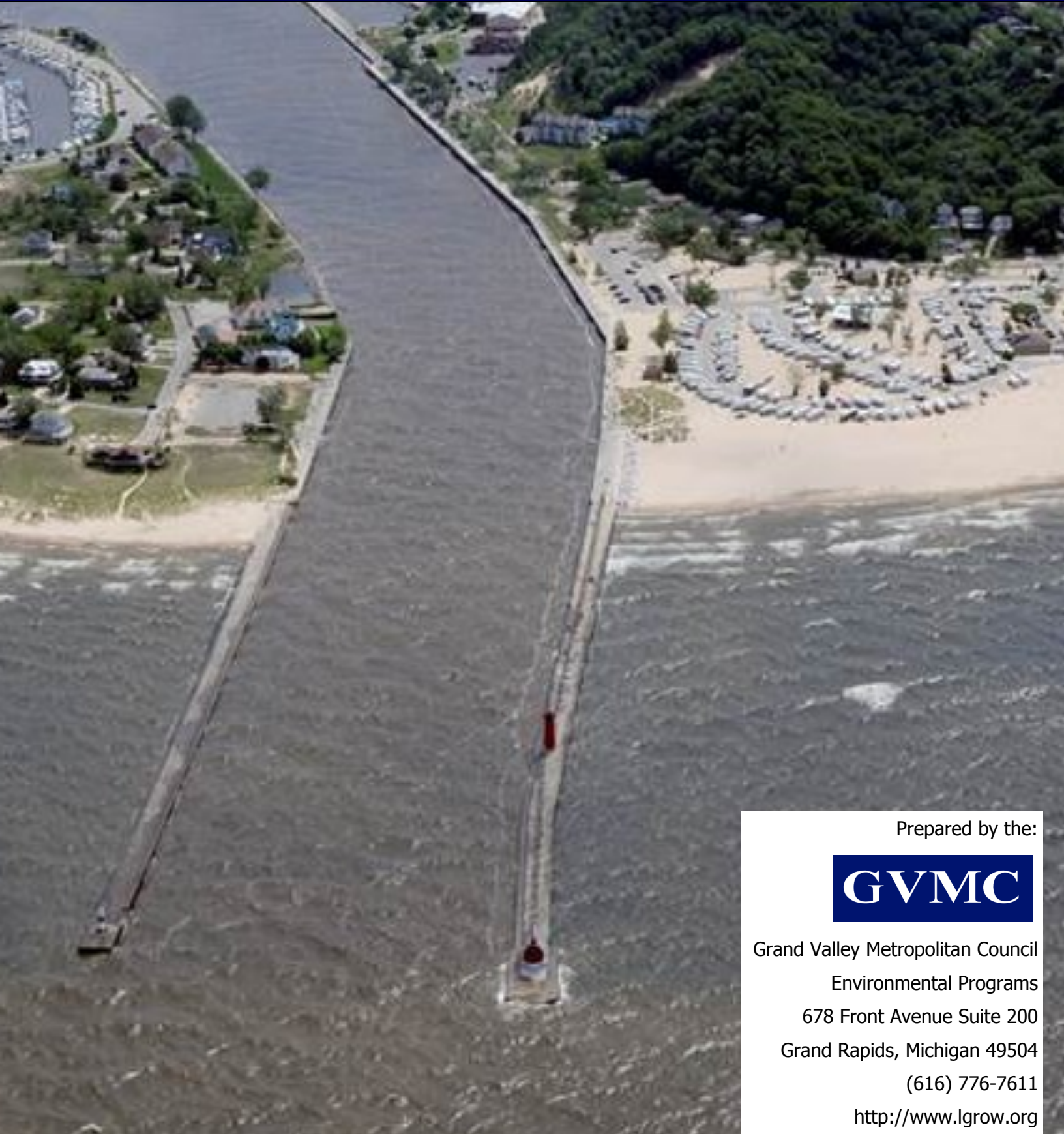


# Lower Grand River Watershed Progress Report

## City of Wyoming

Reporting Period: August 1, 2014– July 31, 2015



Prepared by the:



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Environmental Programs

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## List of Abbreviations/Acronyms

AWRI	Annis Water Resources Institute
BMP	Best Management Practice
CES	Center for Environmental Study
CoC	Certificate of Coverage
DIP	Data, Information, and Procedures
DPW	Department of Public Works
GVMC	Grand Valley Metropolitan Council
HD	Health Department
ICMA	International City/Country Management Association
IDEP	Illicit Discharge Elimination Plan
I&E	Information and Education
KCDC	Kent County Drain Commissioner
KCRC	Kent County Road Commission
KIH	Kent Innovation High School
LGROW	Lower Grand River Organization of Watersheds
LGRW	Lower Grand River Watershed
LID	Low Impact Development
MACC	Macatawa Area Coordinating Council
MDEQ	Michigan Department of Environmental Quality
MGROW	Middle Grand River Organization of Watersheds
MS4	Municipal Separate Storm Sewer System
MSUE	Michigan State University Extension
NOAA	National Oceanic and Atmospheric Administration
NPS	Nonpoint Source
O&M	Operation and Maintenance
OCWRC	Ottawa County Water Resources Commissioner
PCC	Post-Construction Controls
PEP	Public Education Plan
POS	Point-of-Sale
SEMCOG	Southeast Michigan Council of Governments
SESC	Soil Erosion and Sedimentation Control
SWPPI	Stormwater Pollution Prevention Initiative
TSS	Total Suspended Solids
USEPA	U.S. Environmental Protection Agency
WMEAC	West Michigan Environmental Action Council
WMP	Watershed Management Plan
WMSECN	West Michigan Soil Erosion Control Network
WMSRDC	West Michigan Shoreline Regional Development Commission
WQI	Water Quality Index

## Part 1 – Contact Information

<b>Contact Information for Michigan Department of Environmental Quality (MDEQ):</b>	
Please provide current contact information for MDEQ to use regarding stormwater issues.	
<b>Permit Application Contact</b>	
Name	William Dooley
Title	Director of Public Works
Address	2660 Burlingame Ave SW
City, State, Zip	Wyoming, MI 49509
Telephone (with area code)	(616) 530-7262
Fax (with area code)	(616) 261-3590
E-mail	dooleyb@wyoming.gov
<b>Stormwater Program Manager</b>	
Name	Aaron Vis
Title	Assistant Director of Public Works - Maintenance
Address	2660 Burlingame Ave SW
City, State, Zip	Wyoming, MI 49509
Telephone (with area code)	(616) 530-7264
Fax (with area code)	(616) 261-3590
E-mail	avis@wyomingmi.gov
<b>Stormwater Permit Fee Billing Address</b>	
Name	William Dooley
Title	Director of Public Works
Address	2660 Burlingame Ave SW
City, State, Zip	Wyoming, MI 49509
Telephone (with area code)	(616) 530-7262
Fax (with area code)	(616) 261-3590
E-mail	dooleyb@wyoming.gov

## Part 2 – Municipal Stormwater Pollution Prevention Initiatives (SWPPI) Commitments

Committees have been working to address different subject areas to make program implementation as efficient as possible. Every participating Municipal Separate Storm Sewer System (MS4) permittee has a representative on at least one committee. Committee meetings have also been used to update everyone on the progress of the other committees and the program in general. The committees are as follows:

- Stormwater Education Committee (PAM/PEP)
- Stormwater Ordinance Committee (SWOrd)
- Data, Information, and Procedures Committee (DIP)

The list of committee members who have served on the committees during this reporting period are indicated in Table 2 below. Communities denoted with an asterisk are permitted MS4s under the Lower Grand River Watershed Permit.

<b>Community</b>	<b>Representative</b>	<b>PAM/PEP</b>	<b>Stormwater Ordinance</b>	<b>Data, Information &amp; Procedures</b>
Cascade Charter Township	Mr. Steve Peterson	X	X	
East Grand Rapids, City of	Mr. Joe Slonecki			X
Ferrysburg, City of	Mr. Craig Bessinger			X
Forest Hills Public Schools	Mrs. Lea Sevigny	X		
Georgetown Charter Township	Mr. Rod Weersing	X		
<b>Nested:</b> Jenison Public Schools	Ms. Kim Kiel	X		
Grand Haven, City of	Mr. Bill Hunter			
Grand Haven, City of	Ms. Cheryl Davidson	X		
Grand Rapids Charter Township	Mr. Bob Versluys		X	
Grand Rapids, City of	Mr. Chuck Schroeder			Alt
Grand Rapids, City of	Mr. Mike Lunn	Alt	X	Alt
Grand Rapids, City of	Ms. Carrie Rivette	X	X	
Grand Rapids, City of	Mr. Dan Taber			X

<b>Table 1. LGRW Committee Membership List as of July 31, 2015</b>				
<b>Community</b>	<b>Representative</b>	<b>PAM/PEP</b>	<b>Stormwater Ordinance</b>	<b>Data, Information &amp; Procedures</b>
Grandville, City of	Mr. Ken Krombeen		X	
Grandville, City of	Mr. Ron Carr	X		
GVSU*	Mr. John Koches (Chair)			X
Hudsonville, City of	Ms. Amber Eckert-Howe	X		
KCDC	Mr. Bill Byl		X	
KCDC	Mr. Brad Boomstra		X	
KCDC	Mr. Doug Sporte		X	
KCDC	Ms. Angie Latvaitis			X
KCDC	Ms. Lani Brown	X		
KCRC	Mr. Dave Beck	X		
KCRC	Mr. Dave Bennett			
KCRC	Mr. Wayne Harrall		X	
Kent County Health Department*	Ms. Sarah Simmonds			X
Kent Resource Recovery*	Ms. Kristen Wieland	X		
Kentwood, City of	Mr. Jim Beke		X	X
Kentwood, City of	Mr. John Gorney	X		
Kentwood, City of	Mr. Dan VanderHeide		X	
MDEQ*	Ms. Amanda St. Amour	X	X	X
MDEQ*	Ms. Dana Strouse	X		X
OCWRC**	Mr. Dennis Cole		X	
OCWRC**	Ms. Linda Brown	X		
OCWRC	Ms. Angela Walachovic	X		
OCRC**	Mr. Jerry Olman		X	
Plainfield Charter Township	Mr. Rick Solle		X	
Plainfield Charter Township	Ms. Mary Trapp-Gunst	X		

**Table 1. LGRW Committee Membership List as of July 31, 2015**

<b>Community</b>	<b>Representative</b>	<b>PAM/PEP</b>	<b>Stormwater Ordinance</b>	<b>Data, Information &amp; Procedures</b>
Rockford, City of	Mr. Mike Bouwkamp	X		
Sparta, Village of	Mr. Miles Ring			
Spring Lake, Village of	Ms. Chris Burns	X		
Spring Lake, Village of	Mr. Roger Belknap			X
Walker, City of	Mr. Scott Conners		X	
Walker, City of	Ms. Rachell Nagorsen	X	X	X
Wyoming, City of	Mr. Aaron Vis	X		X
Wyoming, City of	Mr. Myron Erickson		X	

**PAM/PEP Committee**

The PAM/PEP Committee met on September 10, 2014, November 12, 2014, January 14, 2015, March 11 2015, May 13, 2015, and June 17, 2015 during the reporting period. Minutes and Agendas were posted to <http://www.lgrow.org/MS4pampep>. Throughout the reporting period, the group focused on implementation of the updated Public Education Plan (PEP) approved in February of 2013, which is available here: <http://www.lgrow.org/uploads/files/PEP%20Master.pdf>.

The PAM/PEP Committee has been functioning as a joint committee of the Lower Grand River Organization of Watersheds (LGROW) and the permitted Lower Grand MS4 communities since January of 2014. The goals of LGROW, the Lower Grand River Watershed Management Plan, and the MS4 Public Education Plan align closely, and through this joint committee’s combined efforts, the result has been a larger group of involved stakeholders. This group shares the common goals of raising awareness about the Lower Grand River Watershed (LGRW) and improving the stormwater quality within that watershed. During this reporting period, the group focused on selecting outreach events and activities which provided access to the target audiences identified in the PEP and identifying activities that would result in a behavioral change on the part of those who participated. A detailed list of these events and the outreach conducted is provided in Part 3.

### **SWOrd Committee**

The SWOrdCommittee met on August 25, 2014, September 29, 2014, October 27, 2014, November 24, 2014, December 15, 2014, January 26, 2015, February 23, 2015, and June 1, 2015 during the reporting period. Meetings were focused on researching and developing an alternative approach for the new post-construction stormwater control requirements outlined in the 2016 NPDES Permit Application. Minutes and agendas for the meetings are available at: <http://www.lgrow.org/MS4pccord>.

The committee drafted and submitted an alternative approach for the channel protection standard to address sites where it is not feasible or allowable to permanently retain stormwater as specified by the permit requirements. The alternative approach required prospective developers to proceed through a series of steps to evaluate the potential for each site to meet the channel protection requirement as laid out in the permit. Once requirements for site design and soil testing were met, developers would then be allowed to consider the use of extended detention with controlled release where barriers to infiltration exist. Three scenarios were reviewed for several sites of various sizes and soil conditions throughout the regulated areas of the watershed. The first scenario utilized the existing development requirements as they are in place today, the second scenario used permit specified development requirements, and the third used the alternative approach. The results showed that the alternative approach, as proposed, allowed for channel protection in a greater number of areas than the permit requirements as written.

### **DIP Committee**

The DIP Committee met on August 20, 2014, October 15, 2014, December 17, 2014, and April 15, 2015 during this reporting period. Agendas and minutes from the meetings are available at the following site: <http://www.lgrow.org/MS4dip>. In January of 2014 the committee shifted its primary focus from the approval of the Illicit Discharge Elimination Plan (IDEP) and outfall screening to the development of a new focus detail document titled "Watershed Monitoring to Evaluate Effectiveness of Nonpoint Source Pollution and Municipal Stormwater Runoff Controls and Practices." During 2014, the group refined the DIP Committee focus detail and began working through the objectives set forth in the document. In 2015, the committee members focused on the development of a watershed monitoring manual to guide the collection, processing, and storage of data in the Lower Grand River Watershed. This manual will guide groups including the newly formed Buck Creek Friends group and the Lower Grand River TMDL monitoring, as required by the MS4 permit. As of the close of this reporting period, the committee is finalizing data collection and screening procedures and planning ahead for implementation for the TMDL



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monitoring. This will require the committee to secure partners and funding to conduct the actual sampling.

## **Training**

GVMC provides multiple training documents and DVDs for Permittee use and hosted or partnered on several training events during the reporting period including:

- Stormwater Information for Landscapers (brochure, updated)
- REGIS Outfall and Storm Sewer System Mapping In GIS
- West Michigan Green Infrastructure Conference & Grand Rapids Green Infrastructure Tour
- Soil Erosion & Sediment Control 101 Panel Discussion (West Michigan Soil Erosion Control Network)
- Soil Erosion Control Network Field Demonstration Day (West Michigan Soil Erosion Control Network)
- DVD from North Central Texas Council of Governments Municipal Employee Training Series: Preventing Stormwater Pollution: What We Can Do (includes the following videos)
  - Introduction: What We Can Do
  - Construction Activities and Land Disturbances
  - Fleet Maintenance and Material Handling
  - Streets and Drainage Maintenance
  - Parks and Grounds Maintenance
  - Solid Waste Management

## **Training Library**

A lending library of training materials is housed at GVMC and is available to all watershed partners to assist with the Municipal Employee Training requirements of the discharge permit. The following materials are currently available:

DVD from Excal Visual, LLC

- IDDE – a grate concern: Illicit Discharge Detection & Elimination (14¼ Minutes)

DVD from Excal Visual, LLC

- Storm Watch - Municipal Stormwater Pollution Prevention (20 Minutes)

DVD from Excal Visual, LLC

- Stormwater Pollution Prevention - A Drop in the Bucket (16 Minutes)

DVD from Excal Visual, LLC

- Ground Control - Stormwater Pollution Prevention for Construction Sites (14.5 Minutes)

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DVD from Excal Visual, LLC

- Spills & Skills - Non-Emergency HazMat Spill Response (18.5 Minutes)

DVD from Southeast Michigan Council of Governments (SEMCOG) and the Road Commission for Oakland County

- Keep An Eye On It! - Environmental Awareness for Gravel Road Maintenance (18.5 Minutes)

DVD from USEPA - Reduce Runoff: Slow It Down, Spread It Out, Soak It In (includes the following videos)

- Reduce Runoff: Slow It Down, Spread It Out, Soak It In 9 Minutes
- RiverSmart Homes: Getting Smart about Runoff 12 Minutes
- Building Green: A Success Story in Philadelphia 11 Minutes
- After the Storm 22 Minutes

FILLING THE GAPS: Environmental Protection Options for Local Governments, 2nd Edition, revised December 2010 (including appendices on CD) (90 Pages)

Each permitted community also conducted a detailed review of their current inspection and maintenance procedures for structural BMPs as well as a detailed review of operational BMPs in preparation for the submittal of the new individual MS4 permit application in April of 2015. Preparation of the BMP manuals, which were submitted, proved to be a valuable training tool for Permittees to ensure that their current procedures were updated and adequately protect stormwater.

## Monitoring

The Grand River Water Quality Index (WQI) is used to show the trend of Grand River water quality downstream of Grand Rapids. A WQI of 71-90 indicates good water quality with high diversity of aquatic life and very few limits for recreational use. Grand Rapids has been monitoring the Grand River for forty years and all of the data are available upon request. A record of the WQI for Wealthy Street Bridge is provided as an example of improving water quality in the Grand River. An interactive map and data from recent sampling events can be viewed as follows:

<http://grcity.us/enterprise-services/Environment-Services/Pages/Water-Quality-Index2.aspx>

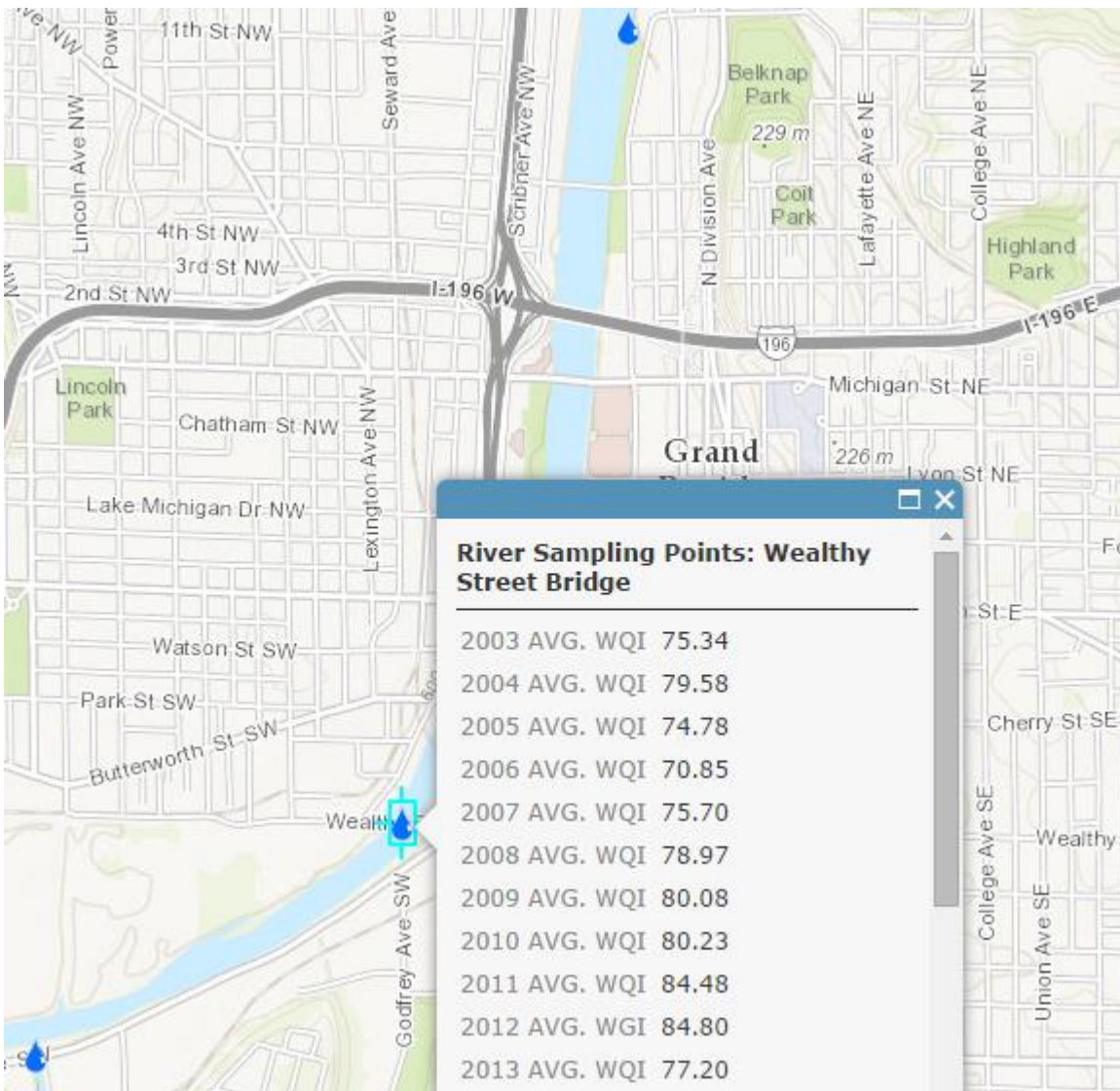


Figure 1. Grand Rapids Water Quality Index Web Interface

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### **MDEQ Program Audits**

MDEQ is expecting to perform MS4 Program Audits in all MS4 communities within 5 years. During this reporting period, MDEQ performed audits on the following LGRW communities:

September 16, 2014	City of Grand Rapids
January 28, 2015	Grand Rapids Charter Township
July 23, 2015	City of East Grand Rapids
August 18, 2015	Village of Spring Lake

GVMC assisted the communities in preparing for the audits, participating in the audits, and in addressing any deficiencies identified by MDEQ.

## **Part 2A - Lower Grand River Watershed Management Plan Prioritized Objectives: Regional Participation for August 1, 2014 - July 31, 2015**

### **Encouraging proper septic tank maintenance**

Each year a portion of the public education materials distributed address proper septic tank maintenance. Detailed information regarding the nature of these materials is included in Part 3 - PEP of the progress report. Additionally, communities in both Kent and Ottawa Counties work collaboratively with their respective Health Departments to report and ensure correction of failing or failed septic systems. Individual communities track this data in Part 4 – IDEP of the progress report.

### **Encouraging septage ordinance**

The Ottawa County Health Department presently has an ordinance in place requiring point of sale inspections. The permitted communities located within Ottawa County collaborate with and rely on the Ottawa County Health Department for ongoing enforcement of the ordinance.

Kent County has not passed an ordinance requiring point of sale septic system inspections. The permitted entities within Kent County rely on implementation of the IDEP and reporting/enforcement through their stormwater ordinances and the Kent County Health Department to follow up on failing or failed septic systems. In the case of a failed septic system, a connection to sanitary is typically required if a sanitary sewer connection is available within 250 feet.

### **Implement vegetative buffering practices and restore and protect the stream buffer and canopy**

Several communities including the City of East Grand Rapids and the City of Grand Rapids have instituted or evaluated the potential for buffer ordinances during the reporting period. The Cities of Hudsonville and

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Rockford have included buffer provisions within their zoning ordinances. Many other communities have adopted mowing buffer procedures on the properties they own and maintain. These procedures are identified in Appendix 2C.

### **Implement Michigan Department of Natural Resources wildlife population management practices**

Three communities are working with the Michigan Department of Natural Resources on supervised programs to control populations of Canada Geese. These programs include Egg Destruction (East Grand Rapids) Goose Relocation (Kent County Drain Commissioner) and Targeted Goose hunts for population reduction (Plainfield Charter Township). Communities throughout the watershed are utilizing signage to discourage the feeding of waterfowl and are either actively installing goose deterrents or instituting procedures for a no-mow buffer adjacent to streams and ponds to function as a natural deterrent. The City of Hudsonville has provided a portal on their website for residents to report nuisance wildlife.

### **Implement sanitary sewer maintenance practices**

Sanitary sewer service is provided by several communities to residents in expanded service areas. Through these partnerships, many communities are able to utilize sanitary sewer infrastructure instead of relying on septic fields. The City of Grand Rapids collaborates with Cascade Charter Township, the City of East Grand Rapids, Forest Hills Public Schools, Grand Rapids Charter Township, Kent County, Kentwood, and the City of Walker. The City of Wyoming collaborates with the City of Kentwood and portions of the City of Grandville. The City of Grandville collaborates with the City of Hudsonville and portions of Georgetown Charter Township. The City of Grand Haven collaborates with the City of Ferrysburg and the Village of Spring Lake. The North Kent Sewer Authority collaborates with Plainfield Charter Township and the City of Rockford. Information related to the maintenance and upgrades of sewer infrastructure is included in Appendix 2B of the report.

### **Implement Low Impact Development Practices**

Low Impact Development (LID) and green infrastructure are critical components in both the SWPPI and the PEP. Detailed information on the training related to LID practices and implementation is detailed in Appendix 2D. Tracking of the installation and consideration of LID practices by Permittees is tracked in Appendix 2E. The PEP incorporates messages on the implementation of LID practices such as rain gardens, buffer strips, and native plantings for their direct benefits to water quality. The PEP focuses on LID practices that are feasible for individual homeowners to implement, rather than large scale development. GVMC, in cooperation with the MDEQ, Macatawa Area Coordinating Council (MACC), and the West Michigan Shoreline Regional Development Commission (WMSRDC), cooperatively planned a

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West Michigan Green Infrastructure Conference for August of 2015 which was attended by 170 industry professionals including many representatives of regulated MS4 communities.

**Implement watershed focused land-use planning**

Throughout the watershed, construction in FEMA mapped floodplains is regulated by the Michigan Building Code to ensure that construction below the base flood elevation does not occur. Through the use of the model stormwater ordinance, which has been adopted across the Watershed, the three-zoned approach has been implemented to ensure that development in sensitive headwater areas (Zone A) provides the most stringent stormwater protection through post construction controls. This is accomplished by providing prescribed release rates for Bank Erosion Control as well as Flood Control. Water Quality control is addressed with detention and infiltration where possible or delayed and restricted release where it is not.

**Implement proper soil erosion and sedimentation control techniques**

Part 91, Soil Erosion and Sedimentation Control (SESC), of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, regulates the activity of earth work and mandates that projects disturbing an area greater than one acre in size or an area less than 500 feet from a lake or stream obtain a soil erosion permit from the regulatory agency with jurisdiction over the area in which they are working. The table below details which Permittees work collaboratively with the county enforcing agent (CEA), which Permittees administer their own program as a municipal enforcing agent (MEA), and which Permittees have the authority to oversee their own projects as authorized public agencies (APA). MEA, CEA, and APA programs implement thorough soil erosion and sediment control plan review and regular site inspections in their programs for permitted sites. Plan review and site inspections are conducted by staff with either a comprehensive or inspector construction site stormwater operator certification respectively.

<b>Table 2. LGRW Part 91 Administration Authority as of July 31, 2015</b>						
<b>Community</b>	<b>Part 91 Contact Info</b>		<b>MEA</b>	<b>Utilizes Kent CEA</b>	<b>Utilizes Ottawa CEA</b>	<b>APA</b>
	<b>Name</b>	<b>Phone</b>				
Cascade Charter Township	KCRC	616-242-6914		X		
East Grand Rapids, City of	KCRC	616-242-6914		X		
Ferrysburg, City of	OCWRC	616-994-4530			X	
Forest Hills Public Schools	KCRC	616-242-6914		X		
Georgetown Charter Township	OCWRC	616-994-4530			X	
Grand Haven, City of	OCWRC	616-994-4530			X	

<b>Community</b>	<b>Part 91 Contact Info</b>		<b>MEA</b>	<b>Utilizes Kent CEA</b>	<b>Utilizes Ottawa CEA</b>	<b>APA</b>
	<b>Name</b>	<b>Phone</b>				
Grand Rapids Charter Township	KCRC	616-242-6914		X		
Grand Rapids, City of	Environmental Services Dept.	616-456-3057	X			X
Grandville, City of	KCRC	616-242-6914		X		
Hudsonville, City of	OCWRC	616-994-4530			X	
Kent County Drain Commissioner & Administration	Deputy Drain Commissioner	616-336-3688				X
Kent County DPW	Kent Co. DPW	616-336-3694				X
<b>Kent County Road Commission (Kent County CEA)</b>	KCRC	616-242-6914		X		X
Kentwood, City of	Engineering Dept.	616-554-0737	X			X
<b>Ottawa County Water Resources Commissioner &amp; Administration (Ottawa County CEA)</b>	OCWRC	616-994-4530			X	X
Ottawa County Road Commission	Engineering Dept.	616-842-5400				X
Plainfield Charter Township	KCRC	616-242-6914		X		
Rockford, City of	Public Services Dept.	616-866-9631	X			
Sparta, Village of	KCRC	616-242-6914		X		
Spring Lake, Village of	OCWRC	616-994-4530			X	
Walker, City of	Engineering Dept.	616-453-6311	X			
Wyoming, City of	KCRC	616-242-6914		X		

The SWPPI includes training (Appendix 2D) on topics related to construction site stormwater runoff. Training ensures that even if a community does not oversee their own program, field staff will be informed regarding what to look for on a construction site and who to report to if there is an offsite discharge or poorly maintained SESC measures. Many LGRW MS4 permitted communities who administer a Part 91 program also work closely with the West Michigan Soil Erosion Control Network, a professional network that provides regular training, panel discussions and field demonstrations on BMPs and new technologies in this field.

**Implement channel and stream bank stabilization, bio-engineering and erosion control techniques**

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The MDEQ requires a joint permit from the state of Michigan for all work performed in channels that are designated as waters of the state. Any work that occurs within 500 feet of a lake or stream is required to obtain a soil erosion control permit from the authorized Part 91 agency as referenced above. These permitting procedures work in tandem to prevent negative impacts during and after construction as well as to ensure adequate restoration. Permitted communities in the Lower Grand River Watershed have policies in place to ensure protection of drainage systems from construction-site runoff as detailed in Appendix 2C and perform regular training as referenced in Appendix 2D related to construction site stormwater runoff and water quality protection.

### **Implement turf management and proper fertilizer application practices**

Permitted communities within the Lower Grand River Watershed have developed procedures for managing vegetation and using fertilizers on Permittee owned properties as outlined in Appendix 2C. All staff at the communities and their subcontractors adhere to these procedures. Training is also provided in the form of the brochure "What Every Landscaper Must Know". This brochure is distributed as part of the comprehensive training plan on controls to reduce the discharge of pesticides, herbicides, and fertilizers as described in Appendix 2D.



**Part 2B - Stormwater Controls Inspection, Maintenance and Effectiveness**

<b>Property Name: Properties Managed by Building Maintenance</b>				
<b>Structural Storm Water Control</b>	<b>Inspection Frequency</b>	<b>Maintenance Schedule</b>	<b>Inspection and Maintenance Conducted and Location of Log (if applicable)</b>	<b>Effectiveness of Control and Support Documentation</b>
Catch basins	At least 1x/5 years	As dictated by inspection	July, 2014; documentation retained with Stormwater Manager	Retained with Stormwater Manager Effective, system functioning as designed
<b>Property Name: Properties Managed by Housing</b>				
<b>Structural Storm Water Control</b>	<b>Inspection Frequency</b>	<b>Maintenance Schedule</b>	<b>Inspection and Maintenance Conducted and Location of Log (if applicable)</b>	<b>Effectiveness of Control and Support Documentation</b>
Catch basins	At least 1x/5 years	As dictated by inspection	No catch basins were inspected during this reporting period	Effective, system functioning as designed
<b>Property Name: Properties Managed by Parks and Recreation</b>				
<b>Structural Storm Water Control</b>	<b>Inspection Frequency</b>	<b>Maintenance Schedule</b>	<b>Inspection and Maintenance Conducted and Location of Log (if applicable)</b>	<b>Effectiveness of Control and Support Documentation</b>
Catch basins	At least 1x/5 years	As dictated by inspection	July, 2015; documentation retained with Stormwater Manager	Retained with Stormwater Manager Effective, system functioning as designed
Vegetated filters/swales	Seasonal	As dictated by inspection	July, 2015; documentation retained with Stormwater Manager	Retained with Stormwater Manager Effective, system functioning as designed
Vegetated buffers	Seasonal	As dictated by inspection	No vegetated buffers per newest property survey done for 2015 SWMP preparation	
Grit Separators	Annually	As dictated by inspection	No grit seperators per newest property survey done for 2015 SWMP preparation	

<b>Property Name: Properties Managed by Police and Fire (now being done by Parks and Rec)</b>				
<b>Structural Storm Water Control</b>	<b>Inspection Frequency</b>	<b>Maintenance Schedule</b>	<b>Inspection and Maintenance Conducted and Location of Log (if applicable)</b>	<b>Effectiveness of Control and Support Documentation</b>
Catch basins	At least 1x/5 years	As dictated by inspection	July, 2015; documentation retained with Stormwater Manager	Retained with Stormwater Manager Effective, system functioning as designed
Vegetated filters/swales	Seasonal	As dictated by inspection	No vegetated buffers per newest property survey done for 2015 SWMP preparation	

## Part 2C - Procedures Status

The following Pollution Prevention and Good Housekeeping procedures are used by City of Wyoming (City) staff to control storm water quality. The City has developed and adopted Best Management Practices (BMPs) that are used at each municipal property or for specific job functions that could impact stormwater quality. Dates of revised procedures are listed and revisions attached.

<b>Procedure</b>	<b>Date Adopted</b>	<b>Date Revised (if needed)</b>
Procedure to Ensure Protection of Drainage Systems from Construction-site Runoff	March 21, 2012	
Procedure to Dispose of Storm Sewer System Operation and Maintenance Waste	March 21, 2012	
Procedure to Construct, Operate, and Maintain Streets, Roads, Bridges, and Parking Lots	March 21, 2012	Currently use the 2015 SWMP BMP Manual
Procedure to Operate and Maintain Garages and Storage Yards	March 21, 2012	Currently use the 2015 SWMP BMP Manual
Procedure to Prevent Salt and Sand from entering Receiving Streams	March 21, 2012	Currently use the 2015 SWMP BMP Manual
Procedure to Control Dust and Gravel Road Maintenance	March 21, 2012	Currently use the 2015 SWMP BMP Manual
Procedure for Managing Vegetation, Insecticides, Pesticides and Herbicides on Municipal Property	March 21, 2012	Currently use the 2015 SWMP BMP Manual
Procedure for Snow Removal	March 21, 2012	Currently use the 2015 SWMP BMP Manual

The City of Wyoming has adopted the Good Housekeeping and Pollution Prevention Best Management Practices Manual (BMP Manual) as submitted within the April 1, 2015 Stormwater Management Plan. Many of the BMPs identified within this BMP Manual duplicate the procedures referenced above. In order to remain consistent and avoid duplicity, the City of Wyoming no longer utilizes the six (6) procedures identified above and instead uses the with the BMP Manual.

**Part 2D - Staff and Contractors Training on Pollution Prevention and Good Housekeeping**

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
<b>Required Topics</b>			
Maintenance activities, maintenance schedules, and inspection procedures	PW – Maintenance Staff Stormwater Team	At least 1x/2 years	<p><b>Meeting review of written O&amp;M procedure, and/or</b></p> <p><b>Storm Water Pollution Prevention - A Drop in the Bucket - DVD from Excal Visual, LLC, and/or</b></p> <p><b>“Best Management Practices for Municipal Operations” Training Session – Live Presentation</b></p>
<b>Training completed:</b>	July 2015		Live presentation and review of SWMP Operational BMPs
Controls on streets, parking lots, maintenance garages, and storage yards	PW – Maintenance and Streets Staff CWP – All staff members DWP – All staff members	At least 1x/2 years	<p><b>Storm Watch - Municipal Storm Water Pollution Prevention - DVD from Excal Visual, LLC, and/or</b></p> <p><b>Spills &amp; Skills - Non-Emergency HazMat Spill Response - DVD from Excal Visual, LLC, and/or</b></p> <p><b><u>MDEQ Storm Water Employee Training</u></b></p> <p><b>and/or</b></p> <p><b>Various webinars as developed by WEF, AWWA or other similar organizations, and/or</b></p> <p><b>Live presentations at annual all-plant meetings.</b></p>

<b>Training Topic Area</b>	<b>Employee Group to Receive Training</b>	<b>Training Frequency</b>	<b>Potential Training Type</b>
<b>Training completed:</b>	July 2015		Live presentation and review of SWMP Operational BMPs
Disposal of O&M waste	PW – Maintenance Staff	At least 1x/2 years	<b>Regulatory Requirements for Waste Disposal and BMP Review/Discussion – Live Presentation</b>
<b>Training completed:</b>	July 2015		Live presentation and review of SWMP Operational BMPs
Water quality protection in flood control projects (detention basins, dams)	PW – Engineering Staff	At least 1x/2 years	<b>Retrofitting Detention Ponds for Water Quality – Live Presentation, and/or</b>  <b>Various webinars as developed by WEF, AWWA or other similar organizations (Forrester)</b>
<b>Training completed:</b>	July 2015		Video on stormwater construction practices by Center for Watershed Protection: <a href="https://www.youtube.com/watch?v=efu1LlF1rio">https://www.youtube.com/watch?v=efu1LlF1rio</a>
Controls to reduce discharge of pesticides, herbicides, and fertilizers	Parks and Recreation Maintenance Staff	At least 1x/2 years	<b>LGRW_LandscapingContractorTrainingBrochure_2011-08-01.pub, and/or</b>
	PW, CWP and DWP Maintenance Staff		<b>BMP and procedures Review – Live Presentation, and/or</b>  <b>Various webinars as developed by WEF, AWWA or other similar organizations (Forrester)</b>
	Subcontractors (lawn mowing)	Upon contract awarding	<b>Require pesticide or herbicide license/training documentation (if appropriate)</b>  <b>LGRW_LandscapingContractorTrainingBrochure_2011-08-01.pub</b>
<b>Training completed:</b>	July and August 2015		Live presentation and review of SWMP Operational BMPs

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
<b>Other Topics</b>			
Construction site stormwater runoff	Code Enforcement Staff PW – Engineering Staff	At least 1x/3 years	<b>Ground Control - Storm Water Pollution Prevention for Construction Sites - DVD from Excal Visual, LLC, and/or</b>  <b>LGRW_ContractorTrainingBrochure_2011-09-16.pub, and/or</b>  <b>Poster/pamphlet distribution</b>
<b>Training completed:</b>	7/24/13 – PW Engineer		EPA Webinar on Site Planning: <a href="http://cfpub.epa.gov/npdes/courseinfo.cfm?program_id=0&amp;outreach_id=451&amp;schedule_id=1052">http://cfpub.epa.gov/npdes/courseinfo.cfm?program_id=0&amp;outreach_id=451&amp;schedule_id=1052</a>
LID	Stormwater Managers	At least 1x/5 years	<b>Reduce Runoff: Slow It Down, Spread It Out, Soak It In - DVD from USEPA, and/or</b>  <b>RiverSmart Homes: Getting Smart about Runoff - DVD from USEPA, and/or</b>  <b>Building Green: A Success Story in Philadelphia - DVD from USEPA, and/or</b>  <b>After the Storm - DVD from USEPA, and/or</b>  <b>BMP Tour of LID facilities, and/or</b>  <b>Stormwater-related magazine subscriptions, and/or</b>  <b>Various webinars as developed by WEF, AWWA or other similar organizations (Forrester)</b>

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
<b>Training completed:</b>	SW Manager		Subscription to WE&T (water environment and technology) and Stormwater magazine, attendance at various MWEA functions, participation on LGROW and numerous sub-committees.
IDEP	Stormwater Team  City Employees dealing directly with/receiving public calls	At least 1x/2 years	<b>WaterPollutionReportForm.doc, and/or Article_City_Employees.doc</b>
<b>Training completed:</b>	July 2015		Email reminder to impacted employees and training video produced by WMEAC (15 to the River): <a href="https://www.youtube.com/watch?v=nZExLlxALY">https://www.youtube.com/watch?v=nZExLlxALY</a> .
General Storm Water Education	Municipal officials	At least 1x/5 years	<b>“Back to Basics” Storm Water Training – Live Presentations</b>
<b>Training completed:</b>	City Council Members - 1/7/13		Live presentation by Godfrey Elementary 5 <sup>th</sup> Graders on impacts of stormwater pollution (meeting minutes attached)
Traffic-Related small spill response	Police and Fire staff	At least 1x/2 years	<b>Live presentation on spill response and notification and/or Spill response brochure</b>
<b>Training completed:</b>	July and August 2015		Live presentation about spill response and notification procedures

## Part 2E - Post Construction Controls Activities

The City of Wyoming has a Post-Construction Storm Water Ordinance, Number 28-96, adopted on January 6, 1997 that controls stormwater in areas of development. It ensures that the owner of the development site is responsible for maintenance of the stormwater controls or the City will provide maintenance as necessary and at the expense of the property owner. During site development plan review, a drainage plan must be prepared that specifies ownership and maintenance responsibility (Sec. 86-381).

This ordinance works in conjunction with other internal ordinances to ensure stormwater quality. Chapter 38 of the City Code regulates construction in floodways, and prohibits, among other things, sewage disposal systems and storage of hazardous materials. Chapter 90 (Zoning) requires site plan review for specific developments (Sec. 90-48(1)). This site plan must include topographic information, surfacing materials and a grading plan, and must consider surface water drainage. The City's Land Use Plan 2020, adopted in 2006, recognizes that increased residential densities are necessary. To that end, the Land Use Plan recommends a re-evaluation of the zoning ordinance. As part of WMP objectives, the City commits to reviewing the current ordinance and existing LID measures and potentially incorporating such measures into its regulatory structure. The City's sanitary sewer code mandates connection to its sanitary sewer system if the structure is within 200 feet of the sanitary sewer (Sec. 86-136).

City ordinances allow for the usage of BMPs to control stormwater quality, and may verbally recommend such BMPs to a developer. As previously mentioned, maintenance of these BMPs must be clearly defined as part of the site plan submittal (Sec. 86-358).

Explain the enforcement activities of your comprehensive storm water management program for post-construction controls completed during this reporting period:

**No enforcement activities or post-construction controls were completed during this reporting period.**

How many developments were approved with storm water controls according to PCC?

**There were no developments approved with stormwater controls during the reporting year. However, 63 site plans were reviewed, 48 of which also had a stormwater control review.**

Have any long-term operation and maintenance agreements been signed?

**No long-term operations and maintenance agreements were signed during the reporting year. City ordinance explicitly states that it is the responsibility of the property owner to ensure that their BMPs are properly maintained. If there is an issue noted, the City responds to the complaint and directs the private property owner to appropriately resolve it. If it is not taken care of, City staff corrects the issue and bills the owner accordingly.**

How many inspections or enforcement/compliance of O&M agreements were conducted?

**There were no inspections or enforcement/compliance of O&M agreements conducted during the reporting year.**



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Explain how the Post Construction Controls have addressed other issues, such as protecting sensitive areas, directing growth to identified areas, encouraging infill development in higher density urban areas and areas with existing infrastructure, and/or maintaining or increase open spaces

**A majority of the City has been developed. In the southern part of the community, several new facilities are in the planning and construction stage. Several of these hope to obtain LEED certification, which includes managing stormwater in an environmentally sensitive fashion.**

## **PART 3 - PEP**

### **Regional PEP**

The updated PEP was approved by MDEQ in February 2013. The purpose of the PEP is to promote, publicize, and facilitate education for the purpose of encouraging the public to reduce the discharge of pollutants in stormwater to the maximum extent practicable. This section provides a report of public education activities implemented between August 1, 2014, and July 31, 2015.

### **Public Education Committee**

LGRW Stormwater Education Committee was formed in 1999 to begin development and implementation of the PEP. Since that time the committee has met on a regular basis to discuss and plan activities scheduled for implementation in the PEP. The 2014/2015 PAM/PEP Committee consists of the following participants:

<b>Community</b>	<b>Representative</b>
Cascade Charter Township	Steve Peterson
Forest Hills Public Schools	Lea Sevigny
Jenison Public Schools	Kim Kiel
City of Grand Haven	Cheryl Davidson
City of Grand Rapids	Carrie Rivette
City of Grandville	Ron Carr
City of Hudsonville	Amber Eckert-Howe
Kent County Drain Commissioner's Office	Lani Brown
Kent County Road Commission	Dave Beck
Kent County Resource Recovery	Kristen Wieland
City of Kentwood	John Gorney
Michigan Department of Environmental Quality	Amanda St. Amour
Ottawa County Water Resource Commissioner's Office	Angela Walachovic
Plainfield Township	Mary Trapp-Gunst
City of Rockford	Mike Bouwkamp
Village of Spring Lake	Chris Burns
Trout Unlimited	Nichol DeMol
Ottawa Conservation District	Becky Huttenga
Kent County Conservation District	Connie Redding
City of Walker	Rachell Nagorsen
City of Wyoming	Aaron Vis
GVMC	Wendy Ogilvie
GVMC	Bonnie Broadwater
GVMC	Brian Zuber

### **PEP Implementation in Year 13**

This section describes the public education activities implemented by the Permittees in the thirteenth year of PEP implementation, August 1, 2014 through July 31, 2015. The following report is from the updated PEP, which meets the requirements of the 2013 approved PEP. Target audiences, messages, and delivery mechanisms are described for each Public Education Topic.

#### Public Education Topic 1 - Personal Watershed Stewardship

*PEP Objective 1:* Educate the public about their responsibility and stewardship in their watershed.

*Target Audience:* Watershed residents, community groups, business associations, and city and township officials.

*Content of Message:* You live in the Grand River Watershed which flows into Lake Michigan. Water quality in lakes and streams is greatly affected by our everyday activities. By taking water quality protection personally, you will help improve our community's water resources.

*Delivery Method:*

- A link from the Permittees' websites to LGROW's website, [www.lgrow.org](http://www.lgrow.org), was maintained or was established. The watershed website provides information on non-point source (NPS) pollution, local watershed issues, water science education, and watershed management. Through the reporting period, LGROW's website has been accessed by an average of 563 unique visitors each month resulting in over 238,000 total hits to the website during the reporting period. Website access has increased consistently over the reporting period with August of 2014 having 495 unique visitors and July 2015 having 611 unique visitors.
- LGROW worked to promote participation through its Facebook page with a regular posting schedule including, Watershed Wednesdays, upcoming events, and volunteer opportunities. Throughout the reporting period, LGROW Facebook posts have had a total reach of over 23,000 people. As of the end of the reporting period, the page reached over 325 likes. Facebook user engagement has shown consistent growth over the reporting period with the average number of likes, shares, and comments growing from 5 per post in August of 2014 to over 34 per post in July of 2015.
- Permittees distributed the following LGROW and watershed education materials to residents in the LGRW at multiple events and venues, as follows:
  - 1000 Paint by number Watershed Maps

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- 1000 Troutie Coloring Books
  - 1000 Temporary Tattoos
  - 750 LGROW Logo Pens
  - 1000 Household Stormwater Solution Brochures
  - 500 Septic System Care Brochures
  - 500 Pet Waste Brochures
  - 500 Pet Waste Bag Dispensers
  - 1000 Reusable Water Bottles
  - 200 Reusable Tote Bags
  - 1000 LGROW Brochures
  - 750 LGROW Info Cards
- Many Permittees displayed lamppost banners purchased in 2012 to advertise the presence of the Grand River, Rogue River, and Plaster Creek Watersheds. The banners featured the LGROW logo and the message “Yours to Protect.”
  - Through cooperation of staff in permitted MS4 communities, PEP committee participants, GVMC staff, and other members of LGROW, the following events were either hosted or included a watershed education component for personal watershed stewardship:
    - The Annual Science, Technology, Engineering, and Mathematics (STEM) student evening was hosted at the Grand Rapids Public Museum this year on February 18-20, 2015. LGROW provided a 10 minute demonstration for small groups throughout the day utilizing the Kent County Drain Commissioner’s Enviroscape model. The demonstration focused on non-point source water pollution and its impacts on stormwater. Each group of approximately 6-10 students watched the demonstration and then engaged in a discussion about actions to take to reduce the impacts of non-point source pollution on stormwater, including individual behavioral changes.. Approximately 240 students attended the event from several local schools and cycled through the LGROW station during the course of the event.

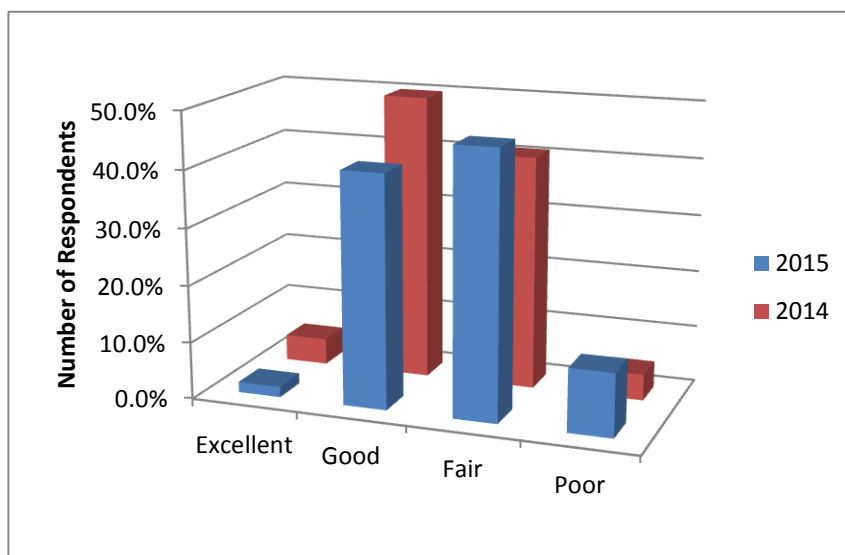


- The Quiet Water Symposium promotes non-motorized outdoor recreation and a shared concern for our Great Lakes environment. The 20th annual symposium was held on March 7<sup>th</sup>, 2015 and had over 2000 attendees. LGROW hosted a booth, collecting pet waste pledges, as well as distributing reusable water bottles. Although this event takes place outside the LGRW, many of the attendees travel through the Lower Grand during their excursions. The Symposium also presents a valuable opportunity to partner with our upstream watershed, the Middle Grand River Organization of Watersheds (MGROW), who is actively involved in public outreach through their own MS4 program. A watershed map was also displayed at the event to engage attendees and get them thinking about what watershed in which they reside.

- LGROW hosted the 12th Annual Grand River Forum on May 1, 2015, at the Grand Rapids Downtown Market. The event offered 100 attendees a regional perspective on emerging issues and accomplishments from around the Watershed. This year’s keynote speaker was Former State Senator Patty Birkholz of the League of Conservation Voters. She discussed agricultural partnerships and connections to water resources. John Weiss (GVMC), Wendy Ogilvie (GVMC), and Kelly Goward (Macatawa Area Coordinating Council) presented on the Regional Prosperity Initiative and Jim Smalligan (Fishbeck, Thompson, Carr & Huber) provided an update on the Grand River restoration project. Joanna Allerhand from GVSU (Groundswell) spoke about place-based



- and Dale Robertson (GR Public Museum) presented proposed renovations to the Grand Rapids Public Museum. Students from two schools involved with the Groundswell program attended



education, and Dale Robertson (GR Public Museum) presented proposed renovations to the Grand Rapids Public Museum. Students from two schools involved with the Groundswell program attended

Figure 2. Survey Results: How would you rate the water quality in the Grand River?

the forum to showcase their work. Students from Kent Innovation High (KIH) announced the upcoming LGROW 5K run which will focus on the topics of water pollution, community responsibility, protecting and preserving water quality, and bringing awareness to LGROW. Those students followed their presentation with a live rap written and performed by two KIH students. Students from CA Frost (Grand Rapids Public Schools) presented the materials they developed for their neighborhood stormwater showcase. These students have taken an active role educating their neighbors on how to reduce stormwater runoff and protect and improve Indian Mill Creek. Forum participants completed a survey after both registering and attending the event and a selection of the questions from each survey continue to be reused in subsequent years to see if there is a measurable change in people's attitudes toward and perception of the river.

- The Party for the Planet was held at John Ball Zoo on Saturday, May 2, 2015. The event brought the public together with environmentally conscious groups. 4900 people visited the Zoo on the day of the event. LGROW, the City of Grand Rapids, Kent County Drain Commissioner's Office, and WMEAC coordinated for the event with a theme of stormwater education. The



LGROW event table provided paint-by-number watershed maps, temporary tattoos, and coloring books. Brochures were also available as well as a watershed map that booth visitors could add a pushpin to mark the location of their home. The

Kent County Drain Commissioner's office hosted Enviroscape demos throughout the day and gave out water bottles to those who attended a demo. The City of Grand Rapids collected pet waste pledges and distributed pet waste bag dispensers. Rain barrel demonstrations and giveaways were provided by WMEAC. Interaction was largely required for the public to receive give-away items. Public feedback was overwhelmingly positive with many children eager to visit all of the tables within our group.

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- LGROW sponsored and attended the Healing our Waters Conference September 8-11, 2014. During the event, LGROW staff conducted interviews with WDET, the Detroit PBS station for Great Lakes week, on the Grand River and other related water quality issues. LGROW hosted a booth to conduct outreach about LGROW's activities and gave several presentations on topics including collaborative approaches of the Lower Grand MS4s.
- LGROW, in conjunction with Groundswell, hosted a booth at the River City Water Festival on May 30, 2014. Over 300 adults and children were in attendance at the event. LGROW's new mascot, Major Runoff, made an appearance for photos with event attendees and the new interactive stormwater game, Drop Toss, was also introduced. Drop Toss is a variation on Cornhole. This activity presented an opportunity for event attendees to explore the different paths stormwater takes to infiltrate or runoff. The customizable display currently features three graphics depicting the path of rain water when it falls on a residential yard: into a rain barrel for capture and reuse, into a rain garden for infiltration, or into a storm drain where it will flow into a river or lake. Prizes selected from the giveaways were available to participants and the display proved to be a great interactive draw at the event.
- LGROW hosted a booth at the Grand River Water Festival on June 29, 2015 at Riverside Park, which was attended by approximately 400 people. The festival is a free-of-charge day long music driven environmental festival featuring traditional folk, country, bluegrass, cajun, blues, and world beat music performed by Michigan musicians. Volunteers at the LGROW booth collected pet waste pledges (additional details in Topic 4) as well as distributed information on stormwater and native seed packets to encourage the use of native plants.



## **Public Education Topic 2 - Ultimate Stormwater Discharge Location and Potential Impacts**

*Target Audience:* Residents, visitors, riparian landowners, local units of government, teachers, schools, businesses, and Girl/Boy Scouts.

*Content of Message:* 1) Storm drains connect to your local lakes and streams, not a water treatment plant. 2) Prevent pollution from entering your storm drains and protect the health of your family, your community, and the Grand River.

*Delivery Method:*

Permittee: City of Wyoming

- Permittees installed metal storm drain markers from Almatek and plastic markers from Das Manufacturing. Markers advertise the message “No Dumping. Drains to Waterway”, “No Dumping. Drains to Lake.” And “No Dumping. Drains to River.” Many Permittees also engaged with community partners to do storm drain stenciling events which are detailed in the PEP Questionnaire.
- Permittees utilized a variety of stormwater displays including the drop toss game, the watershed pushpin map, the LGROW banners on non-point source pollution, and the “Grand River Yours To Protect” informational poster board at a variety of events and locations throughout the Watershed. The PEP Questionnaire details when and where these displays were used by individual Permittees. The PAM/PEP committee worked with a local Artist Sara Grzegorski in cooperation with Groundswell.

### **Public Education Topic 3 - Public Reporting of Illicit Discharges**

*Target Audience:* Residents, visitors, riparian landowners, local units of government, and businesses.

*Content of Message:* Report illicit discharges to your city or township to prevent pollution from entering your storm drains and protect the health of your family, your community, and the Grand River.

*Delivery Method:*

- Permittees distributed copies of the “*Citizen Report Form*” to their residents. This form included information on how to report illicit discharges and connections to one’s community. Permittees individually customized these brochures for their residents.
- Permittees distributed the article “*How you as an Employee Can Help Reduce Pollution Entering the Grand River*” to their employees. This article encourages employees to report stormwater discharges to their community’s stormwater coordinator.

### **Public Education Topic 4 - Personal Actions that can Impact the Watershed**

*Target Audience:* Residents, visitors, riparian landowners, local units of government, teachers, students, landscaping/lawn care companies, commercial power washers, carpet cleaning companies, and golf courses.

*Content of Message:* 1) Avoid scorching your lawn. Use slow-release fertilizers only 2 to 3 times per year. Non-phosphorus types are best for the environment. 2) Lower your water bill. Install a rain barrel to capture and reuse your stormwater. 3) Wash your car at a commercial





Permittee: City of Wyoming

car wash or on your lawn. Otherwise, dirty, oily water on your driveway will flow to your storm drain and eventually your local lake or stream. 4) Pick up your pet waste and dispose of it properly; otherwise, it could end up in the Grand River and on your favorite Lake Michigan beach.

*Delivery Method:*

- Permittees distributed the brochure "*Make your Household the solution to Water Pollution*".
- Several communities hosted rain barrel events as detailed in their PEP Questionnaires.
- Permittees collected pet waste pledges from dog owners in exchange for a free pet waste bag dispenser to hook to the pet's leash. The pledges also provide information on dog parks in the Watershed and discuss the connection between picking up pet waste and protecting stormwater. This brochure was adapted, with permission, from a similar program in Portland, Oregon.



**Public Education Topic 5 - Waste Management Assistance**

*Target Audience:* Residents, visitors, riparian landowners, local units of government, and auto repair shops.

*Content of Message:* 1) Protect your family's health, dispose of unwanted paints, solvents, and cleaners at your county collection center. 2) Recycle used oil and automotive fluids. Just one gallon of used motor oil dumped down a catch basin can contaminate one million gallons of your drinking water.

*Delivery Method:*

- Several communities utilized the pre-recorded "*Water Spots*" on the topic of properly disposing of household hazardous waste to keep it out of the storm drains as a hold message on their phone systems.
- Permittees and LGROW.org shared the newsletter article "*How You Can Help Reduce Pollution Entering The Grand River*". This article encourages residents to dispose of pet waste, paints, motor oil, etc., in the appropriate locations, not in the storm drains.

Permittee: City of Wyoming

- Permittees distributed the flyer "Make your household the solution to stormwater pollution" which also details the importance of proper disposal of household hazardous waste.
- Both Kent and Ottawa counties distributed their household hazardous waste flyers in permitted communities as well as providing info on recycling household hazardous waste via the phone and web. This year Kent County expanded their collection hours from scheduled drop off events to regular hours to allow more Kent County residents to take advantage of this service.

### **Public Education Topic 6 - Septic System Maintenance**

*Target Audience:* Septic system owners and local units of government.

*Content of Message:* 1) If you have a septic system, have it pumped out every 3 to 5 years to avoid a costly septic system failure. Failing septic systems can leak bacteria into your local stream, the Grand River, and eventually Lake Michigan, causing beach closures.

*Delivery Method:*

- Permittees distributed 500 copies of USEPA's "Do your Part- Be Septic Smart!" brochure to their residents. This brochure describes what a septic system is, how it works, and how to maintain it.
- Permittees distributed the newsletter article "Do You Know Where Your Septic System Is?" to their residents via their webpage, community newsletter, or a link to LGROW.org. This article encourages residents to regularly pump their septic tanks, warning signs of a failing drain field, and the environmental consequences of a failed or improperly maintained septic system.



### **Public Education Topics 7 and 8 - Benefits of Native Vegetation and Management of Riparian Lands**

*Target Audience:* Residents, visitors, riparian landowners, local units of government (e.g. parks departments), teachers, students, and faith-based organizations.

*Content of Message:* Plant native plants in your yard or garden. Natives naturally need less water, fertilizers, and pesticides saving you time and money.

*Delivery Method:*

Permittee: City of Wyoming

- Permittees distributed the brochure "*What Every Landscaper Should Know*, to their subcontractors and facilities staff. These brochures detail BMPs for fertilizer and pesticide application, lawn care, and native plantings.
- Permittees distributed native seed packets along with the booklet "*Landscaping for Water Quality*". The materials were also distributed at the Grand River Water Festival booth hosted by LGROW. Booth volunteers discussed the importance of native plantings and their role in water quality with attendees at the Festival.
- LGROW planned a green infrastructure conference which was held on August 4-5, 2015. Many of the speakers, as well as a tour of local green infrastructure, focused on the importance of native vegetation in protecting water quality. Several Permittees participated in the planning and preparation for this event. Attendance and specific content will be detailed in the next progress report.

#### **Public Education Topic 9 - Entity of Specific Pollutants**

*Target Audience:* Local units of government (e.g. county road commissions, Department of Public Works [DPW]), and restaurants.

*Content of Message:* Prevent pollution from entering your storm drains and protect the health of your family, your community, and the Grand River.

*Delivery Method:*

- Permittees distributed the newsletter article "*How You Can Help Reduce Pollution Entering the Grand River,*" to their employees at department meetings. This article encourages residents to dispose of pet waste, paints, motor oil, etc., in the appropriate locations, not in the storm drains.

## Evaluation Measures

This section includes a description of the quantitative and qualitative evaluation measures of PEP effectiveness implemented between August 1, 2014, and July 31, 2015.

### Community Quantitative and Qualitative Evaluation Measures of Effectiveness

Permittees completed PEP Questionnaires to provide a quantitative and qualitative evaluation of their individual stormwater education efforts. Based on the input provided by the Permittees the most popular brochures were the Household Solution to Water Pollution and the pet waste pledges. In total, materials were distributed at over 50 events and locations throughout the watershed. The pet waste pledges collected included information the pledger's zip code. These data are displayed in the figure on the right and shows that nearly all of the pledges were taken by watershed residents. These pledges represent more than simply an educational outreach effort; these are a commitment to a behavioral change which has an important impact on water quality. This program was very popular with over 700 pledge forms requested and nearly 500 pledges completed during the reporting period.

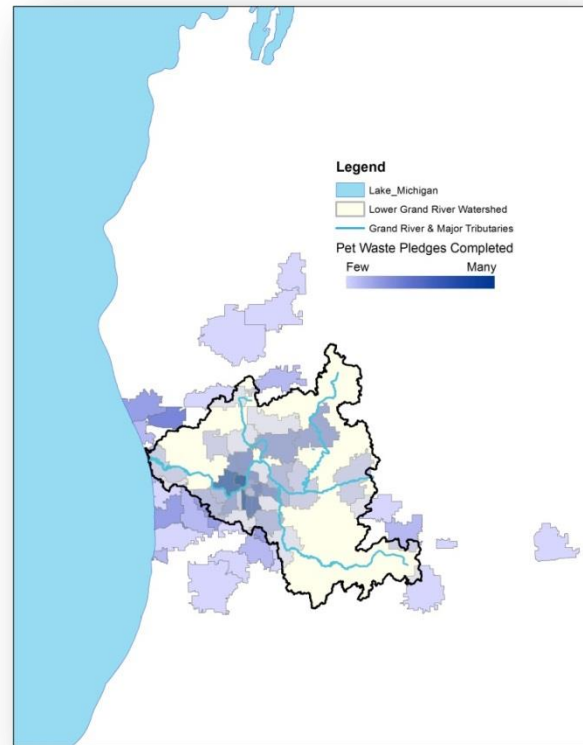


Figure 3. Pet waste pledges by zip code

Finally, during the reporting period, the Public Education Committee also developed a survey to be administered at a WhiteCaps Ballgame during the 2015-2016 reporting period. The survey was designed to gauge the awareness of the public on each of the nine objectives outlined in the approved 2013 PEP. In addition, participants also provided their zip code and age to allow a clear picture of which geographic regions and age groups require additional efforts. Detailed survey results will be shared in the next progress report, however, approximately 300 completed surveys were returned. Preliminary results indicate that approximately 80% of respondents were able to correctly define a watershed and approximately 70% of respondents know that stormwater discharges directly to surface water. Approximately two thirds of respondents have seen one or more of the Lower Grand Public outreach messages identified in this report around the watershed.

## 2015 Stormwater Public Education Plan (PEP) Questionnaire

Reporting Period of August 1, 2014, to July 31, 2015

Please complete this questionnaire to provide an evaluation of the stormwater education activities you have implemented between **August 1, 2014, and July 31, 2015**. GVMC will include this information, along with watershed-wide measures of effectiveness, in your 2014 Progress Report.

**Please return this form to GVMC by August 15, 2015.**

**Community Name:** City of Wyoming

Brochures, Flyers, and Give-a-ways (Available for events in April of 2015)

1. Have brochures, flyers, and give-a-ways been distributed?

Yes:  all  in progress  
 No

2. Where did you distribute your brochures, flyers, and give-a-ways?

Government office  Library  Community event  Other \_\_\_\_\_

3. Approximately how many people did you interact with during the distribution of the materials? Direct interactions were not tracked. However, over 1,400 people attended the PW open house, of which many received direct interaction.

4. What was the most popular give-a-way from the materials distributed in your community? Water bottles

5. What brochure topics have historically been in the highest demand in your community?

- How to report stormwater pollution
- Stormwater discharge locations/impacts
- Native vegetation/rain gardens/riparian buffers
- Proper vehicle care/motor oil disposal
- Proper use of pesticides/fertilizers/herbicides
- Proper yard waste disposal
- Proper pet waste disposal
- Proper septic system maintenance
- Household hazardous waste management

Illicit Discharge Reporting

(brochure available at: [http://www.lgrow.org/uploads/files/Citizens\\_Reporting\\_Brochure\\_withnote.pdf](http://www.lgrow.org/uploads/files/Citizens_Reporting_Brochure_withnote.pdf))

6. How many "Citizens Reporting Brochures" were customized and distributed to your residents? 0

Was the "Citizens Reporting Brochure" posted to your city website?  Yes, at <http://wyomingmi.gov/utilities/documents/CitizensReportingBrochure.pdf>  No

Please describe any interest, comments, or discussion generated from the brochure: It is the City's experience that stormwater complaints are generally received with other community complaints and initially received by either Public Works or Inspections staff. These staff members then notify members of Environmental Services who resolve complaints.

How many complaints were received from the general public regarding illicit discharges? 1

Lamppost Banners

7. Did you display your lamppost banners provided to you in 2009- 2013?

- Yes, at 28<sup>th</sup> Street and Micheal on Spring/Summer 2012. Please describe any public feedback generated: none  
 No, but we will display our banners at \_\_\_\_\_ (streets) on \_\_\_\_\_ (dates)  
 We did not order lamppost banners

Newsletter Articles (available at: <http://www.lgrow.org/MS4articles>.)

8. Did you distribute newsletter articles to your residents?

- Yes, on \_\_\_\_\_ (date); Via:  print  web  other

Topic(s): The City has numerous articles on its stormwater webpage, located at: <http://wyomingmi.gov/EnvironSvc/stormwater.asp>

- No, but we will on \_\_\_\_\_ (date)

9. Please describe any interest, comments, or discussion generated from the articles none

10. If applicable, list the newsletter name or webpage address used to distribute stormwater information to the public :

<http://wyomingmi.gov/EnvironSvc/stormwater.asp>

11. If applicable, how many residents received your community newsletter? \_\_\_\_\_

12. If applicable, how many total website hits did you receive for your online newsletter articles? \_\_\_\_\_

- General Stormwater website: 55 visitors
- HHW website: 245 visitors
- HHW Medicinal Waste website: 62 visitors

Pet Waste Pledges

13. Did your community collect pet waste pledges distributed with the public education materials?

- Yes (17)  
 No

14. Please describe any interest, comments, or discussion generated from the pledges and the associated giveaway: Attendees at the Wyoming DPW days were pleased with the opportunity to take the pet waste pledge for a free bag dispenser.

Website

15. Is there a web link to [www.lgrow.org](http://www.lgrow.org) on your community's website?

- Yes, please describe any interest, comments, or discussion generated from the website: none  
 No, but we have a web link to \_\_\_\_\_  
 No

16. If you have developed your own stormwater webpage, please list the web address:

<http://wyomingmi.gov/EnvironSvc/stormwater.asp>

Stormwater Interactive Displays

17. Did you set up your stormwater poster board display?

- Yes, on 5/19 at Public Works Open House; 3/19-4/18 at Wyoming Public Library.  
 No, but we will set up our display on \_\_\_\_\_ (dates) at \_\_\_\_\_ (location)  
 No

18. Did you use an EnviroScope interactive stormwater model to educate the public on stormwater pollution?

- Yes, on 5/19 at Public Works Open House;  No

Approximately how many people participated in a demonstration? Over 1,400 residents attended, although not all passed by the display.

19. Did you use the watershed map with pushpins at an event?

Yes, on 5/19 at Public Works Open House;  No

Approximately how many participants pinpointed their location in the watershed? 112

Storm Drain Awareness Activities

20. Did you implement a storm drain awareness activity between August 1, 2014, and July 31, 2015?

Yes \_\_\_\_\_ (streets) on \_\_\_\_\_ (dates)

Yes, we held a storm drain stenciling event on \_\_\_\_\_ (dates) and stenciled \_\_\_\_\_ (streets)

Yes, we have approximately \_\_\_\_\_ (no.) pre-marked catch basin backs/grates with the message "No dumping, drains to waterway" ALL NEW CATCH BASIN CURB HOODS INCLUDE A "NO DUMPING" MESSAGE

Yes, we hung door knob flyers on \_\_\_\_\_ (streets) on \_\_\_\_\_ (dates)

No, but we plan to implement \_\_\_\_\_ (activities) on \_\_\_\_\_ (dates)

21. Please describe any interest, comments, or discussion generated from the activities above: none noted.

22. Have you noticed a reduction in storm drain dumping?

Yes, if so, please describe \_\_\_\_\_;

No, if so, please describe No catch basin dumping activities were reported this reporting period.

Additional Efforts

23. Did you participate in any community stormwater events? (check all that apply)

Rain Barrel Workshop Date: 4/18/15 Number of Attendees: 29 adults, 4 kids

Rain Garden Installation Date: \_\_\_/\_\_\_/\_\_\_ Number of Attendees: \_\_\_

River Clean Up(Location): Buck Creek Cleanup Date: 8/12/14 Number of Attendees: ~12

Healing Our Waters Conference 9/8-11/2014

Ottawa County Water Quality Forum 11/7/2014

MWEA Watershed Seminar 12/3/2014

STEM (at Grand Rapids Public Museum) 2/18-21/2015

MWEA Watershed Summit 3/25/2015

12<sup>th</sup> Annual Grand River Spring Forum 5/1/2015

John Ball Park Party for the Planet 5/2/2015

River City Water Festival 5/30/2015

Grand River Water Festival 6/29/2015

Clean Air- Clean Water @ the West Michigan WhiteCaps 8/9/2015

Other: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ Number of Attendees: \_\_\_

Describe any materials distributed, number of attendees, messages distributed: All brochures and educational materials given to the City were distributed at either the Rain Barrel Workshop or at the Public Works Open House. Approximately 27,500 people went through the library during the month-long time the stormwater display was there. Approximately 1,400 people attend the Public Works open house and viewed the stormwater display. For STEM week, approximately 342 students (not including chaperones) participated in the hands-on Enviroscape activity.

24. If applicable, please describe any other stormwater public education activities your community implemented beyond the events described above. (Submit any relevant documentation):

The City is actively involved in organizing a Friends of Buck Creek group. Although in its infancy stage, it is likely that this group will play a large role in educating the Wyoming community about the impact they have on our natural resources.

## **PART 4 – IDEP**

### **Regional IDEP Activities**

During the previous reporting period the DIP Committee worked with MDEQ on IDEP revisions. The IDEP for the Lower Grand River Watershed was approved in July of 2013 as meeting requirements of the General Permit Application for Storm Water Discharges from MS4s. The IDEP is intended to prohibit and effectively eliminate illicit discharges to the MS4.

The IDEP is being implemented under a cooperative program administered by the Grand Valley Metropolitan Council (GVMC) and involving the county agencies and municipal units participating in the Watershed Approach. The approved IDEP utilizes an alternative approach which includes the sampling of all storm sewer outfalls to Waters of the State within the urbanized area for the following parameters: surfactants, temperature, ammonia, and pH. Cooperative agreements were signed by participating communities to ensure that any illicit discharges detected would be traced upstream to their point of origin within the approved timeline whether or not they crossed jurisdictional boundaries.

Outfall sampling was conducted during the summers of 2013 and 2014 for regulated communities in Kent and Ottawa County respectively. In total, over 2000 outfalls were sampled in the urbanized area of the Lower Grand River Watershed. Of those outfalls, only 13, or 0.5% required high priority or immediate follow-up. By comparison, 28 illicit discharges not associated with outfall testing were identified either by public reporting or staff identification during the reporting period and 41 illicit discharges were identified during the last reporting period. This shows that training the public and the staff of permitted communities to identify and report is at minimum, twice as effective in eliminating illicit discharges as outfall sampling during a screening year. Additionally, illicit discharge reporting is an ongoing initiative while outfall sampling provides only a snapshot in time. A detailed description of the IDEP activities undertaken on an individual basis is included below. The IDEP activities include dry-weather screening of discharge points, locating possible sources of contamination, responding to reported incidents, correcting the problems, and preventing new illicit connections.



Permittee: City of Wyoming

**Community IDEP Activities**

<p>Please describe any dry-weather screening conducted during the reporting period and the findings of that screening.</p>
<p>No dry-weather screening was conducted during this reporting period.</p>

Please list any other known and/or resolved illicit discharges identified during the reporting period and status of elimination. For significant discharges, also list the pollutants involved with an estimate of the volume and loading.

Examples of illicit discharges include: malfunctioning septic systems; sanitary sewer leaks, overflows, or cross-connections; laundry water discharges; leaking fluids from vehicles, barrels, dumpsters, or tanks; concrete truck wash water; polluted runoff from temporary or permanent storage areas; improper fire hydrant flushing; spills from auto accidents; power washing wastewater; industrial/commercial wastewater, dumping; and any other violation of the IDEP ordinance.

An industry located in the northwest corner of the City released an unknown amount of plating wastewater into Roy's Creek in early December of 2014. A consultant notified City staff of the situation, who promptly notified the DEQ. The DEQ has issued violation notice VN-005971 to the industry and has been the lead agency in dealing with this situation. Specific details regarding this incident are not known by City staff at this time.

The EPA and DEQ received a complaint about the Weller Reman Center located in the southern portion of the City of Wyoming in March of this year. The facility was found to be storing automotive materials and fluids in a manner that allowed for the potential release of these fluids to the MS4 and Waters of the State. A joint effort by the DEQ and City resulted in the facility storing materials inside and/or undercover, as well as obtaining a stormwater permit. The facility has been in compliance since and has also submitted plans to construct additional interior storage at the site.

One residential property was identified as having an interior sump illegally connected to the sanitary sewer system and has since been rerouted for overland discharge/flow.

On May 11, 2015, City staff noticed a River City Cleaning (carpet cleaning) vehicle dumping foamy white water onto the roadway of a City street. Staff confronted the company and discussed the illegal nature of their activity. Numerous follow up calls and site visits were unsuccessful. The incident was turned over the MDEQ Law Enforcement office for further enforcement action.

Please list the status and schedule for elimination for any illicit discharges identified but not eliminated during this reporting period. Also, report the status of any illicit discharges identified but not eliminated during previous reporting periods.

The industry that discharged plating wastewater above has eliminated the illicit discharge but is actively working on soil and groundwater remediation. The DEQ is the lead agency for this incident.

<p>Please describe actions taken when indications of illicit discharges have been identified, if any.</p>
<p>For residential reports, generally a site visit to determine the veracity of the complaint is done. If deemed legitimate, personal communication or education occurs. For residential dumping, impacted storm drains are marked with "No Dumping" signage.</p> <p>For industrial dumping or illicit discharges, a site visit occurs. The DEQ may be contacted depending on the severity of the discharge. Resolution occurs depending on the situation and repairs needed. Follow-up visits occur to ensure compliance with local, state and federal regulations. Events which resulted in negligence are detailed earlier in this part.</p>
<p>Please provide:</p> <ul style="list-style-type: none"><li>• An estimated quantification of the number of discharges eliminated, and</li><li>• An estimated quantification of the volume of illicit flow eliminated (<i>For large spills or, where the amount discharged is possible to estimate</i>).</li></ul>
<p>Please refer to the dialogue above.</p>
<p>Identify any specific coordination with the health department in response to illicit discharge elimination for failed or failing septic fields.</p>
<p>No failed or failing septic systems were identified during this reporting period.</p>
<p>Describe the effectiveness of the program to prevent illicit discharges and the method used to assess effectiveness.</p>
<p>Illicit discharges decreased this reporting period (2014-2015) as compared to the previous. It appears that internal training efforts are beneficial, as the staff reporting illicit discharges identified previously ranged from the City Manager to Water Meter Maintenance.</p> <p>It is not known how to determine prevention effectiveness, since the number of the population educated is not known.</p>

## **PART 5 - New Point Source Discharges of Stormwater**

Do you own or operate any NEW or previously unidentified stormwater discharges?

Yes  No If "yes," please indicate which discharge points are new on your outfall map or list. List provided in the 2015 SWMP.

Is your stormwater discharge point map attached or provided electronically?

Map is attached  Map is provided electronically  Other. Please explain in comments section.

Is your stormwater discharge point list attached or provided electronically?

List is attached  List is provided electronically  Other. Please explain in comments section.

Comments:

Map and list were submitted to MDEQ as Appendix 2 in Illicit Discharge Elimination Plan revision, July 30, 2013. Updated lists were submitted to the MDEQ as part of the 2016 MS4 Permit Application which is currently under review.

## PART 6 - Nested Drainage System Agreements

Please list all nested jurisdictions with whom you have a cooperative agreement:		
Name of Nested Jurisdiction	Agreement previously provided to MDEQ	Agreement attached
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Comments:</p> <p>The City of Wyoming does not have any nested Drainage System Agreements.</p>		

## PART 7 - Other Actions

Please list any extra efforts your community has conducted above and beyond your commitments recorded above (e.g., stream buffer ordinance adoption, new management techniques, invasive species control, habitat enhancement/protection, logjam removal, stream/beach clean-ups, etc.) that have helped implement the **Lower Grand River Watershed Management Plan**:

During this reporting period, staff removed 23 stream blockages, spending 149 hours cleaning 350 linear feet of drain and removing 13 cyd of associated material.

The City continues to provide stormwater education as part of wastewater treatment plant tours, as well as additional education efforts identified in Part 3.

The City adopted a water efficient landscaping ordinance in November, 2014. This ordinance allows for the use of planting native vegetation that would otherwise cause a violation of the general property maintenance ordinance, provide approval from the City occurs (Sec. 82-82).

Please list any other actions your community has conducted to reduce stormwater pollution

Environmental Services staff manage the Household Hazardous container located at the Clean Water Plant. Residents can drop off materials anytime during normal business hours and during a Saturday event. During this reporting period, over 200 residents used the service. Due to construction at the CWP, the HHW site was shut down for approximately 4 months which led to a reduction when compared to last year. Additionally, 1,500 gallons of oil were recycled.

The City actively televises its sanitary sewer system to minimize blockages and SSOs. This reporting period, 2,099 feet of sanitary sewer was televised, and 66 repairs were made. 13 more are scheduled for repair. 100,006 feet of sanitary sewer was repaired using cured-in-place lining in located identified over the current and past year. In addition, 19 feet of storm sewer main was televised that resulted in 1 repair. 90 manhole and catch basin repairs were also made.

Over 65,700 visits were made to the Wyoming yard waste area resulting in the collection of 3,329 tons of yard waste. Additionally, 9,800 cyd of brush was removed.

Over 1,626 miles of streets were swept, resulting in the collection and disposal of 994 tons of street sweepings.

1,022 catch basins were cleaned out and 530 tons of sediment was removed.

Pet waste station locations remained the same as the last reporting period. Park attendance has increased approximately 27% over last year.

Staff also participate in the West Michigan Drug Tack-Back Program, a medicinal exchange program started by Wyoming in 2010 but has since expanded to include all of Kent County (<http://www.wmtakebackmeds.org/>). For the reporting period, 3,564 pounds of pharmaceutical compounds have been properly disposed of by Wyoming staff.

Please refer also to the PEP questionnaire for additional community efforts.

## PART 8 - Revisions to the SWPPI

Based on your evaluation of the effectiveness of your stormwater BMPs, are there any commitments that should be added to or removed from the SWPPI?

No, the SWPPI does not need any revisions

The following revisions to the SWPPI could be considered:

<b>Original SWPPI Section/Subsection</b>	<b>Revision</b>

## **Additional Documentation**