



3.10 ENVIRONMENTAL HAZARD EVALUATION

Environmental Hazard Evaluation is the link between site investigation activities and response actions, if needed (refer to Figure 3-1). A detailed discussion of Environmental Hazard Evaluation is provided in Section 13. As noted previously, the collection of site data and the identification of potential environmental hazards are iterative processes. As initial site data indicate potential environmental hazards, the need for additional data to fully define and evaluate the hazards and develop appropriate response actions must be evaluated. The identification of potential hazards early on during site investigation activities, even at cursory level, can help guide the progression of fieldwork and reduce the need for continual remobilization and collection of additional data.

Screening field data for the presence of potential environmental hazards as soon it arrives from the laboratory is a critical step in the site investigation process and should not be delayed pending the completion of a formal site investigation report. In the absence of obvious conditions in the field (e.g., explosive levels of soil vapors), the most expeditious approach to identifying potential environmental hazards associated with contaminated soil or groundwater is a direct comparison of site data to the HDOH Tier 1 EALs (see Section 13).

The presence or absence of potential environmental hazards can be quickly identified by direct comparison of site data to HDOH Tier 1 EALs. If the reported concentration of a COPC exceeds the Tier 1 EAL in the subject media (e.g., soil, soil gas, or groundwater) then the specific environmental hazard(s) potentially posed by the chemical should be identified (see Subsection 3.3.2). Exceeding the Tier 1 EAL does not necessarily indicate that environmental hazards are present, only that further evaluation is warranted. Perhaps most importantly, use of the Tier 1 EALs allows site owners/operators, consultants, and regulators to quickly screen out contaminants that do not pose potential concerns and negate the presence of environmental hazards at sites with minimal contamination. This is most easily done using the HDOH EAL Surfer available for download from the HDOH Environmental Hazard Evaluation web page).

As potential environmental hazards are identified, the CSM for the site should be updated and the need for additional sample data



evaluated. For example, the identification of elevated levels of lead in soil samples from one area of the site may indicate a need for additional soil samples from that area to better define the extent of contamination. The identification of potential leaching hazards associated with a COPC suggests that batch testing and/or groundwater data may be needed. The identification of potential vapor intrusion concerns suggests that soil gas data are needed.

Applying this type of dynamic and iterative approach to the site investigation process will expedite completion of the investigation and approval by the HEER Office. Screening preliminary data up front allows for a more complete site investigation to be prepared and submitted. This reduces the need for remobilizing months (or even years) after the initial sampling event and the need for multiple and time consuming reviews of site investigation reports by the HEER Office. Informal meetings with a HEER Office project manager or technical support staff person to discuss preliminary data and propose additional actions as the site investigation is being carried out are highly encouraged.