HAWAII STATE DEPARTMENT OF HEALTH

The **Hawai'i Department of Health (HDOH), Hazard Evaluation and Emergency Response Office (HEER Office)** is a state environmental health division 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.

# HEER Office Response Action Process

The State Contingency Plan and the HEER Office Technical Guidance Manual (TGM) describe the requirements for site characterization, site evaluation, and selection and implementation of a Response Action. Currently, the HEER Office requires that all steps in the process described in the regulations and guidance, and summarized below, be followed, and that the appropriate corresponding documentation be prepared. For redevelopment projects where full site characterization prior to construction is not feasible, the HEER Office has developed a Removal Action Alternative for Redevelopment process. Information on that alternative process is available in a separate Fact Sheet at https://health.hawaii.gov/heer/removal-action-alternative-for-redevelopment-fact-sheet-and-hazard-map-guidance/.

**Release Reporting and Response Action Process**

1. **Report release to HEER Office Emergency Planning and Response (EP&R) Section.** Once reported, the On-Scene Coordinator (OSC) assigned to the case will create an Incident Case Number and determine if an emergency response action is required. Following the evaluation and any required response action, the OSC may close the site out with a No Further Action (NFA) status. If no further emergency response is required but potential environmental hazards remain at the site, then the case may be referred to the HEER Office Site Discovery, Assessment and Remediation (SDAR) Section for further evaluation and response action oversight.

   **Documentation required** by EP&R includes 1) the **Written Follow-up Release Notification** (due within 30 days of the release), 2) all documentation of response action activities, and 3) any additional documents requested by the OSC assigned to the case.

2. **Adequate site characterization is required to delineate the nature and extent of contaminated media resulting from the release**. The purpose of site characterization is to delineate the extent of the contamination in the portion of the property impacted by the release; delineation of the entire property is not necessarily required. Additional characterization may be necessary where planned redevelopment will include grading, excavation and off-site re-use, or disposal of potentially contaminated soil at other areas of the property. For soil, adequate site characterization will generally require the collection of Multi-Increment Samples (MIS) from surface and subsurface Decision Units (DUs) to delineate the vertical and horizontal nature and extent of contamination. DUs must be selected based on information collected about historical site releases and activities, not simply based on maximum DU sizes described in the HEER Office Clean Fill Guidance. Discrete soil samples are not acceptable for final decision-making. Proper monitoring wells or micro-wells

should be installed and developed for the collection of groundwater samples rather than "temporary wells" installed for the collection of "grab" groundwater samples. For soil vapor, large-volume purge (LVP) samples are generally more representative of subsurface conditions and should be used in preference to small volume samples of individual sample points.

To properly characterize the site, a Sampling and Analysis Plan (SAP) should be prepared in accordance with the TGM by a Qualified Environmental Professional (QEP) prior to collecting samples. The SAP is not required to be reviewed by the HDOH, but it is recommended that the SAP be provided for review and approval, or at least discussed with HDOH, to ensure the plan will meet the project objectives. All SAPs should include a discussion of the sampling objective and DU selection, detailed descriptions of sample collection procedures, laboratory sample preparation procedures, quality assurance processes and analytical methods, and a discussion of the limitations of the data usage, particularly if adequate samples are not being collected. For DU-MIS soil samples, an appropriate number of replicate samples must always be collected to evaluate accuracy and data usability. Replicates should also be collected for groundwater and soil vapor samples for the same purpose. Site sampling should continue until all contamination at the site is sufficiently characterized.

**Documentation** should include 1) the **SAP** and any amendments and 2) a **Site Characterization Report** presenting the data and discussing data usability, data gaps, and any variance from the SAP. The Site Characterization report may also include an Environmental Hazard Evaluation (EHE) and a discussion of response action alternatives, if appropriate.

3. **An Environmental Hazard Evaluation (EHE) must be prepared based on the data collected in the Site Characterization step.** The EHE should include a preliminary conceptual site model (CSM) for the site and evaluate the data for site-specific environmental hazards. This may be done by a qualified environmental risk assessor evaluating human health and ecological risks specific to the site or by utilizing default site-specific Environmental Action Levels (EALs; e.g., commercial/industrial [C/I] EALs for sites NOT above a drinking water source and NOT within 150 meters of a surface water body). In addition to site specific conditions, the EHE must also evaluate contaminant concentrations against "unrestricted" Tier 1 EALs (i.e., the most conservative EALS: unrestricted EALs for sites above a drinking water source and within 150 meters of a surface water body) to evaluate potential impacts if future site conditions change or if contaminated media is taken off-site for re-use or disposal.

   **Documentation.** An **EHE** may be a stand-alone document, or it may be included in the Site Characterization Report, in the Remedial Action Alternatives Analysis (RAA) for a Remedial Action, or in the Removal Action Work Plan (RAWP) for a Removal Action.

4. **Remedy Selection.** If the EHE identifies environmental hazard(s), or potential hazards at the site, then a Response Action must be selected. HDOH and the property owner must determine whether to conduct a Remedial Action or a Removal Action based on the degree of the hazard(s) at the site, the complexity of the required remedy, and other factors. Most sites can be addressed with a Removal Action. More complicated sites may require a Remedial Action which may require multiple steps to achieve closure.

   **Removal Action Documentation.** §HAR 11-451-13 states that a **Removal Action Report (RAR)** must be prepared for a Removal Action. In most cases, a **RAWP** will also need to be prepared prior to the activity to describe the removal activities and implementation of engineering and institutional controls (ICs), if any. The RAR must be prepared at the conclusion of the action to describe work conducted, variances from the work plan, and the final disposition of any contaminated media both on- and off-site. Either the RAWP or RAR must include a discussion of response action alternatives considered and other items listed in §HAR

11-451-13(d). **The RAR must also include a revised EHE and identify whether environmental hazards remain at the site.** In some cases, a Removal Action is only a partial remedy, and an additional response action may be required to fully mitigate the environmental hazard. In this case, ***interim controls*** must be implemented until a final remedy can be implemented.

In most cases, public notice and comment is not required for a Removal Action. If public participation is necessary, then additional documents will be required.

**Remedial Action Documentation.** A Remedial Action requires more documents, as presented in Section 2.4.5.1 of the TGM, including: 1) **Remedial Investigation Report** (may use Site Characterization Report), 2) **RAA Report**, 3) **Draft Response Action Memorandum (RAM)** which must be presented for public review, 4) a **Public Participation Plan** and related documents, 5) a **Final RAM**, 6) a **Remedial Design (RD)/Remedial Action Work Plan (RAWP)**, and 7) a final **Remedial Action Report/Remedial Action Completion Report (RACR)**. A revised EHE must be included in the final Remedial Action Report/RACR to identify any hazards remaining at the site. If so, they must be managed with engineering controls and ICs implemented as part of the remedy and those controls will require long-term management.

For either type of final Response Action, if long-term management (i.e., implementation of ICs with or without engineering controls) is selected as the remedy or as part of the remedy, then the selected remedy must include preparation of a **Long-Term Environmental Hazard Management Plan (EHMP)** which documents how the long-term controls will be managed and maintained in perpetuity to protect human health and the environment.

5. **Long-term Management** will require a **Long-Term/site-specific EHMP.** Since the EHMP is part of the site remedy, it must be documented in the Final RAM for a Remedial Action, or in the Removal Action Report for a Removal Action. The EHMP document is not a site control or a tool for implementing site controls. Where residual contamination remains on site that requires long-term management, the engineering and institutional controls must be implemented and established during the Response Action. The purpose of the EHMP is to document what these controls are and to describe and document the requirements for long-term maintenance and management of those controls. The purpose of the EHMP is not to provide guidance for future redevelopment of the site. Ideally, the controls maintained and managed by the EHMP should not be disturbed or removed. However, the EHMP does generally provide guidance for minor disturbance of contaminated media and site controls for small scale projects and emergency repairs that may become necessary in the future. Projects that involve larger disturbances or complete redevelopment of the site will likely require a Construction EHMP (C-EHMP) and may even require additional response action. The requirement for a C-EHMP for construction activities will be documented in the Long-Term EHMP and considered part of the remedy.

6. Unrestricted or “clean” No Further Action (NFA) status will be achieved for the site/release if there is no residual contamination following the response action at concentrations that exceed Tier 1 EALs, or no apparent residual environmental hazard as otherwise determined by HDOH on a case-by-case basis. The HEER Office will determine if an unrestricted NFA status is warranted and issue a NFA letter based on a review of the final Response Action documentation and revised EHE.

# *Response Action Process*