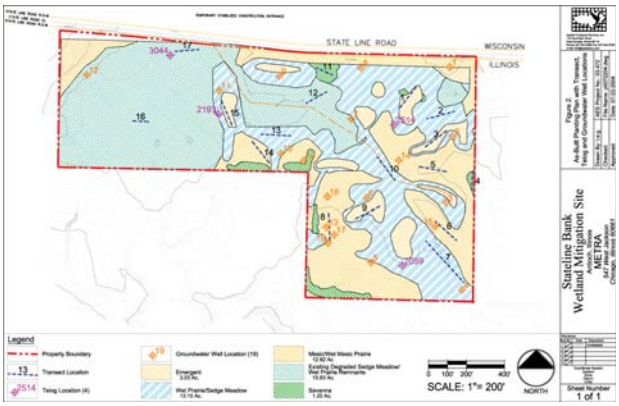
Metra Wetland Mitigation Banks

Job Number: 03-472
Client: Metra Railroad
Project Type: Wetland Mitigation Bank
Project Location: Antioch, Illinois
Project Initiation Date: 1994
Project Completion Date: Ongoing
Project Size: Approximately 122 acres

AES was the prime for this project.



A topographic map of the Stateline Bank Wetland Mitigation Site

Project Goals

- Restore wetland, sedge meadow, shallow marsh, savanna and prairie ecological communities
- Improve local water quality and wildlife habitat
- Monitor and manage hydrology and vegetation to meet U.S. Army Corps of Engineers (USACE) permit requirements

Project Results

- Established the first agency-owned, single-use wetland bank in the state of Illinois
- Preserved open space, promoted water quality, improved wildlife habitat and reduced flooding
- Prepared all permits and successfully accomplished all permit requirements
- Provided successful mitigation, allowing development of new railway infrastructure

Project Statement

Since 1994, Applied Ecological Services, Inc. (AES) has worked with T.Y. Lin International Great Lakes, Inc. on a variety of projects for Metra Commuter Railroad, including the design and construction of two wetland mitigation banks that compensate for wetland losses incurred due to development of new railroad infrastructure such as coach yards. Work commenced on the initial 76-acre bank in 1994 after detailed analyses of ecological resources along 70 miles of proposed right-of-way improvements. This included studies of federally endangered, and state threatened and endangered plant and animal species, determination of wetland/stream crossings, floodplain/floodway impacts, all permit application preparation, and negotiations with federal and state agencies. AES led the design team in developing this first agency-owned, single-use wetland bank in the State of Illinois.

In 2002, AES and T.Y. Lin were retained for studies leading to the 2004 construction of a second, 46-acre wetland mitigation bank for Metra. All aspects of the project were reviewed and approved by both the USACE and the Lake County Stormwater Management Commission. AES performed site preparation and planting, initiating the restoration process. AES monitors plant communities using USACE-approved sampling techniques, and hydrological monitoring is provided by telogs installed in groundwater wells.

A view of the enhanced wetland on site

For the new bank, AES produces an annual report documenting the vegetation and hydrological monitoring program and providing management recommendations. AES measures vegetation success in each specific plant community according to the Interagency Coordination Agreement (ICA) Wetland Mitigation Bank Performance Standards developed by the USACE. These standards ensure that mitigation banks create high-quality wetlands that compare favorably with natural wetlands. AES also manages exotic species on the site, using mowing, herbicides and prescribed burns to meet ICA performance standards.

Current Status

The restored sites improve water quality, control flooding and create habitat for hundreds of native plant and wildlife species while preserving valuable open space. The original 76-acre bank received sign off by all regulatory agencies in 2002. The new 46-acre bank is performing well and AES will continue permit-required monitoring and management through 2009.

For more information, please visit www.appliedeco.com

Applied Ecological Services, Inc.