, soils, and provide a sod cover until the remedial program does a final landscape restoration (planned for Summer 2025). The specific work completed at each property will be documented in the site file.

Excavation and backfilling with clean soils will mitigate the threat by guarding against the main exposure pathway, which is ingestion of contaminated soils.

For this removal action, there is an estimated 10,000 cubic yards of contaminated soils to remove.

2. Contribution to remedial performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action.

3. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA is not required for a time-critical removal action.

4. Applicable or relevant and appropriate requirements (ARARs)

Removal actions conducted under CERCLA are required, to the extent practicable considering the exigencies of the situation, to attain ARARs. In determining whether compliance with an ARAR is practicable, the lead agency may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted. A table containing Site-specific ARARs is provided as Attachment 3 to this Action Memorandum.

5. Project schedule

Site work is expected to begin in May of 2024 and be completed by November of 2024.

B. Estimated Costs

	Estimated Costs
ERRS contractor	\$ 1,350,000
START contractor	\$ 100,000
SUBTOTAL	\$ 1,450,000
Contingency costs (20%)	\$ 290,000
Total Removal Project Ceiling	\$ 1,740,000

*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA

V. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at this Site would increase the threat to the public health and/or the environment. Families and children would continue to be exposed to high levels of lead, leading to increased health and development complications.

VI. OUTSTANDING POLICY ISSUES

None

VII. ENFORCEMENT

A separate Enforcement Addendum has been prepared providing a confidential summary of current and potential future enforcement activities.

VIII. RECOMMENDATION

This decision document represents the selected removal action for the East Helena Lead Removal Site, in East Helena, Lewis and Clark County, Montana developed in accordance

with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for this removal action.

Conditions at the site met the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is \$1,740,000. Of this ceiling, \$500,000 is funded from a Special Account and the remaining balance will be funded from lead specific removal funding from the Superfund Tax.

Approve

Aaron Urdiales, Director
Superfund and Emergency Management Division

Date

Disapprove

Aaron Urdiales, Director
Superfund and Emergency Management Division

Date

Attachments

Attachment 1: Map of the Site

Attachment 2: Lead Risk Memorandum for Residential Soils at the East Helena Superfund Site

Attachment 3: ARARs