



Great Lakes Protection Fund

1560 Sherman Avenue, Suite 1370, Evanston, Illinois 60201

Tel 847-425-8150 Fax 847-424-9832 glpf.org

Funded Project

Degradation and Recovery in Urban Watersheds: The Role of Floodplain Restoration in Recoupling Stream Structure and Ecological Function

Project No.	539
Timeline	1999 – 2004
Award Amount	\$322,000
Team Leader	Timothy Ehlinger, University of Wisconsin, ehlinger@uwm.edu
Project Website	http://www.ag.ohio-state.edu/~streams/

This team restored two priority watersheds in southeast Wisconsin—Lincoln Creek and the North Branch of the Pike River—and evaluated the impacts. The team naturalized and restored 12 miles of severely degraded urban streams, comparing the systems' inputs and outputs before and after restoration. The team also compared results against those of similar, less altered river systems. Based on stream characteristics, water quality, temperature and indices of biotic integrity (IBI's), the team showed that restoration significantly improved habitat quality and biodiversity. Nutrient loadings were reduced, and the team determined that more shading and crushed rock substrate may decrease green algae production. The results helped to better reveal the mechanisms by which watershed function is lost as a result of urbanization and identified critical approaches for successful restoration. The team's project manager took these results and provided technical assistance to other Milwaukee Metropolitan Sewerage District (MMSD) restoration projects.