United States Environmental Protection Agency

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# EPA'S TARGETED WATERSHED GRANTS 2005 ANNUAL REPORT

**December 2005**

# Kalamazoo River

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## WHY IS THIS WATERSHED SPECIAL?

The 2,020-square-mile Kalamazoo River watershed in southwest Lower Michigan supports a population of nearly 500,000 and is comprised of 41 percent forest and rural open areas, 45 percent agriculture, seven percent urban, and seven percent open water and wetlands. Historically, the 160-mile river has been used as a fishery and for extensive paper milling. Significant ecological, cultural, and spiritual interests link the Match-E-Be-Nash-She-Wish Band of the Pottawatomi (the Gun Lake Tribe) to this basin. The current City of Kalamazoo was the center of the tribe's dedicated homelands until the mid-1800s. The tribe maintains existing and ceded lands within the watershed.

## ENVIRONMENTAL CHALLENGES

From a once-prized small-mouth fishery to an oxygen-starved, milky-white receiving stream for mill waste, the river now meets most ambient water quality standards. Significant water quality challenges remain:

- Eighty miles of the river are still plagued with PCB-laden sediments from the paper mill legacy, resulting in fish consumption advisories
- Other select areas are impaired by nonpoint source runoff, nutrient enrichment, and habitat loss
- Lake Allegan – a 1,500-acre impoundment 21 miles upstream of Lake Michigan in the lower reaches of the watershed – suffers from phosphorus over-enrichment and the attendant frequent algal blooms, low oxygen levels, and poor water clarity

Lake Allegan is a beautiful lake, but the water is heavily nutrient enriched and affected by PCBs.

## RESTORATION ACTIVITIES

The tribe is involved in this effort by addressing eutrophication issues through trading in two phases:

- Developing a model trading infrastructure and applying mechanisms to include both market-based tools, and a model trading registry
- Developing a transferable model trading framework for agricultural participation, phosphorus credit banking, education and implementation of conservation practices for trading

Both aspects of the project will be tested and verified with real reductions through agricultural participation and other partners.

## A STRONG PARTNERSHIP FOR CHANGE

More than 150 watershed stakeholders have participated in watershed activities since 1998. The Gun Lake Tribe is coordinating its efforts through partnerships that include:

- Kieser & Associates
- The World Resources Institute
- Area Conservation Districts
- The Environmental Trading Network
- Michigan Department of Environmental Quality
- Michigan Department of Agriculture
- USDA Natural Resource Conservation Service

Lake Allegan was one of the first in the state to have an approved Total Maximum Daily Load that covers the headwaters to the lake.

Project partners work with farmers on conservation practices to reduce nutrients. (Lynn Betts)

"We are delighted to make a contribution that can improve conditions within our ceded territories in the Kalamazoo watershed. Many American Indians still rely upon subsistence practices in their lives. Improved water quality and habitat can only create better living conditions for all Americans."

– Tribal Chairman D.K. Sprague2