aquilogic

# Remediation Feasibility Studies

Releases to the environment have the potential to impact natural resources, ecological habitats, and human health. Many releases require some form of remediation to prevent or mitigate the impact and restore the resource or habitat.

A feasibility study (FS) uses information and data generated and analyzed during a remedial investigation (RI) to evaluate potential remedial alternatives. The FS is a comprehensive process that considers all applicable solutions and evaluates them against specific criteria to determine the best alternative. In general, the FS process includes the following steps:

- Establish remedial action objectives;
- Develop general response actions;
- Identify and screen remedial approaches based on effectiveness, implementability, and cost;
- Where needed, conduct treatability testing; and
- Perform detailed analysis of alternatives.

The analysis of alternatives is based on established criteria, such as the following:

- Overall protection of human health and the environment;
- Applicable or Relevant and Appropriate Requirements (ARARs) Compliance;
- Long-term effectiveness;
- Reduction of toxicity, mobility, and/or volume;
- Short-term effectiveness;
- Implementability;
- Cost; and
- Regulatory and other stakeholder acceptance.

**Aquilogic** staff has experience in all phases of a FS, including literature reviews, designing and analyzing laboratory bench studies, and designing and conducting field pilots for soil, sediment, and groundwater remediation. The field tests include soil vapor extraction (SVE), multi-phase extraction (MPE), and bioventing tests (often combined in one), enhanced biodegradation pilots, aquifer pumping tests, air sparge tests, chemical oxidation pilots, and pump and treat pilots.