



Hawai'i Department of Health, HEER Office
1582 Kamehameha Avenue,
Hilo, Hawai'i 96720-4623

FACT SHEET

Soil Contamination Response Action for Hakalau Stream Bridge and Hakalau Beach Park Hakalau, Hawai'i

Portions of TMK: (3) 3-1-001:001, (3) 3-1-001:002, (3) 3-1-001:003, (3) 3-1-001:004, (3) 2-9-002:025, and (3) 2-9-002:080. Old Mamalahoa Highway, Hakalau, Hawai'i Island

Introduction

This fact sheet provides information on the State of Hawai'i Department of Transportation (HDOT) Hakalau Stream Bridge Soil Contamination Response Action. Under the oversight of the Hawai'i Department of Health (HDOH) Hazard Evaluation and Emergency Response Office (HEER Office), a response action has begun for assessment of lead contaminated soil found around footings of the Hakalau Stream Bridge. HDOT plans to repair the footings, and in order to eliminate significant risks to construction workers and the public, will manage contaminated soils at the site.

Site Description and Previous Uses

The Project site is located beneath Hakalau Stream Bridge. Hakalau Stream runs directly through the Project site. Access to the Project site is via Old Mamalahoa Highway. Hakalau Beach Park is located east and adjacent to Hakalau Bridge. The Project site includes portions of multiple TMKs (and multiple landowners) on or adjacent to the highway right of way.

Hakalau Sugar Mill formerly operated in the area from the 1890s to mid-1970s. The Hakalau Stream Bridge was constructed in the 1930s, utilizing the old railroad steel trestle as well as other salvaged steel.

Characterization of Contamination

Soil sampling and analysis results show that lead contaminated soils are present around the base of the steel columns. Lead was found in soils around the columns at concentrations exceeding the HDOH Tier 1 soil screening levels. When absorbed into the body, lead can be harmful. Lead is most harmful to children because it accumulates and persists in their growing bodies, and their young bodies are more sensitive to its damaging effects.

The full lateral and vertical extent of lead contaminated soil has not been delineated, though the highest lead levels in soil would be expected close to the base of the steel columns where old lead paint (chips) would most commonly be expected. Additional soil sampling and analysis will begin in October 2016. A map showing the general area and the specific areas that have been found to be impacted by lead contamination from the initial testing is provided below. Note that "DU-3" and "DU-4", areas that were tested on the stream banks under

the bridge, were **not** found to have elevated lead levels. Any lead residue in these areas was likely removed long ago by the periodic flooding and flushing action of the stream. The map also illustrates the areas where fencing and signs have been erected to keep people out until additional testing and follow-up actions are taken.

The source of the lead contamination is most likely (historic) lead-based paint used on Hakalau Bridge. Lead-based paints were commonly used in the past and may have been released to soil as it aged and became weathered or through past maintenance activities. The lead-based paint was removed from Hakalau Bridge in early 2000. Accidentally swallowing exposed contaminated soil, including very small lead paint chips, would be the major route of exposure at the Project site. Harmful health effects from swallowing the lead contaminated soil will depend upon the levels of lead in the soil, and how often and how much soil was accidentally swallowed.

Response Action

Through HDOT coordination with the HDOH HEER Office, various response actions for the contaminated soil were identified and have either been completed or are planned.

To prevent exposure of the public to the contaminated soils, fencing and warning signs have been posted around areas where soil containing high lead concentrations were found. An assessment of hazards for construction workers and the general public is also underway. Once lead contamination is fully delineated at the Project site, cleanup options will be evaluated (to include public input) and an action plan selected and approved by the HDOH HEER Office will be implemented.

Additional sampling and analysis of soils at the Project site will be completed in October 2016 to determine the extent of the lead contaminated soil, and this Fact Sheet will be updated to reflect the new findings.

The public is encouraged to comment on or ask questions regarding the site response actions. Written comments can be directed to John Peard (HDOH HEER Office) by email at randall.peard@doh.hawaii.gov or by mail at 1582 Kamehameha Avenue, Hilo, Hawai'i 96720, or by phone at 808-933-9921 or Tim Sakahara (HDOT) by email at Timothy.J.Sakahara@hawaii.gov.

Map of Soil Sampling Areas from Hakalau Bridge Environmental Assessment

