



HAWAII STATE
DEPARTMENT
OF HEALTH

Hazard Evaluation and Emergency Response
2385 Waimano Home Road
Pearl City, Hawaii 96782

FACT SHEET

Lead-Impacted Soil Response Action for Kolekole Beach Park Honolulu, Hawai'i

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

Introduction

This fact sheet provides information about the lead-impacted soil at Kolekole Beach Park. It also describes plans for management via the State of Hawai'i Department of Transportation (HDOT) Lead-Impacted Soil 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 lead-impacted soil found around Kolekole Stream Bridge and within Kolekole Beach Park. The County Department of Parks and Recreation closed public access to the Kolekole Beach Park on April 18, 2017 pending additional evaluation of the lead impacted soil.

Site Description and Previous Uses

The affected area is located beneath Kolekole Stream Bridge and extends approximately 300 feet in the mauka direction in Kolekole Beach Park. Kolekole Stream runs northwest and next to the Park. Access to the Park is via Old Mamalahoa Highway.

Kolekole Stream Bridge was originally part of a railroad. It was rebuilt in 1950 to be used by cars. Over many years, lead paint on the bridge dispersed into the soil below causing the contamination. The lead paint on the bridge was removed in 2001.

How Severe is the Lead Contamination?

Initial soil sampling results show 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 and public parks. Some areas were also higher than the USEPA screening level of 400 mg/kg. Concentrations above these levels do not necessarily mean there is a health risk but do suggest that additional assessment is needed.

Between 2017 and 2019, additional assessment was conducted at the Park. Soil with lead above screening levels was identified in much of the grassy areas of the park. Lead levels in soil along the stream banks were lower and below screening levels.

The concentrations of lead in the soil in the park are comparable to levels found along busy roadsides in urban areas. In this case, the lead in the soil is likely from historic, lead-based paint used on Kolekole Stream Bridge from 1950-2000. Lead-based paint was commonly used in the past and may have been released to the soil through aging and weathering, as well as past maintenance activities. Accidentally swallowing lead-impacted soil or very small lead containing paint chips is the primary route of potential exposure in the park. The potential for harmful health effects from swallowing the lead impacted soil or lead containing paint chips depends upon the levels of lead in the soil and paint, how much soil and paint were ingested, and how often.

Is the Lead-Impacted Soil Hazardous?

An exposure assessment was performed for County workers conducting lawn maintenance activities at the Park. Workers wore badges that collected dust as they performed their usual activities. The assessment determined that workers were not exposed to lead dust when conducting regular activities at the Park.

Soil containing lead could potentially pose a health risk to young children who play in the park. Lead can be harmful to children who accidentally eat small amounts of lead-impacted soil or lead containing paint chips. Lead is more harmful to children than adults because it can accumulate and persist in their bodies. Lead is particularly toxic to the developing brains and neurologic systems of young children.

The screening levels used by the HDOH and USEPA are designed to protect people using the area. The screening levels assume that areas where children play will be barren and the soil exposed. Fortunately, impacted soil at the park is covered with thick grass. This helps to minimize contact with the soil and reduces concerns about health risks from periodic use of the park by young children. It is important to continue efforts to make sure that contact with the soil is minimized.

What is Being Done to Address the Problem?

Through HDOT-Highways coordination with the HDOH HEER Office, initial response actions have been done to minimize potential lead exposure to people enjoying the park. Actions implemented include:

- Maintenance of healthy grass cover and placement and maintenance of mulch on all bare soil spots throughout the park to reduce the potential for exposure
- Installation and maintenance of fencing around the area with the highest lead levels in surface soil (the top 6 inches) to prevent public access to this area.
- Posted signs to notify and caution the public regarding potential lead exposure in soils below grass in the park.
- Restriction of particular activities by County staff and the public that would risk exposing bare soils. These restricted activities include camping, open fires, charcoal barbeques, driving of vehicles on the grass, pounding of stakes into grass and any digging activities.

Long-term cleanup options are being evaluated and will include public input. A long-term cleanup action plan will be selected and approved by the HDOH HEER Office. It is anticipated that the start of the long-term cleanup will occur at the same time as County-planned park amenity improvements.

This fact sheet will be updated should additional information become available. The public is encouraged to comment on or ask questions regarding the site response actions. Comments can be directed to Lauren Cruz (HDOH HEER Office) by email at lauren.cruz@doh.hawaii.gov, by mail at 2385 Waimano Home Rd, #100, Pearl City, Hawaii 96782 or by phone at 808-586-0956. Harry Takiue (HDOT) can also be contacted by email at harry.h.takiue@hawaii.gov.



Map Illustrating Location of Lead Impacted Soil at Kolekole Beach Park