Lower Grand River Watershed
Progress Report

CITY OF GRANDVILLE

Reporting Period: August 1, 2018 - July 31, 2019

PREPARED BY THE GVMC

GRAND VALLEY METROPOLITAN COUNCIL
Department of Environmental Programs
678 Front Ave. NW.
Suite 200
Grand Rapids, MI 49504
616-776-7702

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List of Abbreviations/Acronyms

AWRI	Annis Water Resources Institute
BMP	Best Management Practice
CoC	Certificate of Coverage
DPW	Department of Public Works
EGLE	Michigan Department of Environment, Great Lakes, and Energy (Prior to April 7, 2019, this Agency was known as MDEQ)
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
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
NPDES	National Pollutant Discharge Elimination System
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

Purpose

This Lower Grand River Watershed MS4 Progress Report was developed by the Grand Valley Metropolitan Council's (GVMC) Department of Environmental Programs in collaboration with the regulated communities within the Lower Grand River Watershed. This document satisfies the requirement set forth in the Michigan Department of Environment, Great Lakes, and Energy (EGLE) National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit, Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements as outlined in Section B(3).

Part 1 – Contact Information

Contact Information for Michigan Department of Environment, Great Lakes and Energy (EGLE):	
Please provide current contact information for EGLE to use regarding stormwater issues.	
Permit Application Contact	
Name	Charles Sundblad
Title	Director of Public Works
Address	4095 White St
City, State, Zip	Grandville, MI 49418
Telephone (with area code)	(616) 538-1990
Fax (with area code)	(616) 530-6255
E-mail	sundbladc@cityofgrandville.com
Stormwater Program Manager	
Name	Jay Kwiatkowski
Title	Inspector
Address	4095 White St
City, State, Zip	Grandville, MI 49418
Telephone (with area code)	(616) 538-1990
Fax (with area code)	(616) 530-6255
E-mail	kwiatkowskij@cityofgrandville.com
Stormwater Permit Fee Billing Address	
Name	The City of Grandville
Title	
Address	3195 Wilson Ave. SW
City, State, Zip	Grandville, MI 49418
Telephone (with area code)	
Fax (with area code)	
E-mail	

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. Municipal Separate Storm Sewer System (MS4) permittees participate in the Lower Grand River Organization of Watersheds (LGROW) committees. 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
- Sustainability Committee
- Fund Development and Membership Committee
- LGROW Executive Committee
- Subwatershed Committee

The list of committee members who have served on the committees during this reporting period are indicated in Table 1 below. Members denoted with an asterisk are not MS4 permitted representatives.

Table 1. LGROW Committee Membership List as of July 31, 2019

Community	Representative	Public Engagement	Stormwater Ordinance (SWOrd)	Technical	Sustainability	Fund Development & Membership	LGROW Executive
Cascade Charter Township	Steve Peterson						
East Grand Rapids, City of	Doug LaFave						
Forest Hills Public Schools	Ron Boezwinkle						
Fruitport, Village of	Justin Clish						
Georgetown Charter Township	Rod Weersing	X					
Grand Haven, City of	Cheryl Davidson	X					
Grand Rapids Charter Township	Bob Versluys						
Grand Rapids, City of	Carrie Rivette	X	X	X	X	X	X

Table 1. LGROW Committee Membership List as of July 31, 2019							
Community	**Representative**	**Public Engagement**	**Stormwater Ordinance (SWOrd)**	**Technical**	**Sustainability**	**Fund Development & Membership**	**LGROW Executive**
Grand Rapids, City of	Michael Staal	X					
Grand Rapids, City of	Dan Taber			X			
Grandville, City of	Ken Krombeen		X			X	X
Grandville, City of	Todd Wibright			X			
Grandville, City of	Matt Butts		X				
GVSU*	Shannon Sullivan						
Hudsonville, City of	Jill Frielink	X					
KCDC	Brad Boomstra		X				
KCDC	Angie Latvaitis		X	X			
KCRC	Bruce Schutte	X					
KCRC	Andrew Reinhardt	X					
Kent County Health Department*	Brendan Earl	X					
Kent County Resource Recovery*	Isaac Thaler	X					
Kentwood, City of	Jim Beke		X	X			
Kentwood, City of	Dan Vanderheide		X				
Kentwood, City of	Kelsey Sloan	X		X			
EGLE*	Amanda St. Amour	X					
EGLE*	Michelle Storey	X				X	
EGLE*	Dana Strouse	X		X			
OCWRC	Dennis Cole	X					
OCRC	Jerry Olman	X					
Plainfield Charter Township	Rick Solle		X				

Table 1. LGROW Committee Membership List as of July 31, 2019							
Community	**Representative**	**Public Engagement**	**Stormwater Ordinance (SWOrd)**	**Technical**	**Sustainability**	**Fund Development & Membership**	**LGROW Executive**
Plainfield Charter Township	Mary Trapp-Gunst	X					
Spring Lake, Village of	Chris Burns						
Walker, City of	Scott Conners		X			X	X
Walker, City of	Rachell Nagorsen	X	X	X	X		X
Wyoming, City of	Aaron Vis	X		X			X
Wyoming, City of	Myron Erickson		X				

Public Engagement Committee

The Public Engagement Committee met on September 12, 2018, October 10, 2018, November 14, 2018, January 9, 2019, February 13, 2019, and May 8, 2019 during the reporting period. Agendas and minutes for the meetings are posted to https://www.lgrow.org/public-engagement. Throughout the reporting period, the group focused on implementation of the Public Education Plan (PEP) approved in February of 2013, available here: https://www.lgrow.org/ms4information.

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. The group focuses on messaging and outreach events that address the target messages of: Personal Watershed Stewardship, Ultimate Stormwater Discharge, Public Reporting of Illicit Discharges, Personal Actions that can Impact the Watershed, Waste Management, Management of Riparian Lands. A detailed list of these events and the outreach conducted during this reporting period is provided in Part 3.

SWOrd Committee

The Storm Water Ordinance (SWOrd) Committee met on September 26, 2018, November 28, 2018 and May 29, 2019 during the reporting period. Meetings were focused on follow up items related to the LGRW alternative approach, the model ordinance, the standards manual, maintenance agreements, and the stormwater design spreadsheet for MS4 permittees to utilize in their implementation of the new post-construction stormwater control requirements outlined in the 2016 NPDES Permit Application.

The committee finalized templates for the standards manual, the standards manual BMP design criteria appendix, and the LGROW Design Spreadsheet. The standards 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 LGROW Design Spreadsheet to assist site designers and reviewers to ensure site designs meet all the regulatory criteria outlined in the permit. The development of maintenance agreements per the stormwater post-construction controls is ongoing, and will continue through the next reporting period.

The manual and Design Spreadsheet tools are also designed to ensure that the alternative approach is only utilized when all other green infrastructure practices have been considered, but are not feasible, due to site constraints as defined in the flow chart. Since this work began in 2015, much of this reporting period was spent editing, revising and finalizing the permit application documents to accurately reflect how each community implements their MS4 program, accounting for new stormwater regulations under the next MS4 permit.

Technical Committee

The Technical Committee met on August 15, 2018, October 31, 2018, December 19, 2018, April 17, 2019, and June 19, 2019 during this reporting period. Agendas and minutes from the meetings are available at the following site: https://www.lgrow.org/technical-committee. During the reporting period, the committee members focused on the development of the LGROW Data Repository, which will serve as a resource for the sharing and viewing of water quality data collected throughout the watershed. The Data Repository can be accessed here: https://www.lgrow.org/data-repository/

The Committee also continued work on the watershed monitoring manual to guide the collection, processing, and storage of data in the Lower Grand River Watershed and the Lower Grand River Total Maximum Daily Load (TMDL) monitoring, as required by the MS4 permit. The committee is coordinating the TMDL monitoring in the stream reaches identified in the MS4 Permit application letters. GVMC has hired LimnoTech to complete watershed modeling for TMDL requirements, and to update the TMDL

Implementation Plan. The Technical Committee has been involved in the work that LimnoTech is completing. At the October 2018 meeting, the committee enjoyed a Green Infrastructure tour around the City of Grand Rapids. IDEP outfall screening was also a focus of the Technical Committee, since most MS4's in the watershed were completed this work during the summer of 2018. A presentation at the April meeting was given by a representative from Encompass, LLC regarding water quality monitoring in the Grand River for the river restoration project, and a presentation from LinmoTech was given at the June meeting regarding watershed modeling for upcoming MS4 permit requirements.

Sustainability Committee

The Sustainability Committee met on August 6, 2018, October 1, 2018, December 3, 2018, February 11, 2019, and June 3, 2019 during this reporting period. Agendas and minutes from the meetings are available at the following site: https://www.lgrow.org/sustainability-committee. During the reporting period, the committee members focused on three main topics: Sustainable Agriculture, Natural Connections, and the Grand River Water Trail. Sustainable agriculture is addressed through members participating and offering planning assistance for the USDA Regional Conservation Partnership Program grant activities in the Indian Mill Creek and Rogue River watersheds. The members also discussed current efforts of concerned citizens to highlight the importance of preserving farmland in Kent County. LGROW's Natural Connections Map was updated by creating a StoryMap that included regional and site specific green infrastructure practices being implemented in the MS4 communities. The planning of the Grand River Water Trail is supported by the members through reviewing the trail development plans that have been produced by the Upper Grand River Watershed Alliance and MGROW. Members are strategizing about how to fund a trail development plan for the Lower Grand River and submitting an application to the State to have it designated as a State Water Trail.

Fund Development & Membership Committee

The Fund Development & Membership Committee did not meet in 2018 or 2019. The Committee Chair discussed possible restructuring of the committee at the Board Meetings. The goals of the Committee are being revised to better reflect the current state of LGROW's membership structure.

Board of Directors and Executive Committee Meetings

LGROW's Board of Directors held meetings on December 6, 2018, and April 30, 2019. The semi-annual meetings are a chance for the Board to discuss the progress and participation of members in LGROW's Committees and the overall challenges and successes of LGROW's initiatives.

The Executive Committee of the Board continued to meet once a month, as much as possible, to assist in guiding LGROW's efforts and ensuring that projects and programs aligned with LGROW's Strategic Plan.

Training

GVMC provides multiple training documents and DVDs for Permittee use. Documents are available at: https://www.lgrow.org/ms4information. Training materials, including newsletter articles for communities to provide to residents, can be found on the LGROW website, and are available upon request by MS4 communities. In addition, GVMC has hosted or partnered on several training events during the reporting period including:

- 16th Annual Grand River Spring Forum
    - Held on May 17, 2019 at Blandford Nature Center
- Stormwater General Awareness, Watershed Awareness, IDEP, and P2GH for:
    - Ottawa County Road Commission
        - September 19, 2018 at Grand Haven Garage
        - September 25, 2018 at Holland Garage
    - Ottawa County Road Commission, Ottawa County Water Resources Commission, Village of Spring Lake, Georgetown Township
        - March 1, 2019 at Hemlock Nature Center
    - Hudsonville and Georgetown Township
        - March 20, 2019 at Hudsonville City Hall
    - Grand Haven, Ferrysburg, and the Village of Fruitport
        - April 10, 2019 at Grand Haven DPW
    - Rockford
        - May 13, 2019 at Rockford DPW
    - Sparta
        - May 13, 2019 Village of Sparta offices
- Lunch and Learn
    - Offered at GVMC on June 19, 2019 hosted by Contech Engineered Solutions

Attendance at the live events and completion of other training is recorded in each MS4's individual training logs (Part 2D).

Newsletters

GVMC sent out seasonal MS4 Newsletters to communities to provide information regarding upcoming training, events, regulatory deadlines, committee meetings, and general program information during the reporting period.


www.lgrow.org Summer 2019

MS4 UPDATE

Information for MS4 Permitees in the Lower Grand River Watershed

Grand River Spring Forum

Thank you for attending the 16th Annual Grand River Spring Forum!

Attached to this electronic newsletter, you will find an informational brochure about ways to prevent pollution during the summer, and a green cleaning newsletter article. Please post and/or distribute to your employees and community as you see fit.

SPRING FORUM

The 16th Annual Spring Forum was held on May 17, 2019 at Blandford Nature Center. There were a record-setting 150 attendees, including students and teachers from 4 schools in the watershed that participated in the first-ever Student Forum and Poster Session.

Keynote speaker, Dr. Don Carpenter, spoke about removing the barriers to green infrastructure implementation. LGROW committee updates were reported, and exciting 'Shed Talks covered Rainscaping, the RCPP program, community engagement, and the new Adopt a Drain program. Attendees had the option of attending different green infrastructure walking tours after lunch.

Without your continued support of LGROW's programs, our work would not be possible. We would like to extend our gratitude to the 2019 Spring Forum sponsors, that made this wonderful event happen. If you, or anyone you know, would be interested in sponsoring or presenting at next year's Spring Forum, please let us know.

LUNCH & LEARN STORMWATER BMPs

Representatives from Contech Engineered Solutions LLC (https://www.conteches.com/) will be at GVMC on Wednesday June 19 from 11:30 am - 1:00 pm, holding a lunch and learn to inform us about their company's products that help manage stormwater. There will be discussion about how these products can help your community meet the water quality and quantity requirements under the new MS4 permit. Please RSVP to Cara at cara.decker@gvmc.org so we can get an accurate headcount.

CONTECH ENGINEERED SOLUTIONS A QUIKRETE COMPANY

Following the Lunch and Learn at 1:00 pm, the LGROW Technical Committee will welcome representatives from LimnoTech to present the watershed modeling they have been completing in regards to new TMDL requirements under the upcoming MS4 permit.

LimnoTech

More information can be found on the LGROW website


www.lgrow.org Winter 2019

MS4 UPDATE

Information for MS4 Permitees in the Lower Grand River Watershed

The Lower Grand River Organization of Watersheds (LGROW) participated in the World of Winter festival in Grand Rapids in February

2018 LGROW Annual Report

The 2018 LGROW annual report can be accessed electronically through LGROW's website at www.lgrow.org. The annual report highlights events, projects, and grant work from the past year. It is a celebration of the organization's success. It also sets goals for 2019 that are in alignment with the three long-term goals that are outlined in LGROW's strategic plan:

#1: Healthy Watersheds

#2: Engaged Community

#3: Robust Organization

Please share and distribute this annual report. We are proud of what we have accomplished in the past year, and are excited to continue to expand our programs with your support!

2018 ANNUAL REPORT

A yearly celebration of achievements in the Lower Grand River Watershed

LOWER GRAND RIVER ORGANIZATION of WATERSHEDS

GVMC


MS4 Upcoming Events

Please Click Each Event For More Information

August 15th, 1-2:30 Pm
LGROW Technical Committee Meeting
Location: GVMC

August 23rd, 1-4 Pm
Green Infrastructure Seminar
Location: City Flats Hotel, Holland

August 24th, 8 Am-12 Pm
Farm Conservation Practices Bus Tour
Location: Schwallier's Country Basket

September 6th, 4-6 Pm
Citizen Science Workshop
Location: Blandford Nature Center

September 8th, 8:30 Am-1Pm
Mayor's Grand River Cleanup
Location: 6th Street Park, Grand Rapids

September 12th, 2-3:30 Pm
LGROW Public Engagement Committee Meeting
Location: GVMC

September 13th, 4:30-6:30 Pm
Watershed Jamboree
Location: Richmond Park Shelter

GVMC

LOWER GRAND RIVER ORGANIZATION of WATERSHEDS

www.LGROW.org

Monitoring

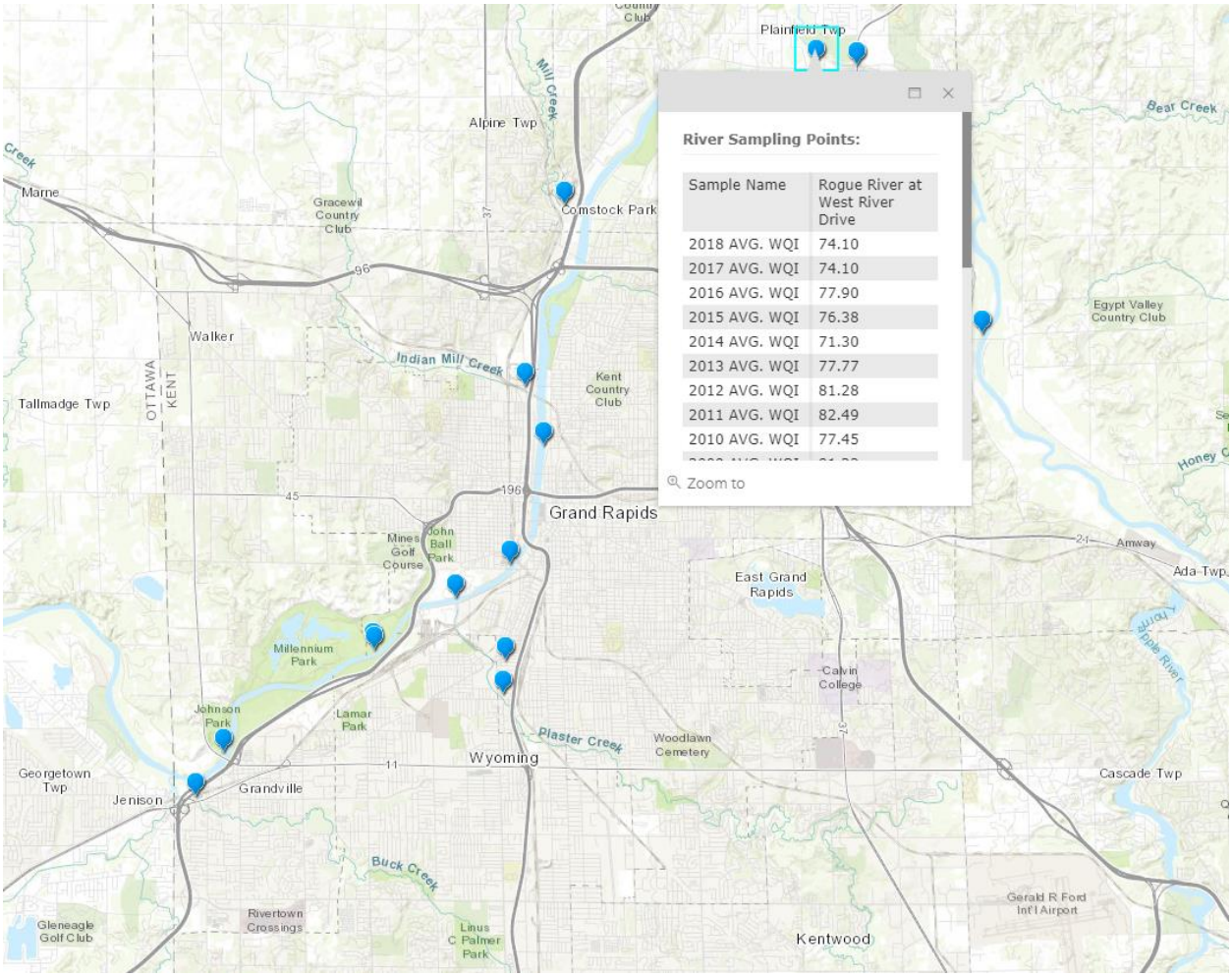


Figure 1 Grand Rapids Water Quality Index Web Interface

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 Rogue River at West River Drive is provided as an example of water quality in the Grand River. An interactive map and data from sampling events can be viewed as follows:
https://grandrapids.maps.arcgis.com/apps/Embed/index.html?webmap=b58bd9f6cda949599b15753b888a7048&extent=-85.8676,42.8116,-85.4244,43.0326&zoom=true&scale=true&search=true&searchextent=false&legend=true&disable_scroll=false&theme=light

Data Repository

The LGROW Technical Committee finished working on the design for a watershed-wide data repository with the help of GVMC's Regional Geographic Information System (REGIS) department. Using data collected by the Friends of Buck Creek as part of their 319 monitoring grant, and Indian Mill Creek, as part of GVSU Graduate Students' research, 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 finalized 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 all 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: https://www.lgrow.org/data-repository/. Some students and teachers in local school districts have already begun to use the repository to aid classroom learning.

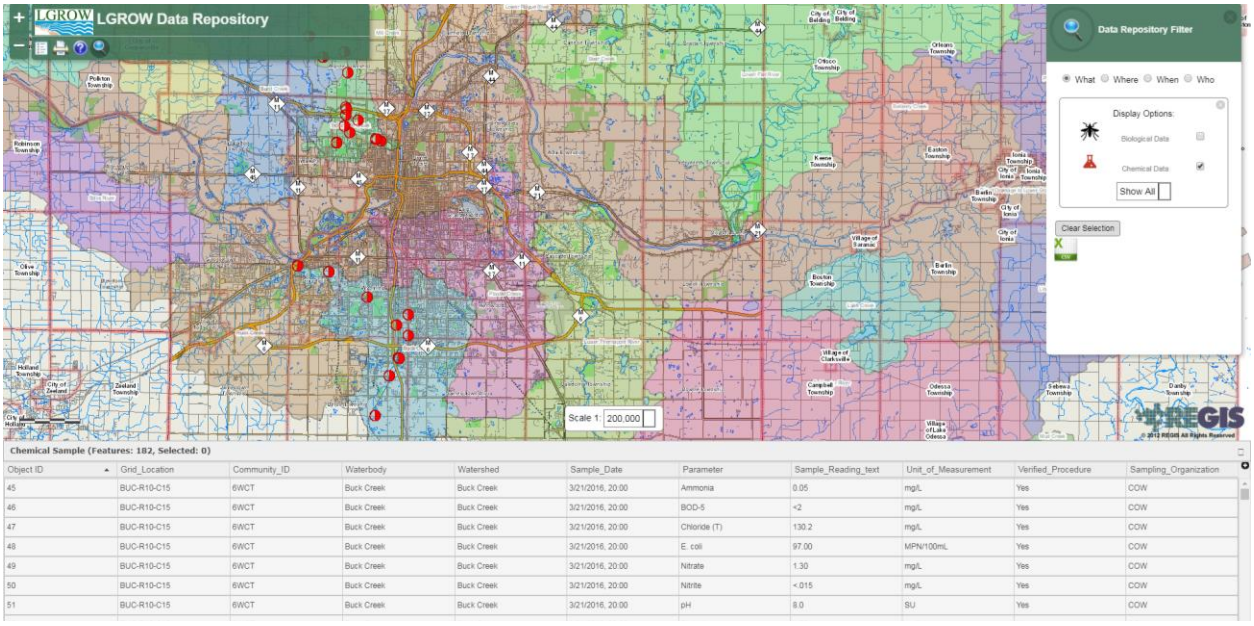


Figure 2 LGROW Data Repository

Adopt a Drain Grand River

LGROW expanded the City of Grand Rapids "Basin Buddy" adopt-a-catch-basin program to MS4 communities throughout the watershed. This is described in the PEP Implementation section below and can be found here: https://www.adoptadrain-lgrow.org/

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 this progress report. Additionally, communities in both Kent and Ottawa Counties work collaboratively with their respective Health Departments to report and ensure correction of failing or failed septic systems. Individual communities track this data in Part 4 – IDEP of this progress report.

The US EPA hosts SepticSmart Week once a year, and LGROW uses the materials provided to encourage of proper septic system care. SepticSmart Week 2018 was held on September 17-21, and focused on educating homeowners and communities on the proper care and maintenance of their septic systems.

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 Part 2C.

Implement sanitary sewer maintenance practices

Sanitary sewer service is provided by several communities to residents in expanded service areas. Through these partnerships, many communities are able to utilize sanitary sewer infrastructure instead of

relying on septic systems. 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. All of the MS4 LGROW community members have procedures to inspect and maintain their sanitary sewer systems, which are independent of their MS4 systems. Information related to the maintenance and upgrades of sewer infrastructure is included in Part 2B of the report.

Implement Low Impact Development Practices

Low Impact Development (LID) and Green Infrastructure (GI) are critical components in both the SWPPI and the PEP. Detailed information on the training related to LID practices and implementation is detailed in Part 2D. Tracking of the installation and consideration of LID practices by Permittees is tracked in Part 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.

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 model stormwater ordinance for the next MS4 permit, 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.

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 a 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.

Table 2. LGRW Part 91 Administration Authority as of July 31, 2019							
Community	**Part 91 Contact Info**		**MEA**	**Utilizes CEA**			**APA**
	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	616-336-3688					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

EGLE 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 Part 2C and perform regular training as referenced in Part 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 Part 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. These practices were also covered in training given by GVMC staff, and more details can be found in Part 2D.

Part 2B - Stormwater Controls Inspection, Maintenance and Effectiveness
August 1, 2018 to July 31, 2019

BMPs on Multiple Municipal Properties				
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 basin sumps	Annual	As Needed	Catch basins are cleaned on a rotating basis by the Streets Dept.	Operating as designed.
Turf & Landscape	Annual	As Needed	Ongoing landscape maintenance is sufficient for storm sewer system health.	Operating as designed.
Storm Sewer System	5 years	As Needed	Catch basins are cleaned on a rotating basis by the Streets Dept. Maintenance performed as necessary	Operating as designed.
Property Name: Calvin Crest Park, Heritage Park				
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 Ponds	Annual	As Needed	No maintenance of infrastructure needed.	Operating as designed.
Property Name: Cemetery, Little League Complex				
Structural Storm Water Control	**Inspection Frequency**	**Maintenance Schedule**	**Inspection and Maintenance Conducted and Location of Log (if applicable)**	**Effectiveness of Control and Support Documentation**
Infiltration Facility	Annual	Annual	No maintenance of infrastructure needed.	Operating as designed.

Part 2C - Procedures Status
August 1, 2018 to July 31, 2019

The following Pollution Prevention and Good Housekeeping procedures were adopted by Ron Carr, the City of Grandville. Dates of revised procedures are listed and revisions attached.

Procedure	**Date Adopted**	**Date Revised (if needed)**
Procedure to Ensure Protection of Drainage Systems from Construction-Site Runoff	August 9, 2010	
Procedure to Dispose of Storm Sewer System Operation and Maintenance Waste	August 9, 2010	
Procedure to Dispose of Storm Sewer System Operation and Maintenance Waste	August 9, 2010	
Procedures to Construct, Operate, and Maintain Streets, Roads, Highways, and Parking Lots	August 9, 2010	
Procedure to Reduce Runoff of Total Suspended Solids (TSS)	August 9, 2010	
Procedure to Prevent Salt and Sand from Entering Receiving Streams	August 9, 2010	
Procedure to Control Dust and TSS in Runoff	August 9, 2010	
Procedure for Managing Vegetation on Municipal Properties	August 9, 2010	
Procedure for Using Fertilizers on Municipal Properties	August 9, 2010	
Reviewed all procedures		

Part 2D - Staff and Contractors Training on Pollution Prevention and Good Housekeeping
August 1, 2018 to July 31, 2019

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
Required Topics			
Maintenance activities, maintenance schedules, and inspection procedures	DPW field staff and inspector.	12/2012 New and reassigned staff within 1 yr of assignment	**Review written O&M Procedures with employees** **Storm Water Pollution Prevention - A Drop in the Bucket - DVD from Excal Visual, LLC** **"Best Management Practices for Municipal Operations" Training Session – Live Presentation**
Training completed:			Training for all DPW staff is planned for October 2019
Controls on streets, parking lots, maintenance garages, and storage yards	DPW Street staff & Mechanics	12/2012 New staff within 1yr	**Storm Watch - Municipal Storm Water Pollution Prevention - DVD from Excal Visual, LLC** **Spills & Skills - Non-Emergency HazMat Spill Response - DVD from Excal Visual, LLC** **Keep An Eye On It! - Environmental Awareness for Gravel Road Maintenance - DVD from SEMCOG & Road Commission for Oakland County**

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
Training completed:			Training for all DPW staff is planned for October 2019
Disposal of O&M waste	DPW staff	All current employees trained New employees within 1yr	**Review BMP's for O&M waste with Employees.**
Training completed:			Training for all DPW staff is planned for October 2019
Water quality protection in flood control projects (detention basins, dams)	NA all flood control projects managed by County Drain Commission		
Training completed:	NA	NA	NA
Controls to reduce discharge of pesticides, herbicides, and fertilizers	DPW Grounds staff	12/2012 New and reassigned employees within 1yr	**LGRW_LandscapingContractorTrainingBrochure_2011-08-01.pub**
Training completed:			Training for all DPW staff is planned for October 2019
Other Topics			

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
Construction site stormwater runoff	DPW field staff KCRC is CEA Grandville staff notifies KCRC of possible issues.	12/2013 New employees within 1yr	**Ground Control - Storm Water Pollution Prevention for Construction Sites - DVD from Excal Visual, LLC** **LGRW_ContractorTrainingBrochure_2011-09-16.pub**
Training completed:			Staff plan to take EGLE's training in the next reporting period
LID	DPW supervisors Planning commission rep.	12/2013 Schedule DVD's for staff viewing. Train new staff as needed.	**Reduce Runoff: Slow It Down, Spread It Out, Soak It In - DVD from USEPA** **RiverSmart Homes: Getting Smart about Runoff - DVD from USEPA** **Building Green: A Success Story in Philadelphia - DVD from USEPA** **After the Storm - DVD from USEPA**
Training completed:			Training for all DPW staff is planned for October 2019
IDEP	DPW Staff	12/2013 New employees within 1yr	**Review IDEP with Employees**
Training completed:	DPW Inspector	May 2018	Training for all DPW staff is planned for October 2019
General Storm Water Education	Municipal officials	As presentations are available. Will invite officials to available training opportunities.	**"Back to Basics" Storm Water Training – Live Presentations**

Training Topic Area	Employee Group to Receive Training	Training Frequency	Potential Training Type
Training completed:			

Part 2E - Post Construction Controls Activities

August 1, 2018 to July 31, 2019

The City of Grandville requires site plan approval for any major development or redevelopment in the City.

The site plan is provided to the consulting city engineer for review of the storm water plan and its calculations. The site plan is also provided to the Kent County Drain Commission for approval of storm water design when a project has a potential impact on a County drainage system. The City zoning code allows for the requirement of the developer to perform long term maintenance to any onsite structural controls. These agreements are part of the site plan approval process. The City of Grandville promotes LID practices on new development and substantial redevelopment projects.

The City of Grandville has verbally recommended BMP's for redevelopment projects that may improve or reduce water discharged from the site.

The City is evaluating the need to amend our current storm water rules to include new requirements for post construction controls. The current ordinance addresses discharges of all types, but may need clarification as to the requirements. These amendments if needed would be adopted within the next 4 years.

Excerpts from the zoning code.

Grandville Zoning Code – Section 14

Section 14.5.C

Surface and stormwater. Surface and rainwater impacts shall be addressed in an appropriate manner that is environmentally sound, yet does not adversely affect neighboring properties or the public storm water system. If practical, water shall be returned on-site to the groundwater table from roofs, canopies, and paved areas utilizing best management practices, or shall be directed to an underground drainage system. Temporary on-site storage to reduce peak runoff may also be used. Rainwater from impervious areas shall not result in ponding that obstructs the flow of vehicular or pedestrian traffic. The use of rain gardens, sunken parking lot islands, pervious pavements, vegetated swales, and other low impact development techniques is encouraged.

Section 14.7. Conditions of approval.

A. The planning commission may impose reasonable conditions in conjunction with site plan approval to ensure that public services and facilities affected by a proposed land use or activity will be capable of accommodating increased services and facility demands that may result,
to protect natural resources and energy, to ensure compatibility with adjacent land uses, and to promote the use of land in a socially and economically desirable manner.

B. Conditions shall:

1. Be designed to protect natural resources and the health, safety, and welfare of those who will use the proposed use, residents, and landowners immediately adjacent to the proposed use, and the community as a whole;

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

When City staff finds a storm system that has been neglected or is not in compliance with Section 14.5.C or 14.7, contact is made with the property owner and a reasonable timeline is given to comply with the ordinance.

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

Have any long-term operation and maintenance agreements been signed?
How many inspections or enforcement/compliance of O&M agreements were conducted?
No long-term operation and maintenance agreements have been signed. Under the future storm water ordinance stricter controls and agreements will be required during the site plan approval process.

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:
In one case of an recently approved apartment complex, post construction controls will enhance approximately 7.5 acres of existing wetlands and provide approximately 55% of open space for the project.

Part 3 – Public Education Plan

Regional PEP

The updated Public Education Plan (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, 2018, and July 31, 2019.

Public Engagement Committee

The LGRW Public Engagement 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 and the LGR Watershed Management Plan. In addition to MS4 communities, the 2018-2019 Public Engagement Committee consisted of the following actively attending community partners:

Table 3. Non-MS4 Partner Organizations

Agency	Representative
EGLE	Amanda St. Amour
GVMC – West Michigan Clean Air Coalition	Andrea Faber
Ottawa Co. Conservation District	Benjamin Jordan
East Jordan Ironworks	Kevin Spyhalski
GVMC	Eileen Boekestein
Trout Unlimited	Jamie Vaughan
Groundswell, GVSU	Joanna Allerhand
Groundswell, GVSU	Jessica Vander Ark
Kent County Resource Recovery	Isaac Thaler
EGLE	Michelle Storey
GVMC	Courtney Cromley
WMEAC	Kyle Hart
WMEAC	Thea VanGoor
GVMC/GVSU	Carlos Calderon
GVMC	Rachel Frantz
Grand Rapids Public Museum	Stephanie Ogren
American Rivers	Shanyn Viars
GVMC	Wendy Ogilvie
Kent County Health Department	Brendan Earl
Kent Conservation District	Jessie Schulte
Citizen Labs	Allen Clark
Cannon Township	Tricia Anderson
GVMC	Cara Decker
EGLE	Dana Strouse

The goals of the Public Engagement Committee are: To support programs, events, materials, and activities that help communities meet the educational requirements of the NPDES stormwater permits; To document successful implementation of the Information and Education Plan of the federally-approved Lower Grand River Watershed Management Plan; and, To cooperate and collaborate with LGROW's network to foster public education and outreach regarding shared environmental priorities. During this reporting period, the Committee met six times. Each committee meeting is organized around these three goals, with specific activities scheduled throughout the year to meet those goals as follows:

January: Place orders for PEP giveaway materials and discuss distribution plan
February: Pick up orders, Plan for the year's outreach events
May: Ongoing business, Committee updates, Planning for summer events
September: Review event year, Ongoing business
October: Choose focus areas for following year, Discuss changes for next year, Ongoing business,
November: Finalize giveaway order options for next year

During the October Committee meeting, the group chooses which PEP topics to focus on for the next year. Information regarding all topics covered in the PEP may be discussed and promoted by communities throughout the year, as described in detail in the remainder of this section of the report. The committee decided that if more energy is focused on a few key topics each year, then education regarding those specific topics can be thoroughly explored. Educational materials and giveaways are then designed around the key topics. While each year focuses on a particular set of topics, all six education categories will still be addressed in detail at least once during each reporting period.

Additional information regarding the Public Education Committee is available at: https://www.lgrow.org/ms4information. Materials, training opportunities, and other resources are available via this webpage.

PEP Implementation

This section describes the public education activities implemented by the Permittees from August 1, 2018 through July 31, 2019 to meet 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.

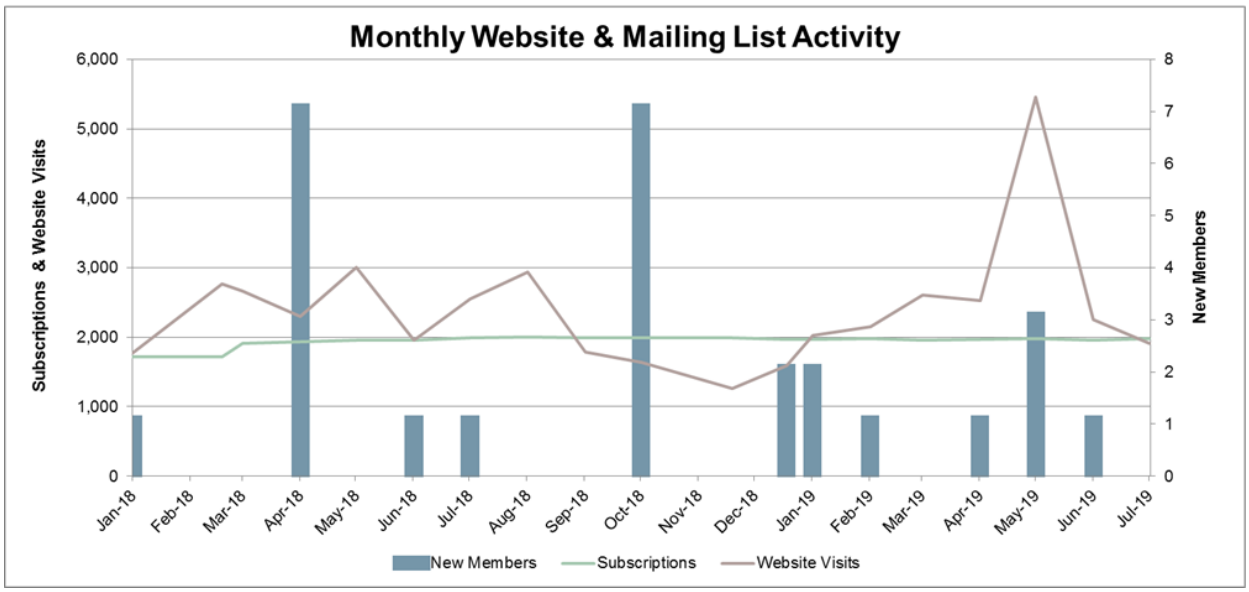
Target Audience: Residents, visitors, and public employees

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. The LGROW website was accessed by an average of 913 unique visitors each month. The website logged 10,959 unique visitors and 28,120 total page views over the entire reporting period.
- LGROW also sends out a seasonal email newsletter with information about the watershed, upcoming educational events, and stormwater educational articles. Newsletter subscriptions and website traffic by month are displayed in Figure 3.

Figure 3. Website and mailing list activity by month



- LGROW worked to promote participation through its Facebook page with a regular posting schedule including watershed project highlights, upcoming events, and volunteer opportunities. Throughout the reporting period, LGROW Facebook posts have reached 166,087 people. As of the end of the reporting period, the Facebook page reached 1,313 Likes (this number has increased from the last reporting period). Facebook user engagement has shown consistent growth over the reporting period with the average number of Likes, Shares, and Comments. LGROW promoted its Facebook page three times during the reporting period using paid promotions, which increased its audience significantly. Facebook activity is displayed by month in Figure 4.

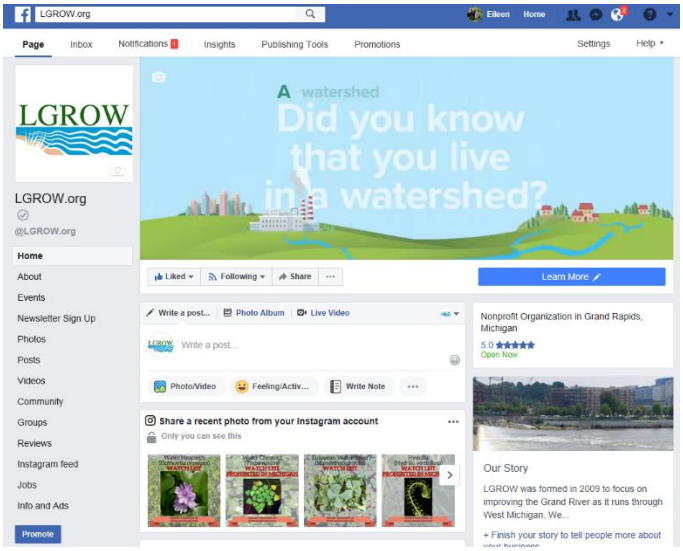
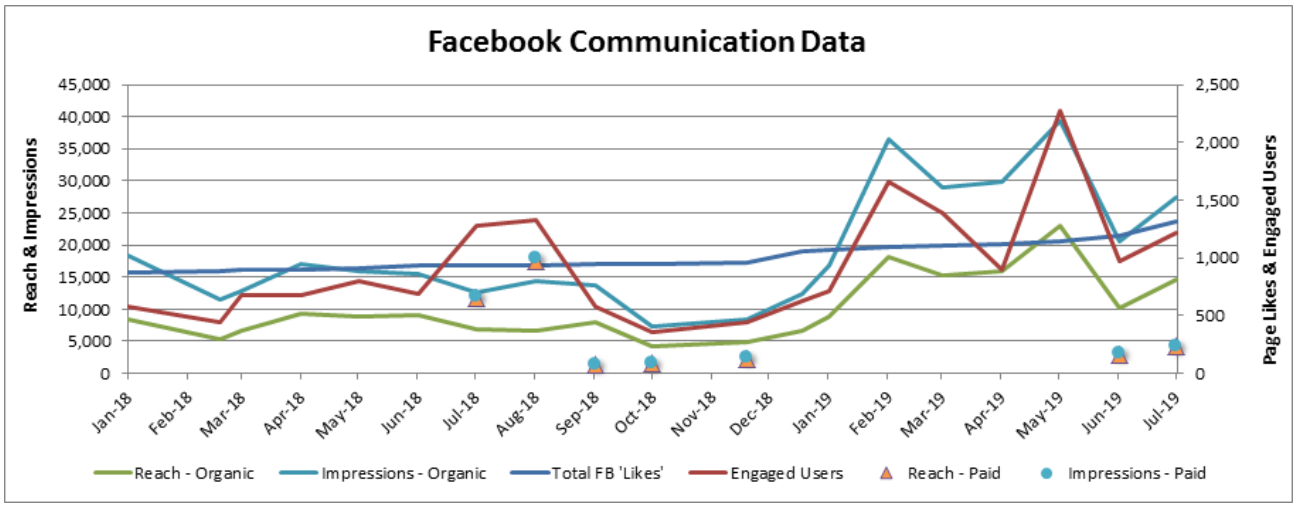


Figure 4 Facebook Communication Data by Month



- Permittees distributed 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. Listed below are the number and type of educational materials ordered by permittees to distribute throughout the reporting period:
  - 1300 LGROW Lip Balms
  - 1550 Gardening Gloves
  - 750 Rainbow Trout "Only rain in the drain" stress balls
  - 1400 Pet Waste bag dispensers
  - 1400 Floating Key Chains with Illicit Discharge Reporting Information
  - 1300 Funnels with Waste Disposal Information
  - 900 Medication Containers with Waste Disposal Information
  - 1500 Native Seed Packets
  - 1100 Magnetic "Only rain in the drain" Note Pads
  - 200 LGROW-Great Lakes Transfer Stickers

  Other public education materials ordered during previous permit cycles were also distributed by permittees, including:

  - Keep Your Lakes Great and Your Rivers Grand Magnets
  - Keep Your Lakes Great and Your Rivers Grand vinyl stickers
  - "Keep your Lakes Great and your River Grand" dry bags
  - "Keep your Lakes Great and your River Grand" magic scarves
  - Watershed Temporary Tattoos
  - Paint by number Watershed Maps
  - Troutie Coloring Books
  - Car Wash Pledges and Shammies
  - Reusable LGROW Water Bottles
  - Reusable LGROW Tote Bags
  - LGROW Brochures
  - LGROW Pens

- Many Permittees displayed lamppost banners when purchased in 2012 or 2018 to advertise the presence of the Grand River, Rogue River, Buck Creek, Thornapple River and Plaster Creek Watersheds. The banners featured the LGROW logo and the message "Yours to Protect." In early 2018, 4 communities ordered additional banners for display, including new banners for Buck Creek and the Thornapple River.

Banners on display in Spring Lake

- Through cooperation of staff in permitted MS4 communities, Public Engagement Committee participants, GVMC staff, and other members of LGROW, about 50 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 that were coordinated through LGROW, are discussed in the section following Table 4, and in the Delivery Method section of corresponding objectives.

Table 4 LGROW and MS4 Participant Events

MS4 Community	Event/ Activity	Date
East Grand Rapids, City of	LGROW Spring Forum	5/17/19
	Touch a Truck Event	5/22/19
Ferrysburg, City of	ReLeaf Tree Planting	6/8/2019
Forest Hills Public Schools	Classroom Programming	Ongoing
Fruitport, Village of	Old Fashioned Days	5/22-5/28/19
Georgetown Charter Township	Jenison Public Schools Collaboration	Ongoing
	Ottawa County Water Quality Forum	11/19/2018
	LGROW Spring Forum	5/17/2019
Grand Haven, City of	Earth Day Festival	4/27/2019
	Whitecaps	7/28/2019
	Robinson Elementary	10/10/2018
	Coast Guard Festival	7/27-8/5/2018; 7/26 - 8/4/2019

Table 4 LGROW and MS4 Participant Events

MS4 Community	Event/ Activity	Date
	Salmon Festival	9/14-15/18
Grand Rapids, City of	Home and Garden Show	3/7-3/10/19
	Mayors Grand River Cleanup	9/8/18
	Ottawa County Water Quality Forum	11/19/18
	MWEA Watershed & Stormwater Seminar	12/4/18
	MWEA Watershed Summit	3/27/19
	Dia del Nino	4/27/19
	LGROW Spring Forum	5/17/19
	Water Resource Recovery Facility Tours	Ongoing
	Rainbarrel Workshops	5 in 2019
	Grand River Water Festival	6/22/19
	MWEA Annual Conference	6/23-6/26/19
	Rain Garden/GI Workday	October 2018 and February 2019
	National Green Infrastructure Certification Pilot Program	Ongoing
Grand Rapids Charter Township	Partner with FHPS	Ongoing
Grandville, City of	Buck Creek Cleanup	8/18/18
	Mayors Grand River Cleanup	9/8/18
	Michigan Week Community Event	5/15/19
	MWEA Annual Conference	6/23-6/26/19
	LGROW Spring Forum	5/17/19
Hudsonville, City of	Ottawa County Water Quality Forum	11/19/18
	DPW Days	5/4/19
	LGROW Spring Forum	5/17/19
	MWEA Watershed & Stormwater Seminar	12/4/18
	MWEA Watershed Summit	3/27/19
Kent County Road Commission	Facility Tours	Ongoing
	LGROW Spring Forum	5/17/19
	MWEA Annual Conference	6/23-6/26/19
Kent County Drain Commission	Riparian Planting at Shadyside Park	5/15/19
Kentwood, City of	Buck Creek Cleanup	8/18/18
	Rain Garden/GI Work Day	1/11/19
	Earth Day, Blandford Nature Ctr.	5/20/19
	Presentation @ Byron Ctr.	5/19

Table 4 LGROW and MS4 Participant Events

MS4 Community	Event/ Activity	Date
	Charter School for rain garden	
	LGROW Spring Forum	5/17/19
Ottawa County Administration and Water Resources Commissioner	LGROW Spring Forum	5/17/19
	Ottawa County Water Quality Forum	11/19/18
Plainfield Charter Township	LGROW Spring Forum	5/17/19
Sparta, Village of	Partnership with Sparta Schools	Ongoing
	LGROW Spring Forum	5/17/19
	ReLeaf Tree Planting	6/8/19
	Nash Creek Cleanup	Multiple from 2018-2019
Spring Lake, Village of	LGROW Spring Forum	5/17/19
Walker, City of	MWEA Watershed & Stormwater Seminar	12/4/19
	LGROW Spring Forum	5/17/19
	Storm Drain Stenciling Event	6/1/19
	Indian Mill Creek Cleanup	6/2/2018
	Walker Carnival	6/10/19
	Green Infrastructure Seminar	8/23/18
	Green Infrastructure Tour	10/31/18
Wyoming, City of	Buck Creek Cleanup	8/18/18
	Partnership with Godwin and Wyoming Schools	Ongoing
	Facility Tours	Ongoing
	LGROW Spring Forum	5/17/19
	LGROW Watershed Jamboree	9/13/18
	Grand River Water Festival	6/22/19

- The Quiet Water Symposium promotes non-motorized outdoor recreation and a shared concern for our Great Lakes environment. The 24th Annual Symposium was held on March 2nd, 2019. LGROW hosted a booth with several watershed displays and distributed information and giveaways focused on watershed awareness and the development of a Water Trail throughout

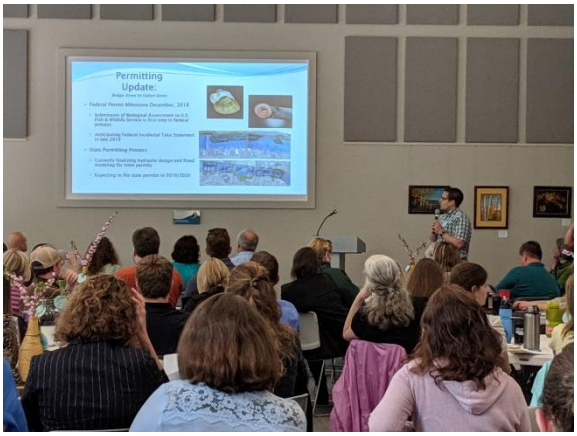
the Grand River. Although this event takes place outside the LGRW, many of the attendees travel through the Lower Grand during their excursions. The Symposium also presents a valuable opportunity to partner with our upstream watershed, the Middle Grand River Organization of Watersheds (MGROW), who is actively involved in public outreach through their own MS4 program.

- LGROW hosted a table at the Blandford Nature Center Earth Day event on April 20, 2019. 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, the Friends of Indian Mill Creek watershed group, and stormwater educational materials focusing on proper disposal of household hazardous wastes, alternatives to HHW, and reporting of illicit discharges.

- LGROW hosted its 16th Annual Grand River Spring Forum in the Blandford Nature Visitor Center, Friday May 17th, 2019. The event had a record-setting 150 attendees and attracted many great sponsors. During the morning portion of the Forum, attendees were welcomed by GVMC Director, John Weiss, Blandford Nature Center Land Stewardship Manager, Julie Batty, and the Chair of the LGROW Board, Carrie Rivette. LGROW Committee Chairs gave brief updates on their committee accomplishments, goals, and work being done. Don Carpenter, PhD, PE, LEED AP, the keynote speaker, presented his findings with the presentation, 'Determining Strategies for Removing Barriers to Green Infrastructure Implementation.'

While the adults were enjoying LGROW updates and the Keynote presentation, student groups from five local schools presented their own projects to each other in the Star Schoolhouse. During the break, the students brought their posters to the Visitor Center for the Forum attendees to view and ask questions about their projects.

Finally, the 'Shed Talks featured multiple presentations celebrating LGROW projects and partnerships. The 'Grand River Rainscaping Program & Workforce Development,' presented by Revery Landscape Architect, Rebecca Marquardt and Al Pennington from Moore & Bruggink, gave an overview of the National Green Infrastructure Certification Course which piloted this past winter at Grand Rapids Community College. Matt Chapman, Grand Rapids Whitewater, and Reverend Nurya Love Parish of Plainsong Farms, presented on the Lower Grand River Habitat Restoration & Farmland Conservation Project. Nichol DeMol of Trout Unlimited and Paco Ollervides from River Network gave a presentation on 'Community Engagement in Restoration' which highlighted partnerships in the watershed and diversity, equity, and inclusion efforts and future goals. The final 'Shed Talk was the unveiling of the Grand River Adopt-a-Drain program by GVMC's Stormwater Coordinator, Cara Decker, and James Wilfong of Citizen Labs, who have been working on the program. This program is an extension of the existing City of Grand Rapids Basin Buddy Program, where citizens 'adopt' a storm drain and promise to keep it clear of trash and debris.

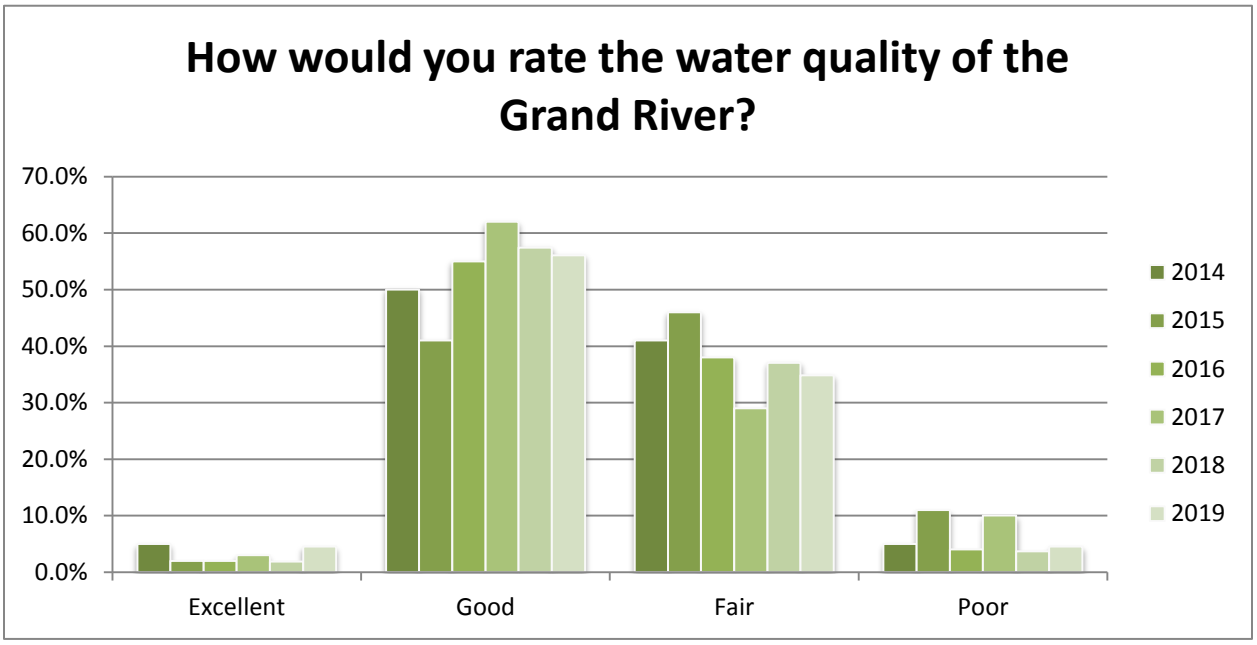


After lunch was served, attendees were invited to attend one of two walking tours. The Highlands tour, led by the Land Conservancy, explored the site of the Highlands Restoration Project. The former Highlands Golf Course has begun to return to its natural state and will soon have a daylighted stream running through it, which is currently piped underground. The second walking tour featured a bioswale demonstration site, funded by the National Fish and Wildlife Foundation 5 Star and Urban Waters Grant, located adjacent to Blandford Nature Center's trail along Milo Street. The bioswale

slows, filters, and captures stormwater runoff from the street before it enters the Brandywine Creek, a tributary to Indian Mill Creek.

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 5 shows very similar numbers of respondents identifying the Grand River as "Poor", "Fair", or "Good" but a slight increase in number of respondents identifying the Grand River as "Excellent" from 2018 to 2019.

Figure 5. 2019 Survey Results: How would you rate the water quality in the Grand River?



- LGROW sponsored the Grand River Water Festival on June 22, 2019, at Riverside Park, which was attended by approximately 3,000 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. Visitors to the LGROW booth identified their location in the watershed by referencing handed out 1-page watershed summaries to each visitor who identified their Subwatershed. The LGROW booth's educational

materials focused on how homeowners can reduce stormwater runoff from their properties by installing green infrastructure practices through the LGROW Rainscaping program.

- LGROW hosted a concourse table at a WhiteCaps game on Sunday, July 28, 2019. The public was welcome to bring their dogs to the ballpark during that game. GVMC staff and volunteers from the City of Grand Haven (a MS4 permitted community) helped run a booth. Volunteers handed out LGROW pet waste bag dispensers to coincide with that night's theme. Volunteers discussed the importance of watershed protection with attendees of the game. Human attendance at the ballpark was 6,443 people that night.

- LGROW worked with students from schools throughout the watershed to educate about stormwater runoff and the connections between land use and water quality. Throughout the permit cycle, LGROW worked with 2,399 students living in MS4 communities. These activities can be seen in the table below. LGROW also led a professional development session for 25 educators from within the watershed, 21 of whom work in communities covered by an MS4 permit. Teachers were trained in the use of Project WET materials, which teach students about a variety of water issues including watersheds, water quality, stormwater, and best management practices. LGROW also participates as a member of the Groundswell advisory council, which supports schools in the Lower Grand River Watershed as they implement place-based education and stewardship projects in the watershed. Groundswell reaches approximately 500 students annually through its programs focused on the Lower Grand River Watershed, including supporting projects at 4 schools in the nested jurisdiction of Kentwood Public Schools, at 5 schools in the permitted district of Forest Hills Public Schools, and at 1 school in the nested jurisdiction of Grandville Public Schools in 2018-2019.

Students learn to play "Pollution or Solution" chutes and ladders game focusing on stormwater runoff and BMPs at River City Water Festival

2018-2019 Student Outreach & Education Metrics (8/1/2018-7/31/2019)

Date	Event	Location/School	Subwatershed	Youth Reached	MS4 Community
9/14/2018	Bioswale Maintenance Day	North Park Montessori	Lamberton Creek	50	Grand Rpids
10/15/2018	Water Quality Monitoring (10/15, 10/29, & 10/30/19)	Grand Rapids Public Museum School	Lamberton Creek, Mill Creek, and Indian Mill Creek	50	Grand Rapids
10/17/2018	River Walk Tour: Rapids Restoration & Grand River Water Quality	Kent Innovation High	Lower Grand	75	Various
10/17/2018	Rainscaping Site Assessment Activity & Native Plantings along Buck Creek Riparian Area	Grandville Middle School	Buck Creek	75	Grandville
10/18/2018	River City Water Festival: "Chutes and Ladders" Stormwater Pollution & Green Infrastructure Game	23 classes from schools throughout the watershed	Lower Grand	661	Various
10/19/2018	Sustainable Agriculture & Watershed Health Field Days at Plainsong Farm (10/19/18 & 5/30/19)	Sparta Middle School	Rogue River	110	Sparta
10/19/2018	Bioswale Planting at Blandford Nature Center/Milo St.	Blandford School (GRPS) 6th, CA Frost Middle/High, CA Frost Elementary	Indian Mill Creek	130	Grand Rapids
10/26/2018	Sustainable Agriculture & Watershed Health Field Days at Plainsong Farm (10/26/18, 12/4/18, 3/14/19, 5/28-29/19)	East Rockford Middle School	Rogue River	118	Rockford
11/02/2018	Water Quality Monitoring	Kent Skills Career Center	Lamberton Creek	25	Various
11/29/2018	Chutes and Ladders Stormwater Pollution & Green Infrastructure Game	Northern Trails 5/6 (Forest Hills)	Lower Grand	30	FHPS
12/13/2018	Watershed Presentation & "Chutes and Ladders" Stormwater Pollution & Green Infrastructure Game (12/13/18) & Watershed/Water Quality Monitoring Field Day @ Buck Creek (4/30/19)	Grandville Christian School	Buck Creek	55	Grandville
3/26/2019	Watershed Presentation and Assistance developing Groundswell project on Rain Gardens and Native Plantings (3/26/19, 4/18/19	Central Woodlands 5/6 (Forest Hills)	Buck Creek	30	FHPS
04/08/2019	Watershed Presentation; Training high school seniors to teach watershed concepts to 2nd graders (4/8/19) & Project Showcase Assistance with Seniors and 2nd Graders (5/16/19)	East Lee Campus	Plaster Creek	25	Wyoming
5/6/2019	Macroinvertebrate Sampling in Grand River @ Canoemobile (5/6-5/6/19 & 5/14/19)	Grand Rapids Public Schools	Lower Grand	400	Grand Rapids
5/21/2019	Watershed & Stormwater Field Trip @ Plaster Creek	Vista Charter Academy	Plaster Creek	90	Grand Rapids
5/16/2019	Stormwater & Green Infrastructure Presentation and Model Building	Jenison Junior High	Rush Creek	405	JPS
05/22/2019	Stream Habitat Assessment (for erosion) on Forest Hills Northern Campus	Northern Trails 5/6 (Forest Hills)	Lower Grand	30	FHPS
06/28/2019	River Walk Tour: Rapids Restoration & Grand River Water Quality	TRIO Upward Bound (GVSU program to encourage GRPS students to attend college)	Lower Grand	20	Grand Rapids
06/01/2019	Indian Mill Creek and Coldbrook Creek Cleanup	Kenowa Hills High	Indian Mill Creek	50	KHPS
		TOTAL YOUTH REACHED		2399	

- LGROW's 30-second "Find my watershed" advertisement was played throughout the summer at Downtown Grand Rapids Inc.'s "Movies on Monroe" series. The advertisement was played at 4 events, with each night averaging over 4,000 people.

- On September 13, 2018, watershed groups across the LGRW came together to collaborate, share accomplishments and struggles, and to meet the public at the first annual Watershed Jamboree. There were representatives from the Rogue River, Plaster Creek, Indian Mill Creek, Flat River, Buck Creek, Coldwater River, Sand Creek, Thornapple River, and Rush Creek watersheds, who brought displays, brochures, and other materials to help spread information and involve the public in their work. After the meeting, the public was invited to join the fun for free hot dogs, games, macroinvertebrate identification, soil painting, fly fishing for land trout, and live music from the B-Side Growlers. There are 31 subwatersheds within the LGRW, only 11 of which have established watershed groups or representatives. LGROW is encouraging the success of established groups and fostering the establishment of new subwatershed groups. A Subwatershed group supporting the Coldbrook Creek watershed was formed as a result of this event. A Subwatershed Committee, representing the leadership of Subwatershed groups throughout the LGRW was also formed to give subwatersheds a voice on the LGROW Board.

- Seasonal Watershed 'Tip' fliers were distributed to communities. These fliers focused on positive actions that Department of Public Works employees and citizens alike could take to improve the water quality in the watershed. Tips focused on different actions that were relevant to that respective season.

Summer Seasonal Tips Flier

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 water 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.

Storm drain markers

Delivery Method:

- Permittees installed the plastic storm drain markers designed by the Public Engagement Committee. The drain markers carry the messages "Keep your Lakes Great and your Rivers Grand." Some 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, 28 drain markers were installed and 63 new catch basins pre-stamped with the message "No Dumping: Drains to Waterway" were installed in the watershed. Over 2,000 pre-stamped catch basins were already in place prior to this reporting period.

- Permittees utilized a variety of stormwater displays including the drop toss game, the watershed pushpin map, the LGROW banners on non-point source pollution, Car Wash and Pet Waste Pledges, and the "Grand River Yours To Protect" informational poster board at a variety of events and locations throughout the Watershed. The PEP Questionnaire included in this report details when and where these materials were used by individual Permittees.

- Troutie Stress Balls were provided for communities to distribute. The fish shaped stress balls had the message: 'Only rain in the drain, it leads directly to my home!' This give-away allowed people to easily make the connection between storm drains and water quality as it relates to aquatic habitat.

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Lower Grand River Watershed
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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.

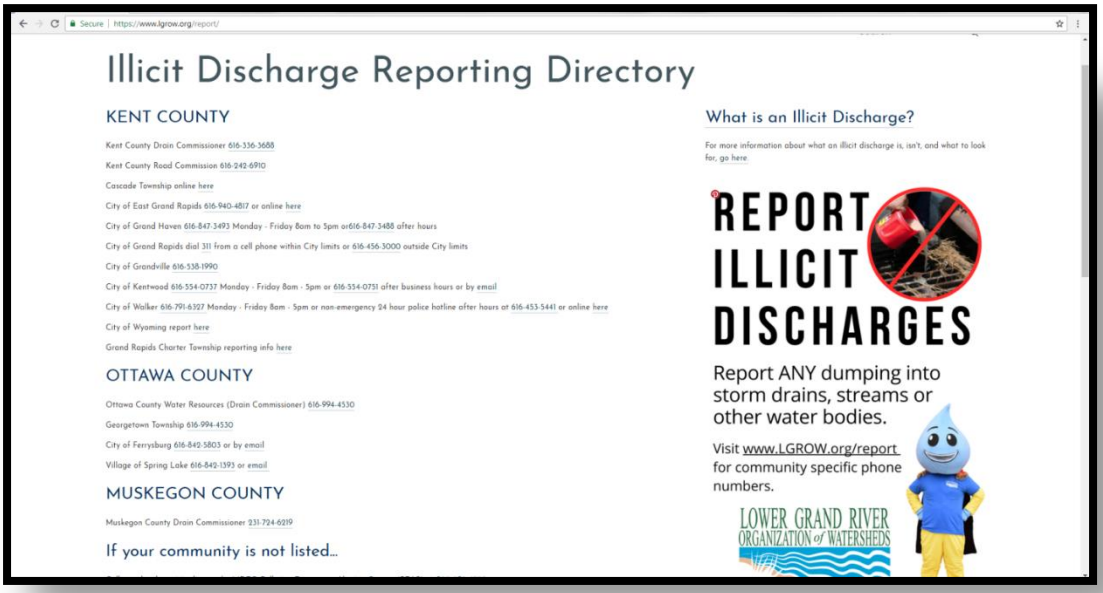
Target Audience: Residents, public employees, businesses, construction activities, industries, and septic system owners/haulers.

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.

Coasters

Delivery Method:

- LGROW's Reporting Directory website for MS4 communities across the Lower Grand River Watershed was updated to included current information for DPW employees or citizens seeking information about how to report illicit discharges. This website can be found at: https://www.lgrow.org/report/. Communities were encouraged to share this information on their municipal webpages, and on social media. Permittees made information about how to report illicit discharges available to residents and staff through a variety of channels, including by linking to this website.



- Illicit discharge magnets and coasters were distributed to promote use of the website and to raise awareness for DPW employees and citizens, encouraging them to report illicit discharges.

- Newsletter articles titled, 'Septic System Maintenance Protects Human Health and Water Quality' and 'Greening Your Spring Cleaning' were published for all MS4s to distribute to their employees or citizens. These articles highlighted steps the public can take to reduce illicit discharges from failing septic systems or improperly managed household hazardous waste.

- Some communities promote the Citizens Reporting form developed previously by LGROW, while others use an online reporting form. The method each community used to distribute this information is detailed in PEP Questionnaires.

- 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. LGROW participated in SepticSmart week September 17-21, 2018, by publishing a blog post and daily social media posts about proper septic maintenance. MS4 communities participated by using EPA's SepticSmart Week Social Media Guide or by sharing LGROW information via their social media channels.

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*" at events and in municipality offices. This brochure is available in English and Spanish.

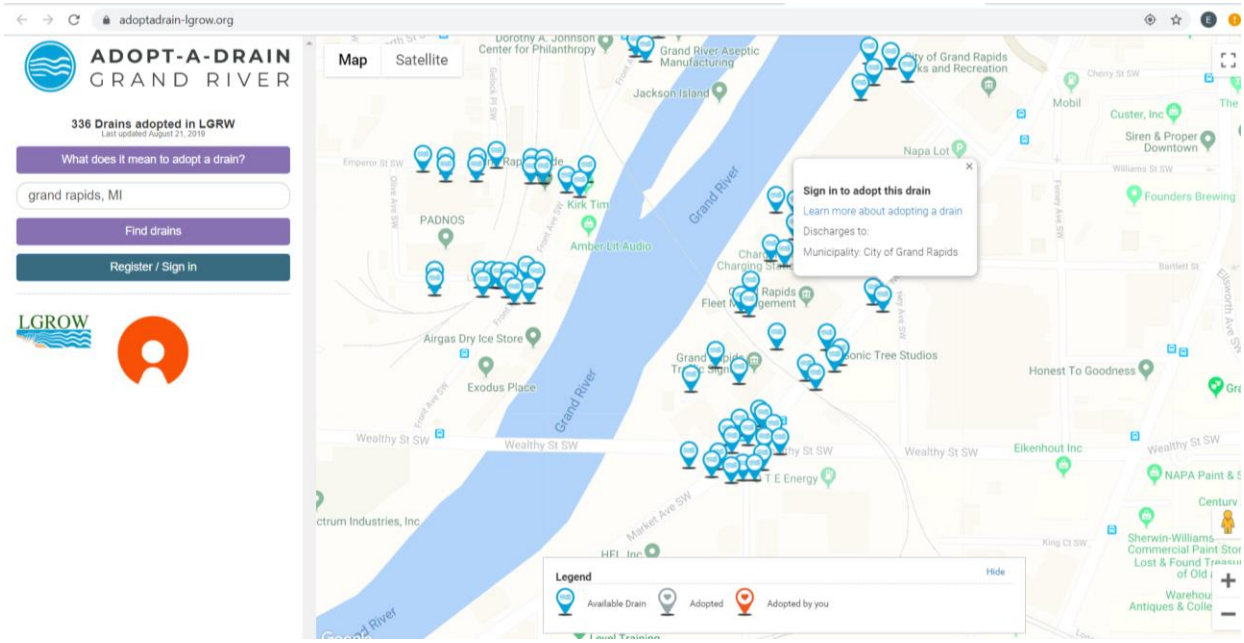
- Several communities hosted rain barrel events or rain garden work days as detailed in their PEP Questionnaires.

- LGROW and Permittees distributed pet waste bag dispensers to hook to the pet's leash. The dispensers came with a waterproof card providing information on dog parks in the Watershed and discussing the connection between picking up pet waste and protecting stormwater.

- Permittees also distributed a shammy to use for home car washes along with a brochure including 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*. The brochure also provides other environmental friendly car care tips.

- Some permittees distributed a flyer describing proper procedure for draining residential swimming pools in the fall. This was distributed publicly online via www.lgrow.org and made available for customization by MS4 communities. The flyer can be downloaded at https://www.lgrow.org/ms4information.

- LGROW partnered with the nonprofit volunteer group Citizen Labs to expand the City of Grand Rapids' "Basin Buddy" program to MS4 communities throughout the LGRW. Adopt a Drain Grand River (https://www.lgrow.org/adopt-a-drain) provides education to citizens on the locations, ownership, and discharge location of storm drains in the watershed. It also allows citizens to assist municipalities by volunteering to "adopt" a catch basin by keeping it clear of trash, organic debris, and snow throughout the year. Currently 13 MS4 communities are participating in the program and 336 catch basins have been adopted.



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.

This topic was chosen as one of two key topics by the Public Education Committee to focus on during this reporting period.

Delivery Method:

- Permittees and LGROW.org shared the newsletter article 'Greening Your Spring Cleaning' 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"* in both English and Spanish, 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. Kent County's expanded household hazardous waste 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.

Public Education Topics 6 - Management of Riparian Lands

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

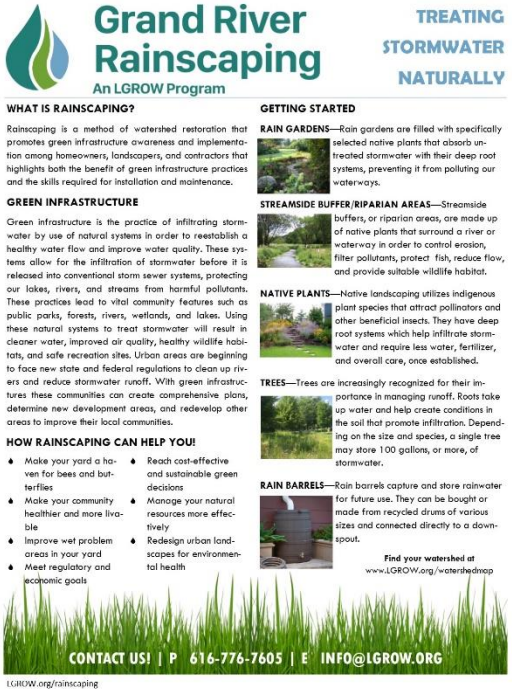
Target Audience: Riparian landowners, construction activities, landscapers

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 buggers, filter strips, conservation easements, and bioengineering techniques.

This topic was chosen as one of two key topics by the Public Education Committee to focus on during this reporting period.

Delivery Method:

- LGROW continued to promote its Grand River Rainscaping: Treating Stormwater Naturally program. This program aims to promote installation of green infrastructure and native landscaping practices to reduce stormwater runoff from residential properties and improve water quality. Residential site assessments were performed on 24 properties, 22 of which were in MS4 communities. Residents who have a site assessment completed receive a customized report of what green



infrastructure practices are best suited to their site as well as resources for implementing those practices. The Rainscaping program is aimed at both shoreline and non-shoreline properties.

Evaluation Measures

This section includes a description of the quantitative and qualitative evaluation measures of PEP effectiveness implemented between August 1, 2018, and July 31, 2019. During this reporting period, LGROW also contracted with Petersen Research Consultants, LLC to create updated robust evaluation measures for the PEP. An updated evaluation plan will be completed and reported on during the next permit cycle as part of LGROW's ongoing PEP update process.

During this permit cycle, 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 topics addressed were proper disposal of household hazardous waste and proper use of pesticides, herbicides, and fertilizers. In total, materials were distributed at around 50 events (see Table 4) and at various locations throughout the watershed.

The 2013 PEP identifies both outputs (number of items/brochures distributed and people reached) and outcomes (changes in awareness, attitudes, and behavior) as measures to evaluate during each 5-year permit cycle. Outputs for the current permit year have been identified in the PEP activity descriptions above. LGROW has been measuring outcomes through a 12-question community survey, which was last completed in 2017 and reported on in the 2016-2017 Progress Report. A new community survey is being developed as part of the contracted work with Petersen Research Consultants, LLC and will be implemented during the coming reporting cycles.

One outcome that is evaluated annually is the number of illicit discharge reports received by municipalities from the public. PEP Objective 3 identifies an overall 15% increase in illicit discharge reports each year in each community as the fifth-year milestone 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 15% increase since an increase in reports may or may not also indicate an increase in illicit discharges. Cumulatively, the reporting MS4s had 28 illicit discharges reported during the 2014-15 reporting period, 61 illicit discharges reported during the 2015-16 reporting period, 54 reported during the 2016-17 reporting period, 34 reported during the 2017-2018 reporting period, and 39 reported during the 2018-2019 reporting period. From 2015 to the current reporting period, there has been a 39% overall increase in reports. The number of illicit discharges reported in each community varied widely, with a little less than half of permittees receiving zero reports. Looking at the number on a watershed-wide scale shows an increase in reporting for illicit discharges during this reporting period compared to last. This could be due to LGROW's focused effort on preventing illicit discharges during this reporting period. Efforts to educate the public about illicit discharges will continue in order to raise awareness and

encourage citizen reporting. Of the 39 illicit discharges reported in the watershed, all were investigated, and 35 of them were eliminated. Once investigated, a few of the reported discharges ended up being exempt (ie. uncontaminated groundwater), or non-existent. More community specific information can be found in Part 4 of this report.

Objective 3 also focuses on reducing illicit discharges from failing septic systems in MS4 communities. The Kent County Health Department has been an active member of the Public Engagement Committee in the past reporting cycle and provided the following information on septic system repairs in Kent County MS4 communities: During the 2018-19 reporting period, the KCHD issued 83 repair permits in MS4 communities in Kent County. These repairs are estimated to have prevented the discharge of 37,350 gallons daily of untreated or partially treated sewage with the potential to negatively affect groundwater and/or surface water. This totals 13,632,750 gallons of illicit discharges that were avoided annually. This data is based on an average 3-bedroom house in Kent County with 150 gallons/day per bedroom with double occupancy per the Sewage Regulations of Kent County, MI.

Another outcome measured annually is the number of watershed residents dropping off HHW during collection events as an evaluation of PEP Objective 5: Waste Management Assistance. The PEP sets a 15% increase in the number of watershed residents dropping off HHW during collection events as the fifth-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. Kent County did not track number of users from the 2016-2017 reporting period on, and instead tracked poundage, so the total poundage of materials dropped off will serve as an evaluation tool during this reporting period. The 2014-15 reporting period saw 102,064 pounds of household hazardous waste dropped off. During the 2015-2016 reporting year, users dropped off 197,404 pounds of HHW, and this climbed to 241,576 pounds during the 2016-2017 reporting period. In 2017, Kent County started reporting their HHW dropoff to LGROW in annual numbers rather than by reporting period. In the 2017 calendar year, they accepted 260,856 pounds of hazardous waste, a 71% increase in pounds from 2016. In 2018, they accepted 274,000 pounds of hazardous waste, a 5% increase in pounds from 2017. This represents a 139% increase since the drop off program started in the 2014-15 reporting period, which exceeds the fifth-year PEP objective of 15% increase. We use this program's data as the 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.

2019 Stormwater Public Education Plan (PEP) Questionnaire

Reporting period of August 1, 2018 to July 31, 2019

Please complete this questionnaire to provide an evaluation of the stormwater education activities you have implemented between **August 1, 2018 and July 31, 2019**. GVMC will include this information, along with watershed-wide measures of effectiveness, in your 2018 Progress Report to EGLE. **Please return this form to GVMC by Friday, August 30, 2019.**

Community Name: City of Grandville

Brochures, Flyers, and Giveaways:

1. Which of the following general stormwater awareness/LGROW materials (brochure, flyers, giveaways) did you order/distribute from GVMC this year:

☐ LGROW Brochures
☐ "Make your home the Solution to Stormwater Pollution" brochure
☐ "Do your part – be SepticSmart! brochure
☐ Household hazardous waste disposal guidelines from Kent County or Ottawa County DPW
☐ LGROW Seasonal Tip Sheets (Fall, Winter, Spring, Summer)
☐ LGROW Chapstick
☐ LGROW Totebags
☐ "Keep your lakes Great and your River Grand" sticker
☐ Troutie coloring book
☐ Paint by number watershed map
☐ Trout stress ball with "Only rain in the drain – it leads directly to my home"
☐ Report illicit discharge magnets
☐ Report illicit discharge coasters
☐ Native plant seeds
☒ LGROW gardening gloves
☐ Safe waste disposal funnel
☐ Medication containers
☒ Floating key chain
☐ Magnetic note pads
☒ Other: **pet waste dispenser**

2. Have you given away all the materials (brochures, flyers, giveaways) you ordered from GVMC this year?
☐ Yes ☒ No

3. Where did you distribute your materials?
☒ Government office ☒ Library ☒ Community event ☒ Other Michigan Week

4. Approximately how many people did you interact with during distribution of materials? About 70

5. What was the most popular giveaway from the materials distributed in your community? Giving out brochures to residents can spark conversation during Michigan Week.

6. What topics are of 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 septic system maintenance
☒ Household hazardous waste management

Illicit Discharge Reporting

7. Did you distribute illicit discharge reporting materials to your residents?

   ☐ Hard copies of "Citizens Reporting Brochures" from the IDEP – Number distributed:
   ☐ Link to LGROW's reporting page posted to your website https://www.lgrow.org/report/
   ☐ Report Illicit Discharge magnets – Number distributed:
   ☒ Report Illicit Discharge key chains – Number distributed:
   ☐ Report Illicit Discharge coasters – Number distributed:

   Please describe any interest, comments, or discussion generated from these materials:

   How many complaints were received from the general public regarding illicit discharges? 0

Newsletters, Banners, and Displays

8. Did you display lamppost banners during this permit cycle?
   ☒ Displayed lamppost banners provided in 2009-2018 at (streets): Displayed near the Clean Water Plant
   ☐ Did not display lamppost banners

9. Did you distribute stormwater focused newsletter articles to your residents? ☒Yes ☐No
   a. Please describe any interest, comments, or discussion generated from the articles
   b. If applicable, list the newsletter name or webpage address used to distribute stormwater information to the public: https://www.cityofgrandville.com/departments/public-works/storm-water-information
   c. If applicable, how many residents received your community newsletter?
   d. If applicable, how many total website hits did you receive for your online newsletter articles or stormwater information website?

10. Did you use any of the following materials or activities at events during the reporting period?

Stormwater poster board display (Trifold)	☐Yes, Date:	☒No
EnviroScape interactive stormwater model	☐Yes, Date:	☒No
Watershed map with pushpins	☐Yes, Date:	☒No
Stormwater mural banner and scavenger hunt	☐Yes, Date:	☒No
Major Runoff stormwater mascot	☐Yes, Date:	☒No
Interactive corn hole board	☐Yes, Date:	☒No
Interactive catch basin demos	☐Yes, Date:	☒No
Watershed hand stamp	☐Yes, Date:	☒No

Events and Pledges

11. Did you distribute any additional educational materials on native plants?
    ☐ Yes (Describe): ☒No

12. Please describe any interest, comments, or discussion generated from native plant workshops or giveaways:

13. Did your community collect pet waste pledges distributed with the public education materials?
    ☐Yes, Number: ☒No

14. Did your community collect car wash pledges distributed with the public education materials?
☐Yes, Number: ☒No

Please describe any interest, comments, or discussion generated from either of the pledges and associated giveaways.

15. Did you implement a storm drain awareness activity between August 1, 2018 and July 31, 2019?

☐ Yes, we held a storm drain marking event on (dates) and marked (# catch basins)
☐ Yes, we held a storm drain stenciling event on (dates) and stenciled (streets)
☐ Yes, we have approximately (#) pre-marked catch basin backs/grates with the message "No dumping, drains to waterway"
☐ Yes, we hung door knob flyers on (streets) on (dates)

Please describe any interest, comments, or discussion generated from the activities above:
Have you noticed a reduction in storm drain dumping? ☐Yes ☒No Describe:

16. Please describe any interest, comments, or discussion generated from these materials/activities:

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

☐ Rain barrel workshop Date: Number of Attendees:
☐ Rain garden/Green Infrastructure Workday Date: Number of attendees:
☒ River clean up (location): Buck Creek Cleanup Date: 8/17/19 Number of Attendees:

☐ Watershed Jamboree – September 13, 2018
☐ Ottawa County Water Quality Forum – November 19, 2018
☐ MWEA Watershed & Stormwater Seminar – December 4, 2018
☐ MWEA Watershed Summit – March 27, 2019
☐ Earth Day at Blandford Nature Center – April 20, 2019
☒ 16th Annual Grand River Spring Forum – May 17, 2019
☐ Grand River Water Festival – June 22, 2019
☒ MWEA Annual Conference – June 23-26, 2019
☐ West Michigan WhiteCaps Concourse Table – July 28, 2019
☐ Other: Date: Number of Attendees:

18. Describe any materials distributed, number of attendees, messages used at these events:

19. Please describe any educational materials, activities, or events that you would like to see LGROW provide in the future.

20. If applicable, please describe any other stormwater public education activities your community implemented beyond the events described above (This includes education with school groups, other community events, sharing information on your community's social media accounts etc.) and submit any relevant documentation.

There is information listed on the City webpage for residents to read about how they can reduce stormwater pollution prevention: https://www.cityofgrandville.com/departments/public-works/storm-water-information The City provides pet waste bags and places them in parks for visitors to be able to properly dispose of pet waste.

Part 4 – Illicit Discharge Elimination Plan

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 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. Illicit discharges that were identified either by public reporting or staff identification during this reporting period are detailed in each community's IDEP. Descriptions of the other IDEP activities undertaken on an individual basis are included below. 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.

During this reporting period, dry-weather screening was completed by GVMC with the assistance from the following communities: Cascade Township, the City of East Grand Rapids, City of Ferrysburg, Forest Hills Public Schools, Village of Fruitport, Georgetown Township, City of Grand Haven, City of Grandville, City of Hudsonville, Plainfield Township, City of Rockford, Village of Sparta, and the Village of Spring Lake. Other communities in the watershed that completed screening during this reporting period include: the Kent County Road Commission, and the City's of Grand Rapids, Kentwood, Walker and Wyoming. Field verification of discharge points and outfalls were completed during the screening, and then incorporated into the MS4's GIS data.

Community IDEP Activities

Please describe any dry-weather screening conducted during the reporting period and the findings of that screening.
Dry weather screening was performed in Summer 2018. Please see the attached report. All outfalls were found to be in satisfactory condition.
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. Please describe enforcement action, if any. 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.
None
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.
N/A

Please describe the actions your community takes when indications of illicit discharges have been identified.
Determine the source and eliminate. If on private property notify the county Health Dept.
Please provide: ● An estimated quantification of the number of discharges eliminated, and ● An estimated quantification of the volume of illicit flow eliminated (*For large spills or, where the amount discharged is possible to estimate)*.
N/A
Identify any specific coordination with the health department in response to illicit discharge elimination for failed or failing septic fields, or identify if any septic systems have been eliminated in your community and hooked up to the municipal system.
N/A
Describe the effectiveness of the program to prevent illicit discharges and the method used to assess effectiveness.
The City didn't have any illicit discharges during the reporting period, and no issues were found during the last IDEP screening, so the program is working effectively.

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.
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: Lists were submitted to EGLE in Early 2019 as Appendix 2 in the Illicit Discharge Elimination Plan revision as part of the 2016 MS4 Permit Application. GVMC mapped Grandville Public Schools MS4 in GIS in summer 2018. Each community maintains an updated map of their MS4, with the help of GVMC Environmental Programs, or REGIS.

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**
Grandville Public Schools	☒Yes ☐No	☐Yes ☒No
	☐Yes ☐No	☐Yes ☐No
	☐Yes ☐No	☐Yes ☐No

Comments: The current agreement was signed in August 2004. This agreement will be updated after the new MS4 permit is issued. Stormwater training was provided to Grandville Public Schools key staff by GVMC on September 10, 2019.

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**:
The City supports the ongoing efforts of the Friends of Buck Creek group.
Please list any other actions your community has conducted to reduce stormwater pollution

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**

Additional Documentation

2018 IDEP Outfall Screening

City of Granville and Grandville Public Schools

Communities in Kent and Ottawa Counties, Michigan, required to have federal Clean Water Act National Pollution Discharge Elimination System (NPDES) stormwater permits, joined together under the guidance of the Grand Valley Metro Council (GVMC) to apply for a watershed-based stormwater permit in 2003. The Lower Grand River Organization of Watersheds (LGROW) was officially formed as an agency of GVMC in 2009 to coordinate the implementation of the permits and provide basin-wide oversight, conduct watershed-wide initiatives, and prioritize water quality concerns.

Since then, 23 entities, made up of county, city, village, township, universities, and local school districts, have collaborated on reducing pollutants in stormwater runoff to improve local waterways in the Lower Grand River Watershed. The implementation of their shared plans for education, pollution prevention, and post-construction controls has empowered the communities and their residents to protect the watershed and improve quality of life.

Currently, communities are implementing a regional Illicit Discharge Elimination Plan (IDEP) to prohibit and effectively eliminate illicit discharges to municipal separate storm sewer systems (MS4s). Communities have adopted illicit discharge ordinances based on this plan that give them legal authority to eliminate illicit connections. Working cooperatively, they have accurately identified ownership and responsibility of all outfalls to waters of the state and MS4 to MS4 discharge points in the urbanized areas. The communities also signed inter-agency agreements to cooperate with upstream tracing of a source when an illicit discharge was found. This unique cooperative arrangement gained the attention of EPA, resulting in modifications to the upcoming reissuance of the permits that allow the continuation of interjurisdictional programs to protect the watershed.

Fieldwork

In the summer of 2018, LGROW interns were shared between 15 different communities in Kent, Ottawa, and Muskegon Counties to screen all MS4 outfalls in the watershed, resulting in the identification and testing of dry-weather flows and eliminating illicit discharges. Before screening began, training and mapping needed to occur. LGROW staff provided IDEP training to all MS4s in the Lower Grand River Watershed and the MS4s in the Macatawa Watershed on May 22 and 23, 2018. An LGROW intern created a map of each community's storm sewer system using ArcCollector to be used in the field on a tablet or smartphone.

Outfall screening is weather dependent. Interns needed to wait 48 hours after the last rain event in order to determine if flow was present during dry weather. If flow is present in the system during dry weather, it can be an indicator of illicit discharges or illicit connections. Inspections are completed to eliminate these discharges or connections and to give MS4 communities insight into how their systems are operating. Once in the field, ArcCollector was used to find each outfall. It was used similarly to a

hand-held GPS unit. Locations for outfalls in Grandville varied from major roads, to others located in tall shrubs, and even underwater.

LGROW interns were responsible for inspecting each outfall following certain guidelines set forth in the IDEP. If the outfall did not have water flowing from it (which is ideal), then only basic observations regarding the size or material of the pipe, and the outfall location would be recorded. If an outfall was found to have dry weather flow, then a field test would be required. Water was sampled for pH, ammonia, and temperature. Sample results determined follow-up procedures.

LGROW staff performed outfall inspections in the City on August 22nd, 23rd, and September 5th, 9th, 10th 2018 with the help of City and Grandville Public Schools staff. Grandville Public Schools is nested under the City of Grandville's MS4, therefore outfalls on school property are under the jurisdiction of the City and also needed to be inspected. All outfalls can be seen in Figure 1. Ten outfalls in Grandville were sampled due to flow being observed. These outfalls can be observed in Figure 2. No outfalls required a follow up as a result from these tests; pH, Surfactants, Ammonia and Temperature results were in the normal range, as specified per the IDEP. This outfall can is shown in Figure 2.

Certain outfalls could not be properly inspected because they were buried or underwater. In those cases, interns would check the catch basin that was directly upstream from the outfall for flow. If there was no flow in the catch basin, then it was assumed that there was no dry weather flow exiting the subsequent outfall. If the catch basin had water that was flowing through it, it would need to be sampled and recorded.

Using ArcCollector, all data from 2018 fieldwork will be saved and can be referenced in the future by communities. Photographs of each outfall were attached to the data entries, which will make dry weather screening easier in the future. This screening occurs once every 5 years. These pictures were also taken so that each MS4 program manager can look and see what their outfalls look like. If there are any issues with the outfalls (ex: broken or impaired pipes) it should be visible in these images.

The City of Grandville's MS4 had a one broken outfall. This outfall is located on Grandville Public Schools, Cummings Elementary. Grandville also has four impaired outfalls these are located on Porter Ct, Piute Dr, and two on Wilson Ave. These can be seen in Figure 4.

The following attachement in Figure 3 is an image of Grandville's outfalls for the MS4, and specific points that need to be added to the MS4 list. The points that need to be removed have either been field verified to no longer exist, or are not under jusristdiction of the community's MS4. This information was submitted to the Michigan Department of Environmental Quality (MDEQ). More information regarding the City's MS4 permit and permit specific documents can be found at: www.lgrow.org/ms4

Figure 1: Outfall and Discharge Point List

Grandville Outfalls and Discharge Points
2018

Outfall ID#	Location	Point of Discharge	Latitude	Longitude	Priority	Outfall or Discharge Point	Ultimate Outfall
8-1	N. end Sanford Ave	Grand River	42 55.262N	85 45.315W	Medium High	Outfall	Grand River
8-2	Busch Dr	Roys Creek	42 55.375N	85 44.946W	Medium High	Outfall	Roys Creek
8-4	Sanford	Lake Sanford	42 55.322N	85 44.946W	Medium High	Outfall	Lake Sanford
8-5	Sanford	Lake Sanford	42 55.031N	85 44.946W	Medium High	Outfall	Lake Sanford
8-6	Sanford	Lake Sanford	42 55.013N	85 44.946W	Medium High	Outfall	Lake Sanford
8-7	Sanford	Lake Sanford	42 54.952N	85 44.946W	Medium High	Outfall	Lake Sanford
9-1	Ivanrest	Roys Creek	42 55.336N	85 44.946W	Medium High	Outfall	Roys Creek
9-2	Chicago Dr	Roys Creek	42 55.335N	85 44.646W	Medium High	Outfall	Roys Creek
9-3	Porter St	Porter Lake	42 55.318N	85 44.293W	Medium High	Outfall	Porter Lake
9-4	Porter Ct	Porter Lake	42 55.144N	85 44.331W	Medium High	Outfall	Porter Lake
9-5	Porter St	Porter Lake	42 55.249N	85 44.216W	Medium High	Outfall	Porter Lake
9-6	Bluewater Lane	Porter Lake	42 55.175N	85 44.1W	Medium High	Outfall	Porter Lake
9-7	Eastlake Dr	Porter Lake	42 55.099N	85 44.208W	Medium High	Outfall	Porter Lake
9-8	Bluewater Lane	Porter Lake	42 55.092N	85 44.291W	Medium High	Outfall	Porter Lake
9-9	Bluewater Lane	Porter Lake	42 55.090N	85 44.377W	Medium High	Outfall	Porter Lake
9-10	Ivanrest	Porter Lake	42 55.046N	85 44.638W	Medium High	Outfall	Porter Lake
9-11	Watercrest Ct	Porter Lake	42 55.114N	85 44.283W	Medium High	Outfall	Porter Lake
9-12	Bluewater Lane	Porter Lake	42 55.102N	85 44.111W	Medium High	Outfall	Porter Lake
16-2	Ivanrest	Buck Creek	42 54.133N	85 44.621W	Medium High	Outfall	Buck Creek
16-3	Wentworth	Wyoming MS4	42 53.957N	85 44.050W	Medium Low	Discharge Point	Roys Creek
16-4	Remico	Wyoming MS4	42 54.550N	85 44.059W	Medium Low	Discharge Point	Roys Creek
17-1	N Big Spring Dr	Buck Creek	42 54.096N	85 45.674W	Medium High	Outfall	Buck Creek
17-2	Carleton Park Dr	Buck Creek	42 54.112N	85 45.325W	Medium High	Outfall	Buck Creek
17-3	34th Street	Buck Creek	42 54.142N	85 44.924W	Medium High	Outfall	Buck Creek
17-4	Iris	Buck Creek	42 54.008N	85 45.468W	Medium High	Outfall	Buck Creek
17-5	Apache Ct	Buck Creek	42 54.040N	85 45.191W	Medium High	Outfall	Buck Creek
17-6	Chanute Dr	Buck Creek	42 54.067N	85 44.688W	Medium High	Outfall	Buck Creek
17-7	Ivanrest	Buck Creek	42 54.092N	85 44.641W	Medium High	Outfall	Buck Creek
18-1	42" Trunkline from Oakes	Grand River	42 54.748N	85 46.159W	Medium High	Outfall	Grand River
18-2	24" From Division	Buck Creek	42 54.815N	85 46.050W	Medium High	Outfall	Buck Creek
18-4	Chicago Drive	Buck Creek	42 54.359N	85 46.494W	Medium High	Outfall	Buck Creek
18-5	Chicago Drive	Buck Creek	42 54.341N	85 46.495W	Medium High	Outfall	Buck Creek
18-6	Fairlanes	Buck Creek	42 54.248N	85 46.427W	Medium High	Outfall	Buck Creek
18-7	Canal	Buck Creek	42 54.232N	85 46.340W	Medium High	Outfall	Buck Creek

Outfall ID#	Location	Point of Discharge	Latitude	Longitude	Priority	Outfall or Discharge Point	Ultimate Outfall
18-8	Canal	Buck Creek	42 54.226N	85 46.344W	Medium High	Outfall	Buck Creek
18-9	Chestnut	Buck Creek	42 54.199N	85 46.141W	Medium High	Outfall	Buck Creek
18-10	54" Trunkline @ Middle School	Buck Creek	42 54.121N	85 46.880W	Medium High	Outfall	Buck Creek
18-11	Wilson	Buck Creek	42 54.158N	85 46.771W	Medium High	Outfall	Buck Creek
18-13	Mohave Ct	Buck Creek	42 54.057N	85 46.175W	Medium High	Outfall	Buck Creek
18-14	Mankato Dr	Buck Creek	42 54.067N	85 46.207W	Medium High	Outfall	Buck Creek
18-15	Mayaka Ct	Indian Springs Lake	42 54.126N	85 46.220W	Medium High	Outfall	Indian Springs Lake
19-1	Teton Ct	Bremer Drain/Rush Creek	42 53.860N	85 46.815W	Medium High	Outfall	Bremer Drain/Rush Creek
19-5	Redman Ct	Bremer Drain/Rush Creek	42 53.333N	85 46.627W	Medium High	Outfall	Bremer Drain/Rush Creek
19-8	Wilfred	Huizenga Drain	42 53.225N	85 46.031W	Medium High	Outfall	Huizenga Drain
19-9	Cherway Ct	Huizenga Drain	42 53.225N	85 45.974W	Medium High	Outfall	Huizenga Drain
19-10	Osage	Huizenga Drain	42 53.229N	85 45.896W	Medium High	Outfall	Huizenga Drain
19-12	Wilson	Huizenga Drain	42 53.157N	85 45.755W	Medium High	Outfall	Huizenga Drain
19-13	44th	Huizenga Drain	42 53.077N	85 45.868W	Medium High	Outfall	Huizenga Drain
20-1	S Big Spring Dr	Big Spring Lake	42 53.859N	85 45.573W	Medium High	Outfall	Big Spring Lake
20-2	Navaho Dr	Whispering Lake	42 53.664N	85 45.085W	Medium High	Outfall	Whispering Lake
20-3	Navaho Dr	Whispering Lake	42 53.679N	85 44.998W	Medium High	Outfall	Whispering Lake
20-4	Shorewood Dr	Whispering Lake	42 53.574N	85 45.045W	Medium High	Outfall	Whispering Lake
20-5	Piute	Whispering Lake	42 53.563N	85 44.982W	Medium High	Outfall	Whispering Lake
20-6	Eagle Rock Ct	Whispering Lake	42 53.446N	85 45.191W	Medium High	Outfall	Whispering Lake
20-7	Piute	Whispering Lake	42 53.403N	85 45.040W	Medium High	Outfall	Whispering Lake
20-8	Blackhawk Ct	Whispering Lake	42 53.294N	85 45.316W	Medium High	Outfall	Whispering Lake
20-9	Conchise	Whispering Lake	42 53.239N	85 45.305W	Medium High	Outfall	Whispering Lake
20-10	Valla Ct	Huizenga Drain	42 53.168N	85 45.440W	Medium High	Outfall	Huizenga Drain
20-11	Liberty Square	Huizenga Drain	42 53.157N	85 45.637W	Medium High	Outfall	Huizenga Drain
20-12	Redkey Dr	Whispering Lake	42 53.198N	85 45.105W	Medium High	Outfall	Whispering Lake
20-13	Piute Dr	Whispering Lake	42 53.205N	85 45.101W	Medium High	Outfall	Whispering Lake
20-14	Big Rock Ct	Whispering Lake	42 53.291N	85 45.151W	Medium High	Outfall	Whispering Lake
20-15	Redkey Dr	Whispering Lake	42 53.183N	85 45.234W	Medium High	Outfall	Whispering Lake
20-16	Caddo	Huizenga Drain	42 53.159N	85 45.659W	Medium High	Outfall	Huizenga Drain
21-1	Willow Creek	Buck Creek	42 53.918N	85 44.157W	Medium High	Outfall	Buck Creek
21-2	Basswood	Buck Creek	42 53.819N	85 44.155W	Medium High	Outfall	Buck Creek
21-3	Shady Oaks	Buck Creek	42 53.690N	85 44.161W	Medium High	Outfall	Buck Creek
21-4	Pine Creek Dr	Behan-Foley/Buck Creek	42 53.375N	85 44.027W	Medium High	Outfall	Behan-Foley/Buck Creek
21-5	Spartan Ind	Behan-Foley/Buck Creek	42 53.265N	85 44.144W	Medium High	Outfall	Behan-Foley/Buck Creek
28-1	Spartan Ind	Behan-Foley/Buck Creek	42 53.001N	85 44.156W	Medium High	Outfall	Behan-Foley/Buck Creek
28-2	Spartan Ind	Behan-Foley/Buck Creek	42 53.756N	85 44.162W	Medium High	Outfall	Behan-Foley/Buck Creek
29-1	Century Center Dr	Huizenga Drain	42 52.876N	85 44.958W	Medium High	Outfall	Huizenga Drain
29-3	Rivertown Pkwy	Huizenga Drain	42 52.931N	85 45.313W	Medium High	Outfall	Huizenga Drain
29-4	Rivertown Pkwy	Huizenga Drain	42 52.922N	85 45.101W	Medium High	Outfall	Huizenga Drain
29-5	Ivanrest	Huizenga Drain	42 52.804N	85 44.604W	Medium High	Outfall	Huizenga Drain
29-6	Ivanrest	Huizenga Drain	42 52.990N	85 44.762W	Medium High	Outfall	Huizenga Drain
29-7	Grandville High School	Huizenga Drain	42 52.865N	85 45.87W	Medium High	Outfall	Huizenga Drain
29-8	Grandville High School	Huizenga Drain	4252.689N	85 46.312W	Medium High	Outfall	Huizenga Drain
29-11	Wilson	Huizenga Drain	42 52.736W	85 45.73W	Medium High	Outfall	Huizenga Drain
29-12	Wilson	Huizenga Drain	42 52.819N	85 45.728W	Medium High	Outfall	Huizenga Drain
30-1	Canal	Rush Creek	42 52.674N	85 46.303W	Medium High	Outfall	Rush Creek
21-6	Pine Creek Dr	Behan-Foley/Buck Creek	42.889047	-85.735138	Medium High	Outfall	Behan-Foley/Buck Creek
29-2	Century Center Dr	Huizenga Drain	42.881346	-85.749432	Medium High	Outfall	Huizenga Drain
20-17	Piute Dr	Whispering Lake	42.890007	-85.750594	Medium High	Outfall	Whispering Lake

Grandville Public Schools

Outfall ID#	Location	Point of Discharge	Latitude	Longitude	Priority	Outfall or Discharge Point	Ultimate Outfall
GPHS01	High School	Rush creek	42.88089206	-85.765844	Medium High	Outfall	Rush creek
GPGVE01	Grand View Elementry	Rush creek	42.87103754	-85.756245	Medium High	Outfall	Rush creek
GPCP01	Century Park	Rush creek	42.86202884	-85.778559	Medium High	Outfall	Rush creek
GPM01	Middle	Buck creek	42.90203981	-85.764724	Medium High	Outfall	Buck creek
GPM02	Middle	Buck creek	42.90243954	-85.763713	Medium High	Outfall	Buck creek
GPCE01	Central Elemetry	Direct drainage	42.9595498	-85.772696	Medium High	Outfall	Direct drainage
GPCE02	Central Elementary	Direct drainage	42.96009471	-85.774616	Medium High	Outfall	Direct drainage
GPCE03	Central Elementary	Direct drainage	42.96049913	-85.774366	Medium High	Outfall	Direct drainage
GPCE04	Central Elementary	Direct drainage	42.96099677	-85.774398	Medium High	Outfall	Direct drainage
GPHS02	High School	Rush creek	42.88023542	-85.772114	Medium High	Outfall	Rush creek
GPHS03	High School	Rush creek	42.88018035	-85.772101	Medium High	Outfall	Rush creek
GPHS04	High School	Rush creek	42.87978402	-85.772065	Medium High	Outfall	Rush creek
GPHS05	High School	Rush creek	42.87949346	-85.772059	Medium High	Outfall	Rush creek
GPHS06	High School	Rush creek	42.87932083	-85.772036	Medium High	Outfall	Rush creek

Figure 2: Outfalls Sampled

Grandville Outfalls and Discharge Points 2018

Outfall ID#	Location	Sample Satisfactory
17-1	N Big Spring Dr	Yes
17-3	34th Street	Yes
18-5	Chicago Drive	Yes
19-12	Wilson	Yes
19-13	44th	Yes
20-12	Redkey Dr	Yes
20-7	Piute	Yes
29-4	Rivertown Pkwy	Yes
9-12	Bluewater Lane	Yes
21-6	Pine Creek Dr	Yes

Figure 3: Locations of outfall that need to be added or removed to the MS4 information

Grandville Public Schools Remove and Add

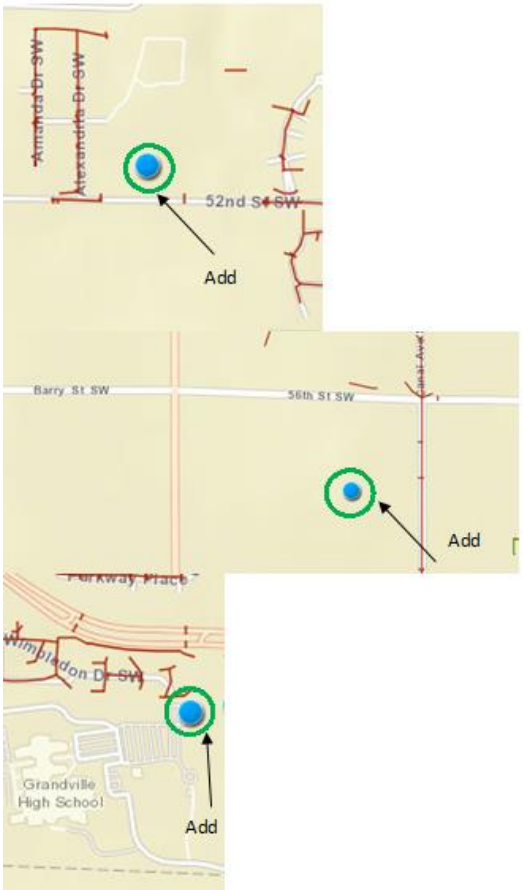


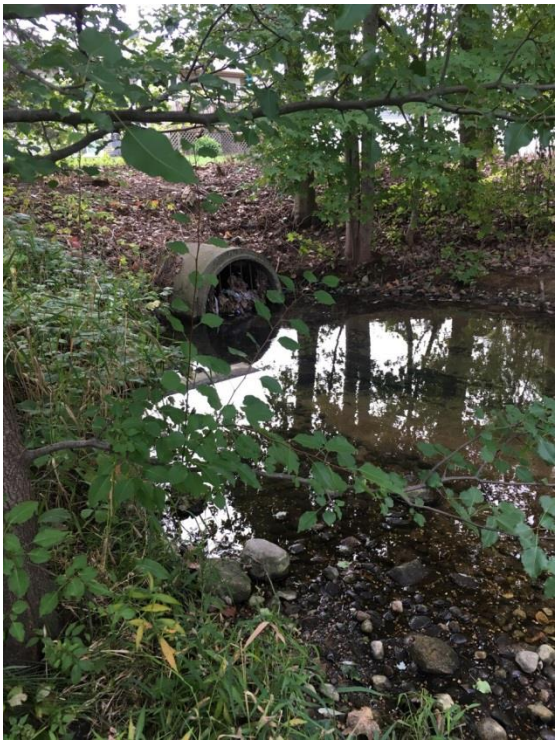
Figure 4: Broken Outfalls

Grandville Public Schools Cummings Elementary

Impaired Outfalls

Porter Ct

Piute Dr



Wilson Ave

Wilson Ave

Street Sweeping article published in the City Newsletter – can be found on the City website

DEPARTMENT OF PUBLIC WORKS

FALL LEAF PROGRAM

The City of Grandville will be providing leaf pickup service for residents beginning in November. The program will consist of weekly, curb-side pickup of leaves (in bags with a City of Grandville leaf sticker) and the provision of a drop-off site for leaves at the Department of Public Works.

CURBSIDE PICKUP

Begins: Monday, November 4, 2019
Ends: Tuesday, November 26, 2019

PICKUP DAYS

Mondays: South of Buck Creek
Tuesdays: North of Buck Creek

Leaves for pickup must be placed in paper leaf bags with a CITY OF GRANDVILLE leaf sticker affixed to the bag. City of Grandville leaf stickers may be purchased for $1.00 each. *Residents must provide their own paper leaf bags.* City of Grandville leaf stickers will be available beginning on Monday, September 16, 2019 at the following locations:

Grandville City Hall -3195 Wilson Ave.
Family Fare-3960 44th Street
Ivanrest Hardware-3291 28th Street

LOOSE LEAF DROP OFF

STREET SWEEPING

Street sweeping plays a critical role in keeping Grandville's streets, water and air clean. The City of Grandville owns one street sweeper which weighs over seven tons and holds an average of four cubic yards of debris in its hopper. The sweeper simultaneously sprays water while its rotating brooms sweep debris and dust up into the unit. The street sweeper covers 68 miles of streets at least twice during the year, at a speed of one mile per hour.

Because leaves and tree debris fall onto the streets throughout the year, the city needs your help keeping gutters and storm drains clear.

- Never rake, blow or mow grass or leaves into the street. Doing so is a violation of Grandville City ordinance.
- Do not allow yard waste to go down the storm drain.
- When you clean your yard, clean up the curb area and catch basins too.

This not only creates a more pleasant view in your neighborhood, it also keeps our storm basins clean allowing water to drain away quickly during times of heavy rainfall. Most residents already take these measures to enhance the appearance of their home and yard. Remember- it may be a long time before the street sweeper is back in your area. Show your pride and go the extra mile when cleaning your yard.