



**GREATER LANSING
REGIONAL COMMITTEE**
FOR STORM WATER MANAGEMENT

www.mywatersheds.org

2018
**ANNUAL
REPORT**



GLRC Members

Clinton County
 Delhi Charter Township
 Delta Charter Township
 DeWitt Charter Township
 City of DeWitt
 City of East Lansing
 Eaton County
 City of Grand Ledge
 Ingham County
 Lansing Charter Township
 Lansing School District
 City of Lansing
 City of Mason
 Meridian Township
 Michigan State University
 Waverly Community Schools



TRI-COUNTY
 regional planning commission

A LETTER FROM OUR CHAIRMAN



Dear Friends,

As we enter the new year and look back at 2018, we recognize that so much has been accomplished to advance the core mission of the GLRC. Yet, we know that there is much more that needs to be achieved in the coming years, making 2018 a year of preparation for the upcoming MS4 permit cycle. The GLRC worked cooperatively to help strengthen individual programs, ready members for new permit requirements, and provide continued education to municipal staff. The following 2018 committee accomplishments highlight the success of this regional approach to water quality management and demonstrates the GLRC's impact on the watershed:

- One of the exciting new approaches to meet our Public Education Plan (PEP) goals is the expansion of the digital outreach campaign. Facebook and Instagram have allowed us to reach and educate more people than ever and gauge the effectiveness of our outreach in real time. This approach has proven to be well worth the effort and investment.
- The GLRC Regional Water Quality Survey was completed in summer of 2018. The survey was a valuable tool in identifying the knowledge gaps related to surface water issues. Consequently, the survey results were used in part to update the GLRC's shared Public Education Plan, which was completed in time to be included with the upcoming new NPDES permits to area MS4 communities.
- The GLRC sponsored its first Stormwater Seminar in June 2018. The event focused on new ways to fund and manage stormwater programs. There were also useful presentations on green infrastructure, post-construction controls, and innovative runoff treatment technologies.
- An IDEP field training event was held in July 2018 to enhance the water quality sampling and testing knowledge of GLRC members and their staff.

Finally, I would like to add that since its inception the GLRC has managed to work harmoniously with our state regulators at the MDEQ towards meeting our permits' requirements. This great relationship has continued over the past two years due in large part to the remarkable work by the GLRC coordinator, Mr. Cliff Walls. He has done an excellent job assisting members with DEQ audits and applications, and in bringing new outreach ideas such as a 2018 Dog Photo Calendar Contest that engaged more than 40,000 residents in the Greater Lansing area. With his great commitment to helping members, along with his energy and professionalism, I feel confident that our member communities will be well prepared to meet the implementation challenges headed our way when the new permits are issued, and that will be a great thing for our region's lakes, rivers, and streams.

Sincerely,

Younes Ishraidi, Meridian Township

2018 GLRC Chairman

THE BASICS

Who is the GLRC?

The Greater Lansing Regional Committee for Stormwater Management is a guiding body comprised of regulated Municipal Separate Storm Sewer System (MS4) communities within the Greater Lansing Region. The committee was established in 1999 to guide the implementation of the stormwater program for participating communities within the Red Cedar River, Grand River, and Looking Glass River watersheds. The GLRC is administered by the Tri-County Regional Planning Commission.

What is an MS4?

Municipal Separate Storm Sewers Systems (MS4s) capture runoff water in catch basins and pipes that lead directly to rivers, streams, and lakes without being processed at a treatment plant. Oil, pet waste, and other pollutants “hitch a ride” with runoff water, enter the storm system and accumulate in waterbodies. To limit pollution, the EPA’s Phase II rule requires operators of MS4s in urbanized areas to implement programs and practices to control polluted stormwater runoff through the use of National Pollutant Discharge Elimination System (NPDES) permits. For permit compliance, MS4 municipalities must meet the “six minimum measures.”



Public Participation/Involvement

Providing opportunities for citizen participation in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel.



Public Education

Distributing educational materials and performing outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.



Illicit Discharge Detection and Elimination

Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system. Activities include developing a system map and informing communities about hazards associated with illegal discharges and improper disposal of waste.



Construction Site Runoff Control

Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb one or more acres of land. Controls could include silt fences and temporary stormwater detention ponds.



Post-Construction Runoff Control

Developing, implementing, and enforcing a program to address discharges of post-construction stormwater runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas (e.g., wetlands) or the use of structural best management practices (BMPs) such as grassed swales or porous pavement.



Pollution Prevention/Good Housekeeping

Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques, such as regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch basin cleaning.

Minimum Control Measures



“Strong partnerships are vital to any successful stormwater management program. The working relationships that have been established through the GLRC provide a solid foundation upon which communities throughout the Greater Lansing region have built their programs.”

Ruth Kline-Robach
Outreach Specialist
Michigan State University
Institute of Water Research

COMMITTEE UPDATE



Nearly two years after the application deadline, the Michigan Department of Environmental Quality (MDEQ) is poised to issue new NPDES permits to area MS4 communities this spring. GLRC members submitted applications in April of 2017, and MDEQ is in the process of reviewing stormwater management plans, offering comments and suggesting adjustments to application language. It's anticipated that permits will be issued in March or April following a public review period.

For many members, the upcoming permit cycle brings new requirements

and commitments to their stormwater programs in the form of an E. coli Total Maximum Daily Load (TMDL). DEQ monitoring shows high levels of bacteria in the Grand and Red Cedar rivers, resulting in the creation of a TMDL framework to establish the allowable limit of E. coli in stormwater discharge to these impaired waterbodies. It provides a basis for determining the pollutant reductions necessary to restore and maintain water quality.

In their permit applications, many GLRC members were required to identify potential sources of E. coli to their MS4

and outline how they'll make progress towards achieving the bacteria load reduction requirement. Once permits are issued this spring, this requirement will become active and permittees will begin plan implementation.

The upcoming permit cycle also provided GLRC members an opportunity to revisit and improve their Public Education Plan (PEP). Having operated under the previous PEP since 2013, the GLRC refined their outreach goals, strategies, and commitments in 2018. The new PEP and permits will help guide the committee in its goal of improving water resources for the residents of Greater Lansing.

DIGITAL OUTREACH

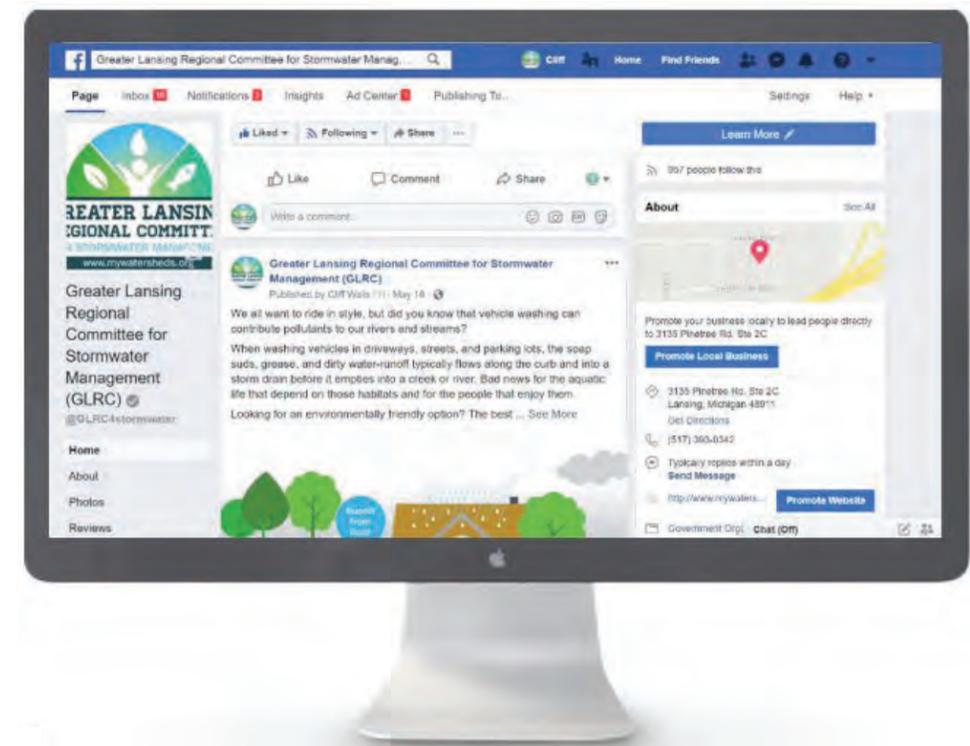


Facebook and Instagram have become the GLRC's primary tools for sharing environmental information with residents. Particularly, there has been great success with utilizing paid social media advertising, helping the committee reach more people than ever before.

These "boosted" posts and advertisements allow the committee to place local environmental information on the screens of people who do not already follow the GLRC or individual members' social channels, ensuring the content is reaching residents who are less likely to be familiar with stormwater issues. Additionally, they can be targeted by geography, guaranteeing that the outreach budget is spent where it matters most to members: the Greater Lansing area.

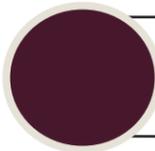
Since adopting this approach, GLRC posts have had nearly one million unique views, earned almost 10K "likes", and increased Facebook followers by ~700%.

By reaching these new audiences, the GLRC hopes to fill knowledge gaps and create new watershed stewards!

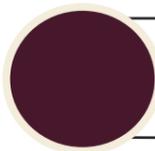


STRUCTURE AND FINANCES

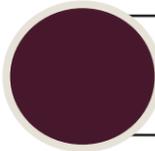
The GLRC is supported by the Tri-County Regional Planning Commission (TCRPC), which provides program staff, administrative, and fiscal support. GLRC members pay annual dues for the services provided. The following committees coordinate and complete the work necessary to maintain compliance with the permit requirements.

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Illicit Discharge Elimination Program

Guides the organization and implementation of the Illicit Discharge Elimination Program (IDEP), mapping guidelines, field-sampling protocols, and how the watershed will be monitored for progress. The IDEP Committee has reviewed pet waste management, septic tank maintenance issues, IDEP ordinances, and provided staff training.
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Total Maximum Daily Load Committee

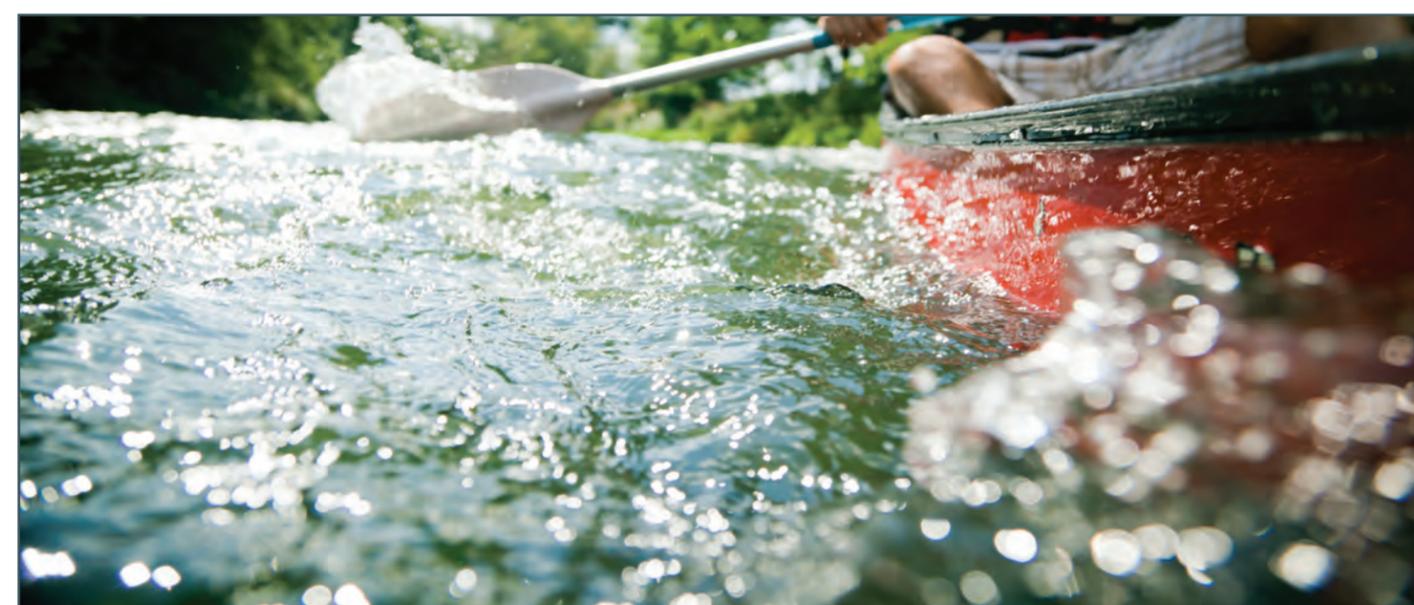
Makes recommendations regarding the Grand River and Red Cedar River E. coli Total Maximum Daily Load (TMDL) requirement. The committee provides education and updates to GLRC members to assist in the development and implementation of TMDL programs.
- 

Public Education Program Committee

Guides the overall public education, participation, outreach and involvement process for the stormwater program. This effort includes evaluation and assessment of public knowledge and activities.



Category	2018 Budget
TCRPC Administrative Cost and Support Staff	\$90,575
2018 GLRC Regional Water Quality Survey	\$25,000
Illicit Discharge Elimination Plan (IDEP) Committee	\$325
Public Education Plan (PEP) Committee	\$5,500
Total Maximum Daily Load (TMDL) Committee	\$300
Monitoring Support	\$3,000
Website Hosting	\$300
Annual Report Printing	\$600
Total	\$125,600



EDUCATING RESIDENTS WATERSHED WIDE

The GLRC utilizes a traveling watershed display for local workshops, conferences, and events.

When the display is not in use for an event, it circulates throughout the region to GLRC member offices. Look for it at your local city hall, public works, and various locations around the region!

DeWitt Community Showcase

BWL Adopt-a-River Clean Up Event

MWEA Watershed Summit

Michigan State University Big Green Gig Earth Day Celebration

GLRC Stormwater Seminar

Lake Lansing Property Owners Association Annual Meeting

East Lansing Schools Pinecrest Science Fair

East Lansing Schools Pinecrest Elementary STEAM Night

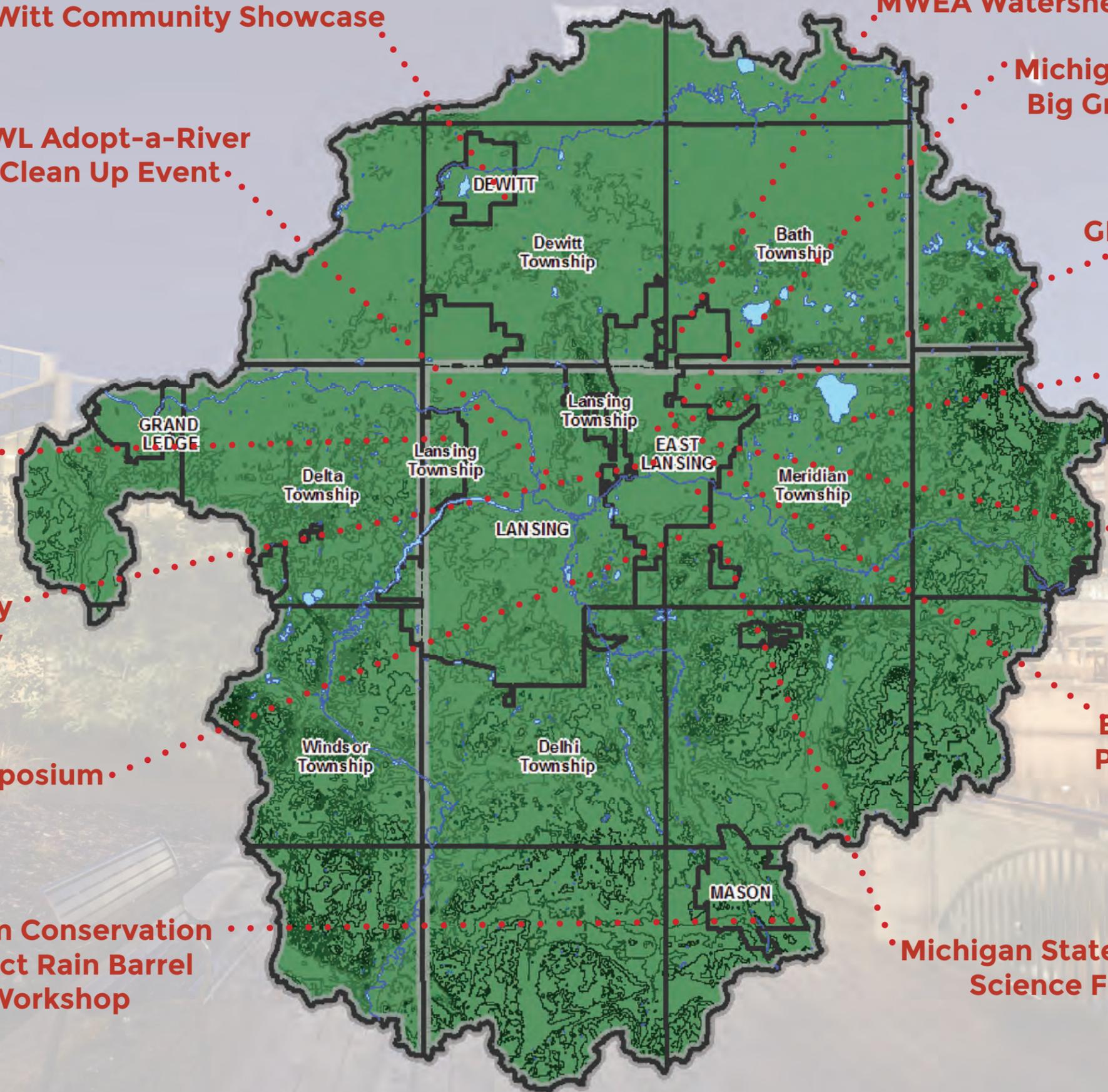
Michigan State University Science Festival

Ingham Conservation District Rain Barrel Workshop

Quiet Water Symposium

Michigan State University Grandparents University

Delta Township Trick or Treat Trail



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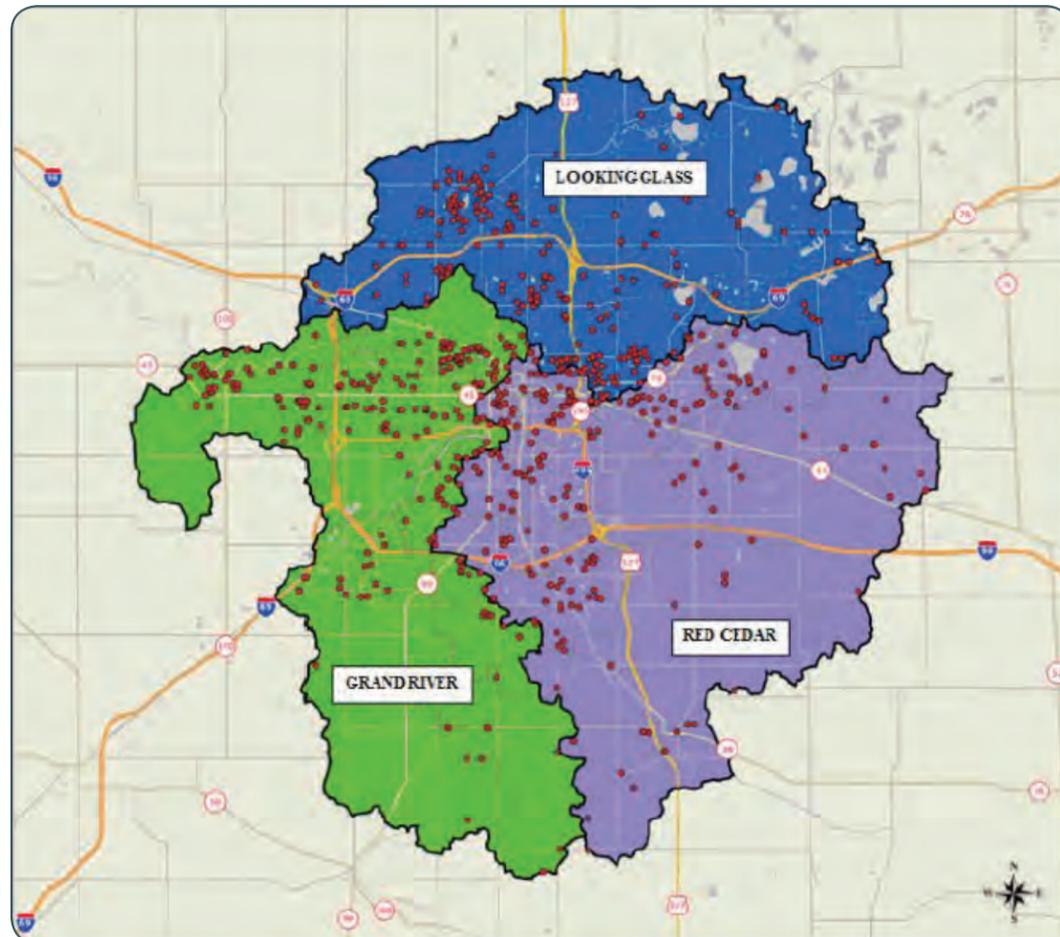
Delta Township Trick or Treat Trail

REGIONAL WATER QUALITY SURVEY

To maintain MS4 permit compliance, communities must evaluate their Public Education Plans (PEP) and measure the effectiveness of their outreach efforts. The GLRC has satisfied this requirement by utilizing professionally administered surveys that gauge public awareness of local water quality issues and determine if the PEP has improved residents' knowledge during the permit cycle. The third and most recent GLRC Regional Water Quality Survey was completed in summer of 2018, and its data highlights where outreach has been successful and which topics or concepts need added attention to improve public understanding.

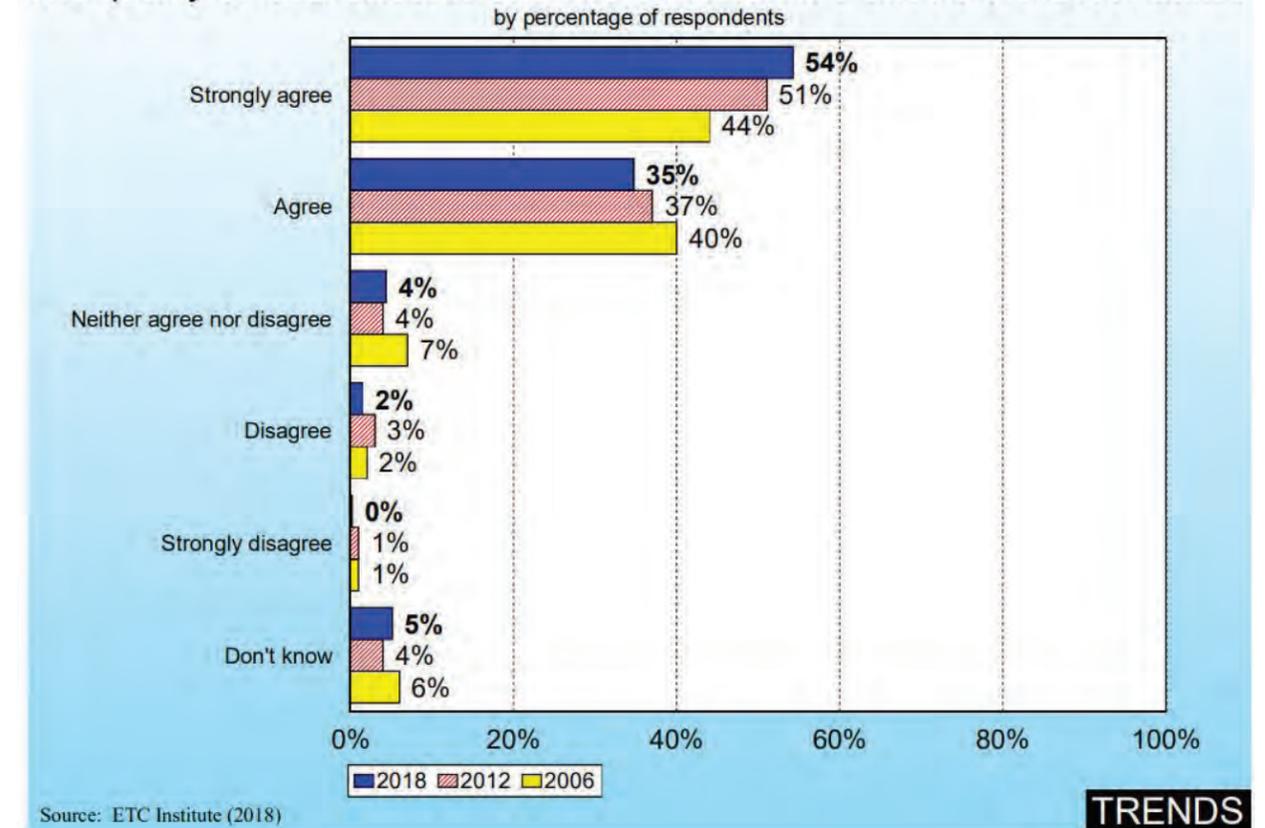
The survey was administered through phone, mail, and digital questionnaires and completed by over 600 randomly selected residents throughout the Grand River, Red Cedar, and Looking Glass River urbanized watersheds. The Public Education subcommittee compared 2018 results to the GLRC's 2006 and 2012 surveys to determine if outreach campaigns have been effective in improving public knowledge or if new approaches should be adopted in the upcoming permit cycle.

The 2018, 2012, and 2006 survey final reports are available at www.mywatersheds.org/for-municipalities-1. The public and partners are encouraged to use and share these reports freely. Contact GLRC Coordinator Cliff Walls at CWalls@mitcrpc.org with any questions.



Each red dot represents a survey response. 666 responses were collected from throughout the Grand, Red Cedar, and Looking Glass River watersheds.

Q6. Please indicate your level of agreement with the following statement:
The quality of local streams and rivers where I live affects the Great Lakes



(Above) Sample question from the 2018 Regional Water Quality Survey. Questions covered resident's knowledge, current behaviors, and their willingness to take environmentally friendly actions in the future.

Key Survey Findings

- More people realize that their actions at home impact water quality in their community. Only 24% of respondents said their actions have "little effect" or "no effect", compared to 36% in 2006.
- 89% of respondents understand that local water quality affects the Great Lakes.
- Over time, more respondents have correctly indicated that "stormwater runoff" contributes most to water pollution.
- Most people understand where storm drains discharge.
- 14% of respondents were familiar with the GLRC and its outreach efforts.
- Respondents prefer to learn about environmental issues and initiatives through social media.
- The majority of respondents are willing to pay more in taxes, utilities, and housing to improve water quality in their community.

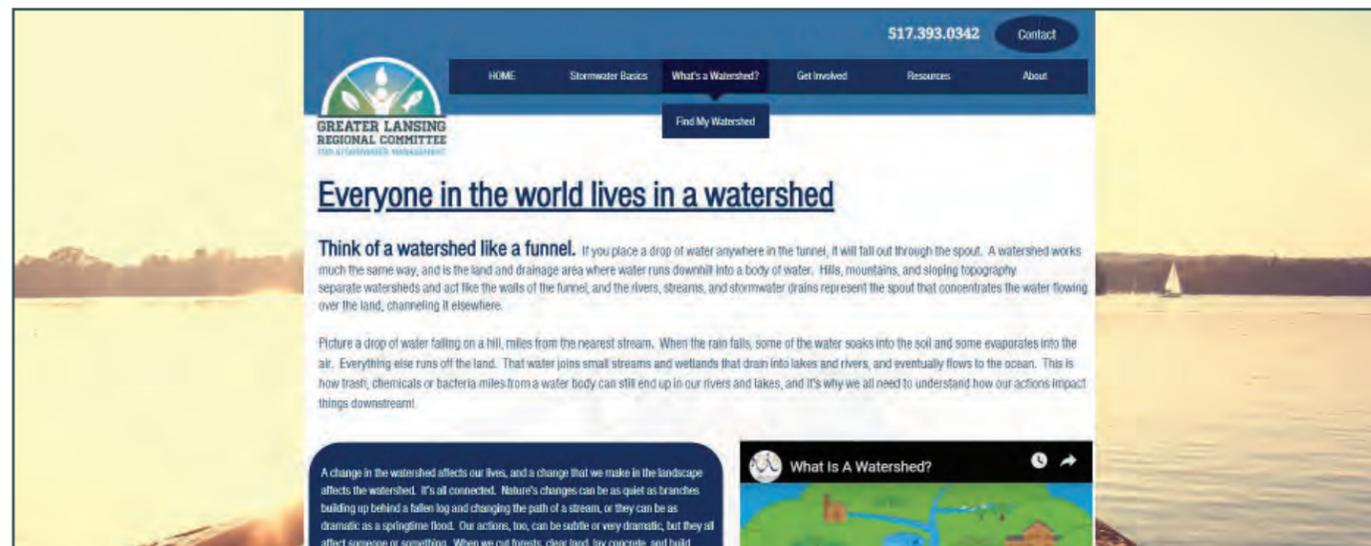
REVAMPED PUBLIC EDUCATION PLAN

With a new stormwater permit cycle about to begin, the GLRC's PEP subcommittee recently revisited the group's shared Public Education Plan (PEP) and recommended updates to the GLRC's outreach activities. The PEP document guides the GLRC's public outreach efforts and details specifically how members and staff will work to educate residents on stormwater issues and water quality concerns. The general public's actions can greatly impact both the quality and quantity of urban stormwater, making public education a key component of MS4 permit compliance.

The PEP update process was guided by the GLRC's 2018 Regional Public Survey findings, which allowed the committee to craft an outreach strategy that addresses knowledge gaps identified in the results and determine if previous and current educational campaigns have been effective in changing resident's behavior. For example, the Michigan Department of Environmental Quality (MDEQ) requires that MS4 permittees educate their residents on watershed stewardship, yet survey results show that nearly 70% of people do not understand the term "watershed" and many do not know if they live in one. In response, the GLRC committed to aggressively address this knowledge gap, as understanding what watersheds are and what they do is central to playing a role in their protection. The GLRC committed to creating new brochures, displays, and web-content highlighting watershed information in hopes of flipping those survey results during the upcoming permit cycle. The survey results help the GLRC and its members to justify their outreach decisions and ensure that resources are being spent efficiently by targeting topics and behaviors that will have a lasting impact.

The PEP committee also used survey results to determine how to best reach and engage with residents. Not surprisingly, the majority of respondents indicated that they prefer to learn about local environmental issues via social media; Facebook and Instagram in particular. Knowing this, the GLRC altered the PEP to prioritize their social media presence and committed to posting particular topics online at defined frequencies. As these responses change over time, the GLRC adapts, altering their outreach strategy to align with resident's preferences.

This collaborative approach to public education is one of the key successes of the GLRC as an organization. Not only does a shared effort lower outreach costs for members, performing PEP obligations as a region creates better results by delivering consistent messaging throughout the watershed.



GLRC STORMWATER SEMINAR



The GLRC regularly provides training opportunities for municipal field staff, but this year, members requested an additional event focused on continued education for their engineers, public service directors and elected officials. The GLRC listened and hosted their first Stormwater Seminar in June 2018. The event provided municipal decision makers an opportunity to hear experts present on new ways to fund, manage, and improve their stormwater programs.

With stormwater utility bills under consideration in the Michigan legislature, the seminar focused heavily on preparing officials in the Greater Lansing area for potential changes in stormwater funding options. Consultants and municipal leaders from outside the region and state spoke on their experience in creating and implementing stormwater utilities, highlighting their lessons learned and the resulting benefits of this funding approach. Attendees also heard from experts on green infrastructure and post-construction controls, and learned about new treatment technologies for projects with space constraints.

The event proved to be a great way to equip local leaders with the tools and knowledge to adapt to changes in the technological and regulatory landscape, and demonstrates the strength of the GLRC's cooperative approach to regional issues. Due to the success of the event, the committee plans to hold more seminars throughout the upcoming permit cycle.

DOG PHOTO CALENDAR CONTEST

PET OWNER OUTREACH

When left on the ground, pet waste (and the bacteria it carries) can wash into storm drains and discharge into our shared surface waters, making it a top water quality concern for MS4 communities. It's why many communities institute pet waste "pick up" ordinances and commit to educating their residents on proper pet waste disposal. As a group, the GLRC has dedicated much of its public education efforts towards encouraging dog owners to pick up after their pets, and individual communities have identified pet owner outreach as an important tool to address new E. coli Total Maximum Daily Load (TMDL) requirements.

In an effort to reach and educate more residents on the relationship between their pets and stormwater pollution, the GLRC held a Dog Photo Calendar contest. The GLRC purchased advertising space on Facebook and asked residents to submit pictures of their furry friends for a chance to have their photo included in the GLRC's 2019 calendar. Twelve winning photos were chosen as a month's featured image, and winners were sent a \$20 gift certificate to a pet supply store.

In order to be eligible to submit a photo, residents were required to read about dog waste impacts on stormwater and proper disposal techniques, then pledge to "scoop" in the future. They were also given the opportunity to subscribe to the GLRC's newsletter publications to stay in the loop on other local stormwater issues.



The campaign was a great success, reaching over 40k people on Facebook, drawing over 1,600 visits to the GLRC's website, and resulting in over 300 photo submissions and pledges. Residents love sharing photos of their pets, and the contest allowed the GLRC to engage them, educate them, and get them involved in the effort to protect the Grand River watershed!

In addition to dog photos, the calendar features important pet waste/stormwater facts and information on local dog-friendly parks. A digital version is available for download at MyWatersheds.org. Due to the success of the campaign, the GLRC plans to hold another contest for 2020. Stay tuned!



2019 **JUNE**

May 2019 July 2019

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4	5	6	7	8
9	10	11	12	13	14 Flag Day	15
16 Father's Day	17	18	19	20	21	22
23 30	24	25	26	27	28	29

Protect our waters and aquatic life by picking up after your dog. When pet waste decays in water, it uses up dissolved oxygen that fish and other aquatic life need to survive.



GLRC PLANS FOR 2019

- Receive NPDES permits
- Begin E. coli Total Maximum Daily Load (TMDL) plan implementation
- Execute activities identified in the new Public Education Plan
- Exhibit at the Quiet Water Symposium, Adopt-a River, MWEA Watershed Summit, etc
- Help develop and organize the first Crandell Lake Water Festival
- Utilize traveling educational display at every member community
- Hold staff training and continued education events for members



Photo Credits

@LenonJames: Cover photo, Pages, 2, 4, 5, 9 & 10, 18



“At the request of the DEQ, the GLRC successfully piloted a new MS4 permitting approach. The GLRC framework of engaged membership focused on regional collaboration was used by the DEQ to guide development of the new MS4 permitting approach. The GLRC continues to be an example of a successful model for collaborative stormwater management by maximizing financial resources, delivering consistent messaging across the watershed, and developing regional stormwater control standards.”

Christe Alwin
Statewide MS4 Program Coordinator
Michigan Department of Environmental Quality

Produced by the Tri-County Regional Planning Commission



Stay Connected.

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