



Lower Grand River Watershed Progress Report Kent County Drain Commissioner

Reporting Period: August 1, 2015– July 31, 2016



Prepared by the:

GVMC

Grand Valley Metropolitan Council

Environmental Programs

678 Front Avenue Suite 200

Grand Rapids, Michigan 49504

(616) 776-7611

<http://www.lgrow.org>

Contents

Part 1 – Contact Information	1
Part 2 – Municipal Stormwater Pollution Prevention Initiatives (SWPPI) Commitments.....	2
Part 2A - Lower Grand River Watershed Management Plan Prioritized Objectives.....	10
Part 2B - Stormwater Controls Inspection, Maintenance and Effectiveness	16
Part 2C - Procedures Status.....	18
Part 2D - Staff and Contractors Training on Pollution Prevention and Good Housekeeping.....	19
Part 2E - Post Construction Controls Activities	21
PART 3 - PEP	23
PART 4 – IDEP.....	52
PART 5 - New Point Source Discharges of Stormwater.....	55
PART 6 - Nested Drainage System Agreements.....	56
PART 7 - Other Actions.....	57
PART 8 - Revisions to the SWPPI	58
Additional Documentation.....	59

Tables

Table 1 LGRW Committee Membership List as of July 31, 2016.....	2
Table 2 LGRW Part 91 Administration Authority as of July 31, 2016	13
Table 3 Public Engagement Committee Membership.....	23
Table 4 LGROW and MS4 Participant Events	26
Table 5 PEP Objective Evaluation Measures	47

Figures

Figure 1 Grand Rapids Water Quality Index Web Interface	9
Figure 2 LGROW Data Repository.....	10
Figure 3. Pages Visits to LGROW.org by Month	25
Figure 4. Survey Results: How would you rate the water quality in the Grand River?.....	30
Figure 5. Car Wash Pledges by Zip Code.....	40
Figure 6. Pet Waste Pledges by Zip Code.....	40
Figure 7. Tell us your age	41
Figure 8. What is a watershed & which one do you live in?.....	41
Figure 9. Where does stormwater end up?	42
Figure 10. Reporting Illicit Discharges	43
Figure 11. Where is your home's wastewater discharged?	44
Figure 12. Septic System Maintenance	44
Figure 13. What Actions are you doing to protect Water Quality?.....	45
Figure 14. Comparing PEP outreach methods.....	46
Figure 15. How do you spend your time in lakes rivers, and streams?	47

List of Abbreviations/Acronyms

AWRI	Annis Water Resources Institute
BMP	Best Management Practice
CES	Center for Environmental Study
CoC	Certificate of Coverage
Technical	Data, Information, and Procedures
DPW	Department of Public Works
GI	Green Infrastructure
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
MWEA	Michigan Water Environment Association
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
TMDL	Total Maximum Daily Load
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

Contact Information for Michigan Department of Environmental Quality (MDEQ):	
Please provide current contact information for MDEQ to use regarding stormwater issues.	
Permit Application Contact	
Name	Douglas Sporte
Title	Deputy County Drain Commissioner
Address	1500 Scribner Ave NW
City, State, Zip	Grand Rapids, MI 49504
Telephone (with area code)	616-632-7910
Fax (with area code)	616-632-7915
E-mail	doug.sporte@kentcountymi.gov
Stormwater Program Manager	
Name	Douglas Sporte
Title	Deputy County Drain Commissioner
Address	1500 Scribner Ave NW
City, State, Zip	Grand Rapids, MI 49504
Telephone (with area code)	616-632-7910
Fax (with area code)	616-632-7915
E-mail	doug.sporte@kentcountymi.gov
Stormwater Permit Fee Billing Address	
Name	Douglas Sporte
Title	Deputy County Drain Commissioner
Address	1500 Scribner Ave NW
City, State, Zip	Grand Rapids, MI 49504
Telephone (with area code)	616-632-7910
Fax (with area code)	616-632-7915
E-mail	doug.sporte@kentcountymi.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:

- Public Engagement Committee
- Stormwater Ordinance Committee (SWOrd)
- Technical Committee

The list of committee members who have served on the committees during this reporting period are indicated in Table 2 below. Members denoted with an asterisk are not MS4 permitted representatives.

Community	Representative	Public Engagement	Stormwater Ordinance (SWOrd)	Technical	Sustainability	Fund Development & Membership	LGROW Executive
Cascade Charter Township	Mr. Steve Peterson	X	X				
East Grand Rapids, City of	Mr. Brian Donovan					X	
East Grand Rapids, City of	Mr. Doug LaFave			X			
Forest Hills Public Schools	Mrs. Lea Sevigny	X					X
Fruitport, Village of	Ms. Marjorie Stonecypher	X					
Georgetown Charter Township	Mr. Rod Weersing	X					
Grand Haven, City of	Ms. Cheryl Davidson	X					
Grand Rapids Charter Township	Mr. Bob Versluys		X				
Grand Rapids, City of	Mr. Mike Lunn			X			
Grand Rapids, City of	Ms. Carrie Rivette	X	X		X	X	X
Grand Rapids, City of	Mr. Michael Staal	X	X		X		
Grand Rapids, City of	Mr. Dan Taber			X			
Grandville, City of	Mr. Ken Krombeen		X			X	X

Table 1. LGRW Committee Membership List as of July 31, 2016							
Community	Representative	Public Engagement	Stormwater Ordinance (SWOrd)	Technical	Sustainability	Fund Development & Membership	LGRW Executive
Grandville, City of	Mr. Jay Kwiatkowski	X					
GVSU*	Mr. John Koches			X			X
Hudsonville, City of	Ms. Jill Frielink				X		
KCDC	Mr. Brad Boomstra		X				X
KCDC	Ms. Angie Latvaitis			X			
KCDC	Ms. Lani Brown	X					
KCRC	Mr. Sean McKean	X					
KCRC	Mr. Dave Bennett						
KCRC	Mr. Wayne Harrall		X				
Kent County Health Department*	Mr. Jason Buck			X			
Kent Resource Recovery*	Ms. Megan Kretz	X					
Kentwood, City of	Mr. Jim Beke		X	X			
Kentwood, City of	Mr. Dan Vanderheide		X				
Kentwood, City of	Mr. John Gorney	X					
MDEQ*	Ms. Amanda St. Amour	X	X	X			
MDEQ*	Ms. Michelle Storey	X				X	
MDEQ*	Ms. Dana Strouse	X		X			
OCWRC	Mr. Dennis Cole		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					
Spring Lake, Village of	Ms. Chris Burns	X					

Table 1. LGRW Committee Membership List as of July 31, 2016

Community	Representative	Public Engagement	Stormwater Ordinance (SWOrd)	Technical	Sustainability	Fund Development & Membership	LGROW Executive
Walker, City of	Mr. Scott Conners		X			X	X
Walker, City of	Ms. Rachell Nagorsen	X	X	X	X		
Wyoming, City of	Mr. Aaron Vis	X	X	X			X
Wyoming, City of	Mr. Myron Erickson		X				

Public Engagement Committee

The Public Engagement Committee met on September 9, 2015, November 18, 2015, January 13, 2016, March 9, 2016, and May 11, 2016 during the reporting period. Agendas and minutes for the meetings are 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, available here: <http://www.lgrow.org/uploads/files/PEP%20Master.pdf>.

The Public Engagement 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, the strategic 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 the watershed. During this reporting period, the group selected messaging and outreach events which focused on the target messages of Personal Watershed Stewardship, Ultimate Stormwater Discharge, Public Reporting of Illicit Discharges, Personal Actions that can Impact the Watershed, and Waste Management. A detailed list of these events and the outreach conducted is provided in Part 3.

SWOrd Committee

The SWOrd Committee met on August 31, 2015, October 26, 2015, December 14, 2015, January 25, 2016, February 29, 2016, March 31, 2016, May 23, 2016, June 15, 2016, and July 25, 2016 during the reporting period. Meetings were focused on developing a model ordinance, a standards manual, and a stormwater design calculator tool for MS4 permittees to utilize in their implementation of the new post-

Permittee: Kent County Drain Commissioner and Administration

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>.

Based on feedback from the Michigan Department of Environmental Quality (MDEQ) after the submittal of the alternative approach for channel protection submitted in April of 2015, the committee began drafting a detailed standards manual. This manual follows the steps outlined in the flow chart submitted with the permit applications for the design, review, and permitting of sites with post construction controls. The standards manual was developed in tandem with a stormwater calculator to assist site designers and reviewers to ensure site designs meet all the regulatory criteria outlined in the permit. The manual and calculator tools are also designed to ensure that the alternative approach is only utilized as a last resort. Finally, the committee continues to work on developing and updating the model ordinance for communities to adopt in their application of these standards. At this time, permitted MS4 communities are customizing the standards manual and model ordinance while updating their elected officials on these new requirements and their implementation.

Technical Committee

The Technical Committee met on October 21, 2015, December 16, 2015, February 17, 2016, April 20, 2016, and June 15, 2016 during this reporting period. Agendas and minutes from the meetings are available at the following site: <http://www.lgrow.org/MS4Technical>. 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 Friends of Buck Creek, and the Lower Grand River Total Maximum Daily Load (TMDL) monitoring, as required by the MS4 permit. The group also resumed work on the LGROW data repository which will serve as a resource for the sharing and viewing of water quality data collected throughout the watershed. As of the close of this reporting period, the committee is finalizing preliminary TMDL monitoring in the stream reaches identified in the MS4 Permit application letters. The City of Wyoming and the City of Grand Rapids are providing sampling equipment and laboratory space to collect and analyze the samples. Interns funded by the Lower Grand MS4s will be conducting the field work.

Training

GVMC provides multiple training documents and DVDs for Permittee use. In addition, GVMC has 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)

Permittee: Kent County Drain Commissioner and Administration

- 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)

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

Permittee: Kent County Drain Commissioner and Administration

- 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 submitted BMP manuals, proved to be a valuable training tool for Permittees to ensure that their current procedures were updated and adequately protect stormwater.

Live Training

On August 4-5, 2015, LGROW, in cooperation with the MDEQ and many other community partners, hosted the West Michigan Green Infrastructure Conference. This two-day event expanded on the 2014 statewide conference to highlight a broad range of benefits and opportunities provided by Green Infrastructure (GI) planning and preservation in West Michigan. Along with two plenary sessions, this conference included concurrent sessions in three tracks:

1. Finance and Policy; 2. Stormwater and Flood Management; and, 3. Infrastructure at the Regional Scale. LGROW also hosted one of three Green Infrastructure tours which provided attendees with an up close look at the following Green Infrastructure sites in and around Grand Rapids:

- Grand Rapids Water Resource Recovery Facility:
Native landscaped rain garden
- The Rapid Operations Center: Green roof and live wall
- Joe Taylor Park: Underground stormwater treatment and infiltration; porous concrete parking lot
- Kreiser Pond: Native landscaped bioswale
- Whiskey Creek: Native landscaped bioswale
- John Ball Zoo: Live wall and green roof



The Michigan Water Environment Association (MWEA) offers two events annually that are widely attended by LGRW MS4 permittees. The first is the Watershed and Stormwater seminar, offered this year on December 3, 2015. The 2015 seminar is designed for all who have a direct stake in stormwater

Permittee: Kent County Drain Commissioner and Administration

and watershed management, non-point source pollution or the modeling of urban stormwater systems. Attendees include: civil and environmental engineers; landscape architects and engineers; scientists; policy makers; local, regional, and state engineering professionals; public works personnel; municipal/township managers; environmental consultants; and, college/university instructors and researchers.

The second event, the Michigan Watershed Summit offered on March 16, 2016, focused on the following objectives:

- Assembling a diverse group of Michigan's watershed groups
- Providing an opportunity for speakers from other organizations to share information and updates
- Giving these groups a chance to interact with and learn from each other
- Facilitating discussion on current status, concerns and outlooks regarding Michigan's water environment

The West Michigan Soil Erosion Control Network (WMSECN) is a professional organization focused on the protection and enhancement of the natural environment by promoting effective soil erosion control. WMSECN hosts regular training and professional development events including field demonstrations, speaker panels, networking events and technical design sessions. On March 3, 2016, the WMSECN hosted a live training session titled "Best of the BMPs" which focused on the selection and implementation of BMPs for construction site stormwater pollution prevention. Permitted MS4 communities implementing soil erosion control permitting programs either as Municipal Enforcing Agents (MEAs) or County Enforcing Agents (CEAs) attended the event.

Attendance at these events is recorded in each MS4's individual training logs (Part 2D).

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>

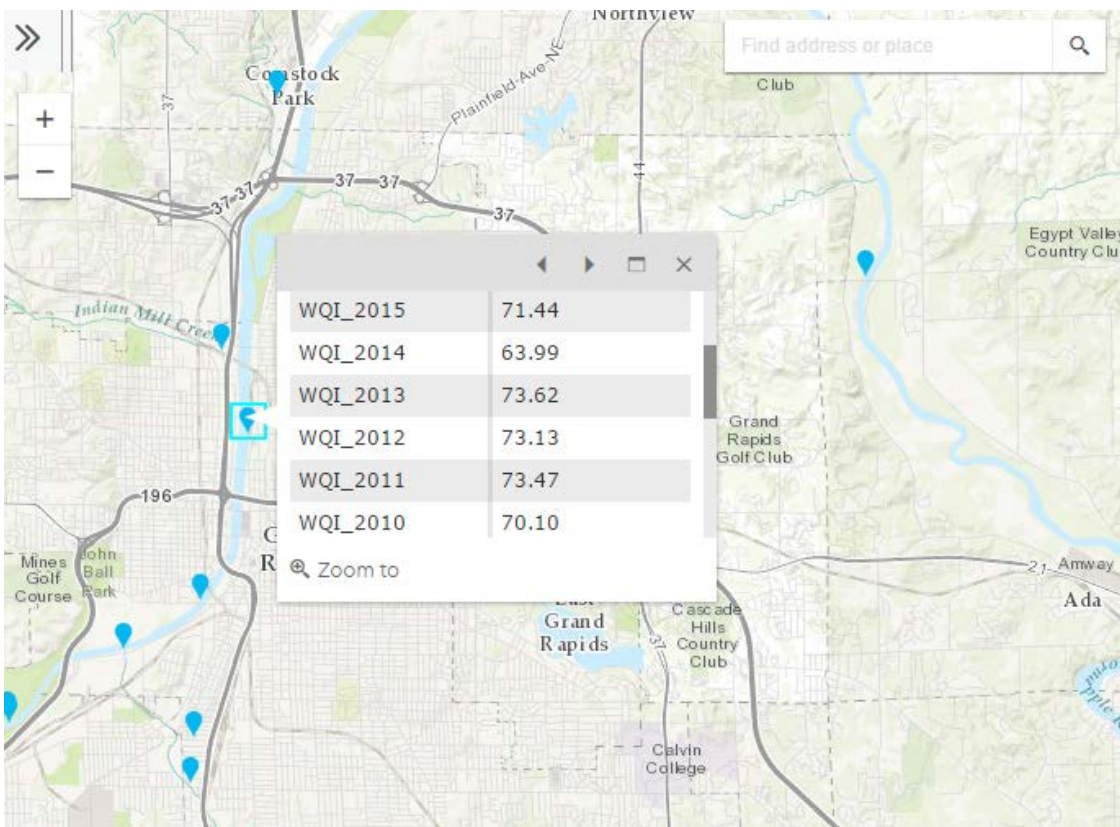


Figure 1 Grand Rapids Water Quality Index Web Interface

Data Repository

The LGROW Technical Committee began working on the design for a watershed-wide data repository. Using data collected by the Friends of Buck Creek as part of their 319 monitoring grant, the committee designed a landing page, which provides access to the collected data via an Arc GIS online interface – a free online GIS software that allows users basic viewing and searching capabilities. The group also

designed a tutorial for data repository users. The long-term goal is that the data repository will be a central location to access water quality data from sampling events in the Lower Grand River Watershed. With this goal in mind, the Technical Committee also developed submittal tools to allow users to share collected scientific water quality data. The data will be reviewed and checked by LGROW before it is uploaded into the data repository for public viewing at this site: <http://www.lgrow.org/datarepository>.

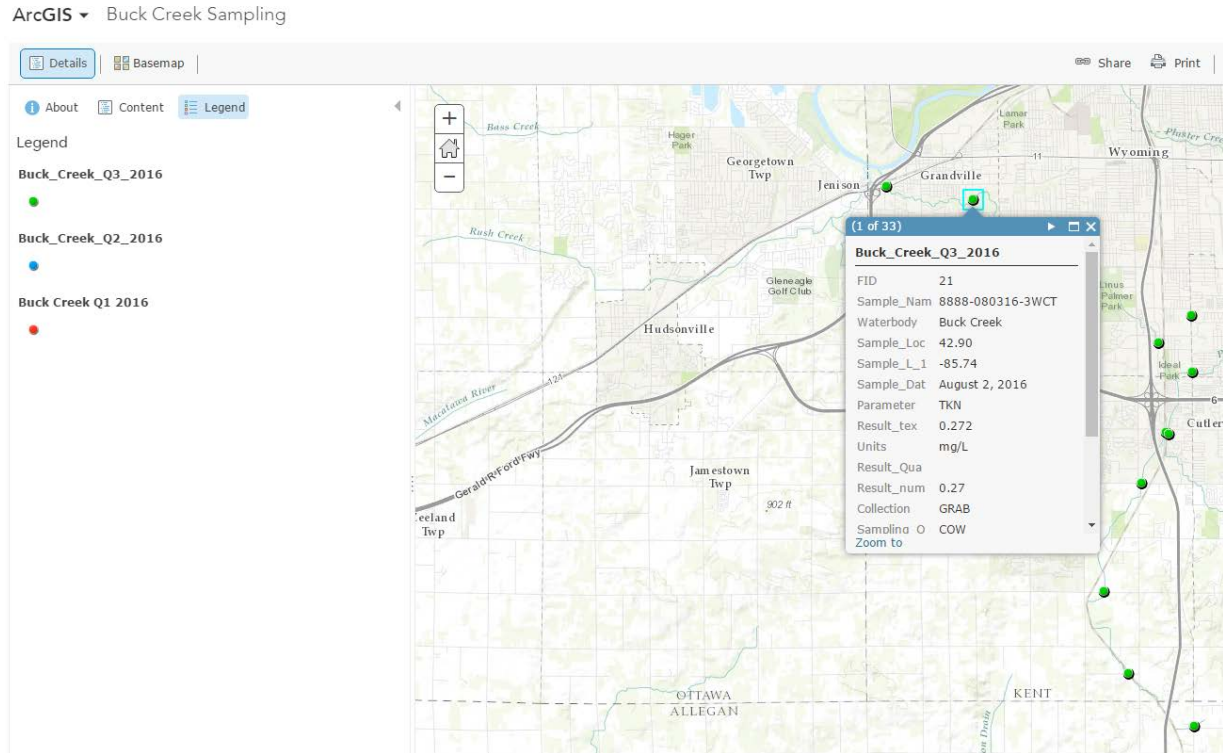


Figure 2 LGROW Data Repository

MDEQ Program Audits

MDEQ is expecting to perform MS4 Program Audits in all MS4 communities within 5 years. GVMC assists communities in preparing for audits, and in addressing any deficiencies identified by MDEQ. During this reporting period, MDEQ performed audits on the following LGRW communities:

August 18, 2015

Village of Spring Lake

Part 2A - Lower Grand River Watershed Management Plan Prioritized Objectives

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

Permittee: Kent County Drain Commissioner and Administration

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 and Muskegon Counties have not passed an ordinance requiring point of sale septic system inspections. The permitted entities within Kent and Muskegon County rely on implementation of the IDEP and reporting/enforcement through their stormwater ordinances and the 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. The Cities of Hudsonville and 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 and Kent County Drain Commissioner) Goose Relocation (Kent County Drain Commissioner), Nest Destruction (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, actively installing goose deterrents, and/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

Permittee: Kent County Drain Commissioner and Administration

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 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. 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.

As the Stormwater Ordinance Committee worked on developing the new model stormwater ordinance, many of the design requirements needed to prevent or mitigate flooding in site designs were left intact. Though these were not required as part of the MS4 permit application, permitted communities recognize the need for flood protection for the protection of downstream residences and receiving waters.

GVMC Departments are collaborating on a Single Source Project, which would involve collecting and mapping, via REGIS, updated zoning information from all GVMC members as well as all other

Permittee: Kent County Drain Commissioner and Administration

communities within Kent County to create one information source for economic developers, transportation planners, and environmental managers. In addition to the zoning maps, transportation information such as traffic counts, congestion, and road conditions, and environmental data, such as brownfields, impaired water bodies, and watershed boundaries would be included. This cooperative effort has been discussed as a priority for many years and is now possible, building upon internal GVMC communications between programs and staff. This information will be useful to MS4 permittees in making smart land use decisions.

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. Table 2 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.

Training on topics related to construction site stormwater runoff is detailed in Part 2D. Training ensures that even if a community does not oversee their own program, field staff will be informed regarding observations on a construction site and the appropriate entity 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. Events offered during the reporting period through the WMSECN and attended by MS4 are detailed in the training section of the report.

Community	Part 91 Contact Info	MEA	Utilizes CEA	APA
------------------	-----------------------------	------------	---------------------	------------

Permittee: Kent County Drain Commissioner and Administration

	Name	Phone		Kent	Muskegon	Ottawa	
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			
Fruitport, Village of	Muskegon County DPW	231-724-6411			X		
Georgetown Charter Township	OCWRC	616-994-4530				X	
Grand Haven, City of	OCWRC	616-994-4530				X	
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	616-632-7910					X
Kent County DPW	Kent Co. DPW	616-336-3694					X
Kent County Road Commission (Kent County CEA)	KCRC	616-242-6914		X			X
Kentwood, City of	Engineering Dept.	616-554-0737	X				X
Ottawa County Water Resources Commissioner & Administration (Ottawa County CEA)	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			

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

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 requires 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. These policies and procedures were reviewed as permittees prepared their individual permit applications in Spring 2015. 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. The brochure was updated in 2014 to allow for permitted MS4s to customize it for distribution to their staff and contractors as well as local landscaping businesses.

Part 2B - Stormwater Controls Inspection, Maintenance and Effectiveness

<p>63RD District Court 1950 East Beltline NE</p>				
<p>Structural Storm Water Control</p>	<p>Inspection Frequency</p>	<p>Maintenance Schedule</p>	<p>Inspection and Maintenance Conducted and Location of Log (if applicable)</p>	<p>Effectiveness of Control and Support Documentation</p>
Bio Filtration Area	1 year	Sediment removal as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
Bio Filtration Sediment Swale	1 year	Sediment removal as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
Cobblestone Check Dam & Downspout	1 year	Restore if necessary as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
Yard Drains w 2 ft sumps.	4 year	Vactor as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
Catch Basins w 2 ft sumps	4 year	Vactor as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
Pretreatment Basin	3 year	Sediment removal as needed per inspection	June 2016. Inspected. No maintenance required.	Functioning as intended.
<p>Circuit Court 180 Ottawa Ave. NW</p>				
<p>Structural Storm Water Control</p>	<p>Inspection Frequency</p>	<p>Maintenance Schedule</p>	<p>Inspection and Maintenance Conducted and Location of Log (if applicable)</p>	<p>Effectiveness of Control and Support Documentation</p>
Trench Drains	4 years	Vactor or w/ hand tools as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Catch basin	4 years	Vactor as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Vertical drop connection into catch basin	4 years	Vactor or w/ hand tools as needed	No inspection scheduled this	Functioning as designed.

		per inspection	reporting cycle.	
Grate inlet	4 years	Vactor or w/ hand tools as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Concrete drain	4 years	Vactor or w/ hand tools as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Yard drain in lawn	4 years	Vactor or w/ hand tools as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
North Kent Landfill & South Kent Landfill 2908 10 Mile Rd. NE; 300 100th St. SW				
Structural Storm Water Control	Inspection Frequency	Maintenance Schedule	Inspection and Maintenance Conducted and Location of Log (if applicable)	Effectiveness of Control and Support Documentation
Detention Pond	4 year	Remove sediment as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Catch basin	4 years	Vactor as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Underdrains & outfalls	5 year	Jet pipe and collect sediment as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Drainage ditches	5 year	Remove sediment as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Treatment basins	4 year	Remove sediment as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.
Waste to Energy Facility 950 Market Ave. SW				
Structural Storm Water Control	Inspection Frequency	Maintenance Schedule	Inspection and Maintenance Conducted and Location of Log (if applicable)	Effectiveness of Control and Support Documentation
Catch basins	4 year	Vactor as needed per inspection	No inspection scheduled this reporting cycle.	Functioning as designed.

Part 2C - Procedures Status

Procedure	Date Adopted	Date Revised (if needed)
Procedure to Ensure Protection of Drainage Systems from Construction-Site Runoff	February 27, 2012	
Procedure to Dispose of Storm Sewer System Operation and Maintenance Waste	February 27, 2012	
Procedures to Construct, Operate, and Maintain Streets, Roads, Highways, and Parking Lots	February 27, 2012	
Procedure to Reduce Runoff of Total Suspended Solids (TSS)	February 27, 2012	
Procedure to Prevent Salt and Sand from Entering Receiving Streams	February 27, 2012	
Procedure to Control Dust and TSS in Runoff	February 27, 2012	
Procedure for Managing Vegetation on Permittee Owned Properties	February 27, 2012	
Procedure for Using Fertilizers on Permittee Owned Properties	February 27, 2012	
		No Changes.

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

Training Topic Area	Employee Group to Receive Training	Training Frequency	Training Type
SWPPI Requirements			
Maintenance activities, maintenance schedules, and inspection procedures	Parks, Facilities, DPW, Drain Comm.	3 years	Written O&M Procedures Storm Watch - Municipal Storm Water Pollution Prevention - DVD from Excal Visual, LLC
Training completed:	Watched DVD March 2015		
Controls on streets, parking lots, maintenance garages, and storage yards	Parks, Facilities, DPW	DVD: 3 years Brochure: Annual	Storm Watch - Municipal Storm Water Pollution Prevention - DVD from Excal Visual, LLC Kent County Brochure: What Every Contractor & Employee Must Know About Storm Water
Training completed:	Watched DVD March 2015. Distributed brochure to departments employees 2/19/16		
Disposal of O&M waste	Parks, Facilities, DPW, Drain Comm.	3 years	Written O&M Procedures
Training completed:	Reviewed O&M procedures March 2015.		
Water quality protection in flood control projects (detention basins, dams)	Drain Commissioner	Annually	Presentations at State & District drain commissioner conferences.
Training completed:	Drain Commissioner's staff attended 2 State and 3 District Michigan Association of County Drain Commissioners conferences.		

Training Topic Area	Employee Group to Receive Training	Training Frequency	Training Type
Controls to reduce discharge of pesticides, herbicides, and fertilizers	Parks, Facilities, DPW, Drain Comm.	DVD: 3 Years Brochure: Annual	Kent County Brochure: What Every Landscaper Must Know About Storm Water. Preventing Stormwater Pollution: What We Can Do. – DVD from GVMC
Training completed:	Watched DVD March 2015. Distributed brochures to departments' employees 2/19/16.		
Other Topics			
Construction site stormwater runoff	Parks, Facilities, DPW, Drain Comm.	DVD: 3 Years Brochure: Annual	Preventing Stormwater Pollution: What We Can Do. – DVD from GVMC Kent County Brochure: What Every Contractor & Employee Must Know About Storm Water
Training completed:	Watched DVD March 2015. Distributed brochures to departments' employees 2/19/16.		
IDEP	Parks, Facilities, DPW, Drain Comm.	DVD: 3 Years Brochure: Annual	WaterPollutionReportForm.doc Preventing Stormwater Pollution: What We Can Do. – DVD from GVMC Kent County Brochure: What Every Contractor & Employee Must Know About Storm Water
Training completed:	Watched DVD March 2015. Distributed brochures to departments' employees 2/19/16.		

Part 2E - Post Construction Controls Activities

All new plat developments reviewed by the Kent County Drain Commissioner within Kent County are required to be equipped with detention facilities for stormwater. This requirement may be waived if it can be demonstrated to the Drain Commissioner's satisfaction that the off-site drainage facilities exist and are adequate. This is provided that easements and water quality issues have been addressed.

The stormwater detention facility shall be designed in accordance with criteria established by the County Drain Commissioner. The Commissioner may determine the need to incorporate more stringent design requirements into the stormwater drainage system for either water quantity control or water quality control in response to local need.

The purpose of stormwater management is to prevent flooding, minimize property damage, prevent erosion, eliminate nuisance conditions, lower overall costs, and improve overall water quality. Stormwater management is required to provide protection from flooding by limiting the post-developed peak rate of discharge (volume, velocity, & concentration shall also be considered); recharge groundwater where possible by allowing for retention of runoff where soils are compatible; and pollution abatement by retention with percolation or detention without infiltration (wet detention).

The design storm serves as the basis for design. The selection of the storm duration and distribution affects the resulting runoff volume and peak discharge rate.

The basin discharge controls shall be based on the peak release rate of 0.13 cfs/acre or at times 0.05 cfs/acre and the first 0.5" of runoff shall be held for not less than 12 hours or more than 24 hours.

If deemed necessary to insure adequate maintenance of the proposed stormwater facilities, the Commissioner may require the Proprietor to establish, in whole or in part, the proposed storm water facilities as a county drain upon their completion.

The county does not have planning and zoning authority and therefore relies upon the local unit of government to direct growth to identified areas, to protect sensitive areas such as wetlands and riparian areas, to maintain and/or increase open spaces, and to encourage infill development in higher density urban areas and areas with existing infrastructure.

The Kent County DEVELOPMENT DRAINAGE RULES are available at <http://www.accesskent.com/YourGovernment/DrainCommisioner/pdfs/DrainageRules.pdf>

The Kent County STORM WATER DESIGN CRITERIA are available at <http://www.accesskent.com/YourGovernment/DrainCommisioner/pdfs/appB.pdf>

Permittee: Kent County Drain Commissioner and Administration

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

Reviewed 34 development plan submissions for post construction controls.

Reviewed 27 applications for permit to connect to County drains.

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

7 developments were granted final approval.

23 permit applications were approved

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

N/A - The Drain Office does not enforce private systems. In the past there was a number entered because we interpreted it as establishing 433-agreements which are county drains.

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

N/A – see above comment.

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

Post construction controls have been protecting the integrity of streams, wetlands, lakes and other bodies of water.

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, 2015, and July 31, 2016.

Public Education Committee

The LGROW 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 2015/2016 Public Engagement Committee consists of the following participants:

Agency	Representative
City of Wyoming	Aaron Vis
MDEQ	Amanda St. Amour
GVMC	Andrea Faber
Ottawa Co. Water Resources Commissioner's Office	Angela Walachovic
Steelcase	Betsy Hernandez
Annis Water Resource Institute, GVSU	Betty Gajewski
GVMC	Bonnie Broadwater
Ottawa Conservation District	Carla Kocher
City of Grand Rapids	Carrie Rivette
City of Grand Haven	Cheryl Davidson
Village of Spring Lake	Christine Burns
Kent Conservation District	Connie Redding
MDEQ	Dana Strouse
Grand Rapids Parks Department	David Marquardt
Trout Unlimited	Jamie Vaughan
City of Grandville	Jay Kwiatkowski
Ottawa County Road Commission	Jerry Olman
City of Hudsonville	Jill Frielink
Groundswell, GVSU	Joanna Allerhand
City of Kentwood	John Gorney
Cannon Township	Julie Lovelace
Jennison Public Schools	Kim Kiel
Kent County Resource Recovery	Megan Kretz
GVMC	Kristine Bersche
Kent County Drain Commissioner's Office	Lani Brown
Forest Hills Public Schools	Lea Sevigny*

Table 3. Public Engagement Committee Membership	
Agency	Representative
Village of Fruitport	Marjorie Stonecypher
Plainfield Charter Township	Mary Trapp-Gunst
City of Grand Rapids	Michael Staal
MDEQ	Michelle Storey
City of Rockford	Mike Bouwkamp
Trout Unlimited	Nichol DeMol
WMEAC	Ondrea Spychalski
City of Walker	Rachell Nagorsen
GVMC/GVSU	Rajesh Sigdel
The Right Place	Rick Chapla
Georgetown Township	Rod Weersing
Kent County Road Commission	Sean McKean
Grand Rapids Public Museum	Stephanie Ogren
Cascade Charter Township	Steve Peterson
GVMC	Wendy Ogilvie
*Chair of Committee	

PEP Implementation in Year 14

This section describes the public education activities implemented by the Permittees in the fourteenth year of PEP implementation, August 1, 2015 through July 31, 2016. 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.

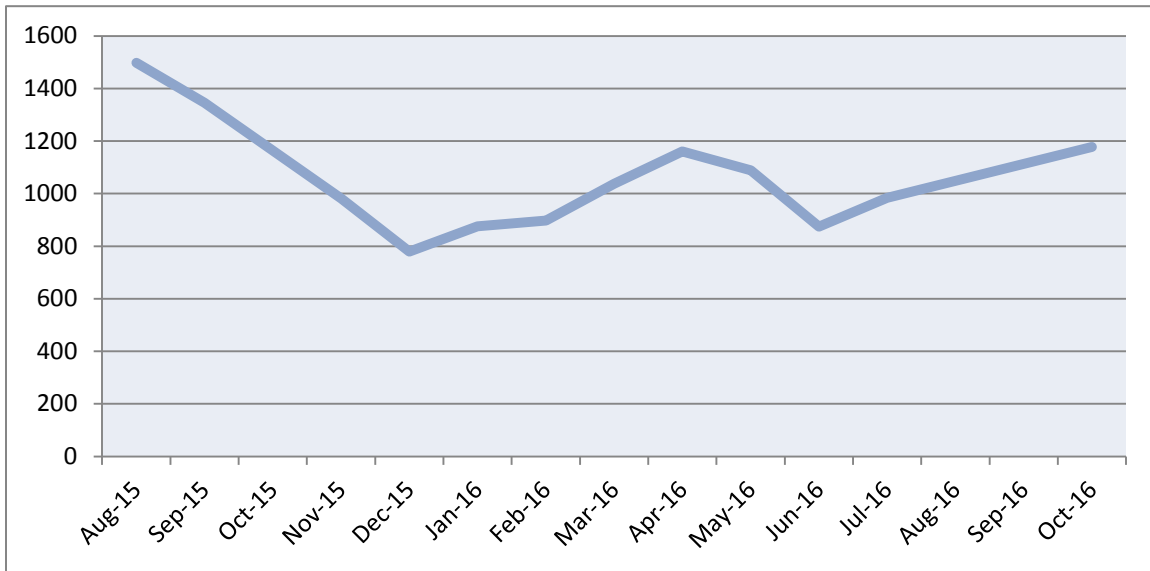
Target Audience: Residents, visitors, and public employees

Content of Message: 1) A watershed is an area of land draining to a common point. You live in the LGRW, you impact the watershed. 2) Learn more about the LGROW by visiting LGROW.org. 3) Reasons for protecting the watershed. 4) Ways individual can affect the watershed through their activities.

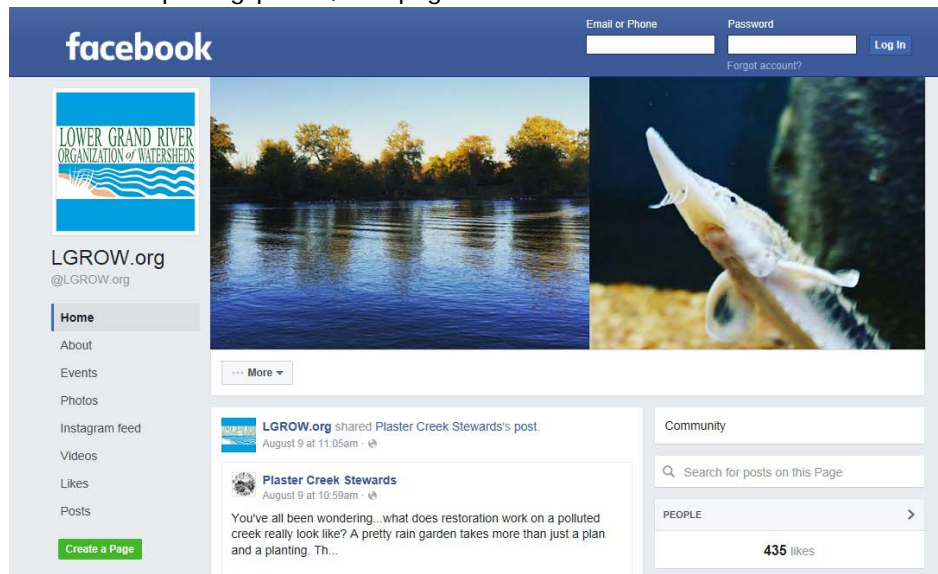
Delivery Method:

- Permittees' websites link to LGROW's website, www.lgrow.org. 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 524 unique visitors each month resulting in over 12,700 total hits to the website during the reporting period. Website traffic by month is displayed in Figure 2.

Figure 3. Pages Visits to LGROW.org by Month



- 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 21,000 people. As of the end of the reporting period, the page reached over 430 likes. Facebook user engagement has shown consistent growth over the reporting period with the average number of likes, shares, and comments. A total of 115 posts were created or shared during the reporting period.



- Permittees distributed the LGROW, stormwater, and watershed education materials listed below to residents in the LGRW at multiple events, and venues. Materials were distributed according to the type of event, and the target audiences in attendance.

Permittee: Kent County Drain Commissioner and Administration

- 1000 Paint by number Watershed Maps
- 500 Keep Your Lakes Great and Your Rivers Grand Magnets
- 1000 Keep Your Lakes Great and Your Rivers Grand vinyl stickers
- 1000 Watershed Temporary Tattoos
- 1500 Household Stormwater Solution Brochures
- 1000 Septic System Care Brochures
- 2000 Troutie Coloring Books
- 500 Pet Waste Pledges
- 500 Pet Waste Bag Dispensers
- 500 Car Wash Pledges
- 500 Car Wash Shammies
- 1000 Reusable Water Bottles
- 500 Reusable Tote Bags
- 1000 LGROW Brochures
- 300 LGROW Custom Baseballs



- Many Permittees displayed lamppost banners first 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, Public Engagement committee participants, GVMC staff, and other members of LGROW, over 35 events around the watershed had representation from the Lower Grand River. Event participation, by community is detailed in Table 4. Community-specific event activities are detailed in each Permittees’ PEP questionnaire. Events attended by more than one MS4 or were coordinated through LGROW are discussed in the section following Table 4.

Table 4. LGROW and MS4 Participant Events		
MS4 Community	Event/ Activity	Date
Cascade Charter Township	LGROW Spring Forum Host	5/6/2016
East Grand Rapids, City of	DPW Open House	5/18/2016
Ferrysburg, City of	Community Breakfast	7/4/2016
Forest Hills Public Schools	Classroom Programming	Ongoing
	Roselle River Festival	9/24/2016
Fruitport, Village of	Old Fashioned Days	5/27-29/2016
Georgetown Charter Township	Janison Public Schools	Ongoing

Table 4. LGROW and MS4 Participant Events		
MS4 Community	Event/ Activity	Date
	Collaboration	
Grand Haven, City of	Earth Day Festival	4/16/2016
	Party for the Planet	5/7/2016
	Coast Guard Festival	7/26 - 8/7/2016
	Salmon Festival	9/16-16/2016
Grand Rapids, City of	WhiteCaps Game	8/7/2015
	Home Show	3/2-5/2016
	River City Water Festival	3/11/2016
	Party for the Planet	5/7/2016
	WhiteCaps Game	7/7/2016
	Water Resource Recovery Facility Tours	Ongoing
Grand Rapids Charter Township	Partner with FHPS	Ongoing
Grandville, City of	DPW Open House	5/18/2016
Hudsonville, City of	Women's Expo	4/16/2016
	DPW Open House	5/19/2016
Kent County Drain Commissioner	Party for the Planet	5/7/2016
Kent County Road Commission	Facility Tours	Ongoing
Kentwood, City of	Touch A Truck	6/29/2016
Ottawa County Administration and Water Resources Commissioner	Ottawa County Water Quality Forum	11/13/2015
Ottawa County Road Commission	Partner with Georgetown Township & Jenison Public Schools	Ongoing
Plainfield Charter Township	Rain Barrel Workshops	4/12, 5/10, 6/21, 7/19, 8/16/2016
	River City Water Festival	3/11/2016
	Grand River Water Festival	6/26/2016
Rockford, City of	Rogue River/ TU Macro Sampling	5/7/2016
Sparta, Village of	Nash Creek Cleanup	4/30/2016
Spring Lake, Village of	Heritage Festival	6/13-18/2016
	WhiteCaps Concourse Table	7/7/2016
Walker, City of	Quiet Water Symposium	3/5/2016
	Walker Reading Carnival	6/13/2016
	Grand River Water Festival	6/26/2016
Wyoming, City of	STEM Week at Grand Rapids Public Museum	2/29-3/5/2016
	DPW Open House	5/16/2016

- The Quiet Water Symposium promotes non-motorized outdoor recreation and a shared concern for our Great Lakes environment. The 21st annual symposium was held on March 5th, 2016, and had over 2,600 attendees. LGROW hosted a booth with several watershed displays and distributed information and giveaways focused on storm drain awareness and watershed awareness messaging. 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. The symposium also featured the LGROW educational video produced by Drew Mason. This year MGROW and LGROW are partnering to utilize the new storm drain markers designed by the LGROW Public Engagement Committee.



- LGROW was pleased to participate again this year at the River City Water Festival on March 11, 2016. Approximately 530 students were in attendance. LGROW hosted two brand new activities



this year. The first was a variation on the interactive corn hole game. After a brief lesson on macroinvertebrates as indicators of stream health, students had to match one of three types of macroinvertebrates; sensitive, moderate, or tolerant with the correct habitat. Stickers featuring the new storm drain marker design and temporary tattoos were given out as prizes for participation. Students

loved the game and had many great questions about both macroinvertebrates and water quality. The second activity was a scavenger hunt based on the 2015 Art prize entry "The Stream of Life" by Sara Grzegorski, in which LGROW assisted. After an introduction to the concepts of both a watershed and nonpoint source pollution, participants received a scavenger hunt card with a list of items that impact or are impacted by water quality



to find in the mural. The cards, which students were able to take home, also included

Permittee: Kent County Drain Commissioner and Administration

information on nonpoint source pollution, a photo of the mural and the location of the actual mural at Sixth Street Bridge Park. LGROW encouraged students to visit the mural to see the items up close. Participants also received an LGROW reusable water bottle to take home.

- LGROW hosted a table at the first annual 2016 Conservation Collective on March 31, 2016. This was a public event designed to connect residents of the Grand Rapids metro area with their local community conservation resources, information on new and upcoming projects, and highlight volunteer opportunities to get involved. LGROW hosted a table with information on the watershed, upcoming LGROW events, and distributed stormwater educational materials. The event was well attended with over 80 participants and 12 community organizations.



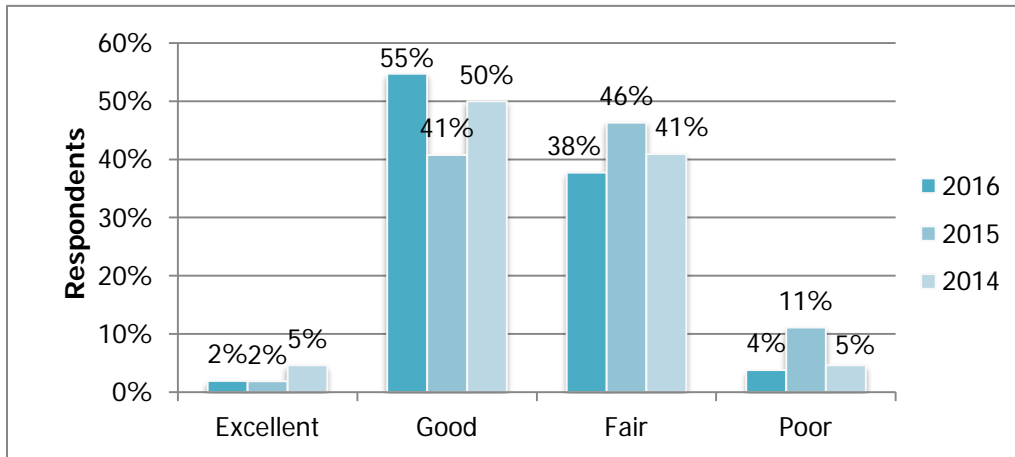
- The 13th Annual Grand River Forum on May 6, 2016, was put on by LGROW at the Wisner Center in Cascade Township. The event offered 100 attendees a regional perspective on emerging issues and accomplishments from around the Watershed. This year's keynote speaker, Mark Coscarelli of Public Sector Consultants, discussed Michigan Infrastructure issues including funding gaps and the need for sewer and water infrastructure statewide. Next, John Weiss (GVMC) moderated a Panel Discussion on Infrastructure issues and collaborative efforts in the Lower Grand River Watershed with panelists Eric DeLong, Deputy City Manager of the City of Grand



Rapids; Joellen Thompson, P.E., Water System Manager of City of Grand Rapids; and Myron Erickson, P.E., Deputy Director of Public Works of the City of Wyoming. The remainder of the forum focused on emerging watershed issues including presentations by Marc Miller (MDNR) on the Grand River Water Trail; Eric Nordman (GVSU), and Nichol DeMol (Trout Unlimited) presented the Rogue River Economic Impact Study; and, Marty Holtgren (MDNR), Stephanie Ogren (Grand Rapids Public Museum), and Matt Chapman (Grand Rapids Whitewater), spoke about Lake Sturgeon Populations and Habitat Improvements in the Grand River. The Forum concluded with a video

presentation from various subwatershed groups. Each forum participant completed surveys after both registering and attending the event. A selection of the questions from each survey is asked annually to determine if there is a measurable change in people's attitudes toward and perception of the river. Figure 2 shows that from last year to this year, the majority of respondent identified the water quality in the Grand River as good in 2016, instead of Fair in 2015.

Figure 4. Survey Results: How would you rate the water quality in the Grand River?



- The Party for the Planet was held at John Ball Zoo on Saturday, May 7, 2016. The event brought the public together with environmentally conscious groups from West Michigan. Approximately 2,400 people visited the Zoo on the day of the event. LGROW, the City of Grand Rapids, and Groundswell coordinated for the event with a theme of stormwater education. LGROW provided paint-by-number watershed maps, temporary tattoos, and coloring books. Our volunteers collected car wash pledges in exchanges for Shammies, ran the stormwater themed corn hole board game, gave away prizes to participants, and wore the Major Runoff costume to draw visitors into the exhibits. The City of Grand Rapids collected pet waste pledges and distributed pet waste bag dispensers. Informational brochures, tote bags, stickers and water bottles were also distributed. Interaction was largely required for the public to receive give-away items. Public feedback was overwhelmingly positive with many children eager get a



photo with Major Runoff, participate in a game, or engage in one of our water-themed art projects. Many parents visiting our booth elected to take one or both of the pledges offered or discuss household activities that support clean water while they were waiting on their children.

- LGROW sponsored the Grand River Water Festival on June 29, 2016, at Riverside Park, which was attended by approximately 2,000 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 helped attendees create native, wildflower seed bombs to encourage the use of native plants. This was another new public education idea developed by the Public Engagement Committee. The seed bomb station was busy for most of the day and several other groups have expressed interest in utilizing this activity at other events. Landscaping for water quality booklets and other informational items about stormwater were distributed to participants as well. During the water festival Wendy Ogilvie gave a brief presentation on LGROW and its activities within the watershed, including the status of the Grand River Revitalization and Rapids Restoration project.



- LGROW hosted concourse tables at two WhiteCaps games during this reporting period. The first was on Sunday August 9, 2015. GVMC sponsored the game in cooperation with the Clean Air Action Coalition and titled the event "Clean Air Clean Water at 5/3 Ballpark". LGROW participated in a live radio interview, Major Runoff, the stormwater mascot, threw out the first pitch at the game, and over 15 volunteers from MS4 permitted communities helped conduct the public education survey. The survey, developed by the Public Engagement Committee during the previous reporting period, consisted of 12 questions and took about 5 minutes to complete. Survey participants received LGROW baseballs as a thank you gift. Approximately 300 surveys were collected the day of the game. The results of this survey are detailed in a later in this section. Participants also put a pushpin in the



Permittee: Kent County Drain Commissioner and Administration

Watershed map to identify their location and watershed temporary tattoos were distributed. The second table was hosted on Thursday July 7, 2016. Stormwater educational materials and giveaways were distributed to attendees. Each game had an attendance of approximately 4,000.

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

PEP Objective 2: Education on the location of residential stormwater system catch basins, where the system discharges, and impacts from pollutants.

Target Audience: Landscapers/ lawn care companies, auto repair shops, commercial power washers, carpet/floor cleaning companies, commercial operations, industries, residents, and local businesses

Content of Message: 1) Storm drains connect to your local lakes and streams, not a wastewater treatment plant. 2) Prevent pollution from entering your storm drains and protect the health of your family, your community, and the Grand River. 3) Education on the impacts of stormwater pollutants. 4) Education on the stormwater system and receiving water bodies in a person's or company's neighborhood.

Delivery Method:

- Permittees installed the plastic storm drain markers designed by the Public Engagement Committee. The new drain markers carry the messages "Keep your Lakes Great and your Rivers Grand". Many Permittees also engaged with community partners to do storm drain stenciling events which are detailed in the PEP Questionnaire. This image was also used on several giveaways including vinyl stickers and magnets. In total over 450 drain markers were installed at locations throughout the watershed.



- 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 Public Engagement Committee worked with a local artist, Sara Grzegorski, in cooperation with Groundswell on her ArtPrize Entry "River of Life". This mural was later incorporated into an

interactive outreach banner which utilized the scavenger hunt developed during the Art Prize Voting period.

- Synchronized ads featuring the message “Only Rain in the Drain” highlighting concepts of “this community maintains separate storm sewers” and “anything entering a storm drain goes to the Grand River” were run at the following locations:
 - Interior panels in five Harbor Transit busses and trollies between Memorial Day and Labor Day. Ridership during this period is estimated at approximately 25,000 people.
 - Interior panels were also placed on all 21 Rapid busses (bus #50) in the fleet that run between the GVSU campus and downtown for 6 months ending at the close of the reporting period on July 31. Ridership on the buses during this time is estimated at approximately 1.5 million.
 - Johnny Ads were placed in March and April at a total of 150 locations throughout Kent and Ottawa Counties with an estimated 750,000 views.



Permittee: Kent County Drain Commissioner and Administration

Public Education Topic 3 - Public Reporting of Illicit Discharges

PEP Objective 3: Encourage public reporting of the presence of illicit discharges or improper disposal into the stormwater system.

Target Audience: Residents, public employees, businesses, construction activities, industries, and septic system owners/haulers.

Content of Message: 1) How to identify illicit discharges. 2) How to report illicit discharges. 3) Water quality impacts from illicit discharges. 4) Consequences/penalties associated with illicit discharges and improper waste disposal. 5) Proper septic system care and maintenance. 6) How to recognize system failure. 7) Impacts failing systems have on water quality. 8) Where to go for assistance.

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.
- Permittees distributed 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.



Permittee: Kent County Drain Commissioner and Administration

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

PEP Objective 4: Education on the need to minimize the amount of residential or non-commercial wastes washed into the storm sewer system.

Target Audience: Residents, schools, non-profit groups conducting carwash fundraisers, public employees, visitors, recreational users, riparian landowners

Content of Message: 1) BMPs for car, pavement, power washing. 2) Preferred cleaning materials and practices, "phosphate free as important as biodegradable". 3) BMPs for pesticide use, fertilizer use and their disposal, 4) BMPs for proper management of grass clippings, leaf litter, and animal wastes. 5) BMPs for residential deicer use. 6) BMPs for native vegetation on residential properties as an alternative to turf grass. 7) Effects of residential wastes on our waterbodies. 8) Education on low impact development techniques.



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.



Permittees collected car wash pledges from residents in exchange for a free shammy to use for home car washes. The pledge provides the following information about car washes: *There's no problem with washing your car, it just matters how and where you choose to wash it. The average homeowner uses 116 gallons of water to wash a car. If you wash your car in your driveway, all that water, along with the soap, grease, brake dust, oil, and dirt that you wash off your car flows directly into the nearest storm drain. From there, it's just a short trip to the Grand River and eventually Lake Michigan.* In addition, residents keep a portion of the pledge that provides other environmental friendly car care tips.

Permittee: Kent County Drain Commissioner and Administration

Public Education Topic 5 - Waste Management Assistance

PEP Objective 5: Education on proper disposal of household hazard waste (HHW), travel trailer/ boating sanitary wastes, chemicals, motor vehicle fluids, and unused medications.

Target Audience: Residents, visitors, and public employees

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. 3) Education on types of HHW and available alternatives. 4) Education on disposal locations of HHW, travel trailer/ boating sanitary wasters, chemicals, motor vehicle fluids and unused medications.

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.
- 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 County communities distributed household hazardous waste flyers at events and provided information on recycling household hazardous waste via the phone and websites. Many permittees also opted to distribute these materials at their respective community events. This year Kent County continued to expand their collection hours to allow more Kent County residents to take advantage of this service.
- Many communities hosted clean-up days to encourage proper disposal of unwanted materials. Details of these events, as applicable are provided in individual PEP Questionnaires and Part 7.

Permittee: Kent County Drain Commissioner and Administration

Public Education Topics 6 - Management of Riparian Lands

PEP Objective 6: Education concerning management of riparian lands to protect water quality.

Target Audience: Riparian landowners, construction activities, landscapers

Content of Message: 1) Importance of riparian corridors/stream buffers. 2) How to landscape for better water quality. 3) Education on shoreline stabilization techniques, stream buffers, filter strips, conservation easements, and bioengineering techniques.

Delivery Method:

- 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.
- Attendees at the Grand River Water Festival created native seed bombs and received a copy of the booklet "*Landscaping for Water Quality*" at the LGROW booth. 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 were detailed in the training section of the report.

School Outreach Summary

Since the organization was formed, educators and administrators consistently look to LGROW for guidance and technical support in engaging students in watershed education projects to enhance and support the long-term goal of a healthier Lower Grand River watershed. LGROW offers experiences and education through classroom demonstrations and hands-on projects that support educational programming around nonpoint source water pollution and stormwater management.

The key objectives of the environmental education programming are as follows:

- Connect schools and classrooms with existing municipal issues, efforts, and projects, in accordance with the PEP, with a focus on nested school districts as a priority;
- Develop tools to track progress and success in environmental education programs identified in the Lower Grand River Watershed Management Plan; and,
- Build and maintain collaborative partnerships to educate students in our region through meaningful, place-based service learning projects located in their communities.

In the 2015/2016 school year, LGROW environmental educational programming served over 500 students in eight (8) schools in Kent and Ottawa Counties. Through partnerships with school districts, area intermediate school districts, community partners, and local units of governmental units, LGROW provided students and teachers with technical assistance in classrooms and field experience, including but not limited to:

- Introduction to Stormwater, Nonpoint Source Pollution, and Best Management Practices: Students were introduced to the Lower Grand River Watershed. LGROW staff discussed stormwater pollutants and ways to reduce them, as well as green infrastructure and best management practices to minimize stormwater discharge. Finally, students were presented with maps and diagrams of the local stormwater sewer system and catch basins, as well as how it connects to the Grand River.
- Catch Basin Markings: Students cleaned storm drains and marked catch basins in their communities. LGROW worked with local units of government to identify the best place for students to install markers to bring awareness to the communities on the impacts to surface



water through stormwater discharge. Overall, students installed over 300 storm drain stickers in their neighborhoods. Furthermore, students distributed over 150 door hangers in the residential neighborhoods around their schools. These door hangers were researched and designed with students in one of the MS4 nested school districts and used throughout the region.

- Green Infrastructure Tour: Students from a local high school joined LGROW, partner organizations, and local municipalities on a Green Infrastructure tour. Students received a first-hand look at the following sites in and around Grand Rapids:
 - Grand Rapids Water Resource Recovery Facility: Native landscaped rain garden
 - The Rapid Operations Center: Green roof and live wall
 - Joe Taylor Park: Underground stormwater treatment and infiltration; porous concrete parking lot
 - Plainfield Avenue: Native landscaped bioswales
 - Whiskey Creek: Native landscaped bioswale

- Water Quality Monitoring: Students analyzed water quality in points along Indian Mill Creek, Brandywine Creek, Maplewood Lake, and other tributaries to the Grand River using various methods of data collection. Water quality kits were used to measure multiple chemical components, including pH, phosphorus, dissolved oxygen, and nitrates. Other students collected and counted macroinvertebrates using dip nets along stream side, as well as leaf packets that were installed and retrieved six weeks later. Using these methods, students were able to draw conclusions about the health of the surface water and possible impacts through land use practices.



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.

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. In total, materials were distributed at over 50 events (Table 4) and at various locations throughout the watershed. The information collected from the pet waste pledges included the pledger's zip code. Pledge participants' zip codes are shown in Figures 4 and 6. The majority of responses for both pledges were from residents within the watershed. 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 500 pledge forms requested and 161 pledges completed during the reporting period.

Figure 6. Pet Waste Pledges by Zip Code

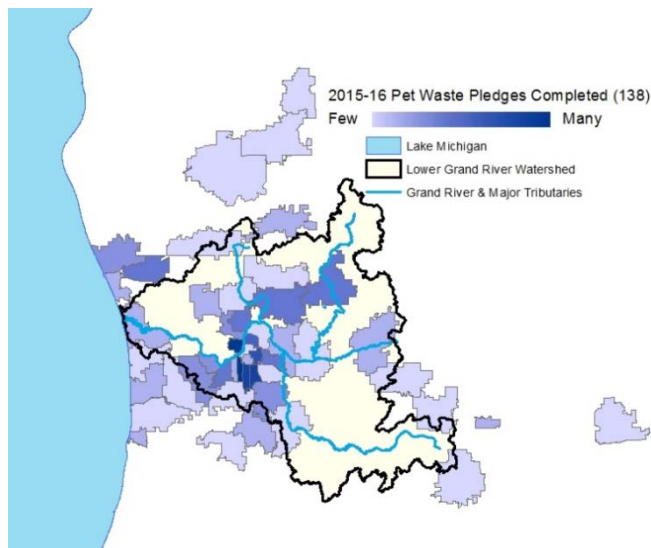
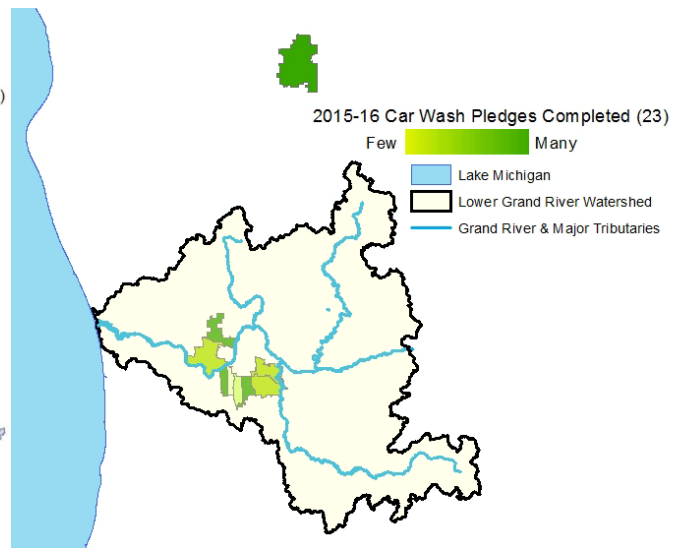


Figure 5. Car Wash Pledges by Zip Code



2015 Public Education Survey

During the previous reporting period, the Public Engagement Committee developed a 12 question survey to be administered at a WhiteCaps Ballgame during this reporting period on August 9, 2015. The survey was designed to gauge the awareness of the public on each of the six objectives outlined in the approved 2013 PEP. Respondents were asked to provide their zip codes and age to help identify residents of the watershed and connect their location with other available census data. Evaluating responses has provided insights to help refine and expand the future Lower Grand River Watershed educational efforts.

The Lower Grand River Watershed covers over 100,000 square miles encompassing 69 zip codes. LGROW received 369 survey responses from 84 zip codes. Of the responses, 180 participants in 44 zip codes were residents of the Lower Grand River Watershed. Respondent zip codes represented 64% of the land area and 82% of the population of the watershed based on 2010 Census Data. The 18-36 and 37-55 year old ranges were the largest groups of responders comprising, together, 61% of the respondents.

Figure 7. Tell us your age

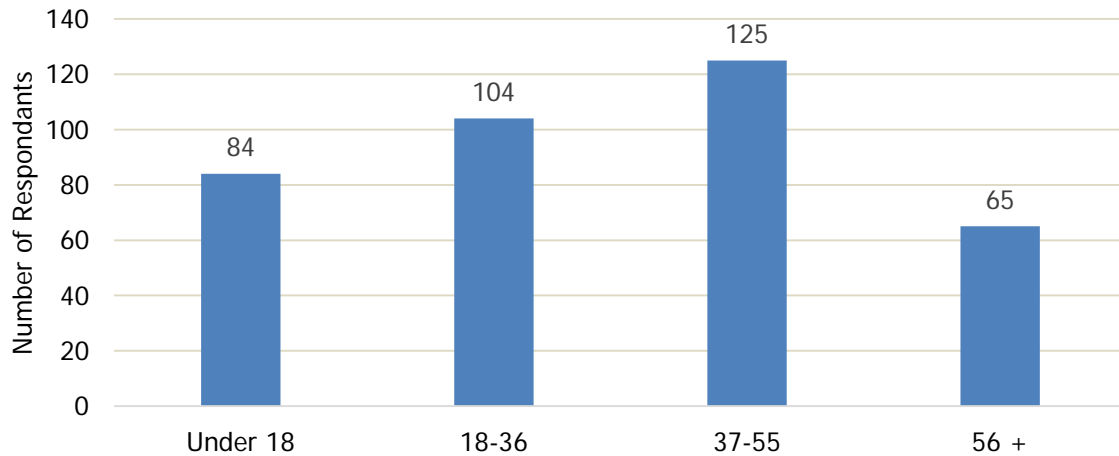
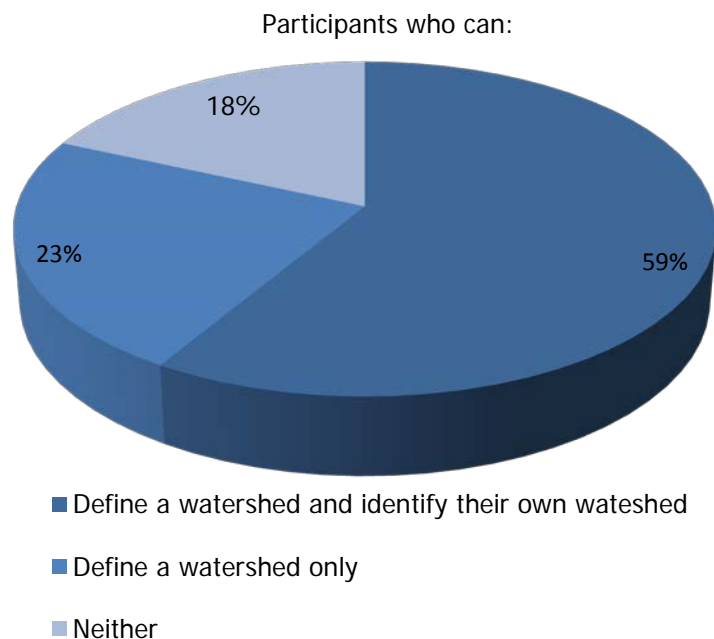


Figure 8. What is a watershed & which one do you live in?

In evaluating PEP Objective 1, personal watershed stewardship, the survey first asked participants to identify the correct definition of a watershed. Of those surveyed, 82% of respondents answered correctly. Of those that answered incorrectly, 10% chose a wrong selection and 8% said they did not know the answer. Next, participants were asked if they could identify the watershed in which they lived. Of those surveyed, 72% were able correctly identify their subwatershed. The remainder named

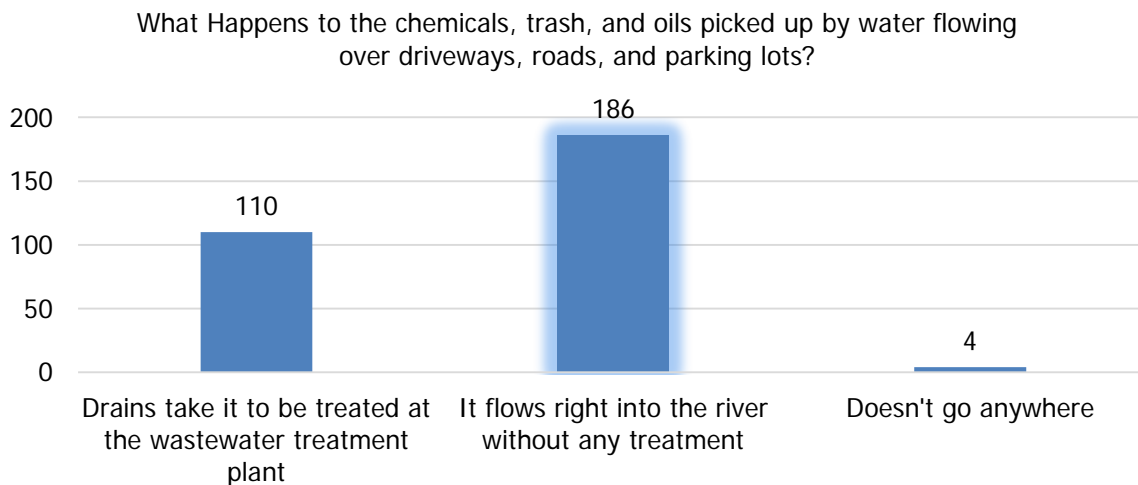


a geographic area instead of a watershed. These results exceed the third year (2015) milestones approved in the plan.

Of the respondents who correctly identified the definition of a watershed, 91% were also able to correctly name their home watershed. This suggests that for participants who understand what a watershed is, they also have a strong grasp of how this translates to their personal watershed. Future efforts should target educating those who do not already grasp the meaning of a watershed. Once that concept is clear many will seek out how this relates to them personally in the form of identifying their subwatershed.

PEP Objective 2 focuses on ultimate stormwater discharge location and potential impacts. Survey participants were asked what happens to the chemicals, trash and oils picked up by water flowing over driveways roads and parking lots. Over 60% of respondents were aware of where storm water ends its journey, which exceeds the PEP objective of 25%.

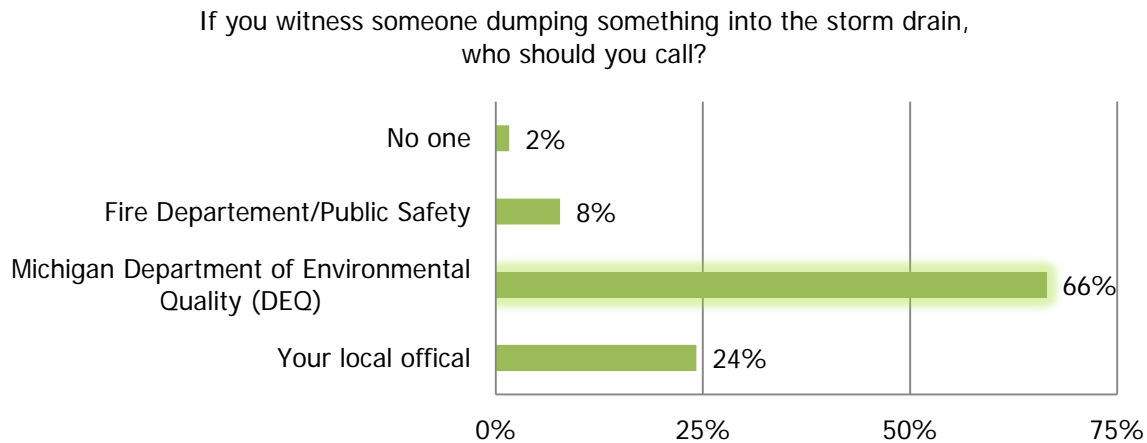
Figure 9. Where does stormwater end up?



The City of Grand Rapids has focused significant resources during the 2015-16 reporting period on educating the public about the early completion of their Combined Sewer Overflow separation project through a regional ad campaign. This effort, when combined with the education and outreach efforts of the Lower Grand River Permittees, including storm drain marking detailed in this report, may yield even greater awareness during the next round of surveys.

PEP Objective 3 focuses on the prevention and reporting of illicit discharges and by extension, septic system maintenance. The survey first asked participants how to respond if they witness an illicit discharge occurring.

Figure 10. Reporting Illicit Discharges



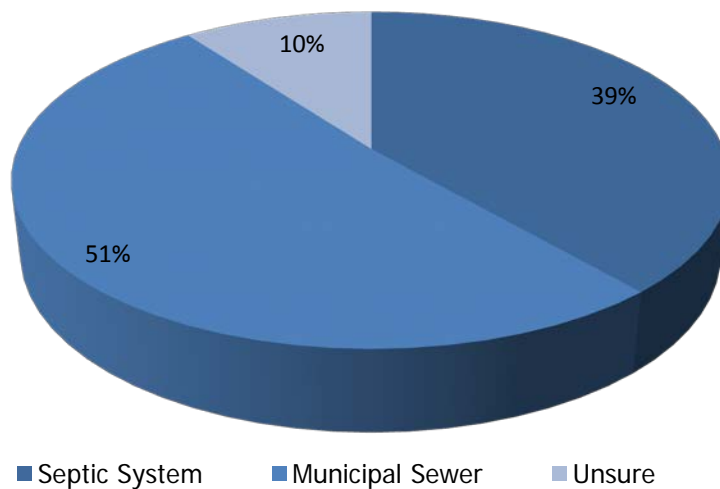
With multiple correct responses, 98% of respondents chose to report the discharge, while only 2% said that they would call no one if they witnessed someone dumping into the storm drain. Of the respondents who would report, approximately 66% identified MDEQ as the agency to contact. While this is correct, it does suggest that future educational efforts should focus on how and why to contact communities about illicit discharges.

The PEP objective identifies an overall 9% increase in illicit discharge reports each year in each community as the goal. Because the baseline for many communities was zero reports initially, it is difficult to evaluate if this objective is being effectively met with a 9% increase since an increase in reports may or may not also indicate an increase in dumping. Cumulatively, the reporting MS4s had 28 illicit discharges reported during the 2014-15 reporting period and 61 illicit discharges reported during the 2015-16 reporting period, a 54% increase. The number of illicit discharges reported in each community, however, varied widely between 0 and 16, with about half of the permittees receiving zero reports. Looking at the number on a watershed-wide scale shows a steady upward trend in reporting that far exceeds the goal of a 9% increase set in the PEP.

The public education plan also identifies people with septic systems as a target audience for Objective 3. The focus of the public education initiative is on people who have a septic system and within that group, those who are unsure of what maintenance is necessary. Of survey respondents, about half are connected to municipal sewer. This is consistent with the state average according to Michigan Municipal League Data.

Figure 11. Where is your home's wastewater discharged?

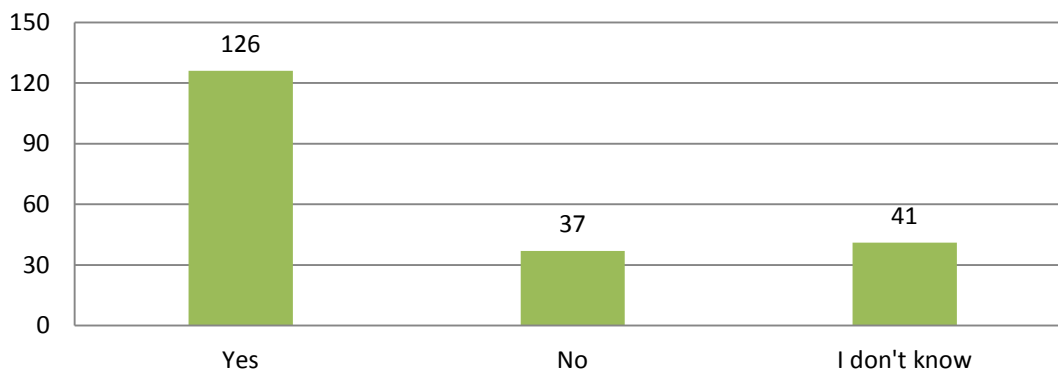
Of those who took the survey, 10% did not know if they were connected to municipal sewer or a septic system. So, by extension, those who are unsure where their waste is discharged are not actively maintaining a septic field if they do have one.



Survey participants who are connected to a septic were next asked if they conduct regular maintenance. Of those, 61% of the responses indicated that they conducted regular septic system maintenance which exceeds the PEP Objective of 9%. Only 18% of respondents reported that they do not regularly pump their septic systems and 21% were unsure if regular maintenance was occurring. The DEQ estimates between 10-20% of septic systems in Michigan are improperly functioning or failing. Regular maintenance and inspection play a critical role in identifying and correcting these failing systems. In subsequent years adding additional messaging about identifying signs of trouble in your septic system in addition to regular maintenance guidelines may help target those who have a failing septic field that could be repaired before it fails completely.

Figure 12. Septic System Maintenance

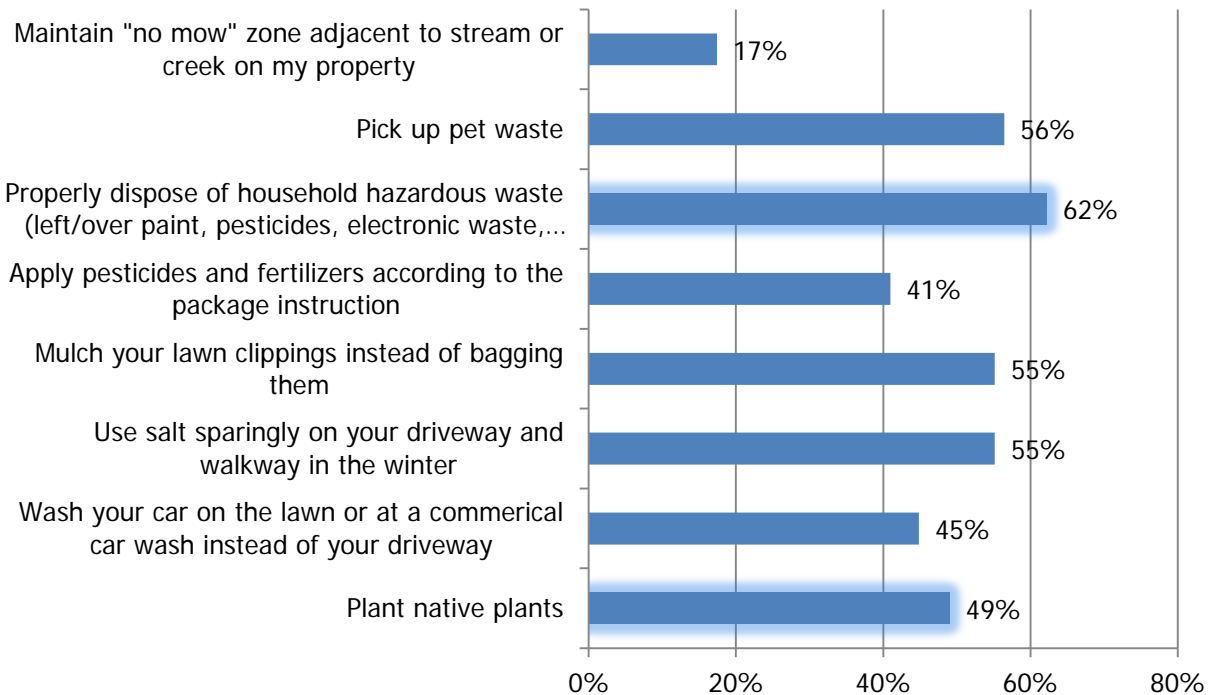
"If you have a septic system at home, is the tank pumped out every few years?"



US Census data estimate that approximately 25% of residences in the Watershed are rental properties. Therefore, a portion of those who responded that they were unsure may be renters who are not responsible for maintaining their own systems.

PEP Objective 4 evaluates personal actions that can impact the watershed. Survey participants were asked to select from a list all items in which they are participating. Of the 369 total responses, only 5 selected no actions from the list. In other words, 98% of the participants could name one or more actions they were taking which exceeds the objective of 80% in the PEP plan. The actions with the highest percentages of respondents participating were proper disposal of household hazardous waste at 62% and picking up pet waste at 56%.

Figure 13. What Actions are you doing to protect Water Quality?



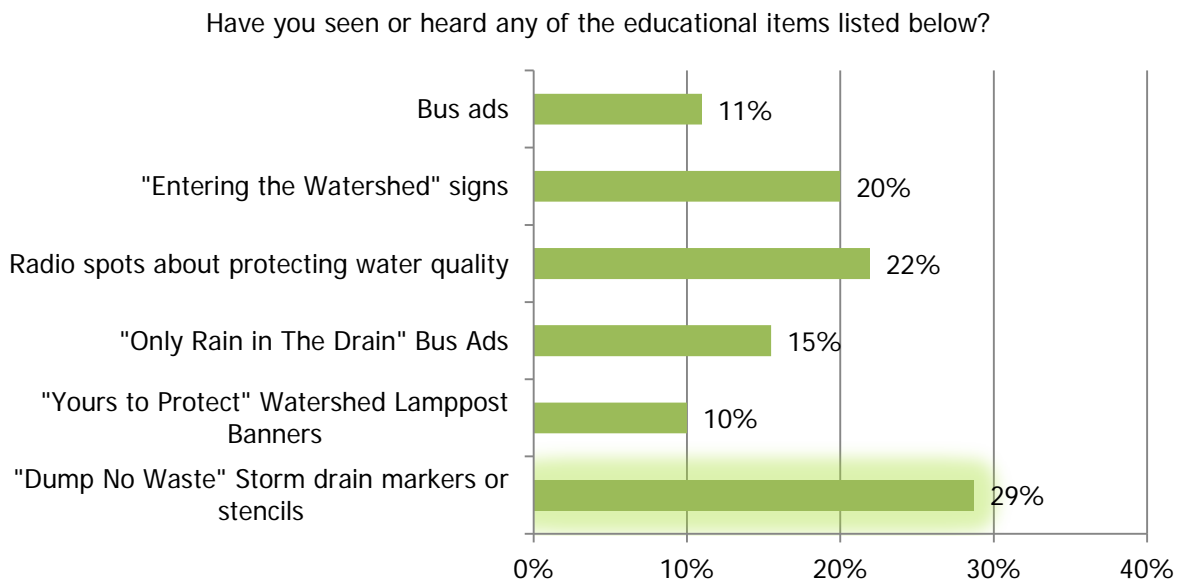
PEP objective 5 is waste management assistance and sets a 9% increase in the number of watershed residents dropping off HHW during collection events as the third year milestone. In 2015, Kent County switched their household hazardous waste collection from an appointment only system to regularly scheduled hours of operation. During the 2014-15 reporting period, an estimated 3,784 users dropped off household hazardous waste. During the 2015-16 reporting period the number of users climbed to approximately 5,046, a 25% increase which exceeds the PEP objective. Going forward, this year's utilization data should serve as the new baseline for measuring increases since this model encourages more participation from Kent County residents. Utilization data for Ottawa County includes many areas

outside the Lower Grand River Watershed so it doesn't provide a clear baseline for the permitted community participation within the watershed. Properly disposing of household hazardous waste was also the most frequently selected response to the question: "What are some things you are doing to protect water quality?" With 64% of respondents selecting this activity, this indicates that that many residents are utilizing this option throughout the watershed.

PEP objective 6, management of riparian lands sets a 9% increase in the number of watershed residents surveyed who are planting native plants, stream buffers, rain gardens or shoreline stabilization techniques. Survey responses included 17% maintaining a "no mow" buffer zone, and over half of those surveyed reported using native plants, exceeding the PEP Objective.

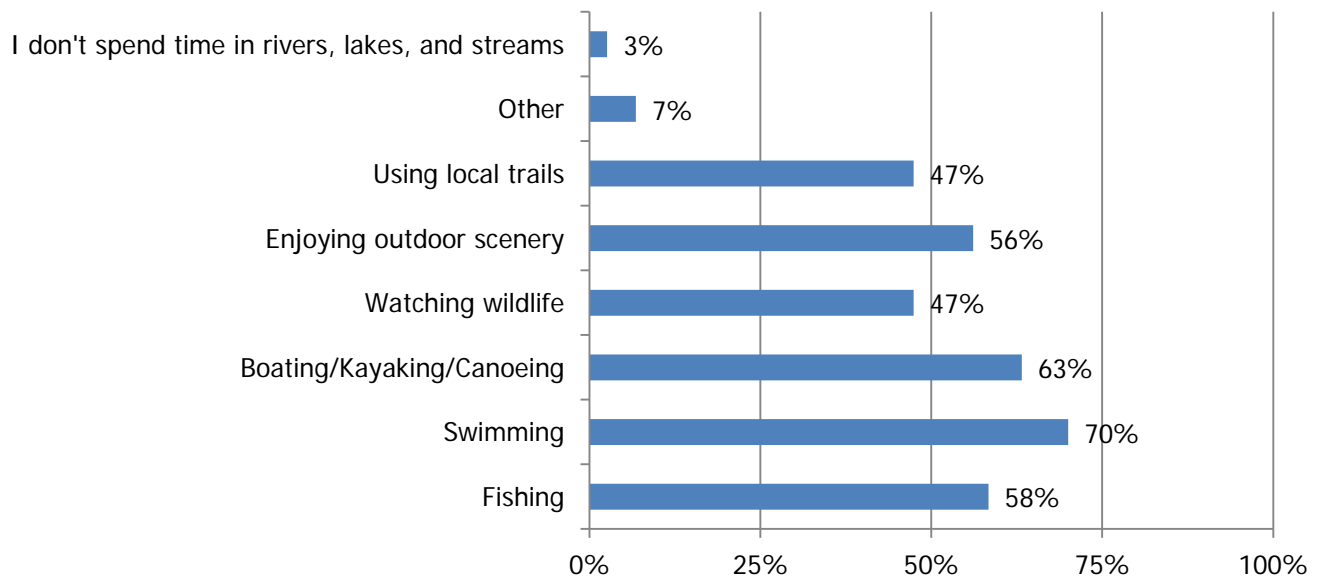
This survey was also an opportunity to evaluate which of the different outreach items/methods were the most visible. The three most visible outreach tools were the drain markers, radio spots, and entering the watershed signage. When broken out by age groups, drain markers were the most frequently observed in every age range below 56, while radio spots were selected with the highest frequency for those 56 and up. The website and Facebook were the least visible across all age groups. The Public Engagement Committee did select several new outreach methods for the reporting period following this survey so in subsequent evaluations these will be added to the list for comparison.

Figure 14. Comparing PEP outreach methods



The final two survey questions asked about the importance of water quality and how participants spent time in rivers, lakes and streams. Responses show that 98% of participants consider protecting clean water to be somewhat or very important and 97% of participants enjoy one or more of the activities listed below.

Figure 15. How do you spend your time in lakes, rivers, and streams?



Based on survey results, the Lower Grand River has exceeded the established evaluation measures for each of the six PEP objectives outlined in the approved 2013 Public Education Plan as shown in Table 5.

Table 5. PEP Objective	Evaluation Measure	
	Meets	Exceeds
1. Personal watershed stewardship		X
2. Ultimate stormwater discharge		X
3. Public reporting of illicit discharges		X
4. Personal actions impact the watershed		X
5. Waste Management assistance		x
6. Management of riparian land		X

2016 Stormwater Public Education Plan (PEP) Questionnaire

Reporting Period of August 1, 2015, to July 31, 2016

Please complete this questionnaire to provide an evaluation of the stormwater education activities you have implemented between **August 1, 2015, and July 31, 2016**. GVMC will include this information, along with watershed-wide measures of effectiveness, in your 2016 Progress Report.

Please return this form to GVMC by August 15, 2016.

Community Name: Kent County Drain Commission

Brochures, Flyers, and Give-a-ways

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 Grand Rapids Public Elementary Schools.

3. Approximately how many people did you interact with during the distribution of the materials? 120

4. What was the most popular give-a-way from the materials distributed in your community? Troutie Coloring Books

5. What topics are of the greatest interest to members of 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)

6. How many "Citizens Reporting Brochures" were customized and distributed to your residents? 35

Was the "Citizens Reporting Brochure" posted to your city website? Yes, at _____ (url) No

Please describe any interest, comments, or discussion generated from the brochure: _____

How many complaints were received from the general public regarding illicit discharges? 2

Lamppost Banners

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

Yes, at _____ (street names/ location) on _____ (dates). Please describe any public feedback generated _____

No, but we will display our banners at _____ (street names/ location) 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): _____

No, but we will on _____ (date)

9. Please describe any interest, comments, or discussion generated from the articles _____

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

The _____ Drain _____ Commissioner's _____ website _____ on _____ accesskent

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? _____

Stormwater Interactive Displays

13. Did you set up the stormwater poster board display?

Yes, on _____ (dates) at _____ (location).

No, but we will set up our display on all hearings of drain boards of determination (dates) at _____ (location)

14. Did you use an EnviroScape interactive stormwater model to educate the public on stormwater pollution?

Yes, on _____ (dates) at _____ (location); No

Approximately how many people participated in a demonstration? _____

15. Did you use a watershed map with pushpins at an event?

Yes, on _____ (dates) at _____ (location); No

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

16. Did you use the stormwater mural banner & scavenger hunt at an event?

Yes, on _____ (dates) at _____ (location); No

Approximately how many participants completed the scavenger hunt? _____

17. Did you utilize Major Runoff the stormwater mascot at an event?

Yes, on _____ (dates) at _____ (location); No

Approximately how many participants interacted with Major Runoff? _____

18. Did you utilize interactive Corn Hole Game Board at an event?

Yes, on _____ (dates) at _____ (location); No

If yes, which game did you host?

Drop toss: stormwater matching

Match the Macro with their habitat

Pet Waste Pledges

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

Yes, _____ (approximate number)

No

20. Please describe any interest, comments, or discussion generated from the pledges and the associated giveaway:

Car Wash Pledges

21. Did your community collect car wash pledges distributed with the public education materials?

- Yes, (approximate number)
- No

22. Please describe any interest, comments, or discussion generated from the pledges and the associated giveaway:

Storm Drain Awareness Activities

22. Did you implement a storm drain awareness activity between August 1, 2015, and July 31, 2016?

- 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"
- Yes, we hung door knob flyers on _____ (streets) on _____ (dates)
- No, but we plan to implement _____ (activities) on _____ (dates)

23. Please describe any interest, comments, or discussion generated from the activities above _____

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

- Yes, if so, please describe Observe a higher percentage of dog owners picking up pet waste.; No, if so, please describe _____

Additional Efforts

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

- Rain Barrel Workshop Date: ___/___/___ Number of Attendees: ___
- Rain Garden Installation Date: ___/___/___ Number of Attendees: ___
- River Clean Up(Location): _____ Date: ___/___/___ Number of Attendees: ___
- Clean Air- Clean Water @ the West Michigan WhiteCaps 8/9/2015
- Healing Our Waters Conference 9/29-10/1/1/2015
- Ottawa County Water Quality Forum 11/7/13/2015
- MWEA Watershed Seminar 12/2/2015
- Quiet Water Symposium 3/5/2016
- River City Water Festival 3/11/2016
- MWEA Watershed Summit 3/29/2016
- 13th Annual Grand River Spring Forum 5/6/2016
- John Ball Park Party for the Planet 5/7/2016
- Grand River Water Festival 6/26/2016
- West Michigan WhiteCaps Concourse Table 7/6/2016
- Other: _____ Date: ___/___/___ Number of Attendees: ___

Describe any materials distributed, number of attendees, messages distributed : _____

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

Permittee: Kent County Drain Commissioner and Administration



PART 4 – IDEP

Regional IDEP Activities

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. Outfall sampling was conducted for the Village of Fruitport in Muskegon County during the summer of 2016. In total, over 2,000 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, 61 illicit discharges not associated with outfall testing were identified either by public reporting or staff identification during the reporting period and 28 illicit discharges were identified during the last reporting period. Recognition and reporting training for both the public and the staff of permitted communities is more than twice as effective at 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.

Community IDEP Activities

<p>Please describe any dry-weather screening conducted during the reporting period and the findings of that screening.</p>
<p>Dry weather screening of all outfalls under the jurisdiction of the office of the Kent County Drain Commissioner was completed prior to August 1, 2013.</p>
<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.</p> <p>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.</p>
<p>None identified.</p>
<p>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.</p>
<p>All previous illicit discharges eliminated.</p>
<p>Please describe actions taken when indications of illicit discharges have been identified, if any.</p>
<p>N/A</p>

<p>Please provide:</p> <ul style="list-style-type: none">• An estimated quantification of the number of discharges eliminated, and• An estimated quantification of the volume of illicit flow eliminated (<i>For large spills or, where the amount discharged is possible to estimate</i>).
<p>N/A</p>
<p>Identify any specific coordination with the health department in response to illicit discharge elimination for failed or failing septic fields.</p>
<p>The County Health Department identified 336 septic systems in need of repair. All the necessary repairs have been completed.</p>
<p>Describe the effectiveness of the program to prevent illicit discharges and the method used to assess effectiveness.</p>
<p>For the Dry Weather Screening, our office inspected 543 outfalls and found 131 with dry weather flow. From the 131 only 7 were flagged from testing results as being a possible illicit discharge. 4 out of the 7 are illicit discharges; 2 of which are from Landfills under the jurisdiction of the Department of Public works which is working towards a solution, the leaking garbage compressor is still being addressed by local township and the other was an illicit discharge from a sanitary connection from a single family home. Through all the inspections and testing only 7 potential illicit discharges were identified out of the 543, resulting in a 1.3% return.</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. 3 GNS 16.01 DC, BYN 15.06 DC, BYN 16.06 DC,

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. A 2015 updated master list is attached.

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
Comments: None		

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**:

None

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

None

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:

Original SWPPI Section/Subsection	Revision

Permittee: Kent County Drain Commissioner and Administration

Additional Documentation

Appendix 2
 KCDC Outfalls and Discharge Points
 2016

Outfall ID #	Point of Discharge	LATITUDE	LONGITUDE	PRIORITY	OUTFALL OR DISCHARGE POINT	ULTIMATE OUTFALL
ADA 07.02 DC	Waters of the State	43.007000	-85.533000	MEDIUM-HIGH	OUTFALL	Tributary to Egypt Creek
ADA 13.01 DC	Waters of the State	42.991624	-85.449425	MEDIUM-LOW	OUTFALL	Trib to Honey Creek
ADA 29.01 DC	Waters of the State	42.959000	-85.514000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 29.02 DC	Waters of the State	42.957000	-85.514000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 29.03 DC	Waters of the State	42.959000	-85.517000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 29.04 DC	Waters of the State	42.957000	-85.517000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 29.05 DC	Waters of the State	42.957000	-85.518000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 29.06 DC	Waters of the State	42.951000	-85.512000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 30.01 DC	Waters of the State	42.960000	-85.531000	MEDIUM-HIGH	OUTFALL	Tributary to Grand River
ADA 31.01 DC	Waters of the State	42.943000	-85.547000	MEDIUM-HIGH	OUTFALL	Tributary to Little Plaster Creek
ADA 31.02 DC	Waters of the State	42.942000	-85.539000	MEDIUM-LOW	OUTFALL	Tributary to Little Plaster Creek
ADA 31.03 DC	Waters of the State	42.945000	-85.539000	MEDIUM-HIGH	OUTFALL	MARTIN & BEAK NO.2
ADA 34.01 DC	Waters of the State	42.952000	-85.486000	MEDIUM-LOW	OUTFALL	Thornapple River
ALG 17.01 DC	Waters of the State	43.162571	-85.162571	MEDIUM-LOW	OUTFALL	Trib to Little Cedar Creek
ALG 19.01 DC	Waters of the State	43.157412	-85.656501	MEDIUM-LOW	OUTFALL	TRIB TO LOW LAKE
ALG 24.01 DC	Waters of the State	43.156894	-85.570820	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
ALP 25.01 DC	Waters of the State	43.049000	-85.676000	MEDIUM-HIGH	OUTFALL	TRIB TO STRAWBERRY CREEK
ALP 27.01 DC	Waters of the State	43.052000	-85.719000	MEDIUM-LOW	OUTFALL	TRIB TO INDIAN MILL CREEK
ALP 31.01 DC	Waters of the State	43.045115	-85.774168	MEDIUM-LOW	OUTFALL	SAND CREEK - EAST FORK
ALP 35.01 DC	Waters of the State	43.031000	-85.693000	HIGH	OUTFALL	WETLANDS/POND
ALP 35.02 DC	Waters of the State	43.030000	-85.692000	MEDIUM-HIGH	OUTFALL	WETLANDS/POND
ALP 36.01 DC	Waters of the State	43.037000	-85.681000	MEDIUM-HIGH	OUTFALL	YORK CREEK/ALPINE WALKER DRAIN
ALP 36.02 DC	Waters of the State	43.039000	-85.682000	MEDIUM-HIGH	OUTFALL	YORK CREEK/ALPINE WALKER DRAIN
BWN 06.01 DC	Waters of the State	42.844885	-85.421668	MEDIUM-LOW	OUTFALL	BROOKSHIRE ESTATES WET POND
BWN 06.02 DC	Waters of the State	42.843457	-85.423585	MEDIUM-LOW	OUTFALL	WETLANDS/POND
BWN 11.01 DC	Waters of the State	42.841443	-85.347308	MEDIUM-LOW	OUTFALL	PRATT LAKE
BWN 14.01 DC	Waters of the State	42.823800	-85.344000	MEDIUM-LOW	OUTFALL	PRATT LAKE
BWN 16.01 DC	Waters of the State	42.818201	-85.379500	MEDIUM-LOW	OUTFALL	TRIB TO CLARK AND BUNKER DRAIN
BWN 22.01 DC	Waters of the State	42.811920	-85.363650	MEDIUM-LOW	OUTFALL	TRIB TO TYLER CREEK
BWN 27.01 DC	Waters of the State	42.783961	-85.366323	MEDIUM-LOW	OUTFALL	TRIB TO COLDWATER RIVER
BWN 29.01 DC	Waters of the State	42.784643	-85.408038	MEDIUM-LOW	OUTFALL	COLDWATER RIVER

BWN 35.01 DC	Waters of the State	42.774246	-85.342001	MEDIUM-LOW	OUTFALL	TRIB TO COLDWATER RIVER
BYN 01.01 DC	Waters of the State	42.844000	-85.674000	MEDIUM-HIGH	OUTFALL	BUCK CREEK
BYN 01.02 DC	Waters of the State	42.841000	-85.673000	MEDIUM-HIGH	OUTFALL	BUCK CREEK
BYN 03.01 DC	Waters of the State	42.845000	-85.714000	MEDIUM-HIGH	OUTFALL	WET POND
BYN 03.02 DC	Waters of the State	42.844000	-85.721000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.03 DC	Waters of the State	42.843000	-85.721000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.04 DC	Waters of the State	42.843000	-85.720000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.05 DC	Waters of the State	42.843000	-85.718000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.06 DC	Waters of the State	42.843000	-85.717000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.07 DC	Waters of the State	42.844000	-85.716000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.08 DC	Waters of the State	42.844000	-85.717000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.09 DC	Waters of the State	42.845000	-85.719000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.10 DC	Waters of the State	42.846000	-85.721000	MEDIUM-HIGH	OUTFALL	Vansingel Farms
BYN 03.11 DC	Waters of the State	42.841000	-85.712000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 03.12 DC	Waters of the State	42.842000	-85.710000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 03.13 DC	Waters of the State	42.842000	-85.709000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 04.01 DC	Waters of the State	42.845000	-85.731000	MEDIUM-HIGH	OUTFALL	RUSH CREEK/KNIGHT DRAIN
BYN 04.02 DC	Waters of the State	42.841000	-85.723000	MEDIUM-HIGH	OUTFALL	KNIGHT DRAIN BRANCH 1
BYN 06.01 DC	Waters of the State	42.852000	-85.778000	MEDIUM-HIGH	OUTFALL	RUSH CREEK EAST BRANCH
BYN 06.02 DC	Waters of the State	42.848759	-85.768891	MEDIUM-LOW	OUTFALL	TRIB TO BROWN DRAIN
BYN 09.01 DC	Waters of the State	42.839000	-85.738000	MEDIUM-HIGH	OUTFALL	KNIGHT DRAIN
BYN 09.02 DC	Waters of the State	42.839000	-85.735000	MEDIUM-HIGH	OUTFALL	KNIGHT DRAIN
BYN 09.03 DC	Waters of the State	42.836000	-85.729000	MEDIUM-HIGH	OUTFALL	RUSH CREEK/KNIGHT DRAIN
BYN 09.04 DC	Waters of the State	42.837000	-85.724000	MEDIUM-HIGH	OUTFALL	DETENTION BASIN/WETLAND
BYN 09.07 DC	Waters of the State	42.827000	-85.738000	MEDIUM-LOW	OUTFALL	TRIB TO RUSH CREEK/KNIGHT DRAIN
BYN 10.01 DC	Waters of the State	42.841000	-85.721000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.02 DC	Waters of the State	42.839000	-85.721000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.03 DC	Waters of the State	42.839000	-85.719000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.04 DC	Waters of the State	42.839000	-85.717000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.05 DC	Waters of the State	42.839000	-85.714000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.06 DC	Waters of the State	42.841000	-85.713000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.07 DC	Waters of the State	42.840000	-85.721000	MEDIUM-HIGH	OUTFALL	West Lake Byron
BYN 10.08 DC	Waters of the State	42.840000	-85.712000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 10.09 DC	Waters of the State	42.838000	-85.712000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 10.10 DC	Waters of the State	42.837000	-85.712000	MEDIUM-HIGH	OUTFALL	Water's Edge Pond
BYN 10.11 DC	Waters of the State	42.836000	-85.712000	MEDIUM-HIGH	OUTFALL	Water's Edge Pond
BYN 10.12 DC	Waters of the State	42.836000	-85.711000	MEDIUM-HIGH	OUTFALL	Water's Edge Pond
BYN 10.13 DC	Waters of the State	42.837000	-85.711000	MEDIUM-HIGH	OUTFALL	Water's Edge Pond
BYN 10.14 DC	Waters of the State	42.837000	-85.704000	MEDIUM-HIGH	OUTFALL	EAST LAKE BYRON
BYN 10.15 DC	Waters of the State	42.833000	-85.717000	MEDIUM-HIGH	OUTFALL	WHISTLE RIDGE NO. 3 DETENTION/CHANNEL

BYN 10.17 DC	Waters of the State	42.830000	-85.713000	MEDIUM-HIGH	OUTFALL	TRIB TO KNIGHT DRAIN
BYN 10.19 DC	Waters of the State	42.830000	-85.722000	MEDIUM-HIGH	OUTFALL	WARNER COUNTY DRAIN
BYN 10.20 DC	Waters of the State	42.832000	-85.711000	MEDIUM-HIGH	OUTFALL	TRIB TO WHISTLE RIDGE NO. 3 DRAIN
BYN 10.21 DC	Waters of the State	42.832000	-85.710000	MEDIUM-HIGH	OUTFALL	WET BASIN/WETLAND
BYN 11.01 DC	Waters of the State	42.841000	-85.692000	MEDIUM-HIGH	OUTFALL	Cutlerville Orchard
BYN 11.02 DC	Waters of the State	42.835000	-85.700000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.03 DC	Waters of the State	42.835000	-85.698000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.04 DC	Waters of the State	42.835000	-85.697000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.05 DC	Waters of the State	42.835000	-85.703000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.06 DC	Waters of the State	42.835000	-85.703000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.07 DC	Waters of the State	42.836000	-85.702000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.08 DC	Waters of the State	42.836000	-85.702000	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.09 DC	Waters of the State	42.834000	-85.689000	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.10 DC	Waters of the State	42.834000	-85.691000	MEDIUM-HIGH	OUTFALL	DAN KOSTER M.I.C
BYN 11.11 DC	Waters of the State	42.832000	-85.689000	MEDIUM-HIGH	OUTFALL	DAN KOSTER M.I.C
BYN 11.12 DC	Waters of the State	42.833000	-85.688000	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.13 DC	Waters of the State	42.832000	-85.686000	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.14 DC	Waters of the State	42.831000	-85.684000	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.15 DC	Waters of the State	42.836600	-85.699600	MEDIUM-HIGH	OUTFALL	GOOSE CREEK
BYN 11.16 DC	Waters of the State	42.836900	-85.701500	MEDIUM-HIGH	OUTFALL	PROVIDENCE COVE POND
BYN 11.17 DC	Waters of the State	42.836900	-85.699800	MEDIUM-HIGH	OUTFALL	PROVIDENCE COVE POND
BYN 11.18 DC	Waters of the State	42.834800	-85.698000	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 11.19 DC	Waters of the State	42.834300	-85.699900	MEDIUM-HIGH	OUTFALL	PROVIDENCE LAKE
BYN 12.01 DC	Waters of the State	42.837000	-85.667000	MEDIUM-HIGH	OUTFALL	MATT STREET DRAIN
BYN 12.02 DC	Waters of the State	42.671000	-85.671000	MEDIUM-HIGH	OUTFALL	BUCK CREEK EXT DRAIN
BYN 12.03 DC	Waters of the State	42.833000	-85.671000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
BYN 13.01 DC	Waters of the State	42.816000	-85.669000	MEDIUM-HIGH	OUTFALL	PFEIFFER DRAIN
BYN 14.01 DC	Waters of the State	42.825000	-85.697000	MEDIUM-LOW	OUTFALL	TRIB TO BUCK CREEK
BYN 14.05 DC	Waters of the State	42.816000	-85.693000	MEDIUM-HIGH	OUTFALL	BUCK CREEK
BYN 15.03 DC	Waters of the State	42.813000	-85.712000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
BYN 15.04 DC	Waters of the State	42.813000	-85.712000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
BYN 15.05 DC	Waters of the State	42.816000	85.723000	MEDIUM-HIGH	OUTFALL	WARNER DRAIN
BYN 15.06 DC	Waters of the State	42.821000	-85.719000	MEDIUM-HIGH	OUTFALL	WARNER DRAIN
BYN 16.01 DC	Waters of the State	42.826000	-85.735000	MEDIUM-HIGH	OUTFALL	KNIGHT DRAIN
BYN 16.02 DC	Waters of the State	42.823000	-85.738000	MEDIUM-LOW	OUTFALL	KNIGHT DRAIN
BYN 16.03 DC	Waters of the State	42.823000	-85.739000	MEDIUM-LOW	OUTFALL	KNIGHT DRAIN
BYN 16.04 DC	Waters of the State	42.821000	-85.741000	MEDIUM-LOW	OUTFALL	KNIGHT DRAIN
BYN 16.05 DC	Waters of the State	42.820000	-85.742000	MEDIUM-LOW	OUTFALL	KNIGHT DRAIN
BYN 16.06 DC	Waters of the State	42.818954	-85.728767	MEDIUM-HIGH	OUTFALL	WARNER DRAIN
BYN 17.01 DC	Waters of the State	42.819000	-85.743000	MEDIUM LOW	OUTFALL	KNIGHT DRAIN

BYN 21.02 DC	Waters of the State	42.804000	-85.724000	MEDIUM-HIGH	OUTFALL	TRIB TO JAKES DRAIN
BYN 21.03 DC	Waters of the State	42.802000	-85.728000	MEDIUM-HIGH	OUTFALL	JAKES DRAIN
BYN 21.04 DC	Waters of the State	42.803000	-85.730000	MEDIUM-HIGH	OUTFALL	POND/WETLAND
BYN 21.05 DC	Waters of the State	42.804000	-85.730000	MEDIUM-HIGH	OUTFALL	POND/WETLAND
BYN 21.06 DC	Waters of the State	42.803000	-85.730000	MEDIUM-HIGH	OUTFALL	JAKES DRAIN
BYN 22.01 DC	Waters of the State	42.809000	-85.715000	MEDIUM-HIGH	OUTFALL	LANTING DRAIN
BYN 22.02 DC	Waters of the State	42.804000	-85.706000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.03 DC	Waters of the State	42.804000	-85.704000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.04 DC	Waters of the State	42.803000	-85.704000	MEDIUM-HIGH	OUTFALL	LANTING
BYN 22.05 DC	Waters of the State	42.803000	-85.705000	MEDIUM-HIGH	OUTFALL	LANTING
BYN 22.07 DC	Waters of the State	42.802000	-85.709000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.08 DC	Waters of the State	42.802000	-85.710000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.09 DC	Waters of the State	42.802000	-85.710000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.10 DC	Waters of the State	42.802000	-85.710000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.11 DC	Waters of the State	42.802000	-85.709000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.12 DC	Waters of the State	42.802000	-85.709000	MEDIUM-HIGH	OUTFALL	PLANTERS ROW
BYN 22.13 DC	Waters of the State	42.711790	-85.799700	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
BYN 23.01 DC	Waters of the State	42.806000	-85.692000	MEDIUM-LOW	OUTFALL	CARLISLE SHORES DRAIN
BYN 23.02 DC	Waters of the State	42.806000	-85.692000	MEDIUM-LOW	OUTFALL	CARLISLE SHORES DRAIN
BYN 23.03 DC	Waters of the State	42.807000	-85.690000	MEDIUM-LOW	OUTFALL	CARLISLE SHORES DRAIN
BYN 23.04 DC	Waters of the State	42.807000	-85.691000	MEDIUM-LOW	OUTFALL	CARLISLE SHORES DRAIN
BYN 23.05 DC	Waters of the State	42.808000	-85.688000	MEDIUM-LOW	OUTFALL	CARLISLE DRAIN
BYN 23.07 DC	Waters of the State	42.810087	-85.688686	MEDIUM-LOW	OUTFALL	TRIB TO CARLISLE DRAIN
BYN 24.02 DC	Waters of the State	42.810652	-85.674059	MEDIUM-LOW	OUTFALL	TRIB TO CARLISLE DRAIN
BYN 24.03 DC	Waters of the State	42.801543	-85.673370	MEDIUM-LOW	OUTFALL	TRIB TO CARLISLE DRAIN
BYN 30.01 DC	Waters of the State	42.796558	-85.780228	MEDIUM-LOW	OUTFALL	TRIB TO BLACK CREEK
BYN 32.01 DC	Waters of the State	42.768312	-85.758008	MEDIUM-LOW	OUTFALL	TRIB TO UNNAMED CREEK
BYN 35.01 DC	Waters of the State	42.780521	-85.691586	MEDIUM-LOW	OUTFALL	BUCK CREEK
CAL 03.01 DC	Waters of the State	42.844000	-85.475000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAL 11.01 DC	Waters of the State	42.838176	-85.451085	MEDIUM-HIGH	OUTFALL	CAMPAU LAKE
CAL 12.01 DC	Waters of the State	42.839000	-85.438000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAL 12.02 DC	Waters of the State	42.839000	-85.438000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAL 19.01 DC	Waters of the State	42.802582	-85.533958	MEDIUM-LOW	OUTFALL	TRIB TO THORNAPPLE
CAL 20.01 DC	Waters of the State	42.808952	-85.513189	MEDIUM-HIGH	OUTFALL	TRIB TO EMMONS LAKE
CAL 20.02 DC	Waters of the State	42.802840	-85.511795	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAL 20.03 DC	Waters of the State	42.800311	-85.511960	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAL 20.04 DC	Waters of the State	42.799589	-85.511692	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAL 20.05 DC	Waters of the State	42.798402	-85.511594	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAL 20.06 DC	Waters of the State	42.797548	-85.511811	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAL 21.01 DC	Waters of the State	42.807121	-85.490352	MEDIUM-LOW	OUTFALL	TRIB TO THORNAPPLE

CAL 22.01 DC	Waters of the State	42.807490	-85.468250	MEDIUM-LOW	OUTFALL	TRIB TO THORNAPPLE
CAL 22.02 DC	Waters of the State	42.807906	-85.472249	MEDIUM-LOW	OUTFALL	TRIB TO THORNAPPLE
CAL 22.03 DC	Waters of the State	42.808939	-85.477667	MEDIUM-LOW	OUTFALL	TRIB TO THORNAPPLE
CAL 24.01 DC	Waters of the State	42.812405	-85.428575	HIGH	OUTFALL	CAMPBELL LAKE
CAL 29.01 DC	Waters of the State	42.794626	-85.518941	MEDIUM-LOW	OUTFALL	TRIB TO EMMONS LAKE
CAL 29.02 DC	Waters of the State	42.791538	-85.514898	MEDIUM-LOW	OUTFALL	EMMONS LAKE
CAN 08.01 DC	Waters of the State	43.092000	-85.530000	MEDIUM-LOW	OUTFALL	BARKLEY CREEK
CAN 09.01 DC	Waters of the State	43.904000	-85.506000	MEDIUM-HIGH	OUTFALL	LAKE BELLA VISTA
CAN 09.02 DC	Waters of the State	43.093000	-85.505000	MEDIUM-HIGH	OUTFALL	LAKE BELLA VISTA
CAN 09.04 DC	Waters of the State	43.097000	-85.493000	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
CAN 11.01 DC	Waters of the State	43.908000	-85.455000	MEDIUM-HIGH	OUTFALL	TRIB TO BOSTWICK LAKE
CAN 27.01 DC	Waters of the State	43.053408	-85.472834	MEDIUM-LOW	OUTFALL	TRIB TO BEAR CREEK
CAS 06.01 DC	Waters of the State	42.931000	-85.545000	MEDIUM-HIGH	OUTFALL	MARTIN & BEAK DRAIN
CAS 06.02 DC	Waters of the State	42.938000	-85.547000	MEDIUM-HIGH	OUTFALL	TRIB TO GILLETT DRAIN
CAS 06.03 DC	Waters of the State	42.940000	-85.550000	MEDIUM-HIGH	OUTFALL	TRIB TO GILLETT DRAIN
CAS 06.04 DC	Waters of the State	42.941000	-85.546000	MEDIUM-HIGH	OUTFALL	TRIB TO GILLETT DRAIN
CAS 06.05 DC	Waters of the State	42.927000	-85.539000	MEDIUM-HIGH	OUTFALL	TRIB TO SPAULDING DRAIN
CAS 07.01 DC	Waters of the State	42.927000	-85.539000	MEDIUM-HIGH	OUTFALL	Spaulding Drain
CAS 07.02 DC	Waters of the State	42.915000	-85.538000	MEDIUM-HIGH	OUTFALL	PATTERSON DRAIN
CAS 07.03 DC	Waters of the State	42.916000	-85.536000	MEDIUM-HIGH	OUTFALL	PATTERSON DRAIN
CAS 07.04 DC	Waters of the State	42.915000	-85.536000	MEDIUM-HIGH	OUTFALL	PATTERSON DRAIN
CAS 08.02 DC	Waters of the State	42.921000	-85.515000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 08.03 DC	Waters of the State	42.921000	-85.513000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 08.04 DC	Waters of the State	42.916000	-85.516000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 08.05 DC	Waters of the State	42.919000	-85.511000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 09.01 DC	Waters of the State	42.920000	-85.509000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 09.02 DC	Waters of the State	42.921000	-85.507000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 09.03 DC	Waters of the State	42.917000	-85.502000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 10.01 DC	Waters of the State	42.923000	-85.476000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 10.03 DC	Waters of the State	42.918000	-85.479000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 15.01 DC	Waters of the State	42.902000	-85.479000	MEDIUM-HIGH	OUTFALL	APPLE HILLS DRAIN
CAS 15.02 DC	Waters of the State	42.902000	-85.480000	MEDIUM-HIGH	OUTFALL	APPLE HILLS DRAIN
CAS 15.03 DC	Waters of the State	42.903000	-85.471000	MEDIUM-HIGH	OUTFALL	WET BASIN/WETLAND
CAS 15.04 DC	Waters of the State	42.903000	-85.471000	MEDIUM-HIGH	OUTFALL	APPLE HILLS EAST DRAIN
CAS 18.01 DC	Waters of the State	42.907000	-85.530000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
CAS 18.02 DC	Waters of the State	42.912000	-85.545000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
CAS 21.01 DC	Waters of the State	42.895000	-85.494000	MEDIUM-HIGH	OUTFALL	TRIB TO THORNAPPLE
CAS 31.03 DC	Waters of the State	42.862000	-85.545000	MEDIUM-LOW	OUTFALL	TRIB TO PLASTER CREEK
CDS 25.01 DC	Waters of the State	43.223071	-85.556207	MEDIUM-LOW	OUTFALL	CEDAR CREEK
CDS 25.02 DC	Waters of the State	43.224135	-85.555759	MEDIUM-LOW	OUTFALL	CEDAR CREEK

CRT 21.01 DC	Waters of the State	43.153130	-85.508260	MEDIUM-LOW	OUTFALL	FOXTAIL DRAIN
CRT 28.01 DC	Waters of the State	43.135000	-85.493000	MEDIUM-HIGH	OUTFALL	MYERS LAKE/RUM CREEK
CRT 31.01 DC	Waters of the State	43.126000	-85.546000	MEDIUM-HIGH	OUTFALL	RUM CREEK
CRT 33.01 DC	Waters of the State	43.132000	-85.493000	MEDIUM-HIGH	OUTFALL	RUM CREEK
CRT 34.01 DC	Waters of the State	43.127000	-85.483000	MEDIUM-HIGH	OUTFALL	LITTLE BROWER LAKE
GDV 21.01 DC	Waters of the State	42.892703	-85.734134	MEDIUM-HIGH	OUTFALL	BEHAN & FOLEY DRAIN - TRIB TO BUCK CREEK
GDV 21.02 DC	Waters of the State	42.885651	-85.739028	MEDIUM-HIGH	OUTFALL	TRIB TO BEHAN & FOLEY DRAIN
GDV 21.03 DC	Waters of the State	42.886305	-85.738594	MEDIUM-HIGH	OUTFALL	TRIB TO BEHAN & FOLEY DRAIN
GDV 29.01 DC	Waters of the State	42.883205	-85.746660	MEDIUM-HIGH	OUTFALL	HUIZENGA DRAIN
GDV 30.01 DC	Waters of the State	42.882128	-85.764503	MEDIUM-HIGH	OUTFALL	HUIZENGA DRAIN
GNS 03.01 DC	Waters of the State	42.842000	-85.602000	MEDIUM-HIGH	OUTFALL	AVALON POINTE POND
GNS 03.02 DC	Waters of the State	42.842000	-85.601000	MEDIUM-HIGH	OUTFALL	AVALON POINTE POND
GNS 03.03 DC	Waters of the State	42.844000	-85.600000	MEDIUM-HIGH	OUTFALL	AVALON POINTE POND
GNS 03.04 DC	Waters of the State	42.845000	-85.601000	MEDIUM-HIGH	OUTFALL	AVALON POINTE POND
GNS 03.05 DC	Waters of the State	42.845000	-85.600000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
GNS 03.06 DC	Waters of the State	42.843000	-85.598000	MEDIUM-HIGH	OUTFALL	WETLANDS ADJACENT TO PLASTER CREEK
GNS 04.02 DC	Waters of the State	42.847000	-85.611000	MEDIUM-HIGH	OUTFALL	VANTAGE POINT WEST POND
GNS 04.03 DC	Waters of the State	42.847000	-85.612000	MEDIUM-HIGH	OUTFALL	VANTAGE POINT WEST POND
GNS 04.05 DC	Waters of the State	42.848000	-85.624000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 04.06 DC	Waters of the State	42.848000	-85.608000	MEDIUM-HIGH	OUTFALL	TRIB TO CUTLERVILLE DRAIN
GNS 04.07 DC	Waters of the State	42.849000	-85.607000	MEDIUM-HIGH	OUTFALL	TRIB TO CUTLERVILLE DRAIN
GNS 05.01 DC	Waters of the State	42.844000	-85.631000	MEDIUM-HIGH	OUTFALL	CUTLERVILLE DRAIN
GNS 05.02 DC	Waters of the State	42.844000	-85.629000	MEDIUM-HIGH	OUTFALL	CUTLERVILLE DRAIN
GNS 05.03 DC	Waters of the State	42.845000	-85.632000	MEDIUM-HIGH	OUTFALL	CUTLERVILLE DRAIN
GNS 05.04 DC	Waters of the State	42.845000	-85.633000	MEDIUM-HIGH	OUTFALL	CUTLERVILLE DRAIN
GNS 06.01 DC	Waters of the State	42.847000	-85.655000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.02 DC	Waters of the State	42.847000	-85.655000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.03 DC	Waters of the State	42.847000	-85.657000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.04 DC	Waters of the State	42.846000	-85.658000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.05 DC	Waters of the State	42.845000	-85.657000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.06 DC	Waters of the State	42.844000	-85.657000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.07 DC	Waters of the State	42.845000	-85.659000	MEDIUM-HIGH	OUTFALL	SUMMER SHORES LAKE
GNS 06.08 DC	Waters of the State	42.852000	-85.649000	MEDIUM-HIGH	OUTFALL	VAN OOSTEN DRAIN
GNS 06.09 DC	Waters of the State	42.850000	-85.650000	MEDIUM-HIGH	OUTFALL	VAN OOSTEN DRAIN
GNS 07.01 DC	Waters of the State	42.831000	-85.653000	MEDIUM-HIGH	OUTFALL	BUCK CREEK EXTENSION
GNS 07.02 DC	Waters of the State	42.828000	-85.646000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 08.01 DC	Waters of the State	42.827000	-85.641000	MEDIUM-HIGH	OUTFALL	CRYSTAL CREEK DRAIN
GNS 08.02 DC	Waters of the State	42.830000	-85.638000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 08.03 DC	Waters of the State	42.830000	-85.637000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 09.02 DC	Waters of the State	42.828000	-85.618000	MEDIUM-HIGH	OUTFALL	WET POND

GNS 09.03 DC	Waters of the State	42.827000	-85.619000	MEDIUM-HIGH	OUTFALL	WET POND
GNS 09.04 DC	Waters of the State	42.840000	-85.617000	MEDIUM-HIGH	OUTFALL	WET POND - HEATHERS DRAIN
GNS 09.06 DC	Waters of the State	42.841000	-85.615000	MEDIUM-HIGH	OUTFALL	TRIB TO CUTLERVILLE DRAIN
GNS 09.08 DC	Waters of the State	42.832000	-85.608000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
GNS 09.09 DC	Waters of the State	42.833000	-85.606000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
GNS 09.10 DC	Waters of the State	42.832000	-85.608000	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
GNS 10.01 DC	Waters of the State	42.838000	-85.599000	MEDIUM-LOW	OUTFALL	PLASTER CREEK
GNS 10.02 DC	Waters of the State	42.836000	-85.589000	MEDIUM-LOW	OUTFALL	PLASTER CREEK
GNS 10.03 DC	Waters of the State	42.837000	-85.589000	MEDIUM-LOW	OUTFALL	PLASTER CREEK
GNS 11.03 DC	Waters of the State	42.834000	-85.571000	MEDIUM-LOW	OUTFALL	TRIB TO DUTTON DRAIN
GNS 16.01 DC	Waters of the State	42.817000	-85.615000	MEDIUM-LOW	OUTFALL	BREWER DRAIN
GNS 17.01 DC	Waters of the State	42.822000	-85.628000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.02 DC	Waters of the State	42.822000	-85.628000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.03 DC	Waters of the State	42.822000	-85.627000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.04 DC	Waters of the State	42.822000	-85.626000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.05 DC	Waters of the State	42.823000	-85.633000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.06 DC	Waters of the State	42.824000	-85.633000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.07 DC	Waters of the State	42.824000	-85.632000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 17.08 DC	Waters of the State	42.818000	-85.643000	MEDIUM-HIGH	OUTFALL	TRIB TO BUCK CREEK
GNS 18.01 DC	Waters of the State	42.824000	-85.653000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARPS CREEK
GNS 18.02 DC	Waters of the State	42.822000	-85.659000	MEDIUM-HIGH	OUTFALL	SHARP'S CREEK
GNS 18.03 DC	Waters of the State	42.817000	-85.660000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARP'S CREEK
GNS 18.04 DC	Waters of the State	42.818000	-85.661000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARP'S CREEK
GNS 18.05 DC	Waters of the State	42.819000	-85.661000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARP'S CREEK
GNS 18.09 DC	Waters of the State	42.818000	-85.648000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARPS CREEK
GNS 18.11 DC	Waters of the State	42.817000	-85.653000	MEDIUM-HIGH	OUTFALL	TRIB TO SHARPS CREEK
GNS 26.01 DC	Waters of the State	42.795499	-85.581703	MEDIUM-LOW	OUTFALL	TRIB TO HANNA LAKE
GNS 31.01 DC	Waters of the State	42.768000	-85.659000	MEDIUM-LOW	OUTFALL	TRIB TO BUCK CREEK
GNS 31.02 DC	Waters of the State	42.778760	-85.655770	MEDIUM-LOW	OUTFALL	WET POND
GRC 04.02 DC	Waters of the State	43.023000	-85.629000	MEDIUM-HIGH	OUTFALL	LAMBERTON LAKE
GRC 04.04 DC	Waters of the State	42.940000	-85.620000	MEDIUM-HIGH	OUTFALL	SILVER CREEK KEISER POND
GRC 04.05 DC	Waters of the State	42.939000	-85.620000	MEDIUM-HIGH	OUTFALL	SILVER CREEK KEISER POND
GRC 05.02 DC	Waters of the State	42.937000	-85.636000	MEDIUM-HIGH	OUTFALL	SILVER CREEK CALVIN POND
GRC 06.01 DC	Waters of the State	43.020000	-85.655000	MEDIUM-HIGH	OUTFALL	LAMBERTON CREEK
GRC 08.01 DC	Waters of the State	43.007000	-85.634000	MEDIUM-HIGH	OUTFALL	LAMBERTON CREEK
GRC 08.02 DC	Waters of the State	43.001000	-85.635000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK
GRC 09.01 DC	Waters of the State	43.009000	-85.628000	MEDIUM-HIGH	OUTFALL	LAMBERTON CREEK
GRC 09.03 DC	Waters of the State	43.006000	-85.731000	MEDIUM-HIGH	OUTFALL	INDIAN MILL CREEK
GRC 13.01 DC	Waters of the State	42.998000	-85.672000	MEDIUM-HIGH	OUTFALL	GRAND RIVER
GRC 15.01 DC	Waters of the State	42.990000	-85.601000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK

GRC 15.02 DC	Waters of the State	42.988000	-85.601000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK
GRC 15.03 DC	Waters of the State	42.993000	-85.601000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK
GRC 15.04 DC	Waters of the State	42.993000	-85.601000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK
GRC 15.05 DC	Waters of the State	43.000000	-85.718000	MEDIUM-HIGH	OUTFALL	INDIAN MILL CREEK
GRC 15.06 DC	Waters of the State	42.994000	-85.727000	MEDIUM-HIGH	OUTFALL	TRIB TO INDIAN MILL CREEK
GRC 16.01 DC	Waters of the State	42.989000	-85.746000	MEDIUM-HIGH	OUTFALL	TRIB TO WORDEN & INDIAN MILL CREEK
GRC 16.02 DC	Waters of the State	42.909825	-85.621079	MEDIUM-HIGH	OUTFALL	BURTON-BRETON DRAIN
GRC 16.03 DC	Waters of the State	42.902220	-85.615089	HIGH	OUTFALL	PLASTER CREEK
GRC 16.04 DC	Waters of the State	42.993619	-85.744246	MEDIUM-HIGH	OUTFALL	BRANDYWINE CREEK
GRC 17.03 DC	Waters of the State	42.909338	-85.646727	MEDIUM-HIGH	OUTFALL	PLASTER CREEK
GRC 19.01 DC	Waters of the State	42.981000	-85.650000	MEDIUM-HIGH	OUTFALL	TRIB TO COLDBROOK CREEK
GRC 19.02 DC	Waters of the State	42.974000	-85.654000	MEDIUM-HIGH	OUTFALL	TRIB TO COLDBROOK CREEK
GRC 20.01 DC	Waters of the State	42.972000	-85.636000	MEDIUM-HIGH	OUTFALL	TRIB TO COLDBROOK CREEK
GRC 20.05 DC	Waters of the State	42.979000	-85.748000	MEDIUM-HIGH	OUTFALL	TRIB TO WORDEN
GRC 20.06 DC	Waters of the State	42.979000	-85.751000	MEDIUM-HIGH	OUTFALL	TRIB TO WORDEN
GRC 21.02 DC	Waters of the State	42.974000	-85.618000	MEDIUM-HIGH	OUTFALL	COLDBROOK CREEK
GRC 21.03 DC	Waters of the State	42.982000	-85.740000	MEDIUM-HIGH	OUTFALL	TRIB TO GRAHAM & WORDEN DRAIN
GRC 21.06 DC	Waters of the State	42.978000	-85.744000	MEDIUM-HIGH	OUTFALL	TRIB TO WORDEN
GRC 22.01 DC	Waters of the State	42.979000	-85.606000	MEDIUM-HIGH	OUTFALL	TRIB TO COLDBROOK CREEK
GRC 24.01 DC	Waters of the State	42.982000	-85.672000	HIGH	OUTFALL	GRAND RIVER
GRC 25.05 DC	Waters of the State	42.965516	-85.674531	MEDIUM-HIGH	OUTFALL	GRAND RIVER
GRC 25.06 DC	Waters of the State	42.968261	-85.674345	MEDIUM-HIGH	OUTFALL	GRAND RIVER
GRC 28.01 DC	Waters of the State	42.963000	-85.618000	MEDIUM-HIGH	OUTFALL	WATERS DRAIN
GRC 28.02 DC	Waters of the State	42.962000	-85.610000	HIGH	OUTFALL	WATERS DRAIN
GRC 28.03 DC	Waters of the State	42.963000	-85.621000	MEDIUM-HIGH	OUTFALL	WATERS DRAIN
GRT 04.01 DC	Waters of the State	43.027000	-85.628000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON LAKE
GRT 04.03 DC	Waters of the State	43.027000	-85.618000	MEDIUM-HIGH	OUTFALL	POND
GRT 10.03 DC	Waters of the State	43.007000	-85.596000	MEDIUM-HIGH	OUTFALL	WET POND - TRIB TO LAMBERTON CREEK
GRT 10.04 DC	Waters of the State	43.007000	-85.597000	MEDIUM-HIGH	OUTFALL	WET POND - TRIB TO LAMBERTON CREEK
GRT 10.05 DC	Waters of the State	43.006000	-85.597000	MEDIUM-HIGH	OUTFALL	TRIB TO LAMBERTON CREEK
GRT 24.01 DC	Waters of the State	42.970000	-85.568000	MEDIUM-LOW	OUTFALL	TRIB TO SADDLEBAG
GRT 24.02 DC	Waters of the State	42.970000	-85.568000	MEDIUM-LOW	OUTFALL	TRIB TO SADDLEBAG
GRT 25.01 DC	Waters of the State	42.961000	-85.558000	MEDIUM-HIGH	OUTFALL	WET BASIN
GRT 25.02 DC	Waters of the State	42.965000	-85.563000	MEDIUM-HIGH	OUTFALL	TRIB TO SADDLEBAG
GRT 25.03 DC	Waters of the State	42.965000	-85.558000	MEDIUM-HIGH	OUTFALL	TRIB TO SADDLEBAG
GRT 25.04 DC	Waters of the State	42.964000	-85.556000	MEDIUM-HIGH	OUTFALL	TRIB TO SADDLEBAG
GRT 26.01 DC	Waters of the State	42.966000	-85.576000	MEDIUM-HIGH	OUTFALL	TRIB TO SADDLEBAG
GRT 36.01 DC	Waters of the State	42.952000	-85.564000	MEDIUM-HIGH	OUTFALL	SADDLEBAG DRAIN
KWD 14.01 DC	Waters of the State	42.911811	-85.583826	MEDIUM-HIGH	OUTFALL	WHISKEY CREEK
KWD 14.02 DC	Waters of the State	42.912089	-85.581193	MEDIUM-HIGH	OUTFALL	WHISKEY CREEK

KWD 22.01 DC	Waters of the State	42.896294	-85.605184	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
KWD 23.01 DC	Waters of the State	42.898100	-85.581670	MEDIUM-LOW	OUTFALL	TRIB TO PLASTER CREEK
KWD 26.01 DC	Waters of the State	42.874278	-85.572311	MEDIUM-LOW	OUTFALL	TRIB TO PLASTER CREEK
KWD 26.02 DC	Waters of the State	42.877309	-85.573484	MEDIUM-LOW	OUTFALL	TRIB TO PLASTER CREEK
KWD 29.01 DC	Waters of the State	42.882609	-85.629426	MEDIUM-HIGH	OUTFALL	PARIS DRAIN - TRIB TO BUCK
KWD 31.01 DC	Waters of the State	42.865793	-85.656990	MEDIUM-HIGH	OUTFALL	TRIB TO HEYBOER
KWD 32.01 DC	Waters of the State	42.868042	-85.629064	MEDIUM-HIGH	OUTFALL	TRIB TO HEYBOER
KWD 34.01 DC	Waters of the State	42.854808	-85.590140	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
KWD 35.01 DC	Waters of the State	42.854718	-85.568077	MEDIUM-HIGH	OUTFALL	TRIB TO PLASTER CREEK
LOW 04.01 DC	Waters of the State	42.928982	-85.376074	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
LOW 04.03 DC	Waters of the State	42.934373	-85.376082	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
LOW 04.04 DC	Waters of the State	42.936873	-85.389175	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
LOW 04.05 DC	Waters of the State	42.935324	-85.387491	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
LOW 04.06 DC	Waters of the State	42.935010	-85.387347	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
LOW 20.01 DC	Waters of the State	42.890148	-85.406900	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
PLN 03.01 DC	Waters of the State	43.116682	-85.596366	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
PLN 11.01 DC	Waters of the State	43.098552	-85.584818	MEDIUM-HIGH	OUTFALL	ROGUE RIVER
PLN 11.03 DC	Waters of the State	43.089303	-85.574808	MEDIUM-HIGH	OUTFALL	WET BASIN - TRIB TO ROGUE RIVER
PLN 12.01 DC	Waters of the State	43.098347	-85.550953	MEDIUM-LOW	OUTFALL	TRIB TO BARKLEY CREEK
PLN 16.01 DC	Waters of the State	43.075614	-85.616348	MEDIUM-HIGH	OUTFALL	WHITE PINE DRAIN
PLN 16.02 DC	Waters of the State	43.073225	-85.618029	MEDIUM-HIGH	OUTFALL	WHITE PINE DRAIN
PLN 16.03 DC	Waters of the State	43.072710	-85.618614	MEDIUM-HIGH	OUTFALL	WHITE PINE DRAIN
PLN 17.02 DC	Waters of the State	43.074832	-85.630271	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 17.03 DC	Waters of the State	43.074139	-85.630984	MEDIUM-HIGH	OUTFALL	SCOTT CREEK TRIB TO GRAND RIVER
PLN 17.04 DC	Waters of the State	43.074141	-85.631092	MEDIUM-HIGH	OUTFALL	SCOTT CREEK TRIB TO GRAND RIVER
PLN 17.05 DC	Waters of the State	43.072077	-85.630053	MEDIUM-HIGH	OUTFALL	SCOTT CREEK TRIB TO GRAND RIVER
PLN 18.01 DC	Waters of the State	43.073507	-85.651165	MEDIUM-LOW	OUTFALL	WETLANDS
PLN 18.02 DC	Waters of the State	43.077181	-85.650846	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
PLN 19.01 DC	Waters of the State	43.067678	-85.669770	MEDIUM-HIGH	OUTFALL	TRIB TO MILL CR
PLN 20.02 DC	Waters of the State	43.061798	-85.641959	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 21.02 DC	Waters of the State	43.067666	-85.614024	MEDIUM-HIGH	OUTFALL	JUPITER POND (SOUTH BASIN)
PLN 21.03 DC	Waters of the State	43.067170	-85.612794	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 21.04 DC	Waters of the State	43.070387	-85.620286	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 22.02 DC	Waters of the State	43.067947	-85.599611	MEDIUM-HIGH	OUTFALL	TRIB TO ROGUE RIVER
PLN 23.01 DC	Waters of the State	43.062873	-85.581561	MEDIUM-HIGH	OUTFALL	GRAND RIVER
PLN 24.01 DC	Waters of the State	43.065314	-85.565040	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
PLN 24.02 DC	Waters of the State	43.060736	-85.563522	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
PLN 24.03 DC	Waters of the State	43.064800	-85.563700	MEDIUM-LOW	OUTFALL	BOULDER CREEK EAST
PLN 24.04 DC	Waters of the State	43.063500	-85.563700	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
PLN 25.01 DC	Waters of the State	43.054100	-85.565167	MEDIUM-LOW	OUTFALL	GRAND RIVER

PLN 27.01 DC	Waters of the State	43.057017	-85.590091	MEDIUM-HIGH	OUTFALL	GRAND RIVER
PLN 27.03 DC	Waters of the State	43.055586	-85.597757	MEDIUM-HIGH	OUTFALL	GRAND RIVER
PLN 28.01 DC	Waters of the State	43.043596	-85.611129	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 28.02 DC	Waters of the State	43.053000	-85.629000	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 30.01 DC	Waters of the State	43.051893	-85.650118	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 30.02 DC	Waters of the State	43.053332	-85.660826	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 31.01 DC	Waters of the State	43.030000	-85.659000	MEDIUM-HIGH	OUTFALL	GRAND RIVER
PLN 32.01 DC	Waters of the State	43.034436	-85.640991	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
PLN 33.01 DC	Waters of the State	43.036336	-85.628107	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 33.02 DC	Waters of the State	43.036721	-85.627703	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 33.03 DC	Waters of the State	43.036368	-85.627922	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 33.04 DC	Waters of the State	43.038048	-85.628344	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 33.05 DC	Waters of the State	43.038014	-85.628597	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 34.01 DC	Waters of the State	43.034490	-85.598815	MEDIUM-HIGH	OUTFALL	WET BASIN
PLN 34.02 DC	Waters of the State	43.038801	-85.597818	MEDIUM-HIGH	OUTFALL	WET BASIN
SOL 35.01 DC	Waters of the State	43.211368	-85.578495	MEDIUM-LOW	OUTFALL	TRIB TO CEDAR CREEK
SPR 27.01 DC	Waters of the State	43.144508	-85.728754	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
SPR 35.01 DC	Waters of the State	43.117120	-85.699017	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
TYR 19.01 DC	Waters of the State	43.237757	-85.787080	MEDIUM-LOW	OUTFALL	TRIB TO ROGUE RIVER
TYR 30.01 DC	Waters of the State	43.226887	-85.776638	MEDIUM-LOW	OUTFALL	GREINER DRAIN
TYR 32.01 DC	Waters of the State	43.214719	-85.766011	MEDIUM-LOW	OUTFALL	TRIB TO CROCKERY CREEK
TYR 32.02 DC	Waters of the State	43.214710	-85.766018	MEDIUM-LOW	OUTFALL	TRIB TO CROCKERY CREEK
TYR 33.01 DC	Waters of the State	43.215200	-85.746900	MEDIUM-LOW	OUTFALL	BALL CREEK
VER 26.01 DC	Waters of the State	42.961442	-85.339753	MEDIUM-LOW	OUTFALL	FLAT RIVER
VER 31.01 DC	Waters of the State	42.945465	-85.414044	MEDIUM-LOW	OUTFALL	TRIB TO GRAND RIVER
VER 35.01 DC	Waters of the State	42.956828	-85.340000	MEDIUM-LOW	OUTFALL	TRIB TO FLAT RIVER
VSP 22.01 DC	Waters of the State	43.155639	-85.715862	MEDIUM-HIGH	OUTFALL	ROGERS DRAIN
WLK 01.01 DC	Waters of the State	43.026024	-85.498500	MEDIUM-HIGH	OUTFALL	YORK CREEK/ALPINE WALKER DRAIN
WLK 04.01 DC	Waters of the State	43.020969	-85.738487	MEDIUM-HIGH	OUTFALL	TRIB TO INDIAN MILL CREEK
WLK 05.01 DC	Waters of the State	43.015997	-85.759353	MEDIUM-HIGH	OUTFALL	TRIB TO SAND CREEK
WLK 06.01 DC	Waters of the State	43.020626	-85.777591	MEDIUM-LOW	OUTFALL	TRIB TO SAND CREEK
WLK 06.02 DC	Waters of the State	43.020055	-85.777143	MEDIUM-LOW	OUTFALL	TRIB TO SAND CREEK
WLK 06.03 DC	Waters of the State	43.019909	-85.785346	MEDIUM-LOW	OUTFALL	TRIB TO SAND CREEK
WLK 06.04 DC	Waters of the State	43.019165	-85.786326	MEDIUM-LOW	OUTFALL	TRIB TO SAND CREEK
WLK 07.01 DC	Waters of the State	43.005244	-85.775872	MEDIUM-HIGH	OUTFALL	WET BASIN - TRIB TO FRIAR AND KIMBALL DRAIN
WLK 08.01 DC	Waters of the State	43.012069	-85.760039	MEDIUM-HIGH	OUTFALL	FRUIT RIDGE IND PARK POND
WLK 08.02 DC	Waters of the State	43.011642	-85.760045	MEDIUM-HIGH	OUTFALL	WETLANDS- TRIB TO SAND CREEK
WLK 08.03 DC	Waters of the State	43.010055	-85.761122	MEDIUM-HIGH	OUTFALL	WETLANDS-TRIB TO SAND CREEK
WLK 08.04 DC	Waters of the State	43.006358	-85.764927	MEDIUM-HIGH	OUTFALL	NOLAN DRAIN
WLK 08.05 DC	Waters of the State	43.001423	-85.765076	MEDIUM-HIGH	OUTFALL	NOLAN DRAIN

WLK 10.01 DC	Waters of the State	43.003508	-85.724028	MEDIUM-HIGH	OUTFALL	INDIAN MILL CREEK
WLK 10.02 DC	Waters of the State	43.003508	-85.724525	MEDIUM-HIGH	OUTFALL	TRIB TO INDIAN MILL CREEK
WLK 12.01 DC	Waters of the State	43.008469	-85.680037	MEDIUM-HIGH	OUTFALL	TRIB TO NOLAN DRAIN
WLK 12.02 DC	Waters of the State	43.006586	-85.676678	MEDIUM-HIGH	OUTFALL	TRIB TO NOLAN DRAIN
WLK 12.03 DC	Waters of the State	43.004178	-85.688089	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
WLK 12.04 DC	Waters of the State	43.001110	-85.676623	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
WLK 12.05 DC	Waters of the State	43.008700	-85.677463	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
WLK 17.01 DC	Waters of the State	42.996189	-85.756087	MEDIUM-HIGH	OUTFALL	MULLINS DRAIN
WLK 17.02 DC	Waters of the State	42.995915	-85.756056	MEDIUM-HIGH	OUTFALL	MULLINS DRAIN
WLK 17.07 DC	Waters of the State	42.988760	-85.747888	MEDIUM-HIGH	OUTFALL	TRIB TO BRANDYWINE
WLK 19.01 DC	Waters of the State	42.983845	-85.781686	MEDIUM-HIGH	OUTFALL	TALLMAN CREEK DRAIN
WLK 19.02 DC	Waters of the State	42.975979	-85.771346	MEDIUM-HIGH	OUTFALL	TALLMAN CREEK DRAIN
WLK 20.02 DC	Waters of the State	42.985405	-85.759545	MEDIUM-HIGH	OUTFALL	WORDEN DRAIN
WLK 20.03 DC	Waters of the State	42.980432	-85.759074	MEDIUM-HIGH	OUTFALL	WET DETENTION BASIN
WLK 20.04 DC	Waters of the State	42.981648	-85.756303	MEDIUM-HIGH	OUTFALL	WORDEN DRAIN
WLK 20.06 DC	Waters of the State	42.981654	-85.754969	MEDIUM-HIGH	OUTFALL	TRIB TO WORDEN DRAIN
WLK 20.07 DC	Waters of the State	42.980339	-85.751010	MEDIUM-HIGH	OUTFALL	GRAHAM & WORDEN DRAIN
WLK 29.01 DC	Waters of the State	42.968171	-85.756937	MEDIUM-HIGH	OUTFALL	SEXTON DRAIN
WLK 29.02 DC	Waters of the State	42.959908	-85.757702	MEDIUM-HIGH	OUTFALL	TRIB TO TALLMAN CREEK
WLK 29.03 DC	Waters of the State	42.959468	-85.759396	MEDIUM-HIGH	OUTFALL	TRIB TO TALLMAN CREEK
WLK 30.01 DC	Waters of the State	42.970943	-85.768884	MEDIUM-HIGH	OUTFALL	TRIB TO GRAND RIVER
WLK 30.02 DC	Waters of the State	42.968033	-85.767648	MEDIUM-HIGH	OUTFALL	TALLMAN CREEK
WYM 02.01 DC	Waters of the State	42.935691	-85.687364	MEDIUM-HIGH	OUTFALL	PLASTER CREEK
WYM 09.01 DC	Waters of the State	42.921093	-85.742189	MEDIUM-HIGH	OUTFALL	ROYS CREEK
WYM 15.01 DC	Waters of the State	42.907768	-85.713380	MEDIUM-HIGH	OUTFALL	ROYS CREEK
WYM 15.02 DC	Waters of the State	42.911705	-85.707351	MEDIUM-HIGH	OUTFALL	ROYS CREEK
WYM 19.01 DC	Waters of the State	42.894355	-85.648783	MEDIUM-HIGH	OUTFALL	TRIB TO HEYBOER MAIN DRAIN
WYM 19.02 DC	Waters of the State	42.891203	-85.649928	MEDIUM-HIGH	OUTFALL	HEYBOER MAIN DRAIN
WYM 19.03 DC	Waters of the State	42.885708	-85.649355	MEDIUM-HIGH	OUTFALL	HEYBOER MAIN DRAIN
WYM 19.04 DC	Waters of the State	42.884183	-85.653598	MEDIUM-HIGH	OUTFALL	HEYBOER MAIN DRAIN
BYN 14.02 PRK	Waters of the State	42.816000	-85.691000	MEDIUM HIGH	OUTFALL	BUCK CREEK
BYN 14.03 PRK	Waters of the State	42.817000	-85.691000	MEDIUM HIGH	OUTFALL	BUCK CREEK
BYN 14.04 PRK	Waters of the State	42.815000	-85.693000	MEDIUM HIGH	OUTFALL	BUCK CREEK
BYN 36.01 DPW	Waters of the State	42.771561	-85.680443	MEDIUM HIGH	OUTFALL	BUCK CREEK
BYN 36.02 DPW	Waters of the State	42.778040	-85.677679	MEDIUM HIGH	OUTFALL	TRIB TO BUCK CREEK
BYN 36.03 DPW	Waters of the State	42.768401	-85.675605	MEDIUM HIGH	OUTFALL	BUCK CREEK
CRT 27.01 PRK	Waters of the State	43.138970	-85.488000	MEDIUM LOW	OUTFALL	MYERS LAKE
GRC 20.01 KC	Waters of the State	42.976000	-85.637000	MEDIUM HIGH	OUTFALL	WETLANDS - TRIB TO CORDUROY CREEK
GRC 20.02 KC	Waters of the State	42.976000	-85.637000	MEDIUM HIGH	OUTFALL	WETLANDS - TRIB TO CORDUROY CREEK
GRC 20.03 KC	Waters of the State	42.975000	-85.636000	MEDIUM HIGH	OUTFALL	WETLANDS - TRIB TO CORDUROY CREEK

GRC 20.04 KC	Waters of the State	42.975000	-85.635000	MEDIUM HIGH	OUTFALL	CORDUROY POND - WETLANDS
GRC 20.05 KC	Waters of the State	42.974000	-85.633000	MEDIUM HIGH	OUTFALL	CORDUROY POND - WETLANDS
GRC 20.06 KC	Waters of the State	42.974000	-85.633000	MEDIUM HIGH	OUTFALL	CORDUROY POND - WETLANDS
GRC 20.07 KC	Waters of the State	42.974000	-85.633000	MEDIUM HIGH	OUTFALL	CORDUROY POND - WETLANDS
GRC 35.01 DPW	Waters of the State	42.950000	-85.694000	MEDIUM HIGH	OUTFALL	GRAND RIVER
KWD 27.01 DPW	Waters of the State	42.876000	-85.589000	MEDIUM HIGH	OUTFALL	PLASTER CREEK
KWD 27.02 DPW	Waters of the State	42.875000	-85.590000	MEDIUM HIGH	OUTFALL	PLASTER CREEK
KWD 27.03 DPW	Waters of the State	42.873000	-85.590000	MEDIUM HIGH	OUTFALL	PLASTER CREEK
PLN 03.01 DPW	Waters of the State	43.116129	-85.595073	MEDIUM HIGH	OUTFALL	Trib to Rogue River
PLN 03.02 DPW	Waters of the State	43.116000	-85.593000	MEDIUM HIGH	OUTFALL	Trib to Rogue River
PLN 03.03 DPW	Waters of the State	43.110000	-85.597000	MEDIUM HIGH	OUTFALL	Trib to Rogue River
PLN 03.04 DPW	Waters of the State	43.111809	-85.598849	MEDIUM HIGH	OUTFALL	Trib to Rogue River
PLN 31.02 PRK	Waters of the State	43.035520	-85.668700	MEDIUM HIGH	OUTFALL	MILL CREEK
PLN 31.03 PRK	Waters of the State	43.034150	-85.667240	MEDIUM HIGH	OUTFALL	MILL CREEK
PLN 31.04 PRK	Waters of the State	43.033740	-85.666820	MEDIUM HIGH	OUTFALL	MILL CREEK
WLK 05.02 PRK	Waters of the State	42.934000	-85.749000	MEDIUM LOW	OUTFALL	TRIB TO GRAND RIVER
WLK 05.03 PRK	Waters of the State	42.935000	-85.748000	MEDIUM LOW	OUTFALL	TRIB TO GRAND RIVER
WLK 05.04 PRK	Waters of the State	42.937000	-85.747000	MEDIUM LOW	OUTFALL	TRIB TO GRAND RIVER
WLK 07.02 PRK	Waters of the State	42.919685	-85.765610	MEDIUM HIGH	OUTFALL	GRAND RIVER
WLK 07.03 PRK	Waters of the State	42.915727	-85.767320	MEDIUM HIGH	OUTFALL	GRAND RIVER
WLK 07.04 PRK	Waters of the State	42.915673	-85.767370	MEDIUM HIGH	OUTFALL	GRAND RIVER
WLK 07.05 PRK	Waters of the State	42.923158	-85.764790	MEDIUM HIGH	OUTFALL	GRAND RIVER
ADA 28.01 DC	MS4 TO MS4	42.960000	-85.506000	MEDIUM	DISCHARGE POINT	Tributary to Grand River
ALP 23.01 DC	MS4 TO MS4	43.069000	-85.691000	MEDIUM	DISCHARGE POINT	TRIB TO STRAWBERRY CREEK
ALP 23.02 DC	MS4 TO MS4	43.069000	-85.692000	LOW	DISCHARGE POINT	TRIB TO STRAWBERRY CREEK
ALP 24.01 DC	MS4 TO MS4	43.069000	-85.690000	MEDIUM	DISCHARGE POINT	TRIB TO STRAWBERRY CREEK
BYN 02.01 DC	MS4 TO MS4	42.841000	-85.693000	MEDIUM	DISCHARGE POINT	TRIB TO GOOSE CREEK
BYN 02.02 DC	MS4 TO MS4	42.845000	-85.691000	MEDIUM	DISCHARGE POINT	TRIB TO GOOSE CREEK
BYN 02.03 DC	MS4 TO MS4	42.845000	-85.691000	MEDIUM	DISCHARGE POINT	TRIB TO GOOSE CREEK
BYN 03.14 DC	MS4 TO MS4	42.842000	-85.721000	MEDIUM	DISCHARGE POINT	TRIB TO KNIGHT DRAIN
BYN 06.03 DC	MS4 TO MS4	42.854080	-85.781092	LOW	DISCHARGE POINT	RUSH CREEK (EAST BRANCH)
BYN 09.05 DC	MS4 TO MS4	42.837000	-85.723000	MEDIUM	DISCHARGE POINT	RUSH CREEK (EAST BRANCH)
BYN 09.06 DC	MS4 TO MS4	42.838000	-85.723000	MEDIUM	DISCHARGE POINT	RUSH CREEK (EAST BRANCH)
BYN 10.16 DC	MS4 TO MS4	42.836000	-85.723000	MEDIUM	DISCHARGE POINT	RUSH CREEK (EAST BRANCH)
BYN 10.18 DC	MS4 TO MS4	42.831000	-85.722000	MEDIUM	DISCHARGE POINT	WARNER COUNTY DRAIN
BYN 10.22 DC	MS4 TO MS4	42.833000	-85.703000	MEDIUM	DISCHARGE POINT	GOOSE CREEK
BYN 15.01 DC	MS4 TO MS4	42.824000	-85.707000	MEDIUM	DISCHARGE POINT	WINCHESTER COUNTY DRAIN
BYN 15.02 DC	MS4 TO MS4	42.815000	-85.703000	LOW	DISCHARGE POINT	TRIB TO WILLARD COUNTY DRAIN
BYN 21.01 DC	MS4 TO MS4	42.812000	-85.738000	LOW	DISCHARGE POINT	KNIGHT COUNTY DRAIN
BYN 22.06 DC	MS4 TO MS4	42.803000	-85.709000	MEDIUM	DISCHARGE POINT	LANTING COUNTY DRAIN

BYN 23.06 DC	MS4 TO MS4	42.811812	-85.686015	LOW	DISCHARGE POINT	TRIB TO CARLISLE DRAIN
BYN 24.01 DC	MS4 TO MS4	42.808058	-85.675129	LOW	DISCHARGE POINT	TRIB TO CARLISLE DRAIN
CAN 09.03 DC	MS4 TO MS4	43.097000	-85.505000	MEDIUM	DISCHARGE POINT	GRASS LAKE
CAS 08.01 DC	MS4 TO MS4	42.920000	-85.527000	MEDIUM	DISCHARGE POINT	PRIVATE POND
CAS 10.02 DC	MS4 TO MS4	42.924000	-85.472000	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
CAS 15.05 DC	MS4 TO MS4	42.908000	-85.479000	MEDIUM	DISCHARGE POINT	TRIB TO THORNAPPLE RIVER
CAS 15.06 DC	MS4 TO MS4	42.910000	-85.475000	MEDIUM	DISCHARGE POINT	APPLE HILLS COUNTY DRAIN
CAS 15.07 DC	MS4 TO MS4	42.908000	-85.475000	MEDIUM	DISCHARGE POINT	APPLE HILLS COUNTY DRAIN
CAS 17.01 DC	MS4 TO MS4	42.907000	-85.527000	MEDIUM	DISCHARGE POINT	PATTERSON COUNTY DRAIN
CAS 31.01 DC	MS4 TO MS4	42.867000	-85.546000	LOW	DISCHARGE POINT	TRIB TO FISK DRAIN
CAS 31.02 DC	MS4 TO MS4	42.867000	-85.546000	LOW	DISCHARGE POINT	TRIB TO FISK DRAIN
EGR 03.01 DC	MS4 TO MS4	42.940009	-85.597301	MEDIUM	DISCHARGE POINT	REEDS LAKE
GDV 29.02 DC	MS4 TO MS4	42.884161	-85.757684	MEDIUM	DISCHARGE POINT	HUIZENGA DRAIN
GNS 04.01 DC	MS4 TO MS4	42.848000	-85.612000	MEDIUM	DISCHARGE POINT	TRIB TO CUTLERVILLE DRAIN
GNS 04.04 DC	MS4 TO MS4	42.841000	-85.617000	MEDIUM	DISCHARGE POINT	TRIB TO CUTLERVILLE DRAIN
GNS 05.05 DC	MS4 TO MS4	42.841000	-85.644000	MEDIUM	DISCHARGE POINT	CUTLERVILLE DRAIN
GNS 07.03 DC	MS4 TO MS4	42.839000	-85.650000	MEDIUM	DISCHARGE POINT	CUTLERVILLE DRAIN
GNS 07.04 DC	MS4 TO MS4	42.838000	-85.649000	MEDIUM	DISCHARGE POINT	CUTLERVILLE DRAIN
GNS 09.01 DC	MS4 TO MS4	42.830000	-85.624000	MEDIUM	DISCHARGE POINT	BUCK CREEK
GNS 09.05 DC	MS4 TO MS4	42.840000	-85.619000	MEDIUM	DISCHARGE POINT	CUTLERVILLE DRAIN
GNS 09.07 DC	MS4 TO MS4	42.834000	-85.610000	MEDIUM	DISCHARGE POINT	PLASTER CREEK
GNS 11.01 DC	MS4 TO MS4	42.834000	-85.575000	LOW	DISCHARGE POINT	TRIB TO PLASTER CREEK
GNS 11.02 DC	MS4 TO MS4	42.833000	-85.575000	LOW	DISCHARGE POINT	TRIB TO PLASTER CREEK
GNS 18.08 DC	MS4 TO MS4	42.813000	-85.644000	MEDIUM	DISCHARGE POINT	SHARPS CREEK
GNS 18.10 DC	MS4 TO MS4	42.819000	-85.645000	MEDIUM	DISCHARGE POINT	TRIB TO SHARPS CREEK
GRC 05.01 DC	MS4 TO MS4	43.027000	-85.635000	MEDIUM	DISCHARGE POINT	TRIB TO SOFT WATER LAKE
GRC 09.02 DC	MS4 TO MS4	43.006000	-85.625000	MEDIUM	DISCHARGE POINT	TRIB TO LAMBERTON CREEK
GRC 09.04 DC	MS4 TO MS4	43.004000	-85.740000	MEDIUM	DISCHARGE POINT	TRIB TO BRANDYWINE CREEK
GRC 09.05 DC	MS4 TO MS4	42.925658	-85.621871	MEDIUM	DISCHARGE POINT	TRIB TO BURTON BRETON DRAIN
GRC 09.06 DC	MS4 TO MS4	42.921375	-85.627799	MEDIUM	DISCHARGE POINT	TRIB TO LARAWAY BROOKLYN DRAIN
GRC 10.07 DC	MS4 TO MS4	42.919367	-85.598508	MEDIUM	DISCHARGE POINT	TRIB TO BURTON BRETON DRAIN
GRC 17.01 DC	MS4 TO MS4	42.986000	-85.630000	MEDIUM	DISCHARGE POINT	WETLANDS/POND
GRC 17.02 DC	MS4 TO MS4	42.992000	-85.646000	LOW	DISCHARGE POINT	PALMER SEPARATION COUNTY DRAIN
GRC 20.04 DC	MS4 TO MS4	42.980000	-85.646000	HIGH	DISCHARGE POINT	COLDBROOK CARRIER CREEK COUNTY DRAIN
GRC 21.01 DC	MS4 TO MS4	42.974000	-85.625000	MEDIUM	DISCHARGE POINT	TRIB TO COLDBROOK CORDUROY POND
GRC 21.04 DC	MS4 TO MS4	42.979000	-85.737000	MEDIUM	DISCHARGE POINT	WETLAND
GRC 21.05 DC	MS4 TO MS4	42.979000	-85.737000	MEDIUM	DISCHARGE POINT	WETLAND
GRC 22.02 DC	MS4 TO MS4	42.975000	-85.717000	MEDIUM	DISCHARGE POINT	GRAND RIVER
GRC 23.01 DC	MS4 TO MS4	42.973000	-85.707000	MEDIUM	DISCHARGE POINT	GRAND RIVER
GRC 27.03 DC	MS4 TO MS4	42.967000	-85.722000	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER

GRT 04.04 DC	MS4 TO MS4	43.014000	-85.614000	MEDIUM	DISCHARGE POINT	TRIB TO LAMBERTON CREEK
GRT 04.05 DC	MS4 TO MS4	43.013000	-85.622000	MEDIUM	DISCHARGE POINT	TRIB TO LAMBERTON CREEK
GRT 10.01 DC	MS4 TO MS4	43.012000	-85.605000	MEDIUM	DISCHARGE POINT	TRIB TO LAMBERTON CREEK
GRT 10.02 DC	MS4 TO MS4	43.009000	-85.606000	MEDIUM	DISCHARGE POINT	TRIB TO LAMBERTON CREEK
GRT 10.06 DC	MS4 TO MS4	43.010000	-85.591000	MEDIUM	DISCHARGE POINT	WETLANDS/PONDS
GRT 26.02 DC	MS4 TO MS4	42.965000	-85.590000	MEDIUM	DISCHARGE POINT	CHURCH LAKE
GRT 27.01 DC	MS4 TO MS4	42.962000	-85.600000	MEDIUM	DISCHARGE POINT	TRIB TO WATERS COUNTY DRAIN
GRT 27.02 DC	MS4 TO MS4	42.962000	-85.596000	MEDIUM	DISCHARGE POINT	TRIB TO WATERS COUNTY DRAIN
GRT 36.02 DC	MS4 TO MS4	42.946000	-85.555000	MEDIUM	DISCHARGE POINT	MARTIN AND BEAK DRAIN
GRT 36.03 DC	MS4 TO MS4	42.947000	-85.551000	MEDIUM	DISCHARGE POINT	MARTIN AND BEAK DRAIN
KWD 22.02 DC	MS4 TO MS4	42.890745	-85.587227	MEDIUM	DISCHARGE POINT	PLASTER CREEK
KWD 35.02 DC	MS4 TO MS4	42.868814	-85.567455	MEDIUM	DISCHARGE POINT	PLASTER CREEK
LOW 04.02 DC	MS4 TO MS4	42.932313	-85.381262	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
PLN 11.02 DC	MS4 TO MS4	43.089620	-85.580047	MEDIUM	DISCHARGE POINT	TRIB TO ROGUE RIVER
PLN 13.01 DC	MS4 TO MS4	43.085659	-85.565265	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
PLN 17.01 DC	MS4 TO MS4	43.076366	-85.634551	MEDIUM	DISCHARGE POINT	SCOTT CREEK
PLN 20.01 DC	MS4 TO MS4	43.057736	-85.643194	MEDIUM	DISCHARGE POINT	GRAND RIVER
PLN 21.01 DC	MS4 TO MS4	43.065605	-85.616398	MEDIUM	DISCHARGE POINT	GRAND RIVER
PLN 22.01 DC	MS4 TO MS4	43.064496	-85.606199	MEDIUM	DISCHARGE POINT	GRAND RIVER
PLN 24.05 DC	MS4 TO MS4	43.064700	-85.568500	LOW	DISCHARGE POINT	GRAND RIVER
PLN 27.02 DC	MS4 TO MS4	43.051461	-85.597346	MEDIUM	DISCHARGE POINT	COIT AND PLAINFIELD DRAIN
PLN 29.01 DC	MS4 TO MS4	43.056297	-85.645931	MEDIUM	DISCHARGE POINT	GRAND RIVER
PLN 33.06 DC	MS4 TO MS4	43.040354	-85.628177	MEDIUM	DISCHARGE POINT	WETLAND
PLN 35.01 DC	MS4 TO MS4	43.042402	-85.581466	LOW	DISCHARGE POINT	GRAND RIVER DRIVE DRAIN
VSP 22.02 DC	MS4 TO MS4	43.154047	-85.715152	MEDIUM	DISCHARGE POINT	ROGERS COUNTY DRAIN
WLK 02.01 DC	MS4 TO MS4	43.014719	-85.698670	MEDIUM	DISCHARGE POINT	ALPINE ESTATES DRAIN
WLK 06.05 DC	MS4 TO MS4	43.026256	-85.787935	LOW	DISCHARGE POINT	SAND CREE (EAST FORK)
WLK 07.02 DC	MS4 TO MS4	43.005756	-85.777475	LOW	DISCHARGE POINT	FRIAR AND KIMBALL OTTAWA COUNTY DRAIN
WLK 07.03 DC	MS4 TO MS4	43.007600	-85.768631	MEDIUM	DISCHARGE POINT	TRIB TO SAND CREEK (EAST FORK)
WLK 07.04 DC	MS4 TO MS4	43.006790	-85.786500	LOW	DISCHARGE POINT	FRIAR AND KIMBALL OTTAWA COUNTY DRAIN
WLK 09.01 DC	MS4 TO MS4	43.005000	-85.743000	MEDIUM	DISCHARGE POINT	BRANDYWINE CREEK
WLK 11.01 DC	MS4 TO MS4	43.009490	-85.697943	MEDIUM	DISCHARGE POINT	TRIB TO INDIAN MILL CREEK
WLK 11.02 DC	MS4 TO MS4	43.005347	-85.690833	MEDIUM	DISCHARGE POINT	COGSWELL DRAIN
WLK 17.03 DC	MS4 TO MS4	43.001150	-85.755866	MEDIUM	DISCHARGE POINT	TRIB TO BRANDYWINE CREEK
WLK 17.04 DC	MS4 TO MS4	43.001081	-85.753327	MEDIUM	DISCHARGE POINT	TRIB TO BRANDYWINE CREEK
WLK 17.05 DC	MS4 TO MS4	43.001020	-85.752582	MEDIUM	DISCHARGE POINT	TRIB TO BRANDYWINE CREEK
WLK 17.06 DC	MS4 TO MS4	43.000670	-85.752446	MEDIUM	DISCHARGE POINT	TRIB TO BRANDYWINE CREEK
WLK 18.01 DC	MS4 TO MS4	43.993419	-85.767985	MEDIUM	DISCHARGE POINT	MULLINS DRAIN
WLK 18.02 DC	MS4 TO MS4	43.992189	-85.768171	MEDIUM	DISCHARGE POINT	MULLINS DRAIN
WLK 20.01 DC	MS4 TO MS4	42.986682	-85.762655	MEDIUM	DISCHARGE POINT	WORDEN DRAIN

WLK 20.05 DC	MS4 TO MS4	42.986121	-85.755572	MEDIUM	DISCHARGE POINT	WORDEN DRAIN
WLK 20.08 DC	MS4 TO MS4	42.972209	-85.757245	MEDIUM	DISCHARGE POINT	SEXTON DRAIN
WLK 29.04 DC	MS4 TO MS4	42.959977	-85.756328	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
GRT 14.01 KC	MS4 TO MS4	42.998734	-85.585449	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
GRC 20.08 KC	MS4 TO MS4	42.977000	-85.630000	MEDIUM	DISCHARGE POINT	CORDUROY POND - WETLANDS
GRC 26.01 DPW	MS4 TO MS4	42.957000	-85.693000	MEDIUM	DISCHARGE POINT	TRIB TO GRAND RIVER
GRC 31.01 KC	MS4 TO MS4	42.950000	-85.666000	MEDIUM	DISCHARGE POINT	GRAND RIVER
GRC 31.02 KC	MS4 TO MS4	42.949000	-85.664000	MEDIUM	DISCHARGE POINT	GRAND RIVER
GRC 31.03 KC	MS4 TO MS4	42.949000	-85.666000	MEDIUM	DISCHARGE POINT	GRAND RIVER
<p>**Discharge points were not identified for a MS4 to MS4 discharge point in a subdivision where it re-enters into the original MS4 system before discharging into a Waters of the State. Within Kent County, Road Commission maintains street drainage and Drain Commissioner's Office maintains backyards and detention facilities. Therefore, KCDC didn't identify where a backyard storm enters into the street as a MS4 to MS4 discharge point if the system re-enters into a storm sewer or detention basin that is a county drain under the Drain Commissioner's jurisdiction. If the downstream outfall is flagged as having an issue, the Drain Office will work its way up the system to identify its source.</p>						