

Omaha Riverfront Park Asarco Lead Refinery/Landfill Closure

Omaha, Nebraska

Project Statement

When it came time for approval of the closure plan for a lead refinery and highly contaminated, uncapped landfill – a federal superfund site – the City of Omaha balked. While preliminary agreement had been reached on the technical closure strategies, the City felt a more creative, environmentally sensitive and aesthetic solution could be found for the landscape and riverfront design of their new Riverfront Park.

Instead of the irrigated, high-maintenance turf grass sod that was proposed to cover the clay-capped landfill, the City sought a less formal and lower maintenance closure program. Additionally, a proposed steel pylon edge along the river and other hard, engineered solutions were not well received.

At that point, Applied Ecological Services, Inc. (AES) was retained by the City of Omaha to design alternative solutions for closure of the landfill and refinery, integrating the closure with a more accessible, softer approach to the river. The desire was to make the park a symbol of renewal and a place for experiencing Omaha's revitalized relationship with the Missouri River.

AES ecologists and landscape architects created detailed technical designs for native landscaping on the clay cap and provided conclusive technical documentation that the cap could not be violated by the root growth of native trees, shrubs, prairie flowers and grasses. AES also collaborated with a larger design team in redesigning the river frontage and park areas to include gathering spaces, an esplanade along the river, an ecological interpretative program, various art forms, sculpture and passive educational exhibits.

Additionally, AES designed natural ecological systems to provide watershed-sensitive stormwater management on the site. These systems included prairie, wetlands and wetland biofilters, as well as restored oak savanna. AES designed reductions in the volume and rate of runoff to the river, as well as water quality improvements to stormwater runoff throughout the park. This project has been cited as a model of how to design the beneficial conversion of a landfill into a highly visible urban park landscape using native vegetation species.

