

PROTECTING MICHIGAN: PROTECTING TOURISM

With over 11,000 lakes, 54,000 miles of streams and 4,000 miles of coastal beaches, Michigan is full of opportunities to find a beautiful, scenic vista, a quiet stretch of river, a long, sandy beach, or a quaint public park. **Michigan's Nonpoint Source Program** has been providing funding to local units of government and non-profit groups for over 20 years to ensure Michigan's lakes, streams and wetlands are improved, protected and, in some cases, restored. Using a combination of state and federal funds, matched with local dollars, the Nonpoint Source Program is **protecting and improving rivers and lakes, creating and restoring wetlands, and greening our urban areas.**

All of our work is done on a watershed management basis, a tool that pulls federal, state and local folks together to discuss water quality issues and how to solve them. Watershed management plans lay the ground work for implementation. The Nonpoint Source Program provides grants and technical assistance to help implement. We help:

- * Develop ordinances that protect current land uses -- things like wetland preservation, storm water controls, soil erosion control, and setbacks from rivers and lakes.
- * Implement structural and vegetative practices to control erosion, and reduce pollutants like phosphorus and nitrogen.
- * Implement managerial practices, such as collecting and analyzing soil samples to determine how much phosphorus a lawn, farm field, or golf course needs.
- * Implement permanent conservation easements to permanently protect river corridors, floodplains, lake shoreline and wetlands.
- * Implement information and education strategies to make people aware of nonpoint source pollution and what they can do to protect and improve our water.

This is a summary of just a few of the things the Nonpoint Source Program has done to help ensure Michigan's lakes, streams, and wetlands remain a vital attraction for Michigan tourism.

Nonpoint source pollution is diffuse, intermittent pollution, that includes agricultural runoff, erosion from construction sites and stream banks, and runoff from parking lots.





Fish On!

Sediment -- or, simply "dirt" -- eroding from construction sites, rural road-stream crossings, and recreational sites throughout Michigan, resulted in tons of sediment covering fish habitat. Enter the Nonpoint Source Program, whose grant dollars since 1990 have paid for the stabilization of 71,381 linear feet of stream banks, 171 road-

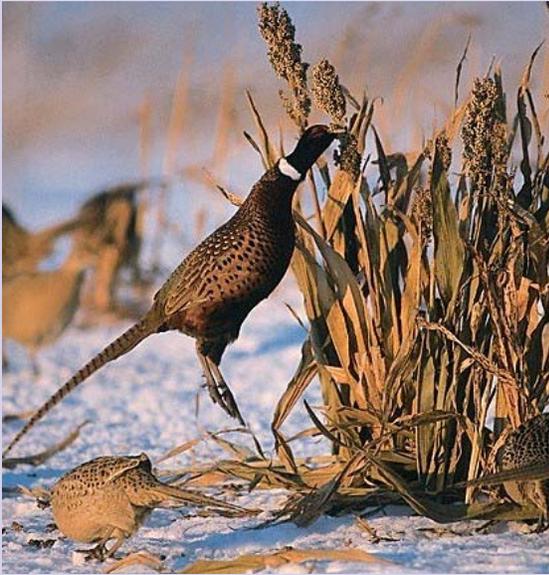
stream crossings, and 83 recreational access sites, and reduced the amount of sediment going into famous northern lower Michigan trout streams like the Au Sable River, Betsie River, Boardman River, Manistee River, and Pine River. The Nonpoint Source Program has implemented similar projects in Upper Peninsula Michigan rivers including the Lower Dead, Fox, Yellow Dog, Fumme, Iron, Manistique, and Chocoday. Southern Michigan streams like the Nottawa Creek, Rouge River, Paint Creek, and others have also benefited from our funding. We are currently working on a project in the Hemingway-famed Two Hearted River.

The result? Better habitat for better fishing in Michigan.



This is an example of a road crossing on the Au Sable River before and after Nonpoint Source Program Grant Funding.

Go Hunting or Bird Watching



The Nonpoint Source Program has contributed over \$20M to support the the Conservation Reserve Enhancement Program (CREP). This program offers enhanced soil rental payments and cost-share rates to farmers to implement agricultural conservation practices. Nonpoint Source Program funds paid for practices such as: riparian buffer strips, filter strips, wetland restorations, and wind breaks. These practices protect water quality and provide habitat for song birds and game birds, which results in better hunting and bird watching.



Through August 2006, Nonpoint Source funding has resulted in the implementation of over 2,000 acres of riparian buffer strips, 33,500 acres of filter strips, 17,300 acres of wetland restorations, and 1,700 acres of windbreaks on CREP land. When the numerous Nonpoint Source CREP easement projects are fully implemented, over 4,000 acres of CREP practices will be permanently protected.



Paddle A Michigan River



The Nonpoint Source Program has proven that it is possible to recreate in Michigan's lakes and streams and still protect our natural resources. The two things we've done -- provide sites where people can access rivers with their boats and gear but without causing erosion, and provide permanent protection of river corridors and critical wetlands to ensure these places remain beautiful destinations in perpetuity. Above, a canoe launch and stairs allows paddlers to launch their canoes without dragging them down the bank. Below, a river corridor protected with a permanent conservation easement so that future paddlers can enjoy the same view.



Visit Our Gardens

The Nonpoint Source Program has supported the greening of our urban and residential areas by providing grant funds for green roofs and rain gardens. These practices provide infiltration of storm water, rather than directing the storm water directly to our lakes, streams and wetlands. These also provide beautiful attractions. Above, a green roof on a building in the East Hills Center in Grand Rapids, covered with a plant called sedum. In addition to the Grand Rapids area, the Nonpoint Source Program has supported green roofs in Battle Creek and Ann Arbor.



close-up of sedum



To green a parking lot, we encourage rain gardens and other bioretention areas, which are designed to collect, treat and hold storm water. This shows some beautiful native plants at the East Hills Center in Grand Rapids. Below, a parking lot in Ann Arbor.



The Nonpoint Source Program has funded urban and residential rain gardens in dozens of places around the state. On a partially implemented project in Grayling, over 80 residential rain gardens have been installed thus far.



Play in a Park

To make people more aware of the need to infiltrate and treat storm water, the Nonpoint Source Program partnered with Washtenaw County Drain Commissioner, Janis Bobrin, to implement numerous practices in Olsen Park in Washtenaw County. While traditional pavement runs to the left, the porous pavement on the right is used for parking and provides infiltration of stormwater. Plants to the right also take up and treat storm water.



Olsen Park also includes a demonstration rain garden and, shown below, a flow control structure that will help prevent erosion. In the background, a pond and trails provide hiking, mountain biking, and viewing of native flowers and birds.



Take in the Arts



Incorporating storm water practices with the arts was first done by the city of Saugatuck. With a Nonpoint Source grant and lots of local support, the City implemented a rain garden at the Saugatuck Center for the Arts, above, along with underground storage to hold excess storm water. The adjacent parking lot received modular pavement which also helps collect and hold storm water.

In the sculpture park across the street from the Center for the Arts, the City installed a series of rain gardens.



Just Be . . . in Michigan



The Nonpoint Source Program is committed to helping Michigan communities and non-profit entities implement land use practices that will reduce pollutants entering Michigan's lakes and streams. If you are interested in partnering with us, please see our Web site at www.michigan.gov/deqnp. In the meantime, enjoy traveling in Michigan.

