May 2021 Update

HAWAII STATE DEPARTMENT OF HEALTH

Hazard Evaluation and Emergency Response 2385 Waimano Home Road #100, **Pearl City, Hawaii 96782**

FACT SHEET

Lead-Impacted Soil Response Action for Kolekole Beach Park Honomu, Hawai‘i

Old Mamalahoa Highway, Honomu, 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 the 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 (west) direction at Kolekole Beach Park. Kolekole Stream runs northwest and north to the Park. Access to the Park is via Old Mamalahoa Highway.

Kolekole Stream Bridge was originally part of a railroad in the early 1900’s. 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 (west) 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 unrestricted land use at residential areas and public parks. Some areas were also higher than the USEPA screening level of 400 mg/kg for parks. 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 assessments were conducted at the Park. Soil with lead above screening levels was identified in much of the open 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, interim response actions have been taken to allow the opening of park and to minimize potential lead exposure to people enjoying the park. Interim measures 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 specific 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.

The interim measures remain in effect until HDOT and the County of Hawaii Parks and Recreation Office complete planned improvements to the park facilities and address lead impacted soil at the park grounds.

What Will be Done to Solve the Problem?

Six long-term remedial options have been evaluated and are as follows: (1) Recycle or Reuse, (2) Destruction or Detoxification, (3) Separation, Concentration, or Volume Reduction, (4) Immobilization of Hazardous Substances, (5) On-site or Off-site Disposal, Isolation, or Containment, and (6) Institutional Controls or Long-Term Monitoring.

Based on recommendations from the site environmental consultant, as well as a review of the site investigations and remedial alternatives reports, HDOT has identified the fifth remedial option, On-site or Off-site Disposal, Isolation, or Containment as the preferred long-term solution. Specifically, the HDOT has chosen to remove all soil which exceeds 200 mg/kg for lead in the open park area and replacement with clean fill (Figure 1). This option will achieve substantial risk reduction, remove the source of contamination, eliminate the need for an environmental hazard management plan for these areas, and remove the possibility of lead-impacted soil or sediment from becoming exposed during flooding/erosion in the future. This option is cost-effective since this will be a permanent reduction in volume of contamination on-site and therefore not require any further monitoring or maintenance. After the cleanup has taken place, the park can be opened for use for the public, site workers, and construction/trench workers.

Next Steps and Community Involvement

HDOT and HDOH HEER Office encourages members of the public to review and comment on the proposed remedy for this project during the comment period that ends on November 30th, 2021**. The public is encouraged to comment** on the proposed remedy. Written comments should be e-mailed or mailed (by November 30th, 2021) to Thomas Gilmore at thomas.gilmore@doh.hawaii.gov or the following address:

Hawaii Department of Health
HEER Office, 2385 Waimano Home Road #100
Pearl City, HI 96782

Surface Soil Removal Area:
Exceeds HDOH Tier 1 EALs for Lead

Information Repository

Portions of the Administrative record for this are available for review at the Hilo Public Library, 300 Waianuenue Ave, Hilo HI 96720 until November 30th, 2021. This includes the Draft Response Action Memorandum (with the proposed remedy), and copies of recent investigations and risk assessments at the site. The complete record for the site is available for review upon request to HDOH.

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:

Thomas Gilmore (HDOH HEER Office) by email at thomas.gilmore@doh.hawaii.gov, by mail at
2385 Waimano Home Rd, #100
Pearl City, Hawaii 96782 or by phone at
808-586-4353.
Harry Takiue (HDOT) can also be contacted by email at harry.h.takiue@hawaii.gov