



DEQ
Michigan's
Nonpoint Source
Program

Federal Clean Water Act Section 319 Grant

Tracking code: 2002-0003



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KEARSLEY CREEK WATERSHED PLANNING

February 14, 2003 through September 30, 2005

Kearsley Creek is a tributary of the Flint River and located in Genesee County. Economic growth and development have impacted the biological integrity of Kearsley Creek. The objective of this project was to obtain water quality information about Kearsley Creek and to use this data to produce a watershed management plan. This plan will be utilized by local units of government, business owners, and concerned citizens to make accurate decisions about proper land management, floodplain management, efficient soil erosion control, and structural and nonstructural improvements to the Kearsley Creek. The completed plan includes results of the hydrologic, physical and biological assessments, along with recommendations and an information and educational plan for improving the function and quality of the Kearsley Creek.

Grant Amount: \$206,028

Match Funds: \$ 26,178

Total Amount: \$232,206

Best Management Practices Identified/To be Implemented:

- Fifty sites were selected for stream bank erosion stabilization measures. BMPs recommended include:
 - (a) Placement of armor, construction dissipation devices and installation of drop structures at bridges/culverts.
 - (b) Installation of buffer strips along farm fields adjacent to the creek.
 - (c) Installing check dams and roadside bank stabilization at gravel roads.
 - (d) Establish regional retention basins downstream.
 - (e) Installing rock riprap
 - (f) Vegetating creek banks

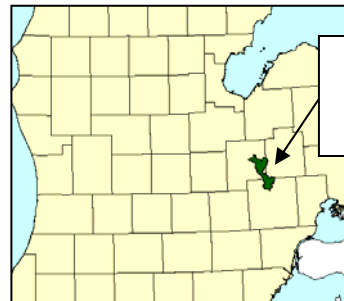


**Annual Load Reductions if these sites are implemented:
252 tons/year**

I&E Activities Included in the Management Plan:



- Develop partnerships with stakeholders
- Involve General Public/other stakeholders in Kearsley Creek Restoration and Monitoring by holding educational sessions
- Feature activities in local media regarding Kearsley Creek Restoration Projects
- Enlist support from townships to have property owners obtain flood easements
- Work with townships to develop storm water/resource protection ordinances



**Kearsley
Creek
watershed**



Partners involved:

- Genesee County Drain Commission
- Brandon Township Natural Areas Task Force
- University of Michigan - Flint Center for Applied Environmental Research
- Trout Unlimited
- Michigan Department of Natural Resources
- Flint River Watershed Coalition
- USDA-Natural Conservation Service
- Genesee County Home Builders Association
- Conservation Reserve Enhancement Program
- Saginaw Bay Watershed Initiative
- Local Governmental Units
- MSU Extension Service
- Flint Area Chamber of Commerce
- Michigan Department of Environmental Quality



Log/debris jams trap sediment, cause flooding and divert water laterally, thereby increasing bank erosion.



The stream bank near the nature center has extreme erosion potential. Attempts have been made to stabilize the bank with riprap and seeding.



Poor riparian management, including removal of vegetation to the edge of the stream, significantly increases the potential for bank erosion.

Stream bank conditions were identified during the biological and water quality assessment. The watershed management plan recommends appropriate Best Management Practices to improve water quality in Kearsley Creek.