

United States Department of the Interior

National Park Service

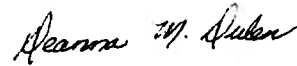
Pacific West Region
333 Bush Street, Suite 500
San Francisco, California

May 16, 2014

Memorandum

TO: Regional Director, Pacific West Region

FROM: Superintendent, Devils Postpile National Monument



THROUGH: Stephen J. Mitchell, PE, NPS/PWR/FM, Operations/Environmental Program Lead 

SUBJECT: Request for Non-Time-Critical Removal Action at Devils Postpile National Monument, Madera County, California

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed non-time critical removal action (NTCRA) described herein, for the Devils Postpile National Monument Site, in Madera County, California (DEPO). This Action Memorandum addresses lead contamination associated with the Site. This Site meets the criteria for non-time critical removal action under section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Removal site evaluation

In 2005 lead-based paint chips were in the immediate vicinity of a 100,000-gallon potable water tank located within DEPO boundaries during sandblasting maintenance activities, performed as part of the lead-based paint abatement and repainting of the tank's exterior. The Site addressed by this removal action only encompasses the 25 feet radius around the potable water tank.

In 2008, Provost and Pritchard Consulting Group (P&P, 2008)¹ conducted a preliminary assessment (PA) for potential lead impacts to surficial soil at the Site. NPS concluded that additional work was necessary to address lead contamination to Site surficial soil. In 2013, Environmental Cost Management, Inc. (ECM) reviewed the data from the PA report and

¹ Provost and Pritchard Engineering Group, Inc. *Preliminary Assessment for the National Park Service, Devils Postpile National Monument*, prepared for Sequoia and Kings Canyon National Park, Three Rivers, California. October 2008.

prepared a Work Plan for Soil Sampling² (Work Plan) to perform surficial soil sampling using incremental sampling methodology (ISM) to facilitate the preparation of an Engineering Evaluation and Cost Analysis (EE/CA) Report for the Site. ECM implemented the Work Plan activities in July 2013, and the results were presented in the Site EE/CA Report³.

2. Physical location

Located on the western slope of the Sierra Nevada range between 7,200 and 8,200 feet, DEPO contains an interesting assemblage of flora, fauna and geology, for which the monument was set aside. DEPO is located along the Middle Fork of the San Joaquin River Valley in the south eastern Sierra Nevada, approximately 2 miles southwest of Mammoth Mountain ski resort in Madera County, California at 37.629 N Longitude and 119.0847 W Latitude.

DEPO features a ranger station, a 21-site campground, and 5.3 miles of established trails. The closest community to DEPO is Mammoth Lakes, located nine miles to the east in Mono County. Other nearby communities along Highway 395 include Bishop, Crowley's Lake, June Lake, and Lee Vining. Access to DEPO from Lee Vining is 25 miles on Highway 395 to State Route 203.

3. Site Characteristics

DEPO hosted 87,845 visitors in 2012, with an average of 103,2584 visitors annually from 2009 to 2012⁵. Recreational activities vary with the season and include wildflower and wildlife viewing, sightseeing and photography, hiking, horseback riding, camping, fishing, skiing, and snowshoeing⁶ and 85 percent of DEPO is wilderness. Some NPS employees live within DEPO during the open season (April/May to October/November) and a small residential area exists within the park. The Site addressed by this removal action only encompasses the 25 feet radius around a 100,000-gallon potable water tank.

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

Lead is the only constituent of concern related to this investigation for lead-based chips during sandblasting activities for aboveground potable water tank reconditioning.

Surface soils surrounding the potable water tank, extending to up to 25 feet from the tank footing (approximately 4,634 square feet or 57.2 cubic yards); indicate surface soil lead concentrations exceed background lead concentrations, established as 5.55 mg/Kg.. These data indicate lead from the tank's lead-based paint coating migrated to surrounding soils. The EE/CA established a Site removal action objective (RAO) for lead concentrations of 195 mg/Kg.

5. NPL Status

The site is not currently on, nor proposed for the NPL.

² Environmental Cost Management, Inc., *Work Plan for Soil Sampling Lead Impacted Soil near Potable Water Tank at Devils Postpile National Monument, Madera County, California*. June 17, 2013.

³ Environmental Cost Management, Inc., *Engineering Evaluation/Cost Analysis Report, Devils Postpile National Monument, Lead Impacted Soil at Potable Water Tank, Madera County, California*. March 21, 2014.

⁴ National Park Service, "Devils Postpile Park Statistics", accessed 01/27/2014, www.nps.gov/depo/parkmgmt

⁵ *Ibid*.

⁶ National Park Service, "Devils Postpile Outdoor Activities", accessed 01/27/2014, www.nps.gov/depo/planyourvisit/outdooractivities.htm

6. Maps, pictures and other graphic representations

Figure 1 shows the location of the site and nearby features.

B. Other Actions to Date

1. Previous actions:

None.

2. Current actions

None.

C. State and Local Authorities' Roles

None.

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

A. Threats to Public or Welfare

NPS eliminated the following receptors from consideration in the Human Health Risk Conceptual Site Model (CSM) of the Site:

- Residents
- Subsurface soil for visitors
- Groundwater for visitors

No residents live at the location of the potable water tank at DEPO. Workers were instructed to avoid contact with surface soil. During EE/CA Report⁷ preparation, no threats to public or welfare were identified based on the Human Health Streamlined Risk Assessment prepared for the Site.

B. Threats to the Environment

The estimated environmental risk for ecological receptors⁸ in the tank vicinity indicated that leaving the lead-impacted surface soil in place poses an unacceptable risk to the environment.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

Removal of lead-impacted surface soils and off-site disposal is the most feasible solution for mitigating threats posed by the situation. Site stabilization without disposal would provide only a temporary solution to the threats posed by the Site.

⁷ Environmental Cost Management, Inc., *Engineering Evaluation/Cost Analysis Report, Devils Postpile National Monument, Lead Impacted Soil at Potable Water Tank, Madera County, California*. March 21, 2014.

⁸ *Ibid*.

A. Proposed Actions

1. Proposed Action Description

The proposed action, excavation and off-site disposal, will consist of the following components.

Documentation

This action requires minor engineering designs, construction management, and health and safety plans. Contact appropriate agencies and tribes regarding historical and cultural resources and potential cultural items remains.

A biological and botanical resource inventory report prepared by NPS, concluding that the project would not impact sensitive species, is required before design and construction. In addition, a historical and cultural resources survey report prepared by NPS concluding that the project would not impact these resources is required before design and construction.

Road Improvements

The Site is accessible via a 500 feet long unpaved access road coming from a small maintenance area that may not support large vehicles or heavy equipment. Road work could be required to create sufficient access for equipment. Improvements may include stabilization of washed out surfaces, gravel surfacing, and widening in some areas. Road improvements will be constructed with the minimum footprint necessary to accommodate the most appropriately sized equipment for implementation of the action. Haul truck covers and proper vehicle decontamination and tracking control would be necessary to ensure that contamination is not spread outside of the work area as the vehicles leave for off-site disposal.

Excavation

The proposed action involves excavating and removing lead impacted surface soil to 4 inches deep, from the area extending to 15 feet from the water tank footing followed by minimal backfilling and grading of the excavation area. Appropriate storm water pollution prevention measures such as drainage swales, sediment ponds, or silt fencing will be incorporated into the project to minimize the potential for adverse impacts to water quality during excavation and soil handling activities. Fugitive dust emissions will be eliminated by laying down water spray during excavation and soil operations, and will conform to the California Code of Regulations and applicable EPA regulations for earth-moving activities in non-contaminated areas.

Off Site Disposal

California Solid Waste Management Regulations apply to the Site. This is an applicable regulation which will be addressed for any solid waste transported away from Site.

Approximately 30 cubic yards (four truck loads) of lead impacted soil will be loaded and transported for off-site disposal at the CERCLA-approved landfill operated by US Ecology in Beatty, Nevada.

Confirmation Sampling

Following the removal of lead impacted surface soil from area, confirmation sampling would verify that contamination was removed to the extent practicable. Confirmation samples would be collected and analyzed for lead by EPA Method 6010B. Once confirmation sampling results

indicate lead concentrations in soil meet RAO designated for the Site (i.e. lead concentrations below 195 mg/kg), restoration activities would be completed.

Restoration Activities

The depressions left by excavated soil will be backfilled with clean native soil and re-graded to match preexisting topographic conditions. Disturbed areas would be vegetated with native species, to the extent practicable and as soon as practicable to minimize excavation related sediment transport.

2. Contribution to remedial performance

The proposed action is considered a permanent remedy.

3. Description of alternative technologies

As this site is categorized as a non-time critical removal action site, an EE/CA Report⁹ was completed. The EE/CA Report identifies and presents the description of the eight removal action technologies reviewed for the development of the four removal action alternatives evaluated.

The eight removal action technologies presented in the EE/CA Report are:

1. No action;
2. Engineering controls – Surface controls;
3. Engineering controls – Chemical stabilization of existing surfaces;
4. Institutional controls;
5. On-site consolidation;
6. Capping;
7. Excavation and backfilling; and,
8. Off-site disposal

The four removal action alternatives evaluated in the EE/CA Report are:

1. No action
2. Engineering and institutional controls;
3. Excavation, on-site consolidation and institutional controls; and,
4. Excavation and off-site disposal.

4. EE/CA

Refer to the attached EE/CA Report¹⁰ and the EE/CA Approval Memorandum¹¹ for a discussion of removal action alternatives considered for this non-time-critical removal action.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

The EE/CA Report present a detailed assessment of ARARs for this site. These ARARs include:
Federal ARARs:

- Comprehensive Environmental Response, Compensation, and Liability Act

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *EE/CA Approval Memorandum, Devils Postpile National Monument. October 11, 2012.*

- Resource Conservation and Recovery Act
- National Environmental Policy Act
- Clean Water Act
- Safe Drinking Water Act
- Clean Air Act
- Endangered Species Act
- Fish and Wildlife Coordination Act
- Historic Sites, Buildings, and Antiquities Act and Executive Order 11593
- Historic and Archeological Data Preservation Act of 1974
- Migratory Bird Treaty Act
- Protection of Wetlands Order, Executive Order 11990
- Native American Graves Protection and Repatriation Act
- Hazardous Materials Transportation Act
- Solid Waste Disposal in Units of the National Park System
- Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act

State and Local ARARs:

- California Environmental Quality Act
- California Hazardous Waste Control Act
- California Safe Drinking Water Act
- California Air Quality Control Act
- California Hazardous Waste Disposal and Transportation Program
- California Solid Waste Management Regulations
- California Global Warming Solutions Act of 2006
- Porter-Cologne Water Quality Act
- California Wildlife Conservation Act
- California Preservation Laws
- California Drinking Water Policy
- Madera County Environmental Ordinances
- California Endangered Species Act
- Madera County Red-Legged Frog Recovery Plan
- Madera County Yellow-Legged Frog Conservation Program
- National Park Service Devils Postpile Vehicle Restrictions
- Mulford-Carrell Air Resources Act
- San Joaquin Valley Unified Air Pollution Control District - San Joaquin Valley Air Basin Program
- Great Basin Unified Air Pollution Control District Program
- Madera County Grading, Drainage and Erosion Control Permit

6. Project Schedule

Work is expected to start and be completed during 2015.

B. Estimated Costs

Table 1: Estimated Costs and Schedule for Proposed Removal Actions at the Devils Postpile National Monument Potable Water Tank site.

Proposed Removal Action	Estimated Cost	Anticipated Schedule
Excavation, Transportation and Off-site Disposal of Lead Impacted Soil	\$ 160,000 \$241,000 (+ 50% Ceiling Estimate)	2015

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

Leaving the lead-impacted surface soil associated with the potable water tank lead-based paint chips in place poses an unacceptable risk to the environment based on the streamlined risk assessment¹² results for ecological receptors.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

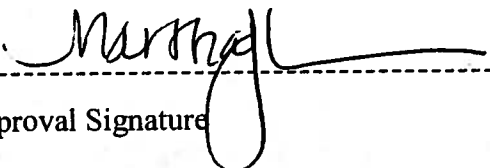
None.

¹² Environmental Cost Management, Inc., *Engineering Evaluation/Cost Analysis Report, Devils Postpile National Monument, Lead Impacted Soil at Potable Water Tank, Madera County, California*. March 21, 2014.

IX. RECOMMENDATION

This decision document represents the current selected removal actions for the Devils Postpile National Monument site, in Madera County, California, developed in accordance with CERCLA as amended, and consistent with the NCP. This decision is based on the administrative record for the site.

Conditions at the Site meet the NCP section 300.415(b)(2) criteria for a removal actions and we recommend your approval of the proposed non-time critical removal actions. The total project ceiling if approved will be \$241,000.

 6/24/14

Approval Signature Date

Disapproval Signature Date

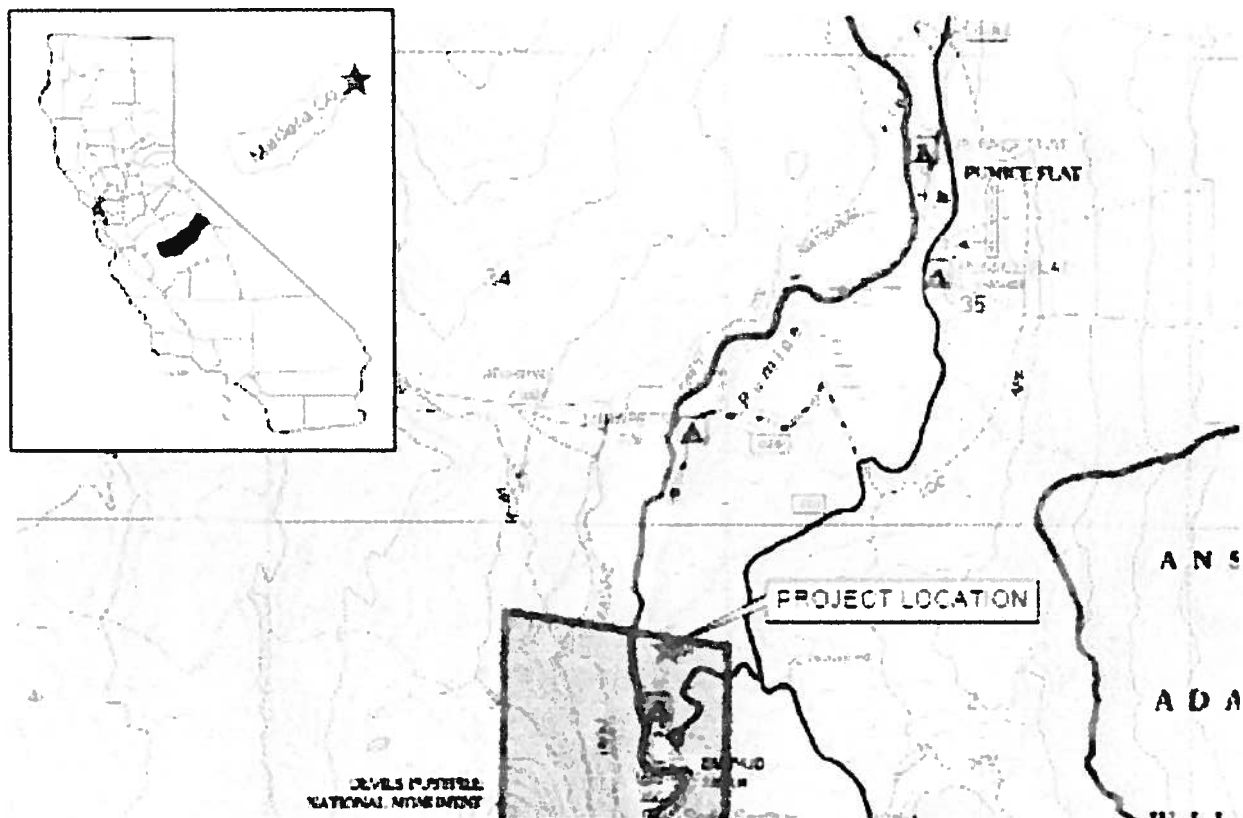


Figure 1. Site Location Map, Devils Postpile Monument