REMEDIAL INVESTIGATIONS/FEASIBILITY STUDIES

RI/FSs are performed to characterize and evaluate remedial alternatives at sites where contaminant releases have been identified. EMC^2 personnel have been integral in completing RI/FSs at some of the largest and most controversial sites on EPA's National Priority List. As illustrated in the project experience summaries provided below, EMC^2 has helped our clients to identify, develop, and obtain regulatory and public approval for cost-effective and protective solutions to site contaminant problems.

Milltown Reservoir/Clark Fork River Superfund Site, Montana - The Clark Fork River between Butte and Missoula, MT has been impacted by nearly a century of historic mining, milling and smelting activities in surrounding areas. Mine/mill wastes and tailings discharged into settling ponds and directly into Clark Fork River tributaries (Silver Bow Creek, Gold Creek, etc.) during the late 1800s/early 1900s were fluvially transported and deposited on the streambanks, channel bottom and floodplain along a 120-mile reach of the river downstream to Milltown Reservoir. EMC^2 staff has worked on investigation and reclamation of these two operable units since 1992. This work currently involves completing Feasibility Studies in anticipation of final remedy selection.

Hudson River PCB Superfund Site, New York - EMC^2 staff developed and performed the RI of PCB-impacted soils and sediment at the Hudson River Superfund Site in upstate New York. The work included: preparing RI work plans; collecting over 1,300 soil samples for chemical analysis from shallow and deep boreholes; coordinating sample analysis and data validation; preparing technical memoranda and reports detailing investigation activities/results and defining the lateral/vertical extent of PCB impacts for remediation.

Containment of PCB Impacted Sediments

Defense Depot Superfund Site, Utah - EMC^2 staff completed the RI for the Defense Depot Site in Ogden. The work included installing, testing and sampling monitoring/pumping wells and soil borings to characterize the site aquifers and delineate a VOC plume. Subsequent to the RI, EMC^2 staff oversaw excavation and disposal of pesticide/herbicide impacted soils as part of defining and completing a separate source removal action.

Former Washoe Smelter Location

Anaconda Smelter Superfund Site, Montana - The Anaconda Smelter Superfund Site is the largest Superfund site by acreage in the United States. EMC^2 staff was involved in the remedial investigation, evaluation of alternatives, remedial design and construction oversight work on the various operable units at this site since 1991. This work included completing an FS to evaluate remedial alternatives for the approximately 20,000 acres of impacted soil, tailings ponds, surface water and groundwater included in the Regional Water, Waste and Soils Operable Unit. Alternatives evaluated included institutional controls, technical impracticability waivers for groundwater quality standards, capping, cover soil placement, source removal, storm water management and stream habitat restoration.

Miami Mine, Arizona - EMC^2 staff completed an engineering evaluation/cost analysis of cover options for seven tailings impoundments covering 1,200 acres at this copper mine. The evaluation considered numerous options for three basic types of covers: infiltration controlling, erosion controlling and oxygen-consuming. Cover options were evaluated based on performance, cost, constructability, design life, future land use, maintenance requirements and impacts from the tailings impoundments reclamation to ongoing operations.

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