

November 7, 2013~~October 30, 2013~~

To: Regional Director, Pacific West Region

From: Superintendent, Sequoia and Kings Canyon National Park *WJmew 11.7.13*

Through: Steve J. Mitchell, PE, NPS/PWR/FM, Operations/Environmental Program Lead

Subject: Engineering Evaluation & Cost Analysis Approval Memorandum
Lower Kaweah Dump Area at Sequoia and Kings Canyon National Park

PURPOSE

This memorandum recommends and documents the decision of the National Park Service (NPS) to conduct an Engineering Evaluation/Cost Analysis (EE/CA) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, for the impacted area near the lower Kaweah dump area (Site) at Sequoia and Kings Canyon National Park (SEKI), California. NPS is the CERCLA lead agency with authority to respond to the release or threatened release of hazardous substances at or from the Site. This Memorandum was prepared in accordance with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300, and the U.S. Environmental Protection Agency's (EPA) *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, OSWER Publication 9360.0-32 (August 1993).

BACKGROUND

The Site is located across from an un-named street (south) from an old incinerator and maintenance yard located approximately 1,900 feet west of the Generals Highway in the Lower Kaweah area of the Giant Forest in SEKI and appears to be an old dump site. The site area is at an elevation of approximately 6,400 feet. The history or contents of the dump are unknown. However, due to its proximity to the old incinerator, it was assumed (Kleinfelder, 1998) that burn waste may be present. The fill area is relatively flat and has a gentle slope to the southwest and a dimension of approximately 80 feet by 100 feet.

In August 1998, a focused Site Assessment (SA) (Kleinfelder, 1998) addressed an area of the dump site that was composed mostly of burn materials and ash. Five test pits were excavated through the dump material, and five soil samples were collected from the excavation sidewalls. Four of the five samples collected were composited and analyzed for metals (cadmium, chromium, lead, zinc and nickel) and dioxins. The initial laboratory results indicated that concentrations of metals and dioxins analyzed were all below the Total Threshold Limited Concentration (TTLC) listed in the California Code of Regulations (CCR), Title 22 and therefore should not be classified as hazardous waste if the dump material was moved off-site for disposal. However, concentrations of dioxins and lead are above the Regional Screening Levels (RSLs) for residential soils (U.S. EPA Region 9), indicating that dump material may be

hazardous to human health. Initially total lead and zinc concentrations were high enough that testing for leaching potential for these two metals was conducted. Solubility testing indicated that lead was present above its Solubility Threshold Limit Concentration (STLC), so disposed material should be classified as a California hazardous waste if removed from the Site.

In December 2001, an expanded SA (Kleinfelder, 2002) further defined the volume and characterized the material present in the dump. Eight test pits were excavated to a depth below the base of the dump material, or into underlying bedrock. Confirmation soil samples were collected from the dump's outer boundary. Two soil samples were collected from two interior test pits: one to further characterize the dump material and one to characterize the non-dump material. Laboratory results indicate that dioxins (2,3,7,8-TCDD) were present up to a concentration of 5.4 picograms per gram (pg/g, or parts per trillion). This was less than the composite sample taken initially in September 1998, but still exceeds the RSL for residential soil. Of the organochlorine pesticides, only DDT and DDE were detected in the soil samples collected from the test pits and their concentrations did not exceed TTLC. STLC testing for DDE and DDT was not performed. Of the metals detected, lead and chromium were somewhat elevated such that STLC testing was performed on seven samples. STLC testing of lead and chromium indicated lead exceeds the CCR, Title 22 STLC level of 5 mg/l; thus, the material should be classified as a California hazardous waste if removed from the Site. TCLP testing for lead did not indicate concentrations exceeding the Title 22 level of 5.0 mg/l. Therefore, disposed material should not be classified as a RCRA waste if removed from the Site.

USE OF REMOVAL ACTION AUTHORITY

Pursuant to Sections 104(a)(1) and (b)(1) of CERCLA, 42 U.S.C. §§ 9604(a)(1) and (b)(1), whenever there is a release or substantial threat of a release of a hazardous substance into the environment, the President is authorized to act, consistent with the NCP, to remove or arrange for the removal of such hazardous substance or take any other response action, including appropriate investigations, deemed necessary to protect public health or welfare or the environment. Section 104(a) and (b) response authority (including the authority to perform an NTCRA, including the EE/CA that is the subject of this Memorandum) has been delegated to the Secretary of the Department of the Interior (DOI) pursuant to Executive Order 12580, 52 Fed. Reg. 2923 (1987), and further delegated to NPS by DOI Departmental Manual Part 207, Chapter 7, with respect to property under the jurisdiction, custody; or control of NPS.

Section 300.415(b)(2) of the NCP establishes the criteria for determining the appropriateness of a removal action. The following are applicable criteria that support the determination to consider a removal action at the Site:

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- iii. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; and
- iv. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

As summarized above, the 1998 and 2001 assessments indicated lead, a CERCLA hazardous substance, was present at elevated concentrations in shallow soils at the Site area (criterion iii). Because the locations of the samples collected are unknown, the extent of contamination is unknown, which represents a gap in the characterization.

Units of the National Park System are considered sensitive ecosystems. See, e.g., National Park Service Organic Act, 16 U.S.C. § 1 (National Park System units shall be managed "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.").

Based on SA, shallow groundwater is not present at the Site and surface water targets are not within sufficient distance of the Site for there to be a migratory pathway to these resources. Restrictive air flow due to the forested terrain between the source and potential targets make it unlikely that an airborne pathway exists. However, if soils were to be excavated in the future, the quantity of hazardous substances should be estimated.

Based upon these considerations, NPS has determined that the use of removal action authority at SEKI to investigate, abate, prevent, minimize, stabilize, mitigate, and/or eliminate the release or threat of release of hazardous substances at or from the Site is appropriate. Additionally, NPS has determined that a planning period of at least six months exists before on-site activities must be initiated. Therefore, NPS is authorized to conduct an EE/CA (or its equivalent) pursuant to and in accordance with Section 300.415(b)(4) of the NCP. An EE/CA is performed to determine the nature and extent of contamination, assess potential risks posed to human and ecological receptors from exposure to such contamination, identify and evaluate removal action alternatives to address unacceptable risk, and identify a recommended removal action alternative that best meets the evaluation criteria.

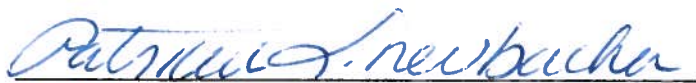
EE/CA IMPLEMENTATION AND FUNDING

NPS has received funding from the DOI Central Hazardous Materials Fund (CHF) to implement the Site EE/CA. Upon approval of the recommendation, the Site EE/CA will be implemented.

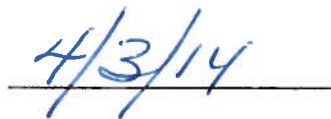
APPROVAL

Based upon the information and analysis presented in this memorandum, please indicate your concurrence or non-concurrence with the recommendation to perform an EE/CA as part of a NTCRA at the lead contaminated site identified herein and located within SEKI. If you have any questions, please contact Steve Mitchell at (415) 623-2286.

I Concur



Date:



 Christine S. Lehnertz, Regional Director
National Park Service, Pacific West Region

I Do Not Concur

Date:

