Michigan's Nonpoint Source Program

Federal Clean Water Act
Section 319 Grant
2017-0018

ODC Network
616-393-9453
danc@outdoordiscovery.org

Phosphorus Reduction in the Macatawa Watershed

February 2018 – December 2020

The Macatawa Watershed, located in Ottawa and Allegan Counties in southwest Michigan, suffers from excessive sediment and nutrient levels. Local partners in the Project Clarity initiative, designed to improve the health of Lake Macatawa and its tributaries, implemented projects funded in part through the Nonpoint Source Program to reduce phosphorus loading. The project implemented over 800 acres of no-till farming in the South Branch and Peters Creek basins, as well as a small wetland restoration on the edge of a farm field. The stream restoration project utilized natural materials to reshape the channel and prevent future erosion. Cost savings realized during construction also allowed for the survey and design of additional stream reaches on Peters Creek.

Grant Amount: $251,800
Match Funds: $130,400

Total Amount: $382,200

Best Management Practices:

- Designed and restored 750 feet of Peters Creek using natural channel design techniques
- Enrolled 836 acres in no-till farming in the Peters Creek and South Branch basins
- Constructed a 1.3-acre wetland near the headwaters of the North Branch • Completed survey and design work for an additional 1700' of restoration

Annual Load Reductions: 2,701 lbs. of P
2,069 tons of sediment 5,555 lbs. N

Partners involved:

•Macatawa Area Coordinating Council
•Niswander Environmental
•28 Specialties
•North State Environmental
•Green Watershed Restoration
•Holland Engineering

I&E Activities:

• Installed interpretive signage discussing stream channelization and restoration • Provided restoration site tours to local stakeholders during and following construction • Promoted project on social media

April 2021

Peters Creek Stream Restoration (before): At the start of construction, vegetation and falling trees were removed before the streambanks were shaped to their new contours. Several of the trees were then used as in-stream structures.

The Peters Creek Restoration following construction. Sod mats and erosion blanket were installed for erosion protection, providing immediate cover for late summer storms.

The wetland restoration project took place on the edge of a row crop field near the headwaters of the North Branch of the Macatawa River. The farmer was interested in creating wildlife habitat and storing water during heavy rain events.

Following construction, several logs were placed in the wetland as habitat structures. Additional water storage will help the farmer with his organic operation, pairing with other conservation practices such as a two-stage ditch and cover crops.