



# Macatawa Watershed Project

## **Annual Report - November 2005**

Covering the period Nov 1, 2004 – Oct 31, 2005

### **Macatawa Watershed Lower Grand River Watershed (OCRC Only)**

#### **Macatawa Watershed Public Education Activities:**

All of the permittees in the Macatawa watershed participate and contribute to the Macatawa Watershed Project. The project is housed at the MACC (Macatawa Area Coordinating Council), the metropolitan planning organization for the area. The MACC office is centrally located in Holland Township, and is open to the public. Staff from the watershed project works with the stormwater permittees to coordinate stormwater educational activities. Permittees also hold quarterly Stormwater Committee Meetings that Watershed Project staff attends to represent the project and assist with educational initiatives. All stormwater permittees are members of the MACC and participate or support the activities that follow.

The Public Education Plan (PEP) or Community Outreach Plan was approved by the MDEQ in September 2005.

The following watershed activities occurred in the Macatawa Watershed since the last stormwater annual report dated November 1, 2004.

Two newsletters have recently been produced. One entitled, “*5 years of Progress in the Macatawa Watershed*” produced winter 2005, as well as a general watershed project newsletter produced summer 2005. 700 copies of each newsletter were distributed via mail, public meetings, and MACC office public area. Some of the topics of the newsletters include, demonstration sites (stormwater, wetland and agricultural), committee structures, watershed TMDL goal, volunteer native planting day, and the new stormwater children’s book. Copies of these newsletters are included in Appendix A.

The Macatawa Watershed website is up and running although we are in the progress of updating the watershed and stormwater information. Please visit [www.the-macc.org](http://www.the-macc.org) in the future to learn more about what is happening in the watershed. Meeting times and dates are available on the website. Links to other stormwater resources will also be available here.

Six tabletop interactive watershed displays called *Enviroscapes* are available for public use. Types of displays include non-point source, riparian, landfill, and wetlands. The Macatawa Watershed Project as well as the Office of the Ottawa County Drain Commissioner will conduct presentations on-site of the requestor. The Office of the Drain Commissioner estimates that they performed 40 presentations in the Macatawa watershed and distributed about 1200 copies of our watershed children's books. A curriculum and user's guide has been developed for these models so that educators (schools, churches, clubs, etc.) can use these models to meet their needs. (A copy of the *Enviroscapes* presentations performed by the Office of the Ottawa County Drain Commissioner is included in Appendix A.)

The *Making Lake Macatawa Great* Video Series is currently in production. Two videos/DVDs have been completed, are in distribution and are currently being aired on public television. The first of this series is on Stormwater, highlighting the Urban Stormwater Demonstration Site in the City of Holland, as well as general stormwater education. The second in the series is on Land Use, and how this relates to water quality. All permittees helped contribute towards the production of these educational shows by providing script content, interviews and pictures. All permittees have viewed this video, as well as have copies available for distribution.

A Macatawa Watershed Homeowners Handbook has been developed and distributed. This handbook has information relating to general watershed issues such as composting, lawn care, soil testing, household hazardous waste and native plantings. This handbook is distributed and made available to the public during watershed presentations, meetings, phone contact, and any other means that warrants this information. We maintain our stock of these handbooks and update as necessary.

Lawn Care is a large part of our non-point source education. We have two brochures, one entitled *Lawn Care You Can Live With*, and one entitled *Lakeside Lawn Care*. These brochures are included in our Homeowners Handbook as well as distributed at public meetings. In the spring we called retailers to gather information on the availability of low or no phosphorus fertilizers and attached this list to the brochures for distribution. In future years, we would like to have a native lawn care campaign that would include these brochures. (Copies are included in Appendix A)

Tourist/Visitor Outreach Program will be developed winter 2005/06 for the 2006 tourist season. We anticipate targeting local areas that have more frequent tourist visits, such as state parks, Amtrak train station, and other downtown areas. The goal for this outreach component is to also help educate our visitors on water quality and stormwater issues, such as proper sanitary waste disposal and boat washing.

The Storm Sewer Awareness Program will be developed and implemented in 2006. The Ottawa County Road Commission is working with the townships on approving their methods for identification of "Drain No Waste."

A program to encourage the public reporting of illicit dumping will continue to be developed. All permittees are aware of the path of reporting such as local health departments, MDEQ, local units, etc. We had great success on the reporting of illicit dumping of motor oil in a Holland Township subdivision. The MDEQ, Holland Township and the OCDC offices worked well to remediate the situation. We will use these experiences to further develop our program.

A program to educate the public about proper car and boat washing will be developed in the future. However, we have included information regarding proper car washing procedures in our Homeowners Handbook. We will develop a more detailed educational program and marketing plan in the future to target community carwashes, fundraisers, and boat washing in marinas.

Household Hazardous Waste days are offered in our area sponsored by the County Health Departments. Information regarding location and times is distributed as we become aware of these opportunities. A program to educate the public about what is a hazardous waste and how to dispose of them properly will be developed further in 2006/7.

Three water quality demonstration sites have been constructed in the Macatawa Watershed. The first is the Urban Stormwater Demonstration Site at the City of Holland's Smalenburg Park. This site was completed in October 2005, (began in spring 2004) with the efforts of all the permittees. Permittees were supportive of this type of educational project and supported in many ways through outreach as well as financial and staff time. Some assisted with the planting of native plants on our volunteer field day (see invitation and handout in Appendix A). This site demonstrates the use of water quality Best Management Practices (BMPs) such as raingardens, wetlands, vegetative buffer, sedimentation basin and floodplain shelving. This project is highlighted in the Stormwater *Making Lake Macatawa Great* Video Series.

The second and most recent demonstration site is an Urbanizing Demonstration Site on Noordeloos Creek finished in October 2005. This project demonstrates the use of a treatment wetland in a stream system that is very flashy with high sedimentation and erosion rates. In addition, reducing sediment will directly reduce phosphorus, as this is the primary means of phosphorus introduction in Lake Macatawa. Hope College is performing sedimentation studies to determine the sedimentation rates, as well as what we are able to reduce. This system includes a 4.5-acre wetland system that was designed to hold water in large rain events and release at a slower more appropriate rate to prevent bank erosion. The site will be available as an outdoor lab for area schools, as well as a field location for educational opportunities.

The third demonstration site (urbanizing) is located in Zeeland Township on Zeeland Public School property. A large wetland system (about 2 acres) was created to receive overflow from the Brower drain to treat and release. This site, with its trail through the wetland, has been a great opportunity for ZPS students to learn about stormwater and water quality issues by seeing it work on a daily basis. The schools system has a wetlands class that uses this wetland system as their outdoor lab. Students contributed

extensively throughout the construction of the wetlands by building the trail, fence, overlook as well as annually removing invasive species. This constructed wetland is part of a larger wetland system that is juts upstream from this site. Staff from the Watershed Project visits the wetlands class to help educated them about good stormwater BMPs. In addition, the class put together a wetlands plant trail guide to distribute to the public. The MACC has copies of this brochure available. The strong partnership that was developed with ZPS has been a great opportunity to reach the students with water quality education.

Permittees continue to have great media coverage of watershed stormwater activities, as well as watershed meetings. Macatawa Watershed Technical Committee Meetings are held monthly and provide a forum for discussing watershed issues. These meetings allow for the watershed Project, and permittees the outreach needed to get our issues in the media for further educating as well as a way of receiving public participation. These meetings are videotaped, aired on public television, and copies are available at the MACC offices. A representative from each permittees jurisdiction is represented on the MACC Policy Board. This board meets monthly and receives watershed and stormwater updates and presentations as appropriate. These meetings are also taped and aired on public television. Again, local newspapers are usually in attendance and do a great job of public outreach.

Land Use is a large initiative in the Macatawa Watershed. All permittees contributed to a Green Infrastructure Charrette that created a map and strategy for development and preserving greenspace in the west Michigan area (tri-plex). The Macatawa Watershed Project is researching land-use modeling software that will be used to conduct land-use changes and maximum build-out and impervious surface analysis. Staff from the watershed project is in the process of assisting permittees with land-use planning by reviewing zoning maps, master plans and regulations. This program will continue to be implemented throughout life of permit.

The third children's book on stormwater, titled, "*Springwater Rain*" was developed and unveiled spring 2005 at the annual Watershed Stakeholder Meeting. This meeting provided the public and watershed stakeholders a chance to gather and see all of the local initiatives occurring for water quality. In addition the Watershed Project awarded the Watershed Stakeholder of the year, Dr. Graham Peaslee with Hope College. (Copies of book and meeting invitation are included in Appendix A)

Ten thousand copies of *Springwater Rain* were printed. In addition, after their second printing, there are many copies of *The Lake I Didn't Remember* and *A Day at The Farm* still available. We are currently developing a marketing/distribution plan for getting copies of all the children's books into schools, churches, etc. Currently, each permittee has numerous copies available in their offices available to the public.

A copy of the Macatawa Watershed Annual Report from 2004 is included. This report is developed as part of the TMDL requirements and is distributed to watershed stakeholders, and the MDEQ. This also outlines some of the efforts occurring in the watershed in 2004 as well as water quality data. The MDEQ continues to fulfill their

commitment to monitor the water quality in Lake Macatawa with sampling throughout the year.

The Upper Macatawa Conservation Area is a 488 acres property in Zeeland Township that is currently under Phase II of its construction. Goals of this project include providing recreational opportunities, preserving open space, providing flood storage, and removing phosphorus for water quality improvements. This area, once used for crop production, and a source of sediment and phosphorus, is now a great conservation area. This project has been the product of strong partnerships with the Macatawa Watershed project, Ottawa County Parks, Macatawa Greenway and the MDEQ. (Ottawa County Parks newsletter is attached in Appendix A)

The Macatawa Watershed Project has an Agriculture Liaison on staff to work with farmers in the watershed on implementing water quality BMPs. This position works with the Conservation Reserve Enhancement Program (CREP) Technician working out of the Allegan Conservation District Office (ACD) to promote the CREP program.

Educational brochures & materials available at the MACC: (Not limited to)

Lawn Care You Can Live With

Lakeside Lawncare

Childrens Books: Springwater Rain, The Lake I Didn't Remember, A Day at the Farm

Landscaping for Water Quality

Composting Guide

Homeowners Handbook

Video Series – Making Lake Macatawa Great – Stormwater, Land Use

Smart Growth, Clean Water

General watershed brochures

In addition, the MACC has a watershed library available to the public that includes all historic research and information on Lake Macatawa and the watershed.

The implementation of the Public Education Plan for the Macatawa Watershed for the past year 2005 has been a great success! We have accomplished our goals and will continue to strive to educate our public on watershed and stormwater issues as our plan has stated. The partnerships that we have built as a result of the watershed approach to compliance on this general permit have been strong and will continue to work positively.

### **Stormwater News from the Field:**

The City of Holland owns a 1500-gallon vacuum truck. This truck is used to clean catch basins and jet out plugged storm sewers. This truck operates about 577 hours per year. The operator keeps a log of the areas cleaned.

Vehicle numbers 123, 126 and 128 are sweepers, and operate about 1500 hours per year.

Equipment #	Hours 1/1/05	Hours 9/30/05	total hours	Est. yr. 2005
111	1200	1633	433	577

123	8460	8537	77	103
126	7613	8192	656	875
128	885	1307	422	563

Catch basins are also cleaned once per year totally about 720 man-hours.

Rebuilt the storm sewer system on River Avenue from 28<sup>th</sup> to 15<sup>th</sup>, on 40<sup>th</sup> from Graafschap to Washington, and are constructing curb and gutter on 24<sup>th</sup> Street between Diekema and Ottawa.

All new residential developments and commercial/industrial property has a stormwater review and retention/detention typically required. (Laketown Township)

Laketown Township has spent about \$350,000 in the last five years on drain improvements.

Allegan County contracts with Deyoung Environmental to clean up all hazardous waste spills, and the County employs drain maintenance workers.

The City of Zeeland gives monthly reports on watershed and stormwater meetings to the department head which is then passed on to City Council.

The City of Zeeland responded to two Storm water complaints and successfully remediate situation.

Link was made from the City of Zeeland web site to the MACC Watershed site.

The City of Zeeland sent letters about dumping grass clippings and yard debris to property owners bordering open ditches and drains. (Approximately 24) (Copy of this letter is included in Appendix A)

The City of Zeeland is using phosphorus free fertilizer.

The City of Zeeland swept 500 blocks of streets and collected 124 cubic yards of sweepings.

The City of Zeeland cleaned 531 catch basins and collected 320 cubic yards of debris.

The "Holland Township Consolidated Sewer System" serving Holland, Zeeland and Park Townships is investing approximately 2.5 million dollars this year rehabilitating and upgrading sanitary systems to help insure against sanitary sewer overflows. Holland Township is investing \$1.2 million to extend sewer service to areas currently served by septic systems, and has spent \$60,000 on Drain improvements.

### **Additional OCRC Public Education - Macatawa Watershed**

- Attended Phase 2 SWPPI workshop at Prince Center at Calvin College in Grand Rapids.
- Fieldwork with Jennifer Soukhome, teacher at Zeeland Public Schools, in Macatawa Watershed identifying fossils at selected sites.
- Fieldwork with Jennifer Soukhome, teacher at Zeeland Public Schools. Macatawa Watershed tour and regional dam inspection for purpose of locating sites for student field days.
- OCRC Water System Consumer Confidence Reports mailing verification. 5 public water system service areas. See attached sample mailings Port Sheldon, NW Ottawa and Blendon/Olive. (Note: the City of Holland also mails a similar report to its customers).
- Meeting of the Macatawa Watershed Stormwater Committee. Mission: Phase 2 compliance. OCRC representative chairs meeting. All regulated public entities participate.
- Meeting with Sherry Slocum, Macatawa Watershed, at Ottawa County GIS office to coordinate with and request assistance of Ottawa County GIS and educate pertinent county employees of our MS4 location activity.
- Planting day at Rain Gardens in Smalenburg Park. Macatawa Watershed water quality demonstration project in urban area. OCRC employee water quality information quoted in Holland Sentinel.
- Macatawa Coordinating Committee Meeting. Various aspects of watershed improvements are discussed such as public education, stormwater and agriculture.
- Meeting of Macatawa Watershed Stormwater Committee. Mission: Phase 2 compliance. OCRC rep chairs meeting. All regulated public entities participate.
- Circulated Macatawa Watershed Children's Book Entitled Springwater Rain from front counter of reception area at the OCRC Main Grand Haven Office. OCRC receptionist circulates 10 copies of book to 4-H.
- OCRC attends monthly Macatawa Technical Committee Meetings. MAC TV coverage.
- OCRC Board Member is a member of the Ottawa County Parks Commission. The Parks Commission at the direction of its board is involved in several educational programs and mailings. See attached newsletter. (OCDC is also a member of the Parks Commission).
- Ottawa County Parks Friends Meeting. One objective of Friends Group is broadening citizen awareness of Parks activities.

### **Additional OCRC Public Education - Lower Grand Watershed**

- Fieldwork with Boy Scout Kevin Monroe at Cole Park in Marne, MI identifying trees for Boy Scout tree id project in wetland/floodplain along Sand Creek.
- Attended Phase 2 SWPPI workshop at Prince Center at Calvin College in Grand Rapids.

- Meeting with Quantum Construction and the Wright Township Supervisor in Marne to discuss placement of Cole Park improvements along the Best Management Practice, (BMP), Trail. The BMPs in the park are located along Sand Creek, a subwatershed of the Lower Grand.
- Supervised and instructed seven K and R Construction employees regarding placement and maintenance of soil erosion and sedimentation controls.
- Attended Sand Creek Watershed Partner Meeting as officer/secretary. Meeting content included Cole Park improvements and BMP trail.
- Fieldwork with JoAnn Becker, (Wright Township Supervisor), Rodney Prys, (Marne Lions Club rep), and Grant Plockmeyer, (Quantum Construction), regarding Cole Park improvements along the BMP trail in Marne.
- Fieldwork with JoAnn Becker and Rodney Prys regarding Cole Park improvements along the BMP trail.
- Fieldwork in Marne with Rod Denning, (Grand Valley Water Resources Institute), FTCH Engineering reps and MDEQ reps and other interested parties to determine BMP techniques and locations along Sand Creek. Worked with FTCH shadow employee explaining BMPs.
- Fieldwork with local Boy Scout Troop at Cole Park clearing BMP trail, discussing natural resources such as tree id.
- OCRC excavator operator training regarding sedimentation control methodology at eroding storm outfalls near Nunica in the Crockery Creek Watershed.
- IDEP inspections with Ottawa County Drain Commission including meeting with facility operator employed at the OCRC Hudsonville garage. Follow up IDEP inspection report and facility storm drain mapping sent to facility operator.
- Meeting in field with Rod Denning, (GVSU), to discuss Cole Park, Sand Creek and potential BMP sites along Sand Creek.
- Berlin Fair set up of the Sand Creek Watershed display board and other related watershed literature.
- Sand Creek Watershed Partner's meeting at Wright Town Hall. OCRC acts as Secretary. Discussed BMPs along Sand Creek and Cole Park in Marne.
- Fieldwork at Cole Park BMP trail with JoAnn Becker, the Wright Township Supervisor.
- Training for the Foreman of the OCRC Grand Haven Garage and 3 OCRC employees regarding Soil Erosion controls at a washout at Stearns Bayou bridge.
- Sand Creek Watershed Partner's meeting at Wright Town Hall. OCRC acting secretary of non-profit organization. Discussed CMI grant pertaining to BMP placement along Sand Creek in Marne.
- Sand Creek Watershed Partner's meeting at Wright Town Hall. OCRC secretary. One item discussed is BMPs along Sand Creek in Marne.
- OCRC Board Member is a member of the Ottawa County Parks Commission. The Parks Commission at the direction of its board is involved in several educational programs and mailings. See attached newsletter. (OCDC is also a member of the Parks Commission).
- Ottawa County Parks Friends Meeting. One objective of Friends Group is broadening citizen awareness of Parks activities.

- OCRC assumed lead in MDEQ permit process for Cole Park BMP trail improvements in wetland/floodplain along Sand Creek.
- Dump no waste labeling at storm drain inlets along county roads coordinated with Georgetown and Wright Township. Technique approved by OCRC and will be implemented within the next year.

### **IDEP Update & Activities:**

The Illicit Detection & Elimination Plan (IDEP) was approved by the MDEQ in September 2005. This program is continuing to be effective in removing and identifying illicit connections.

The outfall Map for all known outfalls as submitted with application is attached in Appendix B. This map was produced using GPS points, (or detailed knowledge of outfall location using maps) of all known outfalls. A large 33 x 40 inch map is also included as part of this submittal.

Ottawa County Road Commission has added and deleted some outfalls. A detail of these outfalls are included in Appendix B.

The majority of our outfalls were inspected during dry weather in the summer/fall season on 2004.

City of Zeeland inspected ten storm outfalls.

### **Illicit Dumping Report:**

On August 18, 2005, a report was received of an illicit discharge to a public storm sewer in Holland Twp. Upon verification of the illicit discharge, a coordinated effort was undertaken involving the Holland Twp. BPW, OCDC, and MDEQ to address the situation. It was apparent that some type of oily substance was introduced into a storm sewer system that outlets into a large pond, the pond in turn outlets to Pine Creek. Property owner's around the pond noticed a heavy sheen on the water and alerted the Holland Twp. BPW of the problem. The BPW then traced the source back to a set of catch basins located in a street upstream. They commenced to vacuum out the sumps of all of the affected catch basins to remove as much of the material as possible. The MDEQ installed a boom at the outlet of the storm sewer to collect any remaining material. The substance that had already entered the pond began to collect along the shoreline and form a distinctive "scum line" mainly around the northern end of the pond. The material in the pond was allowed to accumulate along the shoreline for a couple of days before being removed and disposed of. All affected soils were removed with shovels, loaded onto trucks and hauled off to an appropriate disposal site.

Attachments: Appendix A, B