

# Construction Activities and Contaminated Media



# Types of Contaminants Typically Encountered?

- Pesticides and Herbicides
- Metals
- Solvents
- Polychlorinated Biphenyls (PCBs)
- Petroleum
  - Gasoline
  - Diesel Fuel
  - Jet Fuel
  - Oil



# Why Identifying Contamination is Important

- Immediate Effects of Exposure (acute)
  - Headache
  - Nausea
  - Difficulty Breathing
  - Dizziness
  - Asphyxiation
- Long Term Effects of Exposure (chronic)
  - Cancer
  - Organ Damage

# How to Identify a Potential Contaminant in the Field

- Sight
  - Color (staining)
  - Dead/dying vegetation
  - Layers of ash or debris
- Smell
  - Petroleum odor
  - Solvent odor (sweet or acetone-like)
  - Rotten egg
- Effects on humans
  - Workers getting a rash or becoming nauseous or dizzy



# So You Identified Contamination During Construction Activities...



# When Should You Report a Release?

Any detection of a contaminant at a concentration greater than the most conservative DOH Environmental Action Levels

- Laboratory analytical samples
- Chemical or fuel odor
- Visual evidence of contamination

In accordance with HAR 11-451 this also includes:

- Any amount of oil causing a sheen to appear on surface water.
- Any amount of oil released to navigable waters of the State
- Any type of fuel on groundwater
- Any amount of oil greater than 25 gallons released into the environment
- Any amount of oil less than 25 gallons released to the environment and not cleaned up within 72 hours

# Release Reporting

**For Immediate Emergencies or UXO call 911**

**STATE:** Hawaii State Emergency Response Commission (HSERC)/ HEER Office

- Between 7:30 AM and 4:30 PM: 808-586-4249
- After Hours (State Hospital): 808-247-2191

**COUNTY:** Local Emergency Planning Committee (LEPC)  
City and County of Honolulu

- Between 7:30 AM and 4:30 PM: 808-723-8960
- After Hours: 911

**FEDERAL:** National Response Center (NRC)

- All Hours: 1-800-424-8802
- Only call if the release impacted navigable waters or adjoining shorelines.
- **\*FAILURE TO REPORT A RELEASE – \$10,000/day fine and criminal misdemeanor\***

## Maui County

- Main Number (all hours): 808-870-7404
- Alternate: 808-270-7911

## Kauai County

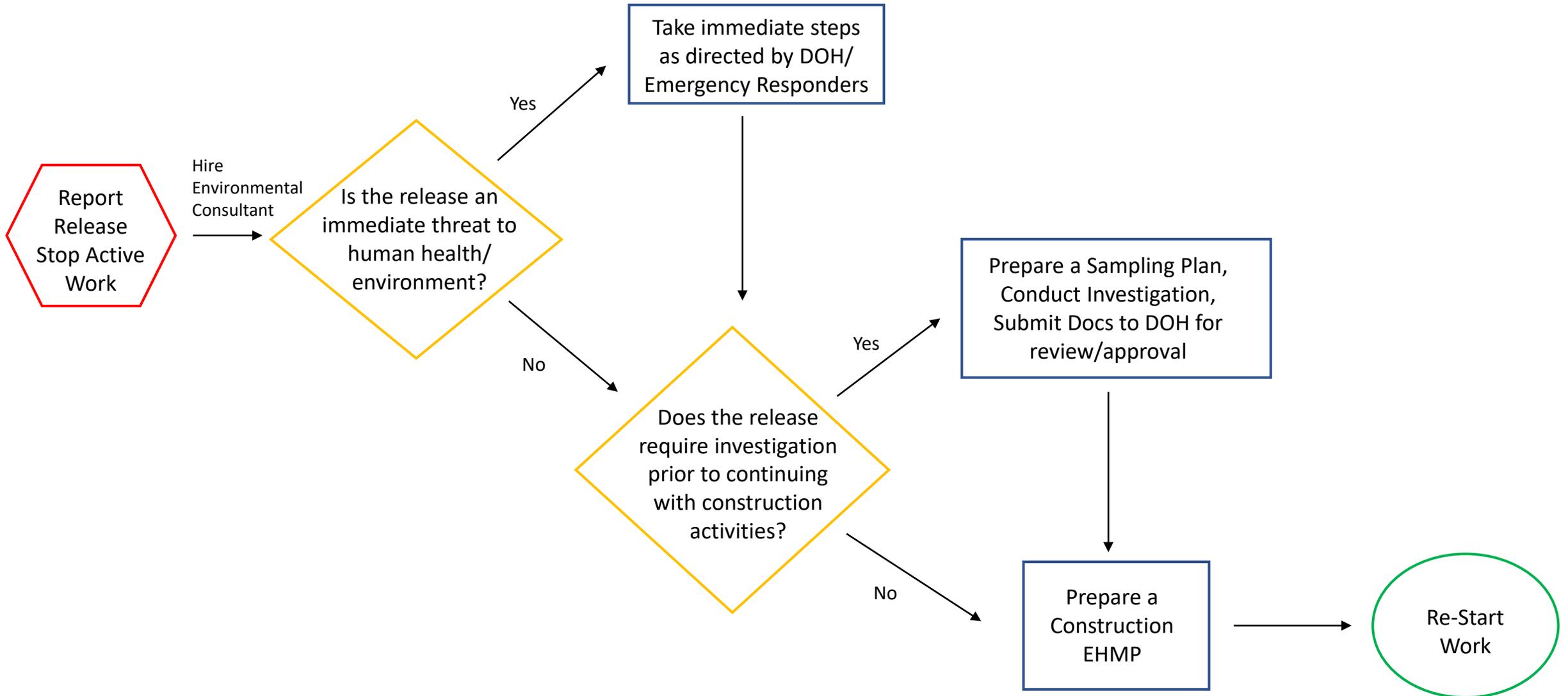
- 24 Hours: 808-634-0310
- After Hours/Unable to Contact (Dispatch): 808-241-1711

## Hawaii County

- Main Number: 808-936-8181/808-443-4150
- Alternate: 808-895-7318

LEPCs on the Neighbor Islands

# So You Discovered Contamination During Construction Activities...



# Downsides to Waiting Until Active Construction To Identify Contamination

- Potential delays in construction and associated delay costs
- Additional costs to address and manage the contamination not previously built into budget
- Potential liability for exposing workers to contaminants without their knowledge
- Potential for impacting stormwater run-off with contaminants
- If contaminated soil improperly disposed of can result in substantial fines



# How Can You Plan Ahead?

- **Identify the historic/current uses of the area.**

## Uses Where Contamination Likely

- Automotive Repair Shops
- Dry Cleaners
- Airports
- Harbors
- Industrial Areas
- Incinerators/burn pits
- Sugar Mills
- Metal Plating Plants



# How Can You Plan Ahead?

- Identify the historic/current uses of the area.
- **Identify Areas where there are existing Area-wide or Programmatic Environmental Hazard Management Plans**

# Current Area-Wide/Programmatic EHMPs

- Iwilei District Mauka of Nimitz Highway
- All State-Owned Airports
- Kahului Harbor Industrial District
- Honolulu Authority for Rapid Transportation
- Waikoloa Maneuver Area

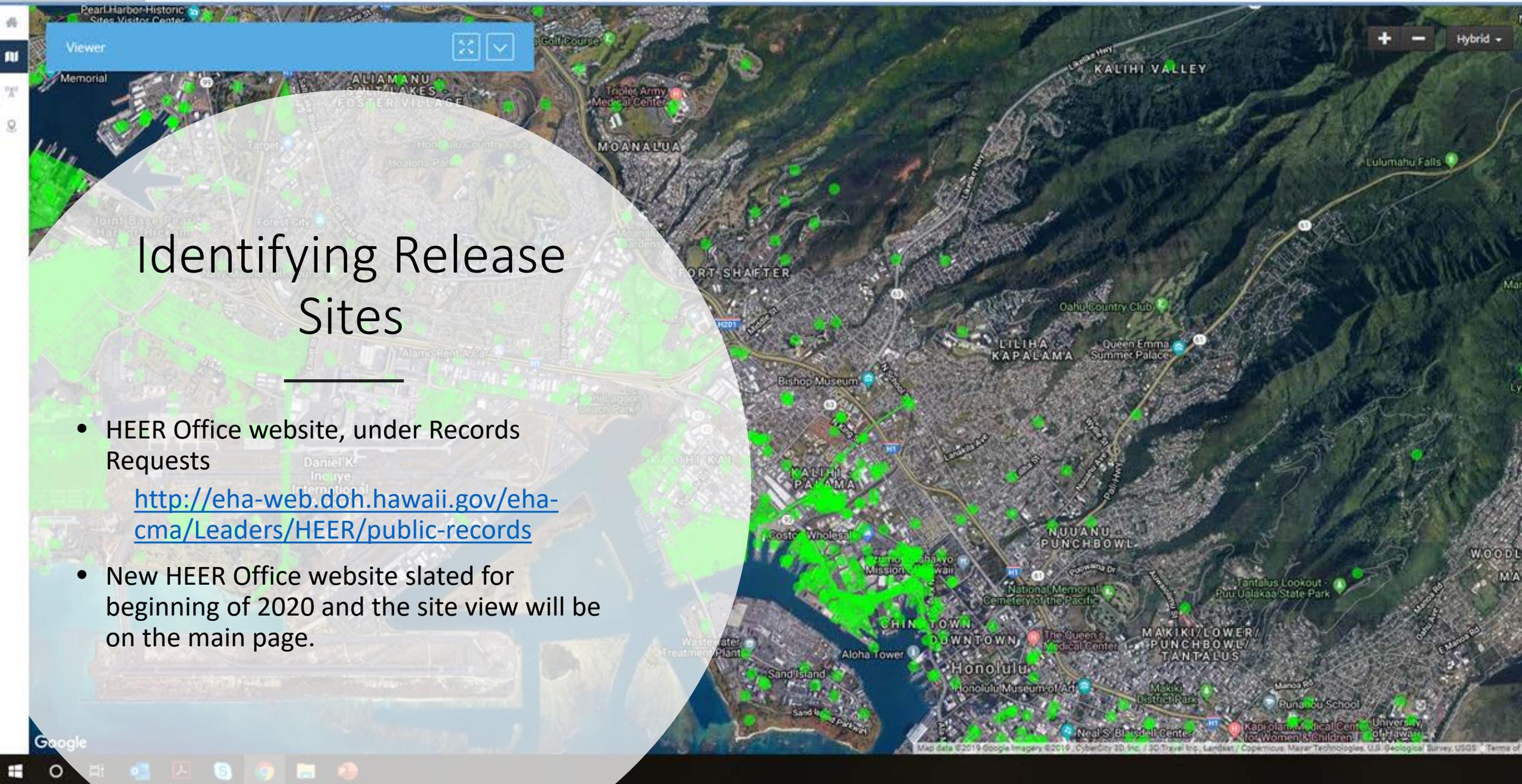
Links to these EHMPs are located in the What's New Section of HEER Office website:

<http://eha-web.doh.hawaii.gov/eha-cma/Org/HEER/>



# How Can You Plan Ahead?

- Identify the historic/current uses of the area.
- Identify Areas where there are existing Area-wide or Programmatic Environmental Hazard Management Plans
- **Determine if where you will be doing construction activities is a release site or near a reported release site**



# Identifying Release Sites

- HEER Office website, under Records Requests

<http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/public-records>

- New HEER Office website slated for beginning of 2020 and the site view will be on the main page.

# How Can You Plan Ahead?

- Identify the historic/current uses of the area
- Identify Areas where there are existing Area-wide or Programmatic Environmental Hazard Management Plans
- Determine if where you will be doing construction activities is a release site or near a reported release site
- **Perform a Phase I Environmental Site Assessment, and if necessary, a substantial Phase II ESA**
- **Review geotechnical boring logs for evidence of contamination**

# Upsides to Identifying Contamination Prior to Starting Construction

- Fewer delays in construction
- Better control over project to ensure compliance with applicable State and Federal environmental rules and regulations
- Ensure that building materials and design are compatible with identified contaminants
- Allows for preparation of more detailed Bid Specs on how to properly handle contamination
  - Can reduce the number of change orders and cost overruns



# HDOH Available Tools

- HDOH HEER Office Technical Guidance Manual
  - <http://www.hawaiidoh.org/tgm.aspx>
- HDOH HEER Office Construction – Environmental Hazard Management Plan Template
  - Website Location: <http://eha-web.doh.hawaii.gov/eha-cma/Org/HEER/>
- Easily notify HDOH HEER Office of planned construction activities in contaminated areas
  - <https://eha-cloud.doh.hawaii.gov/epermit/Home/09e4679d-dd3a-4bee-b0d6-1112e0a9217d>

**RE: Excavation Ticket No: 19016892**

Ticket Priority:	MEET TIME	Work Date:	10/25/19
Work Address:	UU STREET, KAILUA-KONA	Work Done For:	UU STREET
Near Intersection:	AIRPORT ACCESS ROAD	Location Details:	ON UU STREET, AT THE INTERSECTION OF TAXIWAY K
Work Description:	CONSTRUCTION OF NEW ROADWAY AND TAXIWAY - Work Done For: DOT-AIRPORTS - ON UU STREET, AT THE INTERSECTION OF TAXIWAY K		

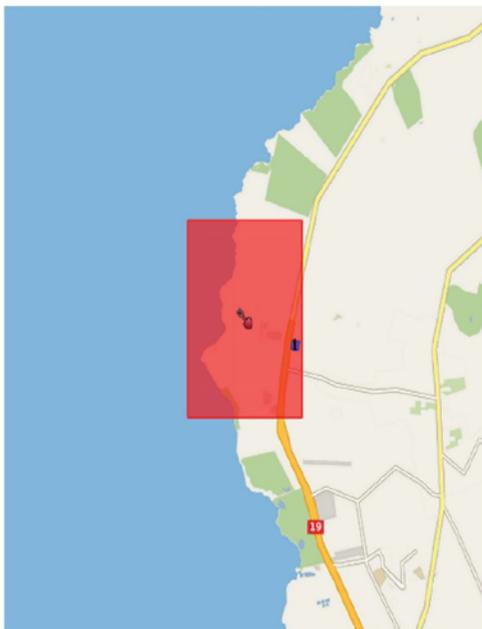
**Dig Clean Safety and Land Use Advisory 1396146**

The purpose of the Advisory is to notify you that your planned excavation is in the vicinity of a regulated site. For this site or sites, Environmental Hazard Management Plan (EHMP) is available from DOH.

The attached Advisory shows the location of the site or sites subject to this EHMP in relation to the planned excavation extent as reported by the HOCC call center.

Please screen your excavation extent against this map of sites impacted by an EHMP. To access the EHMP and learn more about the regulated site(s), please visit <https://eha-cloud.doh.hawaii.gov/iheer/#/home>, select "Viewer," tab "Sites". You can use the "Zoom" button on the top right to zoom to different islands. Then zoom closer to your site (or a neighboring site) and select the green marker area for your or the neighboring property to access the site "details". Under details you can access all documents via the "documents" tab. If your work appears near one of these sites, immediately contact the Hawaii Department of Health, Hazard Evaluation and Emergency Response Office at 808-586-4249 and ask for the Site Discovery and Response (SDAR) Section Supervisor. Please provide be ready to provide the Dig Clean Safety Advisory Number.

The map below identifies your proposed activity (in red) along with any sites affected by contaminated soil and/or groundwater contamination (in blue).



Red line/polygon indicate your work area as provided to Hawaii One Call.  
 1,2 .. Numbered Blue polygon(s) are the areas of the site(s) of concern.  
 Note, on occasion the area is outside of the map view.

**CONTAMINATED SITE SHOWN ON MAP:**

EC 1: Site Name HELCO Generating Station: Keahole (UID: 1343256)  
73-4249 Queen Kaahumanu Hwy Kailua-Kona, HI

**ALTERNATIVES TO VIEW INFORMATION:**

View on the Web: <https://dicclean.com>, enter under Option 2: 1396146

Form C

# Other Resources

- HDOH HEER Office notifications associated with 811 One-Call prior to digging
- Clean Water Branch NPDES permit applications for Construction and Dewatering

*Note: The HEER Office is currently updating site information for sites. Most, but not all sites may be displayed on the website. Sites that are currently ongoing and not all documents may be currently available via this website. To get the complete record for the site, a record request form can be filled and submitted to the HEER Office. Users will then be notified when they are able to download all information via the iHEER system website.*

*Describe any existing pollution sources that have been checked above and from HEER Office Sites, Incidents and Records:*

*Describe any corrective measures that have been undertaken for any existing pollution source(s):*

*Note: You are required to contact the Department of Health, Office of Hazard Evaluation and Emergency Response at (808) 586-4249 and through e-permitting Form "Notification of Construction Activities" at Form Finder <https://eha-cloud.doh.hawaii.gov/epermit/finder> if contaminated soil, vapor, or groundwater is known to be present at your project site. Notify at least 90 days prior to surface and subsurface disturbing activities (demolition, building/site configuration changes, grading, excavation, or prior to any other activities) that may disturb the ground surface at HEER sites. If you missed the 90 days notification time frame, notify the HEER Office as soon as possible to avoid any potential delays regarding your project.*

## C.3 - Construction Site Preparation

Please provide the following estimates for the construction site.

Total project area including areas to be left undisturbed: \_\_\_\_\_ acres

# What is a Construction EHMP?

Primarily activity specific (e.g. – digging, dewatering)

Based on the assumption that contamination will be encountered via certain activities

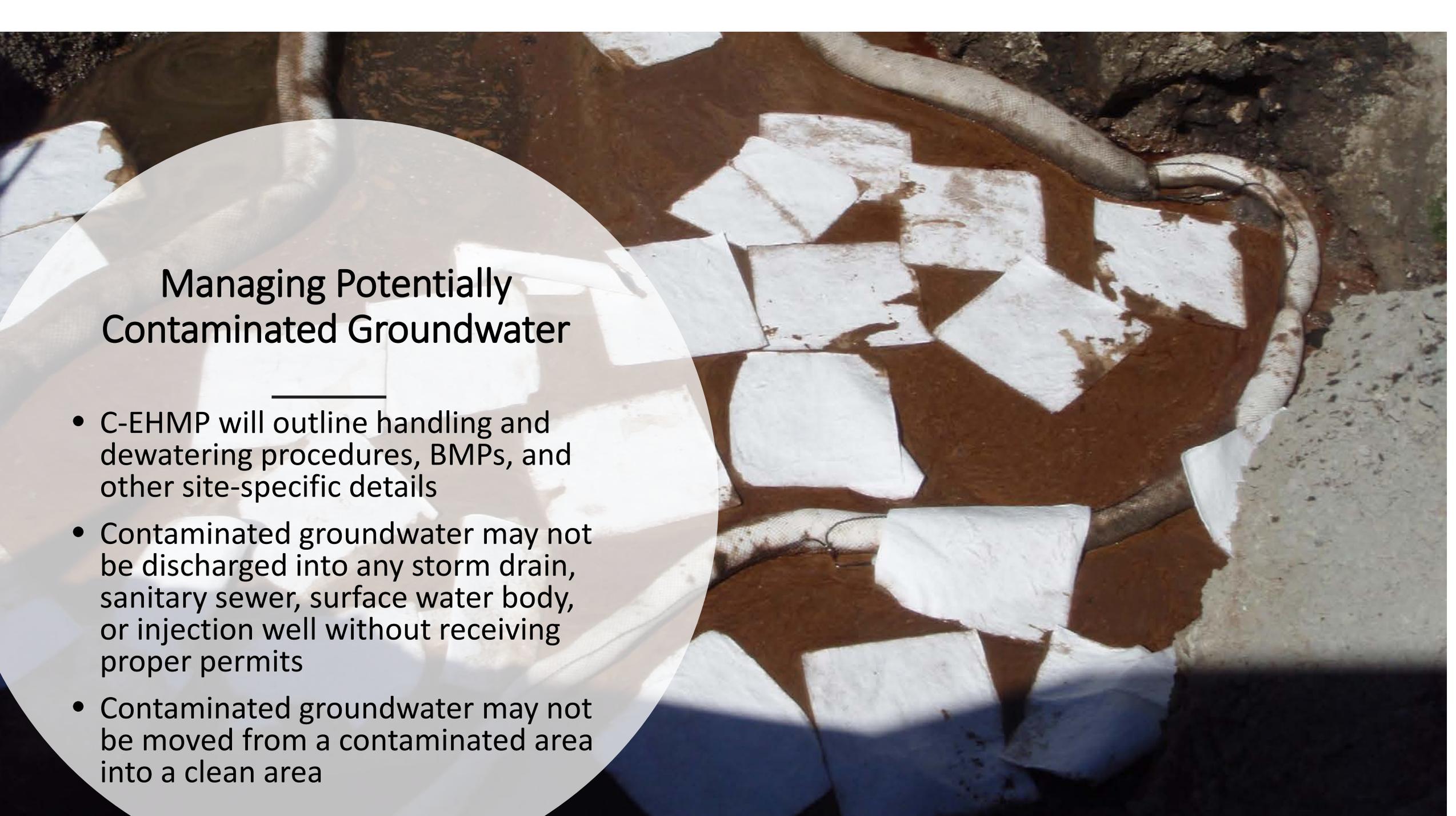
Designed primarily to protect site workers and ensure that contaminated media is dealt with appropriately

- Provides steps and measures to protect human health and the environment during construction activities

# Managing Potentially Contaminated Soil

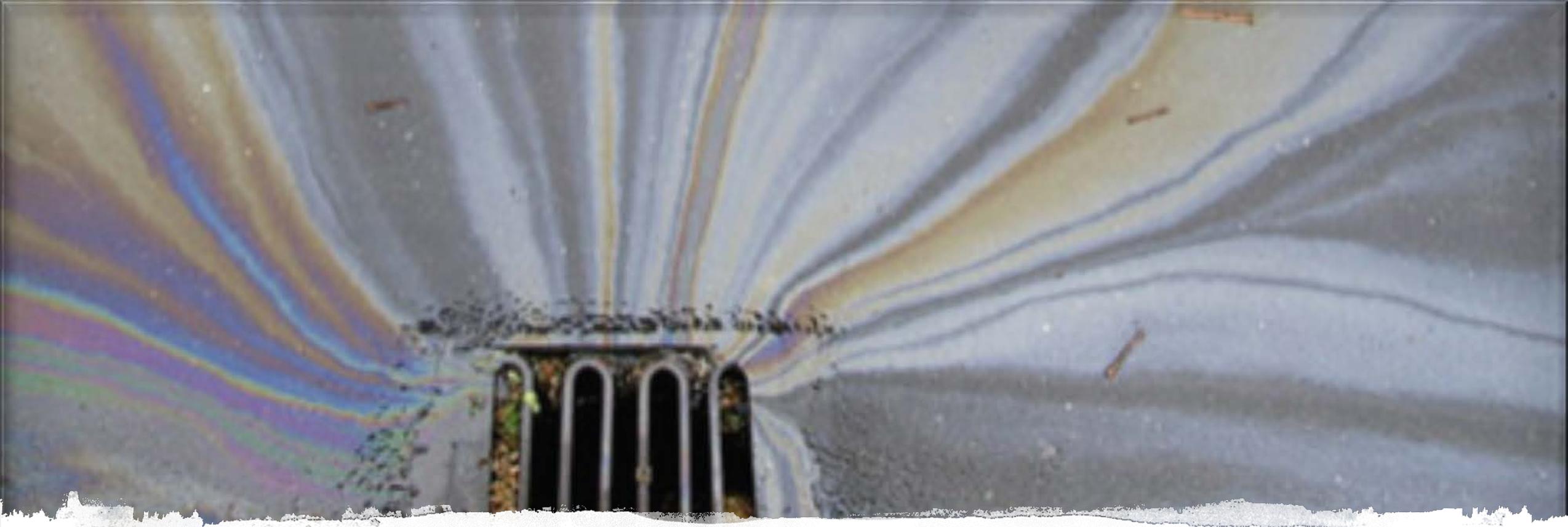
- C-EHMP will outline appropriate handling procedures, soil sampling procedures, disposal/reuse requirements, necessary BMPs, and other site-specific details.
- Contaminated soil may not be transported off-site without proper characterization.
  - Could result in significant fines for improper disposal
- HEER Office provides Clean Fill Guidance-  
<http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/technical-guidance-and-fact-sheets>
  - Provides definition of “Clean Fill”
  - Provides guidance for sampling requirements for reuse onsite and offsite





## Managing Potentially Contaminated Groundwater

- C-EHMP will outline handling and dewatering procedures, BMPs, and other site-specific details
- Contaminated groundwater may not be discharged into any storm drain, sanitary sewer, surface water body, or injection well without receiving proper permits
- Contaminated groundwater may not be moved from a contaminated area into a clean area



iHEER - <https://eha-cloud.doh.hawaii.gov/iheer/#!/home>

C-EHMP - <http://eha-web.doh.hawaii.gov/eha-cma/Org/HEER/>