



HAWAII STATE  
DEPARTMENT  
OF HEALTH

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

# FACT SHEET

## Lead-Impacted Soil Response Action for Kolekole Gulch Park Honomu, Hawai'i

TMK: (3) 2-8-015:015. Old Mamalahoa Highway, Honomu, Hawai'i  
Island

### Introduction

This fact sheet provides information on the State of Hawai'i Department of Transportation (HDOT) Lead-Impacted Soil Response Action for Kolekole Gulch Park. 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-impacted soil found around Kolekole Stream Bridge and within Kolekole Gulch Park. The County Department of Parks and Recreation closed public access to the Kolekole Gulch Park on April 18, 2017 pending additional assessment and evaluation of the lead impacted soil.

### Site Description and Previous Uses

The Project site is located beneath Kolekole Stream Bridge and extends approximately 300 feet in the mauka direction. Kolekole Stream runs northwest and adjacent to the Project site. Access to the Project site is via Old Mamalahoa Highway. Kolekole Gulch Park is located southwest and adjacent to Kolekole Stream Bridge.

Kolekole Stream Bridge was originally part of a railroad that was rebuilt in 1950 to be used by cars. Lead paint removal from the bridge was completed in 2001.

### Characterization of Contamination

Initial soil sampling and analysis results showed that lead-impacted soils are present in the park area under and mauka of Kolekole Stream Bridge. Lead was found in soils at concentrations exceeding the 200 mg/kg lead screening action level established in Hawai'i for residential areas (also used for public parks) as well as the higher USEPA screening level for residential areas of 400 mg/kg. The average level of lead found in soils in the park was 465 mg/kg. Additional risk evaluation is needed when lead in soil is above HDOH action levels and additional precautions are necessary to minimize exposure as cumulative lead exposure has been shown to adversely impact human health. Lead is especially harmful to children who accidentally eat small amounts of lead-impacted soil or lead containing paint on a regular basis. Lead is more

harmful to children than adults because it can accumulate and persist in their bodies, and young children are more sensitive to its potentially harmful effects.

The grass cover in the park helps to minimize exposure, but mud that may come up through the grass on wet days and any dust generated on dry days would increase potential for exposure. Additional soil testing and risk assessment is planned. An evaluation of potential hazards to County employees based on exposures to lead in soils at the park will also be made, and any bare soil areas discovered in the park will be covered. A map showing the areas that have been found to be impacted by lead (i.e. lead in soils below grass or gravel at surface) during initial testing is provided on the next page.

The concentrations of lead in the soil in the park are comparable to levels found along some busy roadsides in urban areas, as reported in USEPA documents on lead in soil. In this case, the lead in soil is suspected to be related to historic, lead-based paint used on Kolekole Stream Bridge (during 1950-2000). 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. Accidentally swallowing lead-impacted soil or very small lead containing paint chips, would be the major route of potential exposure at the site. Harmful health effects from swallowing the lead impacted soil and lead containing paint chips will depend upon the levels of lead in the soil and paint, the quantity of soil and paint that were ingested, and the frequency for which the soil and paint were ingested.

The stream banks will be included in the planned additional testing however elevated lead concentrations are not expected in the stream or adjacent rocky banks where flowing or rain storm-generated waters over the years would remove any fine soils along with very small paint chips.

### Response Actions

Through HDOT-Highways coordination with the HDOH HEER Office, various initial response actions for the impacted

soil were identified to minimize potential exposure of the public. Actions identified included:

- Additional soil sampling and soil analysis of areas not yet tested (e.g. soils on the edges of areas initially tested) and risk assessment,
- Cover any identified bare soil spots with sod to reduce the potential for exposure,
- Post signs, to notify and caution the public regarding potential lead exposure in soils below grass in the park.
- Restrict pounding of stakes into grass and any digging activities in the Park (County staff or public) that would expose bare soils at the surface.
- Further evaluate the potential for park maintenance staff to be exposed to lead in soil during typical maintenance work at the site.

These initial response actions are being addressed during the park closure, and the data collected and assessments made will be used to determine when the Park may be re-opened for public use.

Long-term cleanup options will also be considered and evaluated in the future (to include public input) and an action plan selected and approved by the HDOH HEER Office for implementation.

This fact sheet will be updated when additional assessment data is available. The public is encouraged to comment on or ask questions regarding the site response actions. Comments can be directed to John Peard (HDOH HEER Office) by email at [randall.peard@doh.hawaii.gov](mailto:randall.peard@doh.hawaii.gov), by mail at 1582 Kamehameha Avenue, Hilo, Hawai'i 96720, or by phone at 808-933-9921. Tim Sakahara (HDOT) can also be contacted by email at [Timothy.J.Sakahara@hawaii.gov](mailto:Timothy.J.Sakahara@hawaii.gov).

