

# *Des Plaines River Floodplain Preserve*

*Pleasant Prairie, Wisconsin*

Applied Ecological Services, Inc., was retained to assist The Nature Conservancy (TNC) in the development of the Des Plaines River Floodplain Preserve. For this 450-acre nature preserve, AES conducted all initial baseline studies, identified ecological concerns, prepared ecological restoration and management programs and conducted monitoring required by permitting agencies. The project included 40 acres of wetland mitigation associated with new road construction to service the Lakeview Industrial Park. To facilitate permitting of the new highway crossing over the Des Plaines River and its associated wetlands, AES designed a series of created and restored wetlands that fulfilled the wetland mitigation needs for the road.

AES was subsequently retained to implement the ecological restoration program which focused on improving water quality through quality enhancements of runoff into the river and water flows in the river itself. Over the entire preserve, AES designed and created 90 acres of new wetlands and enhanced over 700 acres of existing degraded wetlands. We worked with the adjacent Lakeview Industrial Park to design native landscaping options that integrated with the restored wetlands, and we offered additional alternative stormwater management designs. We also worked closely in the initial design concepts for reclamation and beneficial re-use of an old gravel quarry centrally located in the preserve which is now a new county park.

As a part of the design investigation, AES conducted detailed hydraulic, hydrologic and water quality investigations in the river. These investigations set a national precedence and resulted in the publication of a series of articles and book chapters on landscape-scale hydrologic and hydraulic changes associated with regional settlement and land-use changes from settlement times to the present day.

The preserve has also been a model of alternative economic development. Previously undiscovered populations of Threatened and Endangered plants and animals including a State and Federally endangered orchid are now found on the property.

Partners in the project included The Nature Conservancy, Wisconsin Department of Transportation, the Halter Wildlife Preserve and Wisconsin Electric Power Company.

Project duration: 1988 - 1994

Consulting fees (design/monitoring): \$200,000

Key staff/role: Steven Apfelbaum/consulting ecologist

Client: The Nature Conservancy - Wisconsin

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**Applied  
Ecological  
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