



**Section 319 Funding
Nonpoint Source Grant**
Tracking Code 2002-0096



Sanilac Conservation District
Telephone: (810) 648-2116
Fax: (810) 648-4670
Email: joe-kautz@mi.nacdnet.org

Eastern Sanilac Coastal Tributaries Watershed Planning

The Eastern Sanilac Coastal Tributary watershed contains a series of small streams located along 40 miles of Lake Huron shoreline on the eastern boundary of Sanilac County. The watershed area is approximately 148,186 acres, with over 101 tributaries that feed directly to Lake Huron. Land use in Sanilac County is approximately 79% agriculture, 6% urban 10% forest and wetlands, and 5% open and fallow land. However, the proportion of residential areas is much higher in this coastal area. Urban areas of the watershed include the Village of Forestville, Village of Port Sanilac, Village of Lexington, and the lakeshore of Worth and Lexington Townships.

Sediment, nutrients and bacteria are degrading the Eastern Sanilac Coastal Tributaries that drain into Lake Huron. Agriculture operations, steep stream gradients, and impacts from development are significant sources of nutrients and bacteria in the tributaries.

The goal of the project was to write a management plan for the watershed, which recommends solutions to water quality problems while preserving the character of the area. The plan identifies Best Management Practices (BMPs) to reduce non-point source pollutants, development of an information and education strategy and working with landowners on conservation plans. The completion and approval of this plan provided an opportunity to seek funding to implement the plan.

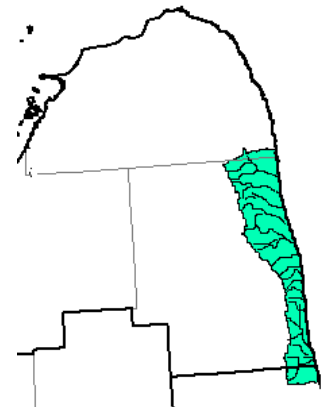
Grant Amount: \$ 180,800

Match Funds: \$ 21,200

Total Amount: \$ 202,000

Management Tasks (as outlined in the Watershed Management Plan):

- Inventory of watershed (GPS points of non-point source pollution and pictures)
- Determine designated, threatened and desired uses of watershed.
- Recommend systems of best management practices.
- Develop 25 conservation plans
- Develop an information & education strategy
- Identify partners in implementation
- Develop a DEQ approved watershed management plan



I&E Activities:

- 4 Newsletters
- 20 Presentations
- 3 Public Meetings
- 1 Watershed Tour
- Newspaper Articles
- Technician Training



Partners involved:

- Sanilac Conservation District
- Sanilac County Govt's (planning commission, road commission, parks, health dept)
- MSU Extension
- Delaware Twp.
- Lexington Twp.
- Worth Twp.
- Village of Lexington
- Village of Port Sanilac
- Local Citizens



**Sanilac County
Lakeshore Watershed**



Livestock Access



Livestock in Stream

Common to the watershed are livestock management issues. The picture on the left shows how livestock can damage a stream bank causing it to be unstable. Sediment and pathogens can easily wash into the tributary. The picture on the right shows how livestock have unlimited access to tributaries in the watershed. Many livestock producers use the creeks and bottomlands for pasturing cattle and watering. Others have runoff issues around the barnyard from manure and silage leachate, due to numerous streams that pass through the watershed and the slope of the land. Proposed Best Management Practices included in the plan are cattle exclusions from the creeks, development of comprehensive nutrient management plans, soil and manure testing, and permanent vegetative cover.



Farmland Runoff Site



Algae Bloom from Excess Nutrient

This picture depicts a common problem among the agriculture land as well as construction sites in the watershed. Very few soil erosion prevention measures have been installed in the watershed. Recommended Best Management Practices developed in the Watershed Management Plan include filter strips, conservation tillage, no-till, & cover crops for agriculture. Enforcement of soil erosion control laws, low impact development ordinances and ditch seeding are among some of the BMPs for construction sites.

Algae blooms can be found in the creeks, ditches and in Lake Huron. This is an indication that heavy nutrients are entering the stream from various sources noted in the inventory. Some of the sources documented through the funding of this project include manure runoff, silage leachate, soil erosion, incorrect application of fertilizer to fields, failed septic systems, etc. A detailed information & education strategy has been developed in the Watershed Management Plan to target agriculture producers as well as residential land and home owners about reducing nutrient loads to waterways.