## Combined closure of brine pond & wastewater seepage pits under National Contingency Plan (Riverside, California)

Lindmark Engineering initially investigated and assessed the impact on subsurface soil from an evaporative brine pond. The initial site investigation and remedial investigation and feasibility study were conducted under the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR 300. The California Regional Water Quality Control Board had required closure of the pond in conformance with state and federal regulations, which mandate installation of an impermeable cap. As a part of the initial investigation, we also conducted a Preliminary Endangerment Assessment, in which we conceptually modeled potential exposure pathways and receptors to assist in the preliminary assessment of risk and the initial identification of potential remedial technologies.

The scope of work grew to include investigation of eight 80-foot-deep, large-diameter seepage pits, which contained a mix of heavy metals with volatile and semivolatile organic compounds. These contaminants had to be removed from the pits to a maximum depth of 120 feet, approximately 10 feet below the water table.

To reduce the liability of off-site disposal and because the cap was already required, we recommended a combined closure of the pond and the pits: the sludge and soil from the pits would be fixated and placed beneath the cap for the pond. The regulators concurred with our recommendation and granted closure. The total project cost exceeded $1 million. *Client: Sweetheart Cup Company*

For more information on this project, please contact Lindmark Engineering at (818) 707-6100 or ulf.lindmark@efiglobal.com.