Michigan's Nonpoint Source Program

Clean Michigan Initiative
Nonpoint Source Grant

Calhoun Conservation District
13464 Preston Drive
Marshall MI 49068

Rice Creek Floodplain Restoration Project

September 1, 2009 through December 31, 2012

Tracking Code: 2009-0044

The Rice Creek watershed is a sub-basin of the Kalamazoo River watershed and consists of 58,200 acres in northeastern Calhoun and northwestern Jackson Counties. The primary land use is agriculture, with secondary uses being woodlands and wetlands. Primary water quality concerns include sediment resulting from stream channel dredging, road crossings, and agricultural runoff, nutrients and bacteria from livestock wastes and septic tank systems; and nutrients and pesticides from agricultural and other runoff. Rice Creek's natural floodplain was separated by historic dredging. The goal of this project was to reconnect Rice Creek to its natural floodplain to allow storm water storage in the floodplain during peak flow events. The project reconnected Rice Creek to the floodplain at five locations resulting in reduced sedimentation from stream bank erosion, reduced storm water peak flows, improved fishery and aquatic life habitat, and reduced downstream flooding and the need for dredging. This project also helped to restore and protect the natural hydrologic regime.

Grant Amount: $ 193,437.30
Match Funds: $ 67,030.43

Total Amount: $260,467.73

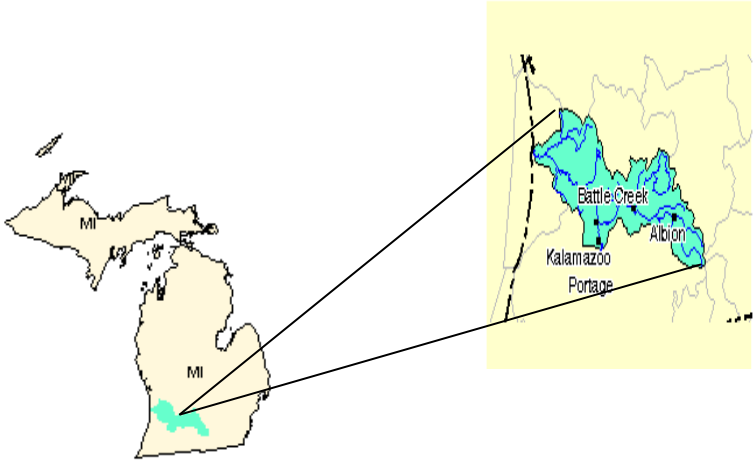
Best Management Practices:

- Floodplain Reconnections
- Stream Bank Stabilization
- Staging and Scheduling
- Grading Practices
- Spoil Piles
- Silt Fence
- Seeding
- Rolled Erosion Control Products
- Access Road

.Wetland Crossing

Annual Load Reductions:

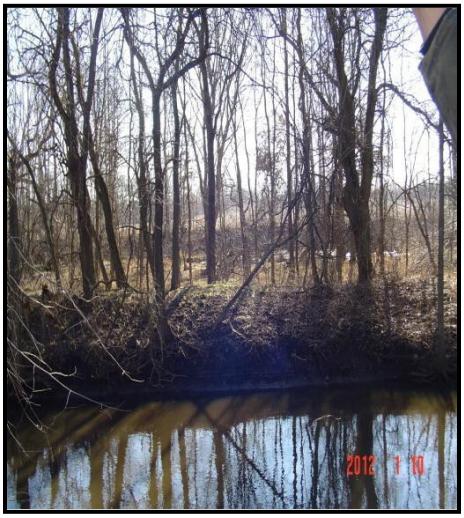
- 499 tons of Sediment
- 458.7 pounds of Phosphorus
- 917.6 pounds of Nitrogen



Partners:

- ✓ Calhoun County Water Resources Commission
- ✓ Calhoun County Road Commission
- ✓ Landowners
- ✓ Marengo Township
- ✓ Sheridan Township
- ✓ Spicer Group, Inc.
- ✓ Mead Brothers Excavating
- ✓ Great Lakes Restoration Initiative
- ✓ Civil Engineers, Inc.

VANSICKLE SITE



BEFORE: Berm prior to tree removal and excavation. Stream is disconnected from floodplain causing bank erosion due to occasional increases of in-stream water velocity. Berms were created by historic dredging.

AFTER: Berm from "before" picture removed. When rainfall runoff increases the water level, the stream is now able to overflow onto 6 acres of floodplain storage to the right.

BRANDT WOODS SITE

BEFORE: Thick brush on a berm separates Rice Creek from its natural floodplain. Being disconnected from its floodplain caused bank erosion due to occasional increases of in-stream water velocity. Berms were created by historic dredging.

AFTER: Same site after berm removal. Notice the higher berm across the stream is still in place. When rainfall increases water level it is now able to overflow onto 17 acres of floodplain storage to the right.