



The **Hawaii Department of Health (HDOH), Hazard Evaluation and Emergency Response Office (HEER Office)** is a part of the Hawaii Department of Health Environmental Health Administration whose mission is to protect human health and the environment. The HEER Office provides leadership, support, and partnership in preventing, planning for, responding to, and enforcing environmental laws relating to releases or threats of releases of hazardous substances.

FACT SHEET: Draft Response Action Memorandum for the Voluntary Environmental Response Action at the Former Waialua Sugar Mill Site in Waialua, Oahu, Hawaii

Introduction

The Hawai'i Department of Health (HDOH) invites the public to comment on the Draft Response Action Memorandum (Draft RAM) regarding a voluntary environmental response action at the approximate 25-acre property known as the Former Waialua Sugar Mill located in Waialua, Hawai'i. The site has no street address, but is located along Kealohanui Street west of Goodale Avenue, in Waialua, Oahu. The site was used as a sugar mill from 1904 through 1996. Pesticide storage and mixing operations were centralized on the western end of the mill property. Maintenance operations and various shops (welding, electrical, carpentry, vehicle maintenance, etc.) were located at buildings around the mill facility. The mill also operated boilers to run the operations and the boilers used bagasse (sugar cane pulp), fuel oil and waste oil as fuel sources. It is suspected that soils and groundwater at the site became contaminated as a result of the historic sugar mill operations.

Site Description

The Former Waialua Sugar Mill (the "site") is located in Waialua, Hawai'i and is zoned for industrial (I-2) usage. The existing buildings are currently leased and/or rented to various small businesses. These businesses include surfboard shaping and glassing, wood working, soap making, coffee processing, boat repair, retail, community kitchen, a home building contractor, and a plumbing contractor.

Ground surface at the site exhibits a slight slope from south to north. The site is situated at elevations of 10 feet above mean sea level (msl) in the north and 40 feet above msl in the south. The nearest surface water body is the Kiiiki Stream, located approximately 0.28 miles east of the site.

Site Characterization and Evaluation

A voluntary Site Investigation and Environmental Hazard Evaluation at the Waialua Sugar Mill involved investigation of various source areas (Decision Units or DUs) throughout the site. Site investigation findings indicated that one or more contaminants of concern

(COC) exceeded their corresponding default DOH Environmental Action Levels (EALs) in almost all areas of the site for soil and some areas in groundwater. In general, arsenic and dioxin concentrations were identified in the surface soils within the Pesticide Mixing/Storage Area (DU1). Another Arsenic Impacted Area (portion of DU24.F) was also identified. The highest lead concentrations were identified in the Pesticide Mixing/Storage Area (DU1) and Tank Farm (DU3/4). Subsurface petroleum related impacts were fairly widespread on the site, including the Former Diesel Fueling Area (DU11); Former Service Station (DU15); Fertilizer Tank Area (DU21 and 22); Mill Area-Petroleum (DU36/DU37); and Former Solid Waste Removal Area (DU41). Based on an overall evaluation of all available data compared to default HDOH EALs, one or more COCs exceeded their corresponding default HDOH EALs for soil and/or groundwater throughout the site (see the Draft RAM for details).

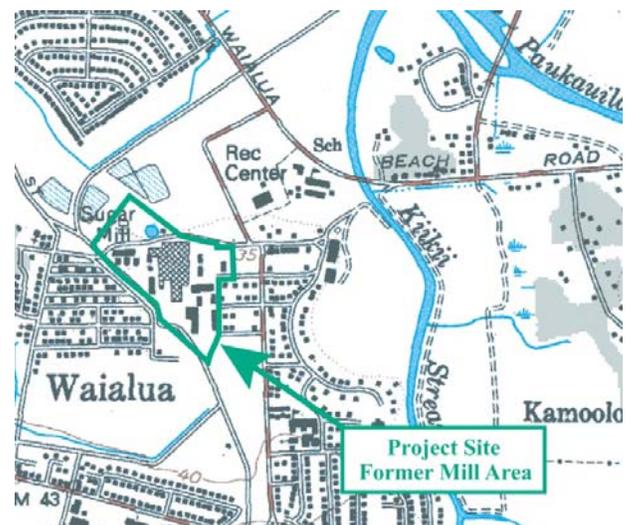


Figure 1: Site Location Map

Proposed Response Action

After evaluating alternatives to address site contamination, HDOH is requesting public input on selected remedies which are intended to be protective of human health.

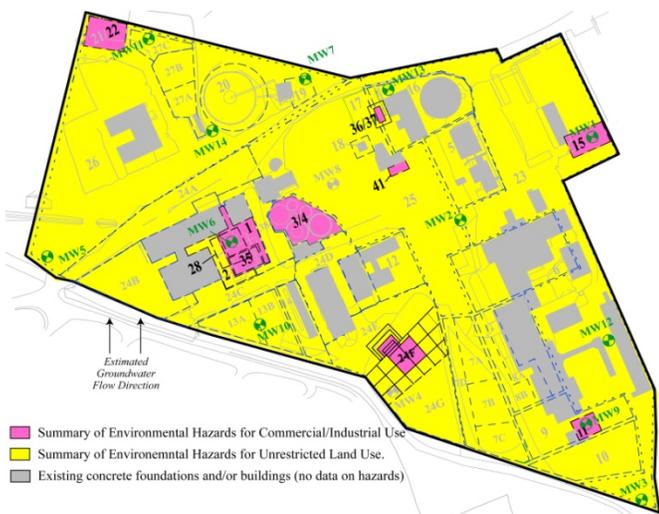


Figure 2: Environmental Hazards Map

To address overall soil and groundwater hazards at the site, site-wide controls and a written Environmental Hazard Management Plan (EHMP), as well as area-specific (DUs) remedial actions are proposed. The entire site will have a land use control limiting the land use to Commercial or Industrial Use only. A site-wide groundwater monitoring program will include twelve wells, and a site-wide Environmental Hazard Management Plan (EHMP) with institutional controls will be implemented at the site. The EHMP will include general controls to limit bare soil exposures on the site and require any future soil excavations to be conducted under protective measures with appropriate oversight.

In addition to the site-wide implementation controls and monitoring; the following source area specific remedial actions are proposed:

- Pesticide Mixing / Storage Area (DU1) - Installation of an asphalt cap, and groundwater monitoring of existing and newly installed groundwater monitoring wells.
- Tank Farm Area (DU3/4) - Maintenance of the existing soil cap/cover and erosion control measures.
- Arsenic Impacted Area (portion of DU24F) - Installation of an asphalt cap or a 1.5- to 2-foot soil cap and low groundcover atop Category D arsenic soils (i.e. heavily impacted) and erosion/bare soil control measures atop Category C arsenic soils (i.e. moderately impact).
- Diesel Fueling Area (DU11) - Installation of one additional groundwater monitoring well and groundwater monitoring.
- Lumber Rack / Transformer Storage Area (DU13) - Groundwater monitoring.
- Service Station Area (DU15) - Groundwater monitoring.
- Fertilizer AST Area (DU22) - Groundwater monitoring.

- Mill Area Petroleum (DU36) - Installation of one additional groundwater monitoring well and groundwater monitoring.
- Solid Waste Removal Area (DU41) - Groundwater monitoring.

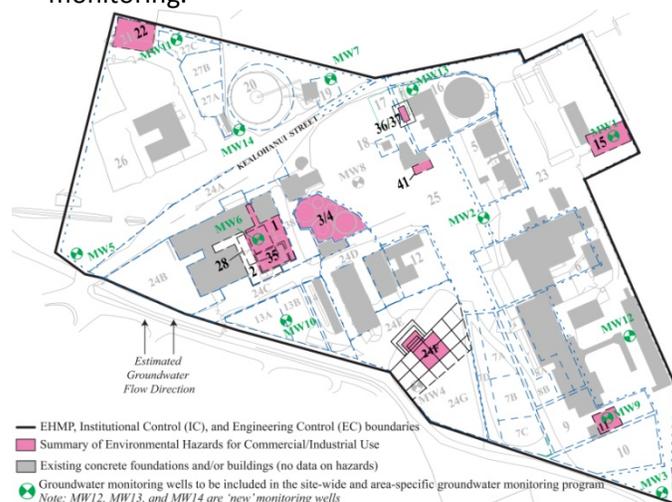


Figure 3: Preferred Remedial Alternative

Public Comment

The Draft RAM is available for public review and comment at the locations listed below during the public comment period, March 4, 2018 to April 6, 2018. In addition, a public meeting will be held during the public comment period at the Waialua Elementary School – Cafeteria, 67-020 Waialua Beach Road, in Waialua the evening of March 15, 2018, 6:00-8:00 PM, to present an overview of the site investigations and the proposed remedial actions for the site and answer questions. HDOH invites the public to participate in this meeting and provide comments to help the HEER Office determine the final response action selected for the Site. All public comments will be addressed in the Final RAM and HDOH may revise the proposed remedy based on public comments or concerns. If you have questions regarding the proposed remedy for the site, you can call Mr. Peard at (808) 933-9921. Written comments may be submitted to Mr. John Peard by email (randall.peard@doh.hawaii.gov) or via regular mail at the address below.

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