



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 HAWTHORNE STREET  
SAN FRANCISCO, CALIFORNIA 94105

August 18, 2017

SEP 14 2017

MEMORANDUM

**SUBJECT:** Request for Approval of Project Ceiling Increase Action Memorandum to Continue the Non-Time Critical Removal Action at the Eureka Smelters Site (aka Town of Eureka), Eureka NV – **Action Memorandum Amendment #2**

**FROM** Enrique Manzanilla, Director  
Superfund Division

**THRU:** *for* Reggie Cheatham, Director  
Office of Emergency Management

James E. Woolford, Director  
Office of Superfund Remediation and Technology Innovation

**TO:** Barry N. Breen, Acting Assistant Administrator  
Office of Land and Emergency Management

**I. PURPOSE**

The purpose of this Action Memorandum is to request and to document approval of the Project Ceiling Increase of \$4,000,000 described herein to mitigate threats to human health and the environment posed by the presence of lead and arsenic in soil at the Eureka Smelters Site, aka Town of Eureka, (the "Site") located in Eureka, NV. The work to be performed under this Ceiling Increase will be a continuation of work under a previous Non-Time Critical Removal Action (NTCRA) Ceiling Increase Memorandum signed on September 15, 2016. The work at the Site was originally initiated under a Time Critical Removal Action (TCRA) Memorandum signed on June 30, 2013. Approval of this request will bring the total approved removal action ceiling to \$17,450,000<sup>1</sup>.

<sup>1</sup> "Removal Action Ceiling Costs," as defined by the September 2009 Superfund Removal Guidance for Preparing Action Memoranda, includes only direct extramural costs. As discussed in this memorandum, additional costs may be incurred as recoverable as "incurred response costs."

The September 15, 2016 NTCRA Ceiling Increase Memorandum brought the Project Ceiling up to \$13,450,000. The June 7, 2016 NTCRA Memorandum (Attachment A), which brought the Project Ceiling up to \$8,950,000, provided a Ceiling Increase above \$6 million and an Emergency Exemption from the \$2 Million Statutory Limit. The June 7, 2016 NTCRA Memorandum was based on the U.S. Environmental Protection Agency's (EPA's) March 2016 Engineering Evaluation/Cost Analysis (EE/CA) for the Site, public comments received pursuant to 40 CFR 300.415(n)(4), and the administrative record for the Site.

The EE/CA Approval Memo was signed on February 26, 2014 and the EE/CA was completed in March 2016. During the preparation of the EE/CA, EPA met periodically with an advisory panel appointed by Eureka County so the community could have input on the EE/CA as it was being prepared. EPA held a sixty-day public comment period on the EE/CA.

The June 7, 2016 NTCRA Memorandum selected the removal actions for each of the five operable units (OUs) identified in the EE/CA – OU-1: Residential Properties, OU-2: Slag Piles, OU-3: Undeveloped Parcels within or adjacent to former smelter and mill sites, OU-4: Eureka Creek and OU-5: Contaminated Material Disposal and approved \$3,000,000 toward the work.

Prior to approval of the NTCRA Memorandum, cleanup of residential properties (OU-1) was accomplished under four previous Time Critical Removal Action Memorandums, approved on July 30, 2013, April 9, 2014, June 12, 2015, and April 29, 2016. The work conducted up until the approval of the NTCRA Memorandum included cleanup of 43 residential properties, and a portion of the Eureka Elementary School. The total removal action ceiling authorized under the previous four Time-Critical Action Memorandums was \$5,950,000.

EPA is currently in the field conducting cleanup under the authority of the September 15, 2016 NTCRA Ceiling Increase Memorandum. Removal activities for the 2017 field season are nearing completion, with EPA expecting to demobilize from the site in early October. By that time, EPA expects to have cleaned up approximately 45 residential properties all during the FY 2017 construction season, and crushed 40,000 tons of rock for onsite use to stabilize highly contaminated hillsides.

The additional funding requested under this Ceiling Increase Action Memorandum is necessary to conduct pre-planning and procurement activities for the 2018 field season and to continue performance of removal activities identified in the NTCRA Memorandum, during the 2018 field season. This Ceiling Increase provides additional funding in the amount of \$4,000,000 to continue implementing the selected removal action. Pursuant to EPA delegation 14-2 and Regional Delegation 1290.03A, the authority to approve a removal action ceiling greater than \$6 million and requiring an emergency waiver rests with the Assistant Administrator of the Office of Land and Emergency Management.

## **II. SITE CONDITIONS AND BACKGROUND**

See EPA's June 7, 2016 NTCRA Memorandum (Attachment A)

## **A. Other Actions to Date**

### **1. Previous Actions**

From September 2013 through early November 2013, and from April 2014 through July 2014, EPA's Emergency Response Program conducted the following removal activities at the Site:

- Excavation of one foot of contaminated soil at 43 residential properties and at a portion of the Eureka Elementary School, replacement of excavated soil with clean backfill, and replacement of landscaping that was damaged during the excavation.
- Sampling and analysis of excavated areas to document contaminant levels at the base of the excavation.
- Placement of barrier tape at the base of excavation areas where soil contaminant concentrations remained above the site cleanup levels of 425 mg/kg lead or 234 mg/kg arsenic.
- Placement of excavated soil in temporary storage areas located at the north end of town.
- Air sampling and monitoring of all operations to monitor for off-site emissions of hazardous substances.
- Sampling of 90 additional residential properties.

From May to October, 2016, EPA's Emergency Response Program conducted the following removal activities at the Site:

- Excavation of one foot of contaminated soil at approximately 40 additional residential properties, replacement of excavated soil with clean backfill, and replacement of landscaping that was damaged during the excavation;
- Construction of a repository to accept contaminated soil excavated from residential properties;
- Hauling of previously excavated contaminated soil from existing stockpiles to the repository;
- Closing and capping of the repository;
- Sampling additional residential properties.

### **2. Current Actions**

Work being conducted during the current 2017 field season is occurring under the authority of the September 15, 2016 NTCRA Memorandum. To date, approximately 30 properties have been cleaned up this field season, and it is expected that by the end of the field season approximately 45 properties will have been cleaned up. This will bring the total number of properties cleaned up to approximately 128. All known Tier 1 and the majority of Tier II properties, where owners have consented to cleanup, will have been completed by the end of the 2017 field season.

Also during the 2017 field season, EPA crushed 40,000 tons of rock at the County landfill staging area. This rock was purchased for the express purpose of stabilizing highly contaminated

hillsides. In previous field seasons, EPA had imported rock at significant expense. A portion of the crushed rock is being used as landscaping and cover material at the OU-1 properties being cleaned up. The majority of the crushed rock will be utilized as cover material for four hillsides associated with OU-3: Undeveloped Parcels within or adjacent to former smelter and mill sites. Initially it was anticipated that work on hillside #2 of OU-3 would occur during the 2016 and 2017 field seasons. Work on OU-3 was postponed until the 2018 field season so that EPA could perform the previously mentioned rock crushing, and so that EPA could negotiate a land swap between private property owners on one of the hillsides and Eureka County. This land swap will ensure that highly contaminated property on hillside #2 will be under the control of Eureka County, which will better ensure the efficacy of the engineering controls (capping with crushed rock) that will minimize future exposures. With the postponement of work on OU-3, EPA focused activities during the 2016 and 2017 field seasons on cleanup of OU-1 properties.

**B. State and Local Authorities' Roles**

See the June 7, 2016 NTCRA Memorandum (Attachment A)

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

See the June 7, 2016 NTCRA Memorandum (Attachment A)

**IV. ENDANGERMENT DETERMINATION**

See the June 7, 2016 NTCRA Memorandum (Attachment A)

**V. EXEMPTION FROM STATUTORY LIMITS**

See the June 7, 2016 NTCRA Memorandum (Attachment A)

**VI. PROPOSED ACTIONS AND ESTIMATED COSTS**

**A. Proposed Action**

**1. Proposed Action Description**

The June 7, 2016 NTCRA Memorandum identified the selected removal actions for all five OUs identified in the EE/CA. This Ceiling Increase provides and continues ongoing partial funding for OU-1, OU-2, OU-3 and OU-5. The work will focus on the continued remediation of residential parcels and the stabilization of highly contaminated hillsides. At present, it is anticipated that this NTCRA will be conducted incrementally by EPA as a Fund-lead cleanup action; however, future work on the Site is contingent upon available funding. Due to the limited availability of funding, EPA would generally prioritize work as follows; although prioritization would be contingent upon field factors and the discretion of the OSCs.

- Cleanup of OU-1 Tier I properties (completed all known, accessible properties) ,
- Cleanup of OU-3 Hillside,
- Cleanup of OU-1 Tier II properties (estimated 15 properties remaining),
- Cleanup of OU-2 Slag Piles,
- Cleanup of OU-1 Tier III properties (estimated 25 properties remaining).

## **OU-1: RESIDENTIAL PROPERTIES**

During the current 2017 field season, EPA has continued to conduct cleanup of additional residential properties with concentrations above established action levels. All properties which have been sampled have been sorted into Tier I, II and III to allow for prioritization of cleanup work. To date this season, EPA has conducted cleanup at approximately 30 additional properties, and by the end of the 2017 field season EPA expects to have completed 45 properties, bringing the total number of properties cleaned up to approximately 128.

Work has been completed on all known Tier 1 properties, with several exceptions:

- Properties which will be remediated concurrently with OU-3 hillside,
- Properties where access has been denied by the property owner,
- Properties where EPA has been unable to contact the owner,
- Vacant or abandoned parcels.

There are approximately 15 Tier II and 25 Tier III properties remaining which have not been cleaned up. The 15 Tier II properties do not include the 15 remaining for this year. The 25 Tier III properties are a lower priority and will be remediated as progress and funding allow. As funding allows, work would continue on Tier II and Tier III properties, with the focus being on Tier II properties.

As stated in the June 2016 NTCRA Memorandum, contaminated properties will be excavated to approximately 1 foot below ground surface. In accordance with the Superfund Lead-Contaminated Residential Sites Handbook, in select areas such as vegetable gardens or children's play areas, an additional 1 foot of soil may be excavated. Soils will not be excavated from beneath permanent structures such as houses, or semi-permanent structures such as rock walls, storage sheds, or gravel driveways. Excavated areas will be covered with 1 foot of imported clean fill material(s). Barrier tape will be placed at the base of any excavated areas where soil contaminants remain in excess of the site cleanup levels.

## **OU-2: SLAG PILES**

EPA has identified four individual slag piles at the Site, with a combined area of 6.44 acres. These slag piles require special consideration due to their public accessibility, historic value as a cultural resource related to the area's mining history, and elevated contaminant concentrations. The elevated lead and arsenic concentrations at the slag piles suggest they are ongoing contaminant sources through wind-borne or water-borne entrainment of fine particles. As described in the EE/CA, the slag piles would be regraded and capped in place. The goal is to complete the regrading and capping of the four slag piles with the funding from this request but,

because of extenuating factors, it is not possible to say that they will be completed with total certainty.

### **OU-3: UNDEVELOPED PARCELS WITHIN OR ADJACENT TO FORMER SMELTER AND MILL SITES**

EPA has identified OU-3 as four individual undeveloped hillsides totaling 20.62 acres within or adjacent to the footprints of former smelter and mill sites. These parcels require special consideration due to their relatively steep slopes, location near or adjacent to residential properties and schools, common recreational usage, public accessibility, and high contaminant concentrations that suggest these parcels may be ongoing contaminant sources through potential wind-borne entrainment of fine particles or runoff that contains lead and arsenic.

During the 2018 field season, EPA plans to address these four hillsides by re-grading as necessary, covering with soil and rock and installing drainage controls. OU-3 hillside work would be prioritized over other work.

Negotiations are currently underway for a land swap involving property owners on hillside #2 and the County. Additionally, EPA expects that land use covenants will be negotiated with the property owners on all four hillsides, to ensure the future efficacy of the implemented engineering controls.

### **OU-5: CONTAMINATED MATERIAL DISPOSAL**

All contaminated soil excavated during the course of cleanup work during the 2018 field season (and any future seasons) will be transported to the repository for disposal. The repository, which was constructed during the 2016 field season, is designed to be extended as needed, with additional excavated material placed at the northern toe of the existing slope. This allows the capacity of the repository to accommodate materials excavated over multiple field seasons. In order to accept excavated soil, the repository will be expanded during the 2018 field season. After excavation for 2018 is complete, the new section of the repository will be closed and capped according to the design.

#### **2. Contribution to remedial performance**

If the removal actions selected in the June 2016 NTCRA Memorandum are fully implemented, EPA does not anticipate proposing listing the Site for the National Priorities List (NPL). These actions are anticipated to be consistent with any additional future remedial actions, should such actions be necessary.

#### **3. Applicable or relevant and appropriate requirements (ARARs)**

See the June 7, 2016 NTCRA Memorandum.

#### **4. Project Schedule**

The work described in this Project Ceiling Increase Action Memorandum will include procurement and planning activities in the winter of 2017-2018 and field work from approximately May to October 2018, as a continuation of the current, ongoing cleanup activities under the June 2016 NTCRA Memorandum. If additional funding is approved for the remaining work, the full scope of the removal actions selected in the June 2016 NTCRA Memorandum may be implemented over a period of several additional years.

**B. Estimated Costs**

Cost estimates used in this Project Ceiling Increase Action Memorandum and the NTCRA Memorandum are based on extramural cleanup costs that were provided in the EE/CA. The types of costs that were assessed were in accordance with the requirements for similar actions found in 40 CFR 300.430 (e)(9)(iii)(G) and include the following:

- Capital costs, including both direct and indirect costs
- Annual O&M costs
- Net present value (NPV) of capital and O&M costs

<b>Extramural Costs</b>	<b>Current Ceiling</b>	<b>Proposed Increase</b>	<b>Proposed Ceiling</b>
<b><u>Regional Allowance Costs</u></b>			
ERRS and Subcontractors	12,300,000	3,500,000	15,800,000
<b><u>Extramural Costs not from the Regional Allowance</u></b>			
START	1,100,000	500,000	1,6100,000
Pacific Strike Team	50,000	0	50,000
 Total Extramural Removal Ceiling	 \$13,450,000	 \$4,000,000	 \$17,450,000

The Total Extramural Removal Ceiling (\$17,450,000) would be subtracted from the total estimated cost in the EE/CA of \$24,822,000. This would leave an outstanding extramural estimated cost of \$7,372,000 needed to complete the full scope of the removal actions selected in the June 2016 NTCRA Memorandum. More recent cost estimates suggest the cost to complete the full scope of the removal actions selected in the June 2016 NTCRA Memorandum is substantially lower. These costs are estimated below.

- OU-1 Residential Properties. Tier 1:  
No additional funding needed. Work completed.

- OU-3 Hillside: No additional funding needed. Covered under this ceiling increase.
- OU-1 Residential Properties. Tier II: No additional funding needed. Covered under this ceiling increase.
- OU-2 Slag Piles. \$1,000,000
- OU-2 Residential Properties. Tier III. \$1,000,000

As mentioned above, it is anticipated that this NTCRA will be conducted incrementally by EPA as a Fund-lead cleanup action; however, future work on the Site is contingent upon available funding. Such funding will be requested in subsequent Action Memorandums.

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

If this Project Ceiling Increase Action Memorandum is not approved, then removal activities will cease after funding associated with the NTCRA is exhausted. Cessation of response activities will result in continued and ongoing exposure by Eureka residents, including children, to high levels of lead and arsenic.

**VIII. OUTSTANDING POLICY ISSUES**

Given limitations on funding and weather constraints for conducting field work, implementing the full scope of the removal actions will require ceiling increases over the course of several years.

**IX. ENFORCEMENT**

Please see the Enforcement Confidential Addendum attached to this Action Memorandum. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

<b><u>Intramural Costs</u></b>	<b><u>Original Cost</u></b>	<b><u>Additional Costs</u></b>	<b><u>Total Costs</u></b>
U.S. EPA Direct Costs <sup>3</sup>	400,000	100,000	500,000
U.S. EPA Indirect Costs (59.51% of 8,950,000 + 325,000)	8,242,135	2,439,910	10,682,045
<b>Total Intramural Cost</b>	<b><u>\$8,642,135</u></b>	<b><u>\$2,539,910</u></b>	<b><u>\$11,182,045</u></b>

The total EPA extramural and intramural costs for this removal action that will be eligible for cost recovery, based on full-cost accounting practices, are estimated to be \$28,632,045

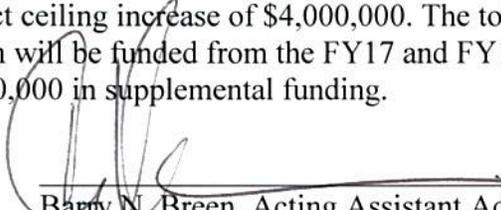
<sup>3</sup> Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of Site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties.

Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

**X. RECOMMENDATION**

Site conditions continue to meet the NCP section 300.415(b) criteria for a removal and the criteria for a CERCLA section 104(c) emergency exemption, and I recommend your approval of the proposed project ceiling increase of \$4,000,000. The total project ceiling if approved will be \$17,450,000, which will be funded from the FY17 and FY18 regional removal allowance, as well as from \$2,000,000 in supplemental funding.

APPROVAL:

  
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Barry N. Breen, Acting Assistant Administrator  
Office of Land and Emergency Management

9/15/17  
\_\_\_\_\_  
Date

DISAPPROVAL:

\_\_\_\_\_  
Barry N. Breen, Acting Assistant Administrator  
Office of Land and Emergency Management

\_\_\_\_\_  
Date

**Figures:**

- Figure 1. Regional location map
- Figure 2. Site location map

**Attachments:**

- Attachment A: June 7, 2016 Non Time Non-Time-Critical Action Memorandum
- Attachment B: Enforcement Confidential Addendum
- Attachment C: Index to the Administrative Record

**Bcc: Site File**

- Larry Bradfish, ORC-3
- Tom Dunkelman, SFD-9-2
- Bret Moxley, SFD-9-2
- Celeste Temple, SFD-9-4
- Barbara Lee, SFD-9-4
- Ramon Albizu, SFD-9-4