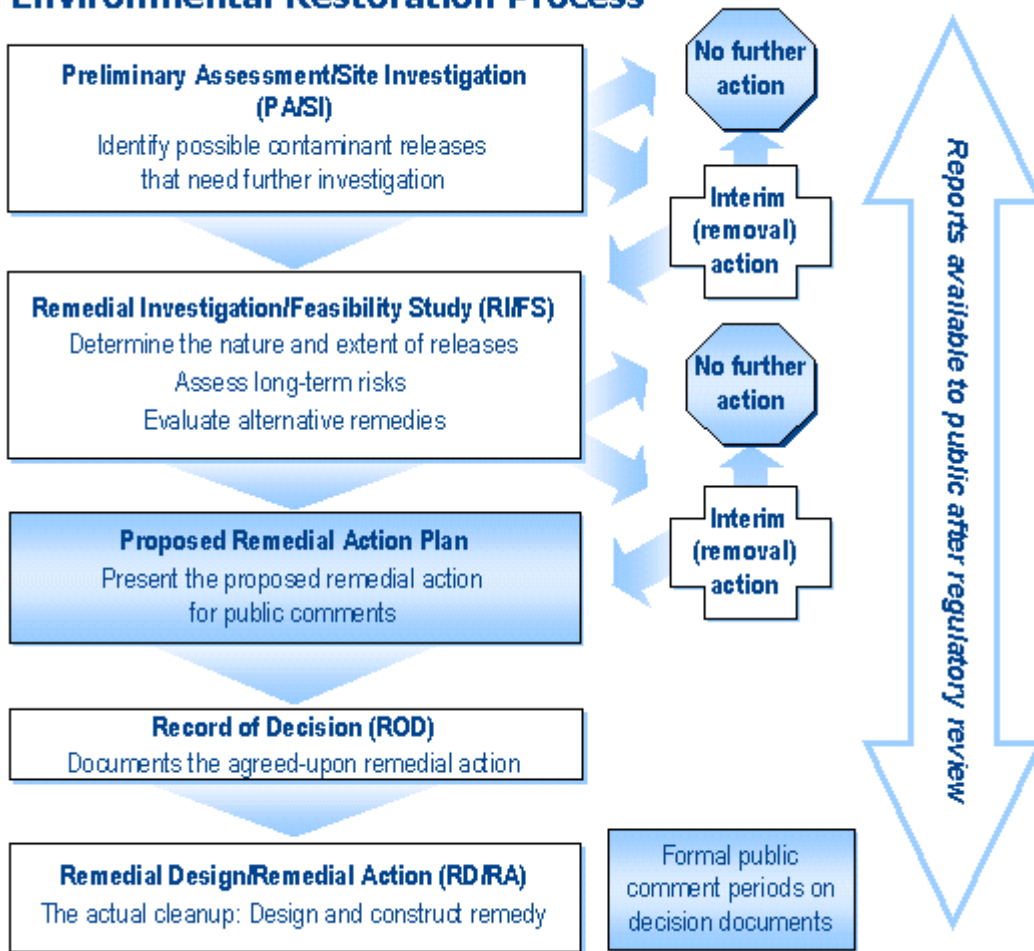


The CERCLA Process
Prepared by Environmental Stewardship Concepts
December 2009

The Comprehensive Environmental Response Compensation and Liability Act (CERCLA) authorizes Superfund to distribute federal funding for hazardous waste site cleanup. The cleanup process begins with site identification, involving the Preliminary Assessment/Site Investigation (PA/SI) to determine the source of the contamination, the make-up of the waste itself (through soil and water sampling), and the potentially responsible parties. If the hazardous substances pose an urgent risk, cleanup is conducted immediately under the Emergency Response program of Superfund. If no threat to human or environmental health is found, the site is classified as No Further Action and eliminated from consideration. If the contamination poses a threat, then the site is put on the National Priorities List, which tracks the most serious sites needing long-term cleanup. Next the process continues with more extensive soil, groundwater, surface water and soil testing during the Remedial Investigation (RI). The RI also formulates human health and ecological risk assessment studies to determine the severity of the risk posed by the contaminants and the exposure routes, or the ways humans and wildlife may be exposed to the them. If these risks are found to be above the EPA target range, a Feasibility Study (FS) is conducted to identify the remedial alternatives, the most effective and protective cleanup technologies suitable for the situation. Next, an Environmental Evaluation/Cost Analysis (EE/CA) is prepared to examine the environmental and economical implications of each alternative, and the public is invited for comment. Taking these comments into account, the involved agencies then select an alternative based on nine criteria: protection of human health and the environment, compliance with applicable or relevant and appropriate requirements, short-term effectiveness, long-term effectiveness, permanent solutions (e.g. toxicity/mobility/volume reduction), implementability, whether community concerns are addressed and the cost. The preferred alternative is described in detail in a Proposed Remedial Action Plan (PRAP) that also goes up for public comment. After the comment period, the agencies issue the Record of Decision (ROD), outlining the selected alternative. Next, the Remedial Design is developed, approved (or denied and then reformulated), and implemented in the Remedial Action phase, which is the physical cleanup process. Throughout the cleanup, the site is monitored to ensure containment and efficacy, the the party responsible for the cleanup periodically submits progress reports. Once physical cleanup is completed, the site is placed into the Construction Completion category, although final cleanup levels may not necessarily have been achieved. When sampling shows that the contaminants are below risk levels, closure activities begin, and the site moves into the Post Construction Completion category when long-term protection is assured through Long-Term Response Actions, Operation and Maintenance, Institutional Controls and a 5-Year Review. When all response actions are complete and cleanup goals have been achieved, the site may be removed from the National Priorities List and site reuse or redevelopment may begin.

Environmental Restoration Process



A generalized overview of the CERCLA process