Countryside Landfill

USA Waste
Grayslake, Illinois
Project Initiation Date: 1992

Project Goals
- Design planting and seeding specifications for successful landfill revegetation
- Provide a greenway and trails to link neighboring restored natural areas

Project Results
- Landfill expansion was permitted, and a substantially larger area of restored open space was designed for public recreation

Project Statement

Applied Ecological Services, Inc. (AES) joined a team of nationally renowned landscape architects and planners to design an innovative, ecologically sensitive reclamation and closure plan for the Countryside Landfill in Grayslake, Illinois. AES pooled its ecological expertise with the talents of Peter Walker, William Johnson and Partners (PWWJ) to create a plan for a public park with regional greenway and trail connections to the restored USA Waste facility in central Lake County north of Chicago.

The park element of the project included a greenway and trail connector with communities to the west and east of the landfill site. Trail routing was designed to traverse the landfill sideslope leading to the top of the landfill, which was designed as an observation area. Trails then continued westward beyond the landfill to connect with a regional trail/greenway system.

AES designed the planting and seeding specifications for revegetating the landfill. This required a scientific analysis of the potential for landfill cap failure that might be associated with deep-rooted native prairie plant, shrub and tree species. The literature search and ecological analysis suggested that violation of the landfill cap by vegetation rooting was a very remote probability. The scientific conclusion was that such a cap violation would be an extremely rare event, and that the use of native plant, tree and shrub species was a viable option for revegetation of landfill caps. The data and conclusions provided by AES were used by USA Waste to develop permitting justification for a significant expansion of the landfill with a substantially larger area of restored open space designed ultimately for public recreation.

AES design objectives were to assist in integrating the landfill with the vernacular landscape and the adjacent Liberty Prairie Conservancy and the 667-acre Prairie Crossing conservation community. AES designed ecological plans for the establishment of edge habitats for various wildlife species and creation of migratory bird habitat in a restored wetland complex that would also serve as a biofiltration and water cleansing system for stormwater runoff. AES also designed and planted test plots and conducted three years of monitoring of both test plots and designed planting areas.

The project was highly acclaimed as a creative, new approach to landfill closure in a feature article in the February 1996 issue of Landscape Architecture magazine.

Current Status
The landscape design is in place to positively integrate the landform with the surrounding landscape. As active landfill activity moves to the south, northern areas of the site will be converted to park and opened to the public.