



Genesee County Phase II Municipalities Annual Report

***November 1, 2014 – October 31, 2015
Reporting Period***

Submitted to:

***the State of Michigan Department of Environmental Quality,
Surface Water Quality Division***

by the Genesee County Drain Commissioner

on behalf of Genesee County and contracted Communities



TABLE OF CONTENTS

List of Tables	iii
List of Figures	iv
List of Acronyms	v
1. NPDES Permit Requirements and Administration	1-1
Permit Requirements	1-1
Watershed Management Administration	1-1
<i>Storm Water System Service District</i>	1-1
<i>Watershed Delineation</i>	1-1
<i>Contract Communities</i>	1-3
<i>Nested Drainage System Agreements</i>	1-3
<i>Genesee County Storm Water Advisory Committee</i>	1-5
<i>Public Education (PE) and Participation Sub-Committee</i>	1-6
<i>New Construction Standards and Practices (CSP) Sub-Committee</i>	1-6
<i>Monitoring and Mapping (M&M) Sub-Committee</i>	1-6
<i>Watershed Management Plans and Storm Water Pollution Prevention Initiatives</i>	Error! Bookmark no
2. Public Education and Participation Sub-committee Activities	2-1
Public Education Plan	2-2
<i>Permit Requirements</i>	2-2
<i>Partnerships</i>	2-2
<i>Activities Update</i>	2-3
Public Participation Plan	2-15
3. Construction Standards and Practices Sub-Committee Activities	3-1
Storm Water Ordinance	3-1
BMP Manual	3-3
4. Monitoring and Mapping Sub-Committee Activities	4-1
5. Good Housekeeping	5-1
6. 319 Nonpoint Source Grant Projects	6-1
Swartz Creek Watershed Project	6-1
Kearsley Creek Watershed Project	6-1
Gilkey Creek	6-1
7. Genesee Green	7-2
8. Macroinvertebrate Study	8-11
9. Illicit Discharge Elimination Plan (IDEP)	9-1
10. New Storm Water Point Source Discharges (PSD)	10-1
Appendix A: Public Education Material	
Appendix B: Permittee Questionnaire Summary (Submitted separately by each Permittee)	

LIST OF TABLES

Table 1-1: Contract Communities.....	1-3
Table 1-2: Nested School Districts	1-3
Table 2-1: Breakdown of GCCD Water Quality Presentations in Fiscal Year 2014-15	2-6
Table 2-2: Breakdown of Project Green Schools in Fiscal Year 2014-15.....	2-8
Table 7-1: Water Quality Index Calculation Chart.....	7-3
Table 7-2: Genesee Green Results.....	7-4
Table 8-1: Macroinvertebrate Study Results	8-11
Table 9-1: Total Number Outfalls Investigated.....	9-1
Table 10-1: Genesee County Assigned Outfalls for 2014-2015.....	10-2

LIST OF FIGURES

Figure 1-1: Genesee County Watershed Boundaries	1-2
Figure 1-2: Watershed Planning Decision Making Flowchart	1-6
Figure 7-1: Genesee Green Results for the Lower Flint River Watershed	7-6
Figure 7-3: Genesee Green Results for the Upper Flint River Watershed	7-8
Figure 8-1: Macroinvertebrate Study Results for the Lower Flint River Watershed	8-12
Figure 8-2: Macroinvertebrate Study Results for the Middle Flint River Watershed	8-13
Figure 8-3: Macroinvertebrate Study Results for the Upper Flint River Watershed	8-14
Figure 8-4: Macroinvertebrate Study Results for the Shiawassee River Watershed	8-15
Figure 9-1: Illicit Discharge Notification System Process	9-2
Figure 10-1: Genesee County Assigned Outfalls for 2014-2015	10-2

LIST OF ACRONYMS

E342C	Contract for services between Communities and Drain Office
Ad hoc	The Ad hoc Committees are formed to work on specific objectives until complete
BMP	Best Management Practice
CAER	University of Michigan – Flint, Center for Applied Environmental Research
CMI	Clean Michigan Initiative
CSO	Combined Sewer Overflow
EPA	Environmental Protection Agency
FRWC	Flint River Watershed Council
GCCD	Genesee County Conservation District
GCDC	Genesee County Drain Commissioner
GCHD	Genesee County Health Department
GCRC	Genesee County Road Commission
GISD	Genesee Intermediate School District
GREEN	Global Rivers Environmental Education Network
HHW	Household Hazardous Waste
IDEP	Illicit Discharge Elimination Plan
M&M	Monitoring and Mapping
MDEQ	Michigan Department of Environmental Quality
MDEQ	Michigan Department of Natural Resources and Environment
MS4	Municipal Separate Storm Sewer System
N/A	Not applicable
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
PEP	Public Education Plan
PPP	Public Participation Plan
PSD	Point Source Discharge
QAPP	Quality Assurance Project Plan
SEMCOG	Southeast Michigan Council of Governments
SESC	Soil Erosion and Sedimentation Control
SSO	Sanitary Sewer Overflow
SWAC	Storm Water Advisory Committee
SWSC	Storm Water Structural Controls
SWM	Surface Water Management
SWPPI	Storm Water Pollution Prevention Initiative
TBD	To be determined
WMP	Watershed Management Plan
WWS	Water and Waste Services
WQI	Water Quality Index

1. NPDES PERMIT REQUIREMENTS AND ADMINISTRATION

This annual report was prepared by Genesee County's engineering consultant, Tetra Tech, for the Michigan Department of Environmental Quality (MDEQ).

PERMIT REQUIREMENTS

This annual report summarizes activities completed for the period from November 1, 2014, to October 31, 2015, by the Genesee County Drain Commissioner's Office and the contracted Phase II Municipalities to meet the requirements of their National Pollutant Discharge Elimination System (NPDES) permit, including:

- Watershed management
- Public education and participation
- New construction standards
- Monitoring and mapping
- Illicit Discharge Elimination Program (IDEP)
- Storm Water Pollution Prevention Initiative (SWPPI)

WATERSHED MANAGEMENT ADMINISTRATION

Storm Water System Service District

To implement the permit requirements and perform watershed management planning, Genesee County established a Storm Water Management System for the entire County under the authority of Michigan Public Act 342 of 1939. Genesee County had designated the Genesee County Drain Commissioner's Office to be their authorized agent. Many of the communities in the County have executed a contract to use the County 342 Storm Water Management System as the lead agency to provide Phase II permitting services, including watershed management planning.

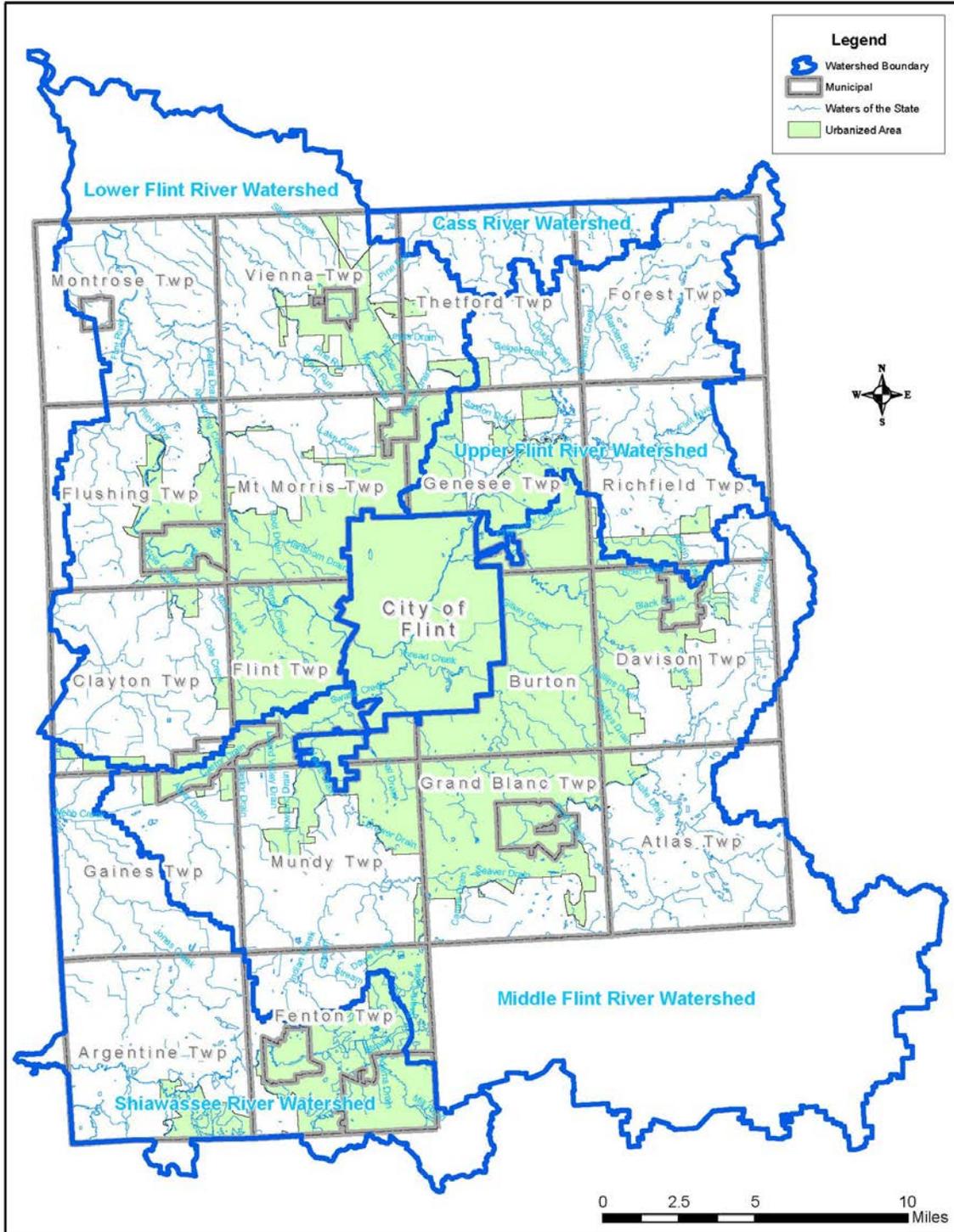
Watershed Delineation

Five major watersheds were delineated in the permit application, including:

- Lower Flint River Watershed
- Middle Flint River Watershed
- Upper Flint River Watershed
- Shiawassee River Watershed
- Cass River Watershed

Figure 1-1 shows the watershed boundaries. The Shiawassee River Watershed boundary was adjusted in 2005 to minimize overlap with Livingston County's efforts. Also, after discussions with MDEQ, the Upper Flint and Lower Flint watershed lines were changed. The five major watersheds listed above were divided into 20 sub-watershed planning areas.

Figure 1-1: Genesee County Watershed Boundaries



Contract Communities

In 2015 The Adhock Committee met, recommending the 3rd amendment to the contract. The Storm Water Advisory Group Passed a motion and those on Table 1-1 have signed a new 2015-2020 342 contract.

Note:

- Of the Phase II communities, Grand Blanc Township is the only Phase II community that does not participate through this contract.
- In the 2013-2014 reporting cycle Mundy Township and Flushing Township were able to opt out of the NPDES Ph II permit, and have chosen to not to sign a new contract.
- The contract for Public Education services between City of Flint and Genesee County ended on September 1, 2014. City of Flint chose not to extend the contract. A letter by GCDC-SWM to the MDEQ was sent 3/26/15 notifying the State that Public Education efforts covered in this report are not being done on behalf of the City of Flint Effective Oct 1, 2014.
- Although Argentine Township is not a Phase II community, they chose to sign the contract for services.

Table 1-1: Contract Communities

Argentine Township	Fenton Township	City of Mount Morris
City of Burton	Flint Township	Mount Morris Township
City of Clio	City of Flushing	City of Swartz Creek
City of Davison	Genesee Township	Vienna Township
Davison Township	City of Grand Blanc	Genesee County
City of Fenton	City of Linden	

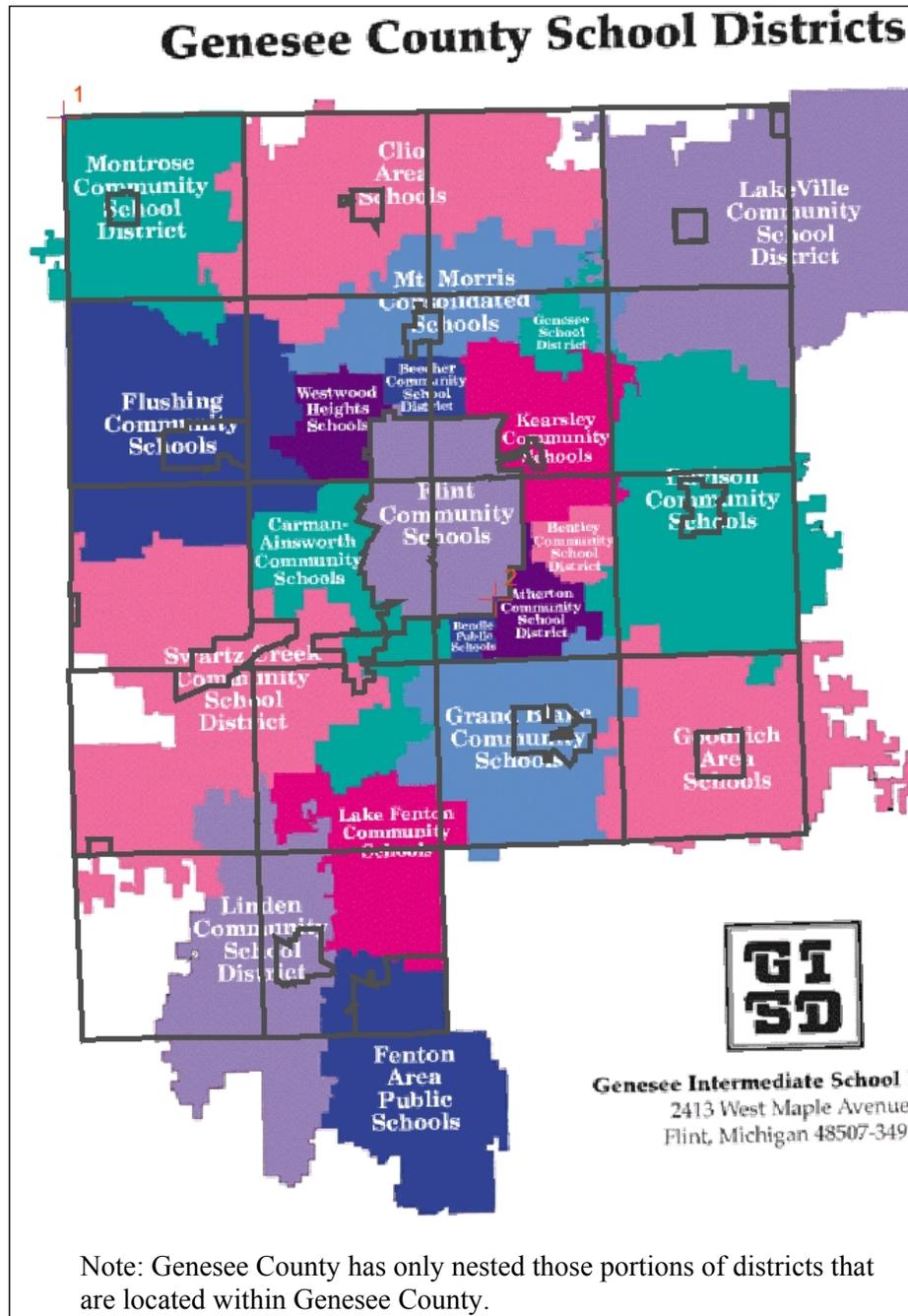
Nested Drainage System Agreements

The county has a nesting agreement with Bishop Airport. & the Schools below. The contracts between the Airport and County of Genesee and Schools and County of Genesee for nesting has been extended by agreement. During the next reporting cycle, amendment 2 of the contract with the airport and schools will be worked on. Below are schools that are currently being nested by Genesee County.

Table 1-2: Nested School Districts

School District	Within an urbanized area
Atherton	Y
Beecher	Y
Bendle	Y
Bentley	Y
Carman-Ainsworth	Y
Clio	Y
Davison	Y
Fenton	Y
City of Flint	Y
Flushing	Y
Genesee Intermediate School District (GISD)	Y
Genesee	Y
Grand Blanc	Y
Kearsley	Y
Lake Fenton	Y
Linden	Y
Mt. Morris	Y
Swartz Creek	Y
Westwood Heights	Y

The nested school districts have requested that the Genesee Intermediate School District (GISD) be their representative in this program. The GISD has been attending meetings and disseminating information to the individual school districts. They have facilitated meetings between the County and transportation and operations staff members, as well as superintendents, to discuss requirements, including staff training, to meet the requirements of the permit. The GISD participates in the county-wide education effort, including the development of grade-level appropriate watershed education curriculum. See chapter 2 for more details of GISD’s involvement.



Genesee County Storm Water Advisory Committee

The Genesee County Storm Water Advisory Committee (SWAC) includes Genesee County and Communities with a signed 342 contract. Most, but not all, are Phase II communities with a Certificate of Coverage. In addition, many of the Genesee County communities without a signed 342 contract continue to participate in SWAC activities.

SWAC is guiding implementation of the entire Phase II Program and has three main sub-committees:

- Public Education (PE) and Participation Sub-Committee
- New Construction Standards and Practices (CSP) Sub-Committee
- Monitoring and Mapping (M&M) Sub-Committee

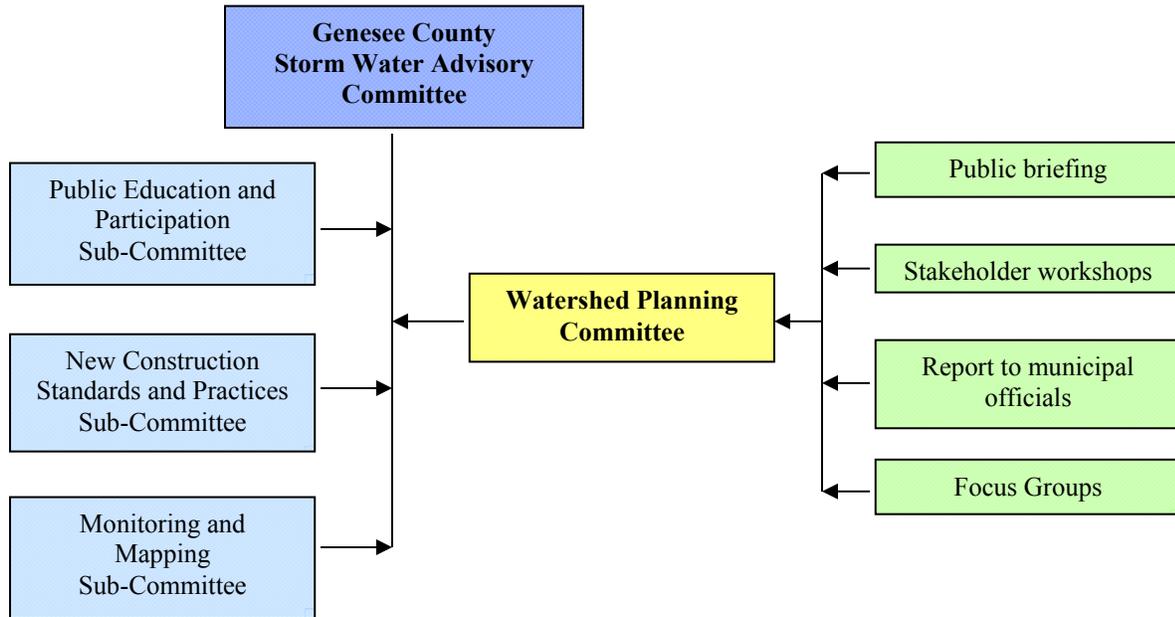
These sub-committees meet as needed along with stakeholders and/or individuals with specific specialized knowledge to implement the watershed plan, education plan and Illicit Discharge Elimination Plan (IDEP). A brief description of sub-committee duties is presented below Figure 1-2. With the new contract, in the next reporting cycle, each subcommittee will be a committee of the whole. This will streamline taking issues to be voted on from the subcommittee to the Storm Water Advisory Committee.

Figure 1-2 also shows the watershed planning decision-making process and sub-committee relationships. Previously under this permit Genesee County and Communities had a watershed permit. The 2015-2020 permits are all jurisdictional. Reporting will continue to be on a watershed base, but identification of communities represented will be given whenever possible.

SWAC meetings during this reporting period were held on:

- October 15, 2014
- November 19, 2014
- December 17, 2014
- January 21, 2015
- February 18, 2015
- March 18, 2015
- April 15, 2015
- May 20, 2015
- September 16, 2015

Figure 1-2: Watershed Planning Decision Making Flowchart



Public Education (PE) and Participation Sub-Committee

The PE Sub-Committee guides the overall public education and participation process for the watershed management planning effort. PE activities are summarized in Section 2.

New Construction Standards and Practices (CSP) Sub-Committee

The CSP Sub-Committee oversees new construction standards and post-construction practices for Genesee County. This sub-committee is also updating ordinances to ensure compliance with Environmental Protection Agency (EPA) requirements. CSP activities are summarized in Section 3

Monitoring and Mapping (M&M) Sub-Committee

The M&M Sub-Committee oversees organization and implementation of watershed monitoring, field-sampling protocols, and mapping guidelines. In addition to several monitoring programs, they oversee the Illicit Discharge Elimination Plan (IDEP) Program. Local government leaders share their insights and views of the watershed throughout the project at workshops and meetings, as well as at other formal and informal exchanges. M&M activities are summarized in Section 4.

2. PUBLIC EDUCATION AND PARTICIPATION SUB-COMMITTEE ACTIVITIES

The Public Education (PE) and Participation Sub-Committee held one meeting during this reporting period:

PE Membership included:

- **City of Burton – Paula Zelenko**
- **City of Clio – William Kovi**
- **City of Davison – Michael Hart**
- **City of Flint – Daugherty Johnson**
- Clayton Township – Supervisor
- **Flint Township – Karyn Miller**
- Forest Township – Supervisor
- Mundy Township – Supervisor
- Thetford Township – Supervisor
- **Vienna Township – Randy Taylor**
- Village of Otisville – Supervisor
- **Genesee Intermediate School District – Keely Mounger**
- **GCDC-SWM – Susanne Kubic**
- **GCRC – Fred Pavandi**
- Flint River Watershed Coalition – Rebecca Fedewa
- Genesee Conservation District – Angela Warren

Bolded members are Phase II communities

The purpose of the PE committee is to implement the Public Education Plan (PEP). This can be found in the Attachment 4 of new Permit Application. The PEP plan was revised to align with the new 2015 permit Application “Public Education Topics”. The actual implementation did not change. The Public Education work is being done on behalf of the following Communities:

- | | |
|------------------------|-----------|
| • *Argentine Twp | No Permit |
| • Davison Township | MIG610089 |
| • Fenton Township | MIG610064 |
| • Flint Township | MIG610066 |
| • Genesee Township | MIG610073 |
| • Mt. Morris Township | MIG610082 |
| • Vienna Township | MIG610088 |
| • City of Burton | MIG610060 |
| • City of Clio | MIG610061 |
| • City of Davison | MIG610063 |
| • City of Fenton | MIG610065 |
| • City of Flushing | MIG610067 |
| • City of Grand Blanc | MIG610075 |
| • City of Linden | MIG610078 |
| • City of Mt. Morris | MIG610081 |
| • City of Swartz Creek | MIG610086 |
| • Genesee County | MIG610072 |

PUBLIC EDUCATION PLAN

Permit Requirements

The planning and implementation of public education is based on EPA-required elements, including:

1. Encourage public reporting of the presence of illicit discharges or improper disposal of materials into applicant's separate storm water drainage system.
2. Educate public on the availability, location, and requirements of facilities for disposal or drop-off of household hazardous wastes, travel trailer sanitary wastes, chemicals, grass clippings, leaf litter, animal wastes, and motor vehicle fluids.
3. Educate public regarding acceptable application and disposal of pesticides and fertilizers.
4. Educate public concerning preferred cleaning materials and procedures for residential car washing.
5. Educate public concerning the ultimate discharge point and potential impacts from the separate storm water drainage system serving their place of residence.
6. Educate public about their responsibility and stewardship in their watershed.
7. Educate public concerning management of riparian lands to protect water quality.

Partnerships

The PE Sub-Committee has coordinated, developed, and implemented several elements of the PEP. Work during this permit cycle included:

- Program implementation through partnerships:
 - Education Booth at various events throughout the County, Public Engagement
 - Maintain the "Our Water" website
 - Presentations throughout the County
 - Get public on the water with canoe trips, education information provided
 - Educate municipal staff through newsletters and involvement in educating the public
 - School age watershed education
 - Through getting students on the water
 - Going into classes and educate on water subjects
 - Use staff and volunteers to post signage
 - Storm drain stenciling and Storm drain markers
 - Creek Crossing signs over major waterways
- Researched events suitable for Phase II education community outreach
- Distributed Our water, Riparian, and septic system maintenance outreach materials
- Coordinated and maintained public education tools (watershed models, etc.)
- Researched "Our Water" campaign public relations and communications strategy

Flint River Watershed Coalition: On behalf of the of the Phase II permittees, the Flint River Watershed Coalition (FRWC) was contracted by the GCDC to provide several services, including:

- *Speaker Materials and Presentations:* PowerPoint presentations on storm water education for adult audiences such as municipal officials, rotary clubs, neighborhood associations, lake associations, etc.
- Hosting *canoe trips* on the Flint River described in the Activities Update.
- *Global Rivers Environmental Education Network (GREEN):* described in the Activities Update. *NOTE although this program is part of Monitoring and Mapping, there are education components to it.*
- *Macroinvertebrate Monitoring Program:* described in the Activities Update. *NOTE although this program is part of Monitoring and Mapping, there are education components to it.*
- The FRWC was involved in the *Storm Drain Stenciling* program described in the Activities Update.

Genesee Conservation District: On behalf of the of the Phase II permittees, the GCD was contracted by the GCDC to provide several services, including:

- The GCD was involved in the *Storm Drain Stenciling* program described in the Activities Update.
- Operate and staff the “Our Water” Information *Display booth* at the County Fair and other events described in the Activities Update.
- The GCD continues to *educate children* on storm water issues using the Enviroscope and craft projects that reinforce storm water messages as described in the Activities Update.
- *Facilitate and staff display booth at public events:* GCD schedules the display booth. Provide staff or training for volunteers.

Activities Update

“Our Water” Campaign Webpage: The development of an easy-to-use webpage with information about the seven storm water elements was identified as critical to the successful implementation of the “Our Water” Campaign. Since 2008, the Drain Commissioner’s Office hosts and updates the www.ClearGeneseeWater.org webpage as needed throughout the reporting period. The “Our Water” webpage has been online since July 2006. In addition www.gcdcswm.com, the Drain Commissioner’s Office website also has content specifically for the NPDES Ph II permittees, including copies of this and past annual reports. Many Ph II permittees that have webpages provide a link to the www.ClearGeneseeWater.org webpage.

“Our Water” Newsletter: Although this publication is available to the public, the purpose of the community updates is to keep the Communities updated with the changes to the permit program. There was only 1 newsletter produced this year. See attachment A. It was about the MI waters new online filing.

Materials and Presentation for Riparian Land Owners: An informational brochure was developed and served as a mail invite to a free workshop. All workshops were completed in the 2012-13 reporting period. A new workshop cycle has not begun during this reporting cycle. Copies of the brochure are made available to the interested communities to distribute. Also, brochures were made available for distribution at the booth events. The brochure contained information on basic stream bank stabilization techniques.

Speaker Materials and Presentations: An educational PowerPoint presentation was developed. The presentation contains appropriate branding for the “Our Water” Campaign. The presentation contains several modules that address various target audiences, including governmental and non-governmental entities. The modules of the presentation can easily be combined to customize a presentation for time or content within the required elements.

GCDC continued its contract with the FRWC to use this modular presentation to educate groups such as municipal officials, rotary clubs, neighborhood associations, and lake associations. The following presentations were made during this permit cycle:

Date	# Participants	Group	Venue	Participants
9-Oct-14	100+	Resource Genesee - Hands On Genesee	University of Michigan - Flint	All of Genesee County
15-Oct-14	20+	Kettering University Community Service Fair	Kettering University	All of Genesee County, young college students
10-Dec-14	200+	Citizens Advisory Group regarding Rover Pipeline. Meeting convened by FERC.	Holiday Inn Gateway	Genesee County Wide
18-Feb-15	20	Carter Middle School	Carter Middle School	Otisville
18-Feb-15	40	Glendale Hills Neighborhood Association	West Court Street Church	City of Flint

14-Mar-15	25	Flushing Walleye Festival	St. Roberts School	All of Genesee County, mostly Flushing residents
March 7,8,9 2015	500 +	Steelheaders show	Flushing	All
Spring 2015	30	Genesee County Metropolitan Planning Commission	Offices of the MTA	
11-Apr-15	125 +	University of Michigan Flint - Earth Day	UM Flint Campus	All of Genesee County, young college students
14-Apr-15	35	Business Networking	Walli's East	Flint, Burton, Davison, Flushing, Owosso.
15-Apr-15	30	Kettering University Community Service Fair	Kettering University	City of Flint
21-Apr-15	27	Flushing Lions Club	Liberty Family Dining	Flushing
11-May-15	10	Trout Unlimited	White Horse Tavern	
8-Jun-15	22	Spring View Elementary	Spring View Elementary School	Flushing
13-Jun-15	85	Fish the Bricks	Riverfront Park	All of Genesee County
27-Jun-15	8	City of Flint, Implementation Task Group, Infrastructure and Community Facilities, Master Planning	Various locations on the UM Flint Campus	City of Flint
29-Jun-15	15	Flint Water Class Action Group	Chevy Commons	City of Flint
16-Jul-15	125	'Love Your Lake' Flint Park Lake Community Event	Lakeside	City of Flint
22-Jul-15	21	Spring Grove, Invasive Removal Work Day	Spring Grove Wetland Restoration Site	Spring Grove residents
23-Jul-15	95	'Love Your Lake' Thread Lake Community Event	Lakeside	City of Flint
12-Sep-15	8	Friends of the Flint River Trail guided tour. 20 mile guided tour of the Flint River trail. In addition, each week the members of the Friends of the Flint River Trail lead a tour on the trail	Flint River Trail	Flushing
25-Sep-15	125	For Mar - Overnight monitoring event for kids - 'BIOBLITZ'	For-Mar	All of Genesee County

Brochures: An educational brochure was developed to provide information about EPA's seven mandated elements of storm water education. 5,000 brochures were printed in November 2006, and 10,000 reprints were made in 2009 and 2013. Over 2000 are handed out per year. The brochures are given away actively at events (see information booth heading below), and many have been passively picked up by the public at local community centers. Each municipality is also given brochures to distribute for public use and will report their activities under separate cover. See attachment A

Newsletter Articles: In 2006 several newsletter articles were composed and compiled in a Word format, placed on CDs, and distributed to permittees and partners for their use. Sometimes permittees, partners, or other publications will print an article on a stormwater topic. Any water related articles during this reporting period are included in attachment A

Time of Sale Septic Brochure: Information to help educate septic system owners on proper maintenance and practices has been compiled into a brochure with the help of Genesee County Health Department. Copies have been given to the Genesee County Health Department, interested communities and 800 were given to the

realtors association to distribute to interested realtors wishing to provide this information to new property owners. (Not all communities have residents with septic systems.) See attachment A

Promotional Giveaways: GCDC purchased an additional 4000 promotional giveaways (premiums) in Sept 2013 and had to reorder 4000 additional promotional giveaways (premiums) in June of 2015. Premiums purchased included water bottles and tote bags; a coloring book was also printed in-house to reach out to children. Premiums are given to the public at the information booth (see below). A person can win a premium if they answer a storm water-related question. This allows the booth staff/volunteers to engage the public in conversation, provide stormwater education and give them an educational brochure. Each premium given represents someone from the public that has received storm water education.

Information Booth: A display booth was developed in 2006. The booth includes a table and a free-standing banner outlining the seven simple steps to clean water. Educational activities were also developed to help engage people at public events.

The booth is staffed by volunteer municipal officials and staff of the GCDC or the Conservation District. Volunteers are trained to conduct the educational activities, which include giving premiums to each person who tries to answer a question on water quality. This approach serves several purposes:

- To educate the elected official
- To allow the communities themselves to teach the public about storm water issues
- To actively involve participants in the learning process



During this reporting period, the booth was used at the events listed below.

March 28 &29, 2015	Home & Garden show – Perani Arena	County Wide	353 educated
4/11/2015	Earth Day (U of M Flint Campus)	County Wide	191 educated
6/6/2015	Family Science Day- Planitarium	County Wide	99 educated
8/4/15	National Night out- Flint Twp Police Dept	County Wide	144 educated
8/14/15	Hamilton Health Clinic- Family Day	County Wide	143 educated
8/15/15	Back to the Bricks- Downtown Flint	County Wide	126 educated
8/24-8/30/2015	Genesee County Fair- Genesee Twp	County Wide	1171 educated
9/26/15	Applewood Harvest Festival	County Wide	481 educated
9/29/15	Davison’s Farmer’s Market	County Wide	94 educated

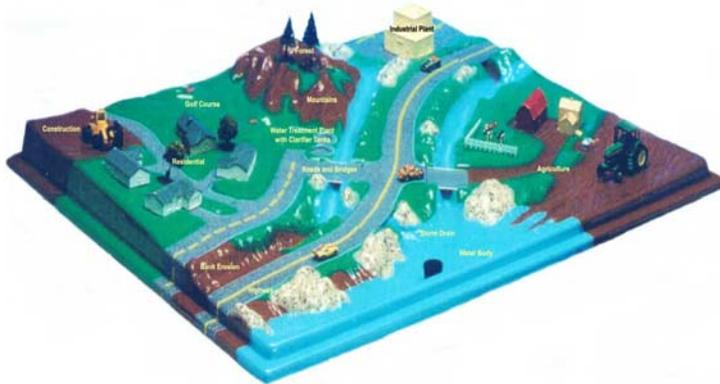
Total Educated 2802

*Demographic Data by community in Appendix A

Argentine Township, Mt. Morris Township and GCDC-SWM provided staff to assist with the County Fair

Student Education: GCDC-SWM contracted with the GCD to provide storm water education services to school-aged children on behalf of the Phase II permittees. During 2014-15 GCD reached thousands of students in the Phase II communities. In school presentations which include one or some of the following:

- Online Games (DiscoverWater.org)
- Hands on activities (build your own watershed)
- Games:
 - Water cycle relay race
 - Filter the Pollution
 - A-maze-ing water
 - Water trivia games (who wants to be a millionaire, a watershed game, the environmental council, conservation Style, and environmental jeopardy)
- Enviroscapes



GCDC has four “Enviroscope” interactive models that demonstrate how pollutants can reach bodies of water. The Conservation District keeps one of the Enviroscope models for their own education program (see next section.) The other three models are available to be checked out for use by teachers/educators and available for demonstrations at events. GCDC-SWM staff has met with the Genesee Intermediate School District (GISD) program coordinators to let them know what tools we have available for their teachers including the enviroscope.

Following is a list of the presentations made in 2014-2015:

Table 2-1: Breakdown of GCCD Water Quality Presentations in Fiscal Year 2014-15

Month	Event	School aged children reached:	Parents/adults reached:
Oct/Nov/Dec	Boys and Girls Club	15-20 per class * 12 classes	Unknown
Oct 14'	Genesee STEM Academy (various Schools)	25-30 per class * 1 class	1
Nov 14'	Communities First Inc	25-30 per class * 1 class	2
Dec 14'	Beecher High School (Beecher Schools)	25-30 per class * 1 class	2
Oct/Nov/Dec	Genesee STEM Academy (various Schools)	25-30 per class * 10 classes	6
Oct/Nov/Dec	Durant Turri Mott	25-30 per class * 8 classes	4
Oct/Nov/Dec	Cummings Elementary (Flint Schools)	25-30 per class * 7 classes	3

Month	Event	School aged children reached:	Parents/adults reached:
Jan/Feb/Mar	Boys and Girls Club	15-20 per class * 22 classes	Unknown
1/27, 2/10, 2/24	State Road Elementary (Fenton Schools)	25-30 per class * 3 classes	2
Jan/Feb/Mar	Genesee STEM Academy (various Schools) State Road Elementary (Fenton Schools)	25-30 per class * 16 classes	7
Apr/May/Jun	Boys and Girls Club	15-20 per class * 16 classes	Unknown
4/13, 4/22, 5/7	Northwestern High School	15-25 per class * 3 classes	4
4/20/15	Southwestern High School	15-25 per class * 1 class	1
4/29/15	Beecher Adult High School	15-25 per class * 1 class	Unknown
5/15/15	Kettering University	15-25 per class * 1 class	1
April	State Road Elementary (Fenton Schools)	25-30 per class * 11 classes	2
Apr, May, Jun	Genesee STEM Academy (various Schools) State Road Elementary (Fenton Schools)	25-30 per class * 10 classes	7
Jul, Aug, Sep	Boys and Girls Club	15-20 per class * 32 classes	Unknown
Jul, Aug	U of M Early Childhood Development Center	10-20 per class * 32 classes	Unknown
Jul, Aug	Mott Community College- MDNR summer workers	10-20 per class * 5 classes	Unknown

GCDC-SWM also contracted with the FRWC to support the Project Global Rivers Environmental Network (GREEN) Educational Program. (Program is also discussed in the M&M Sub-Committee -Section 7). Participation from:

26 teachers from 15 school districts

Over 1000 students participated

Testing water at various locations throughout Genesee County

Table 2-2: Breakdown of Project Green Schools in Fiscal Year 2014-15

	School	Teacher	Students located within:
1	Atherton High School	Matt Hyslop	City of Burton
2	Bendle High School	Todd Barden	City of Burton
3	Carman-Ainsworth Middle School	Melissa Warburton	Flint Twp, Mundy Twp
4	Carter Middle School	Ryan Niemi	City of Clio, Vienna Twp, Thetford Twp, Montrose Twp
5	Carter Middle School	Chip McCallum	City of Clio, Vienna Twp, Thetford Twp, Montrose Twp
6	Davison Middle School	Jody Kosiarra	Richfield Twp, Davison Twp, City of Burton
7	Grand Blanc East Middle School	Deb Lacki	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
8	Grand Blanc East Middle School	Patricia Nelson	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
9	Grand Blanc East Middle School	Crystal Sobeck	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
10	Grand Blanc West Middle School	Elizabeth Lemerond	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
11	Grand Blanc West Middle School	Victoria Skrisson	City of Grand Blanc, Grand Blanc Twp, Mundy Twp
12	Grand Blanc High School	Suzanne Powers	City of Grand Blanc, Grand Blanc Twp, Mundy Twp
13	Hill-McCloy High School	Jennifer Kahn	Montrose Twp, City of Montrose
14	LakeVille Middle School	Matt Chapin	Forest Twp, Richfield Twp
15	LakeVille Middle School	Josh Henley	Forest Twp, Richfield Twp
16	Linden Middle School	Kim Cornell	Argentine Twp, City of Linden, Fenton Twp
17	Linden Middle School	Charlene Nester	Argentine Twp, City of Linden, Fenton Twp
18	Mt. Morris Junior High School	Nick Carr	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
19	Mt. Morris Junior High School	Zack Freeman	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
20	Mt. Morris Junior High School	Kim McCormick	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
21	Powers Catholic High School	Julie Lawrence	County Wide
22	St. John Vianney Catholic School	Janice Matlon	County Wide
23	Swartz Creek Middle School	Brandolyn Forbes	Clayton Twp, Gaines Twp, City of Swartz Cr, Flint Twp, Mundy Twp
24	Swartz Creek Middle School	Paul Speck	Clayton Twp, Gaines Twp, City of Swartz Cr, Flint Twp, Mundy Twp
25	Westwood Heights - Hamady High School	Arletha Bryant	Mt. Morris Twp

NOTE: many teachers had multiple classes participating

Catch Basin Stenciling Program: The Our Water Program has a catch basin stenciling program. The stencils say “No Dumping - Drains to River”. Since 2006, volunteers and County staff are able to paint approximately 500+ stencils per year on Genesee County Roads, including City owned roads. A printed doorknob hanger is distributed to educate residents adjacent to the stenciling locations. See Attachment A

- As part of preventive maintenance, the Genesee County Drain Commissioner’s Surface Water Maintenance crew cleans and stencils hundreds of catch basins throughout the county each year.
- In 2010 GCDC purchased Storm drain markers like the shown to the right to be installed on catch basin grate covers located within road ditches and rear yards where stenciling is not possible. Markers are installed by GCDC-SWM staff when they are working on storm drains throughout Genesee County.
- In 2012, GCDC purchased an additional 1200 4” metal storm drain markers. At the end of this reporting period all but 100 will have been installed and more will be ordered in the next reporting period. Storm drain markers are anticipated to have a 30 year life expectancy allowing for long term passive education.
- Volunteer stenciling groups were organized by both FRWC and GCD. Also GCDC-SWM staff worked with individual stenciling volunteer groups by providing technical support, supplies and catch basin locations for stenciling. Below is a list of volunteer groups that participated.



GCD: Held 8 Storm drain stenciling events:

<u>Date</u>	<u>Municipality</u>	<u>Volunteer Group</u>	<u>Location of stenciling</u>
7/21/15	Flint 48504	DNR Student Workers	Birchlane Dr, Prestwood Dr, Coralene Dr, Wilshire Dr, Eldred St.
7/22/15	Flint 48504	DNR Student Workers	Highwood Dr, Winwood Dr, Woodhaven Dr, Hampshire Ave

<u>Date</u>	<u>Municipality</u>	<u>Volunteer Group</u>	<u>Location of stenciling</u>
8/3/15	Flint 48504	DNR Student Workers	Kimberly Woods Dr, Kimberly Woods Cir, Millwood Dr.
8/3/15	Burton 48519	Genesee County Residents	Robindale Dr., Shaddycroft Dr, Glenvale Dr, Windywood Dr
8/4/15	Burton 48519	Genesee County Residents	Meadowcroft Dr, Chicory St, Sunnymead Ave
8/11/15	Burton 48519	Genesee County Residents	Yorkbrook, Creekside blvd, Fieldwood, Trumpwood
8/11/15	Flint 48532	Genesee County Residents	S Dyewood Dr, Mapletree Lane, Mapletree Ct.
8/12/15	Flint 48532	Genesee County Residents	N Dyewood Dr, Oaktree Dr, Oaktree Ct, Tuliptree Ct

FRWC: Held 17 Storm drain stenciling events:

<u>Date</u>	<u>Municipality</u>	<u>Volunteer Group</u>	<u>Volunteer Demographic</u>	<u>Adults</u>	<u>Child</u>	<u># homes</u>	<u># drains</u>	<u>Location of stenciling</u>
10/12/2014	Grand Blanc Twp.	Rob and Cathy Cojeen	Grand Blanc Twp	2	0	183	23	Townline Rd, Old Town Ct, Townline Ct, Bush Creek Drive, Pine Row Ln, Birchwood Ln, Bush Creek Drive
10/23/2015	Grand Blanc Twp.	Younglife group, Jake Kirk	Grand Blanc Twp, Fenton Twp, Fenton Twp, Fenton Twp, Linden, Grand Blanc Twp, Argentine	2	7	115	44	Popular Ct, Aspen View Dr, Lodgepole Ct, Larkspur Ln, Perlin Ct, Aster Ct, Shasta Ct, Meadowlane Dr, Daisy Ct, Balsam Ln, Larch Ct,
4/19/2015	Swartz Creek	The Rock Church members	Grand Blanc Twp, Argentine	4	6	174	32	Ironwood Dr, Ponderosa Dr, Grandwood Dr, Cottonwood Dr, Teakwood Dr
5/5/2015	Grand Blanc Twp.	Grand Blanc High School	Grand Blanc Twp, Flint, Swartz Creek, Fenton Twp	2	13	97	27	Belle Vista Dr, Via Catherine Dr, Joseph Dr, Grace Ct, Thomas Lane
6/4/2015	Flint	Girl Scout Troop Jody, Luke, Kyle Wiloboughy, Cassie	Fenton Twp	3	9	127	18	Bristolwood Dr, Willowwood Dr, Peachwood Dr, Cherry Tree, Cramenwood
6/10/2015	Fenton Twp	Lindsay	Fenton Twp	2	2	76	9	Parkwood Dr, Forestview Cir, Woodside Cir, Overlook Ct, Parkview Cir
6/18/2015	Grand Blanc Twp.	Lake Fenton HS students	Fenton Twp	1	5	160	19	Hollyhock Dr, Hollyhock Cir, Rosecliff, Meadowdale, Belle Bluff Dr, Belle Bluff Ct, Holly Spring Lane, Briarfield Cir, Meadowdale Dr
7//5/15	Flint	Girl Scout Troop	Flint, Fenton Twp	2	3	78	9	Ashlawn Dr, Trotwood Lan, Pickwick pl, W. Judd Rd
7/27/2015	Fenton Twp	Jody, Luke, Kyle Wiloboughy, Cassie Lindsay	Fenton Twp	2	2	101	13	Lakeshore Cir, Lake Park Dr, River Ridge Cir, Lakeview Cir, Parklane Cir, Parkside Cir
8/5/2015	Flint	Jaime Welch, Diamonique, Derek	Fenton Twp, Flint, Mt. Morris	2	1	47	11	Garland St, Lyon St, W 2nd Ave, W 1st Ave
8/12/2015	Davison	Lois Tebo, Michael Tebo, family	Davison	1	5	143	29	Oda St, Kay St, Meadow Dr, Village Dr, Maxine Dr, Reed Ave, Wilcox Ave, Oak St, Spruce St, Walnut St, Walker St, Washington Ave
	Mt. Morris	Sondra Severn, Diamonique, Derek	Fenton Twp, Flint, Mt. Morris	2	1	170	37	

<u>Date</u>	<u>Municipality</u>	<u>Volunteer Group</u>	<u>Volunteer Demographic</u>	<u>Adults</u>	<u>Child</u>	<u># homes</u>	<u># drains</u>	<u>Location of stenciling</u>
8/20/2015	Flint	Jaime Welch, Diamonique, Derek	Fenton Twp, Flint	2	1	33	12	W 1st Ave, W 2nd Ave, Mason St, N Grand Traverse St, University Ave, W Water St
8/25/2015	Mt. Morris	Sondra Severn, Diamonique, Derek	Fenton Twp, Flint, Mt. Morris	2	1	105	24	Helen St, Maple St, Elm St, Beach St
8/27/2015	Flint	Girl Scout Troop	Clio	3	7	82	8	Center St, Campbell, Curry St, Darrow St,
9/20/2015	Fenton Twp	Younglife group, Matt & MaryAlice Tanneyhill	Grand Blanc Twp, Fenton Twp, Fenton	3	5	80	Future	South Long Lake Rd, Swanee Beach, Grove Park Rd

GCDC: Stenciled those storm inlets that were cleaned (weather permitting) approx 200+. 1000 Storm drain markers have been placed since 2012 on catchbasins and manhole lids

Canoe Trips on the Flint River. Due to weather there were an additional canoe trips scheduled and advertised this summer. Those that were held are shown below:



Date of Paddle	Name of Paddle	Portion of Watershed Covered	# of Participants	Participant Municipalities
6-Jun-15	Hello Summer Paddle	Flushing Riverview Park to Flushing Township Nature Park	11	Flushing, Metamore, Davison, Flint, Holly, Fenton
20-Jun-15	Lazy Days of Summer	Irish Road to Mott Lake	11	Flint, Holly, Lake Orion, Metamora, Flushing, Fenton
1-Jul-15	Kildee Staff	Irish Road to Mott Lake	6	Flushing, Fenton, Davison, DeWitt
2-Jul-15	CSMott Staff	Irish Road to Mott Lake	16	Fenton, Grand Blanc, Grand Haven, Ann Arbor, Flint
8-Jul-15	Wednesday Evening Paddle	Mitson Landing to Flushing Riverview Park	12	Flint, Davison, Holly, Lake Orion, Burton
13-Jul-15	Genesee County Parks Staff - I	Irish Road to Mott Lake	14	Flint, Mt. Morris, Ortonville, Davison, Columbiaville, Birch Run, Flushing, Grand Blanc, Fenton, Clio
18-Jul-15	Summer Getaway	Holloway Dam to Irish Road	16	Lake Orion, Grand Blanc, Flushing, Ortonville, Holly Columbiaville, Flint, Corunna, Lapeer, Imlay City, Fenton
22-Jul-15	Birch Run Evening Paddle	Morseville to Seymour Road	15	Grand Blanc, Fenton, Flint, Birch Run, Gaines, Montrose, Flushing, Waterford, Lapeer, Corunna, Clarkston
1-Aug-15	Dog Days of Summer	Irish Road to Mott Lake	34	Flint, Grand Blanc, Swartz Creek, Ortonville, Clarkston, Fenton, Holly, Clawson, Davison, South Lyon

19-Aug-15	Genesee County Parks Staff - II	Irish Road to Mott Lake	4	Burton, Davison, Fenton, Flushing
22-Aug-15	Fun Times Picnic	Montrose to Birch Run	11	Flint, Corunna, Grand Blanc, Warren, Imlay City, Lake Orion, Fenton
5-Sep-15	Pedals to Paddle	Bray Road to Vietnam Veteran's Park	11	Flint, Flushing, Lake Orion, Grand Blanc, Corunna, Ortonville, Swartz Creek, Holly, Fenton
19-Sep-15	Experience the Fall Colors	Mitson Landing to River Road		FUTURE
23-Sep-15	Celebrate the Fall Equinox Paddle	Flushing Township Nature Park to Montrose Barber Park		FUTURE
			Total	161

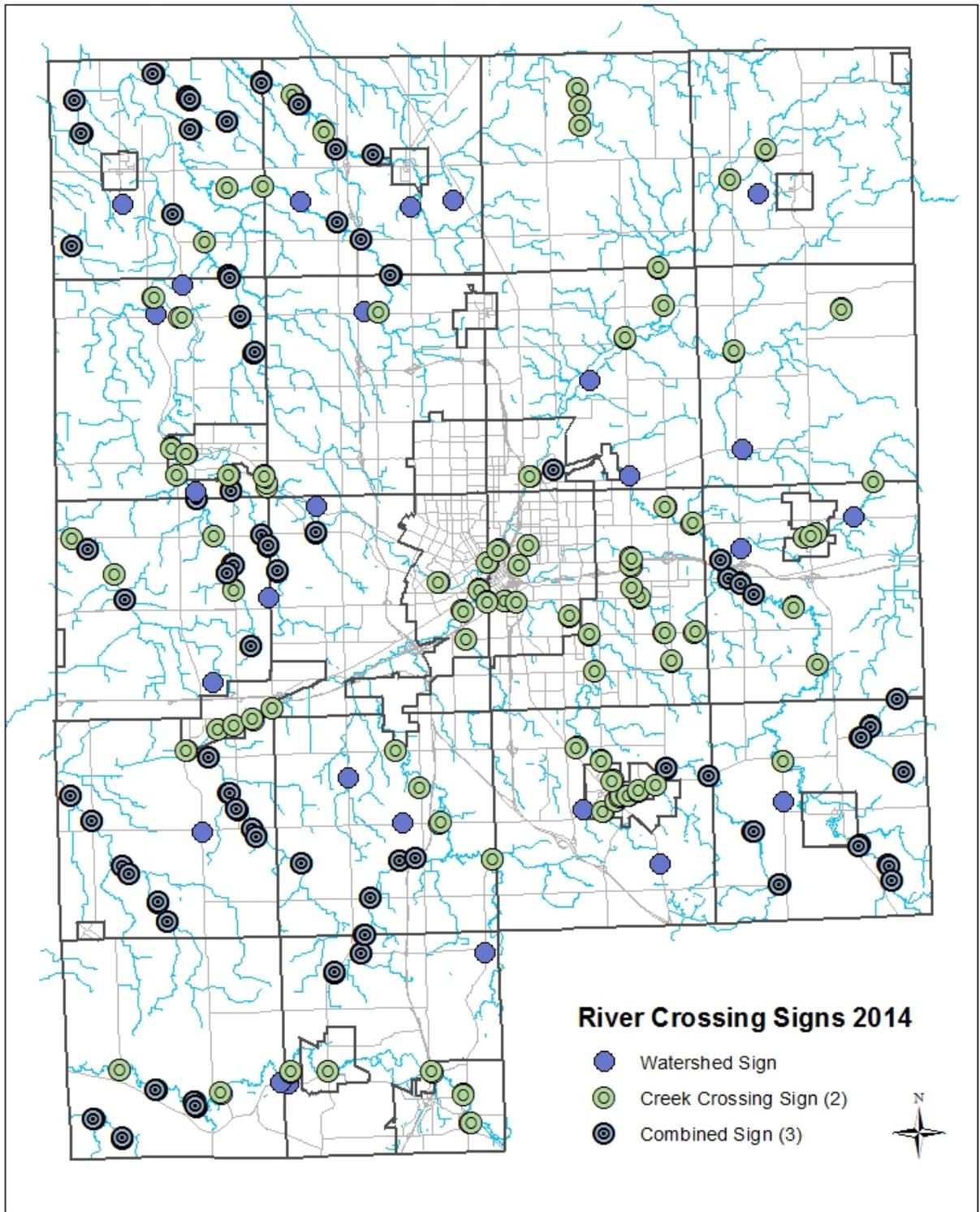
Local Watershed Maps: The PE Sub-Committee has developed educational material for teachers. These materials are intended to meet the new curriculum requirements for grades K-12. The GCDC is working with GISD staff to distribute the watershed maps to the appropriate teachers.

Macroinvertebrate Monitoring Program: Since 1999, the FRWC has executed a bi-annual Benthic-Monitoring Program that has been performed to meet MDEQ requirements. This program has expanded from 18 sites to 30 since its inception. (18 of the 30 are within Genesee County) This program is possible due to volunteers who live in the watershed who give up two days twice a year to be trained to collect and log samples. The data is used to categorize sites as “poor”, “fair”, “good” or “excellent” and provide a good assessment of water quality. **Section 8** provides additional detail on Benthic-Monitoring Program and summarizes findings for each watershed. Many of the Students that participate in GREEN and do chemical testing on the river also perform a Macroinvertebrate survey to show the students what kind of life lives in the Flint River and Shiawassee River.

Watershed Signs: In cooperation with the Genesee County Road Commission (GCRC), the PE committee began installing 24" x 30" watershed signs throughout the Shiawassee and Flint River Watersheds in late 2006 & 2008. An additional 56 were placed in 2013-14 within the Cities. Stream/river crossing identification signs have also been placed to increase public awareness. No additional sign have been placed this reporting period.



Figure 2-1: River Crossing Signs Placed as of Oct 2014



Public Education Plan Evaluation:. The evaluation plan will focus on monitoring outputs and outcomes of the education program. Currently, Tetra Tech and the GCDC staff are working to maintain records of outputs of the education program (number of people addressed at public events, number of presentations conducted, etc.) Tetra Tech, and the PE Sub-Committee are working on a robust evaluation plan to monitor outcomes (changes in behavior, changes in knowledge, etc.) in addition to outputs currently being monitored. Initial areas of success and areas needing improvement are summarized as follows.

Areas of success:

- Educational materials are constantly expanding and available
- Stenciling program delivered
- Brochures delivered
- Booth (for outside events) delivered
- Presentations are made to local groups on an on-going basis
- School age children are educated about storm water impacts on local waterways.
- Road Signs Installed and Maintained

Areas of need:

- Staffing constraints do not allow enough time dedicated solely to education efforts
- Have had contract issues with certain partners
- Implementation of Education efforts taking longer than expectations

Other Education Efforts: There are many education efforts throughout Genesee County that promote the storm water message, but are not directly supported by this program. They may be supported by a local community including Genesee County or a nonprofit group. These efforts are listed below and included in Appendix A to show all efforts of water education within Genesee County and its Communities.

- The FRWC coordinates a river cleanup on the Flint River and its tributaries both within Genesee and Lapeer counties. The Cleanup was on April 25th. Volunteers removed debris/ trash along 10 different locations in Genesee County and 4 locations in Lapeer County on the Flint River and its Tributaries. Staff from the County and local municipalities including the Drain Office, Parks and Rec, City of Flushing, City of Flint and others assisted with the cleanup by provided staff or garbage removal.



- Community walking path along river has free standing watershed signage, between Genesee county parks and City of Flushing Park.
- Park provides education on proper disposal of pet waste at the City of Flushing Park walkway.
- There is an Annual River cleanup on the first week of June along the Shiawassee River, organized by a Fenton council members.
- Friends of the Shiawassee in another

watershed group that is focusing on the health of the Shiawassee River within Genesee County. Drain Office Staff has worked with FRWC to expand the Benthic monitoring program to include 2 sites on the Shiawassee.

- Flint River Corridor Alliance is a community based organization of Government, non-profit and private sector stakeholders, focusing on the Flint River as it goes through the City of Flint. They held a Boats, Bikes & Bricks Triathlon on and around the Flint River.
- Genesee County Parks provides education on many subjects including storm water. (**H2 knOw!**)
- Household Hazardous Waste: The Our Water program supports this program by promoting it but this program is developed and managed by Genesee County Planning Commission, General Motors, UAW Local 599, Goodwill Industries, 5R Processors and Keep Genesee County Beautiful & several communities participate and/or support this program both financially and with staff or letting program use their property. In the spring and fall there are HHW and electronic waste collections. City of Flint hosts a permanent site at their Water service center (centrally located within Genesee County). A second site moves to a new location around the County. This is either hosted at a school or municipal property. In the last couple of years this program has been expanded to include electronic waste.
 - **September 27, 2014: Goodrich MS, Flint Water Service Center, Goodwill Industries, Averill Ave**
 - **April 24 & 25: Community E-Waste Collection, 5th and Saginaw**
 - **May 2, 2015: Carman Ainsworth , Flint Water Service Center**
 - **October 17, 2015: former Showcase Cinema, Flint Water Service Center**

PUBLIC PARTICIPATION PLAN

The PPP was implemented under previous years' annual reports. No PPP meetings were held within this reporting period. They are done on an as-needed basis and typically run concurrent with the updating of WMPs and if there is a significant event where public input is appropriate.

Report to Municipal Officials: Local appointed and elected officials are critical players in adopting the WMPs and allocating resources toward their implementation. Obtaining buy-in and providing education to this group helps to ensure the success of implementing the WMP. Local appointed and elected officials acknowledge their accountability to their constituents and embrace their role in shaping the future vision of the WMPs. As public officials, local government leaders value the advice, concerns, and issues that community residents see in terms of the watershed condition past, present and future.

Municipal officials are given newsletters as needed that provide updates on the status of storm water and watershed planning efforts. Each municipality is given 25-50 newsletters to be passed out to elected officials and planning boards. Municipalities are also given brochures and information packets to dispense to the public. Most recent newsletter was Sept 2015. See attachment A

3. CONSTRUCTION STANDARDS AND PRACTICES SUB-COMMITTEE ACTIVITIES

The Construction Standards and Practices (CSP) Sub-Committee oversees new construction standards and post construction management practices for Genesee County, including storm water Best Management Practices (BMPs). This Sub-Committee also updates ordinances to ensure compliance with Environmental Protection Agency (EPA) requirements. In this reporting period, the CSP Sub-Committee did not hold any meetings. The new permit application was due 4/1/14. In the application the Ordinances (regulating mechanism) and standards are done and provided to permittees.

CSP Membership included:

- **City of Flushing – Dennis Bow**
- **City of Grand Blanc – Matt Wurtz**
- **City of Linden – Scott Fairbanks**
- Atlas Township – Shirley Jones
- **Fenton Township – Bonnie Mathis**
- **Genesee Township – Steven Fuhr**
- Grand Blanc Township – Mikki Hoffman
- Montrose Township – Mark Emmendorfer
- Richfield Township – Joe Mador
- Village of Goodrich –

Bolded members are Phase II communities

The Public Education work is being done on behalf of the following Communities:

- | | |
|------------------------|-----------|
| • *Argentine Twp | No Permit |
| • Davison Township | MIG610089 |
| • Fenton Township | MIG610064 |
| • Flint Township | MIG610066 |
| • Genesee Township | MIG610073 |
| • Mt. Morris Township | MIG610082 |
| • Vienna Township | MIG610088 |
| • City of Burton | MIG610060 |
| • City of Clio | MIG610061 |
| • City of Davison | MIG610063 |
| • City of Fenton | MIG610065 |
| • City of Flushing | MIG610067 |
| • City of Grand Blanc | MIG610075 |
| • City of Linden | MIG610078 |
| • City of Mt. Morris | MIG610081 |
| • City of Swartz Creek | MIG610086 |
| • Genesee County | MIG610072 |

STORM WATER ORDINANCE

The CSP Sub-Committee has been working to establish an approach for developing a Storm Water Ordinance for communities to adopt within Genesee County. After reviewing State requirements and sample ordinances from other counties, Kent County's ordinance was selected as a model. The CSP Sub-Committee reviewed and tailored the ordinance, and has been submitted to the state for their approval. All communities were

encouraged to provide input to the draft ordinance. The final ordinance and Standards and Design Manual were submitted on September 30, 2010, after meeting with the DEQ and negotiating their contents.

The Ordinances (regulating mechanism) and standards are done and provided to permittees. The standards are a combination of State NPDES Ph II requirements and GCDC flood control requirements. The local governments may elect to adopt stricter standards. During the training for the new permit application it was expressed by the State that Townships do not have to pass an actual ordinance. Townships may pass an alternative regulatory mechanism that cites the requirements in the permit application, only for those outfalls under their jurisdiction. Each community will have to adopt an ordinance/regulatory mechanism, whether they choose the Sub-Committee's or another version.

Currently, the only enforcement powers the County has are those given to them from the State (Public Acts that govern SESC, Septic, Road Commissions and the Drain Code). The County cannot pass an ordinance that would affect private property, but will enact policy to govern County-owned property. Individual communities have their own police power to enforce the ordinance. They also have the right to extend those powers to another entity to enforce the ordinance on their behalf.

When the ordinances are adopted, there will be a fundamental change in how development occurs. Currently, the Genesee County Drain Commissioner (GCDC) Surface Water Management (SWM) reviews approximately 70 percent of site plans that are prepared. Either because a County Drain is directly involved and the work on the drain must be permitted, or the local Community has required a review by the Drain Office and it is done as a courtesy to the Community. GCDC-SWM will review to their standards any plans submitted to their Office. With the implementation of a water quality ordinance, all site plans within a community that has a storm water ordinance will be reviewed to those standards either by the Community or their representative. As always, any site plans submitted to the GCDC-SWM will be reviewed to that office's standards.

Items covered by the storm water ordinance are:

- Statutory authority and title
- General provisions
- Storm water permits and permit review procedure
- Storm water system
- Drainage plan
- Construction site runoff controls
- Floodplain and other standards
- Post construction soil erosion
- Applicability and exemptions
- Prohibited discharges (oil and other pollutants from parking lots, etc.)
- Inspection, monitoring, reporting, and record keeping
- Enforcement
- Storm water easements and maintenance agreements (post construction maintenance)
- Performance and design standards
- Storm water map
- Financial guarantee
- Terms and conditions of permits

The following sections of this report provide results for programs the BMP Sub-Committee oversees:

- Section 5 Good Housekeeping

It should be noted that the standards currently in place deal with water quantity. The new standards will also deal with water quality, and any new ordinances will expand the Community's authority as well as specify

development requirements. The Storm Water Ordinance references a BMP Manual (see text below). By keeping the BMP Manual separate, and not including design guidance in the ordinance, changes can be made to the BMP Manual without revising the whole ordinance.

BMP MANUAL

Currently, Genesee County Water & Waste is the County agent (City of Burton is the Municipal Agent in their community) on behalf of Part 91 of Public Act 451 and has construction BMPs for Soil Erosion and Sedimentation Control (SESC). Individual communities may or may not have ordinances that regulate construction and post construction. The CSP Sub-Committee has developed a BMP Manual, which will represent minimum standards for post construction BMPs for water quantity and quality. These BMPs will not be limited to SESC.

Communities will be able to either adopt the CSP Sub-Committee's BMP Manual or create their own. Long-term BMP operation, maintenance, and schedule issues will be addressed in the enforcement portion of the manual.

Each community individually are addressing ordinances/resolutions for post construction and IDEP individually in their Permit Application(s) (due April 1, 2014). They may choose to use the ordinance template and BMP manual that were developed by the subcommittee or use other appropriate ordinances/resolutions. See Permit Application(s) for individual commitments.

4. MONITORING AND MAPPING SUB-COMMITTEE ACTIVITIES

The Monitoring and Mapping (M&M) Sub-Committee did not meet during this reporting period:

M&M Membership included:

- **City of Fenton – Dan Czarnecki**
 - City of Montrose – Everette Persall
 - **City of Mt. Morris – Jake LaFurgey**
 - **City of Swartz Creek – Tom Svrcek**
 - Argentine Township – Bob Cole
 - **Davison Township – Kurt Soper**
 - **Flushing Township – Terry Peck**
 - Gaines Township – Paul Fortino
 - **Mt. Morris Township – Gerald Deloney**
 - Village of Gaines – Thomas Keech
 - Village of Lennon – Larry Widigan
- Bolded** members are Phase II communities

The M&M Sub-Committee oversees organization and implementation of watershed monitoring, field-sampling protocols, and mapping guidelines. As part of their responsibilities, the M&M Work Group oversees several water quality monitoring programs as well as the Illicit Discharge Elimination Plan (IDEP) Program. In addition, they oversee the Hot-spot Water Quality Monitoring Program, which goes beyond IDEP by focusing on known problem areas, such as Blue Bell Beach that is frequently closed due to high E-coli counts.

The work of this sub-committee is being done on behalf of the following Communities:

- | | |
|------------------------|-----------|
| • *Argentine Twp | No Permit |
| • Davison Township | MIG610089 |
| • Fenton Township | MIG610064 |
| • Flint Township | MIG610066 |
| • Genesee Township | MIG610073 |
| • Mt. Morris Township | MIG610082 |
| • Vienna Township | MIG610088 |
| • City of Burton | MIG610060 |
| • City of Clio | MIG610061 |
| • City of Davison | MIG610063 |
| • City of Fenton | MIG610065 |
| • City of Flushing | MIG610067 |
| • City of Grand Blanc | MIG610075 |
| • City of Linden | MIG610078 |
| • City of Mt. Morris | MIG610081 |
| • City of Swartz Creek | MIG610086 |
| • Genesee County | MIG610072 |

The following sections of this report provide results for programs the M&M Sub-Committee oversees:

- Section 6 319 Nonpoint Source Grant Projects
- Section 7 Project GREEN (and its educational aspects discussed in Section 2)
- Section 8 Macroinvertebrate Study
- Section 9 IDEP Program
- Section 10 New Storm Water Point Source Discharges

5. GOOD HOUSEKEEPING

Good Housekeeping is a required and essential part of an effective storm water pollution protection program. Periodic training in Stormwater Good Housekeeping practices is required for all applicable maintenance staff employed in nested municipalities or school districts. Affected personnel must be trained at least once over the course of the permit cycle.

Although no presentations have occurred during this reporting cycle, a copy of the Power Point presentation and the BMP manual developed by this sub-committee are available on the GCDC-SWM website. http://www.gcdcswm.com/PhaseII/SWPPI_SWO/SWPPI_SWO.htm. Also contract participants or nested jurisdictions are able to borrow a disc with the video entitled “Storm Warning: Stormwater Pollution Prevention” by ExCal Visual LLP. The Power Point presentation and the BMP manual explain the importance of preventing contamination from storm water run-off and ways employees can be involved at their facility. Subject matter of written and video material meets the permit requirements for employee training.

Maintenance Staff Training Topics

- Spill prevention
- Spill Control and Response
- Vehicle and Equipment Maintenance
- Vehicle and Equipment Washing
- Material Storage
- Waste Management
- Facility Maintenance
- Landscape and Grounds Maintenance
- Illicit Discharge Detection
- Contracts

In addition, individualized training in preparation for an MDEQ audit was offered to each school district nested under the GCDC general permit. The training focused on establishing and strengthening the Good Housekeeping practices listed above at school facilities. Below is a list of nested schools that chose to participate. One-on-one training for each school was provided by Tetra Tech staff. Training took place during the last reporting period.

Schools Participating in On-Site Training

- Atherton
- Bendle
- Bentley
- Carman-Ainsworth
- Flushing
- Genesee
- Genesee Intermediate School District (GISD)
- Grand Blanc
- Lake Fenton
- Swartz Creek

The MDEQ SWPPP checklist used as a guideline for the audits is available upon request.

6. 319 NONPOINT SOURCE GRANT PROJECTS

In 1987, Congress amended the Clean Water Act to establish the Section 319 Nonpoint Source Management Program because it recognized the need for greater federal leadership to help focus State and local nonpoint source efforts. Under Section 319, State, Territories, and Indian Tribes receive grant money which support a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects.

There are three 319-grant projects within Genesee County. All are within the Middle Flint Watershed: the Swartz Creek Watershed Project, Gilkey Creek Watershed Project, and the Kearsley Creek Watershed Project. CAER and FRWC developed the Swartz Creek and Gilkey Creek WMPs and GCDC developed the Kearsley Creek WMP to control nonpoint sources of pollution. Projects may include implementing structural BMPs, non-structural BMPs, and information and education activities to eliminate nonpoint source pollution.

SWARTZ CREEK WATERSHED PROJECT

The Swartz Creek Watershed Plan has been granted 319 status by the MDEQ.

No activity occurred during the reporting period.

KEARSLEY CREEK WATERSHED PROJECT

The Kearsley Creek Watershed Plan has been granted 319 status by the MDEQ.

No activity occurred during the reporting period.

GILKEY CREEK

The Gilkey Creek Watershed Plan has been granted 319 status by the MDEQ. It outlines designated and desired uses for the watershed, historic and present conditions, watershed goals, best management practices recommendations, and an education and evaluation plan.

No activity occurred during the reporting period.

7. GENESEE GREEN

Project Green, now referred to as Genesee GREEN, has grown in Genesee County from approximately 100 students in 1990 to in excess of 1000 in 2014. The ideal is that all of the students visit specific sampling sites along the Flint River Watershed within the same week to conduct a Water Quality Index (WQI) analysis. The data gives a snapshot of that moment in time. As each year is added, comparisons can be made about the quality of the water running through the watershed environment over time. Comparisons can also be drawn between geographical sites.

The Global Rivers Environmental Education Network (GREEN) is a curriculum-based, mentored program that seeks to engage young people as active citizens to improve conditions in their watersheds. GREEN empowers young people to learn more about the watersheds they live in and use their findings to create lasting solutions to water quality problems. GREEN has been in existence for twenty years in Genesee County under the direction of the Genesee County Intermediate School District (GISD).

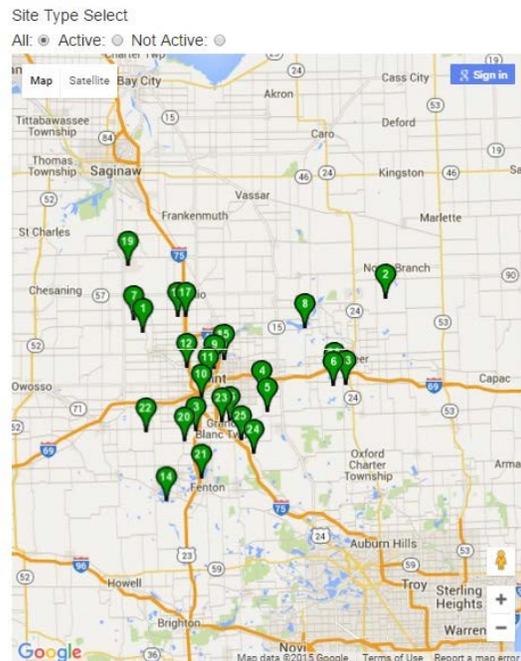
In 2003, the Flint River Watershed Coalition (FRWC) was approached by Earth Force Green and General Motors to be the coordinator of GREEN in the Flint River Watershed. FRWC was identified as the primary organization that could help improve program participation and effectiveness because of its focus on water quality monitoring and environmental education. The FRWC Board of Directors has endorsed this vision and is providing administrative control.

As part of the program, students from local schools learn about water quality and testing procedures by visiting various sites to take water samples and by analyzing the collected data. During the last reporting period, participation included:

25	Participating Educators
1000+	Students
17	Mentors
13	Presenters at the summit



Test Sites



Schools are also encouraged to participate in a summit, where students are able to present their findings. On May 15, 2015, a student summit was held at Kettering University and students from 15 schools presented collected data.



Each site visited is categorized as excellent, good, fair, poor, or very poor based on the National Sanitation Foundation (NSF) WQI analysis. To determine the WQI, nine tests are performed.

Parameters tested include dissolved oxygen, fecal coliform, pH, biochemical oxygen demand (5-day), temperature, total phosphate, nitrates, turbidity, and total solids. After completing the nine tests, results are recorded and transferred to a weighting curve chart where a numerical value is obtained as shown in Table 7-1. For each test, the numerical value or Q-value between 0 and 10 is multiplied by a "weighting factor." For example, dissolved oxygen has a relatively high weighting factor (0.17) and therefore is more significant in determining water quality than the other tests. The nine resulting values are then added together to arrive at an overall WQI. If all nine water quality tests are not available, then the total of those samples available is multiplied by the inverse their total weighting factors.

Table 7-1: Water Quality Index Calculation Chart

Test Parameter	Q-Value	Weighting Factor	Total
1. Dissolved oxygen	Q_{DO}	0.17	$0.17 \times Q_{DO}$
2. Fecal coliform	Q_{FC}	0.16	$0.16 \times Q_{FC}$
3. pH	Q_{pH}	0.11	$0.11 \times Q_{pH}$
4. Biochemical oxygen demand	Q_{BOD}	0.11	$0.11 \times Q_{BOD}$
5. Temperature	Q_T	0.11	$0.11 \times Q_T$
6. Total phosphate	Q_P	0.10	$0.10 \times Q_P$
7. Nitrates	Q_N	0.10	$0.10 \times Q_N$
8. Turbidity	Q_{Turb}	0.08	$0.08 \times Q_{Turb}$
9. Total solids	Q_{TS}	0.07	$0.07 \times Q_{TS}$
Overall WQI			Sum (Q_x)

The WQI ranges are categorized as follows: 90-100 Excellent, 70- 89 Good, 50- 69 Average (Fair), 25- 49 Marginal (poor), 0- 24 Poor.

It should be noted that there was no discernible correlation between the Genesee GREEN Results and the Benthic Monitoring Results. Since the benthic monitoring results reflect the macroinvertebrates' long term exposure to their environment the results are assumed to be more reflective of the overall health of the water body compared to the one-time sampling associated with Genesee GREEN.

[Reference: *Mitchell, Mark K. and William B. Sharp, 2000. Field manual for Water Quality Monitoring: An environmental education program for schools, (twelfth edition), Kendall/Hunt Publishing Company, Dubuque, Iowa*]

Table 7-2 and Figures 7-1 to 7-4 summarize Genesee Green results for the Lower, Middle, and Upper Flint River and Shiawassee River Watersheds. On the Genesee Green Website there was a gap between 2010-2015 sampling years. Our data shows that we recorded data from 2011-2013.

Table 7-2: Genesee Green Results

ID No	Location	Sampled Years	Water Quality Index (WQI)
<i>Lower Flint River Watershed</i>			
1L	Armstrong Creek at Dodge Road	2006-07, 2011-2012	Good
2L	Craven and Benson Drain off Mt Morris Road	2007	Fair
3L	Mill Street Bridge	1993, 1998-2004, 2006-2009	Good
4L	North corner of Flushing and Linden Roads	1991, 1994, 1998-2004, 2007, 2008, 2010	Good
5L	Pirnie Creek at Beecher Road	2006, 2008	Good
6L	Southeast corner of M-57 and Seymour Road	2001-2011	Good
7L	Clio Bike Path at Jennings Road	2007, 2009, 2011, 2012	Good
8L	Flushing Park at Pavilion #2	2001-02, 2005	Good
9L	Mott Park	1993, 1998-2000, 2010-2013	Fair
10L	Pine Run at Clio Park	2006, 2009, 2012-13	Good
11L	North of Flushing at Mt. Morris Bridge	1998	Good
12L	Seymour Rd. North of Farrand Rd.	2009	Good
13L	Flint River @ Barber Memorial Park	2015	Good
14L	Lake Drain @ Randy Wise	2015	Fair
<i>Middle Flint River Watershed</i>			
1M	Swartz Creek at Hill Road Bridge	2005-06, 2009-2010, 2012-13	Good
2M	Behind McDonalds at Dort and Stewart	2003	Fair
3M	Bridge between UM-Flint and Autoworld	1993-94, 1998, 2001	Fair
4M	Crampton Drain at Kearsley Armstrong	2006, 2008-2011	Good
5M	Downstream from For-Mar Nature Center	2005, 2010	Good
6M	Gilkey Creek behind Central High School	1991-92, 1994, 2001-2002, 2009	Poor
7M	Immediately west of the Farmer's Market	2004-06 2012-13	Good
8M	Pierson Drain at Atherton HS	2007, 2015	Good
9M	Swartz Creek at Happy Hollow	1993-94, 2002-2003. 2010-2012	Fair
10M	Swartz Creek at Swartz Creek M.S.	2005-06	Fair
11M	Swartz Creek at Van Slyke Road	2002, 2012	Good
12M	Swartz Creek Golf Course	2001-02	Good
13M	Thread Creek at McCandlish Road	2007-2008	Fair
14M	Thread Creek at Rust Park in Grand Blanc	2005-2006 2012	Good
15M	Timberwolf Turnout off Irish Road	2005	Fair
16M	Kearsley Creek at Goodrich Commons	2004	Good
17M	Kearsley Creek near Goodrich High School	2004-05	Good
18M	Flint River West of Johnson AAA School	2006-2010	Good
19M	Thread Creek at Bristol Rd.	2008-2013	Fair
20M	Upstream of For-Mar Nature Center	2004, 2006-2009, 2011	Good
21M	Swartz Creek at Swartz Creek MS	2012	Good
22M	Black Creek- Abernathy Park	2013	Fair
23M	Swartz Creek @ Frost Gardens	2012-13, 2015	Good
24M	Davison Kearsley Creek	2015	Fair
25 M	Thread Creek @ Perry Road	2015	Good

ID No	Location	Sampled Years	Water Quality Index (WQI)
<i>Upper Flint River Watershed</i>			
1U	Bear Swamp at Genesee Road	2007	Poor
2U	Oak Road North of Stanley	2001	Good
3U	Bluegill Boat Ramp on Mott Lake	2002, 2005	Good
4U	M-15 north of Stanley Road	1997-98, 2002	Good
5U	Holloway Reservoir at Mt. Morris Bridge	1997, 2001, 2003-05	Good
6U	Mott Farm between house and barn	1993-94, 1998, 2001, 2004	Good
7U	Richfield Park	2001, 2003-2010	Fair
8U	Flint River @ Steeping Stone	2015	Good
<i>Shiawassee River Watershed</i>			
1S	Platform south of Main Street Bridge in Fenton	1992, 1996, 1998-2004	Fair
2S	Linden Mill Pond (Shiawassee River)	2007, 2010, 2015	Good
3S	Fenton Mill Pond (Shiawassee River)	2009, 2012	Poor
4S	Linden Middle School Grounds	2012-13	Good
<i>Unknown Watershed</i>			
1UNK	Unlisted Location	2009-2012	Good

Figure 7-1: Genesee Green Results for the Lower Flint River Watershed

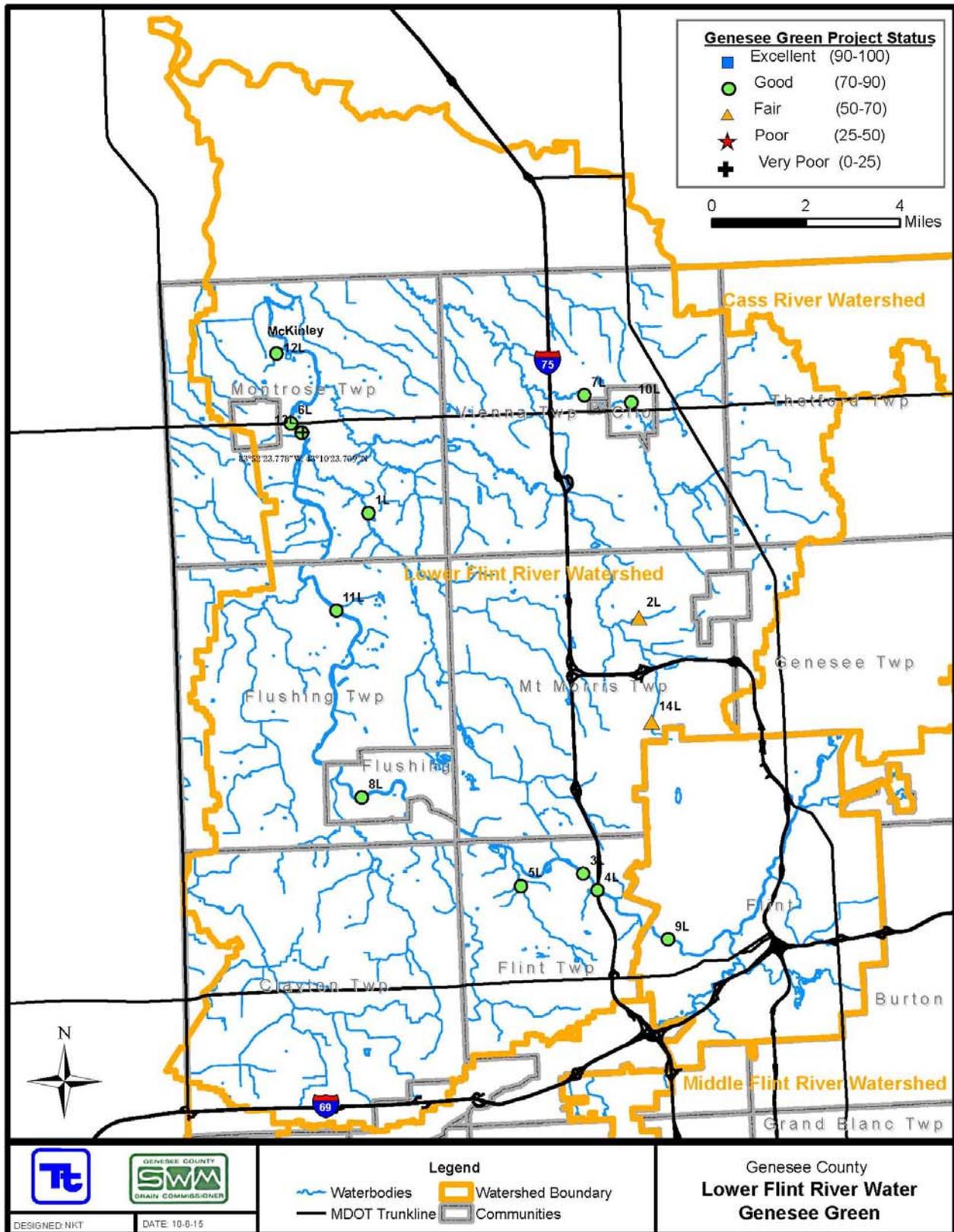


Figure 7-2: Genesee Green Results for the Middle Flint River Watershed

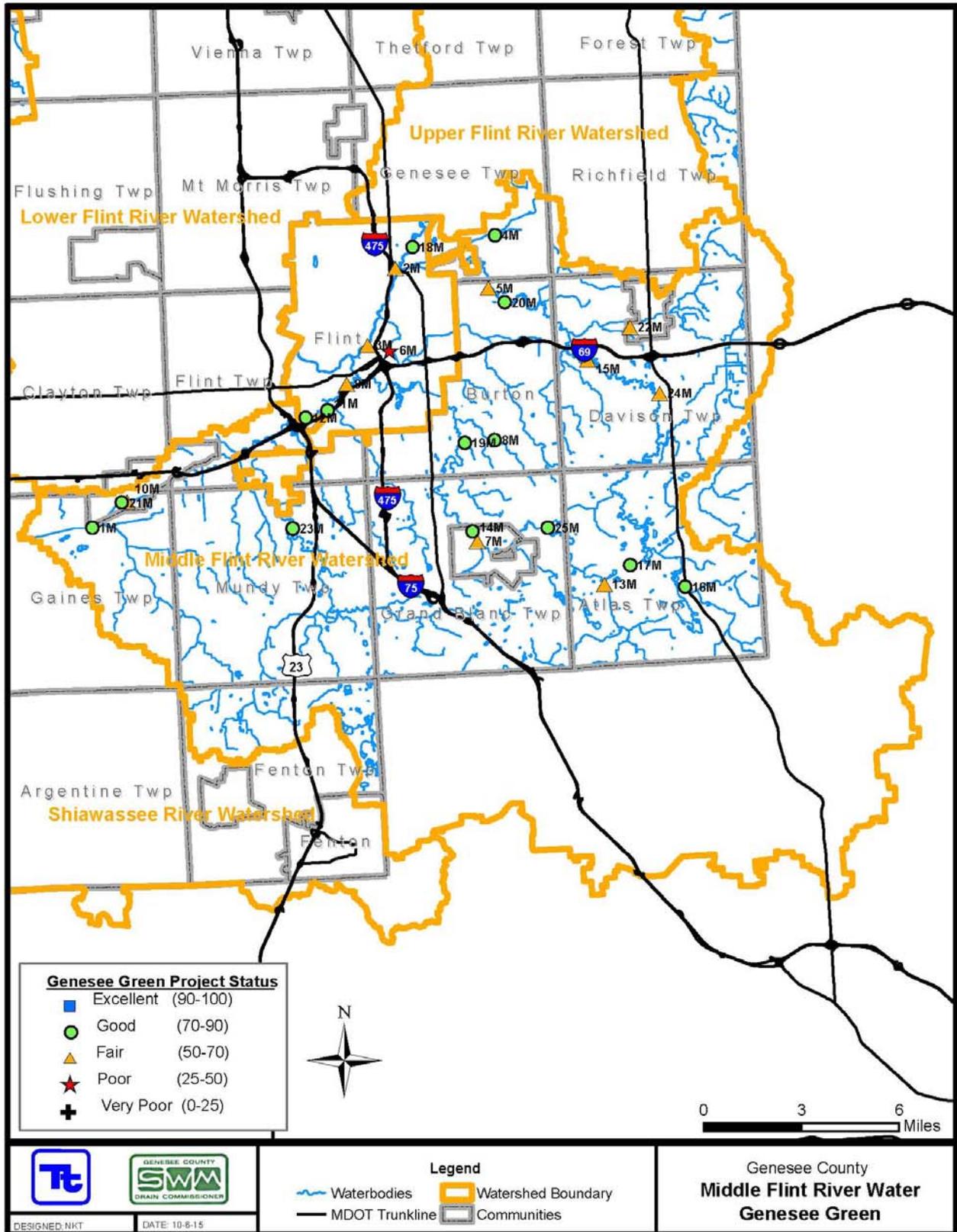


Figure 7-3: Genesee Green Results for the Upper Flint River Watershed

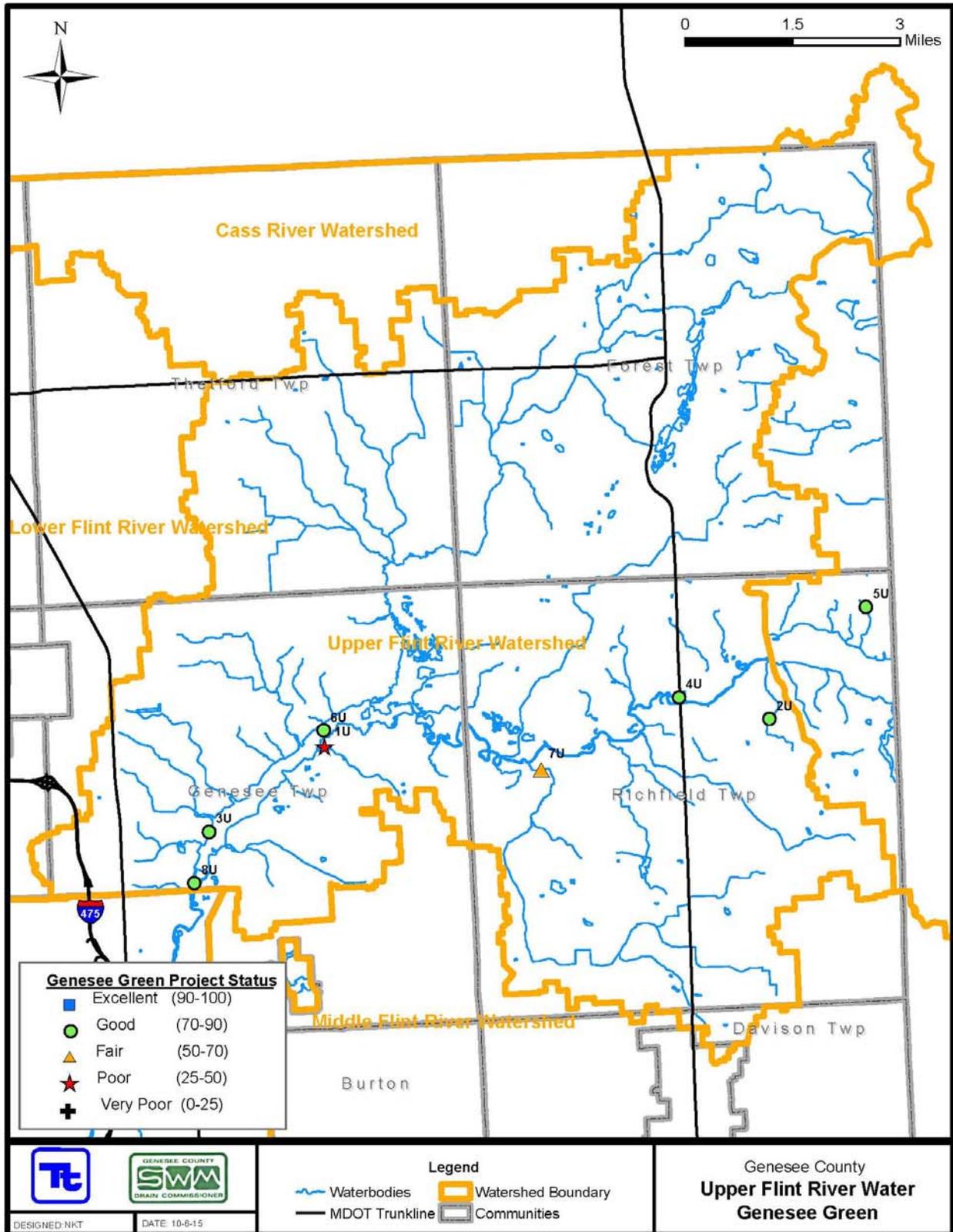
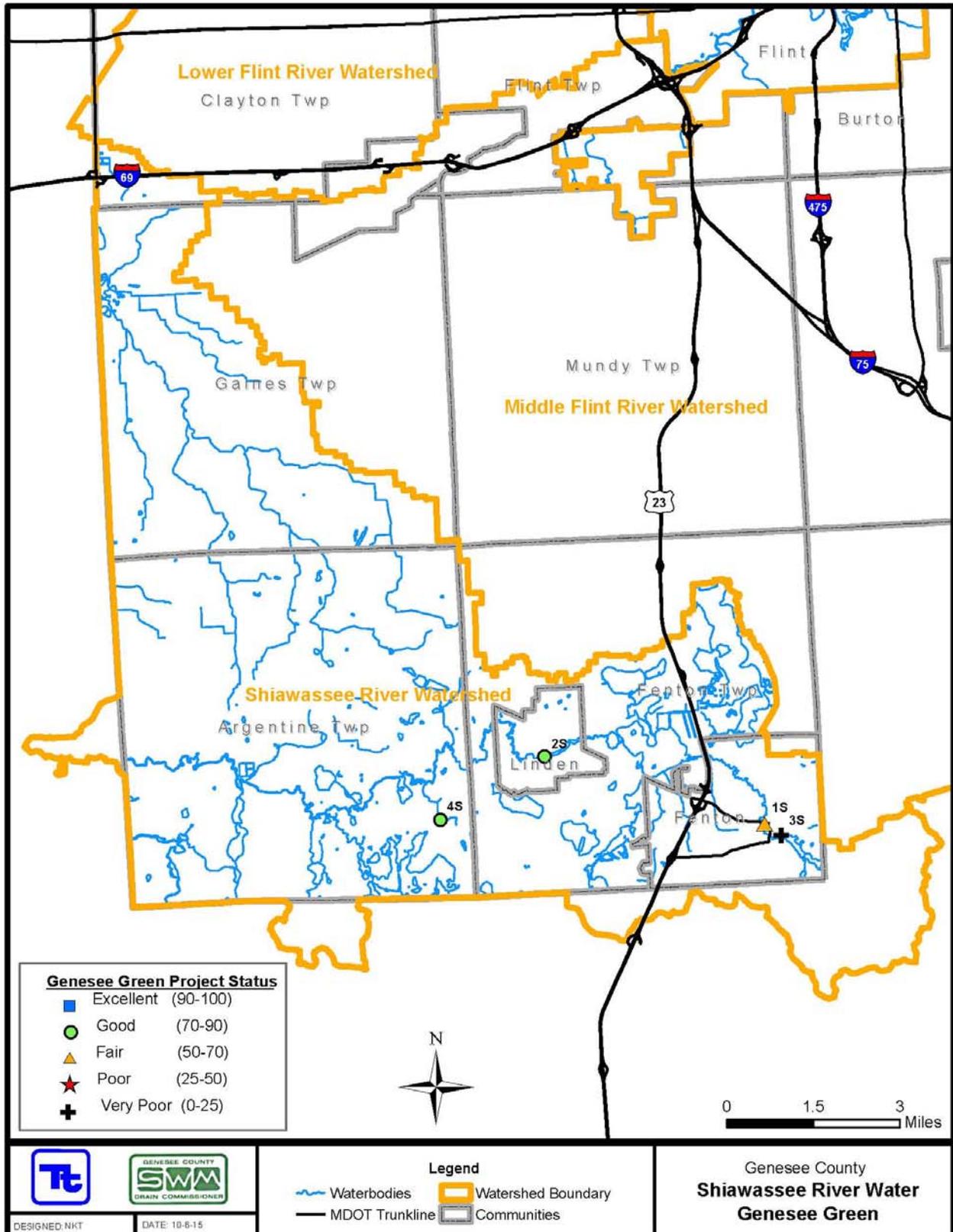


Figure 7-4: Genesee Green Results for the Shiawassee River Watershed





Flint River GREEN

(Global Rivers Environmental Education Network)

The Flint River Watershed Coalition, with our partners, coordinates an applied curriculum for middle and high school students that have a positive impact on the environment, now and into the future.

Using scientific methods, students conduct various tests to assess the health of a local river or stream. Students then work to identify any environmental problems, research the causes of the problem, and develop solutions to improve the health of their stream. Beyond merely identifying the environmental issue, the class works to make positive changes in practices or policies that allowed the problem to emerge in the first place.

Professional mentors from agencies across the watershed contribute to student learning and awareness. Prior mentors have come from General Motors, the Genesee County Drain Commissioner's office, City of Flint, the Center for Applied Environmental Research at UM-Flint, TetraTech, Flint River Watershed Coalition, Sierra Club, and Delphi.

In Genesee, Lapeer, and Oakland counties, the work done in Flint River GREEN compliments the on-going monitoring project that the Watershed Coalition has conducted for several years. It also provides information for use by the Genesee County Drain Commissioner in fulfilling responsibilities relative to storm water runoff concerns and abatement.

Recently the Flint River GREEN committee has updated an interactive website. This will allow teachers to submit information by internet and interested parties can look at data, materials information, test sites and schools that participate. <http://flintrivergreen.is-great.org/>

8. MACROINVERTEBRATE STUDY

Since 1999, the Flint River Watershed Coalition (FRWC) has executed a bi-annual Benthic Monitoring Program that has been performed to meet MDEQ requirements. This program has expanded from 18 to 30 sites since its inception.

This program is successful because volunteers who live in the watershed contribute two days, twice a year for training, sample collection and species identification. The scores for each site visit are averaged over the sample years and categorized as either Excellent (>48), Good (34 – 48), Fair (19 – 33.9), and Poor (<19). These scores not only give an indication of macroinvertebrate community health but also provide a good Water Quality Index value. Table 8-1 and Figures 8-1, 8-2, 8-3, and 8-4 summarize macroinvertebrate sampling results for the Lower, Middle, and Upper Flint River Watersheds and the Shiawassee River Watershed. Sites categorized as “poor” are identified in Table 8-1 with red font.

Two of the study sites received a Water Quality Index rating of “Excellent” while one site of the 21 sites studied showed a decline in water quality from “Fair” to “Poor” (red font). Macroinvertebrate study was last updated in April & May for 2013 which was included in the 2012-2013 Annual Report.

Table 8-1: Macroinvertebrate Study Results

ID_No	Location	Sampled Years	Water Quality Index (WQI)	Water Quality Changes Last Period/Current Period
<i>Lower Flint River Watershed</i>				
A-L	Pine Run Headwaters	1999-2000, 2003-2015	Fair	No Change
B-L	Misteguay Creek Headwaters	1999-2000, 2004-2015	Fair	Good/Fair
C-L	Flint River, Flushing	1999-2015	Excellent	Excellent
D-L	Brent Run	1999-2003, 2005-2015	Good	Fair/Good
E-L	Brent Run Headwaters	1999-2000, 2004-2015	Poor	No Change
<i>Middle Flint River Watershed</i>				
A-M	Swartz Creek	1999-2015	Good	Excellent/Good
B-M	Thread Creek	1999-2015	Fair	Poor/Fair
C-M	Thread Creek Headwaters	1999-2015	Good	No Change
D-M	Kearsley Creek	1999, 2001-2015	Good	Excellent/Good
E-M	Kearsley Creek Headwaters	1999-2003, 2005, 2007-2015	Good	No Change
F-M	Gilkey Creek	1999-2013	Poor	Discontinued
G-M	Gilkey Creek Headwaters	2002-2015	Poor	Fair/Poor
H-M	Gilkey Creek Restoration (Applewood)	2009-2015	Fair	No Change
I-M	Gilkey Creek Restoration (Kearsley Park)	2009-2015	Good	No Change
J-M	Swartz Creek Headwaters	2007-2015	Good	Excellent/Good
<i>Upper Flint River Watershed</i>				
A-U	Butternut Creek Headwaters	2000-2015	Good	Fair/Good
B-U	Flint River, Richfield	2000-2003	Replaced	Replaced with Clark Drain Site
C-U	Clark Drain, Richfield Park	2009-2015	Good	No Change
D-U	Butternut Creek	1999-2015	Good	No Change
<i>Shiawassee River Watershed</i>				
A-S	Argentine	2008-2015	Fair	Good/Fair
B-S	Linden	2008-2015	Good	Fair/Good

It should be noted that there was no discernible correlation between the Project GREEN Results (Section 7) and the Benthic Monitoring results. Since the Benthic Monitoring results reflect the macroinvertebrates' long-term exposure to their environment, the results are assumed to be more reflective of the overall health of the water body compared to the one-time sampling associated with Project GREEN (which is more focused on inspiring youth).

Figure 8-1: Macroinvertebrate Study Results for the Lower Flint River Watershed

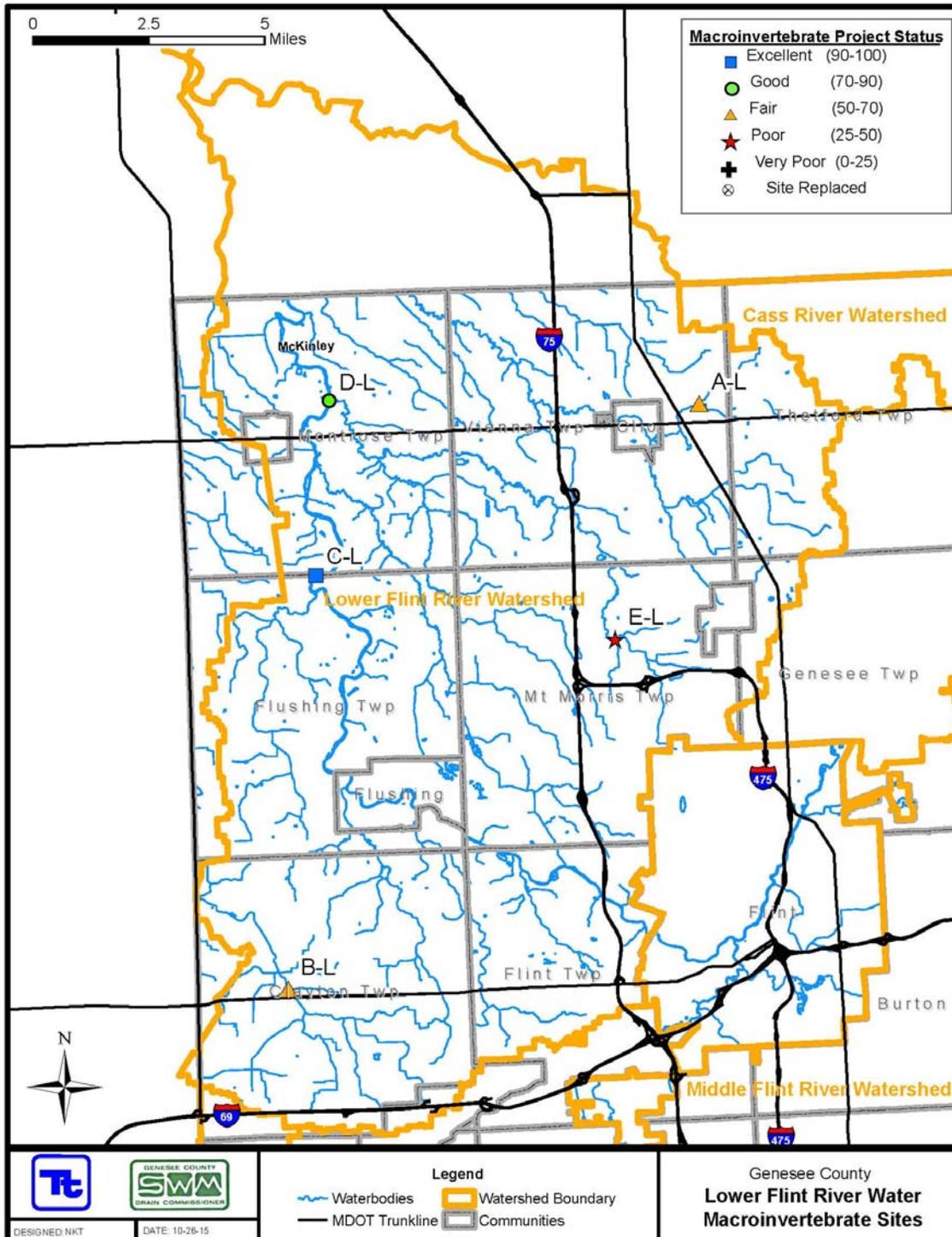


Figure 8-2: Macroinvertebrate Study Results for the Middle Flint River Watershed

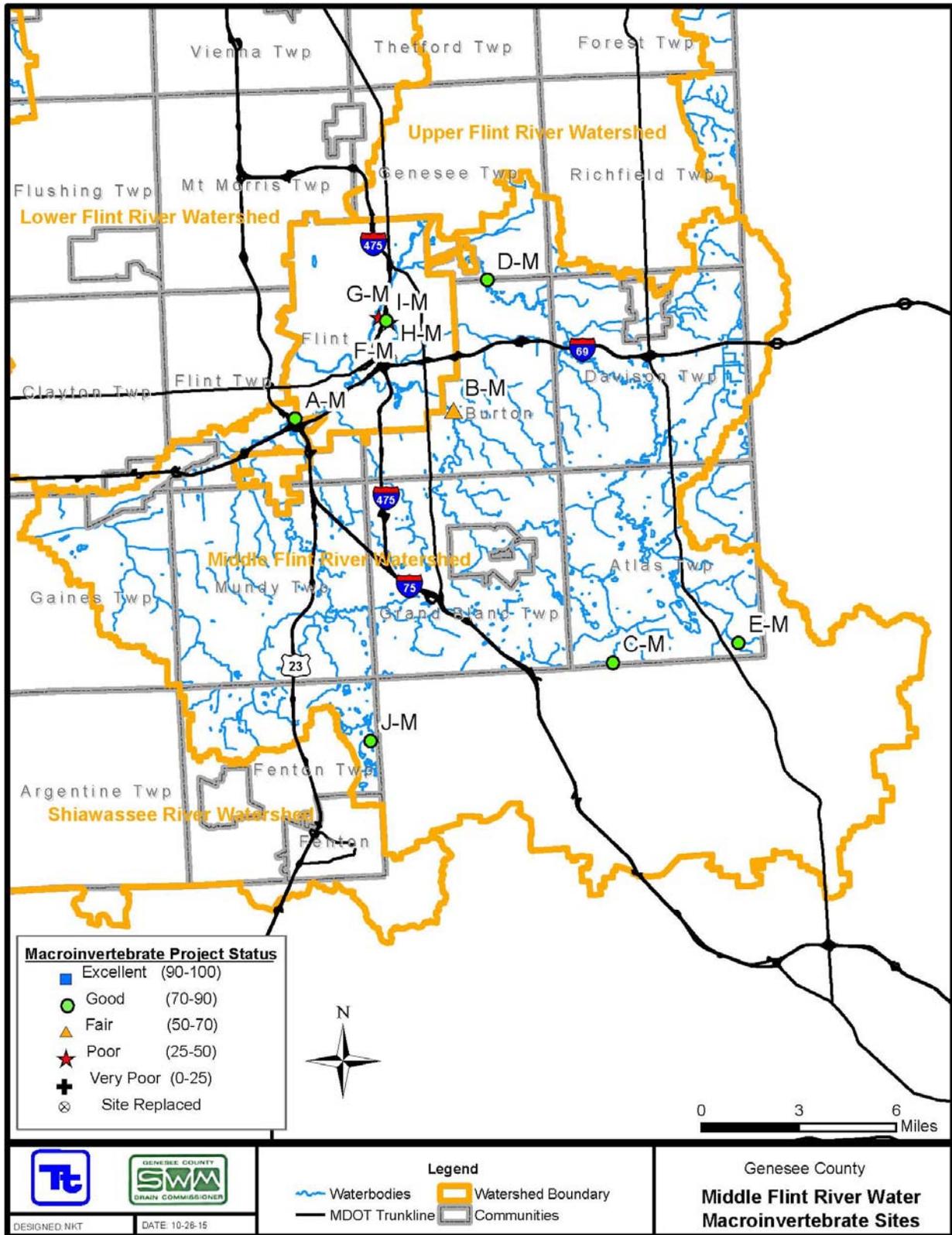


Figure 8-3: Macroinvertebrate Study Results for the Upper Flint River Watershed

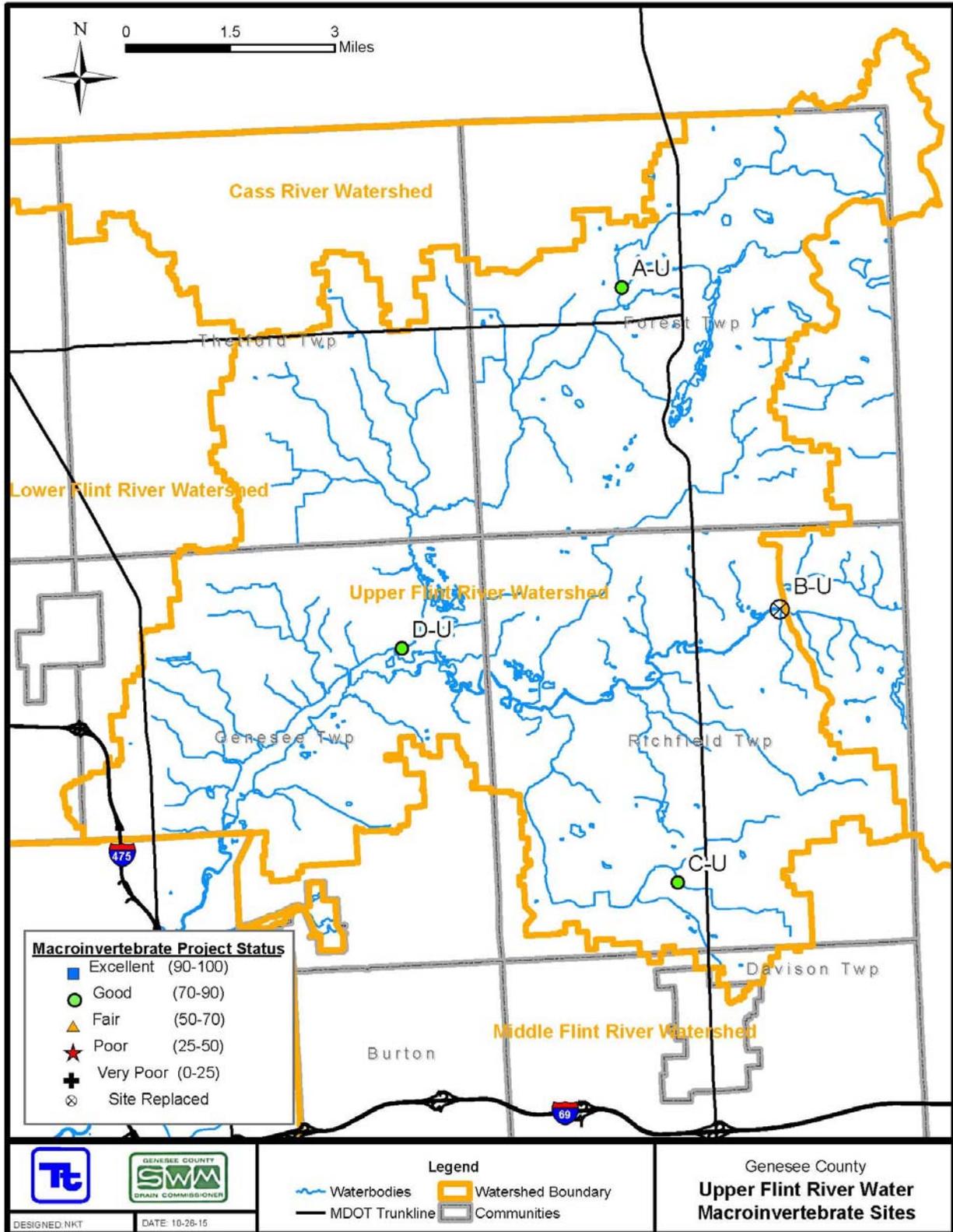
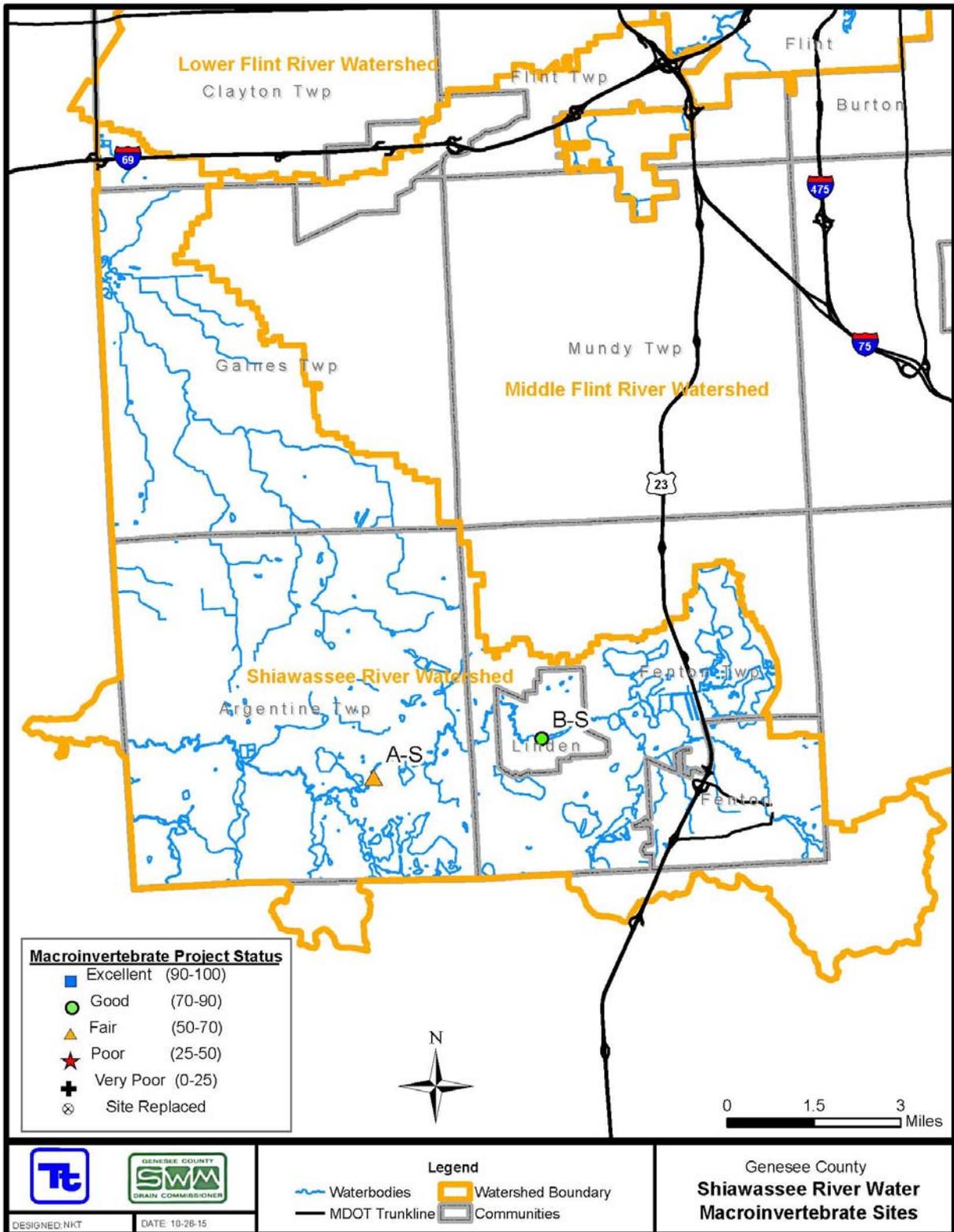


Figure 8-4: Macroinvertebrate Study Results for the Shiawassee River Watershed



9. ILLICIT DISCHARGE ELIMINATION PLAN (IDEP)

The purpose of the Illicit Discharge Elimination Plan (IDEP) is to establish a program to eliminate illicit discharges and connections, including the discharge of sanitary wastewater, to Genesee County’s separate storm water drainage system. The County is required to conduct dry weather screening of all municipal separate storm sewer system (MS4) outfalls, also referred to as point source discharges (PSDs), to comply with their National Pollutant Discharge Elimination System (NPDES) permit.

This Section summarizes the IDEP activities including the illicit connections identified within each watershed and a list of PSDs identified during 2013-2014 IDEP field investigations. Also included are Phase II Permit application maps and tables showing PSDs for each municipality investigated.

Figure 9-1 shows the illicit discharge notification system process. During field investigations, crews investigate MS4 outfalls and private drains within the County drainage system. Each outfall is mapped and investigated at least once every five years. If dry weather flow is present at an outfall, the flow is sampled, analyzed, and tracked upstream to its source. When the pollution source is isolated, Genesee County works with the responsible party to eliminate the discharge.

During 2013-2014, IDEP field investigations of the local communities had been complete, except for Burton and Genesee County due to the number of outfalls. Efforts were focused on County owned outfalls:

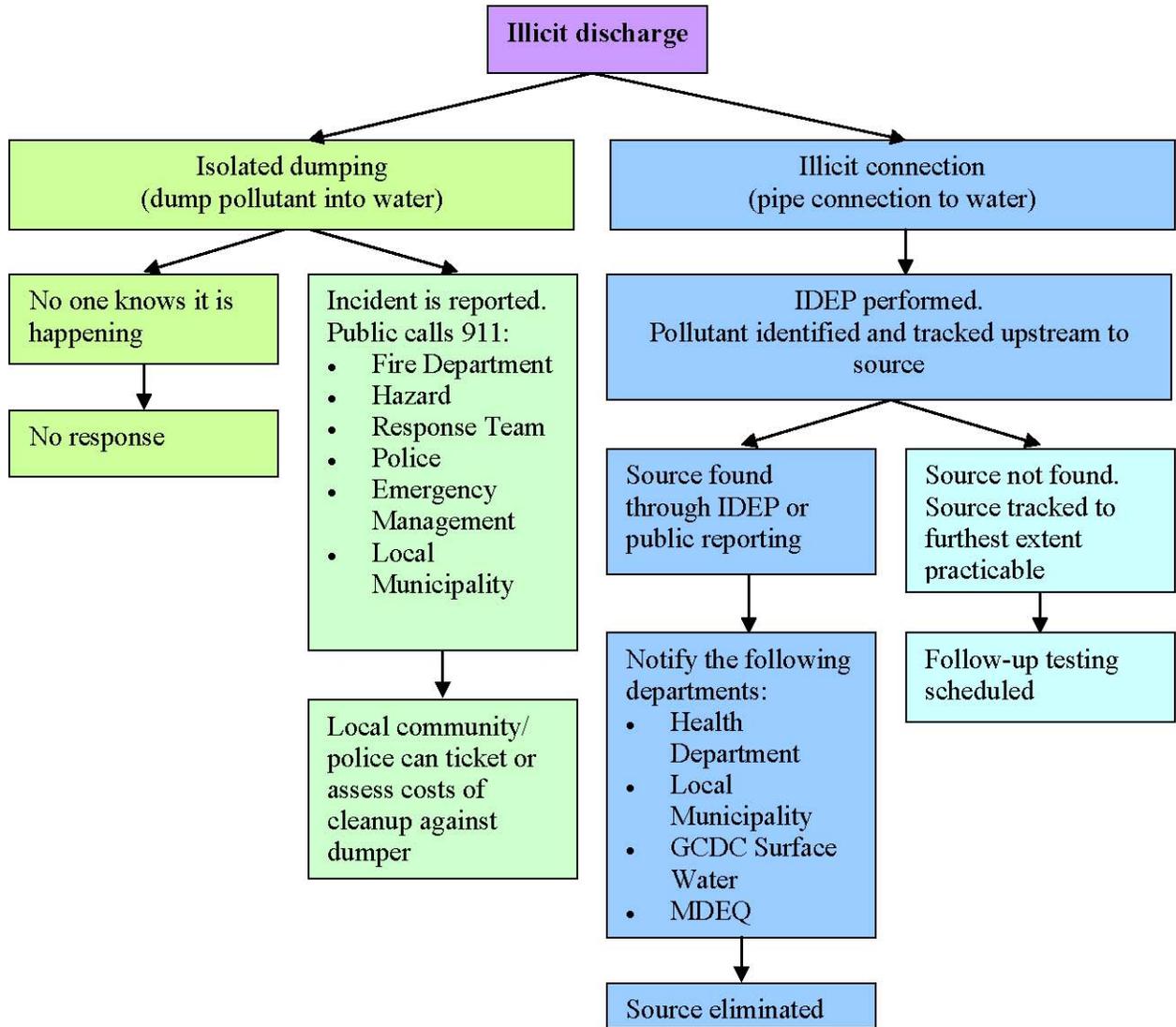
Genesee County received a SAW grant to perform an asset management plan on the structures belonging to the Genesee County Road Commission. So the Road storm systems and outfalls can be mapped quicker and more accurately. Much of the Field efforts in Summer 2015 were focused on this work.

**Table 9-1: Total Number Outfalls Investigated
October 2014- September 2015**

Need to be investigated	Total outfalls	Already Investigated	New Outfalls	Total Outfalls Investigated 2014-2015
GCDC	11/3/2014	13		13
GCDC	12/2/2014	19	1	20
GCDC	12/3/2014	16	2	18
GCDC	12/29/2014	9	6	15
	Total	57	9	66

Outfalls Investigated in 2014-2015

Figure 9-1: Illicit Discharge Notification System Process



The following tables and figures show the outfalls investigated that required follow up. The section concludes with a summary of the follow-up investigations undertaken in 2014-20154.

These discharges were found during SAW Grant inspections of the GCRC drainage system.

5282 North Vassar Rd, Flint

During our investigation of the GCRC drainage system along North Vassar Rd, we observed intermittent dry-weather flow entering the roadside ditch coming from a 4 inch PVC pipe (**photo 1**) on the north side of the driveway to 5282 North Vassar Rd (**photo 2**). The discharge water smelled heavily of petroleum. It is recommended that GCDC contact the home owner at 5282 North Vassar to determine the source of the discharge.



A+ Self Storage & U-Haul on Fenton Road

During our investigation of the GCRC drainage system along Maple Ave., we observed intermittent dry-weather flow entering the roadside ditch coming from a 12 inch concrete pipe (**photo 3**) on the north side of the Maple Ave just west of the culvert going underground to the south. The culvert is just west of Fenton Rd. The discharge water contains concrete wash off coming from the A+ Self Storage & U-Haul on Fenton Road. It is recommended that GCDC send Stormwater Management Construction Site Operator to A+ Self Storage & U-Haul to investigate.



7025 Coldwater Rd, Flushing

During our investigation of the GCRC drainage system along Coldwater Road, we observed dry weather flow coming from a small, partially concealed, corrugated plastic pipe inside the upper southeast corner of a catch basin (**photo 4**) on the west side of the driveway to 7025 Coldwater Road (**photo 5**). The catch basin smelled strongly of sewage and contained gray sanitary fungus staining. No sample was taken of the flow but observations point to an illicit discharge entering the Genesee County MS4 system. It is recommended that GCDC sample the dry weather flow for E. coli, ammonia, and surfactant to confirm the illicit discharge followed by a dye test at 7025 Coldwater to confirm the source.



10. NEW STORM WATER POINT SOURCE DISCHARGES (PSD)

In the 2008 annual report, PSD points were identified on the permit application map by municipality. These maps have been updated in the 2010 report to reflect the change in management of the MS4 areas in the second permit cycle. In the past, PSD's were tracked by watershed. In 2009, municipal ownership (city, township, etc.) of PSD's was assigned by GCDC. Municipalities that were designated by GCDC as containing MS4 outfalls include:

- City of Burton
- City of Clio
- City of Davison
- City of Fenton
- City of Flushing
- City of Grand Blanc
- City of Linden
- City of Mt. Morris
- Davison Township
- Fenton Township
- Flint Township
- Flushing Charter Township
- Genesee Charter Township
- Mt. Morris Charter Township
- Mundy Charter Township
- Vienna Township
- Genesee County
 - Agencies
 - Nested Jurisdictions

A complete copy of outfalls in a GIS Layer has been provided periodically to the MDEQ at their request. The Permit Application- Table 1 (submitted April 2014) was a list of all the outfalls identified (as of April 2014) for the above communities. There have been 248 additions to the Permit Application- Between April 1 and Oct 1, 2014. That complete list was provided in the last reporting cycle. Below is the outfalls that have changed since Oct 1, 2014

GCDC

OutfallNum	Latitude	Longitude	StructureT
5623005			Outfall
8725254			Outfall
8612001			Outfall
8612002			Outfall
7622251			Point of Discharge

Due the large number of outfalls for Genesee county and City of Burton, ongoing efforts to map outfalls is being done. Genesee County received an Asset management grant that will assist our ability to map the Road Commission storm water infrastructure. This will allow us to locate and map outfalls more efficiently.

Table 10-1: Genesee County Assigned Outfalls for 2014-2015

Outfall #	Owner	Receiving Water Body	Date Investigated	Sampled Yes_No	Comments
7701531	C of Burton	Kearsley Creek	12/3/2014	No	
7722252	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	
7722253	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	
7722254	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	
7722255	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	
7722256	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	
7722257	GCDC 1182/0344	Robinson & Curtis 0344	12/29/2014	No	
7722258	GCDC 1182	Robinson & Curtis 0344	12/29/2014	Yes	
7722752	GCDC 0811	Robinson & Curtis 0344	12/29/2014	Yes	
7722753	GCDC 0344	Robinson & Curtis 0344	12/29/2014	No	
7805001	GCRC	Brier Creek Drain 0130	12/3/2014	No	
7805002	GCRC	Brier Creek Drain 0130	12/3/2014	No	
7806003	GCRC	Brier Drain 0130	12/3/2014	No	
7806004	GCDC 1510	Brier Drain 0130	12/3/2014	No	
7806252	GCRC	Brier Creek Drain 0130	12/3/2014	No	
7806265	GCRC	Brier Creek Drain 0130	12/3/2014	No	
7806266	GCRC	Brier Creek Drain 0130	12/3/2014	No	
7817501	GCRC	Kearsley Creek	12/2/2014	No	
7817502	GCRC	Kearsley Creek	12/2/2014	No	
7817512	GCRC	Kearlsey Creek	12/2/2014	No	
7818501	GCRC	Phillips Drain 0080	12/2/2014	No	
7818502	GCRC	Phillips Drain 0080	12/2/2014	No	
7818507	GCRC	Phillips Drain 0080	12/2/2014	No	
7818508	GCRC	Phillips Drain 0080	12/2/2014	No	
7818751	GCRC	Kearsley Creek	12/2/2014	No	
7818771	GCRC	Kearsley Creek	12/2/2014	No	
7818774	GCRC	Kearsley Creek	12/2/2014	No	
7818775	GCRC	Kearsley Creek	12/2/2014	No	
7819348	GCRC	Phillips, East Branch of 0319	12/2/2014	No	
7819349	GCRC	Phillips, East Branch of 0319	12/2/2014	No	
7820525	GCRC	Lobban Drain 0300	12/2/2014	No	
7829001	GCRC	Lobban Drain 0300	12/2/2014	Yes	

7829002	GCRC	Lobban Drain 0300	12/2/2014	No	
7829003	GCRC	Lobban Drain 0300	12/2/2014	No	
7830095	GCRC	Phillips, East Branch of 0319	12/2/2014	No	
7830096	GCRC	Phillips, East Branch of 0319	12/2/2014	Yes	
8619757	GCRC	Monroe Branch 0323	11/3/2014	No	
8619759	GCRC	Monroe Branch 0323	11/3/2014	No	
8619760	GCDC 0323	Monroe Branch 0323	11/3/2014	No	
8629001	GCRC	Root Drain 0185	11/3/2014	No	
8629002	GCRC	Root Drain 0185	11/3/2014	No	
8629005	GCRC	Root Drain 0185	11/3/2014	No	
8629006	GCRC	Root Drain 0185	11/3/2014	No	
8629501	GCRC	Root Drain 0185	11/3/2014	No	
8629503	GCRC	Root Drain 0185	11/3/2014	No	
8629751	GCRC	Hartshorn Drain 0458	11/3/2014	No	
8629753	GCRC	Hartshorn Drain 0458	11/3/2014	No	
8634001	GC Schools	Hartshorn, Branch #1	11/3/2014	No	
8634002	GC Schools	Hartshorn,	11/3/2014	No	
8831251	GCRC	Powers-cullen Drain 0014	12/3/2014	No	
8831252	GCRC	Powers-cullen Drain 0014	12/3/2014	No	
8831501	GCRC	Brier Drain 0130	12/3/2014	No	
8831502	GCRC	Brier Drain 0130	12/3/2014	No	
8831754	GCDC 1510	Brier Drain 0130	12/3/2014	Yes	
8831758	GCRC	Brier Drain 0130	12/3/2014	No	
8832007	GCRC	Powers-cullen Drain 0014	12/3/2014	No	
8832008	GCRC	Powers-cullen Drain 0014	12/3/2014	No	
7820526	GCRC	Lobban Drain 0300	12/2/2014	No	New outfall 2014
8831759	GCRC	Brier Drain 0130	12/3/2014	No	New outfall 2014
7806253	GCRC	Brier Drain 0130	12/3/2014	No	New outfall 2014
7722259	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	New outfall 2014
7722260	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	New outfall 2014
7722261	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	New outfall 2014
7722254 A	GCDC 1182	Robinson & Curtis 0344	12/29/2014	No	New outfall 2014
7722257 A	GCDC 1182/0344	Robinson & Curtis 0344	12/29/2014	No	New outfall 2014
8534770	GCDC	Crooked Creek outlet	12/30/2014	No	New outfall 2014

Follow up from Incident Reports from Tetra tech
or illicit discharges reported from public

Sample Location	Background & Follow-up Inspection	Results & Comments
Lake Fenton Middle School Fenton Twp Sec-9	On 1-12-15, ROWE Engineering evaluated arsenic removal system in boiler room. It was found that backwash water from arsenic removal system directed to floor drain which is connected to storm sewer. On 1-30-15, GCDC-SWM to Lake Fenton School to re-route floor drain to sanitary sewer. On 9-1-15, Floor drain was re-routed to sanitary sewer.	File Closed
GM Truck Plant 6060 W. Bristol Rd Flint Twp Sec-30	On 2-21-15, GM informed GCDC-SWM about overflowing of paint shop cooling tower and flows to parking lot and storm sewer catch basin and then discharges to West Branch of Swartz Creek. GM took action to stop flow. GM also notified MDEQ.	File Closed
Speedway Station 6533 Pierson Road Mt. Morris Twp Sec-31	On 4-15-15, GCDC-SWM staff observed that Speedway employee cleaning sidewalk with soapy water. Staff spoke with store manager and asked not to use soap to clean in the future and suggested to use hot water.	File Closed
Spray My lawn 5289 N. Genesee Road Genesee Twp Sec-22	On 5-1-15, Anonymous called PEAS and complained that the facility wash trucks & equipment outside the building and fertilizer and pesticide washed out into storm sewer. On 5-8-15, GCDC-SWM inspected the facility and observed no evidence of dumping residual fertilizer and pesticide outside the building. In 2014, we received similar complaints for this facility.	File Closed.
7025 Coldwater Road Flushing Twp Sec-24	On 6-11-15, Tetra Tech conducted dry weather flow investigation and observed a catch basin located on west side of drive way gray sanitary fungus staining and also noticed smell of sewage. GCDC-SWM conducted inspection in two occasions and found no flow at all. Staff also did not smell of raw sewage.	File Closed This can be an isolated incident.
8209 Linden Rd Mt. Morris Twp Sec-5	8209 Linden complained Genesee County Health Dept. that our storm sewer located south of her property is connected to wasteline. Our maintenance cleaned the old tile this summer. On 10-13-15, we have conducted dry weather investigation and found no sign of dry weather flow in the tile downstream of her property. We also informed about our findings to GCHD	File Closed

7216 N. Saginaw Rd Genesee Twp Sec-7	On 7-29-15, GCDC-SWM received a complaint from Genesee Twp that the facility doing power wash to its exterior wall. As a result, dry paint chips deposited around catch basin behind 7216 Saginaw Rd. GCDC-SWM staff visited and asked its contractor to stop power washing and clean dry paint chip around catch basin. On 7-31-15, GCDC-SWM wrote to its contractor not use similar practice in future.	File Closed
6086 & 6094 Saginaw Rd Genesee Twp Sec-15	On 8-27-15, MDEQ received a complaint about leaking liquid waste from garbage truck around these businesses. GCDC-SWM staff conducted a site inspection around these two businesses and found no evidence of liquid waste dumped into ground. Provide inspection report to MDEQ	File Closed
5357 Southway Drive Flint Twp Sec-32	On 9-1-15, Tetra Tech informed GCDC-SWM that a pipe from 5357 Southway Dr. discharges laundry water into a catch basin which is a part of county drain. On 10-1-15, GCDC-SWM conducted a dye test and confirmed an illicit connection. On 10-2-15, we wrote a letter to re-route the line to sanitary sewer. On 10-27-15, GCDC-SWM conducted a follow-up inspection and confirmed illicit connection is eliminated	File Closed.
1389 Woodnoll Drive Mundy Twp Sec-12	On 9-25-15, PEAS made a complaint regarding a cement truck dumped waste water from concrete mix truck residue cleaning into a catch basin in front of 1389 Woodnoll Dr. GCDC-SWM staff inspected the site and verified waste water from concrete truck residue cleaning inside the sump of catch basin. Concrete truck was working to pave driveway at 1358 Woodknoll Dr. GCDC staff meet contractor and asked not to discharge waste water from concrete truck into storm sewer. He told that he will not use similar practice in the future.	File Closed
1535 Lambden Road Flint Twp Sec-16	On 8-31-15, PEAS complained tthat contractor pumping contaminated water into roadside ditch. On 8-31-15, GCDC-SWM inspected that site and found no sign of discharge on the ground and ditch. However, neighbors told that they stopped driver pumping into roadside ditch. On 8-31-15, GCDC-SWM called contractor and explained the requirements of NPDES Phase II program and contaminated water from basement not allowed to go to county drain. On 9-1-15, GCDC wrote a letter to contractor mentioning that if water in the basement seems contaminated it must go to sanitary sewer for treatment. Contractor told that she will work on getting a memo out to the field crew not to pump contaminated basement water on ground or roadside ditch. Contractor wiil work with GCDC-WWS to receive necessary permit if contaminated basement water will be pumped to sanitary sewer line.	On-going

Appendix A

Websites

cleargeneseewater.org

gcdcswm.com

Genesee County

Household hazardous waste promotion materials

Public Education Implementation Table (reconfigured for 2013 permit)

Booth Results

GCD Education Program Brochure

FRWC GREEN Program

Partner Newsletters

Other Water Programs

Genesee County Parks Programs

River Cleanup Efforts

http://www.cleargeneseewater.org/ Our Water • www.cleargene... x

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Let's make one thing
Perfectly Clear.

our water

Genesee County Community Water Quality Consortium



[Home](#) [About Us](#) [Events](#) [Resources](#) [Partners](#)

Welcome to the *Our Water* website, your portal to all information related to Genesee County's clean water initiatives. Here you will find information about upcoming events, USEPA's Phase II program, maps of Genesee County's watersheds, tips for keeping *our* water clean, and much more...

Who are we?
The Genesee County Community Water Quality Consortium is a collection of municipalities, school districts, county organizations, and non-profits charged with overseeing the "Our Water" public education activities. These committed people work to bring awareness, to educate, and to promote stewardship on ways to prevent stormwater pollution and keep our water clean. See the "Partners" section for more information about participating organizations.

And remember -
Let's keep one thing perfectly clear, our water!



Choose earth-friendly landscaping.

[Contact Us](#)

[Glossary of Terms](#)

[Helpful Links](#)

[Newsletters](#)

[PowerPoint Presentation](#)

[Reporting](#)

http://www.cleargeneseewater.org/about/phase2_educz Our Water • www.cleargene... x

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our water

Genesee County Community Water Quality Consortium



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Educational Components

Under the EPA's Phase II program, public education on seven elements is required. To the maximum extent practicable, the *Our Water* partners address their responsibilities by promoting and supporting existing public involvement programs in addition to creating new mechanisms for public education.

The seven major elements of Phase II public education:

1. Education of the public about their responsibility and stewardship in their watershed. Citizens are personally responsible for water quality in their communities. Taking care of the local waterways is everyone's business and obligation.
2. Education of the public concerning the ultimate discharge point and potential impacts from the separate stormwater drainage system serving their place of residence. Storm drains go directly to streams, lakes, and rivers. They DO NOT go to a waste water treatment plant; anything that is dumped or blown into the street goes DIRECTLY to the storm drain which goes DIRECTLY to the local water bodies.
3. Education of the public on the availability, location and requirements of facilities for disposal or drop-off of household hazardous wastes, travel trailer sanitary wastes, chemicals, grass clippings, leaf litter, animal wastes, and motor vehicle fluids. Hazardous wastes, travel trailer sanitary wastes, chemicals, grass clippings, leaf litter, animal wastes, and motor vehicle fluids can contribute to polluting our local water if not disposed of properly. Do you know how to dispose of each of these products?
4. Education of the public regarding acceptable application and disposal of pesticides and fertilizers. Improper application and disposal of pesticides and fertilizers can contribute to the growth of algae in our local water bodies. If too much algae grows, our fish will not have enough oxygen to live.
5. Education of the public concerning preferred cleaning materials and procedures for residential car washing. When you wash your car at home, everything on it can go directly into storm drains and then to our local water bodies.
6. Encouragement of public reporting of the presence of illicit discharges or improper disposal of materials into a stormwater drainage system. If you witness illegal dumping contact your local police or 911.
7. Education of the public concerning management of riparian land to protect water quality. Proper management of coastal property and land adjacent to a water body (i.e. riparian land) is vital for protecting water quality.

More Information

- [Overview](#)
- [What is NPDES?](#)
- [Why is NPDES needed?](#)
- [Who's Involved](#)
- [Decision-Making Structure](#)
- [Educational Components](#)

[Contact Us](#)

[Glossary of Terms](#)

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http://www.cleargeneseewater.org/events.html

Our Water • www.cleargene... X

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Genesee County Community Water Quality Consortium

Home About Us Events Resources Partners

Upcoming Events
Community E-Waste Collection: April 24 & 25 (Flyer)
May 2, 2015, 10 AM to 2 PM - HHW Collection day (Flyer)
Locations:
Flint East- WSC, 3310 East Court St (HHW, e-waste, tires)
Carman- Ainsworth HS, 1300 N. Linden

What is Hazardous Waste?

Throughout Summer we sponsor
**Canoe/ Kayak trips down the
 Flint River through the FRWC.**
**2015 Schedule will be available
 soon**



Past Events
**HHW Collection day happens twice a year in Genesee County. Spring
 and Fall. if you missed one there is another coming up soon.**

Contact Us
 Glossary of Terms
 Helpful Links
 Newsletters
 PowerPoint
 Presentation
 Reporting

http://www.gcscswm.com/Phasell/npdes_phase_i

NPDES Phase II

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WELCOME
 To The
Genesee County Drain Commissioner
Surface Water Management
NPDES Phase II

Home

Projects
 •Construction
 •Application
 •Board of Det
 •Intercounty

Assessment

Our Water
 Program
 (NPDES II)

Design
 Standards
 & Forms

Maps

Drain Code

Contact Us

The Federal Clean Water Act required that municipalities identified by the EPA obtain stormwater permits under the **National Pollution Discharge Elimination System (NPDES)** permit program. In the State of Michigan the Michigan Department of Environmental Quality (MDEQ) manages that permit program. The first phase (Phase I) of the program affected municipalities with population in excess of 100,000. In Genesee County only the City of Flint met those requirements. With the development of Phase II of the program the municipalities asked that the Drain Commissioner coordinate an effort on their behalf to comply with the permit requirements.

In 2001 the Genesee County Board of Commissioners designated the Drain Commissioner the County Agency under Act 342 of 1939 for the purpose of stormwater management. The communities of Genesee County along with the County entered into a contract to jointly develop and obtain the required permits. Genesee County Permit Overview , published in MACDC Pipeline

Information for Public www.ClearGeneseeWater.org

Watersheds
Ph II Permit & Forms

SWPPI's & Training
Low impact Development Manual (LID)

Survey Results
Annual Reports

Subcommittees

Monitoring and Mapping
 City of Fenton -
 City of Montrose -
 City of Mt. Morris -
 City of Swartz Creek - Tom Srveck
 Argentine Township - Bob Cole
 Davison Township - Karen Miller
 Flushing Township -
 Gaines Township - Paul Fortino
 Mt. Morris Township - Larry Green
 Village of Gaines -
 Village of Lennon-

Public Education
 City of Burton - Paula Zelenko
 City of Clio - William Kovl
 City of Davison - Michael Hart
 Clayton Township -
 Flint Township - Karyn Miller
 Forest Township -
 Mundy Township -Dave Guigear
 Theford Township - Clyde Howd
 Vienna Township -
 Village of Otisville -

New Construction Standards
 City of Flushing -
 City of Grand Blanc - Matt Wurts
 City of Linden - Scott Fairbanks
 Atlas Township - Shirley Jones
 Fenton Township - Bonnie Mathis
 Genesee Township - Steven Fuhr
 Grand Blanc Township -Mikki Hoffman
 Montrose Twp - Mark Emmendorfer
 Richfield Township - Joe Madore
 Village of Goodrich - Jakki Stidge

*Phase II communities are in Bold

http://www.gcdscwm.com/PhaseII/SWPPi_SWO/S NPDES Phase II

Training

[Manual from Good Housekeeping Training](#) [Power Point Presentation](#)

MDEQ industrial training and certification. If you are required to take this class the [dates and locations](#) link to the State website will show all the classes throughout Michigan where you may take the class.

[MDEQ Fees](#)
[MDEQ Industrial program webpage](#)
[Industrial Storm Water Certified Operator Training Manual](#)
[Sample SWPPP\(pdf\)](#)

The following is several videos produced by the MDEQ on SWPPP through their Industrial program.

Introduction to the Industrial Storm Water Program (March 2009)
 This session provides an overview of the DEQ's Storm Water Program including how you determine if your facility needs a storm water permit. (Approx. 10 minutes)

Storm Water Employee Training (March 2009)
 Employee training is a required and essential part of an effective storm water pollution protection program. This session explains the importance of preventing contamination from storm water run off and ways employees can be involved at your facility. This session is designed to meet the permit requirements for employee training. *Note that this file is large therefore you may want to download it if you have trouble viewing the session.* (Approx 17 minutes)

What to Expect During a MDEQ Storm Water Inspection (March 2009)
 Do you know what the MDEQ will be looking for when conducting a storm water inspection at your facility? This session explains the elements of a typical storm water inspection. (Approx 4 minutes)

Hubbell, Roth and Clark, Inc. has provided me Standard Operating Procedures (Guidance) for several stormwater controls. I have linked them here for your use. I have not reviewed them, but felt that they may be helpful to you in developing/ revising your SOP.

- [Underground Storage Tank \(UST\) SOP.docx](#)
- [Drainage system maintenance.docx](#)
- [Oil Water Separator Maintenance SOP.docx](#)
- [Basin Checklist.docx](#)
- [ERP.docx](#)
- [OSDS checklist 2.docx](#)
- [Contractor Requirements SOP.docx](#)
- [Facilities List.docx](#)
- [Street and Parkinglot Maintenance.docx](#)

[2010 attendance list](#) for the Good housekeeping trainings held April 8,2010, May 6, 2010 or November 4, 2010. This training is for Phase II communities / agencies and their contractors so they may meet the NPDES Phase II permit requirements.

[2013 attendance list](#) for the Good housekeeping training held April 18, 2013

http://www.gcdscwm.com/PhaseII/AnnualReport Annual Reports

Annual Reports / Informational Updates

[Home](#)

Projects
 • [Construction](#)
 • [Application](#)
 • [Board of Det](#)
 • [Intercounty](#)

Assessment

Our Water Program (NPDES II)

Design Standards & Forms

Maps

Drain Code

Contact Us

Through the Clean Water Act, the Environmental Protection Agency (EPA) established the Phase II regulations in 1999. The NPDES Phase II requires permit coverage for storm water discharges from small Ms4s in urbanized areas and construction activities that disturb between 1 and 5 acres of land. Within Michigan the program is managed by the Michigan Department of Environmental Quality (MDEQ). Under the MDEQ, Genesee County and the communities that have an urbanized area, have applied for and received permits called certificate of coverage. One of the requirements of this permit is submitting an annual report, due November 1 of each year.

Annual report for [November 1, 2003 through October 31, 2004](#)
[November 1, 2004 through October 31, 2005](#)
[November 1, 2005 through October 31, 2006](#)
[November 1, 2006 through October 31, 2007](#)
[November 1, 2007 through October 31, 2008](#) [Appendix A-1](#)
[November 1, 2008 through October 31, 2009](#) [Appendix](#)
[November 1, 2009 through October 31, 2010](#) [Appendix A-C](#)
[November 1, 2010 through October 31, 2011](#) [Appendix](#)
[November 1, 2011 through October 31, 2012](#) [Appendix A](#)
[November 1, 2012 through October 31, 2013](#) [Appendix A](#)
[November 1, 2013 through October 31, 2014](#) [Appendix A](#) [Public Ed](#)
[November 1, 2014 through October 31, 2015](#) [Appendix A](#)

[Municipal Questionnaire 2012](#) [Agency Questionnaire 2012](#)
[Municipal Questionnaire 2013](#) [Agency Questionnaire 2013](#)
[Municipal Questionnaire 2014](#) [Agency Questionnaire 2014](#)
[Municipal Questionnaire 2015](#) [Agency Questionnaire 2015](#)

What is an Ms4? An Ms4 is a drainage system (including roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels) that is owned by a government agency and designated or used for collecting storm water.

What is an Urbanized Area? The Environmental Protection Agency defines Urbanized Areas as " a land area comprising one or more places - central place(s) - and the adjacent densely settled surrounding area - urban fringe - that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile".

Old 2000' [Urbanized Area Map](#) (Shaded Area)
 New2010' [Urbanized Area Map](#) (Shaded Area Plus Hatched Area)- link redirects you to MDEQ website

Flint River Paddlers » The x flintriver.org/blog/wp-con... Welcome to Genesee Cou... HHW & Electronic Waste x

gcmpc.org/hhw-electronic-waste-collection-notification-system/

Documents & Public Notices

GCMPC
GENESEE COUNTY METROPOLITAN
PLANNING COMMISSION

Improving Communities/Housing Environmental Transportation

Documents & Public Notices

SITE MAP

- Recycling Education
- Solid Waste

CONTACT OUR STAFF

OUR STAFF

QUICK LINKS

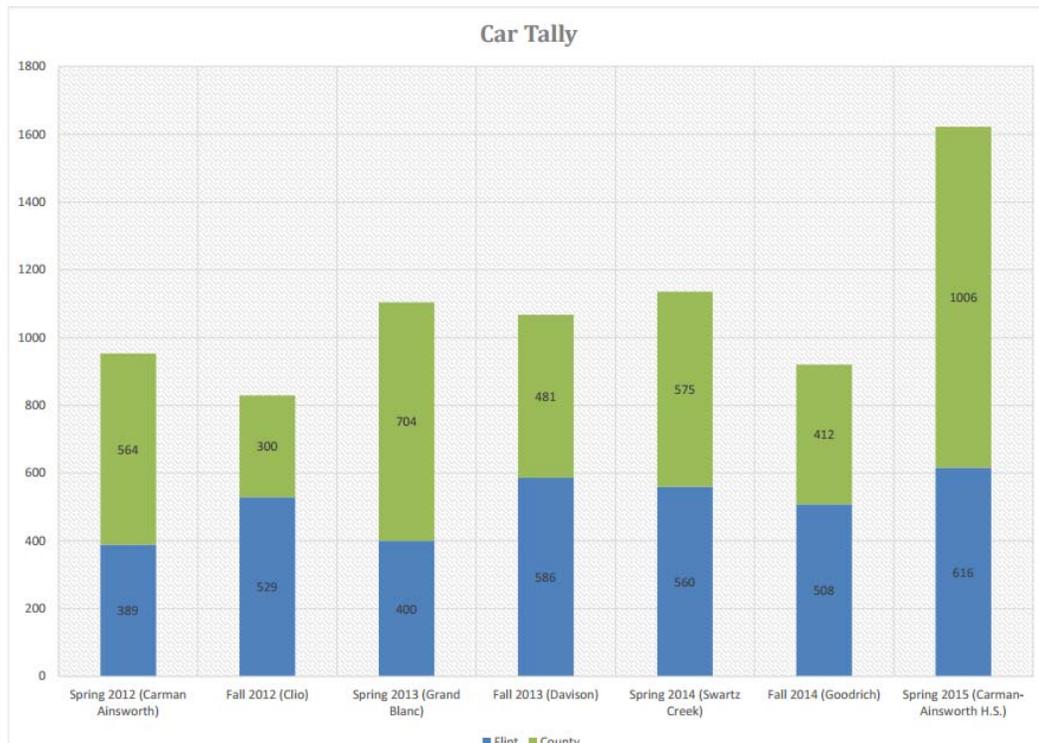
- CURBSIDE PROGRAMS**
- DROP OFF CENTER DIRECTORY**
- SOLID WASTE MANAGEMENT**

HHW & ELECTRONIC WASTE COLLECTION TOTALS

The next Household Hazardous Waste and Electronic Waste Collection Event will be October 17, 2015 from 10 a.m. until 2 p.m. at: Water Service Center 3310 E. Court St. Flint, MI 48506 & Former Showcase Cinema East 5205 E. Court St. Burton, MI 48509.

(Click the picture for larger display)

2015_StudentSummi...pdf Show all downloads...



2014 HOUSEHOLD HAZARDOUS WASTE COLLECTION



2,055

Participants at HHW Events in 2014



147,030 lbs.

Household Hazardous Waste diverted from landfills



60,507 lbs.

Electronic Waste diverted from landfills in 2014



1001

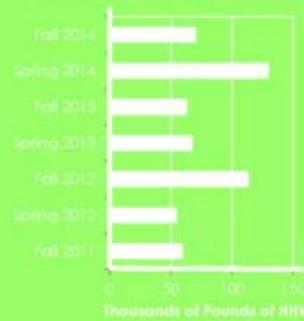
Tires collected



Event Supporters:

City of Clio, City of Davison, City of Flint, City of Grand Blanc, City of Swartz Creek, Atlas Twp, Davison Twp, Fenton Twp, Flint Twp, Gaines Twp, Grand Blanc Twp, Montrose Twp, Mundy Twp, Richfield Twp, and Village of Goodrich

Recent Event Totals



"...Enhancing the quality of life in Genesee County..."

www.gcmprc.org



Additional Event Partners: Swartz Creek Community Schools, Goodrich Community Schools, General Motors Environmental Staff in Flint & Boy Scouts of Grand Blanc Troup 238.

How to sign up for GCMPC's Household Hazardous Waste Event Notifications:



To receive messages via text, text @hhwevent to (810) 356-6280. You can opt-out of messages at anytime by replying, 'unsubscribe @hhwevent'.



Enter this number
Text this message

*Standard text message rates apply.

Or to receive messages via email, send an email to hhwevent@mail.remind.com. To unsubscribe, reply with 'unsubscribe' in the subject line.



What is remind and why is it safe?

Remind is a one-way text messaging and email system. With Remind, all personal information remains completely confidential. GCMPC will never see your phone number.

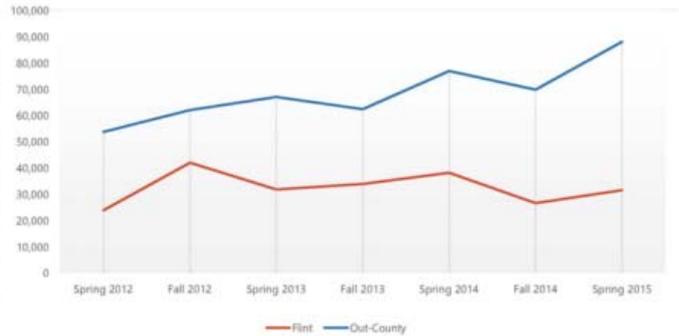
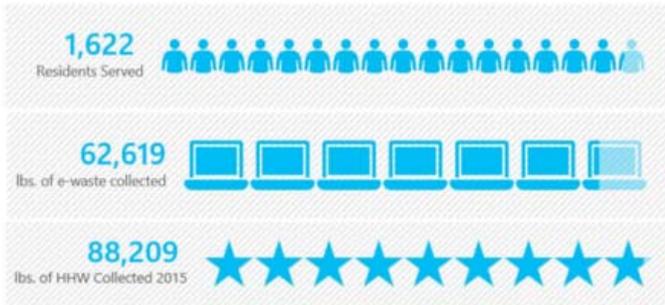
Questions? Call (810) 762-7744 OR visit www.gcmpc.org



2015 HHW REPORT

GENESEE COUNTY METROPOLITAN PLANNING COMMISSION

TOTALS IN POUNDS BY EVENT



TOTAL HHW COLLECTED OVER THE PAST 3 YEARS

481,000 lbs.

EVENT PARTNERS

City of Clio, City of Davison, City of Flint, City of Grand Blanc, City of Linden, City of Swartz Creek, Atlas Township, Davison Township, Flint Township, Grand Blanc Township, Montrose Township, Mt. Morris Township, Mundy Township, Richfield Township, Village of Goodrich, and Carman-Ainsworth Community Schools.

Household Hazardous Waste & Electronic Waste Collection Day!

Saturday, October 17, 2015
10:00 a.m. - 2:00 p.m.

Genesee County Recycle Hotline: (810) 762-7744
Recycle@co.genesee.mi.us
Keep Genesee County Beautiful: (810) 767-9696

www.gcmpc.org

Coordinated by the Household Hazardous Waste Consortium of Genesee County including the Genesee County Metropolitan Planning Commission, City of Clio, Genesee County Sheriff's Department, Bay Schools of Grand Blanc, Royal 21st Street Credit Union and Keep Genesee County Beautiful.

Location 1: Davison Rd, Genesee Rd, Belknap Rd, E Court St

Emergency Showcase: Cinema East, 6205 E. Court St., Hastings, MI 48033

Location 2: E Court St, S. Dent Hwy, S. Ainsworth Ave

Flint East - Water Service Center: 1310 E. Court St, Flint, MI 48506

Allowed: Household Pesticides, Herbicides, Fertilizers, Fluorescent Light Bulbs, Batteries, Gasoline, Aerosol Cans, Antifreeze, Mercury, Used Oil, Oil-Based Paint, Prescriptions, Paint Thinners, Tires - up to 7 (off rim), Televisions, Cell Phones, Computer Monitors, Laptops & Notebooks, Printers & Copiers, DVD & VCR Players, Fax Machines, Stereo Equipment.

Not Allowed: Commercial Waste, Explosive Material, Industrial Waste, Medical Waste, Radioactive Material.

Event Partners: City of Burton, City of Clio, City of Davison, City of Flint, City of Grand Blanc, City of Linden, City of Swartz Creek, Atlas Twp, Davison Twp, Flint Twp, Genesee Twp, Grand Blanc Twp, Montrose Twp, Mt. Morris Twp, Mundy Twp, Richfield Twp, and Village of Goodrich.

Community E-Waste Collection

Friday, 4/24
9 AM – 3 PM
Saturday, 4/25
9 AM – 2 PM

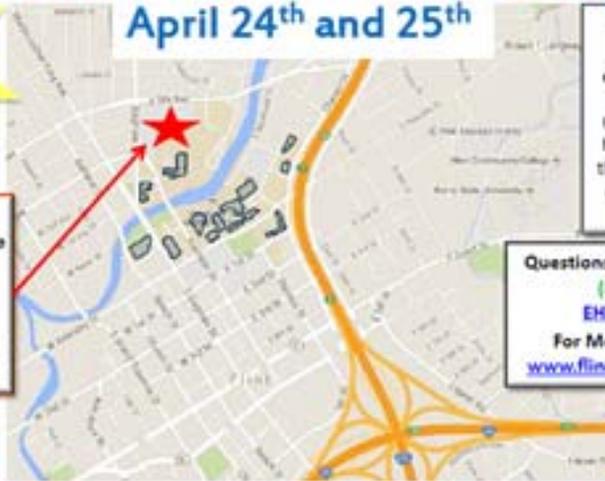
April 24th and 25th

What is "E-Waste"?

E-waste is electronic equipment that has reached the end of its useful life. Untreated e-Waste can have hazardous materials in them that if not properly processed can have adverse effects on the environment.

BRING YOUR recyclable e-waste to the William S. White Parking Lot located on the southeast corner East 5th Avenue and Saginaw Street. Staff and volunteers will help you unload your materials

Questions? Contact UM-Flint's EHS
(810) 766-6763 or
EHS@list.umflint.edu
For More information visit
www.flint.michigan.poweron.com



Materials Accepted

Laptops & Monitors
Desktop CPUs
Keyboards & Mice
Scanners & Copiers
TVs, VCRs, DVDs,
Speakers, Stereos, Radios

Cell phones & Pagers
PDAs & Smartphones
Printers & Fax Machines
Camcorders & Cameras
Microwaves

Materials Not Accepted

Hazardous Materials
Batteries not integral to
Computer Systems
Cardboard & Paper
Contaminated
Equipment of any type

Cracked or Broken CRT
Screens
Smoke Detectors
Household Appliances
Hairdryers
Styrofoam
Light Bulbs

Household Hazardous Waste & Electronic Waste Collection Day!

Saturday, May 2, 2015
10:00 a.m. - 2:00 p.m.



Carman-Ainsworth High School
1300 N. Linden Rd.
Flint, MI 48532



Genesee County Recycle Hotline: (810) 762-7744
Recycle@co.genesee.mi.us
Keep Genesee County Beautiful: (810) 767-9696

www.gcmopc.org

Coordinated by the Household Hazardous Waste Consortium of Genesee County including the Genesee County Metropolitan Planning Commission, City of Flint, Genesee County Sheriff's Department, Boy Scouts of Grand Blanc Troop 238 and Keep Genesee County Beautiful.



Flint East - Water Service Center
3310 East Court St.
Flint, MI 48506

Allowed:
Household Pesticides,
Herbicides, Fertilizers,
Fluorescent Light Bulbs,
Batteries, Gasoline,
Aerosol Cans,
Antifreeze, Mercury,
Used Oil,
Oil-Based Paint,
Prescriptions,
Paint Thinners,
Tires - up to 7 (off rim),
Televisions, Cell Phones,
Computer Monitors,
Laptops & Notebooks,
Printers & Copiers,
DVD & VCR Players,
Fax Machines,
Stereo Equipment.

Not Allowed:
Commercial Waste,
Explosive Material,
Industrial Waste,
Latex Paint,
Medical Waste,
Radioactive Material.

Event Partners:

City of Clio, City of Davison, City of Grand Blanc, City of Linden, City of Swartz Creek, Atlas Twp, Davison Twp, Flint Twp, Grand Blanc Twp, Montrose Twp, Mt. Morris Twp, Mundy Twp, Richfield Twp, and Village of Goodrich.



Household Hazardous Waste & Electronic Waste Collection Day!

Saturday, September 27, 2014
10:00 a.m. - 2:00 p.m.



Genesee County Recycle Hotline: (810) 762-7744
 Recycle@co.genesee.mi.us
 Keep Genesee County Beautiful: (810) 767-9696

www.gcmnpc.org

Coordinated by the Household Hazardous Waste Consortium of Genesee County including the Genesee County Metropolitan Planning Commission, General Motors Environmental Staff in Flint, City of Flint, Advanced Technology Recycling, Complienew, Genesee County Sheriff's Department, Boy Scouts of Grand Blanc Troop 238 and Keep Genesee County Beautiful. Trash services provided by Emterra Environmental, USA and Burnash Wrecking.

Goodrich Middle School
 7500 S. Gale Road
 Goodrich, MI 48438



Flint East - Water Service Center
 3310 East Court St.
 Flint, MI 48506

This event is dedicated in memory of John Moldovan to honor the many years of hard work and commitment that he gave volunteering at the Genesee County Household Hazardous Waste events.

Event Partners:

City of Clio, City of Davison, City of Flint, City of Grand Blanc, City of Swartz Creek, Atlas Twp, Davison Twp, Fenton Twp, Flint Twp, Games Twp, Grand Blanc Twp, Montrose Twp, Monday Twp, Richfield Twp, and Village of Goodrich.



Allowed:
 Household Pesticides,
 Herbicides, Fertilizers,
 Fluorescent Light Bulbs,
 Batteries, Gasoline,
 Aerosol Cans,
 Antifreeze, Mercury,
 Used Oil,
 Oil-Based Paint,
 Old Prescriptions,
 Paint Thinners,
 Tires - up to 7 (off rim),
 Televisions, Cell Phones,
 Computer Monitors,
 Laptops & Notebooks,
 Printers & Copiers,
 DVD & VCR Players,
 Fax Machines,
 Stereo Equipment.

Not Allowed:
 Commercial Waste,
 Explosive Material,
 Industrial Waste,
 Latex Paint,
 Medical Waste,
 Radioactive Material.

Flint River Paddlers - The x | flintriver.org/blog/wp-con... x | Welcome to Genesee Cou... x | Water Quality Manage... x

www.gchd.us/new_other_services/water_quality_management.php

Apps | Free Hotmail | Imported From IE | GCRC plan maps | Weather for past 3 ... | Percipitation- Past | MDOT Right-of-Wa... | PictomotyCONNEC...



Genesee County Health Department

Better Life Through Better Health

HOME | CLINIC SERVICES | ONLINE SERVICES | OTHER SERVICES | HEALTH INFO | ABOUT US

EMERGENCY PREPAREDNESS | ENVIRONMENTAL HEALTH | GENERAL PROGRAMS | MATERNAL/INFANT SERVICES | COMMUNITY PARTNERSHIPS | COMMUNITY RESOURCES | LIST OF ALL PROGRAMS AND SERVICES

Home » Other Services » Environmental Health Services » Water Quality Management

Water Quality Management

E-mail This | Print Page

Aquifer Protection and Groundwater Mapping

The Department performs cross-connection surveys at public (non-community) water well systems, provides initial response to oil and chemical spills, and distributes informational brochures.

Two areas in Genesee County have water well construction restrictions:

- Affected Area Near Richfield Landfill, Richfield Township

[Map of Richfield Landfill, Affected Area of MI, Morris Road](#)

[Health Officer's Comments Regarding Contaminated Aquifer by Richfield Landfill](#)

- Affected Area Near Forest Waste Site, Forest Township

2015-StudentSummi...pdf | Show all downloads...

Flint River Paddlers - The x | flintriver.org/blog/wp-con... x | Welcome to Genesee Cou... x | Environmental Health Ser... x

www.gchd.us/other_services/environmental_health.php

Apps | Free Hotmail | Imported From IE | GCRC plan maps | Weather for past 3 ... | Percipitation- Past | MDOT Right-of-Wa... | PictomotyCONNEC...

FOOD SERVICE SANITATION | LEAD PROTECTION | RECREATIONAL ENVIRONMENTS | SHELTER MANAGEMENT | ON-SITE SEWAGE DISPOSAL | WATER QUALITY MANAGEMENT | PUBLIC WATER SYSTEMS | FEE INFORMATION | FEE SCHEDULE | EH REGULATIONS

Environmental Health Services

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Program Services

- Body Art**
[Licensing, Plan Review & Inspections]
- Food Service Sanitation**
[Establishment Inspection Reports, Food Protection Manager Certification, Plan Review, Temporary Food License, Backbumer Newsletter, Excellence in Sanitation Award Winners]
- Lead Protection**
[Child Lead Poisoning Reduction, Lead Hazard Removal, Public Education of Lead Control Measures]
- Recreational Environments**
[Bathing Beaches, Campgrounds, Watershed]
- Shelter Management**
[Adult/Child Care Facilities]
- Waste Management**
[Onsite Sewage Disposal]
- Water Quality Management**
[Aquifer Protection and Groundwater Mapping, Private Wells]
- Public Water Systems**
[Type I, Type II, Type III Systems Monitoring and Surveillance]

Fee Information

- [Food Service, Body Art, Water Well, Septic System, Plats, Adult/Child Care Inspection, Miscellaneous Fees \(Water Testing, Tobacco License, etc.\)](#)
- [Genesee County Environmental Health Regulations](#)

www.gchd.us/other_services/waste_management.php | re information on any Environmental Health programs or services, please call (810) 257-3603.

2015-StudentSummi...pdf | Show all downloads...

Flint River Paddlers « The x flintriver.org/blog/wp-con... Welcome to Genesee Cou... x Recreational Environment x

www.gchd.us/other_services/recreational_environments.php

Apps Free Hotmail Imported From IE GCRC plan maps Weather for past 3 ... Percipitation- Past MDOT Right-of-Wa... PictomotyCONNEC...

For more information, call (810) 257-3603.

Bathing Beaches

Bathing beaches are monitored and regulated by the Division through the Genesee County Bathing Beach Regulation on Safety, Rescue, and Communication Equipment. In addition, weekly sanitary surveys and water quality monitoring is done at 16 different bathing beach locations throughout the summer season

[2015 Beach test results](#)

[2014 Beach test results](#)

[2013 Beach test results](#)

[2012 Beach test results](#)

[2011 Beach test results](#)

[2010 Beach test results](#)

[2009 Beach test results](#)

For more information, call (810) 257-3603.

Campgrounds

Campgrounds are licensed and regulated under the Public Health Code. As part of licensure all campgrounds receive, at a minimum, an annual inspection with regard to water supply, waste disposal, general environmental conditions and safety concerns.

For more information, call (810) 257-3603.

2015-StudentSummi...pdf Show all downloads...

Michigan Department of Environmental Quality – Water Resources Division
STORMWATER DISCHARGE PERMIT APPLICATION

Table 2: Public Education Program Best Management Practices (BMPs)

Delivery Mechanism / Activity	Public Education Topics	Target Audience(s)	Key Message	Standard of Effectiveness (recommended)	Mechanism Specific Audience (recommended)	Mechanism Specific Message(s) (recommended)	Milestone(s) (recommended)	Timetable / Timeline		Responsible Party	Cost (recommended)	Evaluation
								Development	Implementation			
Road/stream crossing and watershed signs	A B	Public, Residents, Visitors	Educate on specific watershed. Watersheds the public can affect.	Get 50% of people to know the stream names and that they are in a watershed	Drivers and passengers, visitors going by specific sign	Entering a specific watershed; and watershed website	Increase in number of people recognizing the watershed and waterbodies they live in or passing by. Awareness leads to stewardship	Signs have been installed beginning in 2008	Will continue to install until reached 200 sites, approx. 400 to 600 signs, then maintain existing signs. Proposed plan to expand with signs in Parks	SWM Road Commission	\$3,000/yr.	Measure the number of residents that went to the website based on the information on the sign; social survey response
Watershed Maps	A B C D E F	School Children, Teachers	Definition of a watershed - Educate on Specific watershed the public can affect, purpose for protecting the watershed. Effects of human activities on waterways, illicit discharge, what is it? Promoting illicit discharge reporting.	Get 50% of students to know what a watershed is and which one they live in.	Teachers/classrooms	What is a specific watershed; and watershed website	Have maps posted in as many classrooms as possible and discussed in class. Also designed to be used as handouts	Printed 2014	Distribute to appropriate teachers for class use. Reprint and send out upon request as needed. Available on website for download and printing	SWM	Development - \$780.00 Printing - \$3,000 Promotion - \$910.00/yr Distribution/workshop - \$5,200.00/per session	Number of teachers incorporating lessons into curriculum.
Benthic Monitoring Program	A B	Residents, School Children	Ways that individuals can affect the watershed through their activities. What is the actual condition of our waters?	Maintain current level of sites monitored or expand that number. Currently 18	Interested volunteers. Produce results for public on website. (general health of Our Water)	Your efforts help us to better understand the watershed.	Consistent trends begin to paint a clearer picture of different reaches.	Program has been running in Flint River Watershed since 1999. Shiawassee Watershed added in 2008	Twice a year	SWM/FRWC to administer program	\$5,150/yr	No. of volunteers and sites surveyed. Use information to aid decision-making.
Project Green WQ monitoring Program	A B (Depending on who does the Mentoring, the following topics can be covered C, D, E, F, G)	School Children, Teachers Groups	Ways that individuals can affect the watershed through their activities. What is the actual condition of our waters? How pollution occurs	Maintain current level of participation or increase number of classrooms.	School children, teachers	Our actions have impacts on local waterways; how to act to better protect adjacent waterbodies.	Increase demand for the program	Program has been running since 1991. Since 2005 it has been under the FRWC administration.	Yearly	SWM/FRWC to administer program	\$7,500/yr for sampling + private funds Up to \$5,000 for analysis	#participants in schools/sites survey. Information to aid decision-making. Increased public awareness - social survey.

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STORMWATER DISCHARGE PERMIT APPLICATION

Delivery Mechanism / Activity	Public Education Topics	Target Audience(s)	Key Message	Standard of Effectiveness (recommended)	Mechanism Specific Audience (recommended)	Mechanism Specific Message(s) (recommended)	Milestone(s) (recommended)	Timetable / Timeline		Responsible Party	Cost (recommended)	Evaluation
								Development	Implementation			
Display Booth for events	A B C D E F G H J	Public, public employees	Definition of a watershed - Ways those individuals can affect the watershed through their activities.	Residents adopt the recommended behavior changes.	Home owners, various associations and businesses	Same as "Seven Simple Steps"	Display at 6+functions a year	Developed	Ongoing training of volunteers to man booth. attendance of booth at several events throughout year # of people spoken to	SWM/Cons Dist	\$9,500/yr	social survey Number of public spoken to. Number of events attended
Website: http://cleargene.seewater.org/	A, B, C D, E, F G, H, I J, K	Public	Have messages on most topics.	Residents adopt the recommended behavior changes.	Permittees, home owners, associations, businesses	Same as key message	Number of hits per year stay the same or increase.	Developed	Expand site as new material becomes available. Update as needed	SWM	100 hrs a year. Plus periodic costs for updates.	Number of hits on the site Number of times brochure is downloaded.
Conservation District presentation to school districts with Enviroscapes	A, B, C, D (Depending on who does the training, the following topics can be covered E, F, G, I)	School Children, Teachers	What is a watershed - Importance of a riparian corridor, effects of human activities on waterways and wetlands.	Make presentation 5000 students/ teachers per year	School children	Our actions have impacts on local waterways; how to act to better protect adjacent waterbodies.	Number of presentations per year.	Developed	Schedule presentations annually to reach at least 5000 students/year	SWM/Conservation District	\$16,000/yr	- Number of presentations - Answer questions on social survey - Improvement in other metrics
Catch basin stenciling program that includes door to door delivery of brochures	A B	Residents, schools, owners and employees of local businesses and industries, boy/girl scouts, volunteers groups	- Storm drains discharge to water bodies - Storm water discharged from separate storm sewer systems does not receive treatment prior to discharge - Impacts of storm water pollutants in the watershed - Knowledge of separate storm water drainage system in your front ditch and that it flows to a river	Get 10% of the people in the watershed where the catch basins were labeled to understand where there storm water goes and what the impacts are.	Homeowners; parties distributing brochures and stenciling	Same as key message	Stencil 1000 catch basins/yr - with residents receiving a brochure when stenciling is in their neighborhood	Program began in 2005; materials have been developed	Continue to deliver program plan training and brochure. Repurchase supplies, brochure as needed. Evaluate and modify message as needed when reprinting doorhangers	FRWC/CD & SWM maintenance dept.	\$5,300/yr.	Phone or mail survey of residents' awareness of the watershed; number of residents that volunteer to stencil storm drains.

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Michigan Department of Environmental Quality – Water Resources Division
STORMWATER DISCHARGE PERMIT APPLICATION

Delivery Mechanism / Activity	Public Education Topics	Target Audience(s)	Key Message	Standard of Effectiveness (recommended)	Mechanism Specific Audience (recommended)	Mechanism Specific Message(s) (recommended)	Milestone(s) (recommended)	Timetable / Timeline		Responsible Party	Cost (recommended)	Evaluation
								Development	Implementation			
Distribute brochures promoting the "seven simple steps"	A B C D E F G	Public and public employees	Actions everyone can take to improve water quality. Effects of residential waste on our waterbodies.	Residents adopt the recommended behavior changes.	All residents	Specific to each of the seven steps: Car Care, proper fertilizing, pet waste, water conservation, HHW, storm drains, earth friendly landscaping	Distribute 2500+ /yr	"Seven Simple Steps" brochure has been developed.	Continue to distribute "seven simple steps" through permittees/ events. Evaluate message, amend as needed, reprint as needed	SWM/ Permittees	Reprinting costs	- social survey - Other # of brochures distributed to public
Speakers	B (Depending on who does the training, the following topics can be covered - A, C, D, E, F, G, H, I, J)	Home owner associations, non-profit groups, rotary clubs ...	What is a watershed - Actions everyone can take to improve water quality, effects of residential waste on our waterbodies; and other specific messages (7 simple steps) The talk is broken into segments by topic so each talk can be customized	Residents adopt the recommended behavior changes.	Home owners, various associations and businesses	Same as "Seven Simple Steps"	Address 10+ groups a year	Developed	Train new volunteers to give presentations as needed	FRWC	\$2,040/yr	- social survey - Other Number of presentation given, number of attendees.
Articles on seven measures/ Newsletters on Ph II program	A B C D E F G	Public, non-profit groups, public employees	What is a watershed - Actions everyone can take to improve water quality, effects of residential waste on our waterbodies. The Ph II program. Implementation efforts	Residents adopt the recommended behavior changes. PhII permittees educated on program	Homeowners, businesses, industries, Ph II permittees, Non Ph II Municipalities.	Same as key message	Increase sense of community stewardship and actions taken to protect waterways.	Some have been developed; new articles will be to address timely issues.	Submit articles to group, newsletters & newspaper for print	SWM	None	-Articles get published - Responses to the pending social survey
Advertise and distribute flyers about the Household Hazardous Waste Collection Day	G	Public, public employees, businesses	Identification of HHW (household hazardous waste), disposal locations and availability	Increase the number of residents dropping off HHW at events by 10%	Homeowners, businesses (painters, landscapers, etc.)	How and where to dispose of oil-based paint, pesticides, herbicides, etc.	Increase awareness of household hazardous waste and where and when it can be disposed	Develop advertisements/flyers for distribution twice a year	Distribution twice a year of advertisements /flyers developoend by HHW group	All Permittees/ HHW Committee	Cost of advertisement/ flyers, staff time, and hazardous waste disposal costs	Track the number of residents and the amount of waste collected during HHW Collection.

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Michigan Department of Environmental Quality – Water Resources Division
STORMWATER DISCHARGE PERMIT APPLICATION

Delivery Mechanism / Activity	Public Education Topics	Target Audience(s)	Key Message	Standard of Effectiveness (recommended)	Mechanism Specific Audience (recommended)	Mechanism Specific Message(s) (recommended)	Milestone(s) (recommended)	Timetable / Timeline		Responsible Party	Cost (recommended)	Evaluation
								Development	Implementation			
Educational materials for Homeowners With Septic Systems to be Given at "Time of Sale". Main Topic: Septic System Maintenance.	C G H	Homeowners, public employees, realtors, haulers, inspectors	Proper septic system care and maintenance, how to recognize a system failure, impact of failure, where to go for assistance.	Educate septic system owners on proper care and maintenance, recognizing a failure and correcting	Septic system owners	How to properly maintain your septic system	Educate septic system owners on the proper care and maintenance of their systems and how to recognize failing systems.	Information has been developed. Delivery mechanism is being worked out.	Printing materials beginning in 2009 and distribute through communities & real estate agents.	SWM and TBD	300 - 500 hours "printing - \$3000.00 Mail/distribution - \$1500.00 (estimated until 2013)	Social survey
Canoe trips	A B J	Public, landowners	Purpose for protecting the watershed, ways those individuals can affect the watershed through their activities, improving water quality and habitat and benefits to all.	Realize an increase in the use of the riparian corridor and a corresponding increase of volunteering/ stewardship of the waterbodies	Any resident	People that use the waterbodies for recreation are going to want to protect the waterbodies	Increase in volunteerism	Already ongoing	Schedule events annually 4+/year.	SWM/FRWC	\$4,000/yr.	- The number on new people participating in each event. Participant comment
Presentation information about proper disposal of medications and personal care products on website	G	Public	Proper disposal of HHW, specifically medications and personal care products	Get 20% of those educated to utilize HHW program to properly dispose of in landfill	Public	Proper disposal of HHW, specifically medications and personal care products	Educate 10% public on program. Increase use of HHW program	Done	Information on WWS website	Water and Waste Services (WWS)	Staff time	Attendance and website hits
Information to riparian landowners on landscape improvements to protect waterways.	A B I J	Riparian landowners,	- Importance of riparian corridors - BMPs for riparian lands - Landscaping for water quality - Shoreline stabilization techniques - Native vegetation alternative	residential riparian landowners to learn how to better manage the land.	Lake and stream associations, riparian land owners	How to properly manage and dispose of grass, leaf and animal wastes; how to improve your property to better protect adjacent waterbodies.	Educate the number of riparian land owners in the knowledge of how to protect banks from erosion and water quality. Educate 25% by 2012 and All watersheds by 2014	Mailers and workshop literature developed and printed for distribution 2009	Information is passed out to public at events and available on website	SWM	Printing	Number of information packets given out.

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Michigan Department of Environmental Quality – Water Resources Division
STORMWATER DISCHARGE PERMIT APPLICATION

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								Development	Implementation			
Pub ed workshop on proper disposal of restaurant waste	K	Business owners	Proper disposal of kitchen waste	Get restaurant owners that have had attended workshop to properly dispose of restaurant waste	Business owners	Proper disposal of kitchen waste	Educate 20% restaurants on program	Program developed by WWS. Will add stormwater component to their program	Have workshops in permit cycle or distribute information brochure.	WWS	Staff time and TBD workshop costs	Attendance to workshop
What is Green Infrastructure workshop	I	Engineers, Developers	What is Green Infrastructure?, Why should we develop with Green Infrastructure?, how to design Green Infrastructure?	Get Developers to support GI	Engineers, Developers	Get Engineers educated on how to design for GI, Get Developers, to buy into green Infrastructure	Educate 75% Engineers, 25% Developers	2015	1 workshop before 2016	SWM	Cost of development/printing/workshop	Attendance to workshop, voluntary compliance to GI
Operation and maintenance 1/2 day workshop for municipalities, entities and their contractors (Good House Keeping)	B C D E F K	Public employees, contractors	Good housekeeping practices and their impact on water quality.	Adoption and recording of good housekeeping practices	PowerPt and manual	How to properly manage and maintain public infrastructure and related activities	Educate 50% by 2011 and 90% by 2015; Have maintenance crews adopt protocols on property by 2014	Training is developed	Complete. Schedule training as-needed.	SWM/Tetra Tech	\$6,000/ first yr. up to \$6000/ year	Pass MDEQ inspections
Good House Keeping training video	B C D E F K	Public employees, contractors	Good housekeeping practices and their impact on water quality.	Adoption and recording of good housekeeping practices	Attendance of training by video/ Internet	How to properly manage and maintain public infrastructure and related activities	Have maintenance crews/ B&G staff trained within 1 st year of hire or within permit cycle.	Training is developed. Transferring information to a video or internet format is in development	Produce Video/ internet training. Schedule training as-needed.	SWM/Tetra Tech	\$6,000/ first yr. up to \$6000/ year	Pass MDEQ inspections

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Event Name: Women 2 Women Expo

Date: 09/05/2014

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

TOTAL 159

Event Name: Women 2 Women Expo

Date: 09/06/2014

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	
Total 2014	176

Event Name: Bikes on the Bricks

Date: 9/13/2014

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	1
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	1
2011 Total	247

FLINT CONTINUED . . . -

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Event Name: Applewood Harvest Festival

Date: 09/27/2014

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	
2011 Total	293

FLINT CONT. - ~~|||||~~ |||||

Event Name: DAVISON FARMERS MARKET

Date: 09/29/15

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 94

Information Booth: Data Collection

Event Name: Applewood Harvest Fest

Date: 09/26/15

Bay Port - 1
Bay County - 1
Bay City - 1
Lapeer - 1

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 481



Flint Cont. ~~|||||~~ |||||

Event Name: Home & GARDEN Show

Date: 3/28/15

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 193

M

Event Name: Home & Garden Show

Date: 3/29/15

CITIES	NUMBERS
Burton	
Clio	11
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	1
TOWNSHIPS	
Argentine	1
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	1
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 160

Information Booth: Data Collection



Event Name: FAMILY SCIENCE DAY
LONGWAY PLANETARIUM

Date: 06/06/2015

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 99

Event Name: BACK TO THE BRICKS

Date: 08/15/15

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 126

1,171
TOTAL

Event Name: The Crim-Genesee County Fair Date: August 24, 2013

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 297

OTHER CO. IN STATE
|||

~~|||||~~

Event Name: ~~The Crim~~ Genesee County Fair Date: August 2⁶, 201~~0~~5

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 141

Event Name: ~~Flint~~ GENESEE COUNTY FAIR Date: August 27, 2010 S

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 130

Event Name: ~~GENESEE COUNTY FAIR~~ GENESEE COUNTY FAIR Date: August 28, 2010⁸5

CITIES	NUMBERS
Burton	
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 190

Event Name: ~~Genesee County Fair~~ Genesee County Fair

Date: August 20⁹, 2010

CITIES	NUMBERS
Burton	1
Clio	
Davison	
Fenton	
Flint	
Flushing	
Grand Blanc	
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	1

Total 116

Event Name: ~~XXXXXXXXXX~~ *GENESEE COUNTY FAIR*

Date: August ³⁰ ~~29~~, 201~~0~~5

CITIES	NUMBERS
Burton	11
Clio	11
Davison	11
Fenton	
Flint	
Flushing	11
Grand Blanc	11
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	1
Fenton	
Flint	
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	11
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	
OTHER STATES	

Total 95



Youth enrolled in the Crim summer camp held in Max Brandon Park, participating in a local drain stenciling project.

Education and Outreach

In cooperation with the Genesee County Community Drain Commission and Genesee County Farm Bureau, the District has environmental education workshops* available for delivery to community groups & students, grades K-12 including:

- Storm Drain Stenciling**
- Water Cycle Relay Race**
- You Are The Farmer**
- Understanding Insects**
- The Incredible Journey**
- Freddy The Fish**
- Amazing Water**
- Foods Amazing Journey**

* All activities can be adapted to any grade level and are connected to the state standards. The duration of each activity may be adjusted from 20 minutes to 1 hour, and can be a stand alone or part of a series.

Contact us to schedule a workshop, event, or to tailor an education program to suit your needs.

Genesee Conservation District

1525 N. Elms Rd.

Flint, MI 48532

Ph: (810) 230-8766 ext. 110

Fax: (810) 230-8596

Email: jeffrey.johnson@macd.org

GCD Staff

Angela Warren,
Administrator
John Bauer, Soil
Conservation Technician
Brandon Whittaker,
Environmental Engineer
Jeffrey Johnson,
Education Coordinator
Brian Schorr, Soil
Conservation Technician

GCD Board of Directors

Nancy Szikszay,
Chairwoman
Darren Bagley, Vice-Chair
Jacky King, Treasurer
Erin Caudell, Director
Brad Hill, Director
Public Board meetings are held monthly on the second Wednesday at 6:00 p.m. in the USDA Service Center conference room

USDA-NRCS Staff

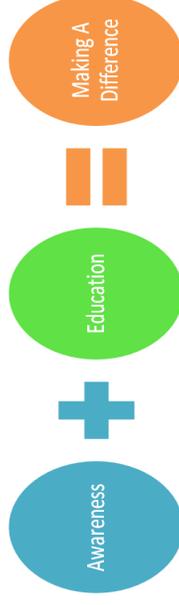
Joseph Woodruff, District Conservationist
Laura Jostock, Farm Bill Specialist

GCD Funding Partners

GCD funding is made possible through fundraising efforts and the generous support of: Ruth Mott Foundation, Anna Paulina Foundation, USDA Forest Service, Genesee County Community Drain Commission, Genesee County Farm Bureau, Michigan Department of Agriculture and Rural Development, Michigan Department of Natural Resources, USDA Natural Resource Conservation Service.

Genesee Conservation District, in compliance with the USDA, prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital status or family status.

Genesee Conservation District



Providing a full spectrum of high quality, hands on activities, experiments, and demonstrations available to all Genesee County students, citizens and community organizations.

Serving local natural resource needs in Genesee County since 1947

Community Support Initiative

This initiative is a 3 phase program. Designed along with a menu of activities to engage the youth of Genesee County, and motivate them to become active in their own community.

- **Awareness:** Youth will be informed on a few environmental issues facing Genesee County, such as surface water/stormwater pollution, and the need to conserve water and other natural resources.
- **Education:** Students will learn what they can do to make a difference in and around their own home/community, using conservation, observation, and renewal practices.
- **Making A Difference:** All participants K-12 will be given the opportunity to either become a “Little Deputy” (K-2nd), “District Deputy” (3rd-6th), or create a public service announcement (PSA) for radio (7th-9th) or television (10th-12th).

In cooperation with the Genesee County Drain Commission (GCDC), the Genesee Conservation District (GCD) will educate students about the **Seven Simple Steps to clean water.**

Let's make one thing
Perfectly Clear.

our water.
Genesee County Community Water Quality Consortium



Menu of Activities

Storm Drain Stenciling: This is a group activity for citizens of all ages. Participants will label storm drains in a selected area. The labels are meant to create awareness about the storm drains final destination. The labels also urge other citizens not to dump anything down the drains. Small and large groups are welcome.

Freddy The Fish is a hands on presentation/activity that will help students visualize the harmful effects that stormwater pollution can have on our lakes, rivers and the animals that use it as habitat.

Discover Water Game: This hands on activity will teach students about the different states of water as it moves through the water cycle. This is meant to show that the same water has been recycled for millions of years and how important it is to conserve and care for water now.

Water Fun For You: Word puzzles, picture puzzles and creative assignments, designed to engage and educate students about the diverse number of living things that use water and the necessity for humans to use it wisely.

Environment Council Game: Students are given the opportunity to act as the governing body of a city, neighborhood, farm and national park. They are given real life scenarios and asked to make the decisions that will have the best impact on the environment. They begin with a short review of some environmental practices, then move on to the advanced decision making duties of the governing body. They are awarded points for logical practices.

Foods Amazing Journey: This interactive activity will help students understand and learn how food goes from the field or farm to the store. Students will also learn about the economics of farming, and the different occupations involved in getting food from the farm to the store.

You Are The Farmer: This activity will help students realize the importance of math in “real world” applications, while learning that farming is a business requiring many different math computations.

Rain On: A hands on experiment that gives a up close visual display of the water cycle. Students will be able to see evaporation, condensation, and precipitation, key elements in the water cycle and learn its importance.

Usable Water: A demonstration that will educate students on the locations of water on earth, and emphasize the need for water conservation. This activity will show the amount of water available for use and consumption by people and animals.

Amazing Water: A-maze-ing water is an interactive game where students are educated on urban runoff, stormwater pollution, nonpoint source pollution, storm drains and contaminants. Students take turns becoming water and going through a maze of “storm drains” on their way to the lake.

Storm Water Savvy: This is a survey to pique the interest of the students taking it, on the subject of prevention. The survey will give them a score based on what they are or are not doing to help prevent stormwater pollution. Used with the “[Seven Simple Steps](#)” to clean water.

Understanding Insects as Friends or Foes: This engaging presentation will assist students in learning how to identify certain insects and the impact they have on farming. They will learn why there are “good” and “bad” insects, associated with farms. Students will also learn a few of the methods farmers use to control the bad insects.

Virtual Wastewater Treatment Plant Tour : This is a virtual treatment plant that will demonstrate to students the key concepts of water treatment. Students will get an inside look at some of the physical, chemical and biological processes that go on during water treatment at a real water management plant.

The Flint River Watershe x
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FRWC
400 N. Saginaw Street
Suite 233
Flint, MI 48502
Ph: 810.767.6490
Fax: 810.424.5484
info@FlintRiver.org

MEMBERSHIP MATTERS

Become a Member or Renew by clicking on the "Donate Now" button!



Chapters of the FRWC:

- Friends of the Flint River Trail
- Lapeer Chapter
- Kearsley Creek Chapter
- Flint River Paddlers

Flint River GREEN Student Summit this Friday: "Our future is in good hands."

BY FLINTRIVER, ON MAY 13TH, 2015%



"Our future is in good hands."

More than 300 area middle and high school students will gather to share their scientific findings and recommendations on water quality at the Flint River GREEN Student Summit at Kettering University on Friday.

Flint, MI, May 12, 2015 – During the last school year, students and their teachers from 17 school districts in Genesee, Lapeer, and Saginaw counties collaborated with mentors from environmental professions to perform water quality tests* on our Flint River Watershed's rivers and streams. They braved the elements, pulled on waders, and hopped in the river to collect water and macroinvertebrate samples. Using scientific methods to test local streams and rivers, area students evaluate the health of their stream, research the reason(s) their stream scored the way that it did, and identify

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First Name:

Last Name:

City:

State:

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CHECK OUT FRWC'S FLIC PHOTOS!

The Flint River Watershe x
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GREEN mentors offer assistance in both the classroom and at the testing site. Working closely with teachers, mentors speak with students about GREEN and introduce them to the tests they will perform. Mentors share knowledge about the test, the proper way to perform the tests, safety procedures, and how to interpret results. These volunteers offer insight as to what may cause a result to be high or low, as well as help students develop action plans.



Each year, the FRWC surveys students about their perceptions of the watershed before and after participation in Flint River GREEN, and asks students if they believe they can have an impact on the health and vitality of their local river. Last year, just 34% of the students entered this program believing that the Flint River is clean and healthy and 64% said they believe they can make a difference.

After participating in this science based program, more than 80% of students emerged from the experience knowing that the Flint River is healthy and 90% know they can make a difference in the health of our Flint River...and want to help.

"The dramatic upward shift in those numbers and attitudes always inspires me, especially knowing that these young people now feel empowered to make a difference in their community, working to keep our watershed clean and healthy," said Fedewa. "Our future is in good hands."

Flint River GREEN is generously supported by the Genesee County Drain Commission's Our Water program and General Motors. The program is run in partnership with the Genesee and Lapeer County Intermediate School Districts, Earth Force, Michigan State University Extension and 4H, Kettering University, and the City of Flint.

« The Flint River Watershe x

flinriver.org/blog/?s=GREEN

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*Water quality test results for GREEN 2014 Class can be found on page 8 of the **2104 Flint River GREEN Annual Report** at <http://flinriver.org/blog/publications>. Final result for 2015 will be released later in the year once all data are tabulated.

Flint River Watershed Coalition: Partnering to Protect, Preserve, and Improve the Flint River Watershed. The Flint River Watershed Coalition is an organization representing individuals, businesses, community organizations, and local units of government sharing a vision of a healthier Flint River Watershed. We envision a day when the future of our drinking water is secure and the integrity of the Flint River is protected. We believe that all people should have access to the river for recreation, swimming, and fishing as well as the economic value it provides to our communities. To learn more about the Flint River Watershed Coalition and Flint River GREEN, go to www.FlintRiver.org

The Federal Clean Water Act requires select municipalities identified by the EPA to obtain stormwater permits under the National Pollution Discharge Elimination System (NPDES) permit program, including many in Genesee County that came together under the Genesee County Community Water Quality Consortium (GCCWQC). Led by the Genesee County Drain Commissioners Office, GCCWQC is a collection of municipalities, school districts, county organizations, and non-profits charged with overseeing the "Our Water" public education activities required by Phase II Stormwater regulations of the NPDES permit program. They bring awareness, education, and promote stewardship on the ways to prevent stormwater pollution and keep our waters clean. Flint River GREEN is a public education program administered by the Flint River Watershed Coalition and generously supported by the Genesee County Drain Commissioner's Office. It serves to support the Genesee County Community Water Quality Consortium compliance with the Phase II Storm Water Regulations of their NPDES permit. You can read more about the "Our Waters" program at: www.cleargeneseewater.org

COMMENTS ARE CLOSED VOICE OF THE RIVER BLOG

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- [Flint River GREEN website](#)
- [FR GREEN notebook](#)
- [BOD](#)
- [Dissolved Oxygen](#)
- [Fecal Coliform](#)
- [Nitrates](#)
- [pH](#)
- [Phosphorous](#)
- [Temperature](#)
- [Total Solids](#)
- [Turbidity](#)
- [ELUCID Tutorial: PDF Version, ELUCID Tutorial: Word Document](#)
- [Data Sheet](#)
- [Latitude/Longitude Info Sheet](#)

To view the yearly reports, click on the links below: [2009 Annual Flint River GREEN Report](#) [2010 Annual Flint River GREEN Report](#) [2012 Annual Flint River GREEN Report](#) [2013 Annual Report – Flint River GREEN Report](#)



Students attending the Green Student Summit at Mott Community College

Thank you to our Flint River GREEN Sponsors!





Flint River GREEN Student Summit 2015

May 15th, 2015
Kettering University



History of GREEN and the FRWC

The Global Rivers Environmental Education Network—GREEN—provides youth the educational opportunities to understand, improve and sustain the water resources in their communities. GREEN empowers young people to learn more about water quality within their watershed and use their findings to create lasting solutions.

This award-winning program teaches middle and high school-aged youth essential academic skills including critical thinking, teamwork, problem solving and decision making. GREEN provides educators with innovative resources including a network of support, an online watershed exploratory tool, water monitoring equipment, technical manuals and action guides. Today, GREEN programs flourish in every state and a number of countries. From the original idea by one group of students, GREEN has grown into a global network of educators and students working to improve their watersheds and in 1999 became an Earth Force program.

Locally, the Flint River GREEN project connects mentors from our sponsors, General Motors and the City of Flint, as well as other environmental professionals with middle and high school students throughout the watershed. The students conduct stream monitoring every year. For more information on Flint River GREEN, visit www.flintriver.org.

The Flint River Watershed Coalition (FRWC) was formed in the fall of 1997 and is a collaboration between educational institutions, local government, local business, environmental groups, and concerned citizens who feel strongly that the Flint River and its tributaries are a vital resource we all need to protect. The FRWC was incorporated as a non-profit 501(c)3 organization in August of 1998.

Staff:

Rebecca Fedewa, Executive Director
Email: rfedewa@flintriver.org

Jaime Welch, Education Programs Manager
Email: jwelch@flintriver.org

Lauri Elbing, Communications Director
Email: lelbing@flintriver.org

Edythe Westhoff, Business Manager
Email: ewesthoff@flintriver.org

Sondra Severn, Project Coordinator
Email: ssevern@flintriver.org

Core Beliefs

We are committed to improving and maintaining environmental quality in the Flint River watershed.

We are committed to environmental education.

We value input and participation from our entire community.

We value a positive approach to people and problem solving.

Flint River Watershed Coalition Board Members

Darren Bagley	Linda Berker	Derek Bradshaw	Steve Hester
Brad Hill	Daugherty Johnson	S. Olof Karlstrom	Ryan Londrigan
Amy McMillan	Jack Minore	Steve Montle	Greg Palinsky
Terry Reechko	Sandra Robinson	Doug Schultz	Raynetta Speed



Flint River Watershed Coalition

400 N. Saginaw St., Suite 233, Flint, Michigan 48502

Phone: (810) 767-6490 www.flintriver.org

YES, I want to join the FRWC! Partnering to protect, preserve, and improve the Flint River Watershed.

Enclosed is my membership amount:

\$10 Student/Limited Income

\$25 Individual

\$40 Family/Friend

\$100 River Sponsor

\$250 River Patron

\$500 Watershed Protector

\$1,000+ Watershed Guarantor

*****SPECIAL*** \$5.00 membership for 1 year – for GREEN participants!**

NAME _____

ORGANIZATION _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE _____

EMAIL _____

Please circle one WORK HOME CELL

What is a Watershed?

A watershed is an area of land which drains into a particular body of water. Just as when you pour water in a bathtub it all ends up in the drain, when it rains or snows on the surface, that water flows to a particular body of water. That water can flow both above the ground through lakes, streams, and wetlands, or below the ground through groundwater and springs.

The Flint River Watershed is...The Flint River has 1,639 total river miles—over 753 of those river miles have water in them all the time. The Flint River Watershed is made up of 18 smaller watersheds (such as Kearsley Creek or Swartz Creek) and encompasses more than 1,358 square miles—59 townships, 43 school districts, 25 cities and villages, 25 county commission districts, 9 state house districts, 7 state senate districts, 7 counties, and 4 U.S. House districts. For a map of the watershed, see the back page of this program.

The Flint River Watershed is home to more than 600,000 people, more than half of whom drink ground and surface water affected by the Flint River. Thousands live along its banks and even more recreate on the river and its associated lakeside beaches.

The Flint River and its tributaries are an important resource for fish and wildlife and provides spawning habitat for small mouth bass, walleye, Northern pike, and other Saginaw Bay fisheries. The upper stretches of Thread Creek, Kearsley Creek, and the south branch of the Flint River are designated as cold water fisheries by the Michigan Department of Natural Resources. The high quality of these streams also means they face the most threat to degradation from development and other land use practices.

Sauk, Ojibwa, later Chippewa, and Ottawa Indians originally populated the Flint River Watershed. The Native American name for this river was *Pewonigowink*, meaning “river of fire stone.” European settlement brought fur traders, trading posts, trapping, farming, and lumbering. As the forests were depleted, manufacturing became the primary economic driver of the area.

What does this mean for you? As part of the Flint River Watershed, anything you do can flow downstream and potentially harm your neighbors. We are all connected by the water that flows past us, over our yards and streets, and into the storm drains and roadside ditches. What you do at your home, in your car, your place of work or at your school, and at the places you play all can have an important effect on the Flint River.

GREEN and Earth Force Watershed STEM Initiative

Earth Force is an environmental education and service-learning program that engages young people in learning and taking action on local environmental issues.

In 2008, Genesee ISD and Flint River **GREEN** joined the **Earth Force** Watershed STEM Initiative (WSI). WSI engages students active in Flint River **GREEN** with environmental stewardship. Through the WSI, teachers combine STEM and civic education into service learning projects. Students investigate watershed problems in their community and engage with leaders to solve those problems. Students in the WSI have a deeper understanding of scientific issues, expand their civic skills, and are more likely to act as community problem solvers. In 2010, **Earth Force** and Flint River Watershed Coalition joined with Lapeer ISD to bring Flint River **GREEN** to three Lapeer ISD schools—bringing 13 new teachers and their students to the Flint River **GREEN** Program and **Earth Force** Watershed STEM Initiative.

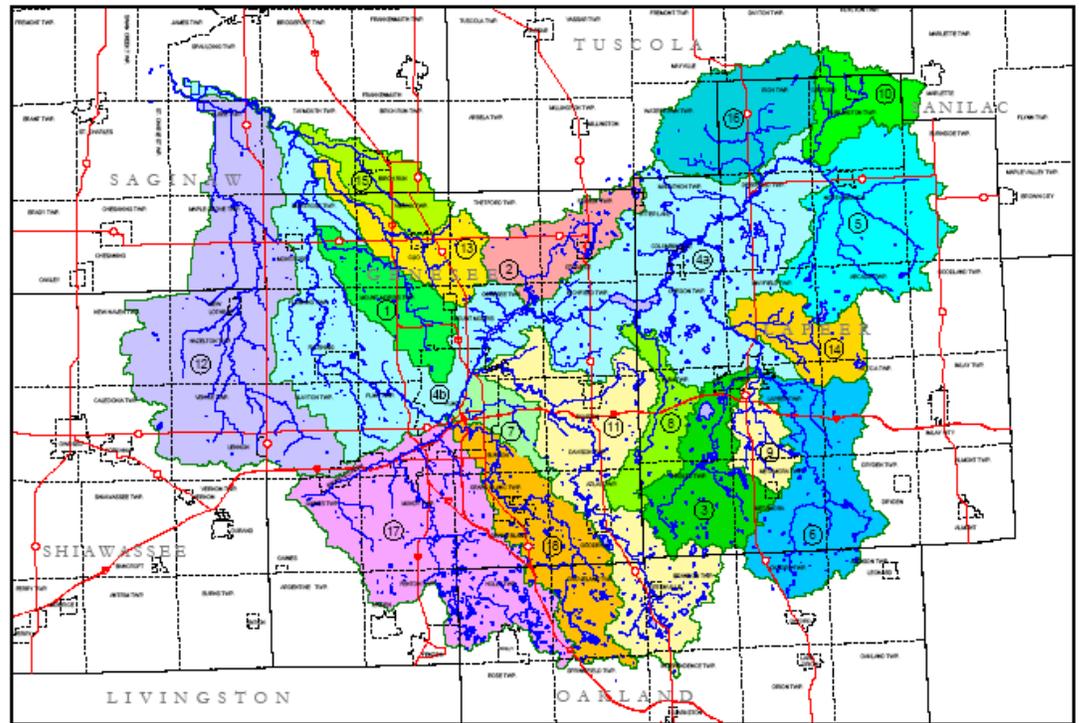
For information on EarthForce visit www.earthforce.org

Student Presentation Schedule

Session 1 9:15 - 10:00	Session 2 10:05 - 10:50	Session 3 10:55 - 11:40	Session 4 12:25 - 1:10	Session 5 1:15 - 2:00
Grand Blanc West MS (Lemerond, Skrisson)	Linden MS (Nester, Mason)	Bendle HS (Barden)	The Chatfield School (Boyle, Raymond, Young)	Mt. Morris Jr. HS (Carr, Freeman, McCormick)
Carter MS (McCallum, Niemi)	North Branch MS (Tumblin, Wildey)	Atherton HS (Hyslop)	Lakeville MS (Henley, Chapin)	St. John Vianney (Matlon)
Westwood Heights (Bryant)	Swartz Creek MS (Forbes, Speck)	Grand Blanc HS (Powers)	Marshall-Greene MS (Daenzer, Rothe)	Carman-Ainsworth MS (Warburton)

Lunch will be served near the McKinnon Auditorium from **11:40 - 12:25**

FLINT RIVER WATERSHED



SUBWATERSHEDS OF THE FLINT RIVER WATERSHED

Federal and State Highways	Butternut Creek	Flint River - South Branch	Kearsley Creek	Squaw Creek
Municipal Boundaries	Farmers Creek	Gilkey Creek	Misteguy Creek	Swartz Creek
Surface Water	Flint River-Upper Main Channel (40)	Hasler Creek	Pine Run	Thread Creek
Rivers and Streams	Flint River-Lower Main Channel (40)	Hunters Creek	Plum Creek	Silver Creek
	Flint River - North Branch	Indian Creek		

Thank You!

- To the Students.** We value your hard work and your dedication to this project.
- To the Teachers.** You bring science to life for your students.
- To the Presenters.** Thank you for taking time to be a part of the GREEN Student Summit.
- To the Mentors.** Thank you for your dedication to educating our young people.

A Special Thank You!

Lisa Hook: Project Coordinator, Genesee Intermediate School District
 James Emmerling: LCMSC Director, Instructional Training Supervisor, Lapeer County Intermediate School District
 Julie Simmons: Kettering University - Chemistry, Biochemistry & Chemical Engineering Departments

Sponsors and Supporters of Flint River GREEN

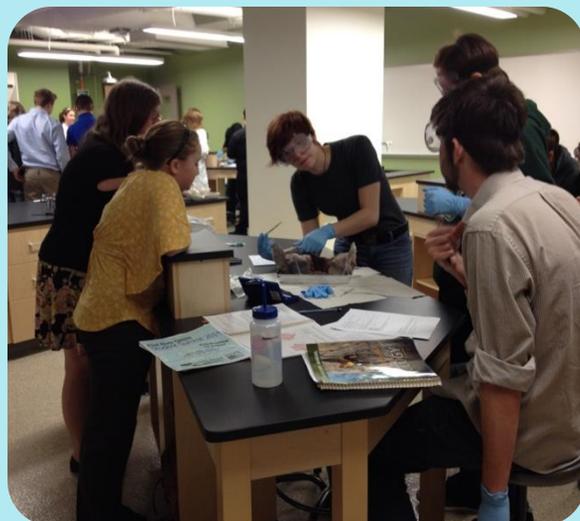
On behalf of the Flint River Watershed Coalition we would like to recognize and thank our program partners and sponsors. FRWC continues to partner with Earth Force/GREEN and Genesee and Lapeer ISD to bring educational and community problem solving activities to our educators.



Surface Water Management



Flint River GREEN 2014 Annual Report



Letter from the Executive Director

Flint River Watershed Coalition

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S. Olof Karlstrom

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Sandra Robinson

Patrick Ryals

Doug Schultz

Raynetta Speed

Staff

Rebecca Fedewa

Executive Director

Stephanie Nummer

Program Coordinator

Sondra Severn

Project Coordinator

Jaime Welch

Program Manager

Lauri Elbing

Outreach and Events Manager

Edythe Westhoff

Business Manager

This year, we celebrated 25 years of bringing Flint River GREEN to area classrooms. The longevity of the program speaks to the value of the program to area teachers, students, mentors, and volunteers in the program.

Getting our young people out of the classroom and to their local river or stream makes our invaluable freshwater resources a real, tangible thing. We see tremendous shifts in students' views of their natural environment, and more importantly, in their perceived ability to make a difference in protecting that resource.

GREEN volunteers all note the excitement they see on students' faces when they don that pair of waders, the determination as they work through a complex chemical test of the water, and the nervous excitement of getting up in front of their peers to discuss their results. This program impacts students on such a wide variety of measures, all while bringing them real world experiences they can carry with them throughout the rest of their middle, high school, and college educations.

As always, we simply couldn't bring this fantastic program to the students of the Flint River Watershed without the broad volunteer and financial support of our community. This report is distributed with our immense gratitude to everyone mentioned throughout its pages, who help ensure that year after year, our area students have access to an experience unlike any other.

Here's to 25 MORE years of Flint River GREEN!
Rebecca

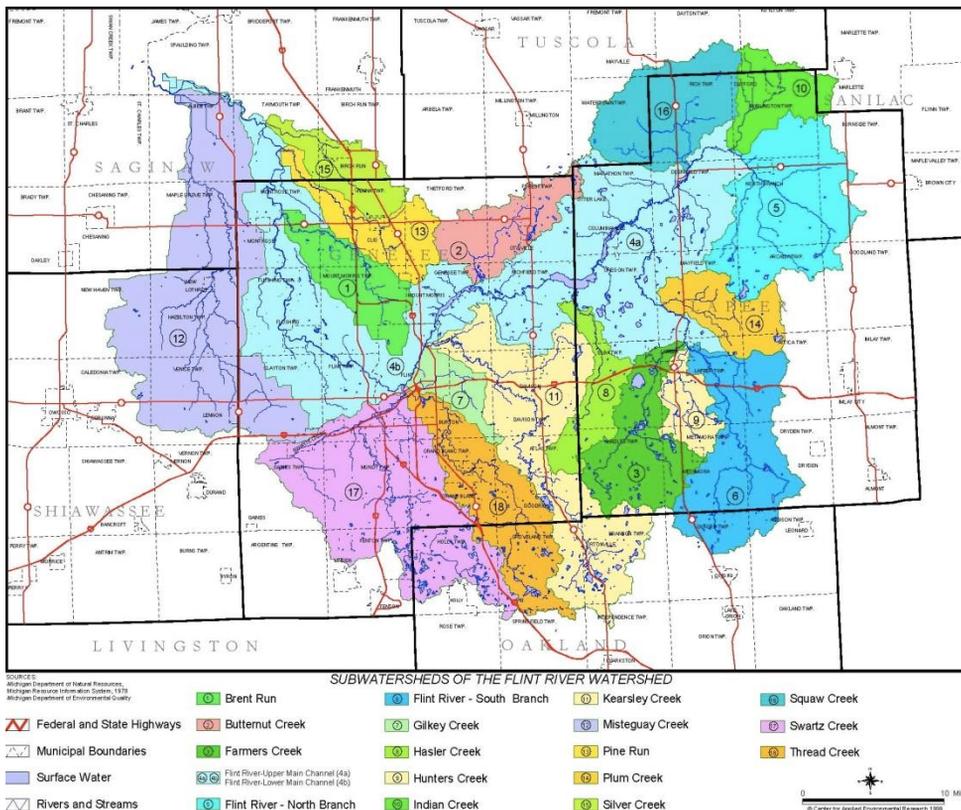
GREEN: An Overview and History

The Global Rivers Environmental Education Network (GREEN) is a nationally replicated program that offers a unique and hands on experience for students in the field of water quality testing. It was created in 1989 by University of Michigan professor, Dr. William Stapp, and assistant Mark Mitchell.

Students and their teachers collaborate with mentors from environmental professions to perform water quality tests on bodies of water within their watershed. They use their findings to develop action plans to improve or maintain the water in their area. They then share this information with their peers and community officials at the annual student summit. Teachers participate in a Professional Development Day to learn about GREEN and performing the various field tests.

Beginning in 1989, GREEN worked with Flint schools, and later expanded to include many high schools and middle schools within Genesee County. The success and value of GREEN later led to the inclusion of schools in Saginaw, Lapeer, and Oakland counties. GREEN continues to grow and is now incorporated into many teachers' annual curriculum. The 2014 season marks **25** years of GREEN!

The Flint River Watershed



The Flint River Watershed covers approximately 1,400 square miles across 7 counties, including Genesee, Lapeer, Saginaw, and Oakland. All of the land and tributaries that flow into the Flint River make up the Flint River Watershed that GREEN students learn about and protect.

GREEN Planning and Development



The GREEN Planning Committee meets monthly to prepare and plan for the upcoming GREEN season. This dedicated group brings together expertise, resources, and enthusiasm to the GREEN program. The planning committee oversees the preparations for the Student Summit and professional development days for teachers. They also introduce mentor and teacher pairings, seek funding sources and work with community partners to increase the scope of GREEN. This year there were two professional development days, both of which were graciously hosted by the Genesee Intermediate School District. The first training provided to new teacher that reviewed the program and test. Two days later a professional development training was held for all GREEN teachers and introduced a new interactive mapping tool created by the MSU Institute of Water Research and presented by Laura Young. The planning committee collaborates to improve and expand the program year to year. Its efforts that GREEN continuously provides the best experience possible to teachers and students.

Planning Committee

Darren Bagley

Irene Bashore

James Emmerling

Rebecca Fedewa

Lisa Hook

Tom Hutchings

Tom Jones

John Maksimchuk III

John Mildovan

Stephanie Nummer

Jan Sneddon

Edyth Westhoff



“The technology aspects included [this year] were amazing”
– 8th Grade GREEN Teacher

Participating GREEN Schools

Atherton High School

Teacher: Matt Hyslop

Beecher Middle School

Teacher: Don Hammond

Bendle High School

Teacher: Todd Barden

Brandon Middle School

Teacher: Dave Green

Carman-Ainsworth High School

Teacher: Julie Lawrence

Chatfield School—Lapeer

Teachers: Tracy Boyle,
Lori Raymond, Annette Young

Carter Middle School

Teachers: Chip McCallum,
Ryan Niemi

Davison Middle School

Teachers: Jody Kosiara,
Marc Pittenger (assisting)

Flushing High School

Teacher: Paul Taylor

Grand Blanc East Middle School

Teachers: Deb Lacki,
Crystal Sobeck, Patricia Nelson

Grand Blanc West Middle School

Teachers: Elizabeth Lemerond,
Victoria Skrisson

Kearsley Armstrong Middle School

Teacher: Cindy Sierra

Lakeville Middle School

Teachers: Matt Chapin, Ginny Gaudard,
Josh Henley

Linden Middle School

Teacher: Kim Cornell, Charlene Nester

Marshall-Greene Middle School

Teachers: Tammy Daenzer, Roger Rothe

Mt. Morris Junior High School

Teachers: Nick Carr, Bekah D'Haene,
Kim McCormick

North Branch High School

Teacher: Carrie Wenta

North Branch Middle School

Teacher: Julie Tumblin

Rolland –Warner Middle School

Teachers: Anne Prill, Chris Prill,
Wyatt Stevens

St. John Vianney Catholic School

Teacher: Janice Matlon

Swartz Creek Middle School

Teachers: Brandolyn Forbes, Paul Speck

Westwood Heights— Hamady High School

Teachers: Arletha Bryant, John Horton

Zemmer Middle School

Teacher: Lisa Bjork

GREEN Mentors

Darren Bagley
MSU Extension -
4-H Education

Aaron Bagwell
Quaker Chemical

Irene Bashore
General Motors

Eric Brubaker
City of Flint –
Water Pollution Control

Craig Buike
Quaker Chemical

Thad Domick
City of Flint –
Water Pollution Control

Rob Fenn
General Motors

Heather Griffin
UM-Flint Alumni

Tom Hutchings
City of Flint –
Water Pollution Control

Tom Jones
Genesee County
Drain Commission

John Maksimchuk III
General Motors

Rick McAvinchey
Forestry Specialist

John Moldovan
General Motors Retiree

Pat Schultz
General Motors

Angella Sigler
General Motors

LeAnn Slosar
General Motors

Dennis Weiler
General Motors

Jaime Welch
Flint River
Watershed Coalition

GREEN mentors offer assistance in both the classroom and at the testing site. Working closely with teachers, mentors speak with students about GREEN and introduce them to the tests they will perform. Mentors share knowledge about the test, the proper way to perform the tests, safety procedures and how to interpret results. These volunteers offer insight as to what may cause a result to be high or low, as well as help students develop action plans. Mentors are key to the success of GREEN. The knowledge they bring from their respective fields, as well as the hands-on assistance at the testing sites, further expose the students to the value of environmental stewardship and potential career paths in a science, technology, engineering, or mathematics field.



During Project GREEN I learned how much we can affect the local river - Atherton High School 10 grade Student

GREEN Testing Parameters and Watershed Facts

GREEN Students test for the Water Quality Index ratings (WQI). The WQI is the overall score the body of water receives after the field tests have been performed and the results have been tabulated.

Water Quality Index Ratings

- 100-90: Excellent Water Quality
- 89-70: Good Water Quality
- 69-50: Average Water Quality
- 49-25: Marginal Water Quality
- 24-0: Poor Water Quality

I learned how to do tests, the importance of keeping rivers clean, and how rivers are polluted.
- Armstrong Middle School
6th grade student



Water Quality Field Tests
Biochemical Oxygen Demand
Dissolved Oxygen
Fecal Coliform
Nitrates
pH
Temperature
Total Phosphates
Total Solids
Turbidity



A * in the WQI value denotes that the complete testing results were not available due to inclement weather on the testing day, calculation errors, or testing errors. Trial and error is part of the scientific process and allows students to learn about what may have contributed to these results. Flint River GREEN is a valuable and ongoing learning experience.

Water Quality Results for 2014

School	Site Location	Total WQI Value
Armstrong MS	Chipmunk Creek - back of Armstrong MS	79.72
Atherton HS	Thread Creek - near Bristol Rd and Genesee Rd	75.65
Beecher MS	Pond behind Beecher HS	58.9
Bendle HS	Thread Creek	82.02
Brandon MS	Unkown Location	*
Carman Ainsworth HS	Kearsley Creek - North of For-Mar	78.07
Carter MS	Pine Run - Clio City Park	76.76
Chatfield School	Farmer's Creek	68.37
Davison MS	Black Creek - Jack Abernathy Park	79.04
Flushing HS	Armstrong Creek - Dodge Rd	66.74
Grand Blanc East MS	Thread Creek - Moonstone Rd, Grand Blanc, MI	88.26
Grand Blanc West MS	Swartz Creek at Frost Gardens	85.71
LakeVille MS	Unkown Location	*
Linden MS	Linden MS	74.44
Marshall-Greene MS	Silver Creek Site # 17	74.4
Mt. Morris Jr. HS	Flint River near Stepping Stone Falls	82
North Branch HS	Unkown Location	*
North Branch MS	Gravel Creek at McNees Meats	79.4
Rolland-Warner MS	Farmer's Creek	70.21
St. John Vianney Catholic School	Flint River at Mott Park Golf Course	70.69
Swartz Creek MS	West Branch of Swartz Creek - between Swartz Creek MS and HS	76.58
Westwood Heights Hamady MS	Unkown Location	*
Zemmer MS	White Drain behind Zemmer MS	85.35



GREEN Student Summit



On May 16, 2014 GREEN mentors, community members, students, teachers, and volunteers gathered together at Kettering University for the annual Student Summit – the pinnacle of the GREEN season. Kettering University generously hosted the Flint River GREEN Student Summit for the 2014 season. This was all possible with the assistance of Julie Simmons at Kettering University.

Students presented their water testing results, action plans, and other information that gathered from their field testing and study days. Presentations and follow up inquiries from the audience were facilitated by emcees, Sue Kubic from the Genesee County Drain Commission and Irene Bashore from General Motors.

When students were not presenting, they took part in a variety of breakout sessions available. Community members and environmental professionals eager to share their knowledge with GREEN students led these breakout sessions.

Summit Breakout Sessions

Catching Big Fish on Little Bugs

Josh Henley, Andy Neeson, Chip McCallum:
Blackboard Outfitters

Chevy in the Hole: A Walking Tour

Ryan Londrigan: *AKT Peerless Environmental*

Creek Critters

Mike Haley: *FRWC Monitoring Volunteer*

Go Green, Help Keep Our Water Clean!

Laura Young: *MSU Institute of Water Research*

Incredible Edible Plants

Peter McCreedy: *Ecology Director, Chatfield School*

Kettering Biology, Chemistry, and Chemical Engineering Lab Tours

Faculty and Staff: *Kettering University*

Paddling the Flint River

Riley McLincha: *Watershed Enthusiast*

Rats in Your Drinking Water

Darren Bagley: *4-H Youth Development Coordinator, MSU Extension*

Who Wants to be an Environmentalist?

Jeff Johnson, Brian Schorr: *Genesee Conservation District*



GREEN Student Summit Survey Results

Flint River Project GREEN Summit Evaluation 2014

Pre/Post Evaluation

Before Project GREEN

Answer Options	1 (Strongly Disagree)	2 (Disagree)	3 (Agree)	4 (Strongly Agree)
The Flint River is clean and healthy.	47	81	47	17
I can make a difference in the health of the Flint Riv	22	43	67	56
I understand how a river may become polluted.	18	29	59	87
I want to do things to help the environment.	11	30	77	70
I know about jobs in the environment field.	30	68	67	23

After Project GREEN

Answer Options	1 (Strongly Disagree)	2 (Disagree)	3 (Agree)	4 (Strongly Agree)
The Flint River is clean and healthy.	12	26	107	46
I can make a difference in the health of the Flint Riv	9	13	56	111
I understand how a river may become polluted.	2	8	27	145
I want to do things to help the environment.	4	10	74	102
I know about jobs in the environment field.	5	24	92	67

During Project GREEN I learned about the practical and healthy value in eating and using natural and locally unprocessed foods.

- Armstrong Middle School
8th grade Student



Appreciations

The Flint River Watershed Coalition is very thankful for the many financial and in-kind supporters of Flint River GREEN. Such generosity makes it possible for GREEN to continue its mission to educate our young people about their watershed and their environment. Your support will have a lasting impact for generations to come.

Thank You!

City of Flint, Water Pollution Control Department

Earth Force

Flint River Watershed Coalition

Genesee County Drain Commissioner's Office, Surface Water Management

Genesee County Drain Commissioner's Office, Our Water Program

Genesee County Parks and Recreation Commission

Genesee Intermediate School District

Genesee Intermediate School District, Office of Education and Learning

General Motors Corporation

General Motors Foundation

Kettering University

Lapeer Intermediate School District

Michigan State University 4-H Youth Development





Flint River Watershed Coalition
400 N. Saginaw Street, Suite 233
Flint, Michigan 48502
www.flintriver.org



DRAFT

Flint River GREEN 2015 Annual Report



Letter from the Executive Director

Flint River Watershed Coalition

Board of Directors

Amy McMillan, *Board Chair*

Greg Palinsky, *Vice Chair*

Derek Bradshaw, *Treasurer*

Darren Bagley, *Secretary*

Linda Berker

Steve Hester

Brad Hill

Daugherty Johnson

S. Olof Karlstrom

Ryan Londrigan

Jack Minore

Steve Montle

Terry Reechko

Sandra Robinson

Doug Schultz

Raynetta Speed

Jack Stock

Staff

Rebecca Fedewa
Executive Director

Jaime Welch
Education Programs Manager

Sondra Severn
Project Coordinator

Lauri Elbing
Outreach and Events Manager

Edythe Westhoff
Business Manager

Last year, we celebrated 25 years of bringing Flint River GREEN to area classrooms. The longevity of the program speaks to the value of the program to area teachers, students, mentors, and volunteers in the program.

Getting our young people out of the classroom and to their local river or stream makes our invaluable freshwater resources a real, tangible thing. We see tremendous shifts in students' views of their natural environment, and more importantly, in their perceived ability to make a difference in protecting that resource.

GREEN volunteers all note the excitement they see on students' faces when they don that pair of waders, the determination as they work through a complex chemical test of the water, and the nervous excitement of getting up in front of their peers to discuss their results. This program impacts students on such a wide variety of measures, all while bringing them real world experiences they can carry with them throughout the rest of their middle, high school, and college educations.

As always, we simply couldn't bring this fantastic program to the students of the Flint River Watershed without the broad volunteer and financial support of our community. This report is distributed with our immense gratitude to everyone mentioned throughout its pages, who help ensure that year after year, our area students have access to an experience unlike any other.

Here's to many more years of Flint River GREEN!
Rebecca

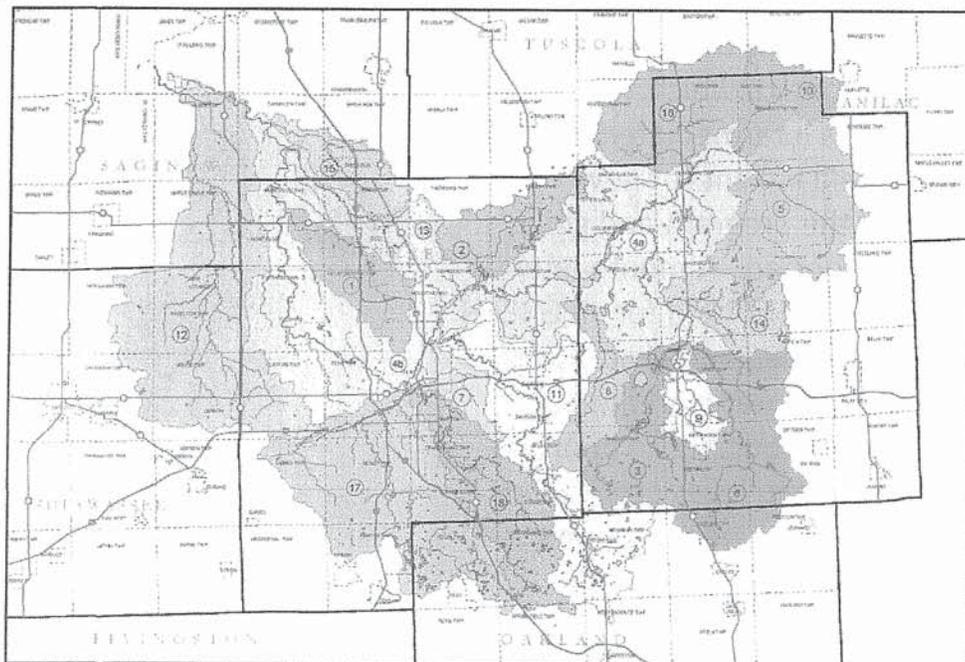
GREEN: An Overview and History

The Global Rivers Environmental Education Network (GREEN) is a nationally replicated program that offers a unique and hands on experience for students in the field of water quality testing. It was created in 1989 by University of Michigan professor, Dr. William Stapp, and assistant Mark Mitchell.

Students and their teachers collaborate with mentors from environmental professions to perform water quality tests on bodies of water within their watershed. They use their findings to develop action plans to improve or maintain the water in their area. They then share this information with their peers and community officials at the annual student summit. Teachers participate in a Professional Development Day to learn about GREEN and performing the various field tests.

Beginning in 1989, GREEN worked with Flint schools, and later expanded to include many high schools and middle schools within Genesee County. The success and value of GREEN later led to the inclusion of schools in Saginaw, Lapeer, and Oakland counties. GREEN continues to grow and is now incorporated into many teachers' annual curriculum. The 2014 season marks **25** years of GREEN!

The Flint River Watershed



The Flint River Watershed covers approximately 1,400 square miles across 7 counties, including Genesee, Lapeer, Saginaw, and Oakland. All of the land and tributaries that flow into the Flint River make up the Flint River Watershed that GREEN students learn about and protect.

GREEN Planning and Development



The GREEN Planning Committee meets monthly to prepare and plan for the upcoming GREEN season. This dedicated group brings together expertise, resources, and enthusiasm to the GREEN program. The planning committee oversees the preparations for the Student Summit and professional development days for teachers. They also introduce mentor and teacher pairings, seek funding sources and work with community partners to increase the scope of GREEN. This year there were two professional development days, one of which was graciously hosted by the Genesee Intermediate School District. The first training was held in Flint for new teachers, giving an overview of the program and going step by step over each test performed. A month later a professional development training was held for all GREEN teachers, reviewing testing techniques and procedures, as well as taking a tour of the waste water treatment plant. The planning committee collaborates to improve and expand the program year to year. Its efforts ensure that GREEN continuously provides the best experience possible to teachers and students.

Planning Committee

Darren Bagley

Irene Bashore

James Emmerling

Rebecca Fedewa

Lisa Hook

Tom Hutchings

Tom Jones

John Maksimchuk III

Jaime Welch

Jan Sneddon

Edythe Westhoff



“During Project GREEN I learned that we have the power and control to help stop spreading pollution and make a difference.”

– 8th Grade Swartz Creek Student

Participating GREEN Schools

Atherton High School

Teacher: Matt Hyslop

Bendle High School

Teacher: Todd Barden

Brandon Middle School

Teacher: Dave Green

Carman-Ainsworth Middle School

Teacher: Melissa Warburton

Carter Middle School

Teachers: Chip McCallum,
Ryan Niemi

Chatfield School—Lapeer

Teachers: Tracy Boyle,
Lori Raymond, Annette Young

Davison Middle School

Teachers: Jody Kosiara,

Grand Blanc East Middle School

Teachers: Deb Lacki, Debra Wilson,
Crystal Sobeck, Patricia Nelson

Grand Blanc West Middle School

Teachers: Elizabeth Lemerond,
Victoria Skrisson

Grand Blanc High School

Teacher: Suzanne Powers

Hill-McCloy High School

Teacher: Jennifer Kahn

LakeVille Middle School

Teachers: Matt Chapin, Josh Henley

Lapeer High School

Teacher: Cheryl Butterfield

Linden Middle School

Teacher: Charlene Nester, Cori Mason

Marshall-Greene Middle School

Teachers: Tammy Daenzer, Roger Rothe

Mt. Morris Junior High School

Teachers: Nick Carr, Bekah D'Haene,
Kim McCormick, Zack Freeman

North Branch High School

Teacher: Carrie Wenta

North Branch Middle School

Teacher: Julie Tumblin, Kaitlyn Wildey

Powers High School

Teacher: Julie Lawrence

St. John Vianney Catholic School

Teacher: Janice Matlon

Swartz Creek Middle School

Teachers: Brandolyn Forbes, Paul Speck

Westwood Heights—

Hamady High School

Teachers: Arletha Bryant

Zemmer Middle School

Teachers: Anne Prill, Wyatt Stevens, Kelly
Gartell, Chris Ewald

GREEN Mentors

Darren Bagley
MSU Extension -
4-H Education

Aaron Bagwell
Quaker Chemical

Eric Brubaker
City of Flint –
Water Pollution Control

Craig Buike
Quaker Chemical

Thad Domick
City of Flint –
Water Pollution Control

Marv Esbury
General Motors

Tom Hutchings
City of Flint –
Water Pollution Control

Tom Jones
Genesee County
Drain Commission

Melissa Kahn
General Motors

John Maksimchuk III
General Motors

Diane Peplinsky
Burlington Township Clerk

Pat Schultz
General Motors

Angella Sigler
General Motors

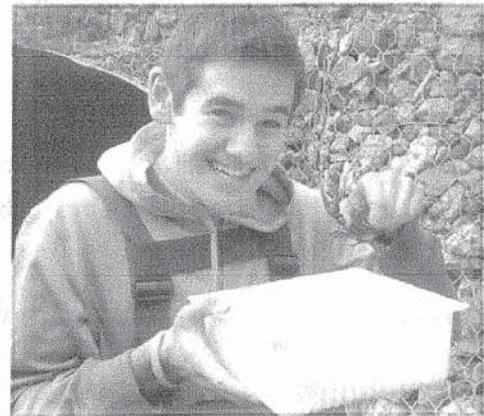
LeAnn Slosar
General Motors

Alex Thibeault
General Motors

Jaime Welch
Flint River
Watershed Coalition

Brent Wilson
General Motors

GREEN mentors offer assistance in both the classroom and at the testing site. Working closely with teachers, mentors speak with students about GREEN and introduce them to the tests they will perform. Mentors share knowledge about the test, the proper way to perform the tests, safety procedures and how to interpret results. These volunteers offer insight as to what may cause a result to be high or low, as well as help students develop action plans. Mentors are key to the success of GREEN. The knowledge they bring from their respective fields, as well as the hands-on assistance at the testing sites, further expose the students to the value of environmental stewardship and potential career paths in a science, technology, engineering, or mathematics field.



During Project GREEN I learned that I can have fun and still help the environment.
– 8th Grade Linden Student

GREEN Testing Parameters and Watershed Facts

GREEN Students test for the Water Quality Index ratings (WQI). The WQI is the overall score the body of water receives after the field tests have been performed and the results have been tabulated.

Water Quality Index Ratings

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Biochemical Oxygen Demand
Dissolved Oxygen
Fecal Coliform
Nitrates
pH
Temperature
Total Phosphates
Total Solids
Turbidity



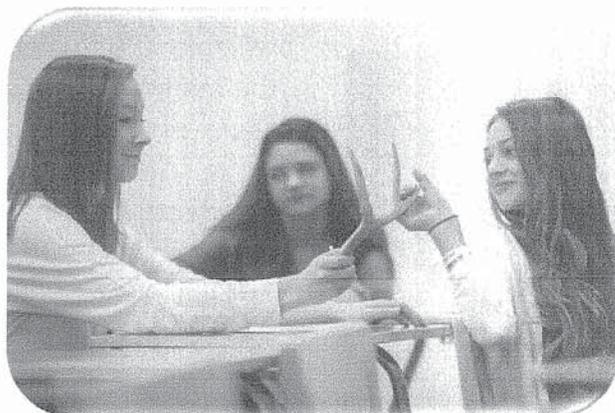
I learned that I can make a difference in my health and others around me by helping clean up pollution
- 7th Grade
Zemmer
Student



A * in the WQI value denotes that the complete testing results were not available due to inclement weather on the testing day, calculation errors, or testing errors. Trial and error is part of the scientific process and allows students to learn about what may have contributed to these results. Flint River GREEN is a valuable and ongoing learning experience.

Water Quality Results for 2015

School	Site Location	Total WQI Value
Atherton HS	Pierson Drain at Atherton HS	77.41
Bendle HS	Thread Creek	84.71
Brandon MS	Unkown Location	*
Carman Ainsworth HS	Kearsley Creek - North of For-Mar	76.07
Carter MS	Pine Run - Clio City Park	83
Chatfield School	Farmers Creek	66.90
Davison MS	Kearsley Creek – Davison	61.82
Grand Blanc East MS	Thread Creek at Perry Rd	73.10
Grand Blanc West MS	Swartz Creek at Frost Gardens	62.64
Grand Blanc HS	Swartz Creek at Thompson Rd	*
Hill-McCloy HS	Flint River at Barber Memorial Park	76.16
Lakeville MS	Unkown Location	*
Lapeer HS	Hunters Creek Lapeer	71.08
Linden MS	Linden Mill Pond (Shiawassee River)	69.65
Marshall-Greene MS	Silver Creek Site # 17	75.12
Mt. Morris Jr. HS	Flint River near Stepping Stone Falls	55.39
North Branch HS	Unkown Location	*
North Branch MS	Gravel Creek at McNees Meats	78.4
Powers	Unknown Location	*
St. John Vianney Catholic School	Flint River at Mott Park Golf Course	71.69
Swartz Creek MS	West Branch of Swartz Creek - between Swartz Creek MS and HS	75.58
Westwood Heights Hamady MS	Drain at Randy Wise	49.44
Zemmer MS	White Drain behind Zemmer MS	87.26



GREEN Student Summit

On May 15, 2015 GREEN mentors, community members, students, teachers, and volunteers gathered together at Kettering University for the annual Student Summit – the pinnacle of the GREEN season. Kettering University once again generously hosted the Flint River GREEN Student Summit for the 2015 season. This was all made possible with the assistance of Julie Simmons at Kettering University.

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When students were not presenting, they took part in a variety of breakout sessions led by community members and environmental professions eager to share their knowledge with GREEN students.

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Catching Big Fish on Little Bugs

Chip McCallum: *Blackboard Outfitters*

Chevy Commons: A Walking Tour

Ryan Londrigan: *AKT Peerless Environmental*

Creek Critters

Mike Haley, Lisa VanOchten: *FRWC Monitoring Volunteer*

Environmental Dumpster Diving

Shane Kelley, Carl Thompson: *Genesee County Metropolitan Planning Commission*

Go Green, Help Keep Our Water Clean!

Laura Young: *MSU Institute of Water Research*

Incredible Edible Plants

Peter McCreedy: *Ecology Director, Chatfield School*

Kettering Bioethics, Biology, and Biochemistry Sessions

Faculty and Staff: *Kettering University*

Rats in Your Drinking Water

Darren Bagley: *4-H Youth Development Coordinator, MSU Extension*

The Scientist in Your Backyard

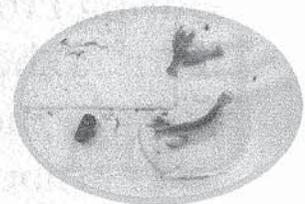
Heather Griffin: *For-Mar Nature Preserve & Arboretum*

Sewer CSI

Eric Brubaker, Thad Domick, Tom Hutchings: *Water Pollution Control Specialists, City of Flint*

Watershed in Jeopardy

Jeff Johnson, Brittney Ellis: *Genesee Conservation District*



GREEN Student Summit Survey Results

Answer Options	1 (Strongly Disagree)	2 (Disagree)	3 (Agree)	4 (Strongly Agree)
The Flint River is clean and healthy.	41	44	42	6
I can make a difference in the health of the Flint Riv	7	36	60	30
I understand how a river may become polluted.	6	23	54	47
I want to do things to help the environment.	2	27	54	50
I know about jobs in the environment field.	30	39	46	34
After Project GREEN				
Answer Options	1 (Strongly Disagree)	2 (Disagree)	3 (Agree)	4 (Strongly Agree)
The Flint River is clean and healthy.	11	25	74	28
I can make a difference in the health of the Flint Riv	4	4	49	79
I understand how a river may become polluted.	4	3	45	83
I want to do things to help the environment.	1	4	35	95
I know about jobs in the environment field.	3	20	58	54

During Project GREEN I learned there were a lot more thing to the environment than I thought there were – 8th Grade Linden MS Student



Appreciations

The Flint River Watershed Coalition is very thankful for the many financial and in-kind supporters of Flint River GREEN. Such generosity makes it possible for GREEN to continue its mission to educate our young people about their watershed and their environment. Your support will have a lasting impact for generations to come.

Thank You!

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Earth Force

Flint River Watershed Coalition

Genesee County Drain Commissioner's Office, Surface Water Management

Genesee County Drain Commissioner's Office, Our Water Program

Genesee County Parks and Recreation Commission

Genesee Intermediate School District

Genesee Intermediate School District, Office of Education and Learning

General Motors Corporation

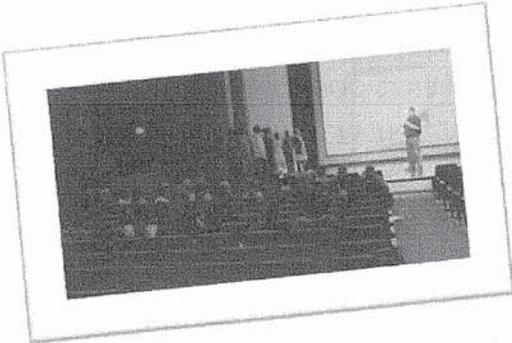
General Motors Foundation

Kettering University

Lapeer Intermediate School District

Michigan State University 4-H Youth Development





FLINT RIVER
WATERSHED COALITION

Flint River Watershed Coalition
400 N. Saginaw Street, Suite 233
Flint, Michigan 48502
www.flintriver.org

Watershed

REPORTER

PARTNERING TO PROTECT, PRESERVE, AND IMPROVE OUR WATERSHED SPRING/SUMMER 2015

INSIDE THIS ISSUE

2 Changes on Board



3 Feature Story:
Trash and Unexpected Treasures from Our River

4 Join a Volunteer Team: Spring Cleaning and a Fresh Paint Job

5 Kayaker's Journey On Our Flint River: From a Newbie to a New Hobby



6 Mark Your Calendar for FUN: "Love Your Lakes" Picnics & FLOTILLA 2.0

7 Flint River Trail Rides Begin; and Help Clear a Path for Paddlers in Lapeer



8 We're Counting on You: Help Count River Critters in May and October

9 THANK YOU to the 2015 "Voice of the River"

Celebration Sponsors

10 Make a Big Splash with Membership!

11 Don't Miss the Fun: Tear-and-Take Calendar of Events

Smartphone? Scan this QR Code to visit the FRWC website



MAKE EVERY DAY EARTH DAY

REBECCA FEDEWA, EXECUTIVE DIRECTOR



Rebecca Fedewa

I've decided to let you in on a little secret: I'm not a fan of Earth Day. I understand its intent to raise awareness and engage people of all ages to do something good for the earth. But in my opinion...Every Day is Earth Day.

I guess that is why I do what I do and love what I do. My mission is to equip you and your neighbors, the farmer a couple miles down the road, the corporate rep and the small business owner, the kayakers and anglers, the high school science club and teachers...

To give each of you the tools and the information you need to help protect, preserve, and improve the Flint River Watershed. I want to help you make every day Earth Day, too.

April ushers in the most exciting season to be in and around the river, creeks, and lakes of the Flint River Watershed. In this edition of the Flint River Watershed Reporter, you will find at least two opportunities each week from May until the end of October to come out and experience the wonders of our watershed for yourself. Come cycling with the Friends of the Flint River Trail. Journey down the Flint River in a kayak. Become a citizen scientist through the Benthic Monitoring program. Teach your neighbors how "Seven Simple Steps" will keep pollution out of your local storm drain and out of our river. Join members of your community at one of the many cleanups in Genesee and Lapeer Counties on April 25th. Celebrate with us at one of the "Love Your Lakes" Picnics at Flint Park Lake or Thread Lake in July. Did you miss the Flint River Flotilla last year? Mark your calendar for August 8th because you have to experience this stretch of our river in the city of Flint. You won't regret any of these experiences, and I can guarantee that you'll walk away craving more! I challenge you to prove me wrong!

I would be remiss if I did not address the elephant in the room before signing off. It has been a tough year for the image of our Flint River. It really took a beating, but don't lose heart. I'm here to tell you that the state of our river and our watershed is good and consistently improving. I know this because with our volunteers' help we have the scientific data to show it. The FRWC will remain vigilant, serving as the Voice of the River with the support of science and a cool head to guide our work.

Yes. There is work to be done, but there is also fun to be had. Join me in making Every Day Earth Day!





400 N. Saginaw St., Suite 233
Flint, MI 48502

810-767-6490

www.FlintRiver.org

The Coalition is an organization representing individuals, businesses, community organizations, and local units of government sharing a vision of a healthier Flint River Watershed. We envision a day when the future of our drinking water is secure and the integrity of the Flint River is protected. We believe that all people should have access to the river for recreation, swimming, and fishing as well as the economic value it provides to our communities.

FRWC Board of Directors

Board Chair

Amy McMillan

Executive Director

Rebecca Fedewa

Board of Directors

Darren Bagley

Linda Berker

Derek Bradshaw

Steve Hester

Brad Hill

Daugherty Johnson

Ryan Londrigan

Jack Minore

Steve Montle

Greg Palinsky

Terry Reechko

Sandra Robinson

Doug Schultz

Raynetta Speed

S. Olof Karlstrom,

Member Emeritus

FRWC Board Meetings are held the
third Friday of the month.

Printed locally at a union shop on
recycled paper with at least 40%
post-consumer waste.

Please recycle!



Newsletter design and layout by Jon Wood

FRWC WELCOMES NEW BOARD MEMBERS: COMING, GOING, NEW LEADERSHIP

At our January Celebration of the Flint River, the FRWC bid a fond farewell to three of our esteemed board members. We would like to once again thank Irene Bashore – General Motors, Duane Elling – C. S. Mott Foundation, and Dr. Robert McAllister – Kettering University for their years of service to the Flint River Watershed Coalition. Among their long list of accomplishments, Irene brought enormous leadership to our Flint River GREEN program and an enviable fundraising prowess, Duane led the creation of our first strategic communications plan, and Bob facilitated our move to Kettering for the Flint River GREEN Student Summit. Their wisdom and enthusiasm for our mission will be greatly missed!

Greg Palinsky was elected to become Vice-Chair and has served on the FRWC board for many years. He brings boundless energy and vision to this leadership position, and we are grateful for his continued service. We'd also like to welcome our newest board member, Mr. Terry Reechko. Terry is a longtime volunteer for the FRWC. His passion for paddling the river has led him to personally take on tire clean ups, clear trees that block passage on the river, and advocate for more put-in locations for local paddlers. We are thrilled he has brought his focus for river recreation to the FRWC board of directors.

And finally, we would like to congratulate S. Olof Karlstrom for becoming our first ever Emeritus board member. Olof's passion and dedication for our mission is largely responsible for building the FRWC to the organization it is today. We can't possibly thank him enough for all he has done for the FRWC, and we welcome him to this new era of board service.



*Greg Palinsky takes over as
new vice chair of the board.*



*above: Rebecca
Fewewa, center,
thanks Duane Elling
and Irene Bashore
for their service to
the FRWC.*



New board member, Terry Reechko

*right: Many thanks
to Bob McAllister
for his years
of service*



Follow us on
Instagram

FEATURE ARTICLE: OF TRASH AND UNEXPECTED TREASURES

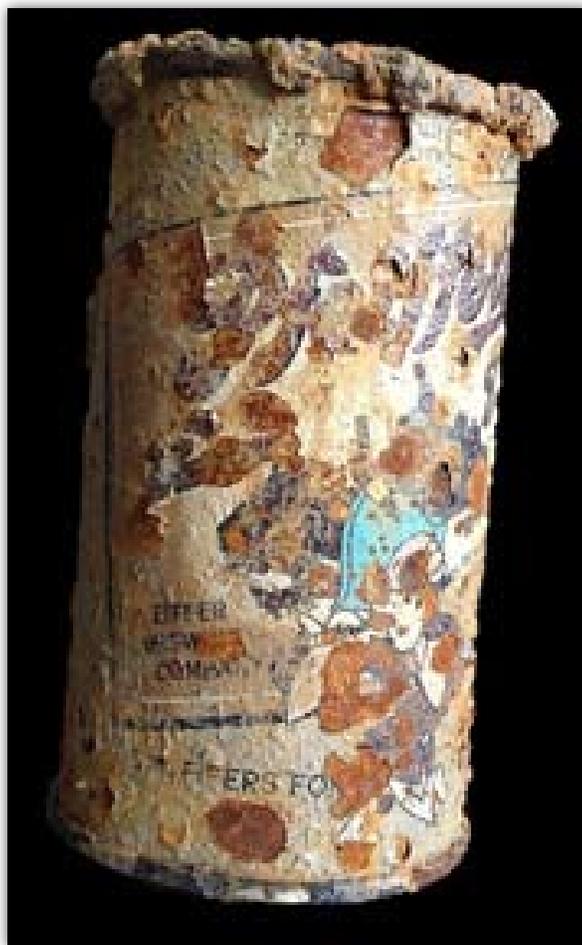
He found it under a bush next to the river across from the old Flint Farmers Market. It was terribly rusted, so he carefully picked it up, turning it to examine the find. The label was still legible – “Pfeiffer’s Beer.” By visiting an historical website, the FRWC Flint River and Community Cleanup volunteer soon discovered that this particular beer can was produced between 1946 and 1951, making it at least 62 years old. To put that into perspective, in 1951 Harry S. Truman was president, the movie *Alice in Wonderland* premiered, and *I Love Lucy* debuted on CBS.

If that Pfeiffer’s beer can could talk, what stories would it tell about all the changes it witnessed on our river? It is fair to say that the region reached historic heights and depths over this period – socially and culturally, economically and environmentally. The Flint River Watershed reflected many of those changes and upheavals, for the good and ill.

If you are from the region, you’ve heard the stories and the warnings from your parents, grandparents, friends, and neighbors, “Stay away from the river. It’s nasty!” For a long time that was true... until the Clean Water Act of 1972 allowed the Environmental Protection Agency to implement pollution control programs such as setting wastewater standards for industry and water quality standards for contaminants.

For the last 43 years, that Pfeiffer can saw a river benefitting from the regulation of point source pollution from industrial, municipal, and other facilities, which supported the dramatic and steady improvement in the health of our watershed’s rivers, lakes, and creeks. The FRWC has monitored the ecological health of the Flint River and its tributaries since 1999. Volunteers collect, identify, and count small animals living in streams that indicate their ecological health. Some types of animals can survive water pollution, while others are less tolerant. We look at the array of critters we find at each site, and hope to find a variety of species that span the sensitive-tolerant

spectrum. If a variety of species are found, we know the ecological health of the stream is good because the water quality is consistently good enough for them to survive and even thrive. Most monitoring sites are steadily increasing with scores of “good” or “excellent.” FRWC identified a decreasing score at one particular site, so



the Genesee County Drain Commissioner is investigating the cause and we’ll work to address the issue.

We also can look to our river’s food web for anecdotal evidence in the form of the abundant populations of fish, birds, ducks, and other wildlife that rely on those little river critters to survive. Did you know that 77 species of fish live in the Flint River? The bald eagles nesting up and down the length of the 142 mile Flint River survive on a diet composed primarily of fish. There are beavers gnawing down trees and working on the beginnings of a dam in the city of Flushing. The DNR also

proclaims that the Flint River Watershed boasts the #1 small mouth bass fishery in the state. When you add the data and observations together it paints a picture of a healthy, functioning ecosystem; one that has been on an upward trajectory for the last 43 years.

Today, the most serious pollution problems facing our Flint River Watershed come from nonpoint source pollution in the form of storm water runoff from urban, suburban, and agricultural areas alike. Nonpoint source pollution includes things like dirt, plant nutrients, litter, salt, oil, grease, and pesticides. Solving the problem of nonpoint source pollution is a tough nut to crack and it’s also where we as individuals and as a community come in. The most impactful way to stop nonpoint source pollution is for home owners, farmers, and others to follow some simple and proven actions. Each of the FRWC’s programs and activities allow people to experience the wonders of our watershed while learning how easy it is to do the right thing to keep our watershed healthy.

From its vantage point on the shore, the Pfeifer can must have watched FRWC volunteers, staff, and board members out talking with homeowners about the connection of storm drains to our river’s health, giving a bicycle tour to novice riders along the trail, and pulling tires and debris from the river. And then there was that one guy who picked up a piece of trash that transformed into an unexpected treasure upon closer inspection...

That Pfeiffer’s beer can rested under a bush for over six decades waiting to be discovered by someone who chose to spend the day helping his community and our Flint River stay healthy and clean for all to enjoy. It now sits on display at the FRWC office as a reminder not only of how far our Watershed has come since that beverage was enjoyed so many years ago, but also acknowledging that there is still work to be done and great people out there willing to lend a hand.

SPRING CLEANING ALONG THE FLINT RIVER AND IN OUR COMMUNITIES



“Out of sight, out of mind.” That saying is particularly apt when it comes to littering and dumping trash in and near our rivers. People who litter with plastic bottles or bags, or those who dump bigger items like tires or construction debris may not have stopped to think about the harm they are causing our local rivers and our community. Maybe they think it will just float away, or at least sink out of sight. But we know that isn't the case, and every spring that is where the FRWC, our chapters, and enthusiastic bands of volunteers come in.

The FRWC helps to organize small river cleanups all throughout the year and coordinate a big spring event on the last Saturday in April each year. This year the

Flint River and Community Cleanup is on Saturday April 25th from 9AM – Noon. We invite you to join hundreds of volunteers at one of the more than 20 cleanup sites all over Genesee and Lapeer Counties. We will pick up trash (and the occasional treasure) along the shorelines of our local river, creeks, and lakes. After the hard work is done, volunteers are invited to a luncheon as a token of our gratitude for a job well done. Genesee County volunteers celebrate at Vietnam Veterans Park in Flint and Lapeer County volunteers gather at Cramton Park.

Part of the excitement of the Flint River and Community Cleanup is finding lost treasures. Every year the people with the most unique finds are nominated to win the prestigious FRWC Golden Gloves Award. The winner is chosen through a public poll leading up to the announcement at the FRWC Voice of the River Annual Celebration the following January, and has the honor of displaying the award for one calendar year. That Pfeiffer' Beer can found next to the old Flint

Farmer's Market mentioned in the story on page three won the Golden Gloves Award a few years ago. A box of kittens won the award this past January.

What will we find and who will be clearing a prominent place in their home or office to display the coveted Golden Gloves Award next January? Will it be you? Come out and give it a shot on Saturday, April 25th! Contact Jaime Welch at jwelch@flinriver.org or 810-767-7140 if you, your organization, or business would like volunteer or become a sponsor. All event details are available and regularly updated on our Flint River and Community Cleanup program page at www.flinriver.org



COME PAINT THE TOWN (STORM DRAINS, THAT IS...)

“What are those people doing? Are they painting graffiti on my storm drain?” Fear not! It's just the FRWC's corps of volunteer Storm Drain Stencilers doing their part to keep the Flint River clean and healthy.

Most residential areas have these drains, and when the snow melts and the rains fall everything washes off your lawn and driveways, and down the closest one. Which you think is fine because that must lead to a treatment plant. Right? Nope... It's not exactly common knowledge, but it goes directly into your local river, lake, or creek.

That's why the FRWC, in partnership with the Genesee County Drain Commissioner, created a Storm Drain Stenciling program where FRWC volunteers visit neighborhoods throughout the Flint River Watershed to talk with people and hand out a helpful brochure: Seven Simple Steps to protect our local rivers. Then the painting begins!

Volunteers spray paint a stencil near every storm drain in the neighborhood that says: “No Dumping. Drains to River.”



Why do we paint these messages on the drains? Because at some point, we've all done it: washed a car in our driveway, fertilized our lawn without testing the soil to see if it actually needed it, or

left the doggy doodoo for “tomorrow.” The Seven Simple Steps are the easiest and most effective things you can do to stop nonpoint source pollution, keeping the Flint River Watershed clean and healthy for everyone to enjoy. And the stencils serve as a colorful reminder to your neighbors.

Sound like fun? Paint the Town (Storm Drains) with us! Artistic skills are not required, Storm Drain Stenciling can be done by anyone, anytime during the year as long as the weather permits. Groups can be as small as 2 or 3 people or as large as 25 depending on the size of the neighborhood. If you, your club, or business are interested in painting the town through the FRWC Storm Drain Stenciling program, please contact

Jaime Welch at jwelch@flinriver.org or 810-767-7140, or sign up from our website by clicking the “Volunteer Here” tab and submitting the form: <http://flinriver.org/blog/category/volunteer>

PADDLES SHOVE OFF IN MAY



Wade Carver enjoying a paddle on the river.

Jaime Welch has been leading floats down the Flint River for several years and has some stories to tell that will have you rolling on the floor laughing one minute, and then inspired and in awe of the beauty and serenity of our Flint River in the next. One of her favorite stories involves Wade Carver, a novice kayaker who started attending several years ago. He, like many of our participants, hadn't seen the real Flint River, and was pleasantly surprised by the beauty he found. For the first several years Wade rented a kayak but this past summer he decided he enjoyed kayaking

the Flint River enough to buy a kayak of his own. To have someone enjoy their experiences on the Flint River enough to make an investment that allows them to access it any time they want is a powerful testament to the beauty of our river.

Several years ago, while launching from the Holloway Dam site, Wade got caught in the current from the dam while going around the first bend. Before he could react, it had pushed him up against a tree stretching into the river and caused his kayak to flip sideways. No harm done. Wade was able to get right back up again, none the worse

for the wear other than being a bit soggy. We dragged his kayak to the shore to get all the water out. As we were getting ready to set back out we discovered that Wade had lost his (very expensive) prescription sunglasses. Some people would have turned around and gone home or at the very least been upset, but Wade emptied the water and got back in his kayak. That wasn't the last trip Wade went on, either. He was hooked!

Wade has continued to attend the paddles and can't wait for the weather to warm up and our paddles to begin so he can get back out on the river. One of his favorite memories so far is the seeing the family of bald eagles as he floated downstream. It was just another day on our beautiful Flint River, but it was such an unexpected treat for those lucky kayakers. That is the appeal of paddling the Flint River: floating along in anticipation of what's around the next bend.

Come out and see for yourself! Several times a month from May through October, the FRWC hosts kayaking and canoe trips along a number of stretches of the Flint River. These trips normally last two to three hours, are appropriate for all levels of experience and you don't even have to own your own kayak or canoe to participate. The FRWC has some available for rent! Check the FRWC Events Calendar or the Flint River Paddles program page on our website. RSVP to Jaime Welch at [810-767-7140](tel:810-767-7140) or jwelch@flinriver.org to get out on the river with us this season.



Wade Carver, in the blue T-shirt on the left, prepares to go out for a paddle with the group.



Come and join us for a great time paddling in the watershed.

SAVE THE DATE FOR "LOVE YOUR LAKES" COMMUNITY CELEBRATIONS



FLINT PARK LAKE JULY 16TH & THREAD LAKE JULY 23RD

Join us for the 2nd Annual 'Love Your Lake' Picnics. The FRWC will once again team up with the Genesee County Parks at Thread Lake and Flint Park Lake. The International Academy of Flint will also be partnering with us at the Thread Lake picnic. Join us for an afternoon of fun and celebration of these lakes, the people that love them, and to see the recent makeovers they have received! Come out and enjoy outdoor games, kayaking, bug discovery, bounce houses, and give-a-ways.

- Flint Park Lake Picnic will be held in the pavilion on July 16th
from 5:30 pm to 7:30 pm.
- Or join us at McKinley Park on Thread Lake on July 23rd
from 5:30-7:30p.m.

If you have questions about this event or how you can take part please contact Sondra Severn at [810-767-6490](tel:810-767-6490) or ssevern@flinriver.org.

DON'T MISS THE BOAT!

FRCA'S SECOND ANNUAL FLINT RIVER FLOTILLA IS AUGUST 8TH

Mark your calendars for the 2nd Annual Flint River Flotilla, August 8th. For just \$10, you can join our Flotilla down the picturesque Flint River. Bring your inflatable raft, kayak, canoe, or paddleboard for a leisurely hour and a half float from the old Firehouse on Grand Traverse Street (recently reopened its doors as Tenacity Brewery) to the Mott Park Golf Course. Feeling competitive? You could win a major award! Last year Flotilla award winners included the "Spirit Award," "Most Colorful," and "Highest Energy." Check out the FRCA's new website for details: www.fralliance.org. Take a peek at last year's photos on FRWC's Flotilla album on Flickr.



SOMETHING UNCOMMON AT CHEVY COMMONS



The Flint River Corridor Alliance helped the City of Flint submit a \$500,000 grant to the National Fish and Wildlife Foundation's Sustain Our Great Lakes program for the Hamilton Dam project. The FRCA worked with the FRWC to submit a \$30,000 grant application to the National Fish and Wildlife Foundation's Five



Star & Urban Water program for the Swartz Creek and Spring Grove site. With Phase I of improvements at Chevy Commons set to break ground this spring, the FRCA has been working with the City of Flint and the Genesee County Land Bank to acquire the rail line through Chevy Commons so that Phase II of the site can be implemented.

For more information on the FRCA, ongoing projects, and upcoming events visit their new and improved website at: www.fralliance.org

HIT THE TRAIL WITH THE FRIENDS OF THE FLINT RIVER TRAIL

The snow has melted away, the frost will be gone soon too, and you are already getting that bicycle ready for the season. Cycling season is finally here and the FFRT needs your help getting the Flint River Trail ready for a great season, so please come out and help us with a trail cleanup.

Once again, the FFRT Spring Cleanup is held in conjunction with the Flint River and Community Clean Up on Saturday, April 25th, starting at the Vietnam Veterans Park at 9:00 AM.

The first ride of the year will be on Sunday, May 3rd, and bicyclists start out on the



trail ride at 2:00 PM sharp from the site of the OLD Flint Farmers' Market on E. Boulevard Drive. You can join us every Sunday through the

last Sunday in October. These rides are 10 to 12 miles long, leisurely, and family friendly. Don't forget your helmet!

The FFRT also hosts a once-a-month ride on another mid-Michigan trail that is within about an hour's drive from Flint on the second Saturday of each month.

The first Saturday ride will be on the Saginaw to St. Charles Trail. Meet the FFRT at the Saginaw Trail Head at 10:00 AM for a 20-mile round trip followed by lunch, before returning to our vehicles. In June, join the FFRT to ride the Southern Links Trail starting in Columbiaville. Get further details on the season's Saturday rides at the start of FFRT Sunday Rides or on the FFRT Chapter page of the FRWC webpage.

LAPEER CHAPTER IS CALLING ALL RIVER WARRIORS TO HELP REMOVE RIVER OBSTRUCTIONS

Are you looking for a way share your strengths as the voice of the river? The Lapeer Chapter would love to have you join their team of dedicated volunteer stewards. Here are four ways you can help:

1. Adventure The obstruction removal group provides access for paddlers for this amazing stretch of river by removing logjams. The Lapeer Chapter maintains a stretch of river long enough to provide 10 hours of canoeing/kayaking in Lapeer County!

2. Civic Pride The Lapeer Chapter was established because of the unique features of Farmers Creek and the South Branch Flint River. Help clean it up! Last year over 50 students filled a dumpster with trash from city parks. Join the Lapeer Chapter April 25 from 9am-1pm for the Annual Flint River and Community Cleanup! All Volunteers check in at Cramton Park (off S. Main St.)

3. Ecology Learn about biological assessment and how living communities of benthic macroinvertebrates inform us of water quality and human impact. Help achieve the goals of monitoring all 10 sites in Lapeer County!

4. Community Support Lapeer is raising money for a new canoe landing. This project is currently in the permitting process with the DEQ. Help raise awareness and support for public recreation!

Contact Peter McCreedy, Lapeer Chapter Chair, to join his Awesome Team! pmccreedy@chatfieldschool.org



SPRING MONITORING



Spring is the busy season here in the watershed. It marks the beginning of all of our programs, including the two week craziness of water quality testing that occurs in early May. With over 36 sites spanning several counties, we can always use more volunteers to get a lot done in the short two-week window. It's a lot of fun and we invite you to come out and give it a try.

New volunteers are paired with

experienced team leaders who know the ropes. These leaders will mentor the team through the various monitoring tests and activities. Squeamishness quickly gives way to fascination with the benthic critters and the process of learning the special "quirks" of each species. The dragonfly nymph is a good example. They lie still and wait for prey to pass by. But if the prey doesn't come close enough or they need to get somewhere in a hurry, they will draw water into their back end and shoot it out, propelling them along much like a jet pack. Crayfish are always a big hit and one even graciously consented to having his picture taken with one of his fans. At least one person always gets wet (normally to the great amusement of their team), but everyone gets caught up in finding and learning to identify the benthic.

For all the fun that we have, volunteers

do take their responsibilities very seriously. After all, the data we collect is shared with the county, state, and federal agencies that track watershed health trends. Volunteers learn how to complete a Habitat Assessment Form and properly identify species, collect data, review and discuss the implications of that data compared to past years' findings, and assess how that stream is doing over the long term.



We are thankful to the Genesee County Drain Commissioner for the consistent support of the FRWC's efforts to monitor the health of our river and providing an opportunity for volunteers to come out and play in the water. If you are interested and don't mind getting a little muddy, then contact Jaime Welch today at [810-767-7140](tel:810-767-7140) or jwelch@flintriver.org to learn how to volunteer.

FLINT RIVER GREEN

One of the FRWC's oldest and most established programs is Flint River GREEN: 26 years and counting! The Flint River Watershed program is the largest of the Global Rivers Environmental Education Network (GREEN). GREEN provides opportunities for young people across the United States and Canada to learn more about the watershed they live in and to use scientific findings to create lasting solutions for pressing water quality issues.

Flint River GREEN provides middle and high school students from across Genesee and Lapeer counties with exciting, hands-on science programs to learn about watershed assessment and improvement. Local educators are connected with local partners, including GM environmental engineers, who assist with water quality monitoring, offer classroom support, help make community connections, and coordinate events. GREEN students assume leadership roles in solving local environmental problems, putting them in the driver's seat towards creating sustainable solutions for the real world.

The GREEN goal is to transform young people into active citizens who improve the environment and their communities now and in the future. At the same time, students are getting exposed to a variety of environmental and engineering career



John Maksimchuk III

options that they may not otherwise know about or consider as a viable option. One of Flint River GREEN's success stories is John Maksimchuk III. John is an environmental engineer at General Motor's Flint Assembly Plant, and serves as a long-term mentor for Flint River GREEN and as a leader on the Flint River GREEN planning committee.

"Flint River GREEN provides a great opportunity for students to learn about sciences and the environment from local professionals. It is certainly one of my highlights as an environmental engineer," said John. He is just one of the 150,000 students, teacher, and community leaders that have been positively affected by the

GM GREEN program across the US and Canada...and right here on our Flint River.

Flint River GREEN students and teachers will be fanning out across the watershed the week of Earth Day. Give them a honk and a wave if you see them testing your local water quality. Then on May 15th, our GREEN students will gather at Kettering University to share their results. Members of the public are welcome to attend and see what these great students have been up to.



A Big Thank You to Our 2015 Voice of the River

Annual Celebration Sponsors

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MAKE A BIG SPLASH: BECOME A MEMBER OF THE FRWC

The board and staff of the Flint River Watershed Coalition is so appreciative of the individuals and organizations that support our mission. The following membership payments were made over the 2014 Holiday season or early in 2015. If you see our supporters on the river, please join us in recognizing their generosity.

Kimberly Beard

David Beaulieu

Linda Berker & Donald James ***

Nancy Byder

Deborah Cherry,

Genesee County Treasurer ***

David & Kathy Churchill ***

Thomas Cook and Anna Owens

Wanda Dowdall

Lauri Elbing

Debra Golden-Steinman

Michael Haley

Members of the Holloway Lake Association

Joseph Juno

Michael and Virginia Knag ***

Joseph & Lili Leonardi

Kenneth Lombard

Peter & Beth McCreedy

Philip McCrory

Maureen McMahan

Amy McMillan

Donald Mosher ***

Jack Nettleton

Anna Paulina Foundation ***

Terry Reechko ***

Ronald Shoemaker

Fred & Alycema Townsend

Thomas & Rebecca Wickham ***

Karen Wilkinson & Reginald Lancaster

***denotes a contribution of \$100 or more

The combined membership payments made by these individuals, families, and foundation is over \$2500. These funds will help us promise:

- More than enough lunch for the middle school kids at the Flint River GREEN summit in May 2015, OR
- All of the gloves and garbage bags

that will be used by our Flint River and Community Cleanup volunteers, OR

- Several pairs of waders for our Benthic Monitoring volunteers, OR
- Insurance and supplies for our canoers and kayakers.

Please consider renewing your membership today, or if you aren't a member already, consider joining the organization. If you prefer to make a membership contribution in the traditional way, there is a membership form below. If you prefer to make your membership payments on line, you can do so from our website on the 'Donate Now' link.

Your funds help us provide materials to carry out our projects and organize recreational activities on the water. All contributions are tax deductible. We watch every dollar and pinch every penny to make sure that your membership dollars translate into real action and benefit for the Flint River watershed.

Become a member now!

Become a Member of the FRWC Today!

SPRING/SUMMER 2015

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____ other \$_____

Some companies will match an employee contribution to an eligible charity or non-profit organization. Please check with your employer to obtain a matching gift form, if applicable.

Your support is sincerely appreciated. The Flint River Watershed Coalition is a not-for-profit organization with 501(c)(3) tax exempt status. Your contribution is deductible.

Please make checks payable to: **Flint River Watershed Coalition or FRWC, 400 N. Saginaw Street, Suite 233 Flint MI 48502**

CALENDAR OF EVENTS

You will find at least two opportunities each week from May until the end of October to come out and experience the wonders of our Watershed for yourself. These are just a few of the season's highlights...

April 11th	Earth Day at UM-Flint from 10AM – 3PM - Harding Mott University Center
April 25th	Flint River and Community Clean Up 9:00 am to NOON at various locations (see back page for more info)
May 3rd	Friends of the Flint River Trail Sunday Cycling: First Weekly Ride of the Season!
April 30-May 14th	Spring Water Quality Monitoring Season Begins (dates tentative)
May 15th	GREEN Summit at Kettering University
May 23rd	Memorial Weekend Paddle: Swartz Creek is the First Bi-Monthly Paddle of the Season!
May 30th	Columbiaville Paddle with Six Rivers Regional Land Conservancy
June 13th	2nd Annual "Fish the Bricks" Tournament (DNR Free Fishing Weekend)
June 20th & 21st	Ortonville Creekfest – Visit the FRWC Booth!
July 16th	"Love Your Lakes" Community Celebration Picnic at Flint Park Lake
July 23rd	"Love Your Lakes" Community Celebration Picnic at Thread Lake
August 8th	Second Annual Flint River Flotilla
September 26th	Paddle the Shiawassee National Wildlife Refuge
October 3rd	17th Fall Water Quality Monitoring (dates tentative)
October 3rd	Last Flint River Paddle of the Year
October 25th	Last FFRT Sunday Trail Ride of the Year

Check our Calendar for the full schedule of activities and further details at www.FlintRiver.org



FFRT Bicycle Rides

Ride the Flint River Trail Every Sunday starting out from the old Flint Flint Farmer's Market at 2 pm and join the FFRT to ride another mid-Michigan trail on the Second Saturday each month.



Flint River Paddles

Kayak or canoe the Flint River with us on the First and Third Saturday of every month and the midweek evening paddle every Fourth Wednesday.



400 N. Saginaw St., Suite 233
Flint, MI 48502

www.FlintRiver.org

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2015 Flint River & Community Cleanup

Saturday, April 25th
9:00AM to NOON



The FRWC is looking for volunteers from communities, clubs, organizations, businesses, and others to help us to give the Flint River a good Spring Cleaning in preparation for the season of fun ahead! Check out this year's cleanup sites across Genesee and Lapeer Counties and get further details at www.flintriver.org

DON'T MISS THE AFTER-PARTIES

Appreciation Lunches from NOON – 2PM

Genesee County: Vietnam Veteran's Park in Flint
Lapeer County: Cramton Park on S. Main St.

SIGN UP ONLINE TODAY!

...or contact Jaime Welch at (810) 767-7140
jwelch@flintriver.org

REMINDER: *Golden Gloves Award contenders are selected from this event*

If you retrieve something interesting or unusual during the cleanup, take a picture then email it with your name and the site you found this treasure to Jaime Welch at jwelch@flintriver.org. YOU could WIN the prestigious Golden Gloves Award, chosen through a public poll and bestowed at the FRWC Voice of the River Annual Celebration in January.



MDNR's Hunting Access Program (HAP) is managed locally by the District. HAP offers nine private farmland parcels in Genesee County for public hunting. Parcel locations may be found at Michigan.gov/hap. We are currently enrolling new HAP parcels and arranging lease agreements. Contact us for more information.

Michigan farmers are voluntarily participating in the Michigan Agricultural Environmental Assurance Program (MAEAP) to address environmental concerns. MAEAP is designed to reduce farmers' legal and environmental risks through a three-phase process: education, farm-specific risk assessment, and on-farm verification that ensures the farmer has implemented environmentally sound practices. Contact the District to learn about the MAEAP verification process.



Urbanwood trees are milled for lumber and sold locally at Genesee County Habitat for Humanity. The District sells its boards and character slabs from removed City of Flint street trees. Look for the wood that grew up in Flint.

I grew up in Flint

The District is going *Green*. To receive future notices and our tree sale brochures, we are requesting your email address. You may provide it by emailing genesecd@yahoo.com with "Mailing list" in the subject line.



Genesee Conservation District Fall Tree Sale 2015

Place your order by October 2, 2015

Fill out the form below and submit it with payment to:
Genesee Conservation District, 1525 N. Elms Rd., Flint, MI 48532

Tree Pick-up Friday, October 16, 2015 • 9am until 6pm
 at Genesee County Habitat For Humanity • 101 Burton St. • Flint, MI 48503

GCD is not responsible for orders not picked up on the scheduled distribution date. Survival rates cannot be guaranteed.

Species	Growth	Roots	Soils / pH	Soil Conditions	Height
Cedar, White	Slow	Shallow roots	Moist to well drained/5.0-7.0	Shallow loam	70-80'
Fir, Douglas	Moderate	Shallow roots	Moist to well drained/4.0-6.0	Silt loams, stony loams, gravelly sands	40-80'
Hemlock, Canadian	Slow	Water dependent	Moist to well drained/4.0-7.0	Upland sandy loams, loamy sands, silt loams	60-100'
Pine, Red	Moderate	Horizontal and vertical roots	Well drained/5.0-8.0	Dry sandy soils & gravelly ridges, low soil fertility	60-100'
Pine, White	Fast	Horizontal roots	Sandy, poorly drained/4.0-8.0	Sandy to heavy textured soil	70-100'
Spruce, White	Moderate	Horizontal and vertical roots	Moist to well drained/4.0-9.0	Acidic, drought tolerant, loamy, moist, sandy, well drained, clay soils	40-60'

Keep this portion. No invoice or reminder will be mailed. We appreciate your support.

Conifer	Size	5	10	25	50	100	Quantity	Price
Cedar, White	6-12"	\$11.00	\$19.25	\$41.25	\$68.75	\$110.00		
Fir, Douglas	9-15"	10.00	17.50	37.50	62.50	100.00		
Hemlock, Canadian	5-12"	13.00	22.75	48.75	81.25	130.00		
Pine, Red	6-14"	8.00	14.00	30.00	50.00	80.00		
Pine, White	6-14"	5.00	8.75	18.75	31.25	50.00		
Spruce, White	9-15"	4.20	7.35	15.75	26.25	42.00		

Name _____
 Address _____
 City _____ Zip Code _____
 Phone _____
 Email _____

OFFICE USE ONLY
 Order # _____
 Date Received _____
 Cash _____
 Check # _____

Sub-Total	\$ _____
+Tax (6%)	\$ _____
Total	\$ _____

Cash _____ Check _____ Credit _____
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Fall Tree Sale
Use the enclosed order form or
order at gettrees.org

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- Brad Hill
- Brian VanPatton



The District and the USDA-NRCS administer conservation management practices locally as provided in the 2014 Farm Bill. Technical and application assistance to landowners and producers is available for cost share programs, which are accepted year-round. Implemented practices positively impact the environmental health of our natural resources.

Environmental Education classes are available to classrooms and youth groups in Genesee County. Sessions are specifically tailored to appeal to young people through hands-on activities covering a variety of concepts tied to state standards. Classes are available as stand alones or as a series of lessons. Schedule a meeting with us to address your needs.

Seven Simple Steps to Clean Water

1. Practice good car care.
2. Fertilize sparingly and carefully.
3. Clean up after your pet.
4. Save water.
5. Carefully store and dispose of household cleaners, chemicals, and oil.
6. Help keep pollution out of storm drains.
7. Choose earth friendly landscaping.



Calling All Creative Beings!

What can you do with reclaimed wood?

Presenting: **THE URBANWOOD CONTEST**

We will highlight how reclaimed local trees can become useful objects and imaginative works of art. Whether you're a crafter, artist, or a wood worker, we hope that you'll share your talent and join in the excitement!

Entering is easy.

Information and entry forms are available from Genesee Conservation District or Genesee County Habitat for Humanity or at gettrees.org. Projects must be complete when entering by December 12, 2015.

Awards will be given in several categories.

Be on the lookout for Michigan's Most Unwanted Invasive Species

Learn. Find species identification tools at mnfi.anr.msu.edu.

Locate. Their whereabouts.

Report. Map at MISIN. Download the free app at misiin.msu.edu.

Invasive Species: Top threat to biodiversity. Compete with natives for food & habitat. Can kill or displace native species. Can degrade habitat and alter food webs. Significantly effect the economy on property values, tourism, utilities, and industry. Can be a health risk to humans, either directly or indirectly, by introducing disease and toxins.

District services are made possible through fund development efforts and the generous support of: Ruth Mott Foundation, United Way of Genesee County, Genesee County Community Drain Commission, Genesee County Farm Bureau, Michigan Department of Agriculture and Rural Development, Michigan Department of Natural Resources, USDA Natural Resources Conservation Service, and the City of Flint.

« The Flint River Watershe x Genesee Conservation Dis x

www.geneseeecd.org

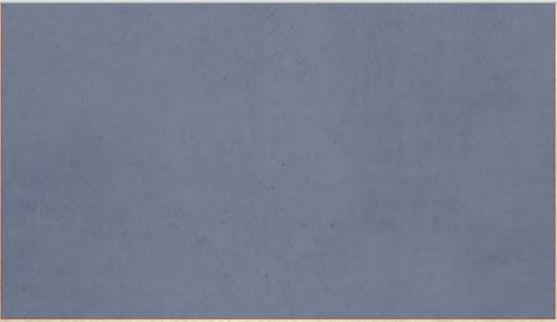
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On the Ground
Summer/Fall Newsletter
2015 Fall Tree Sale

Message

Planting Send



Kids Conservation Place

The Kids Conservation Place engages youth to express their knowledge about our natural resources. It is written by youth for youth whose views and ideas contained within the Place are expressly their own.

The Flint River (Michigan) by Emily H.

Some people might just think that the Flint River (Michigan) is dirty water, but it's not just dirty it's polluted. The Flint River can still be used for a lot of things but not as much as it could be used for if it weren't polluted, like swimming. We could play in it like we would at the beach, but do you want to swim in brown, smelly water? Pollution is a problem that we can fix. It involves hard work and dedication but if we all work together we can change the Flint River from brown to blue. Not just the Flint River but different polluted waters across the globe from brown to blue!



Emily's Eco Tip

Eco Emily's Tip of the Week

Some things you can do this week to help at home to prevent pollution is...

- You can take shorter showers, maybe 5-6 minutes instead of 20 minutes. Think, a constant flow of water for around 1,200 seconds, that's a lot of seconds!

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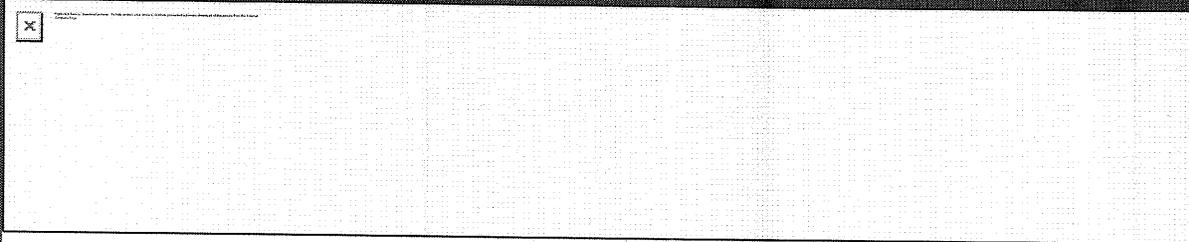
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Kubic, Susanne

From: mailer@infusionmail.com on behalf of Genesee County Parks
<parkswbteam@gcparks.org>
Sent: Thursday, October 16, 2014 4:56 PM
To: Kubic, Susanne
Subject: For-mar On the Road In School Programs Reminder

K: Stormwater /
AR / PDF
FOR-MAR
PROGRAMS

Having trouble viewing this email?



Dear Sue,

Did you know that you can bring the For-Mar field trip experience to your classroom?

For-Mar On The Road in-school programs are back for the fall 2014 season! Our interactive environmental education programs are designed to engage and enlighten your students. Created to be as useful for the teachers as they are fun for the students, each in-school program curriculum includes relevant and valuable State of Michigan education standards. For-Mar naturalists and horticulturalists use a wide range of interpretive techniques to keep students excited about learning. Techniques include hands-on activities, live animals, demonstrations, and multimedia presentations. The best part; this classroom fieldtrip is **FREE!**

Program availability is limited, so reserve your in-school program today! Programs are available from September 15-December 12, 2014. Reserve your date by contacting Karen Palmer at fmotr@gcparks.org or 810-845-6437.

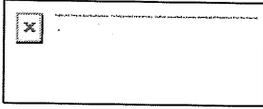
These programs are for Genesee County 3rd-8th grade classrooms and are provided by grants from the Ruth Mott Foundation, the Stella and Frederick Loeb Charitable Trust, and the Community Foundation of Greater Flint.

Choose from these seven different program options!

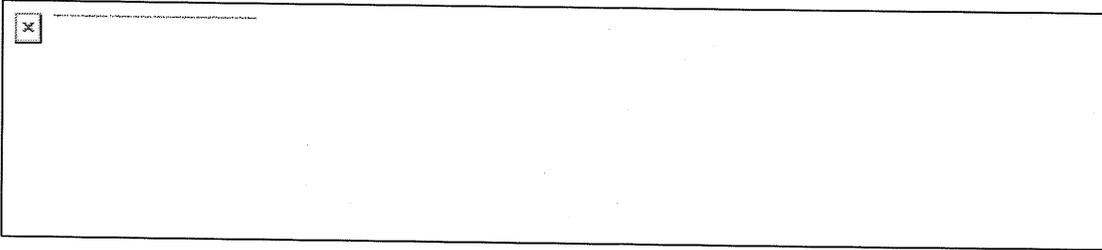
- **Planet Protectors Part I:** Requirements of life, natural resources, and food chains. *For grades 3 – 5, aligned with State Standards and GLCEs*
- **Planet Protectors Part II:** Monitoring the health of an ecosystem, carrying capacity tag, and pond life investigation. *For grades 3 – 5, aligned with State Standards and GLCEs*
- • **H2 knOw! Part I:** Amphibians, the water cycle, watersheds, and human impacts. *For grades 3 – 5, aligned with State Standards and GLCEs*
- • **H2 knOw! Part II:** Water use and aquatic invasive species. *For grades 3 – 5, aligned with State Standards and GLCEs*
- **Plants in Action!** Basic plant science and unconventional gardening. *For grades 3 – 5, aligned with State Standards and GLCEs*
- **Worms on Wheels:** Vermiculture (composting with worms), decomposers, and recycling. *For grades 3 – 5, aligned with State Standards, GLCEs & Michigan Model for Health*

- **MEECS Lesson 1: Where is all the water?:** Water availability, water cycle demonstrations, watersheds, human impacts, and a visit from an animal teacher. *For grades 6 - 8, aligned with State Standards and GLCEs*

To learn more about For-Mar On The Road and each of the seven FREE in-school field trip opportunities click on this For-Mar On The Road flyer [link](#).



Nicole Ferguson, Park Naturalist
Genesee County Parks and Recreation Commission



If you no longer wish to receive our emails, click the link below:
[Unsubscribe](#)

Genesee County Parks and Recreation Commission 5045 Stanley Road Flint, Michigan 48506 United States
(800) 648-7275



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GENESEE COUNTY PARKS
Get away. Right away.

CROSSROADS/HUCKLEBERRY RAILROAD FOR-MAR MOUNDS WOLVERINE CAMPGROUND PARK DIRECTORY RESERVATIONS

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SEASONAL JOBS ▶
ABOUT ▶
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PAVILION ▶
CALENDAR ▶
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Parks By Activity

Beaches

They say life's no day at the beach. But it can be. Any time you want. All you need to do is get away, right away to Genesee County Parks. You might be in the mood for a little peace and quiet at Clover Beach on Byram Lake in Linden County Park. Or some fun and games, Bluebell Beach-style, along the shores of Mott Lake. Or maybe just settle in on Buttercup Beach and enjoy the stunning views of the Holloway Reservoir. Turns out, a day at the beach is just around the corner. At your Genesee County Parks.

The Genesee County Health Department monitors the water quality on a weekly basis from May through September. [Click here](#) to review Water Quality Results for Genesee County Parks & Recreation beaches.

Admission and Hours

Free admission. Beaches are open from May 22 - September 7, 2015.
No lifeguards will be on duty during the 2015 season.
Park attendants will be on duty at Bluebell, Buttercup, and Clover from May 22 - September 7, 2015.

Holloway Reservoir Regional Park

5,500 acres, including the 1,975-acre Holloway Reservoir

- Buttercup Beach, May 22 - September 7, 2015, 8:00 am - 8:00 pm daily
7130 N. Baxter Road, Columbiaville, MI 49421

Genesee Recreation Area

- 540 acres, including Richfield Park and 600-acre Mott Lake.
- 5500 Bray Road, Flint, MI 48905.
- Bluebell Beach, May 22 - September 7, 2015, 8:00 am - 8:00 pm
- Bluebell Beach Splash Pad, May 22 - September 7, 2015 / September 8 - October 1, 2015 (weather permitting), 8:00 am - 8:00 pm

Bluebell Beach Splash Pad:

- uses City water, not water from Mott Lake.
- water is fresh, not recycled.
- is the only free Splash Pad in Genesee County.
- has a zero-depth and barrier-free surface.
- features an adjacent shaded patio area with picnic tables.
- is adjacent to the playground.

Visitors are asked to follow these rules while enjoying the Bluebell Beach Splash Pad:

- Parents must monitor their children. Parents and/or guardians with children 5 years of age and younger are welcome to supervise them from inside the splash pad fence. Parents/guardians of older children should supervise them from outside the fence. A child with special needs may need their parent/guardian with them no matter how old they are.
- Bluebell Beach Splash Pad is only available for use for children under 12.
- No running, water fights, squirt guns, water balloons, or buckets are allowed.

Linden County Park

135 acres, 15349 S. Linden Road, Linden, MI 48451

- Clover Beach, on Byram Lake ([see map](#)), May 22 - September 7, 2015, 8:00 am - 8:00 pm

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THE LATEST WHAT IS A WATERSHED ANYWAY? VOLUNTEER HERE VOICE OF THE RIVER BLOG

CONTACT US... Older Entries STAY CURRENT ON SOCIAL MEDIA

FRWC
400 N. Saginaw Street
Suite 233
Flint, MI 48502
Ph: 810.767.6490
Fax: 810.424.5484
info@FlintRiver.org

MEMBERSHIP MATTERS

Become a Member or Renew by clicking on the "Donate Now" button!

DONATE NOW
Network for Good

Chapters of the FRWC:
Friends of the Flint River Trail
Lapeer Chapter
Kearsley Creek Chapter
Flint River Paddlers

2015 Flint River and Community Cleanup Sites
BY FLINTRIVER, ON MARCH 20TH, 2015%

Genesee County

All Volunteers Check-in at one of these 17 sites

1. Vietnam Veterans' Park: In partnership with the Friends of the Flint River Trail's Annual Trail Clean Up, Downtown Flint: James P. Cole Blvd., between Hamilton & Robert T. Longway
2. Downtown Flint: Café Rhema, 432 S. Saginaw St.
3. Atwood Stadium: 701 University Avenue, parking lot off of First Ave. or Water St.
4. Flushing Riverview Park: Flushing: 230 S. Cherry St. (near the A&W Drive-In)
5. Flushing Township Nature Park: 8301 N McKinley Road, Flushing, MI
6. Gilkey Creek / Pierce Park: Pierce School - S. of Court St., W. of Dort Hwy.
7. Riverbank Park in Flint: Corner of Water St. & Lyon St.
8. Holloway Dam Canoe Access: Richfield Township, Carr Rd. at the Dam
9. Kearsley Park: Kearsley Park Pavilion on Kearsley Park Blvd. north of Robert T. Longway
10. Hott Park: Park at Hott Park, Hoken Dr. & Weller St.
11. Happy Hollow : Near Hammerberg Rd. & I 69
12. Thread Lake - McKinley Park: McKinley Center at Orville St. & Peer Avenue
13. Thread Creek: Corner of Center & Bristol Rd.-near Sharky's
14. Thread Lake Park: Meet at end of Winans Street
15. Flint Park Lake: Pavilion off Winthrop Blvd
16. Carriage Town: Durant-Dort Parking Lot
17. Carriage Town Ministries: 605 Garland St. Flint, MI 48503

Click Here To Volunteer

Sign Up Today!
Email Address: * required
First Name:
Last Name:
City:
State:
Join Now
Email & Social Media Marketing by VerticalResponse

Check out FRWC's Flickr photos!

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2015 Flint River & Community Cleanup
BY FLINTRIVER, ON FEBRUARY 26TH, 2015%

Saturday, April 25th
from 9AM - Noon

DON'T MISS THE AFTER-PARTIES!
Volunteer Appreciation Lunches are Noon - 1 PM (see details below)



FLINT RIVER WATERSHED COALITION

We are looking for communities, clubs and organizations, businesses and others to join us from all corners of our Flint River Watershed to give the area a good Spring Cleaning to spruce up our rivers, lakes, creeks and communities for the season of fun. We will be picking up trash and debris along the shorelines, BUT not entering the river due to

TOP-RATED NONPROFIT 2010 GREAT Nonprofits

VOICE OF THE RIVER BLOG
Check out Riley's latest advent

Do you have a tale to tell about your adventures in the Flint River Watershed? Get touch with us to pitch your story! info@FlintRiver.org

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2015 Flint River & Community
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Get away. Right away.  GENESSEE COUNTY PARKS

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- City of Flushing
- Environmental Rubber Recycling
- Flint DDA
- Home Depot Team Lapeer
- Hungry Howies in Lapeer
- Rick Rhein Disposal - Lapeer
- Vern's Collision
- Vista Center

\$100 Clean Up Friend  Security Credit Union

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2015 Flint River & Community Cleanup

Saturday, April 25th
9:00AM to NOON

FRWC is looking for volunteers from communities, clubs, organizations, businesses, and others to help us to give the Flint River a good Spring Cleaning in preparation for the season of fun ahead!



SIGN UP TODAY!

Contact Jaime Welch (810) 767-7140 jwelch@flintriver.org
or visit our webpage www.flintriver.org

2015 Cleanup Sites

Genesee County

1. **Vietnam Veterans' Park: Friends of the Flint River Trail's Annual Trail Clean Up.** Downtown Flint: James P. Cole Blvd., between Hamilton & Robert T. Longway
2. **Downtown Flint:** Café Rhema, 432 S. Saginaw St.
3. **Atwood Stadium:** 701 University Avenue, parking lot off of First Ave. or Water St.
4. **Flushing Township Nature Park:** 8301 N McKinley Road, Flushing, MI
5. **Flushing Riverview Park:** Flushing: 230 S. Cherry St. (near the A&W Drive-In)
6. **Gilkey Creek/Pierce Park:** Pierce School - S. of Court St., W. of Dort Hwy.
7. **Riverbank Park in Flint:** Corner of Water St. & Lyon St.

DON'T MISS THE AFTER-PARTIES

Appreciation Lunches from NOON – 2PM
Genesee County: Vietnam Veteran's Park in Flint
Lapeer County: Cramton Park on S. Main St.

8. **Holloway Dam Canoe Access:** Richfield Township, Carr Rd. at the Dam
9. **Kearsley Park:** Kearsley Park Pavilion on Kearsley Park Blvd. north of Robert T. Longway
10. **Thread Lake - McKinley Park:** McKinley Center at Orville St. & Peer Avenue
11. **Mott Park:** Park at Mott Park, Nolen Dr. & Weller St.
12. **Happy Hollow :** Near Hammerberg Rd. & I 69
13. **Thread Creek:** Corner of Center & Bristol Rd., near Sharky's
14. **Carriage Town:** Durant-Dort Parking Lot
15. **Carriage Town Ministries:** 605 Garland St. in Flint
16. **Flint Park Lake:** Pavilion off Winthrop Blvd
17. **Thread Lake Park:** Meet at end of Winans Steet

Lapeer County: All Volunteers check in at Cramton Park (on S. Main St.) CALL Peter McCreedy (810) 614-7594 to sign up!

REMINDER: Golden Gloves Award contenders are selected from this event

If you retrieve something interesting or unusual during the cleanup, Take a picture then email it with your name and the site you found this treasure to Jaime Welch at jwelch@flintriver.org. YOU could WIN the prestigious Golden Gloves Award, chosen through a public poll and bestowed at the FRWC Voice of the River Annual Celebration in January.