



**Clean Michigan Initiative
Nonpoint Source Grant**
#2000-0193



Macatawa Area Coordinating Council

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Lake Macatawa Watershed Project

October 26, 2001 through October 25, 2005

Lake Macatawa, in southern Ottawa County, Michigan, is an 1800-acre drowned river mouth, which empties into Lake Michigan. The Macatawa Watershed, which covers approximately 110,000 acres (175 mi²), extends into Ottawa and Allegan Counties and includes Lake Macatawa, the Macatawa River and numerous tributaries. According to the MDEQ, the water quality of Lake Macatawa is being impaired by phosphorus and the MDEQ listed Lake Macatawa on the 303(d) list in 1998. Project goals included implementing watershed restoration activities to improve water quality, and specifically, to lower phosphorus levels as specified in the phosphorus TMDL. Additional goals included implementation of BMPs (Best Management Practices) specified in the ten-year Macatawa Watershed Plan, building sustainability and improving public awareness.



Grant Amount: \$ 249,800

Match Funds: \$ 132,800

Total Amount: \$ 382,600

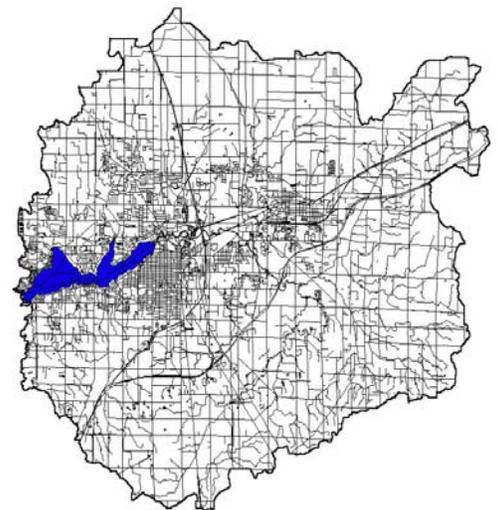
Best Management Practices:

- Filter strips
- Critical Area Plantings
- Grassed Waterways
- Grade Stabilization Systems
- Rain gardens
- Wetlands
- Vegetative Buffers
- Sedimentation Basin
- Pasture Management Systems



Annual Load Reductions:

Sediment: 7,957 tons
Phosphorus: 1,991 pounds
Nitrogen: 3,974 pounds



I&E Activities (concurrent with but outside the scope of the grant):

- Community Planting Day
- Demonstration Site Dedication Event
- Articles in MACC Newsletter
- Reports to public and government boards



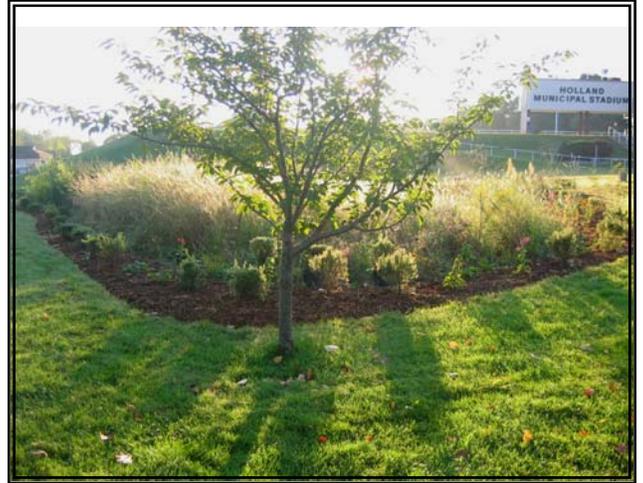
Partners involved:

- MDEQ
- City of Holland
- Hope College
- Allegan Conservation District
- Wetland Coastal Resources
- Spicer Engineering
- Niswander Environmental
- Landowners





Smallenburg Rain Garden D Before: Area of lawn that was unusable due to ground moisture; converted into Rain Garden.



Smallenburg Rain Garden D After: Lawn was replaced with native plants to create a basin for improving water quality and quantity.



Smallenburg Rain Garden C Before: The lawn in Smallenburg City Park is being converted to the largest rain garden of this BMP system for water storage and quality improvement.



Smallenburg Rain Garden C After: Rain Garden provides water storage, plants for nutrient and water uptake, and is more visually appealing. This is the largest and most visible rain garden, offering great educational opportunities!