



**Federal Clean Water Act
Section 319 Grant**
2004-0120



Chikaming Open Lands
Telephone: 269-469-2330
Fax: 269-469-2471
Email: info@chikamingopenlands.org

Galien River Implementation Project

June 6, 2005 - September 30, 2008

The Galien River winds through southwest Michigan and northwest 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 Best Management Practices (BMPs) to agricultural landowners.

Grant Amount: \$ 577,650
Match Funds: \$1,584,800
Total Amount: \$2,162,450



Galien River Watershed
Berrien County, Michigan



Best Management Practices:

- 40 Road Stream Crossings
- 17 Permanent Conservation Easements protecting 17,225 linear feet and 378 acres.



Annual Load Reductions:

- 1,094 tons sediment, 1,256 pounds phosphorus, 3,284 pounds nitrogen



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

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.

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



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 riprap check dam and 1 ton of riprap. Calculated load reductions were sediment: 10 tons; phosphorous: 11.5 pounds; and nitrogen: 23 pounds.



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.

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

