



## ***BROWNFIELDS/VOLUNTARY CLEAN-UP/LAND DEVELOPMENT***

Brownfields are defined by the EPA as “abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.” Both government and economic drivers have created an intense interest in voluntary clean-up and re-use of environmentally impacted land. EMC<sup>2</sup> is well qualified to support Brownfields projects and voluntary corrective actions from concept through completion.

**National Zinc Site, Bartlesville, Oklahoma** – After conducting the remedial design and overseeing the remedial action at the site, 2-acres of metal-impacted soils remained on private property. EMC<sup>2</sup> staff was responsible for developing a cleanup plan that not only protected human health and the environment, but also allowed for the redevelopment of the site into a soccer field for the Boys & Girls Club of the City of Bartlesville. The design of the protective cap addressed the future reuse of the property by including routing for future electric lighting, landscaping, parking lot and plans for future institutional controls. The winning partnership between the State, the City of Bartlesville, the Bartlesville Coalition, the PRP, and the private landowner was the key ingredient to the successful redevelopment of the site.

**Cannelton Industries – Former Tannery** – EMC<sup>2</sup> staff convinced USEPA and the Michigan Department of Environmental Quality through the use of bioaccumulation studies and biological monitoring to change their published \$20 million Record of Decision remedy to a \$5 million remedial alternative. The site was remediated by installing a 2-mile protective rock wall along the St. Marys River and removing 35,000 cubic yards of tannery wastes. Subsequent negotiations with the Planning Department of the City of Sault Ste. Marie and the Eastern Upper Peninsula Planning and Development Commission set the stage for a mixed-use redevelopment opportunity.

**Cyprus Foote Mineral – Former Mineral Processing** – EMC<sup>2</sup> staff successfully negotiated and sold a CERCLA Superfund site to a joint venture land development company in Pennsylvania, thereby removing a \$17 million liability from the client’s balance sheet. The agreement included negotiations for an environmental insurance policy that provided two components: cleanup guarantee insurance and remediation warranty insurance. The first covered the developer if cleanup costs exceed initial calculations and the second provided up to 10 years of excess cost protection if further cleanup is required. Both components also provided protection to the seller in the event that a bankruptcy would return the liability to them. The USEPA National Brownfields Coordinator and the Region III Remedial Project Manager supported the redevelopment of this site. Project approach involved the demolition and hot spot removal combined with a groundwater pump and treat with long-term monitoring. The site is to be developed into an office park.

**Blackwell Zinc Site – Former Zinc Smelter** - The City of Blackwell wanted a land-use plan developed for the 188-acre former zinc smelter property that would be compatible with remediation and reuse of the contaminated sites in the existing Blackwell Industrial Park. The Park is part of the Blackwell Pilot Deferral Project, a site managed by the Oklahoma Department of Environmental Quality. EMC<sup>2</sup> performed final design and construction management for the remediation of the property that ensured that the remedy would remain protected during and after redevelopment.

**Rico, Colorado – Former Mining Community** – EMC<sup>2</sup> staff is assisting the landowners, community and the PRP to solve water quality and related issues. By working with the regulatory and community stakeholders to develop a Brownfields-type remedial program that would best serve all stakeholders high legal transaction costs and detailed investigations that are typical of CERCLA type actions will be avoided. The plan will also be supplemented by applying to all applicable state and federal grant and incentive programs.

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