

# Prairie Crossing Conservation Development

Prairie Holdings Corporation  
Grayslake, Illinois  
Project Initiation Date: 1989



## Ecological Goals

- Restore over 200 acres of native historic communities
- Create habitat for grassland birds, butterflies and other native fauna
- Demonstrate the effectiveness – including higher water quality and reduced runoff – of natural stormwater management processes used in the Stormwater Treatment Train™ design.

## Project Results

- Winner of 14 awards
- Restoration of over 165 acres of prairie communities, 20 acres of wetlands and 16 acres of historic hedgerows
- Promotion and acceptance of innovative stormwater management techniques and sustainable, low-maintenance native landscapes
- Establishment of an aesthetically pleasing, high-quality stormwater retention lake through natural biofiltration processes

## Project Statement

Prairie Crossing is a nationally studied model of conservation development. Home sites are clustered to preserve surrounding agricultural and natural area open space. To emulate functions and aesthetics of the historic landscape, Applied Ecological Services restored over 200 acres of prairie, wetland and agricultural hedgerow communities that had occupied the site prior to settlement times. AES contracting completed all of the installation and maintenance on this project while using all native species from Taylor Creek Nursery.

In 1989, AES became involved in early phases of the project such as planning, field studies and approvals. Groundbreaking was in 1994, and the bulk of AES construction and planting activities were accomplished by 1996. Natural areas management services continue, and significant native landscape design and construction work for model homes and the Prairie Crossing Campus of Lake Forest Hospital were ongoing from 2001 through 2003.

One of the main features of the native landscape at Prairie Crossing is the treatment of stormwater runoff. Applied Ecological Services designed a series of measures to reduce stormwater volumes and associated pollutant loads (nitrogen, phosphorus, sediment, road salt, etc.) through an innovative stormwater management concept. This was the first major installation of the AES Stormwater Treatment Train™, a system composed of open swale stormwater conveyance, upland prairie biofiltration, wetlands and a man-made lake. Working in combination, these methods increase opportunities for pollutant removal through biological and mechanical means while significantly reducing the rate and volume of stormwater runoff.

In addition, over 1,500 linear feet of eroding Lake Leopold shoreline at Prairie Crossing was stabilized by AES. The use of geotextiles and wetland plantings has created ideal habitat for desirable emergent aquatic vegetation that attenuates wave energy and stabilizes soils. These measures, combined with biofiltration provided by the

Stormwater Treatment Train, have resulted in exceptional lake water quality. Swimmers, fishermen and four threatened fish species enjoy the clean, clear water. Habitat Conservation Plans and agency approvals were required to restore habitat for rare fishes and to capture and import the fish species.

## Current Status

- The development is now in its final sales/construction phase
- AES continues to provide native landscaping design, installation contracting and natural areas management service.

For more information, please reference <http://www.appliedeco.com>



