

Hawaii Department of Health
Hazard Evaluation and Emergency Response Office

Assessment and Cleanup of Contaminated Sites





Hawai'i Department of Health Hazard Evaluation and Emergency Response Office Assessment and Cleanup of Contaminated Sites

Introduction

The Hawai'i Department of Health (HDOH) Hazard Evaluation and Emergency Response (HEER) Office has responsibility and legal authority to respond to releases, threats of releases, or discoveries of hazardous substances, including oil, that present a substantial endangerment to public health or the environment. Responses may require:

- (1) Emergency response to address an immediate hazard, and/or
- (2) Longer-term action involving investigation and (non-emergency) environmental cleanup

This brochure focuses on environmental cleanup services for non-emergency response situations. The HEER Office has prepared this brochure to provide an overview of the environmental cleanup services that are administered by the Site Discovery, Assessment, and Remediation (SDAR) Section of the HEER Office. The intended audience for this brochure is (1) current and future owners and operators/tenants of contaminated property and (2) environmental professionals hired to characterize, cleanup, and achieve closure of contaminated sites.

The primary state authority governing response actions is the Hawai'i Environmental Response Law (HERL) Chapter 128D of the Hawai'i Revised Statutes (HRS). It is fashioned after the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly known as the Federal Superfund Law. Under HERL the HEER Office is responsible for responding to both emergency and non-emergency hazardous substance releases. The procedures by which the HEER Office responds to hazardous substance releases under the HERL are described in a set of administrative rules known as the Hawai'i State Contingency Plan (Hawai'i SCP), Hawai'i Administrative Rules (HAR), Title 11, Chapter 451.

Table of Contents

- Introduction..... 1
- 1. HEER Office Organization2
- 2. Site Discovery3
- 3. Removal Action vs. Remedial Action.....3
- 4. Environmental Cleanup Programs.....4
 - 4.1 State Sites Program4
 - 4.2 Fast Track Cleanups (FTC)4
 - 4.3 Voluntary Response Program (VRP).....4
 - 4.4 Brownfields Redevelopment Program5
 - 4.5 Department of Defense and State Memorandum of Agreement (DSMOA) Program.....6
- 5. Technical Guidance Manual (TGM).....6
- 6. Choosing the Best Program for Your Site.....7

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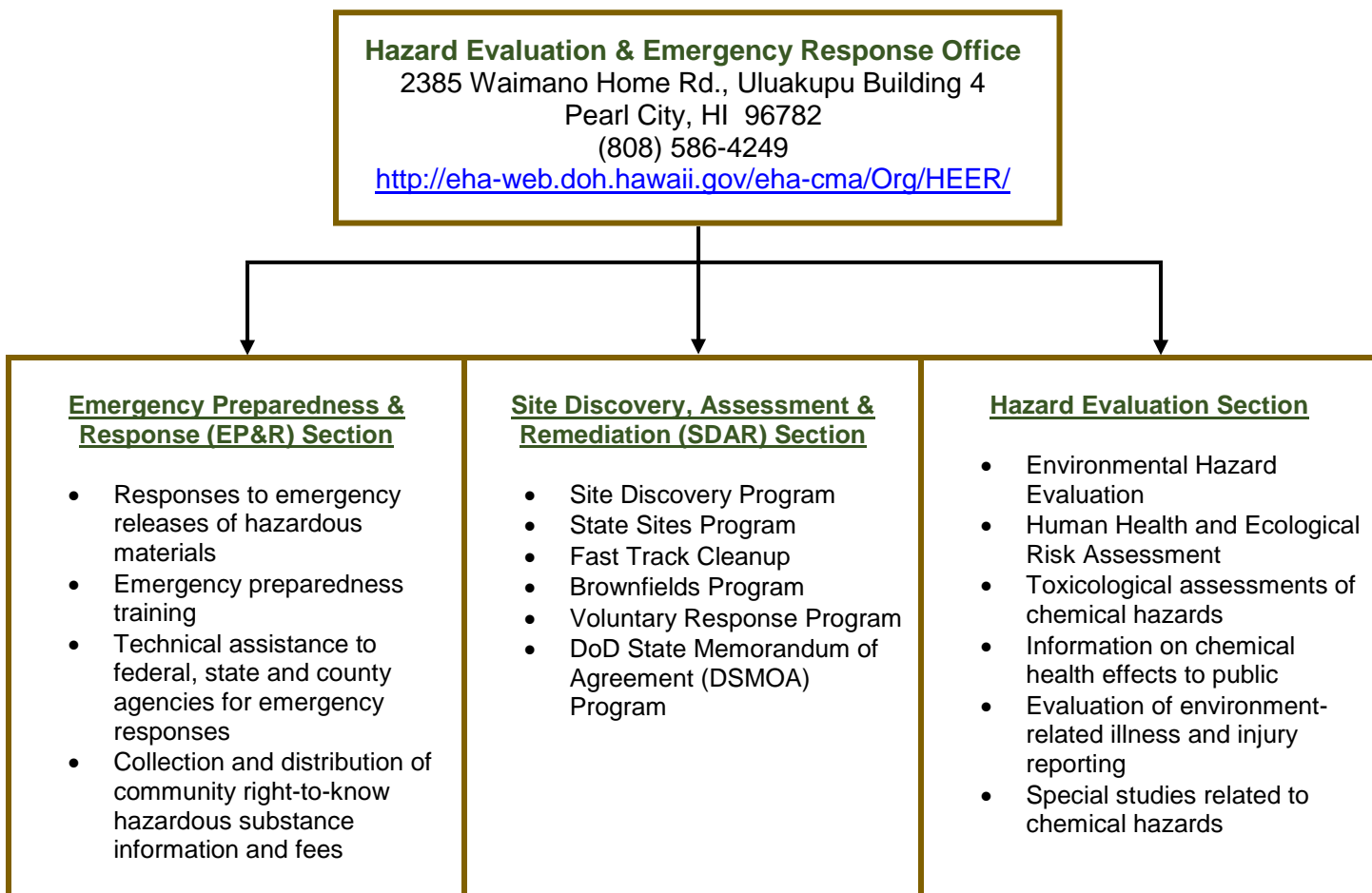


Assessment and Cleanup of Contaminated Sites

1. HEER Office Organization

The mission of the HEER Office is to protect human health and the environment and provide state leadership, support and partnership in preventing, planning for and responding to releases or threats of releases of hazardous substances, pollutants, or contaminants, and in enforcing environmental laws relating to such releases. The HEER Office is one of seven division-level offices organized under the Environmental Health Administration of the HDOH. The HEER Office is divided into three primary technical sections that are briefly described and also shown in the organizational chart below.

- **Emergency Preparedness & Response (EP&R) Section** is responsible for planning and preparing for, and responding to hazardous substance releases that may cause immediate threats to human health or the environment. This section also conducts emergency preparedness training exercises for emergency response actions.
- **Site Discovery, Assessment, and Remediation (SDAR) Section** is the largest section within the HEER Office. This section has responsibility for oversight of sites with soil, sediment, and groundwater contamination identified through release notification, sites in voluntary cleanup programs, or sites discovered through any other means, after an initial emergency response has been completed as necessary by the EP&R Section. The SDAR Section oversees the environmental cleanup programs described in this brochure.
- **Hazard Evaluation Section** provides guidance and support to HEER Office staff regarding proper evaluation of environmental hazards. Hazard Evaluation Section staff establish acceptable action levels for contaminants, assess potential hazards to human health and the environment, and assist the public with information concerning the health effects of chemicals.



Assessment and Cleanup of Contaminated Sites

2. Site Discovery

The HEER Office becomes aware of a site where a hazardous substance release has or may have occurred through the process of site discovery. Sites may be discovered through a number of means, such as:

- Calls from county or state agencies regarding emergencies
- Notification as required by law for a release of a hazardous substance that meets or exceeds a "reportable quantity" as specified under the Hawai'i SCP
- Investigations by other government agencies, universities, private and non-profit organizations
- HEER Office investigations of sites where past releases may have occurred
- Reports of contaminants in environmental assessments conducted by consultants for private or public parties (e.g. Phase I or Phase II Environmental Site Assessments) or other sampling that identifies contamination exceeding HEER Environmental Action Limits (described in Section 5 of this brochure)
- Participation of site owners/operators in voluntary investigation and/or cleanup programs such as Fast Track Cleanup or the Voluntary Response Program (see Section 4.2 and 4.3 of this brochure)
- Public observations or complaints

Once the HEER Office is aware of a hazardous substance release or potential release site, all situations determined to be emergency responses are acted upon immediately or as appropriate by the EP&R staff of the HEER Office. These are typically "recent" hazardous substance releases or recent discoveries of abandoned containers that may present a significant threat of release. Hazardous substance releases or suspected releases judged not to require emergency response are assigned to the SDAR Section of the HEER Office for evaluation and action. These non-emergency releases are typically "historic" hazardous substance releases, or releases where an initial emergency response action has been completed. Interim actions, such as those requiring access restrictions, may still be required at some of these sites pending investigation and cleanup.

3. Removal Action vs. Remedial Action

The Hawai'i SCP defines two basic response action processes: removal action and remedial action. Although the investigation and cleanup process is similar for addressing all hazardous substance releases, the characteristics of the release, potential receptors, and other factors will determine the scope of the activities and whether the removal or remedial action process will be used. Removal and remedial actions are not clearly distinguishable based on specific on-site activities. However, there are very real differences in the Hawai'i SCP requirements associated with these two response action options. These requirements are summarized in the table below.

Requirements for Removal Action	Requirements for Remedial Action
<p><u>Documentation:</u></p> <ul style="list-style-type: none"> • Removal Action Report <p><u>Public Participation:</u></p> <p>Public notice and comment only required if:</p> <ul style="list-style-type: none"> • Significant concern is expressed or likely • HEER Office decides in public interest • HDOH-lead and \$25,000 spent <p>Notice of action generally published in newspaper before removal action, but no later than 60 days after initiation of on-site removal activity</p>	<p><u>Documentation:</u></p> <ul style="list-style-type: none"> • Remedial Investigation Report • Remedial Alternatives Analysis Report (RAA) • Draft Response Action Memorandum (Draft RAM) • Final Response Action Memorandum (Final RAM) • Remedial Design/Remedial Action Work Plan • Remedial Design/Remedial Action Report <p><u>Public Participation:</u></p> <p>Public notice and comment are always required. Notice must be published at least 30 days prior to final remedial action selection.</p>

The scope of any response action should be commensurate with the magnitude and complexity of the problem being addressed. The HEER Office anticipates that most sites should be addressed by the removal action process and by applying the Hawai'i Tier I Environmental Action Levels (EAL), with fewer sites requiring the full complexity of the remedial investigation process.

Assessment and Cleanup of Contaminated Sites

4. Environmental Cleanup Programs

This section provides a description of the environmental cleanup programs that are administered through the SDAR Section of the HEER Office. The SDAR staff is composed of Remedial Project Managers (RPM) who oversee investigations and cleanups at sites in one or a number of these programs. The different types of investigations or cleanups that can be handled under the various programs are discussed in Section 6 of this brochure.

4.1 State Sites Program

This program includes sites managed under an existing cleanup agreement with the HEER Office. These generally include non-military sites where high levels of contamination are present or where several responsible parties are requesting oversight from the HEER Office. This program also includes sites where the responsible party requests HEER Office oversight but may be either not eligible for or not interested in the requirements necessary under Fast Track Cleanups or the Voluntary Response Program (described below). Historically, this program has been used by the HEER Office to provide oversight at high priority sites. More recently, responsible parties have also approached HEER to provide oversight at sites requiring immediate attention for a variety of reasons.

4.2 Fast Track Cleanups (FTC)

FTC enables landowners or other private parties to conduct a voluntary investigation or cleanup under a simple agreement with HDOH, without the submittal of multiple formal work plans and interim report submittals. As a result, it enables the participant to move forward rapidly with cleanup actions. The focus of FTC is to streamline and expedite site closure at low and medium priority removal action sites.

FTC streamlines the review process by enabling the requesting party to conduct the site investigation and carry out cleanup actions without formal HEER oversight or approval of each step. Project status and updates can instead be conducted with HEER through scoping meetings or presentations, as needed. FTC does not provide the same benefits to prospective purchasers that are offered under the Voluntary Response Program.

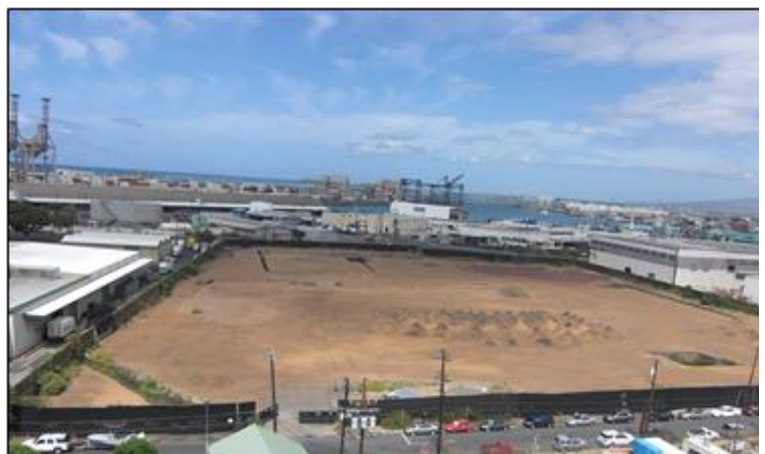
4.3 Voluntary Response Program (VRP)

The VRP is a program intended to address a wide range of site conditions, contamination, and property transactions. The result of the VRP is a State approved clean up and an official "Letter of Completion" which typically includes an exemption from future liability. The VRP is attractive to property owners and purchasers because it provides a clear work plan, prompt oversight from the State, and an exemption from future liability. Property owners can benefit from the VRP if they are planning to sell their property or change its use. Buyers and lenders benefit because the VRP eliminates the uncertainty of regulatory oversight and the threat of future environmental liability.

Below - Soil treatment at a VRP site in Honolulu, Hawai'i.



Below - Post cleanup view of the same VRP site.



Assessment and Cleanup of Contaminated Sites

4.4 Brownfields Redevelopment Program

The Hawai'i Brownfields Redevelopment Program facilitates assessment, cleanup, and redevelopment of contaminated property. The Hawai'i program is supported by and reflects the goals of the national brownfields program sponsored by the U.S. EPA. Using a variety of resources, HEER Office staff work collaboratively with landowners, purchasers, state and county agencies, and the public to ensure that environmental issues are properly addressed prior to redevelopment. In addition to the availability of FTC and VRP, these resources include:



- Technical Consultations – Environmental issues and the laws that apply to them can be very complex. To help owners and developers comply with Hawai'i's laws, HEER staff offer free consultations. These consultations may be to discuss the various oversight options that are available or specific technical cleanup issues.
- Environmental Site Assessments (ESA) – In situations where development will result in substantial benefit to the public, the HEER Office is able to perform preliminary ESAs for owners and prospective purchasers at no cost. Funds are limited and the goal is generally to facilitate the purchase of property by assessing the likelihood of environmental issues. In very high priority situations, the HEER Office may perform sampling and analyses to determine the extent of contamination and estimate cleanup costs. This work is most typically done for public and nonprofit agencies involved with development projects.
- Development Design “Charrettes” – A key step in a development project is to gather input from all interested stakeholders. One approach to accomplishing this is through a “design charrette.” A *charrette* is a workshop in which a group of stakeholders collaborate on the scope and vital elements of a proposed development project. The structure is designed to meet the specific needs of the parties involved and the project at hand. Working in partnership with the Department of Business, Economic Development and Tourism (DBEDT), the HEER Office sponsors these sessions using professional architects and other design consultants.
- Hawai'i Brownfields Forum – The Hawai'i Brownfields Forum is a public event designed to encourage collaboration by bringing together all parties involved with the brownfields redevelopment process. The HEER Office has sponsored four Forums on a roughly annual basis. During the event, presentations and discussions occur on a range of topics including new developments in the law, evaluating environmental hazards, and proper use of environmental insurance. The events are designed to facilitate networking and emphasize an opportunity to “get to know” the regulators.



Above - These photos were taken during the fourth Hawai'i Brownfields Forum held in October 2008.



Assessment and Cleanup of Contaminated Sites

4.5 Department of Defense and State Memorandum of Agreement (DSMOA) Program

The SDAR Section works within the DSMOA program to provide oversight for assessments and cleanups of Department of Defense (DOD) sites. Although the DOD is the lead agency responsible for cleanup decisions under the agreement, HEER provides technical review, comments, and recommendations on all documents, identifies state applicable or relevant and appropriate requirements (ARAR), and is involved in public education, public participation activities, and technical review committees.

5. Technical Guidance Manual (TGM)

The purpose of the TGM is to provide procedural and technical guidance to address hazardous substance releases in Hawai'i in accordance with HERL and the Hawai'i SCP. The TGM is intended to meet the needs of a variety of users, including: (1) current and future owners and operators of contaminated property, (2) environmental professionals hired to characterize and cleanup contaminated sites, and (3) HEER staff who oversee and provide assistance with all aspects of investigation and cleanup activities. The TGM is a comprehensive guide that provides step-by-step guidance and identifies technical resources to assist in addressing releases from discovery, through investigation or cleanup as necessary.



Above – This photo was taken during a site investigation conducted at a Navy installation on the island of Oahu. The HEER Office provided technical support to the Navy throughout this project, including reviews of the sampling and analysis plan (SAP) and quality assurance project plan (QAPP), as well as participating in the public information meeting to discuss the investigation's findings.

The current version of the TGM, updated in 2008 and periodically thereafter, is a web-based document that will enable HEER to incorporate timely and efficient updates. Please find the current TGM at: <http://www.hawaiidoh.org/>. The web-based platform enables HEER to provide real-time technical advances and procedural information, and facilitates the communication of updates and revised policies and guidelines to all users. The web-based TGM replaces the previous version of the TGM dated October 1997.



Environmental Action Levels (EAL) and the EAL Surfer

Tier 1 EALs are concentrations of contaminants in soil, soil gas and ground water above which the contaminants could pose an adverse threat to human health and the environment. The presence or absence of possible environmental hazards at a site can be initially determined by comparison of representative site data to the Tier 1 EAL for each target contaminant. The HDOH HEER Office has issued Tier 1 EALs for hundreds of contaminants and these are presented in lookup tables that are updated regularly. The EAL Surfer is a searchable, electronic version of the EAL lookup tables and can be downloaded from the HEER website. Use of the EAL Surfer to screen site data and expedite preparation of Environmental Hazard Evaluation (EHE) reports is highly recommended. To use the EAL Surfer you must have Excel installed on your computer. The EAL Surfer is revised on a regular basis. Please periodically check the HEER website to ensure that you have the most up-to-date edition available.

Assessment and Cleanup of Contaminated Sites

6. Choosing the Best Program for Your Site

All sites within SDAR programs must adhere to:

1. The State Contingency Plan (HAR 451)
2. Hawai'i Environmental Response Law (HRS 128D)
3. The protocols identified in the Technical Guidance Manual (or alternate protocols approved by the HEER Office)

These guidance documents address a wide range of possible site conditions and oversight roles of SDAR, from small spills with quick cleanups to complex sites requiring comprehensive public outreach. The guidance documents therefore provide the required framework and procedures, but the specific level of planning, investigation, public outreach, and documentation is dependent on the specific conditions and scenarios at each site.

Generally, Fast Track Cleanup is intended for low- and medium-priority sites with no public outreach needs; both new and existing sites are eligible for FTC. The State Sites program is intended for complex or sensitive site conditions that may require detailed documentation or agency approval at each step. The Voluntary Response Program is intended for purchase and sale agreements, and its requirements are detailed in Chapter 128D, Part II, HRS. The Brownfields Program helps identify financial incentives for redevelopment. Examples of different sites and corresponding suggested programs are presented in the table below. Property owners and consultants are encouraged to contact the SDAR Section for consultation on which program is best for their specific site.

Scenario	Suggested Program
Current spill or suspected hazardous conditions	Contact 24-hour Hotline, EP&R Section
Attaining DOH approval for No Further Action at low- to medium-priority site	FTC
Attaining DOH approval for No Further Action at a high-priority site	State Sites or VRP
Selling property and requesting an indemnification for future owners	VRP
Requesting site closure or No Further Action at a site with completed investigations or cleanup	FTC
Agricultural land for sale or considering to redevelop under a different land use	FTC
Resolving a Recognized Environmental Concern identified in a Phase I Environmental Site Assessment	FTC
Commercial development exposing soils beneath structures potentially impacted by pesticides or termiticides	FTC
Development of land where industrial or multi-unit housing foundations are exposed	FTC
Financial incentives for redevelopment of underutilized land	Brownfields
Department of Defense investigation or cleanup	DSMOA
Appropriate program for a removal action process	FTC or VRP
Appropriate program for a remedial action process	State Sites or VRP



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