

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Rockford Beach Dam, Southwest Jefferson County Mining Site OU 4 - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: POLREP #2
Final
Rockford Beach Dam, Southwest Jefferson County Mining Site OU 4
A7D2
House Springs, MO
Latitude: 38.4216485 Longitude: -90.5889418

To: Adam Ruiz, R7

From: Cody McLarty, RPM

Date: 9/13/2016

Reporting Period: 8/24/2015 - 6/28/2016

1. Introduction

1.1 Background

Site Number:	A7D2	Contract Number:	
D.O. Number:		Action Memo Date:	11/24/2015
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	OU4
Mobilization Date:	6/1/2016	Start Date:	6/29/2015
Demob Date:	6/28/2016	Completion Date:	6/28/2016
CERCLIS ID:	MON000705443	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-critical Removal Action

1.1.2 Site Description

The dam is the historical location of the Rockford Mill, built in the 1890s. During the mill's operation, a low head dam was built across the river to impound water to power the mill. The original dam was likely built using cedar log cribbing backfilled with rock. A concrete capping was added to the structure at a later date. While the current dam is deteriorating, it does provide a barrier to the downstream migration of lead-contaminated sediment. The Rockford Beach Dam is within operable unit 4 of the Southwest Jefferson County Mining Site, which was proposed for inclusion on the National Priorities List (NPL) on April 9, 2009, and listed on September 23, 2009.

1.1.2.1 Location

The Rockford Beach Dam is located 1.5 miles northwest of House Springs, Missouri off of Missouri Highway W in Jefferson County, Missouri at United States Geological Survey River Mile Marker 10.5. The coordinates are 38.421664; -90.5888586.

1.1.2.2 Description of Threat

The imminent failure of the dam would result in the release of lead-contaminated sediment farther downstream on the Big River that would threaten three federally listed mussel species and a diverse and populous native mussel community.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The United States Environmental Protection Agency (EPA), Region 7, is currently overseeing an investigation of the Big River, which flows north from Iron County through St. Francois, Washington and Jefferson Counties, Missouri. This investigation is not complete, but has shown that portions of the sediments and stream banks of the Big River are contaminated with lead mine waste. The Big River watershed encompasses several Superfund sites, including the Southwest Jefferson County Mining Superfund Site which focuses on an area located in the southwest quarter of Jefferson County, excluding the area surrounding the Herculaneum smelter. The Site includes residential properties where lead contaminated mine waste has come to be located, contaminated groundwater, and river and floodplain sediments.

On January 16, 2015, the Missouri Department of Natural Resources (MDNR), Dam and Reservoir Safety Program, performed a site visit at the Rockford Beach Dam. State inspectors reported substantial deterioration of the dam and described it to be in a state of partial failure. Sections of the original stone dam had washed away leaving voids beneath the surficial concrete shell. State inspectors reported significant loss of the dam occurring within the last few months. State inspectors reported that unless emergency stabilization actions were undertaken soon, total breach of the dam was inevitable. Because of the size of the structure, the dam is not subject to the permit requirements of Chapters 236.400 through 236.500 of the Revised Statutes of Missouri.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Shortly after the Action Memo was signed, Regional Management decided to complete the proposed work under an Interagency Agreement with the U.S. Army Corps of Engineers (USACE) managed by the Remedial Program. The Remedial Program submitted an amended Action Memo on 11/24/2015 to request a ceiling increase and exemption from the statutory 12-month limit based on consistency for a time-critical removal action to stabilize the Rockford Beach Dam. The Remedial Program set up an interagency agreement with the USACE on 1/29/2016 to conduct an interim stabilization of the Rockford Beach Dam. This interim dam stabilization is to be followed on with an additional interagency agreement with the USACE for a long-term design strategy for the Rockford Beach Dam. This long-term design interagency agreement will be pursued under the Remedial Program using remedial funding after completion of the interim stabilization.

2.1.2 Response Actions to Date

Shortly after the Action Memo was signed, Regional Management decided to complete the proposed work under an Interagency Agreement with the USACE managed by the Remedial Program. This activity was still classified as a time-critical removal action, but it was managed by the Remedial Program. The Action Memo was amended on 11/24/2015. On 12/18/2015, EPA Region 7 Superfund conducted a consultation call with OSRTI and OEM to discuss the plan moving forward for the Rockford Beach Dam interim stabilization removal action. On 12/21/2015, OSRTI and OEM concurred that the time-critical removal action at Rockford Beach Dam should be carried out as long as all necessary stakeholders were notified and the proper emergency procedures and health and safety protocols were initiated prior to and during construction activities. The interagency agreement between the EPA and the USACE was signed on 1/29/2016. The EPA consulted with the U.S. Fish and Wildlife Service (USFWS), the Missouri Department of Natural Resources (MDNR), the Missouri Department of Conservation, the USACE, and the U.S. Geological Survey (USGS) regarding the proposed interim approach; none of which disagreed with the proposed interim stabilization. On May 11, 2016, EPA organized a meeting with local stakeholders to develop an emergency action plan. Participants included the EPA, Jefferson County Parks Department, Jefferson County Sheriff's Department, Byrnes Mill Police Department, USACE, High Ridge Fire

Department, and Jefferson County Office of Emergency Management. The outcomes of the meeting specified that the USACE was to coordinate with the High Ridge Fire Department in the event that an emergency arises at the project location, that the 911 emergency response system was to be tested to ensure that a 911 call is correctly routed in the event of an emergency, that the Jefferson County Parks Department planned to close the park to the public during construction, and that a local law enforcement officer would be assigned to patrol the park during construction. The USACE contract was awarded to Los Alamos Technical Associates (LATA) - Sharp Remediation Services, LLC (SRC) on 5/16/2016 to conduct the interim dam stabilization. LATA-SRC mobilized to the site on 6/1/2016 and met with the USACE, Jefferson County Parks Department, and the Fire Department on 6/2/2016 to discuss site safety and exchange emergency contact information. A pre-construction survey was conducted on 6/2/2016 and a gradation test was conducted on 6/3/2016. Construction began on 6/6/2016 and continued through 6/27/2016. LATA-SRC demobilized from the site on 6/28/2016. The project would continue to be monitored for changes; however, the construction was considered complete after demobilization on 6/28/2016.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA has not yet identified any viable mining companies that were active near the Rockford Beach Dam. The property where the Rockford Beach Dam is located is within the Rockford Beach Park, which is part of the Jefferson County Parks system.

2.1.4 Progress Metrics

No hazardous material was removed from the property during this project; however, an estimated 18,825 cubic meters of in-channel lead-impacted sediment was stabilized by stabilizing the Rockford Beach Dam. This estimated volume was calculated by reviewing a paper by Pavlowsky *et al.* (2010), which estimated that the mean in-channel unit volume of sediment storage load directly upstream of Rockford Beach Dam was 3,765 cubic meters of lead-impacted sediment per 100 meters of distance. Therefore, a distance of 500 meters upstream of the dam would have approximately 18,825 cubic meters of in-channel lead-impacted sediment.

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

No further activities are anticipated.

2.2.1.1 Planned Response Activities

No further activities are anticipated.

2.2.1.2 Next Steps

Visual monitoring of the interim stabilization structure is planned. In addition, general maintenance activities are planned as needed.

2.2.2 Issues

None

2.3 Logistics Section

This action did not require a Logistics Section and no actions were taken relevant to one. See Section 2.1.2 (Response Actions to Date) for any other logistics related information.

2.4 Finance Section

2.4.1 Narrative

This action did not require a Finance Section and no actions were taken relevant to one.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
IAGs	\$507,700.00	\$386,426.00	\$121,274.00	23.89%
Intramural Costs				
Total Site Costs	\$507,700.00	\$386,426.00	\$121,274.00	23.89%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

This action did not require a Safety Officer. H&S issues were addressed by the USACE standard procedures for the construction activities that were involved.

2.5.2 Liaison Officer

This action did not require a Liaison Officer and no actions were taken relevant to one.

2.5.3 Information Officer

This action did not require an Information Officer.

3. Participating Entities

3.1 Unified Command

This action did not require Unified Command.

3.2 Cooperating Agencies

Cooperating agencies included local, state, and other federal agencies. These activities continue under a Interagency Agreement with the USACE.

4. Personnel On Site

None

5. Definition of Terms

NA

6. Additional sources of information

6.1 Internet location of additional information/report

https://www.epaosc.org/site/sitrep_profile.aspx?site_id=11655&counter=27162

6.2 Reporting Schedule

One completion report was submitted by LATA-SRS on 8/2/2016. An after action report is anticipated from the USACE in October 2016.

7. Situational Reference Materials

Pavlofsky *et al.* 2010. Distribution, Geochemistry, and Storage of Mining Sediment in Channel and Floodplain Deposits of the Big River System in St. Francois, Washington, and Jefferson Counties, Missouri – Final Report. The Ozarks Environmental and Water Resources Institute - Missouri State University. June 18.





