



Floodways and Wetlands of the Mighty Mississippi: Trenton Island, Wisconsin

Full Mitigation Best Practice Story

Pierce County, Wisconsin

Pierce County, WI - Wisconsin wetlands are in danger -- only half of the 10 million acres the state once had still exist. Wetlands play a vital role in the environment, storing water to prevent flooding, protecting water quality and providing wildlife habitat. Wetlands restoration is a positive by-product of actions taken to mitigate against flooding. An acquisition program conducted by Pierce County, Wisconsin, has done just that. It has prompted the return of wetlands to an island in the floodway of the Mississippi.



The great Midwest flood of 1993 set the stage for a \$6 million buyout program in Pierce County that would involve Trenton Island properties.

Flooding caused roads to close, washed away stabilizing vegetation and threatened lives. Building structures sustained debilitating damage in previous years: major floods occurred in 1952, 1965, 1969, 1993, 1997 and 2001, with minor floods experienced in 1967, 1975 and 1986. The structural damages in the 1993 floods for some were extensive. The losses exceeded 50 percent of the structure's value and thus subjected homeowners to the floodway regulation prohibiting repair or replacement of the structure.

Pierce County applied for mitigation funding because of the continual damage and exposure to environmental hazards. Property owners were provided with the opportunity of a buyout program using combined funding from FEMA's Hazard Mitigation Grant Program, Wisconsin Emergency Management and Wisconsin Department of Administration Community Development Block Grants.

The buyout program had several goals: eliminate loss of lives, minimize property damage and local response costs, bring the island community into compliance with already established zoning ordinances and restore the island to the best possible natural state. Pierce County also developed a Mitigation Plan in 1996.

Within Pierce County, 70 improved parcels were purchased along with three vacant parcels. Salvage materials provided an additional \$147,000 toward the acquisition. Participating property owners received the fair market value of their properties. Owners of primary residences were compensated for moving expenses and received a replacement housing cost differential as required under Wisconsin state law. (The housing cost differential payment made up the difference between the acquisition cost and the cost to purchase a comparable replacement). Over 80% of those participating in the buyout program chose to relocate within five miles of Trenton Island.

In 1997 and 2001, floodwaters crested two to three feet higher, respectively, than the 1993 flood, but damage was far less extensive because of the FEMA/state acquisition project. As the books are closed on this project, rough estimates indicate that with losses avoided in the 2001 flood alone, 80 percent of the project cost has been recovered.

The methodology used in projecting potential damage is based on first floor elevations and depth and duration of flooding. In 1993, 1997 and 2001, the depth of flooding got progressively worse. In all cases, the duration of water in structures lasted more than seven days.

Based on the actual 1993 damage (\$2,023,000) and taking the total number of purchased structures (70), multiplied at an average of \$85,000 per structure, the formula calculated that the 1997 and 2001 floods would have caused 56% and 80% in damage, respectively.

The removal of the structures from the floodway have also produced savings in direct and indirect costs:

Rescue and relief efforts and emergency preparedness

FEMA's Individual Assistance (IA), Individual and Family Grant (IFG), and Public Assistance programs

Clean up operations and homeowner's repair costs

Rebuilding utilities and facilities

Costs associated with property owners rebuilding to comply with zoning laws

Income lost by businesses, lost wages by employees

Tax base declines in flood blighted areas

Besides monetary savings, the buyout program reduced progressive environmental damage and restored some Mississippi River wetlands. The floodway makes a more natural home for ducks and herons than human structures easily damaged by the yearly flooding experienced on Trenton Island.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region V**

State: **Wisconsin**

County: **Pierce County**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Flooding**

Activity/Project Type: **Acquisition/Buyouts**

Activity/Project Start Date: **01/1996**

Activity/Project End Date: **01/1997**

Funding Source: **Hazard Mitigation Grant Program (HMGP)**

Activity/Project Economic Analysis

Cost: **Amount Not Available**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**

Federal Disaster #: **994 , 07/02/1993**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **1997**

Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.floodsmart.gov/>

Reference URL 2: <http://emergencymanagement.wi.gov/>

Main Points

- Wetlands restoration is a positive by-product of actions taken to mitigate against flooding. An acquisition program conducted by Pierce County, Wisconsin, has done just that.
- The structural damages in the 1993 floods for some were extensive. The losses exceeded 50 percent of the structure's value and thus subjected homeowners to the floodway regulation prohibiting repair or replacement of the structure.
- Pierce County applied for mitigation funding because of the continual damage and exposure to environmental hazards. Property owners were provided with the opportunity of a buyout program.



Aerial view of Trenton Island during a 2001 flood



View of the flood after the acquisition project