

The Evolving Conceptual Site Model and Remedial Technology Selection

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The evolving conceptual site model should inform selection and implementation of remedial technologies. Remedies selected to focus on contaminants without incorporating local hydrogeology, NAPL media, and major flood events may not succeed unless adapted to treat site conditions. In EPA Region 2, pump and treat systems can be challenging to implement in shallow coastal plain aquifers and fractured igneous and metamorphic rock. Glacial aquifer heterogeneity can also inhibit site characterization and groundwater extraction. The preliminary model may be missing NAPL that is contributing to groundwater contamination and inhibiting remedy success. Hurricanes in Region 2 have impacted sites at all stages of remediation, and these events have changed groundwater and surface water conditions enough to require a change to the site model.