

Michigan's
Nonpoint Source
Program

Federal Clean Water Act Section 319 Grant 2004-0120



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Galien River Implementation Project

June 6, 2005 - September 30, 2008

The Galien River winds through southwestern Michigan and northwestern Indiana, emptying into Lake Michigan at New Buffalo, Michigan. The entire basin contains 112,222 acres, the majority of which (82,665 acres) lies in Michigan. The Michigan area of the watershed, the focus of this project, consists of 62% rural and agriculture, 23% forest, and 5% urban, while the remaining land is lakes, streams and wetlands. The Galien River water quality is impacted by sediment, *E. coli* and nutrients. The goals for this project included repair of 39 road/stream crossings, the acquisition of 13 conservation easements for water quality, and the promotion of low impact development to Township planners and BMPs to agricultural landowners.

Grant Amount: \$ 590,300

Match Funds: \$1,584,800

Total Amount: \$2,175,100

Best Management Practices:

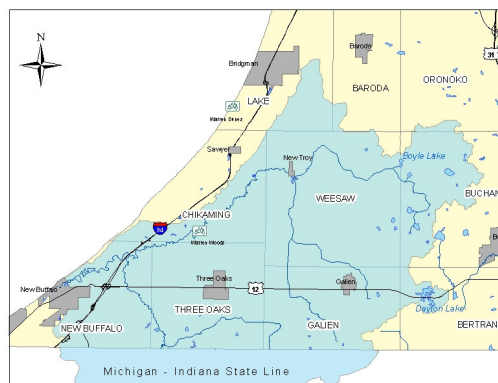
- 40 Road Stream Crossings
- 17 Permanent Conservation Easements

Annual Load Reductions:

- 1,094 tons sediment, 1,256 lbs. phosphorus, 3,284 lbs. nitrogen
- 17,225 linear feet
- 358 acres



Galien River Watershed
Berrien County, Michigan



Partners involved:

- Berrien County Conservation District
- Berrien County Road Commission
- Southwest Michigan Planning Commission
- The Conservation Fund
- Sauk Trails RC & D
- USDA - Natural Resources Cons. Service

The El Topo Conservation Easement protects 3.5 acres of floodplain along the Galien River.



Galien River Steering Meeting focused on wetland buffers and native plantings.

Project Accomplishments:

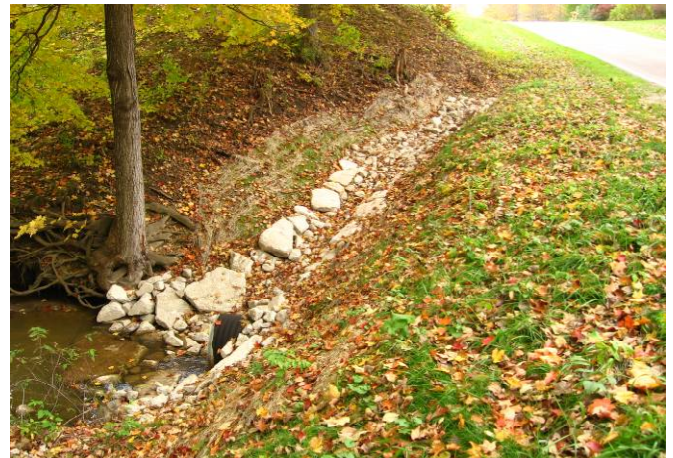
- The Berrien County Road Commission put best management practices (BMP's) into use on 40 road/stream crossings needing non-routine maintenance and, pleased with the results, now routinely use BMP's.
- Chikaming Open Lands completed 17 conservation easements, with about half located within the TMDL Critical Area in the watershed. The resulting 358 acres of permanently protected riparian wetlands and open space contributes to improved water quality and has raised public awareness of the Galien River Watershed.
- Committed members of the community participated in 10 Steering Committee meetings.
- Local citizens participated in 3 stream clean-ups in the watershed.
- Fifth graders in the villages of Three Oaks and Galien learned about water quality and that storm drains drain to the river, and then passed on their knowledge by placing storm drain markers in their communities and distributing educational door hangers.
- Southwest Michigan Planning Commission developed 6 Low Impact Development (LID) newsletters for local officials and planners.
- The Berrien County Conservation District and NRCS distributed newsletters and held Farmer Field Days on buffer strips, manure management and other best management practices for agricultural landowners, resulting in 4 Farm Bill sign-ups.



Participants at the Forest Management Workshop held in 2007. Presentations and a field visit highlighted the importance of native forests and best management practices for water quality.



Site Q Before: The road bank was eroding under and behind the culvert outlet, impairing water quality by adding soil sediment.



Site Q After: Repair included seeding and mulching of the bank, a rip rap check dam and 1 ton of rip rap. Calculated load reductions were sediment: 10 tons; phosphorous: 11.5 lbs; and nitrogen: 23 lbs.

2007 Galien River Clean-up. People of all ages joined the efforts to clean the Galien.

