

Charter Township of Lansing

**Fourth Annual  
Watershed Management  
Progress Report**

October 2006 to September 2007

Submitted to:

**State of Michigan Department of Environmental Quality  
Water Bureau**

Greater Lansing Regional Committee (GLRC)  
for Stormwater Management

September 2007

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## **1.0 General Information**

This fourth annual progress report is being submitted by the **Charter Township of Lansing** in partial fulfillment of the requirements of the Phase II Stormwater National Pollutant Discharge Elimination System (NPDES) General Permit. The Michigan Department of Environmental Quality (MDEQ) requires that by October 1 each year, a report be submitted on the implementation status of the previously submitted permit application.

## **2.0 GLRC**

The Greater Lansing Regional Committee (GLRC) for stormwater management is a guiding body comprised of participating Phase II communities within the Greater Lansing Region. The committee has been established to guide the implementation of the Phase II Program for the communities within three identified urbanized watersheds; the Grand River, the Red Cedar River and the Looking Glass River watersheds.

## **2.1 GLRC Background**

Beginning in November 1999, nine communities and three counties in the Greater Lansing Area organized to discuss the Federal Regulations for the Stormwater Phase II Program. The result of this organization was an agreement to pool resources on a regional basis to fulfill the requirements of the program. Initially, based on 1990 census population data, these nine communities and three counties were the only entities in the Greater Lansing Area that were designated to participate in the Phase II “Voluntary Permit Program” by the Michigan Department of Environmental Quality (MDEQ). Following several meetings of this group during late 1999 and early 2000, a resolution was drafted to establish the “Greater Lansing Area Regional NPDES Phase II Stormwater Regulations Committee” and representatives from each jurisdiction were named to serve on the committee.

Soon after the organization of the committee in 2000, Tri-County Regional Planning Commission (TCRPC) began to assist the committee in providing contractual, fiduciary, and administrative support. At the same time, the committee began requesting and entertaining proposals from four consulting firms for assistance on the Phase II requirements. Ultimately, Tetra Tech MPS was selected to produce a permit strategy study, and later to prepare the Voluntary Grant Permit Applications for each community. Again in 2002, Tetra Tech MPS was retained to prepare watershed management plans (WMPs) for the Grand River and Red Cedar River watershed areas, and would later prepare a WMP for the Looking Glass River watershed area.

Based on the increased population data following the release of the 2000 Census, ten additional communities were designated to meet the Stormwater Phase II requirements under Federal and State regulations. Ultimately, seventeen communities and the three counties have agreed to participate in a regional approach until April 30, 2008. There are also a number of interested parties that are consistently involved with the planning activities associated with this project such as county drain and road commissioners, school districts, utility authorities, and transportation authorities. The participating communities recognize the substantial benefits that can be derived through cooperative management of the watersheds and in providing mutual assistance in meeting the stormwater permit requirements.

## **2.2 GLRC Members**

The participating Phase II communities that make up the GLRC are as follows:

- ➤ Bath Charter Township
- ➤ City of DeWitt
- ➤ City of Grand Ledge
- ➤ City of Mason
- ➤ Delhi Charter Township
- ➤ Delta Charter Township
- ➤ DeWitt Charter Township
- ➤ City of East Lansing
- ➤ Lansing Charter Township
- ➤ City of Lansing
- ➤ Meridian Charter Township
- ➤ Oneida Charter Township
- ➤ Dewitt Public Schools
- ➤ Lansing Public Schools
- ➤ Village of Dimondale
- ➤ Watertown Charter Township
- ➤ Windsor Charter Township
- ➤ Clinton County
- ➤ Eaton County
- ➤ Ingham County

In addition, Michigan State University holds an Ex-Officio position with the GLRC. Alaiedon Township is not in compliance with the GLRC memorandum of agreement, failing to pay membership dues. It is believed that their permit will be terminated in the very near future. Therefore they have been removed as a member of the GLRC. Lansing Public Schools provided a resolution to join the GLRC effective October 19, 2007.

### **2.3 GLRC Organization**

Within the GLRC, a number of committees have been established to guide various components of the Phase II Program. Other committees may be established as needed throughout the course of the project. A list of the committees and subcommittees including a brief description of their responsibilities follows.

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Executive Committee

The GLRC Executive Committee is comprised of a maximum of twelve voting members consisting of the Chair of the GLRC, one representative from each of the three counties, one representative from each of the three watersheds, and the chairs of the Illicit Discharge Elimination Program (IDEP), Public Education Program (PEP), Ordinance/Best Management Practices (BMP), Habitat and Recreation, and Funding Committees. In addition to the voting members, there are two non-voting ex-officio

members: the GLRC treasurer (Executive Director of TCRPC) and the GLRC secretary. The role of the Executive Committee is to seek consensus on program-related issues brought before it.

#### Watershed Committees

The watershed committees guide the development of the watershed management plan and the implementation of the Public Participation Process. The committees consist of representatives from each community that has land use authority in the watershed. The committees continue to meet regularly during the watershed planning process. Three committees have been established as part of the GLRC to address each watershed:

- • Looking Glass River Watershed Committee
- • Red Cedar River Watershed Committee
- • Grand River Watershed Committee

During the last year, the watershed management planning effort has shifted from the planning phase, to an implementation phase. There are 5 implementation committees listed below. Some of the implementation committees may have subcommittees to address more targeted activities.

#### - Public Education Program Committee

The Public Education Program Committee guides the overall public education, participation, out reach, and involvement process for the watershed management planning effort. This also includes evaluation and assessment of public knowledge and activities.

#### - Illicit Discharge Elimination Program Committee

The IDEP Committee guides the organization and implementation of the illicit discharge elimination program, mapping guidelines, field-sampling protocols, and how the watershed will be monitored for progress. The IDEP Committee is also reviewing pet waste reduction techniques, septic tank maintenance issues, and IDEP ordinances.

#### Habitat and Recreation Committee

The Habitat and Recreation Committee will focus on wetland inventory and protection; restoration and ecosystem monitoring; volunteer monitoring efforts; and identifying impairments in the watersheds in order to improve water quality throughout the stream and river systems. The recreation component focuses on enhancing access to the river systems in order to improve activities such as canoeing, hiking, fishing etc.

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#### Funding Committee

The Funding Committee focuses on providing information about equitable and sustainable funding mechanisms for the implementation and maintenance of the Watershed Management Plans indefinitely.

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#### Ordinance/Best Management Practice Committee

The Ordinance/BMP Committee is responsible for reviewing and making recommendations on updating existing ordinances to make sure that they are consistent with the required EPA elements. This committee has created 4 subcommittees to implement many of the committees charges, these include:

Water Quality Friendly (WQF) Subcommittee:

This subcommittee will provide guidance material regarding development standards for WQF and low impact development practices to be adopted and practiced by the GLRC members.

Standard Operating Procedure/Best Management Practices (SOP/BMP)

Subcommittee:

This subcommittee will provide guidance material regarding SOPs for municipal activities such as catch basin cleaning, vehicle maintenance, etc. The subcommittee will also research and provide guidance materials regarding BMPs for the local region.

Ordinance Subcommittee:

The Ordinance Subcommittee focuses on local ordinances that are relevant to watershed management efforts and that will help improve the water quality in the region. Many aspects of proposed ordinances will be reviewed by the subcommittee, they include: enforcement, viability, challenges, adoption processes, template and model language.

Stream and Ditch Subcommittee:

The Stream/Ditch Subcommittee focuses on researching and establishing a set of stream/ditch management techniques that can be adopted throughout the region to improve water quality.

Many of these committees have been meeting on a rotating schedule. Some committees will meet on an “as needed” basis as implementation activities are accomplished. As of September, 2007 the committees and subcommittees are meeting on the following schedule:

Red Cedar Watershed Committee	As needed/TBD
Looking Glass Watershed Committee	As needed (meeting periodically regarding CMI plan update)
Grand River Watershed Committee	As needed/TBD
Executive Committee	Fourth Friday of every other month
GLRC Full Committee	Semi-annually

Implementation Committees:

PEP Committee	Every other month
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IDEP Committee	Once a month – currently as needed
Habitat and Recreation Committee	Every 6 weeks
Funding Committee	Currently as needed
Ordinance/BMP Committee	Quarterly – currently as needed
WQF Subcommittee	Once a month – currently as needed
SOP/BMP Subcommittee	Once a month – currently as needed
Ordinance Subcommittee	Once a month – currently as needed
Stream and Ditch Subcommittee	Once a month – currently as needed

### 3.0 Implementation Committee Reports

#### 3.1 PEP Committee

The Public Education Committee met on the following occasions:

- December 8, 2006
- February 23, 2007
- March 23, 2007
- July 9, 2007
- August 22, 2007

#### *Committee Activities:*

**Regional Water Quality Survey** – A statistically valid regional water quality survey has been completed for the GLRC. The results of this survey are helping the committee determine where educational efforts should be focused, both geographically and specific behavioral categories. The survey and findings report has also provided a solid assessment from which to show improvement in the future. The survey results have been posted to the website. The GLRC Coordinator has also discussed the survey results with an adjacent watershed group, the Looking Glass River 319 group. Collaboration between adjacent watershed groups is essential for protection of the watershed.

**Brochures** – The committee is currently working on a watershed fact brochure that will detail the definition of a watershed and include fun facts about the urbanized watersheds of the Red Cedar, Looking Glass, and Grand Rivers.

**Curb Marker/Door Hanger Volunteer Training Kit** – Michigan State University developed a training kit for volunteers that are applying the curb markers. This information has been provided to all GLRC members and is posted on the GLRC website. Proper installation of the curb markers is important for longevity and to prevent waste in the catch basin.

**Education and Outreach Library** – The library was developed on the website to allow members to post electronic files to be shared for education purposes. These files include brochures, presentations, press releases and other information that municipalities may

wish to use to promote our purpose. The website is updated regularly to include many educational materials to encourage public involvement and education.

**School District Collaboration** – The PEP Committee held a meeting inviting all area school districts, including those GLRC member schools, jurisdictional permitted schools, and nested school districts. The purpose of this meeting was to meet with school districts in the Greater Lansing area and review Phase II stormwater management requirements and activities. A PowerPoint presentation describing the Phase II stormwater program was given to attendees. The presentation included history of the Phase II stormwater management program, basic requirements, and the Greater Lansing Regional Committee’s (GLRC) local stormwater management efforts. In an effort to encourage participation from local school districts (mandated to be in compliance with their permit), they were asked to complete the following tasks:

- ▪ School districts should meet internally to determine what they are already doing to help bring them in compliance with their Phase II stormwater permit. Then, the districts must develop a plan for reporting the activities that are currently underway.
- ▪ Meet with their local municipality’s GLRC representative (this can be found on GLRC website) to discuss possible collaborative efforts, and determine how Phase II-related communications will continue between the school district and the jurisdiction.
- ▪ Review the GLRC website: [www.mywatersheds.org](http://www.mywatersheds.org) to become more familiar with what local communities and the GLRC are accomplishing and planning.
- ▪ Continue to meet with the GLRC and discuss collaborative efforts

**Environmental Education Curriculum** – MDEQ has produced a program called Michigan Environmental Education Curriculum Support (MEECS) that provides environmental curriculum (following MEAP standards) to all school districts in Michigan. The PEP Committee corresponded with all local school districts to encourage them to participate in the MEECS Workshops and receive the curriculum at no or very little cost. In this effort, a database has been created to provide contact information for local school district contacts. Most recently the database has grown to include additional contacts and updated contact information for all areas schools districts.

**Template News Articles** – The committee has developed a series of news articles that are posted on the GLRC website for use by GLRC members, they are expected to include these articles periodically in their local community newspapers. The committee has an ongoing list of many topics to cover; currently the following topics have been addressed: explaining what a watershed is and purpose of the GLRC; car washing (on the lawn); reporting illicit discharges/dumping; and using low/no phosphorus fertilizer (and having your soil tested). GLRC members are encouraged to use these in their community publications and daily interactions with the public.

**Children’s Water Festival** – The Tri-County Regional Planning Commission’s Groundwater Management Board holds an annual Children’s Water Festival (May). The festival educates nearly 2,000 students through hands-on activities related to surface and groundwater protection and conservation. The PEP Committee encouraged all GLRC

members to participate in the festival by either being a volunteer or presenter, or through donations.

**Adopt A River** – The committee provided a template press release to all GLRC members regarding the Adopt A River program, including volunteer activities, dates, times, and contact information. GLRC members can then include the notice in their community newspapers and post them on bulletin boards in public buildings to encourage residents or businesses to participate in the Adopt A River program. The Adopt A River websites are also linked on the GLRC website.

**GLRC Website: [www.mywatersheds.org](http://www.mywatersheds.org)** – the public website for the GLRC is being maintained and updated on a regular basis. The website includes a significant amount of information relating to watersheds, stormwater stewardship, educational information, links to other environmental organizations and much more. Most recently the website has been updated to include additional resources (links) including state, federal, non-profit, watershed groups, local resources, etc. This information can be useful not only to the public but to GLRC members as well. The website has also been updated to include more graphics and pictures, which will hopefully spark a greater interest from the public. The GLRC Coordinator is also working with the hosting organization to add an additional webpage to the site. The new page would be specifically for educators, teachers, school officials, etc. This new webpage will serve as a toolbox for teachers and school district officials that are required to meet Phase II stormwater requirements. It will include resources and example projects that the schools can integrate into their current activities. The GLRC website began tracking website activity in September 2006. As of August 6, 2007, the GLRC website has received 1,148 hosts, and 11,237 hits. The number of hosts refers to the number of unique visitors that have gone to the website in total. Hits, refers to the number of times anyone has visited the site in total, even if one person has been to the site multiple times. If a single individual goes to the site twice in one day, it is considered one host and two hits.

**Promoting Household Hazardous Waste Collection Events** – After reviewing information from the completed survey, it was determined that household hazardous waste collection events would be better attended if the events were publicized more. Therefore, the GLRC website has linked directly to all community household hazardous waste collection events, and encouraged all GLRC members to highlight the events on their watershed website pages also. The committee has also encouraged GLRC members to include articles in the community newspapers about upcoming events.

### **3.2 IDEP Committee**

The purpose of the IDEP Committee has evolved over the last few years. With many communities beginning implementation of their IDEP program, as required by their permit, the IDEP Committee has focused on reviewing pet waste reduction techniques, on-site septic system management, and IDEP ordinance examples. The committee has developed and distributed their recommendations and guidelines to the individual GLRC members. While the IDEP Committee has completed all the assigned tasks, the group

felt that it was important to provide recommendations and guidelines regarding the other topics listed in the action plan.

During the report period the IDEP Committee met on the following dates:

October 19, 2007  
November 17, 2007  
February 16, 2007  
March 16, 2007  
April 27, 2007  
June 8, 2007  
July 13, 2007

*Committee Activities:*

**Pet Waste Reduction Techniques** – The committee developed and distributed a pet waste reduction sign to notify pet owners about the importance of reducing pet waste as a means to improve water quality. Many parks departments, schools, and municipalities purchased these signs for display in their community. The IDEP Committee has recommended pet waste ordinance language including a brief synopsis of the ordinance to the Ordinance Subcommittee to include in their document: *Model Ordinances for Watershed and Natural Resource Protection*.

**Onsite Septic System Tracking** – The committee has reviewed different techniques to track those residents in the watershed that have onsite septic systems. Ingham County Health Department recently passed a Point of Sale ordinance to help manage onsite septic systems in Ingham County (July 2006). The GLRC supported the Barry-Eaton District Health Department in their successful Time of Sale or Transfer (evaluation and maintenance regulation) Program, adopted July 2007. The IDEP Committee has provided EPA Septic System Tracking software called TWIST. The GLRC website links to the EPA informational page regarding this software. The IDEP Committee is exploring ways to continue these efforts into Clinton County.

**IDEP Ordinances** – The development and adoption of an IDEP ordinance is part of the Phase II Permit Requirements (by November 2006). The IDEP Committee is reviewed and provided the City of Mason's IDEP ordinance to the group (as a template) and to the Ordinance Subcommittee for inclusion in their manual listed above.

**Fats, Oils, and Grease (FOG)** – The IDEP Committee has posted information on the GLRC website discussing the nasty effects of FOG as the leading cause of sewer overflows. The committee has also urged municipalities to adopt (or enforce existing) policies related to FOG in sewer lines. The Ordinance Subcommittee's manual also has a section describing the effects of FOG (provided by the IDEP Committee) and how to help educate restaurant and homeowners about this ongoing problem.

### 3.3 Habitat and Recreation Committee

During the report period the Habitat and Recreation Committee met on the following dates:

December 1, 2006  
January 12, 2007  
April 13, 2007  
June 1, 2007  
July 27, 2007  
September 10, 2007

#### *Committee Activities:*

**Volunteer Monitoring Efforts** – The Habitat and Recreation Committee is working with Mid-Michigan Environmental Action Council (MidMEAC) and MiCorps on volunteer monitoring efforts. Currently MidMEAC has collected data on macroinvertebrates in October 2006 and April 2007. Information regarding this effort and test results can be found at the following web address: [http://www.midmeac.org/river\\_protection.html](http://www.midmeac.org/river_protection.html). The committee is gathering data from many different sources to define impairments in the watersheds. The committee is also creating useful maps that clearly label impairments in the watersheds. In order to assist in data collection and monitoring efforts, the committee has developed a new visual assessment data collection sheet. The group is contacting local civic and community groups that may be willing to help collect data in their community. The committee is also researching possible grant funds to create a comprehensive database for all information collected. Data management is an important part of evaluating success and challenges in the watersheds.

**Woody Debris Management** – The committee has distributed over 200 woody debris management fact sheets to paddle clubs, Ducks Unlimited, surrounding watershed groups, etc. The fact sheet describes proper removal (only if necessary) of woody debris in river corridors. By using the proper procedures, fish and wildlife habitat can be maintained in a sustainable way. The fact sheet was posted to the website November 2006.

**Recreation Efforts** – The committee has reviewed much information about Heritage River Trail Programs and the committee is exploring the possibility of having a Heritage River Trail on the Grand and Red Cedar Rivers. Friends of the Looking Glass River are completing a Heritage River Trail for a portion of the Looking Glass River. Currently the group is in the beginning stages of developing a map and possible poster project regarding all recreational opportunities and access points along the rivers. This will provide a basis to discuss possible additional access sites and help outreach recreational opportunities in the watershed.

**Calendar Updates** – The committee is continuously updating the GLRC calendar with recreation and clean up activities throughout the watershed. The calendar can be viewed by both GLRC members (can add events also) and the public.

**Michigan Natural Features Inventory (MNFI)** – Edward Schools from MNFI provided the Habitat and Recreation Committee with a presentation regarding what MNFI has to offer in terms of available data (GIS layers) and the different tools and resources available, both free of charge and possible specialized reports. The group will continue to discuss what is need in terms of a natural features inventory and exactly what it will be used for. This is a very complex process, deciding what is of value for the watershed and what is reasonable for the committee to accomplish.

**Habitat Plan** – The committee has begun exploring the development of the habitat plan, including a natural features inventory as discussed above. The group is currently collecting data from as many resources as can be identified. Mostly from the Department of Natural Resources and the data is primarily on fish population and species. This information will be helpful and the development of the habitat plan continues to take shape. It will most likely include natural features inventory, wetlands inventory information, and riparian vegetation inventory information.

**Wetlands Inventory** – The committee has reviewed the recently updated Michigan wetlands inventory information and the nation wetlands inventory information as well. This information is readily available, yet, more detailed information is necessary in each community to really develop protection of the critical wetlands or those contributing significantly to water quality.

### **3.4 Funding Committee**

The Funding Committee is not meeting at this time; all action items listed in the action plan have been complete. The committee will meet on an as needed basis.

#### *Committee Activities:*

**Funding Manual** – The committee created a comprehensive Funding Manual that describes many different funding mechanisms that can be used to fund Phase II activities. The manual explores all aspects of funding, from borrowing, to state, federal grants, etc. This serves as an excellent guidance document for all GLRC members. The manual also includes a sample budget, with a summary, and an extremely detailed line item budget. The manual was provided to GLRC members and posted on the website in December 2006.

**Stormwater Utilities** –The GLRC continues to support Michigan Water Environmental Association (MWEA) in their efforts to develop stormwater utilities throughout the state of Michigan.

### **3.5 Ordinance/Best Management Practices (BMP) Committee**

The Ordinance/BMP Committee was meeting on a quarterly basis for subcommittees to discuss ongoing activities and collaboration between subcommittee efforts. In order to

operate more efficiently, the Ordinance/BMP Committee has been corresponding mostly through email. Committee members can view all subcommittee meeting minutes, and agendas on the GLRC website. The GLRC Coordinator also provides them to the group via email.

During the report period the Ordinance/BMP Committee met on the following date:  
October 26, 2006

*Subcommittee Activities:*

### **3.5.1 Water Quality Friendly (WQF) Subcommittee**

During the report period the WQF Subcommittee met on the following dates:

November 1, 2006  
December 6, 2006  
February 8, 2007  
March 15, 2007  
June 21, 2007

**Codes and Ordinances Worksheet** – The subcommittee is developed a codes and ordinances worksheet that was completed by most GLRC members. The worksheet is being used to assess how each community’s current development standards and ordinances affect stormwater management efforts. Some of the information gathered includes street widths, setback information, zoning types, reviewing restrictive language, etc. The data has been entered into a database and is currently being compared to national and typical low impact development standards. When this analysis is complete, the committee hopes to discuss possible recommendations with communities to better plan for stormwater management, reduction of impervious surfaces, and overall watershed protection. The group would like to complete a low impact development guidebook, but will first review the Southeast Michigan Council of Governments handbook, due out in May of 2008. The GLRC Coordinator is developing a brief pamphlet that will help introduce GLRC to low impact development design and techniques. This will serve as a resource guide and provide basic examples of low impact development.

### **3.5.2 Standard Operating Procedure/Best Management Practices (SOP/BMP) Subcommittee**

During the report period the SOP/BMP Subcommittee met on the following dates:

October 3, 2006  
February 13, 2007  
Reviewed draft manual via email

**GLRC Handbook: Best Management Practices for Municipal Activities** – The SOP/BMP Subcommittee has developed a BMP handbook targeting municipal activities

and good housekeeping techniques. The manual is very comprehensive covering many topics including vehicle maintenance and storage, salt application and storage, parking lot and street cleaning, spill prevention, etc. The manual was posted on the GLRC website August 2007.

### **3.5.3 Ordinance Subcommittee**

During the report period the Ordinance Subcommittee met on the following dates:

- October 30, 2006
- November 27, 2006
- January 29, 2007
- April 23, 2007
- Reviewed draft manual via email.

**Ordinance Manual** – The Ordinance Subcommittee developed the following manual: *Model Ordinances for Watershed and Natural Resource Protection*. The purpose of the manual is to provide general guidance for selecting and adopting ordinances and regulations that help protect watersheds and natural resources. The manual will help GLRC members understand regulatory mechanisms that they can adopt in order to reduce and prevent pollutants from reaching surface water and groundwater in the region. The manual is organized in a way that is convenient and efficient for local elected officials. No need to initially review ordinance language, they can view the descriptive analysis that quickly describes the objective, introduction, background, variables and issues, procedure for adoption, stakeholders, enforcement, and references for each ordinance or regulation. This synopsis of the ordinance provides a quick review for staff and/or council or board members to understand the basics of the ordinance and if it is something that is viable for the community. The manual was posted to the GLRC website June 2007.

### **3.5.4 Stream/Ditch Subcommittee**

During the report period the Stream/Ditch Subcommittee met on the following dates:

- March 6, 2007
- Materials reviewed via email

**Sediment and Erosion Control (Authorized Public Agency (APA) Manual** – The County Drain Commissioners provided the APA manual to the GLRC which determines management techniques and guidance for sediment and erosion control. This information was posted to the GLRC website in March 2007.

**Demonstration Project** - Carrier Creek Stormwater Management and Restoration Project. [www.carriercreek.com](http://www.carriercreek.com). The Carrier Creek Stormwater Management and Restoration Project was developed to address the increasing stormwater demands in the area, while also enhancing the natural resources of the corridor. This project has been highlight on the GLRC website to show an example of how watershed management can be successful.



**Agricultural Water Quality Friendly Practices** – The Stream/Ditch Subcommittee has posted many links on the GLRC website to environmentally friendly agricultural based programs. Most include Natural Resource Conservation Service Programs. Clinton County Drain Commissioner also provided a brief summary of the buffer strip program that is utilized in Clinton County (available across the state), this is also posted on the GLRC website October 2006.

**Stream/Ditch Management** – The subcommittee is currently drafting an informational flyer or fact sheet related to two-stage ditches. This is in draft form at this time.

## **4.0 Permit-Related Activities**

### **4.1 IDEP (Illicit Discharge Elimination Plan)**

- 1) 1) *The permittee shall provide documentation of the actions taken to eliminate illicit discharges and evaluate the effectiveness of the program. For significant illicit discharges, the permittee shall list the pollutant(s) of concern, the estimated volume and load discharged, and the locations of the discharge into both the permittee's separate stormwater sewer system and the receiving water. The permittee shall include certification of any changes made to the IDEP as requested by the Department in Part I.A.3.*

**Met with Christe Alwin from MDEQ on 9-20-07 and did some field work at the following sites:**

**Looked at point source discharges and performed dry weather screening at township hall and fire stations. Also, investigated two parks, Keegan and Slater and found no illicit outfall**

- 2) 2) *The permittee shall summarize the status of the program to minimize seepage from sanitary sewers and on-site sewage disposal systems into the permittee's separate stormwater drainage system.*

*We have worked with the City of Lansing, owner of all Sanitary Sewers in the Township on matters of cleaning and maintenance. Thirty- three manholes have been replaced, lined or improved on the Township's west side in partnership with the City over the past nine years. These manholes were under the attack of hydrogen sulphide (gas by-product of sewage) leaking into the environment and creating decayed concrete and debris migrating to township catch basins. The City has also embarked on relining (insituform) of sewers from St. Joe to Willow. The work was completed this year.*

*Also, the township has participated in the adopt a river program twice in the past year, the children's water festival held annually on the MSU campus in May, posted a watershed sign and displayed posters and brochures in township hall and will add the above information to the township website.*

In an effort to ensure the condition of on-site sewage disposal systems, the GLRC has supported Ingham County Health Department and Barry – Eaton District Health Department with their recently passed time of sale or transfer ordinances. Currently, Clinton County has not adopted an ordinance that requires the inspection of on-site sewage disposal systems.

- 3) 3) *The permittee shall provide schedules for elimination of illicit connections that have been identified but have yet to be eliminated.*

At this time this section does not apply to Lansing Township.

## **4.2 PEP (Public Education Plan)**

*The permittee shall provide documentation of the public education effort and a summary of the evaluation of its effectiveness. The permittee shall include certification of any changes made to the PEP as requested by the Department in Part I.A.3.*

### **4.2.1 PEP Categories**

The PEP is designed to address the following six categories as appropriate to increase awareness and bring about desired behavioral changes:

- 1. Personal watershed stewardship:** *Education of the public about their responsibility and stewardship in their watershed*
- 2. Ultimate stormwater discharge location and potential impacts:** *Education of the public on the location of residential separate stormwater drainage system catch basins, the waters of the state where the system discharges, and potential impacts from pollutants from the separate stormwater drainage system.*
- 3. Public reporting of illicit discharges:** *Encouragement of public reporting of the presence of illicit discharges or improper disposal of materials into the applicant's separate stormwater drainage system.*
- 4. Personal actions that can impact the watershed:** *Education of the public on the need to minimize the amount of residential, or non-commercial, wastes washed into nearby catch basins.*
- 5. Waste management assistance:** *Education of the public on the availability, location and requirements of facilities for disposal or drop-off of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.*
- 6. Management of riparian lands:** *Education of the public concerning management of riparian lands to protect water quality.*

## 4.2.2 Activities by PEP Category

The following public education activities were undertaken by **Lansing Township** during the reporting period from October 1, 2006 to September 30, 2007, in compliance with the Township, Certificate of Coverage **No. MIG610097** under the MDEQ General Stormwater Discharge Permit MIG619000.

### 1. Personal watershed stewardship

*Education of the public about their responsibility and stewardship in their watershed*

#### **EXAMPLE**

**Activity:** In the past two weeks the Township added a website with it's own link called Environmental Issues. The heading reads, "The Environment and our Responsibility as a Community" with an opening message to the reader:

From washing our cars and walking our pets to bio-solid recycling and non point source pollution, the environment is everyone's issue. We cannot continue to say, "Let the other guy do it, I don't want to be bothered." This page is being set up so that you can have links to numerous environmental websites that provide resources and documents that educate us on programs and issues of importance in protecting our environment for ourselves and future generations.

Other links include:

101 ways to help planet earth  
Michigan Environmental Council  
Water Environment Federation  
Watersheds

**Target Audience:** Township residents in the Grand River, Red Cedar and Looking Glass Watersheds and anyone browsing our website.

The Website has information pertaining to watersheds, stormwater stewardship, educational information and links to environmental organizations. It's too soon to quantify the effectiveness but based on what we had this is a start in the right direction

**Activity:** A publicly available website specifically focused on the NPDES stormwater efforts and education has been maintained and continually updated on a regular basis. You can view the website at [www.mywatersheds.org](http://www.mywatersheds.org).

**Target Audience:** The target audience includes educators, residents, small business owners and other community stakeholders within the **Grand River, Red Cedar, and Looking Glass** Watersheds.

**Content of Message:** The website includes a significant amount of information relating to watersheds, stormwater stewardship, educational information, links to other environmental organizations and much more.

**Effectiveness/Evaluation:** The GLRC website began tracking website activity in September 2006. As of August 6, 2007, the GLRC website has received 1,148 hosts, and 11,237 hits. The number of hosts refers to the number of unique visitors that have gone to the website in total. Hits, refers to the number of times anyone has visited the site in total, even if one person has been to the site multiple times. If a single individual goes to the site twice in one day, it is considered one host and two hits.

**Activity:** Regional Water Quality Survey

**Target Audience:** The target audience is residents in the urbanized area of the Grand, Looking Glass, and Red Cedar River Watersheds.

**Content of Message:** The survey has provided valuable information regarding current knowledge base of the public in relation to how they affect water quality and their behavior in relation to water quality.

**Effectiveness/Evaluation:** With this baseline assessment of the public's knowledge base, public education efforts being targeted to specific topics detailed in the results of the survey. In time another survey will be completed to demonstrate changes in the public knowledge base regarding water quality.

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## **2. Ultimate stormwater discharge location and potential impacts**

*Education of the public on the location of residential separate stormwater drainage system catch basins, the waters of the state where the system discharges, and potential impacts from pollutants from the separate stormwater drainage system.*

**Four people including myself applied 340 curb markers to storm drains in the township and hung 260 door hangers.**

**Activity:** **Lansing Township** participated in a joint effort with the PEP Committee to develop curb markers/storm drain labels and accompanying door hangers with a common message for the region.

**Target Audience:** The target audience includes residents, small business owners and other community stakeholder within the **Grand, Red Cedar and Looking Glass** River

Watersheds. To reach the target audience, the posters and brochures have been placed in the **Township Hall at 3209 W. Michigan, Lansing Township, Mich. 48917**

**Content of Message:** The 4 inch round curb markers include the message: “No Dumping – Flows to Waterways.” The door hanger explains the curb marker and gives helpful hints to residents for stormwater management.

**Effectiveness/Evaluation** 340 curb markers **have been** affixed near storm drains/catch basins in areas with high visibility, particularly in residential neighborhoods, and 260 door hangers **have been** delivered to each house in the area that curb markers are being installed. The Township worked with 4 people in delivering the curb markers and door hangers. 240 door hangers and 170 curb markers remain.

### **3. Public reporting of illicit discharges**

*Encouragement of public reporting of the presence of illicit discharges or improper disposal of materials into the applicant’s separate stormwater drainage system.*

#### **Activity:**

I am not aware of any illicit discharges in the township. However, illicit discharge information is posted on our township website ([www.lansingtownship.org](http://www.lansingtownship.org)) The Township has asked the City of Lansing and the Ingham County Drain Commission to alert us of any Point Source Discharges. Even though we accept responsibility to help enforce any discharges or illegal activity in our Township, the County owns and maintains the Storm Sewers and The City owns and maintains the Sanitary Sewers. And we have no staff to measure this matter on a daily basis. Also, We have and will continue to alert readers of our website of the dangers of illicit discharges and improper disposal of materials into the stormwater drainage system. Posters and brochures are always available in township hall, police and water department

**Target Audience:** The target audience is Township residents and business owners of the Grand River, Red Cedar and Looking Glass Watersheds, visitors to township hall and the township website, individuals from neighboring communities, and visitors from outside the area.

**Content of Message:** What is an illegal or illicit discharge and who to call for the reporting of these activities?

**Effectiveness/Evaluation:** It’s too soon to evaluate the effectiveness. An effective website has only been up and running for a short while. The next report should give us adequate time to quantify the content of message.

### **4. Personal actions that can impact the watershed**

*Education of the public on the need to minimize the amount of residential, or non-commercial, wastes washed into nearby catch basins (this should include the preferred cleaning materials and procedures for car, pavement, or power washing; the acceptable*

*application and disposal of pesticides and fertilizers; and the effects caused by grass clippings, leaf litter, and animal wastes that get flushed into the waterway).*

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#### **5. Waste management assistance**

*Education of the public on the availability, location and requirements of facilities for disposal or drop-off of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.*

#### **Activity:**

Lansing Township has distributed more than 250 brochures this year to the public. The messages on the brochures dealt with various topics, Pet Waste, Lawn and Garden Care Car Washing, Non-Point Source Pollution and How to protect your Watershed. The brochure information for various subjects including the above topics pertaining to the protection of our watersheds are also on our township website, [www.lansingtownship.org](http://www.lansingtownship.org).

**Target Audience:** The target audience is residents and businesses within Lansing Township and the three watersheds that are in our jurisdiction: Grand River, Red Cedar and Looking Glass.

**Content of Message:** Provides dates, locations and requirements for the disposal of hazardous and other difficult to dispose of waste. Materials also indicate phone and website dealing with these types of materials year round.

**Effectiveness/Evaluation:** *No data at this time*

#### **4.3 New Point Source Discharges of Stormwater:**

*The permittee shall provide the information requested in Part I.A.4. of this permit on the discovery of new stormwater point sources to the separate stormwater drainage system.*

#### **4.4 SWPPI (Stormwater Pollution Prevention Initiative):**

*The permittee shall describe the compliance status of the permittee-specific SWPPI actions and implementation schedules for the permittee's regulated areas. **This review shall cover all of the permittee's commitments from the WMP, and the SWPPI's conditions for pollution prevention/good housekeeping and post-construction BMPs.***

**I have provided this information in my revised SWPPI dated 3-31-06**

#### **4.5 Other Actions:**

*The permittee shall submit any information for any other actions taken to reduce the discharge of pollutants in stormwater.*

***Nothing available at this time. See revised SWPPI TEMPLATE dated 3-31-06***

#### **4.6 Nested Drainage System Agreements:**

*Permittees which are primary jurisdictions shall update the list of each nested jurisdictional area or drainage system that should have its own separate stormwater drainage system permit, originally submitted as part of the application requirements in Part I.A.2.*

Nothing reported at this time. The Township relies on the Ingham County Drain Commission, owner of all drains in the Township for initial IDEP activities.

#### **4.7 Special Reporting Requirements:**

*The University of Michigan (Ann Arbor Campus), the Michigan Department of Transportation, and the Cities of Ann Arbor, Flint, Grand Rapids, Livonia, Sterling Heights, and Warren shall submit additional information.*

This section not required within the **Grand, Red Cedar, Looking Glass** River Watersheds or the community of **Lansing Township**.