



# Making a Difference

MWP is making a difference with the help of many partners.

## Seal of Approval Kick-off Meeting

The Macatawa Watershed's Seal of Approval program is designed to encourage local businesses to use Best Management Practices as a means to lower the amount of Phosphorus entering the watershed.

In December, representatives from several area landscaping and lawn maintenance companies will help to establish the criteria for eligibility to receive the Macatawa Watershed Project Seal of Approval.

With the guidance of our Criteria Committee, a list of Best Management Practices and an evaluation process will be established by January. Entrants will be recruited for a kick-off meeting to take place in February.

To participate in the Seal of Approval Program contact the MACC offices at 616-395-2688.



## Ottawa County Parks in the Upper Mac

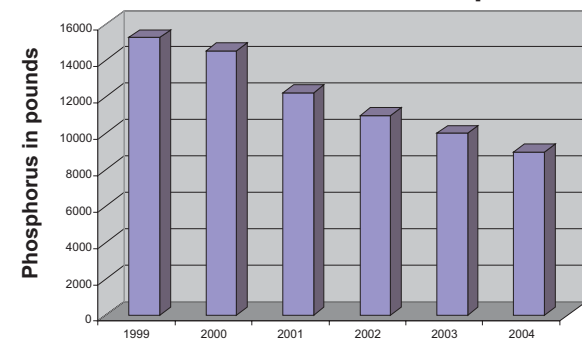
Following the successful completion of Phase I, the Upper Macatawa Conservation Area was awarded a grant through the Michigan Department of Environmental Quality's Clean Michigan Initiative to provide \$500,000 toward Phase II wetland restoration at the site. This grant, along with matching funds provided through the county parks millage and private funds raised by the Macatawa Greenway Partnership, will fund additional wetland restoration work in the river floodplain. The work, targeted toward water quality improvement, will benefit other project goals as well. Actual wetland construction through this grant is targeted for 2006.

## Stop Phosphorus From Entering the Lake

Approximately 91% of the phosphorus entering the lake comes from rainfall and erosion. The other nine percent comes from municipal and commercial sources discharged directly into the watershed. Phosphorus attributed to these sources has steadily declined over the past 5 years. Since 1999, municipal and commercial sources have reduced the amount of Phosphorus being deposited in the lake by more than 4,500 pounds.



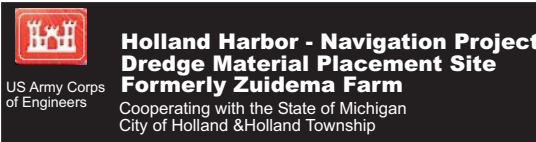
Total Point Source Phosphorus



Measurements reported in MDEQ Water Bureau Staff Report, June 2005 - Mike Waltherhouse.

## Dredging Removes Sediment and Phosphorus

Since 2000, dredging of Lake Macatawa by the United States Army Corp of Engineers has removed 9,131 tons of sediment. Based on analysis of the sediment, nearly 11.7 tons of Phosphorus was removed. The Phosphorus rich sediment is placed in a containment facility on Lakewood Boulevard where it is available to residents, developers, and landscapers free of charge. For details, please contact Judy Visscher at the Holland Board of Public Works, phone number 355-1210.



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# Macatawa Watershed Project

Fall 2005 Macatawa Watershed Project is a program of the Macatawa Area Coordinating Council.

**Watershed:** An area of land that drains to a common point.

**Macatawa Watershed:** All the land that drains to Lake Macatawa, including all or part of Laketown, Fillmore, Overisel, Holland, Park, Zeeland, Port Sheldon, Olive and Blendon Townships and the cities of Holland and Zeeland. The Macatawa Watershed is experiencing undesirable levels of phosphorus, a naturally occurring element present in fertilizer and plant decay. Excess phosphorus causes too many plants to grow in the water. Plant decay robs the water of oxygen causing fish and plants to die which creates more phosphorus. The cycle continues and water quality deteriorates.

**Macatawa Watershed Project (MWP):** A nonprofit project administered by the Macatawa Area Coordinating Council with a goal to reduce the amount of phosphorus that enters Lake Macatawa from rain run-off by approximately 70% by 2009.

## Best Management Practices Pay Off

Funding is still available for a program that gives Michigan farmers an opportunity to make money while improving and protecting water quality and enhancing wildlife habitat on their farms.

We hope to make one of these sites a large-scale demonstration of how effective agricultural BMPs are at preventing sediment and Phosphorus from entering in the watershed.

The Conservation Reserve Enhancement Program (CREP) of the Michigan Department of Agriculture is a voluntary program available to landowners who install conservation practices along the watershed. Participants will receive reimbursement for establishing practices, incentive payments for sign up, and rental payments for the length of the contract.

To arrange an on-site consultation with Lynn Flemming to determine what BMPs would work best for your property contact The MACC. To learn more about CREP funding please contact Amy Lockhart at the Allegan Conservation District (269) 673-8965 ext 3.

CREP Best Management Practices (BMPs) include, wetland restorations, filter strips, and native or introduced grass plantings.



MACC Agricultural Liaison Lynn Fleming along with CREP Technician Amy Lockhart continue to make progress in the

identification of possible BMP locations in the agriculture community. Approximately 10,000 acres are approved and pending CREP practices in our watershed! With the help of the BMPs that have been implemented along the watershed, thousands of pounds of sediment and pollutants have been prevented from entering Lake Mac.



Total pollutants reduced from all measureable BMPS installed in the Macatawa Watershed 2000-2004:

Sediment	65,758.5 Tons
Phosphorus	58,181.64 Pounds
Nitrogen	108,663.06 Pounds





# Making a Difference

MWP is making a difference through Demonstration Projects

## What is a demonstration project?

The demonstration projects that have been developed by MWP serve as models for Best Management Practices (BMPs) needed to reduce the amount of sediment and pollution in our watershed. These sites provide an opportunity to educate the community as to how BMPs are implemented. Demonstration sites offer a working model as a part of that education.

## Noordeloos Creek Demonstration Site



Location: Holland Township, south of Riley, between 104th and 112th. This site is on private property. Please call the MACC to arrange to see it.

Noordeloos Creek and its floodplain are located on an 80± acre parcel in Holland Township. The Noordeloos Creek site includes design and construction of two separate wetland basins—a typical treatment wetland basin and a natural floodplain with deep pools—covering approximately five acres.

The site has been seeded and stabilized with a native wetland seed mix specially formulated for sediment removal. It was important to complete the site with enough warm days left to establish the cover crop. This project was funded in part by a Great Lakes Commission Grant and was made possible through the cooperation of the land owner, the DEQ, the designer, the contractor, the Ottawa County Drain Commissioner and many volunteers. With the help of Hope College students and staff, research regarding the amount of sediment being trapped in relation to high rain fall will be conducted.

## ZPS Wetlands Demonstration Site

### ZPS Wetlands Demonstration Site:

Since its completion in 2003, the wetland demonstration site along the Brower Drain on Zeeland Public Schools (ZPS) property has provided a living classroom for ZPS students. The wetland system, comprised of the east and west wetlands just south of Riley Street, make for a wonderful walk. The wetlands class at ZPS wrote and published a trail guide to help identify the wetland plants that are visible. Please contact the MACC office to receive a copy of this guide.



Location: Near the Zeeland football stadium at 100th Avenue and Riley Street.

## Smallenberg Park Stormwater Demonstration Site



Location: Near the intersection of 16th Street and Fairbanks Avenue in front of the Holland Municipal Stadium.

### Urban Stormwater Demonstration Site:

Smallenberg Park lies right in the heart of the City of Holland. MWP has completed Phase 2 of an Urban Stormwater Demonstration Site along the Maplewood Drain. Best Management Practices include rain gardens, floodplain shelving, a sedimentation basin, a wetland, a vegetative buffer and a swale. Thousands of native plants were added to the park. Hope College students are using the site for research projects and to learn plant identification. Signage will be installed in the spring.

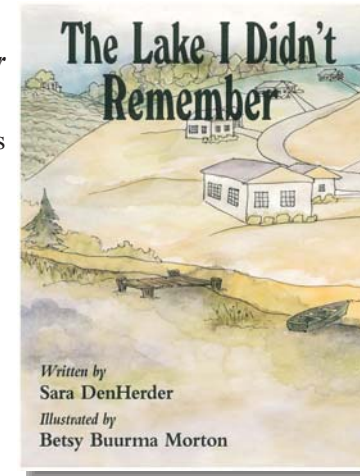
Pollutants reduced from the BMPs implemented at the site since 2004 are as follows: 12,152 tons of sediment, 34.64 lbs Phosphorus, and 208.06 lbs Nitrogen.

## EDUCATIONAL MATERIALS AVAILABLE FREE OF CHARGE

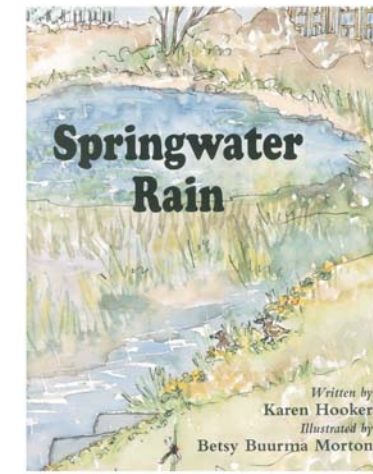
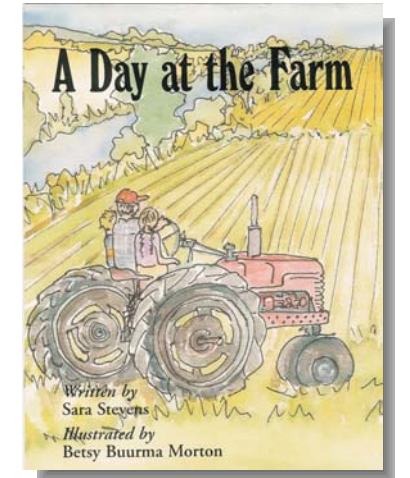
### Books

These original children's books are geared toward an elementary audience. They do a wonderful job of simplifying the concept of a watershed and the various concerns faced by our local watershed. These books fit with most schools' curriculums.

*The Lake I Didn't Remember* introduces the problem of too much phosphorus in the lake and explains the consequences of what happens to the lake over the long-term.



*A Day at the Farm* explains how farmers can make a difference in the quality of our watersheds by planting filter strips alongside the waterways on their land.



*Springwater Rain* uncovers the mysteries of 'Where does all the rain go?' and 'What happens to it along the way?'



These molded topographical table-top models really bring the concepts of a watershed to life. Six different models are available to demonstrate the way watersheds work and how water quality can be affected by land use. MACC staff can conduct train-the-trainer presentations at your location or the models can be checked out for your use in a classroom or with community groups.

# Making a Difference

MWP is making a difference through Education.

