Let's make one thing
Perfectly Clear.
our water
Genesee County Community Water Quality Consortium

Genesee County
Phase II Municipalities
Annual Report

November 1, 2013 – October 31, 2014
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

GENESEE COUNTY
SWM
DRAIN COMMISSIONER

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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, 2013, to October 31, 2014, 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.

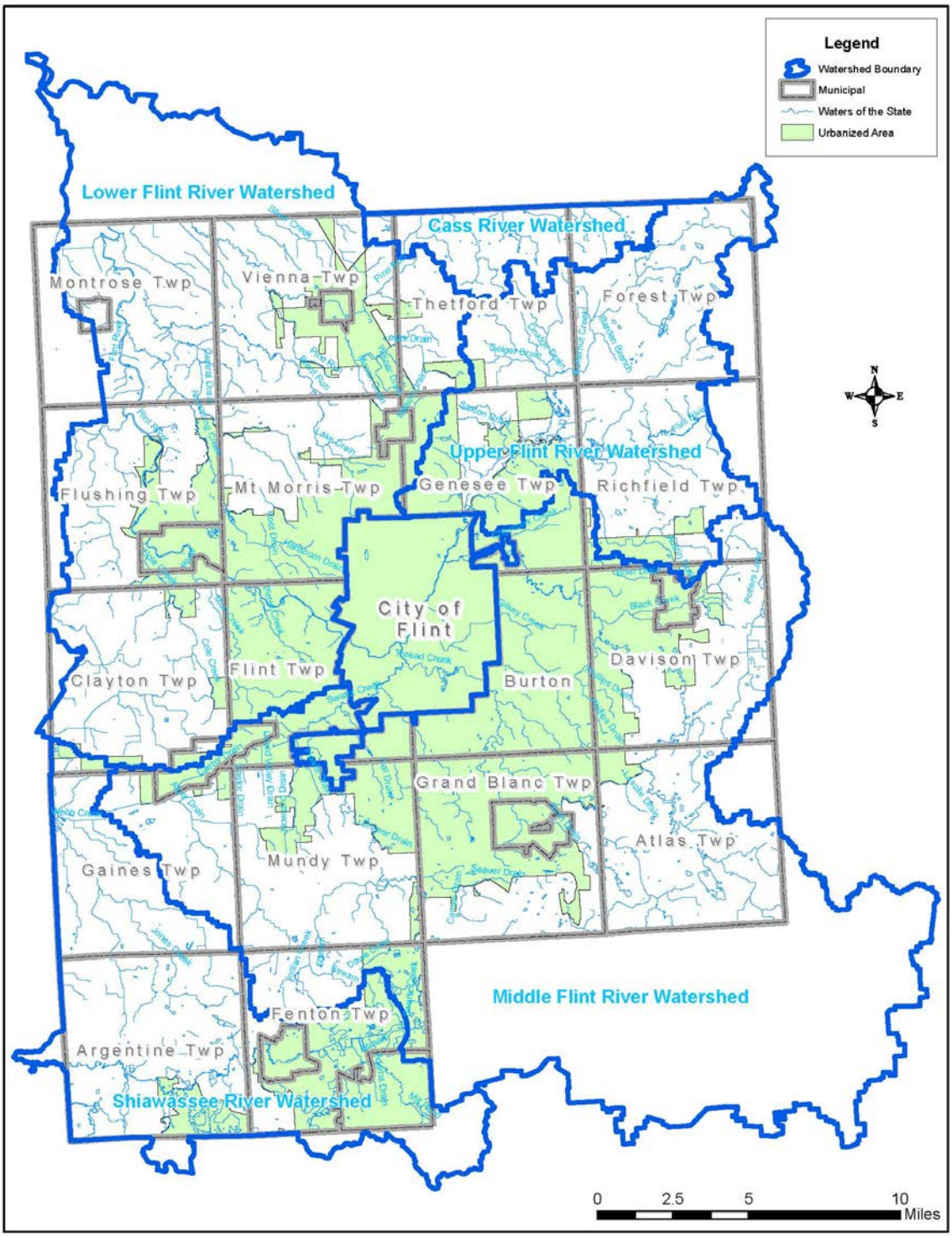
Watershed Delineation

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 0-1: Genesee County Watershed Boundaries



Contract Communities

Table 1-1 lists the Genesee County watershed-planning communities that have a 342 contract. Note that not all communities within Genesee County have NPDES permits and that Phase II status was realigned during the 2007-2008 reporting period. For the 2008–2013 cycle, some of the non-Phase II municipalities chose not to re-sign the 342 contract. **Of the Phase II communities, Grand Blanc Township is the only Phase II community that chose not to re-sign the 342 contract and to provide all their own requirements for the new permit cycle.** Although City of Flint was a Phase I community, in March 2010, they signed a 342 contract for public education services only.

In the 2013-2014 reporting cycle Mundy Township and Flushing Township were able to opt out of the NPDES Ph II permit, and have requested to be removed from the 342 contract.

Table 0-1: Contract Communities

City of Burton	City of Flint (Public Education)	City of Mount Morris
City of Clio	Flint Township	Mount Morris Township
City of Davison	City of Flushing	City of Swartz Creek
Davison Township	Genesee Township	Vienna Township
City of Fenton	City of Grand Blanc	Genesee County
Fenton Township	City of Linden	

Nested Drainage System Agreements

The county has a nesting agreement with Bishop Airport.

The County has met with the schools and the MDEQ to come to an agreement that would allow the County to continue nesting the schools. The contract has been approved and the schools are nested again.

Table 0-2: 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
Goodrich	*No
Grand Blanc	Y
Kearsley	Y
Lake Fenton	Y
Lake Ville	No
Linden	Y
Montrose	*No
Mt. Morris	Y
Swartz Creek	Y
Westwood Heights	Y

*Schools that have been dropped from nesting due to noncompliance (letters sent Sept 2010)

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. After the City of Flint signed a contract in March 2010, they became a member of the SWAC.

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

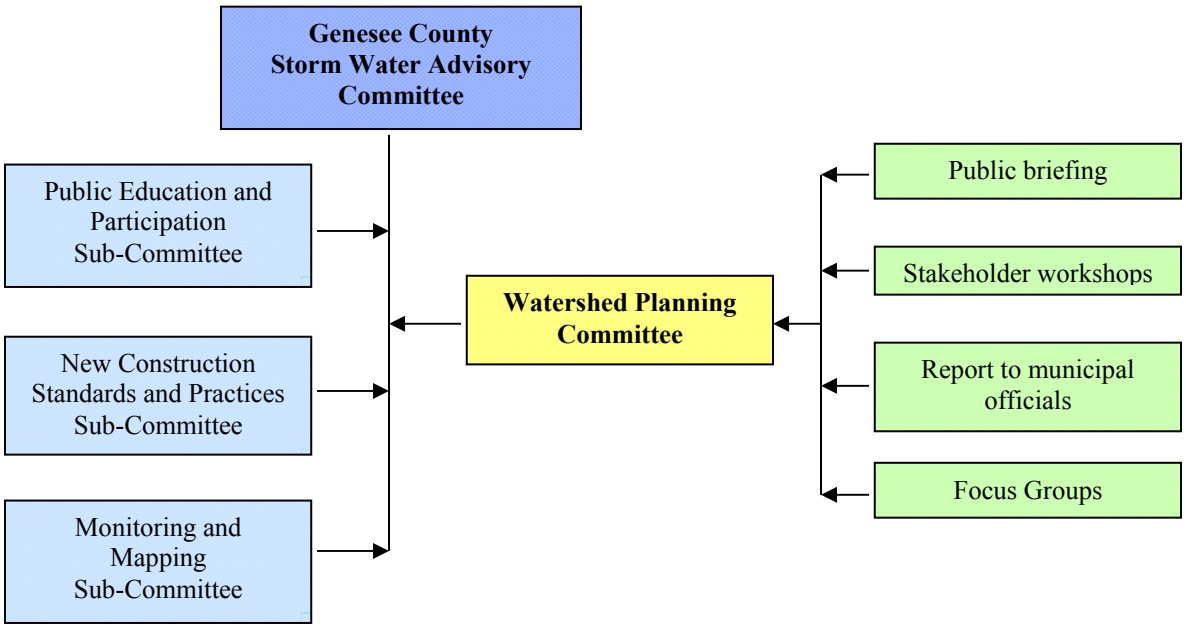
These sub-committees meet as needed along with stakeholders and/or individuals with specific specialized knowledge to implement the watershed plan, education plan and Illicit Discharge Elimination Plan (IDEP). A brief description of sub-committee duties is presented below Figure 1-2.

Figure 1-2 also shows the watershed planning decision-making process and sub-committee relationships. Work conducted by the Watershed Planning Committee(s) is used in development of the Lower Flint, Middle Flint, Upper Flint, and Shiawassee River Watershed Management Plans (WMPs). The Watershed Planning Committee(s) are made up of those communities that are located within a specific watershed. Each community serves on at least one sub-committee.

SWAC meetings during this reporting period were held on:

- October 16, 2013
- November 20, 2013
- December 18, 2013
- January 15, 2014
- February 19, 2014
- March 19, 2014
- April 16, 2014
- May 21, 2014
- September 17, 2014

Figure 0-2: 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.

Watershed Management Plans and Storm Water Pollution Prevention Initiatives

Watershed Management Plans (WMP) for the Upper and Lower Flint as well as the Shiawassee River were submitted and accepted by the DEQ in 2008. In June 2009, permittees submitted their Storm Water Pollution Prevention Initiative (SWPPI) to the DEQ. The SWPPI contains action based on the WMP goals and objectives as well as from the new NPDES permit requirements. Permittees are committed to undertake these actions.

2- PUBLIC EDUCATION AND PARTICIPATION SUB-COMMITTEE ACTIVITIES

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

January 13, 2014

PE Membership included:

- **City of Burton – Paula Zelenko**
- **City of Clio – William Kovl**
- **City of Davison – Michael Hart**
- **City of Flint – Daugherty Johnson**
- Clayton Township – Rick Caruso
- **Flint Township – Karyn Miller**
- Forest Township – Mary Ann Price
- Mundy Township – Dave Guigear
- Thetford Township – Eileen Kerr
- **Vienna Township – Randy Taylor**
- Village of Otisville – David Tatro
- **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) and assigned objectives in the action plan (Section 8 of the Watershed Management Plan/ Attachment 4 of new Permit Application). The PEP plan was revised to align with the new 2014 permit Application "Public Education Topics". The actual implementation did not change. The Public Education work is being done on behalf of the following Communities:

• 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 Flint	MIG # unknown
• 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 with drain office
- Redesigned the "Our Water" website
- Recruited volunteers and booth materials for the Genesee County Fair
- Staffed information booth at multiple community events
- 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 permitees, 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 permitees, 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 Enviroscape 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 permitees, 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. The last newsletter was produced in September 2013 to educate on the new permit cycle. That newsletter was provided in the 2012-2013 Annual Report.

Materials and Presentation for Riparian Land Owners: An informational brochure was developed and served as a mail invite to a free workshop. Each year several subwatersheds were chosen to participate in this program. This was to continue until all subwatersheds within Genesee County had been done. All subwatersheds were completed in the 2012-13 reporting period. No new workshops were scheduled this reporting period. The public education group will have to reevaluate the program to determine if it was effective, and if any changes are necessary. Copies of the brochure were 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 by CAER and the PE committee during the last permit cycle. 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:

# Participants	Group	Venue	Participants located within
26	East Side Business Association		Flint
12	Business Networking	Walli's East	Flint, Burton, Davison, Flushing, Owosso.
37	Kiwanis Club of Flint		Flint
72-78	Unitarian Church	Church Conference Room	Genesee County, Mostly Flint and Flint Township
40	GM presentation - monitoring	For-Mar	Fenton, Grand Blanc, Flint
500 +	Steelheaders show	Flushing	Whole County
100 +	Mott Community College Volunteer Fair	MCC Campus	Whole County
125 +	University of Michigan Flint - Earth Day	UM Flint Campus	University Center
13	Flint Optimist Club	US Diner in Burton, MI	3 - Flushing, 4 Flint Twp, 5 Flint, 1 Swartz Creek
14	Boys and Girls Club	Thread Lake McKinley Park	City of Flint
30	Kettering University Community Service Fair	Kettering University	City of Flint

125	'Love Your Lake' Flint Park Lake Community Event	Lakeside	City of Flint
125	For Mar - Overnight monitoring event for kids - 'BIOBLITZ'	For-Mar	All of Genesee County
40	Flint Neighborhoods United	Woodside Church	City of Flint
41	Glendale Hills neighborhood association	West Court Streeet Church	City of Flint
32	West Side Flint Optimists Club	Valley Restaurant	Flint Township, Swartz Creek, Mundy Township
1	Congressman Kildee's office - Jordan Dickinson - Legislative Advisor, Water and Environmental Issues	River Tour	Grand Blanc
79	Facebook post promoting 7 Steps	FaceBook	Entire watershed

Brochures: In the 2003-2008 permit cycle, 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 during this permit cycle. 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. Since 2006, over 10,000 brochures have been handed out. Brochure has been provided in previous annual reports.

Newsletter Articles: In 2006 several newsletter articles were composed and compiled in a Word format, placed on CDs, and distributed to permitees and partners for their use. Sometimes permitees, partners, or other publications will print an article on a stormwater topic.

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.) A copy of the septic system booklet was provided in previous annual reports.

Promotional Giveaways: GCDC purchased an additional 4000 promotional giveaways (premiums) in Sept 2013 to further storm water awareness. More than half have been given away this reporting period. 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.

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.

3/8/14	Keep Genesee Co Beautiful Summit	114 educated
3/29/2014 & 3/30	Home and Garden Show (Perani Arena)	492 educated
4/11/2014	Earth Day (U of M Flint Campus)	146 educated
7/17/2014	Flint Farmer's Market	72 educated
8/18/2014 thru 8/24	Genesee County Fair	1443 educated
9/5/2014	Women 2 Women Expo (Perani Arena)	335 educated
9/13/2014 & 9/14	Bikes on the Bricks (downtown Flint)	415 educated
9/23/2014	Flint Farmer's Market	97 educated
9/27/2014	Applewood Harvest Festival	293 educated

*Demographic Data by community in Appendix A

Student Education: GCDC-SWM contracted with the GCD to provide storm water education services to school-aged children on behalf of the Phase II permitees. During 2013-14 GCD reached thousands of students in the Phase II communities. In school presentations which may have included the Enviroscapes or an arts and craft project focusing on aquatic habitat and its relation to the storm water system in Genesee County. Kids (approximately) ages 6-12 had an interaction period with staff that focused on the water cycle, watersheds and possible sources of non point source pollution. They then had a hands on component that reiterated the concepts introduced in previous discussion.

A newer program that the Conservation District has begun for older students was built around a game show. Students got a chance to earn a spot on the game show "Conservation Style". All the students were given the chance to study to compete to participate in "Conservation Style". Those in the show got a chance to play interactive games and answer trivia questions about storm water. Participants played for a chance to win a prize. Those not chosen, participated in experiments for the audience, interactive activities and interviews meant to showcase their knowledge of storm water.

The conservation District also uses online games "the watershed game", hands on activities "water cycle relay race" & "filter the pollution".

GCDC has four "Enviroscape" interactive models that demonstrate how pollutants can reach bodies of water. The Conservation District keeps one of the Enviroscape 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 enviroscape.

Following is a list of the presentations made in 2013-2014:

Table 0-1: Breakdown of GCCD Water Quality Presentations in Fiscal Year 2013-14

Month	Event	School aged children reached:	Parents/adults reached:
2/28/14 3/7/14 3/14/14	Northwestern Highschool	15-20 per class *14 classes	1 per class
	Boys and Girls Club	20-25 per class	1 per class
April, May, June 2014	Boys and Girls Club	15-20 per class *11 classes	Unknown
4/23/14	State Rd Elementary	20-30 per class Multiple classes	Unknown
5/16/14	Kettering university	20-30 per class Multiple classes	Unknown
6/3/14	Beecher HS	20-30 per class Multiple classes	Unknown
	U of M early child development center	10-20 per class *3 classes	
	Boys and Girls Club	15-20 per class *3 classes	Unknown
4/14/14 4/15/14 4/16/14 5/28/14 5/29/14 6/10/14	Northwestern HS	15-20 per class *6 classes	1 per class
4/18/14 6/3/14 6/5/14 6/26/14	Communities 1st Inc. public event		
6/19/14	Juneteenth Celebration (max Brandon Park)		
7/23/14	Durant Tuuri Mott Elementary	20-30 per class *1 classes	1 per class
7/10/14	Randels Elementary	20-30 per class *1 classes	1 per class
7/8/14 7/23/14 7/29/14	Neithercut Elementary	20-30 per class *3 classes	1 per class
	U of M early child development center	10-20 per class *8 classes	
7/10/14 7/15/14 7/22/14	Communities 1st Inc. public event		
	Freeman elementary	20-30 per class *3 classes	
	Carmen Ainsworth Middle School	20-30 per class *1 classes	
		3500+ students	

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 0-2: Breakdown of Project Green Schools in Fiscal Year 2013-14

	School	Teacher	Students located within:
1	Atherton High School	Matt Hyslop	City of Burton
2	Beecher Middle School	Don Hammond	Mt. Morris Twp, Genesee Twp
3	Bendle High School	Todd Barden	City of Burton
4	Carman-Ainsworth High School	Julie Lawrence	Flint Twp, Mundy Twp
5	Carter Middle School- Clio	Ryan Niemi	City of Clio, Vienna Twp, Thetford Twp, Montrose Twp
6	Carter Middle School- Clio	Chip McCallum	City of Clio, Vienna Twp, Thetford Twp, Montrose Twp
7	Davison Middle School	Jody Doty Kosiara	Richfield Twp, Davison Twp, City of Burton
8	Flushing High School	Paul Taylor	Flushing Twp, City of Flushing, Mt. Morris Twp, Flint Twp, Clayton Twp
9	Grand Blanc East Middle School	Deb Lacki	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
10	Grand Blanc East Middle School	Patricia Nelson	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
11	Grand Blanc East Middle School	Crystal Sobeck	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
12	Grand Blanc West Middle School	Elizabeth Lemerond	City of Grand Blanc, Grand Blanc Twp, Mundy Twp
13	Grand Blanc West Middle School	Victoria Skrisson	City of Grand Blanc, Grand Blanc Twp, Mundy Twp
14	Kearsley Armstrong Middle School	Cindy Sierra	Genesee Twp, Richfield Twp, City of Burton
15	LakeVille Middle School	Matt Chapin	Forest Twp, Richfield Twp
16	LakeVille Middle School	Ginny Gaudard	Forest Twp, Richfield Twp
17	LakeVille Middle School	Josh Henley	Forest Twp, Richfield Twp
18	Linden Middle School	Kim Cornell	Argentine Twp, City of Linden, Fenton Twp
19	Linden Middle School	Charlene Nester	Argentine Twp, City of Linden, Fenton Twp
20	Mt. Morris Junior High School	Nick Carr	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
21	Mt. Morris Junior High School	Bekah D'Haene	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
22	Mt. Morris Junior High School	Kim McCormick	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
23	St. John Vianney Catholic School	Janice Matlon	City of Flint, and students throughout Genesee County
24	Swartz Creek Middle School	Brandolyn Forbes	Clayton Twp, Gaines Twp, City of Swartz Cr, Flint Twp, Mundy Twp
25	Swartz Creek Middle School	Paul Speck	Clayton Twp, Gaines Twp, City of Swartz Cr, Flint Twp, Mundy Twp
26	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.

- 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 2012, GCDC staff purchased an additional 1200 4" metal storm drain markers to be installed over the next several years. Storm drain markers are installed on catch basin grate covers located within road ditches and rear yards. Storm drain markers are anticipated to have a 30 year life expectancy.
- 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 7 Storm drain stenciling events:
5/30/14 Northwestern HS JAG students (Cranewood Dr, Cranewood Ct, Bundy Ave)
6/2/14 Northwestern HS JAG students (Daryll Dr, W. Alma Ave, Chatham Dr)
9/24/14 City Flint Residents (Camden Ave, Vermilya Ave, Pettibone Ave, Lincoln Ave, Neubert Ave)
9/24/14 City Flint Residents (Webster Rd, Polly St.)
9/26/14 City Flint Residents (Leta Ave, Burroughs Ave, Circle Dr)
9/26/14 City Flint Residents (McKinley Ave, Ogema Ave, Lochhead Ave.)
9/29/14 City Flint Residents (N Dexter St, Whittier Ave, Bennett Ave, Starkweather St)

FRWC: Held 17 Storm drain stenciling events:

Date	Municipality	Volunteer Group	Volunteer Demographic	Adults	Child	# homes	# drains	Location of stenciling
10/13/2013	Flushing (Flushing Twp.)	Girl Scout Troop	Flushing	3	3	85	11	Coutant St (McKinley Rd to Circe Dr) All of Circle Drive, E Park Ave (McKinley Rd to Circle Dr)
10/14/2013	Grand Blanc Twp.	Girl Scout Troop	Grand Blanc Tnp, Flint, Mt. Morris	4	9	85	33	McGrath (Todd Street to Fern Ave); Fern Ave (McGrath St to Rollins St); Rollins St (Fern Ave to Morceri Ln); Morceri Ln (Rollins St to Russell St)
10/16/2013	Montrose	Hill McCloy NHS	Flushing, Flushing Twp, Montrose	4	6	125	54	Orchard St (Baldwin St to Creager Dr); Russell St , McCormick St, N Genesee St (E Hickory St up); N Saginaw St (E Hickory to North St)
10/19/2013	Swartz Creek	Girl Scout Troop	Fenton, Swartz Creek	2	2	66	NA	Due to rain drains unable to be stenciled. Streets where doorhangers handed out: Green Leaf Dr (Oakview Dr to Norbury Dr); Norbury Dr (Green Leaf Dr to Durwood Dr); Durwood Dr (norbury Dr to

								Oakview Dr); Oakview Dr (Durwood Dr to Green Leaf Dr)
11/1/2013	Montrose	Hill McCloy NHS	Flushing, Flushing Twp, Montrose	4	8	100	35	Eastman St, Carlann St, Elizabeth St, Park St, Ray St, Feher Dr, Leroy St, Douglas St, Alfred St, Parkway Dr
11/8/2013	North Branch	North Branch HS	North Branch	1	3	15	17	North Branch Hs & MS Parking lots
11/10/2013	Flint	Kettering University - Group 1	Ashland, Wi; Allen Park, Mi; Watertown, Ny; Brownstown, Mi	4	0	137	48	S Vernon Ave , Hastings St, Roome Ct, Lafayette St, Windmere Ave, Commonwealth Ave, Gendale Ave, Sheriff Pl
11/10/2013	Flint	Kettering University - Group 2	Milan, Mi; Allen Park, Mi; Clinton Twp, Mi	3	0	135	55	Chandler Ave, S Lynch St, Commonwealth Ave, Chalmers St, Windmere Ave, E 2nd St, Glendale Ave, Greenfield Ave
11/10/2013	Flint	Kettering University - Group 3	Watertown, Ny; Ashland, Wi; Brownstown, Mi; Milan, Mi; Clinton Twp, Mi; Allen Park, Mi	7	0	105	34	Monclair Ave, Chalmers St, S Franklin Ave, Lafayette, Greenfield Ave, Gold Ave, Commonwealth Ave
7/21/2014	Flint	Boys & Girls Club - Group 1	Flint	3	6	67	23	Peer Ave, Collingwood Pkwy, Harold St, E. Eddigton Ave, E. Belvidere Ave
7/21/2014	Flint	Boys & Girls Club - Group 2	Flint	2	5	56	16	Belevedere Ave, Collingwood Pkwy, Orville St, Peer Ave, E. Eddington Ave, Harold St
8/9/2014	Fenton	Girl Scout Troop	Fenton, Linden, Fenton Twp	4	4	94	27	Worchester Dr, Newport Dr, Briarwood Ln Forest Dr
9/9/2014	Swartz Creek	Swartz Creek HS	Swartz Creek	2	7	132	46	Helmsley Dr, Chelmsford Dr, Daval Dr, Oakview Dr, Worchester Dr, Don Shenk Dr, Winshall Dr
9/10/2014	Fenton	Jaime, Gannon, Sabrina Welch, Ryan Turok	Fenton, Mi	1	3	87	21	1st St, 2nd St, 3rd St, 4th St, N Walnut St, N Oak Street (due to rain, stenciling was not able to be done)
9/11/2014	Grand Blanc	Scott, Melynda, and Michael Hatten	Grand Blanc	2	1	72	18	Glen View Ln, Lismore Cir, Lilac Ln, Verbena Ct, Iris Ct, Iris Ln, Valerian Ct
9/17/2014	Flint	Kettering University	Clinton Twp, Mi; Allen Park, Mi; Midland, Mi; Flint, Mi	4	0	121	51	Lavender Ave, Copeman Blvd, Begole St, Mallery St, Concord St, Clement St, Forest Hill Ave
9/26/2014	Fenton	Molpus Family	Fenton, Mi	2	1	53	22	Rosalie Dr, Natalie Dr, Theresa Dr, Cristina Dr, Carmela Dr

GCDC: -Stenciled those storm inlets that were cleaned (weather permitting) approx 200
250 Storm drain markers have been placed on catchbasins in the last reporting period
- Oct 2013: Provided supplies and training to Flushing High School Environmental Action Group. Stenciled 53 structures in City of Flint.
-May 2014: Provided supplies and training to girl scout troop. 4 adults/7 children received training. 25 Stencils were placed in City of Flushing, Flushing Twp, and Clayton Twp on Coutant, chaimberlain, Leland, Wilcox, Cherrywood, Ashwood, Joyce, Central Elem. Sch.

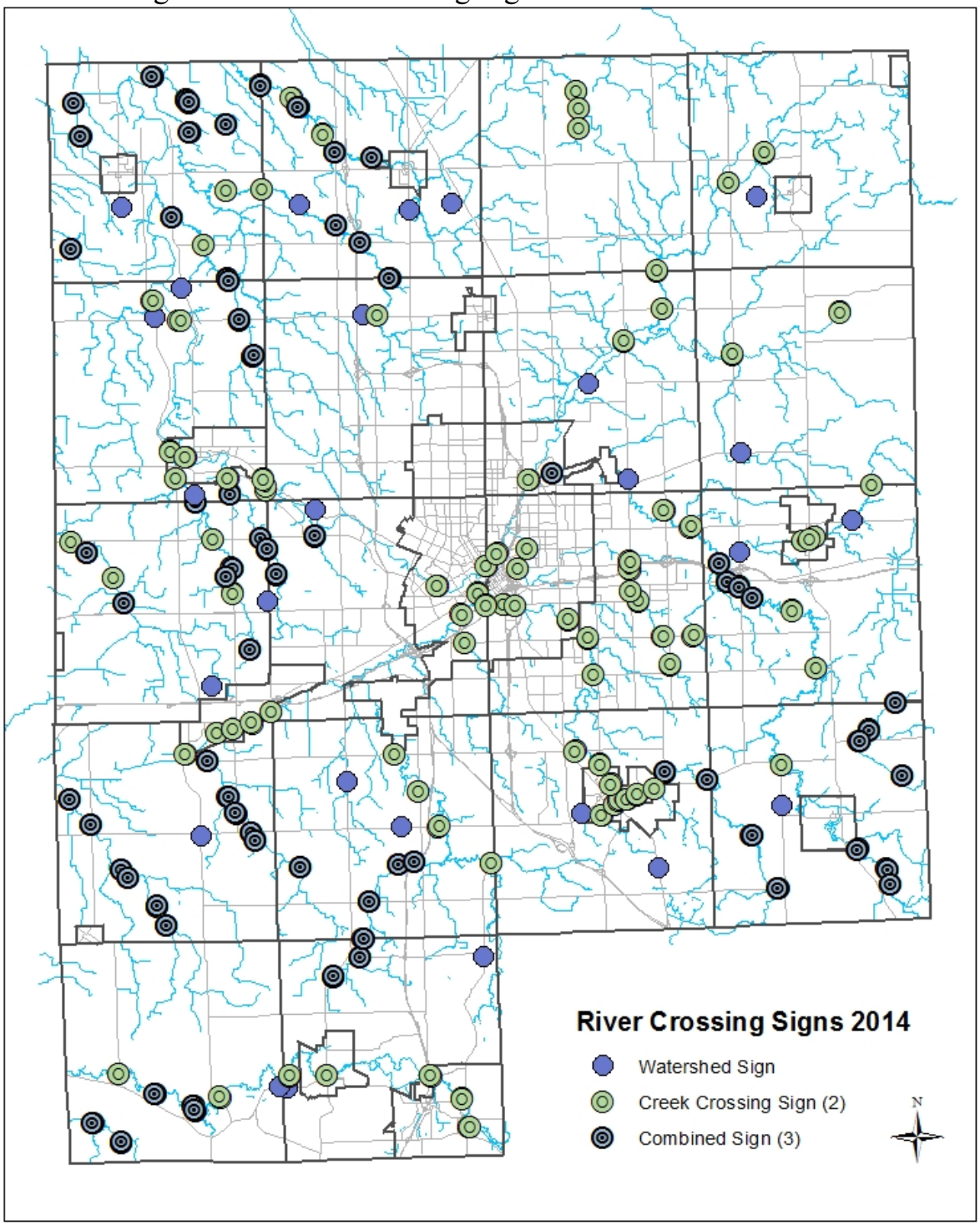
Canoe Trips on the Flint River. Due to weather there were an additional canoe trips scheduled and advertised this summer. Those that were held are shown below:

7-Jun-14	Irish Road to Mott Lake	13 attendees	White Lake, Grand Blanc, Milford, Flint, Fenton, Metamora, Flushing
21-Jun-14	Birch Run to Morseville Road to Seymour Road	8 attendees	Flushing, Flint, Grand Blanc
5-Jul-14	Riverview Canoe Landing to River Road	9 attendees	Grand Blanc, Flushing, Burton, Linden, Davison
19-Jul-14	Holloway Dam to Irish Road	16 attendees	Flushing, Holly, Berkley, Clarkston, Lapeer, Flint, Burt, Fenton, Columbiaville, Grand Blanc
16-Aug-14	Montrose Barber Memorial Park to Birch Run	8 attendees	Linden, Ortonville, Flushing, Montrose,
6-Sep-14	Bray Road to Viet Nam Veterans Park	8 attendees	Holly, Fenton, Flint, Ft. Wayne, IN. These are the paddle participants. This does not count those who peddled only but did not partake in the paddle portion of the day.
20-Sep-14	Flushing Riverview Park to Dodge Road	10 attendees	Flushing, Metamora, Fenton, Flint, Mosseheart, IL, Holly Brighton, Howell
11-Aug-14	Flint River, Flint to Flushing	20 attendees	This paddle resulted in a printed article in the Flint Journal, and an on line article in Mlive. http://www.mlive.com/entertainment/flint/index.ssf/2014/08/the_flint_river_isnt_what_you.html#incart_m-rpt-2 "The Flint River Isn't What You Think It Is".

Also the FRWC had videoed a few participants reactions from being on the Flint River after the August 2013paddle and posted the results on youtube. http://www.youtube.com/watch?v=iBbvFGOUgpM&feature=plcp

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. Stream/river crossing identification signs have also been placed to increase public awareness. 56 additional signs were made to be installed by the Cities for 2013-14 fiscal year. Signs were complete and delivered to the following Cities: Burton, Clio, Davison, Fenton, Flint, Flushing, Grand Blanc, Linden, Mt. Morris & Swartz Creek.

Figure 0-1: River Crossing Signs Placed as of Oct 2014



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. A meeting took place to talk to the GISD education coordinators in January 2014.

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.

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 or a nonprofit group. These efforts are listed below and included in Appendix A

- 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.
- The FRWC coordinates a river cleanup on the Flint River and its tributaries both within Genesee and Lapeer counties. The Cleanup was on April 26th. 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.

- There is an Annual River cleanup on the first week of June along the Shiawassee River, organized by a Fenton council member.
- Friends of the Shiawassee in another watershed group that is focusing on the health of the Shiawass River within Genesee County. There have been discussions with Drain Office Staff on expanding the Benthic monitoring program.
- 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** kn**O**w!)
- 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 including City of Flint participate and/or support this program both financially and with staff. In the spring and fall there are HHW and electronic waste collections. City of Flint hosts a site at their Water service center. 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.
    - Oct 26, 2013: Davison HS, Flint Water Service Center, Goodwill Industries, Averill Ave
    - June 7, 2014: Swartz Cr HS, 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.

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 held meetings on the following dates:

February 4, 2014

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

• 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 the site plans either because a county drain is directly involved and must be reviewed, 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 will expand both the community's and GCDC'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 91of 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 is developing 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. The Sub-Committee is also working to address long-term BMP operation, maintenance, and schedule issues.

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 met only once during this reporting period:

January 14, 2014.

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:

- 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 and current reporting

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:

26	Participating Educators
1000+	Students
14	Mentors
13	Presenters at the summit

Schools are also are encouraged to participate in a summit, where students are able to present their findings. On May 16, 2014, 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 0-1: Water Quality Index Calculation Chart

Test Parameter	Q-Value	Weighting Factor	Total
1. Dissolved oxygen	Q_{DO}	0.17	0.17 x Q_{DO}
2. Fecal coliform	Q_{FC}	0.16	0.16 x Q_{FC}
3. pH	Q_{pH}	0.11	0.11 x Q_{pH}
4. Biochemical oxygen demand	Q_{BOD}	0.11	0.11 x Q_{BOD}
5. Temperature	Q_T	0.11	0.11 x Q_T
6. Total phosphate	Q_P	0.10	0.10 x Q_P
7. Nitrates	Q_N	0.10	0.10 x Q_N
8. Turbidity	Q_{Turb}	0.08	0.08 x Q_{Turb}
9. Total solids	Q_{TS}	0.07	0.07 x 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. Sites categorized as "marginal" are identified in the table with red font. Three sites out of 43 sites were categorized as either marginal or poor. In 2013-2014, 9 sites were visited added.

The Green Committee in December 2013 reviewed the manuals and instruction books to make user they were up to date and user friendly. Annual training is provided to the teachers and mentors.

Table 0-2: Genesee Green Results

ID No	Location	Sampled Years	Water Quality Index (WQI)
Lower Flint River Watershed			
1L	Armstrong Creek at Dodge Road	2006-07, 2011-2012	Good
2L	Craven and Benson Drain off Mt Morris Road	2007	Average
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	Average
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
Middle Flint River Watershed			
1M	Swartz Creek at Hill Road Bridge	2005-06, 2009-2010, 2012-13	Good
2M	Behind McDonalds at Dort and Stewart	2003	Average
3M	Bridge between UM-Flint and Autoworld	1993-94, 1998, 2001	Average
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	Marginal**
7M	Immediately west of the Farmer's Market	2004-06 2012-13	Good*
8M	Pierson Drain at Atherton HS	2007	Good
9M	Swartz Creek at Happy Hollow	1993-94, 2002-2003. 2010-2012	Average
10M	Swartz Creek at Swartz Creek M.S.	2005-06	Average
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	Average
14M	Thread Creek at Rust Park in Grand Blanc	2005-2006 2012	Good
15M	Timberwolf Turnout off Irish Road	2005	Average
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	Average
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	Average
23M	Frost Gardens	2012-13	Good
Upper Flint River Watershed			
1U	Bear Swamp at Genesee Road	2007	Marginal
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	Average

ID No	Location	Sampled Years	Water Quality Index (WQI)
Shiawassee River Watershed			
1S	Platform south of Main Street Bridge in Fenton	1992, 1996, 1998-2004	Average
2S	Linden Mill Pond (Shiawassee River)	2007, 2010	Good
3S	Fenton Mill Pond (Shiawassee River)	2009, 2012	Poor*
4S	Linden Middle School Grounds	2012-13	Good
Unknown Watershed			
1UNK	Unlisted Location	2009-2012	Good

*Improved since previous sampling event

Figure 0-1: Genesee Green Results for the Lower Flint River Watershed

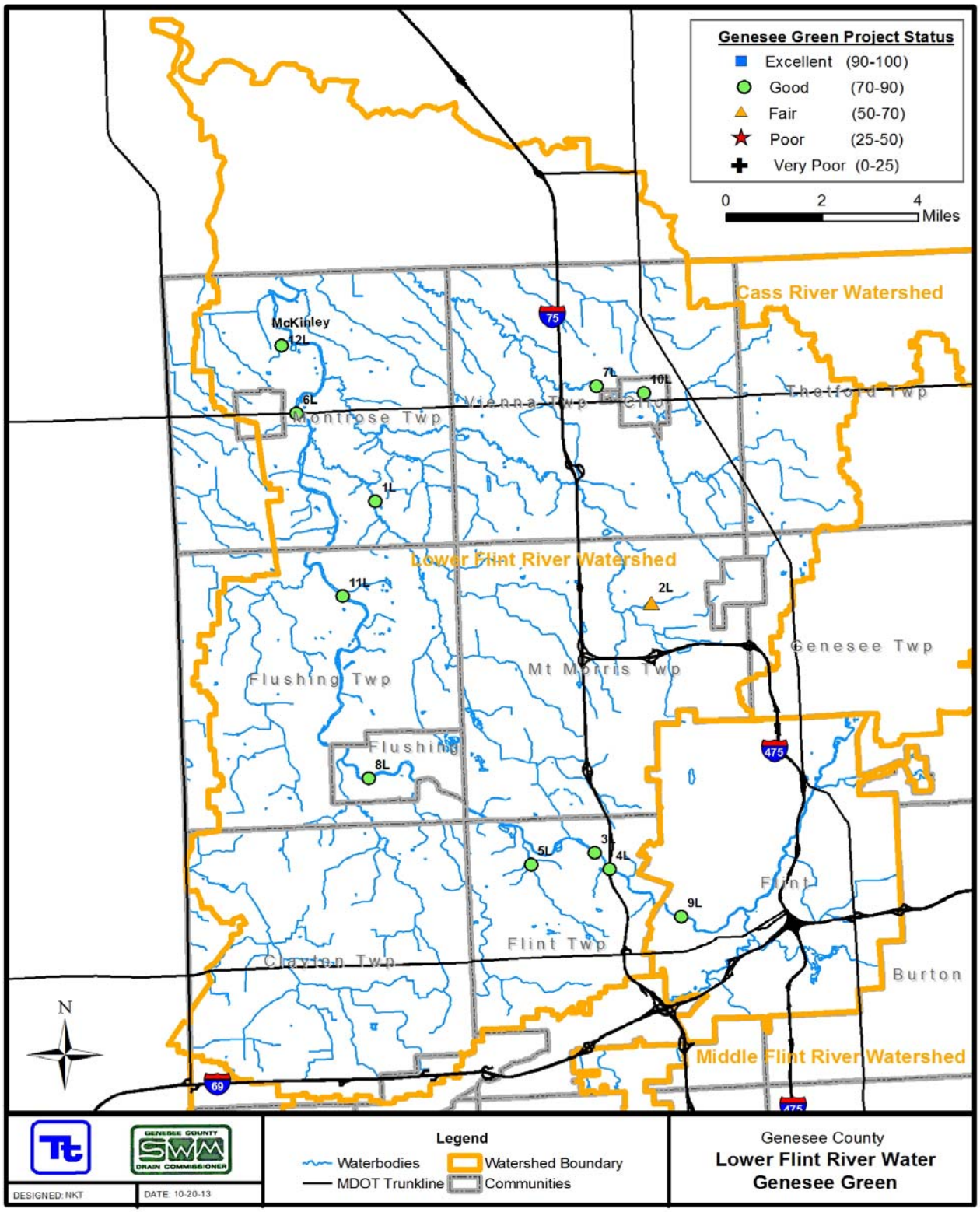


Figure 0-2: Genesee Green Results for the Middle Flint River Watershed

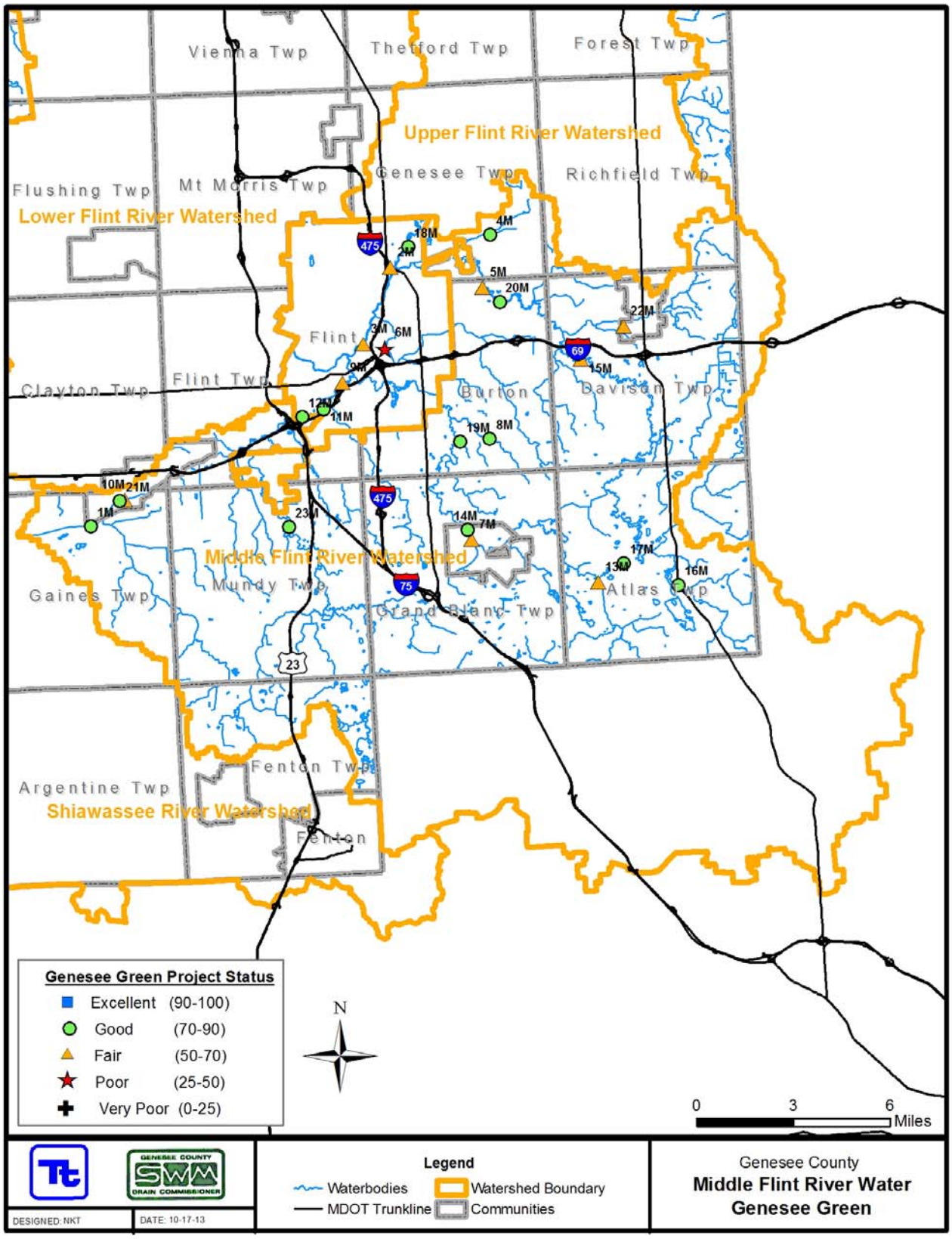


Figure 0-3: Genesee Green Results for the Upper Flint River Watershed

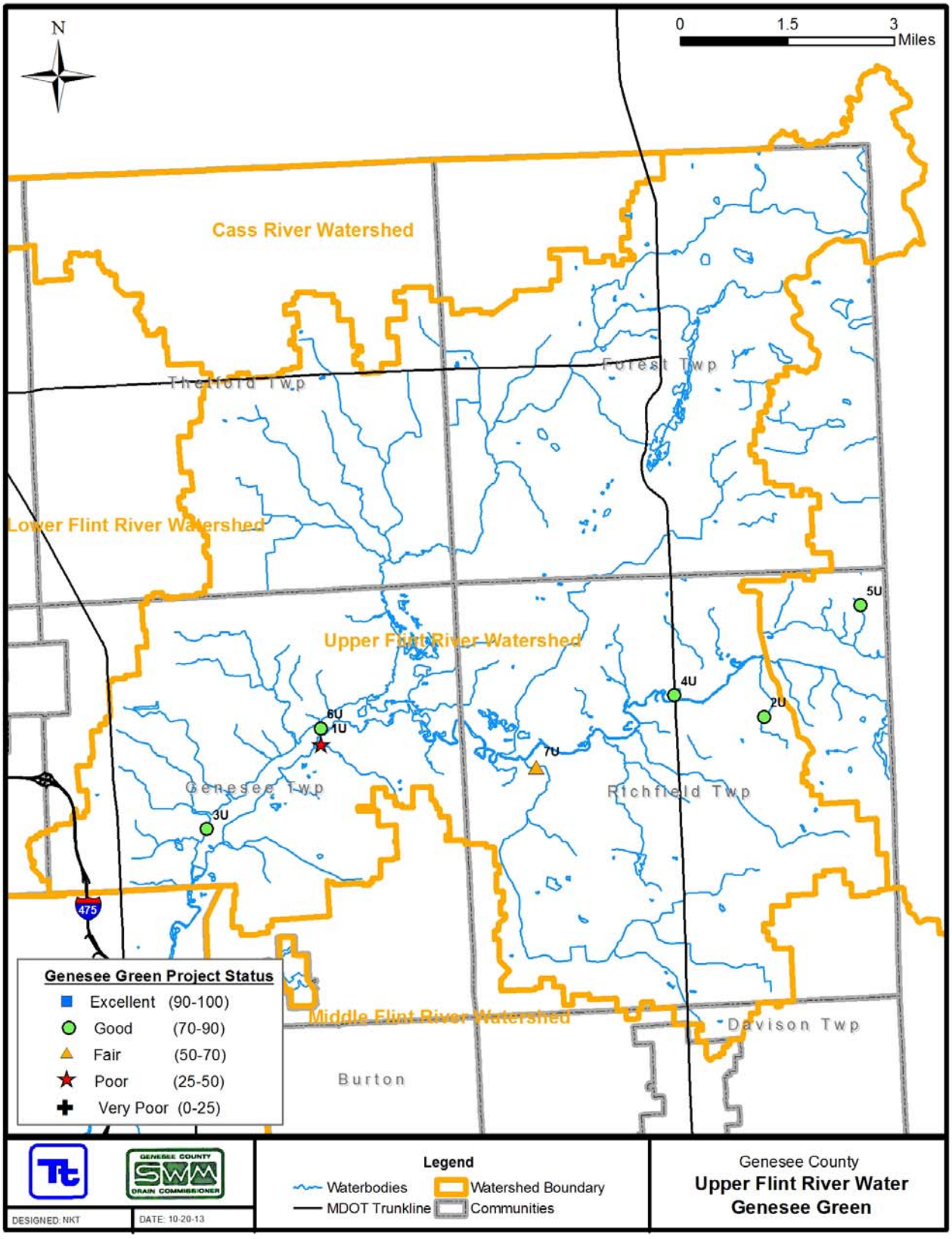
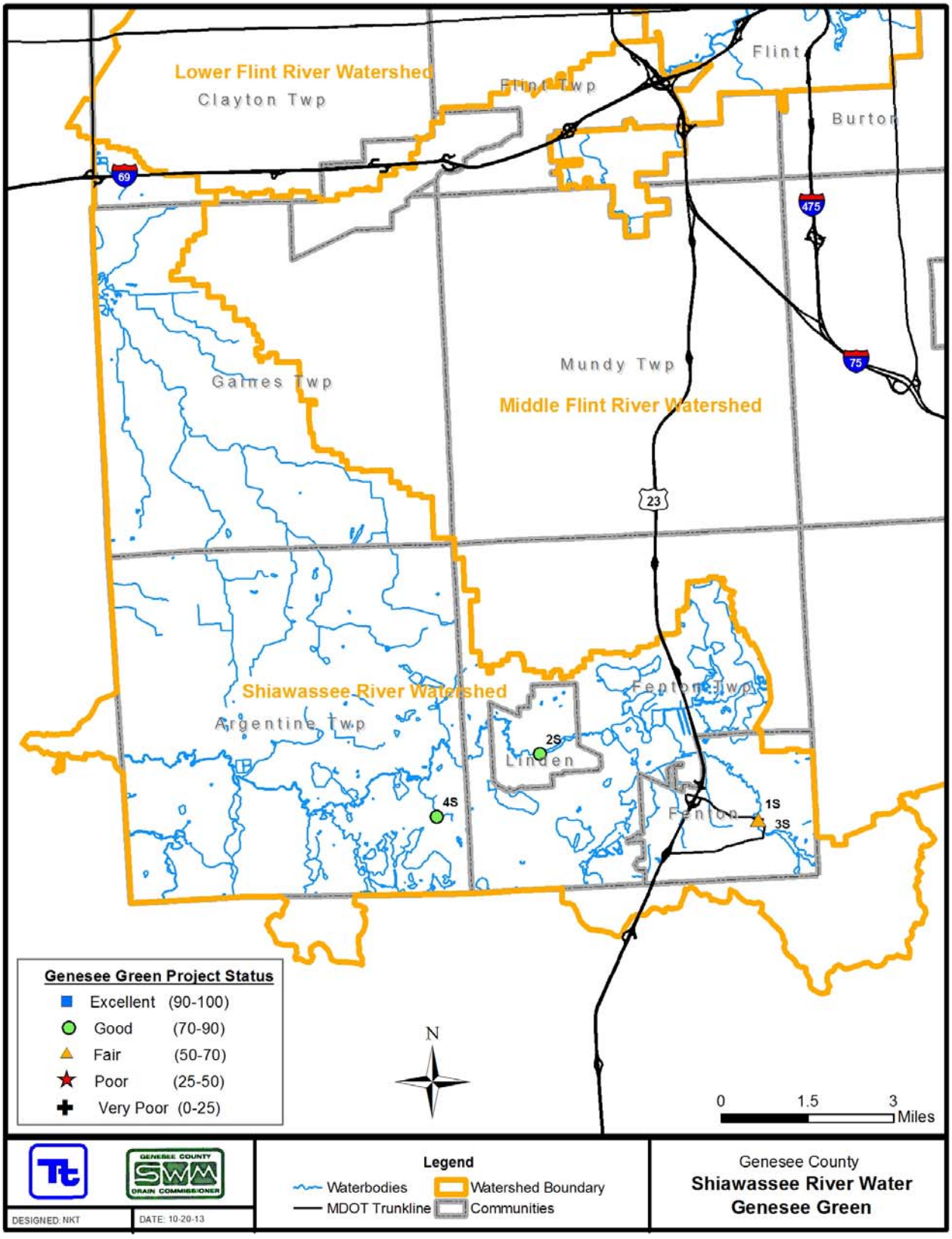


Figure 0-4: Genesee Green Results for the Shiawassee River Watershed



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 0-1: Macroinvertebrate Study Results

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

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 0-1: Macroinvertebrate Study Results for the Lower Flint River Watershed

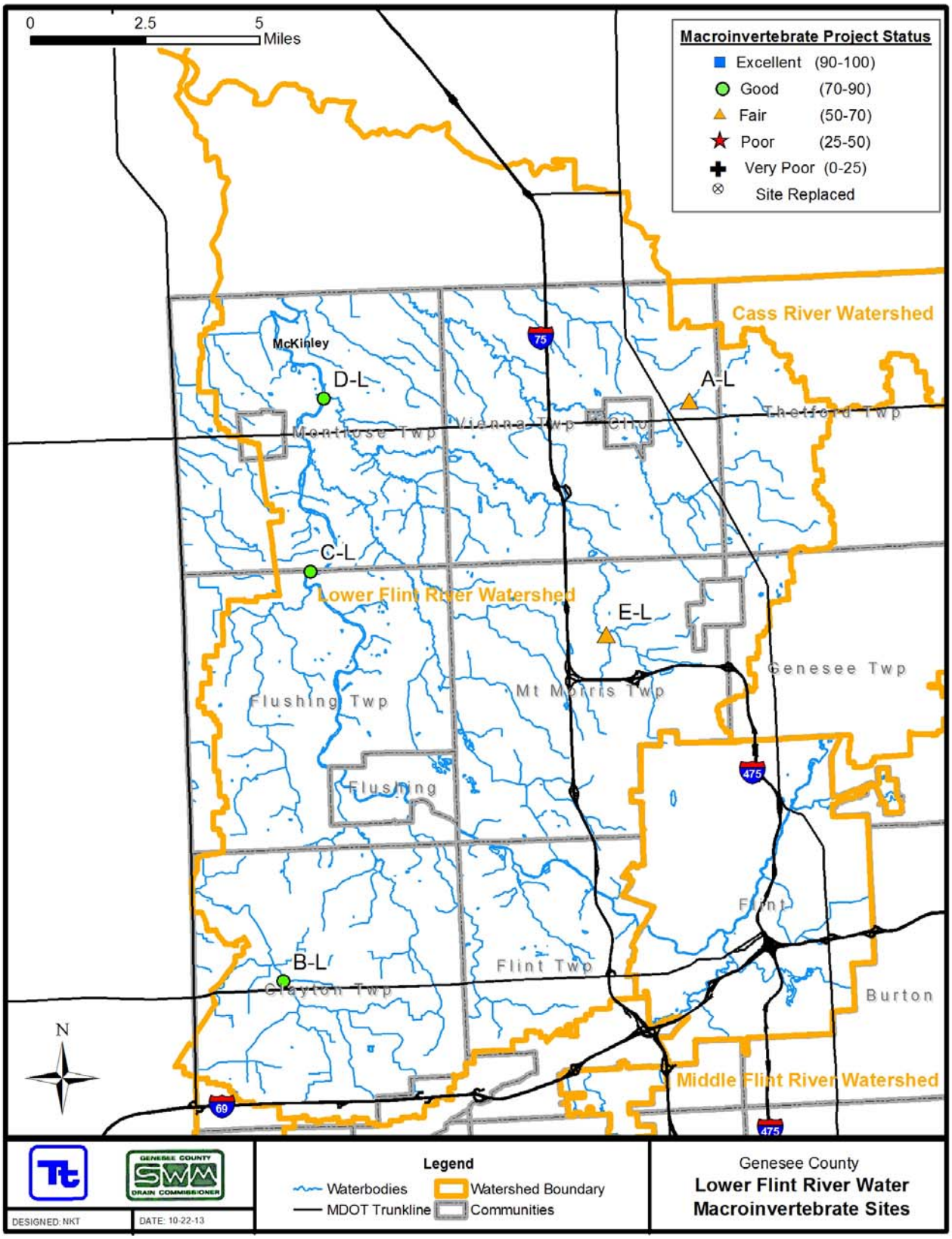


Figure 0-2: Macroinvertebrate Study Results for the Middle Flint River Watershed

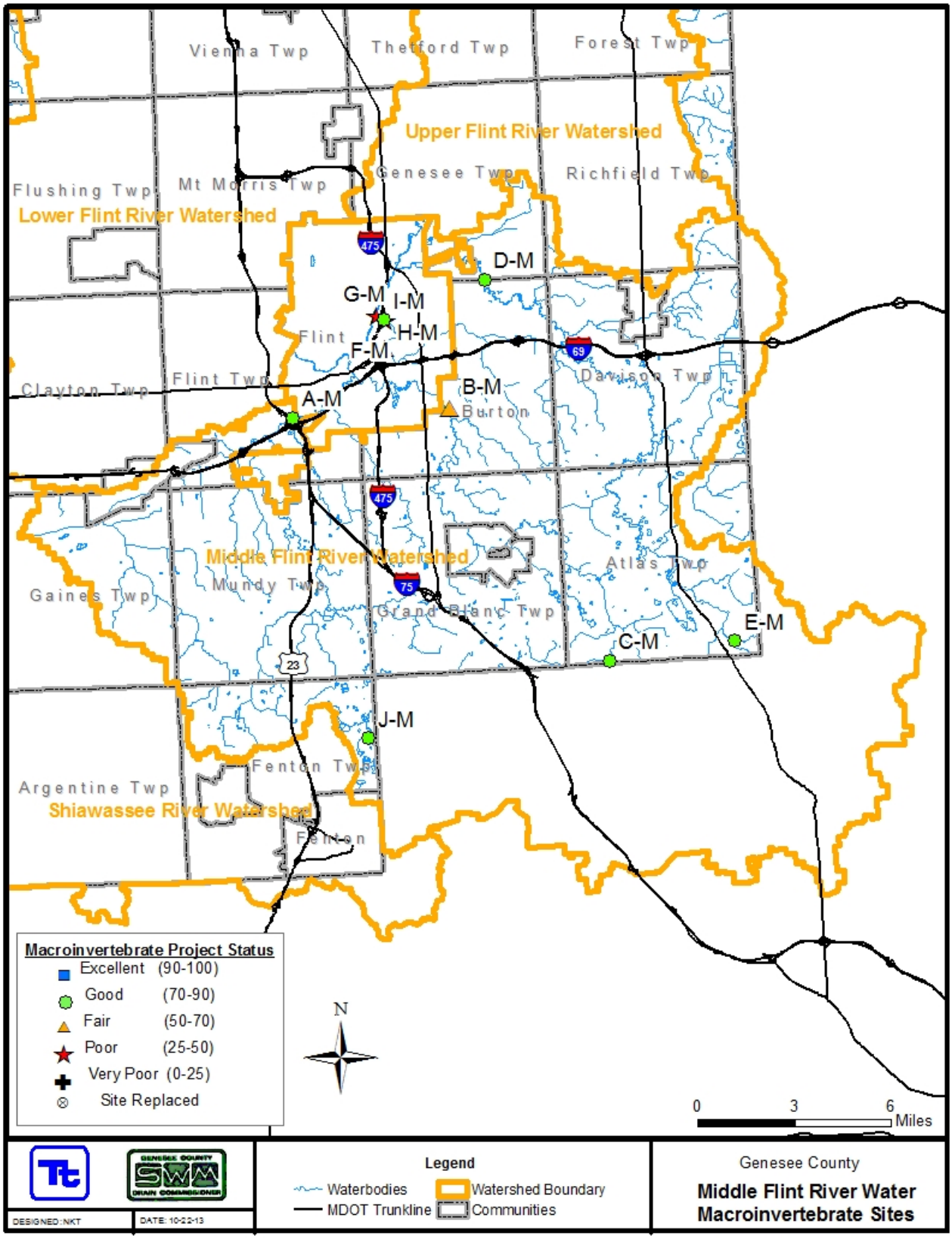


Figure 0-3: Macroinvertebrate Study Results for the Upper Flint River Watershed

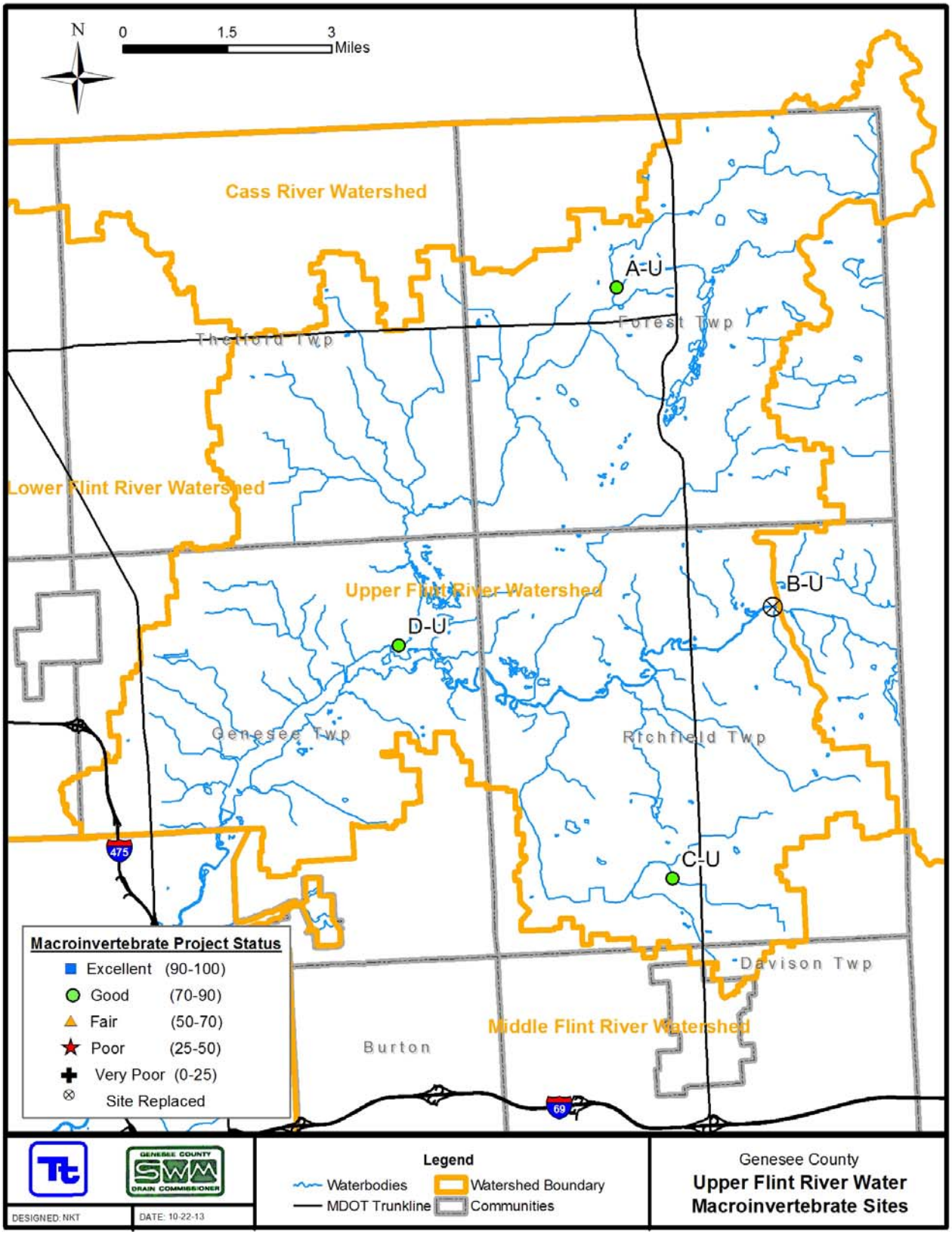
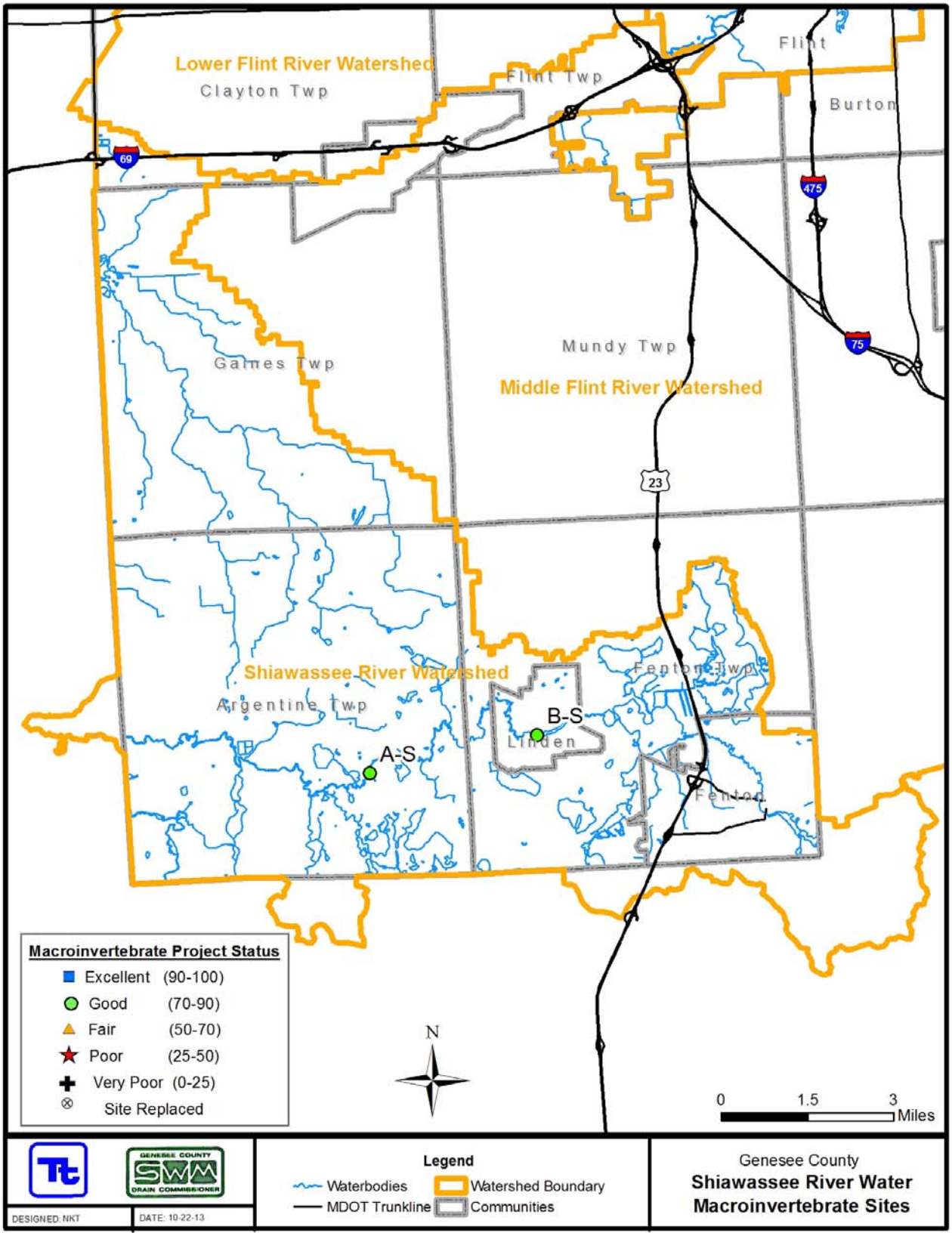


Figure 0-4: Macroinvertebrate Study Results for the Shiawassee River Watershed



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.

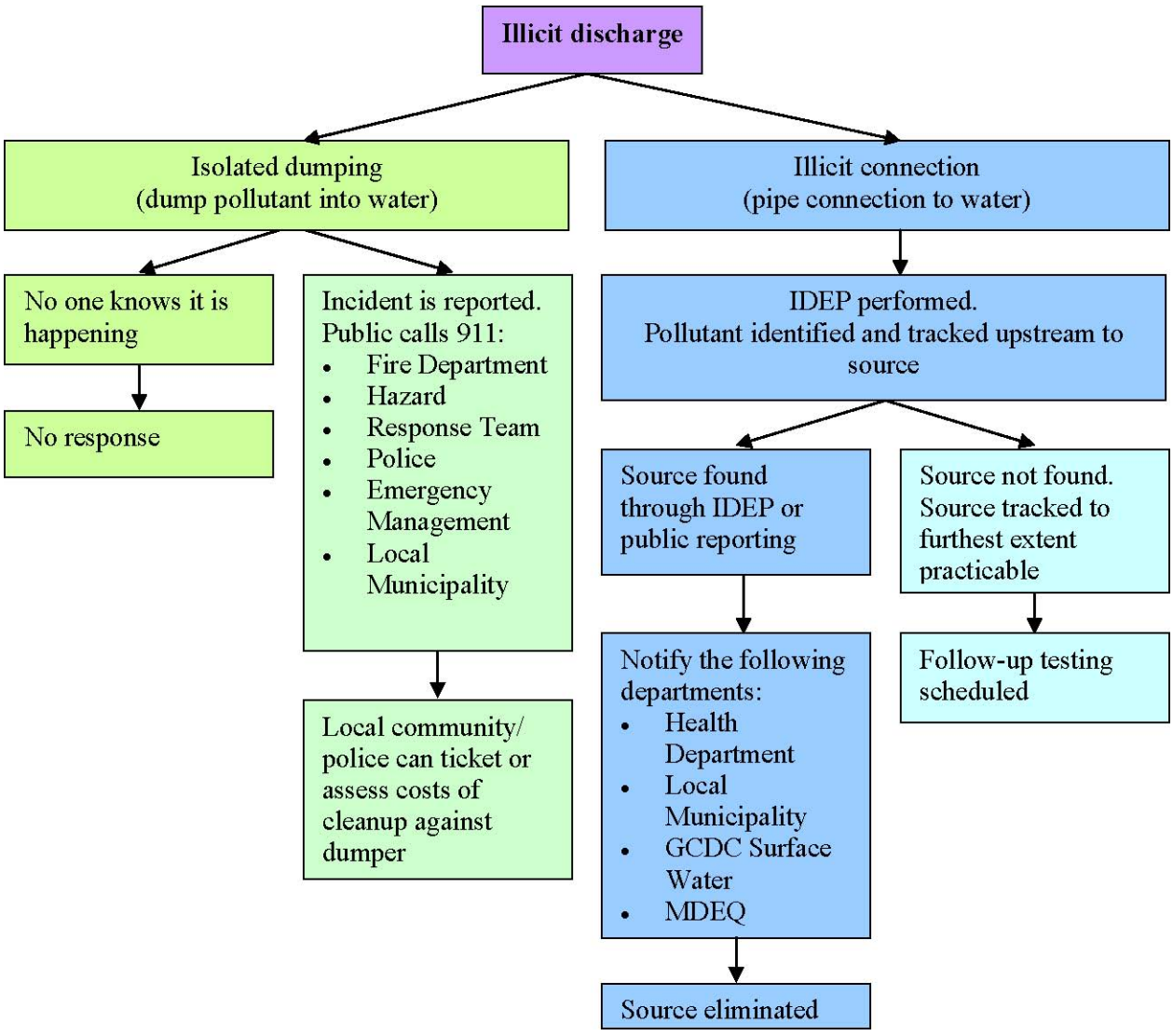
During 2013-2014, IDEP field investigations all the local communities were complete. Efforts were focused on County owned outfalls:

Genesee County Drain Commission
In 2013-14, 359 outfalls were investigated, eight new outfalls were found and 16 outfalls were not found or were not an outfalls. Three illicit discharges were found during this investigation period and 15 outfalls that had minor problems and an incident report was sent to County.

Table 0-1: Total Number Outfalls Investigated
October 2013- September 2014

Year outfalls were received	Number of Field Days	Number of Outfalls Investigated
GCDC-2014	16	268
GCDC-2013Spring	8	68
GCDC-2012Fall	4	23
Totals	28	359

Figure 0-1: Illicit Discharge Notification System Process

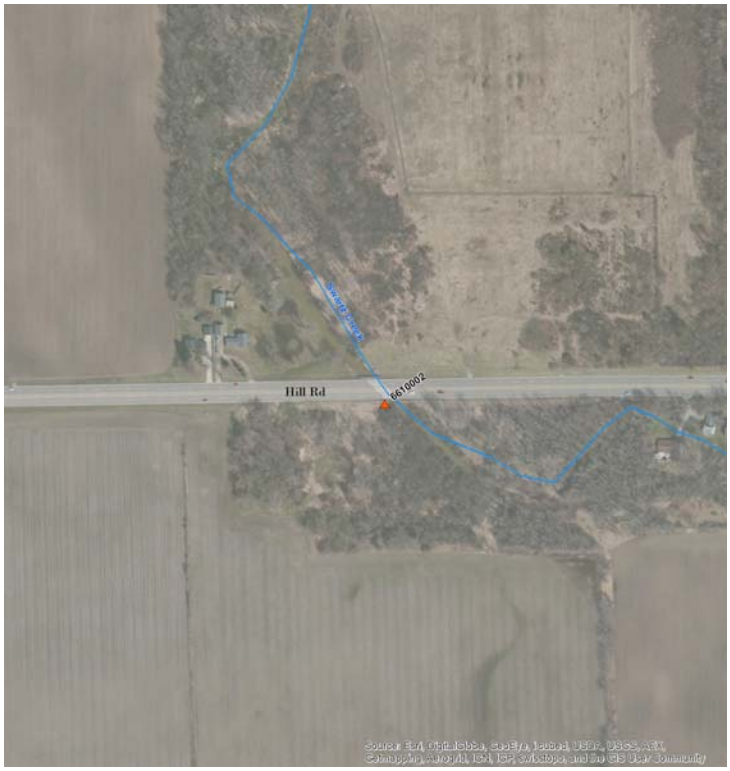


The following tables and figures show the outfalls investigated that required followup. The section concludes with a summary of the follow-up investigations undertaken in 2013-2014.

Genesee County Drain Commission Illicit Discharge

GCDC: Outfall # 6610002
Latitude: 42.943683 Longitude: -83.744151
On August 11, 2014 field crews observed dry weather flow at outfall 6610002, an 18 inch corrugated steel pipe emptying into Swartz Creek at the southwest quadrant of the Hill Rd and Swartz Creek road stream crossing. Analysis of the collected sample indicated E.coli levels greater than 10,000 colonies/100ml sample, surfactant levels of 0.18mg/L and ammonia levels of 0.15mg/L.

Status
Based on our observations and laboratory testing, it is recommended that Genesee County Drain Commission investigate upstream to find the source.



GCDC: Outfall # 9730751
Latitude: 43.151864 Longitude: -83.67853

On July 23, 2014 field crews sudsy flow was observed flowing from a 3 inch pipe into an open ditch in front of 10098 Lewis Rd directly upstream of outfall 9730751. Analysis of the collected sample indicated surfactant levels of 59mg/L, ammonia levels of 1.7mg/L and E. coli levels of 3,900 colonies/100ml sample.

Status
The County will need to dye test the Lewis Rd residence to confirm the connection and begin action to remove the connection. After the connection has been removed, the County must verify its removal.

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- Table 1 since April, therefore we have included a new complete list of outfalls mapped through Sept 2014. In future year's only changes or additions shall be shown.

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 infrastucture. This will allow us to locate and map outfalls more efficiently.

Table 0-1: Genesee County Assigned Outfalls for 2013-2014

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
5601001	GCDC 0132	Lake	Incident Report	7/24/2014	support structure for beehive is crumbled/casting very loose
5602001	GCDC 0257	Dawn Drain 0257	Yes	7/24/2014	
5602002	GCDC 1403	Dawn Drain 0257	Revisit	7/24/2014	Need to revisit in winter, unable to find due to vegetation.
5602495	GCRC	Dawn Drain 0257	Yes	7/24/2014	
5602504	GC Schools	Dawn Drain 0257	Yes	7/24/2014	
5602505	GC Schools	Dawn Drain 0257	Yes	7/24/2014	
5610751	GC Schools	Lake Via GCRC& Wetland	Yes	7/24/2014	
5610752	GC Schools	Lake Via GCRC& Wetland	Yes	7/24/2014	
5610753	GC Schools	Lake Via GCRC& Wetland	Revisit	7/24/2014	Field crew was not able to find outfall-need to revisit
5616753	GCRC	Shiawassee River	Yes	8/19/2014	
5616754	GCRC	Shiawassee River	Yes	8/19/2014	
5620255	GCRC	Shiawassee River	Yes	8/19/2014	
5620256	GCRC	Shiawassee River	Yes	8/19/2014	
5620528	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5621001	GCRC	Shiawassee River	Yes	8/19/2014	
5621002	GCRC	Shiawassee River	Yes	8/19/2014	
5625515	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625516	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625517	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625518	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625519	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625520	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625521	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5625522	GC Schools	Municipal Storm Sewer	New outfall 2014	8/19/2014	Need to revist & sample
5625753	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5626751	GC Schools	Municipal Storm Sewer	Yes	6/17/2014	
5626752	GC Schools	Municipal Storm Sewer	Yes	6/17/2014	Outfall is underground blind tie into drain, not visible
5630252	GC Schools	Municipal Storm Sewer	Yes	8/19/2014	
5633005	GCRC	Silver Lake	Incident Report	8/19/2014	There is no defined ditch &

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
					causing erosion issues on resident property on Fenton Lake.
5633006	GCRC	Silver Lake	Not Found	8/19/2014	
5633504	GCRC	Silver Lake	Yes	8/19/2014	
5633505	GCRC	Silver Lake	Yes	8/19/2014	
5634267	GCRC	Egyptian Drain	Yes	6/17/2014	
5634271	GCRC	Egyptian Drain	Incident Report	6/17/2014	New pipe in drain at NE quadrant of Copper and drain-soil erosion issues due to construction
5634272	GCRC	Egyptian Drain	Yes	6/17/2014	
5634275	GCRC	Egyptian Drain	Yes	6/17/2014	
5634754	GCDC	unknown	Yes	6/17/2014	
5634754	GC School	Egyptian 0867	Yes	6/17/2014	
5634755	GCDC	Egyptian Drain	Yes	6/17/2014	
5634755	GC School	Egyptian 0867	Yes	6/17/2014	
5634756	GC School	Egyptian 0867	Not an outfall	6/17/2014	
5635252	GC Schools	Shiawassee River	Yes	6/17/2014	
5635254	GC Schools	Shiawassee River	Yes	6/17/2014	sampled, illicit discharge ruled out
5635751	GC Schools	Municipal Storm Sewer	Yes	6/17/2014	
6502300	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502301	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502302	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502304	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502305	GC Schools	Spillane & Branches Drain	Yes	8/18/2014	
6502308	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502309	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502310	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	
6502452	GC Schools	Swartz Creek, West Branch	Yes	8/18/2014	Keep our eye on this outfall it was good house keeping issue in the past
6503306	GC Schools	Swartz Creek, West Branch	Yes	8/19/2014	
6503307	GC Schools	Swartz Creek, West Branch	Yes	8/19/2014	
6601010	GC Schools	Baker Drain	Revisit	8/7/2014	Need to investigate upstream to determine where flow is coming from
6602001	GC Schools	Municipal Storm	Yes	8/7/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
		Sewer			
6602002	GC Schools	Hudge Drain	Yes	8/7/2014	
6602003	GC Schools	Hudge Drain	Yes	8/7/2014	
6602004	GC Schools	Hudge Drain	Yes	8/11/2014	
6602263	GC Schools		Yes	8/7/2014	
6602264	GC Schools	Call Drain	Incident Report	8/7/2014	Construction site concrete washoff
6603501	GCRC	Swartz Creek	Yes	8/11/2014	
6603751	GCDC 0286	George Drain	Yes	8/11/2014	
6604001	GCRC	Howland Drain 0382	Yes	8/11/2014	
6604002	GCRC	Howland Drain 0382	Yes	8/11/2014	
6604003	GCRC	Hewitt Drain 0018	Yes	8/11/2014	
6604004	GCRC	Hewitt Drain 0018	Yes	8/11/2014	
6605262	GC Schools	Ketzler Drain-School Branch	Yes	8/11/2014	
6608752	GCRC	Howland Drain 0382	Yes	8/19/2014	
6609251	GCRC	Hewitt Drain 0018	Yes	8/19/2014	
6610001	GCRC	Swartz Creek	Yes	8/11/2014	
6610002	GCRC	Swartz Creek	Report to County	8/11/2014	E.coli over 10,000. Could be animal related.
6616370	GCRC	McCullough Drain 0033	Yes	8/19/2014	
6616374	GCRC	McCullough Drain 0033	Yes	8/19/2014	
6617252	GCDC 0382	Howland Drain	Yes	8/19/2014	
6625752	GCDC 1097	Swartz Creek	Yes	7/23/2014	
6625753	GCRC	Swartz Creek	Yes	7/24/2014	
6701501	GC Schools	Meyers Drain 0408	Yes	8/11/2014	
6701502	GC Schools	Meyers Drain 0408	Yes	8/11/2014	
6701503	GC Schools	Meyers Drain 0408	Yes	8/11/2014	
6702001	GCRC	Meyers Drain 0408	Incident Report	8/11/2014	Culvert tilted skyward 20 degrees from level, water going under culvert pipe
6702002	GCRC	Meyers Drain 0408	Yes	8/11/2014	
6703253	GCRC	Meyers Drain 0408	Yes	8/11/2014	
6703254	GCRC	Meyers Drain 0408	Yes	8/11/2014	
6704251	GCRC	Meyers Drain 0408	Yes	7/22/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
6705251	GC Schools	Thread Creek, Rauch Br 1430	Yes	7/22/2014	
6705521	GC Schools	Gibson Drain 0423	Yes	8/11/2014	
6707751	GC Schools	Gibson, Grand Wailea 1561	Yes	7/23/2014	
6708502	GCRC	Gibson Drain 0423	Yes	7/22/2014	
6708503	GCRC	Gibson Drain 0423	Yes	7/22/2014	
6708510	GC Schools	Gibson, Reid Road Branch 0313	Yes	7/22/2014	
6708511	GC Schools	Gibson, Reid Road Branch 0313	Yes	7/22/2014	
6708751	GCRC	Gibson Drain 0423	Yes	7/22/2014	
6708752	GCRC	Gibson Drain 0423	Yes	7/22/2014	
6710503	GC Schools	Thread Creek	Yes	8/7/2014	
6710525	GC Schools	Thread Creek	Yes	8/7/2014	
6710526	GC Schools	Thread Creek	Yes	8/7/2014	
6711754	GCRC	Thread Creek	Yes	8/7/2014	
6711755	GCRC	Thread Creek	Yes	8/7/2014	
6712751	GCRC	Thread Creek	Not Found	8/7/2014	Not Found
6712752	GCDC 0372	Thread Creek	Yes	8/7/2014	
6712753	GCRC	Thread Creek	Yes	8/7/2014	
6712754	GCRC	Thread Creek	Yes	8/7/2014	
6713001	GC Schools	Bush Drain via Sub drainage	Yes	8/7/2014	
6715520	GC Schools	Layman Drain 0385	Incident Report	6/16/2014	CB filled with water & pipe is plugged. Also sampled upstream do to traffic
6715521	GC Schools	Layman Drain 0385	Yes	6/16/2014	First upstream structure plugged, standing water
6715522	GC Schools	Layman Drain 0385	Yes	6/16/2014	
6715523	GC Schools	Layman Drain 0385	Incident Report	6/16/2014	Soil erosion issue at outfall, incident report filled out
6715523	GC Schools	Layman Drain 0385	Incident Report	6/16/2014	erosion at pipe outfall, incident reprt filled out
6715524	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715525	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715526	GC Schools	Layman Drain	Not an outfall	6/16/2014	Per school as-built & field

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
		0385			investigated in 2013, these points are blind ties into county drain. Not an outfall
6715527	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715528	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715529	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715530	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715531	GC Schools	Layman Drain 0385	Incident Report	6/16/2014	Structure not accessible, cemented over
6715531	GC Schools	Layman Drain 0385	Not an outfall	6/16/2014	Per school as-built & field investigated in 2013, these points are blind ties into county drain. Not an outfall
6715532	GC Schools	Layman Drain 0385	Yes	6/16/2014	sampled first US MH, outfall behind security fence
6716767	GC Schools	Layman Drain 0385	Yes	6/16/2014	
6717001	GC Schools	Gibson, Reid Road Br 0313	Yes	7/23/2014	
6717254	GCRC	Gisbon Drain 0423	Yes	7/22/2014	
6717255	GCRC	Gisbon Drain 0423	Yes	7/22/2014	
6729253	GCRC	Seaver Drain	Yes	7/23/2014	
6729254	GCRC	Seaver Drain	Yes	7/23/2014	
6729255	GCRC	Seaver Drain Tributary	Yes	7/23/2014	
6729262	GCRC	Seaver Drain Tributary	Yes	7/23/2014	
6729263	GCRC	Seaver Drain	Yes	7/23/2014	
6807251	GCRC	Lasalle Drain 0224	Yes	8/11/2014	
6807252	GCRC	Lasalle Drain 0224	Yes	8/11/2014	
6808003	GCRC	Lasalle Drain 0224	Yes	8/11/2014	
6808004	GCRC	Lasalle Drain 0224	Yes	8/11/2014	
7524501	GCRC	Cranery Drain 0802	Yes	8/19/2014	
7524502	GCRC	Cranery Drain	Yes	8/19/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
		0802			
7535251	GCRC	Smith- Clayton Drain	Yes	8/19/2014	Non Urbanized Area
7535252	GCRC	Smith- Clayton Drain	Yes	8/19/2014	Non Urbanized Area
7625001	GC Schools	Carman Creek-Gibson	Yes	8/6/2014	
7625002	GC Schools	Carman Creek-Gibson	Yes	8/6/2014	
7625770	GC Schools	Carman Drain	Yes	8/6/2014	
7629251	GC Schools	Municipal Storm Sewer	Revisit	8/19/2014	Need to go back & investigate to see if there is flow
7630501	GC Schools	Ditch to overland flow	Yes	8/19/2014	
7633509	GCRC	Howland Drain	Yes	8/11/2014	
7633510	GCRC	Howland Drain	Yes	8/11/2014	
7636252	GC Schools	Parkwood	Yes	8/7/2014	
7730001	GC Schools	Gibson - watercourse	Yes	8/7/2014	
7730002	GC Schools	Gibson - watercourse	Yes	8/7/2014	
7731003	C of Burton	Gibson Drain 0145	Yes	8/6/2014	
7731013	GC Schools	Gibson Drain 0423	Yes	8/7/2014	
7736751	GCRC	Gilkey Creek 0017	Incident Report	8/11/2014	Culvert pipe has seperated from culvert under road
7736753	GCRC	Gilkey Creek 0017	Yes	8/11/2014	
8501101	GCRC	Armstrong Creek	Yes	7/23/2014	Non Urbanized Area
8501102	GCRC	Armstrong Creek	Yes	7/23/2014	Non Urbanized Area
8501201	GCRC	Central Drain outlet	Yes	7/23/2014	Non Urbanized Area
8501203	GCRC	Central Drain outlet	Yes	7/23/2014	Non Urbanized Area
8501516	GCRC	Armstrong Creek	Yes	8/4/2014	
8501753	GCRC	Central Drain outlet	Incident Report	8/4/2014	Road Comm. Cleaned drain inlet & left debris behind causing a blockage problem in Central Drain
8503752	GCRC	Flint River	Report to County	7/24/2014	High levels of ammonia, the landuse is pretty rural.
8503753	GCRC	Flint River	Yes	7/24/2014	
8512239	GCRC	Armstrong Creek	Yes	8/4/2014	
8512240	GCRC	Armstrong Creek	Yes	8/4/2014	
8513497	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	
8513499	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	
8513757	GC Schools	Root Drain 0185	Not an outfall	8/6/2014	Don't believe this is an outfall, believe the system goes

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
					underground storage
8513993	GC Schools	Root Drain 0185	Yes	8/6/2014	
8513995	GC Schools	Root Drain 0185	Yes	8/6/2014	
8513999	GCRC	Root Drain 0185	Yes	8/6/2014	
8514003	GCRC	Tributary of Flint River	Yes	8/6/2014	
8514004	GCRC	Tributary of Flint River	Incident Report	8/6/2014	Pipe is broken & road ditch has been wasted out causing sever erosion & bank under cutting
8515252	GCRC	Tributary of Flint River	Yes	8/6/2014	
8515253	GCRC	Tributary of Flint River	Yes	8/6/2014	
8601001	GCRC	Mason Drain 0159	Yes	7/21/2014	
8601003	GCRC	Mason Drain 0159	Yes	7/21/2014	
8601005	GCDC 1118	Mason Drain 0159	Yes	7/21/2014	
8601009	GCRC	Mason Drain 0159	Yes	7/23/2014	
8601011	GCRC	Mason Drain 0159	Yes	7/23/2014	
8601251	GC Schools	Mason, Roberts Branch of	Yes	7/22/2014	
8601501	GCRC	Mason Drain 0159	Yes	7/22/2014	
8601503	GCRC	Mason Drain 0159	Yes	7/22/2014	
8601505	GCRC	Mason Drain 0159	Yes	7/22/2014	
8601507	GCRC	Mason Drain 0159	Yes	7/22/2014	
8601772	GC Schools	Mason, Roberts Branch of	Yes	7/22/2014	
8602251	GCRC	Mason Drain 0159	Yes	7/21/2014	
8602253	GCRC	Mason Drain 0159	Yes	7/21/2014	
8602751	GC Schools	Mason Drain via 1118	Not an outfall	7/21/2014	Believe it blind ties into the system.
8602752	GC Schools	Mason Drain via 1118	Yes	7/21/2014	
8602753	GC Schools	Mason Drain via 1118	Yes	7/21/2014	
8602754	GC Schools	Mason Drain via 1118	Yes	7/21/2014	
8602755	GC Schools	Craven & Benson 0013	Yes	7/22/2014	
8603745	GCRC	Lake Drain 0057	Yes	7/23/2014	Non Urbanized Area
8606501	GCRC	Central Drain 0109	Yes	8/4/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
8606503	GCRC	Central Drain 0109	Yes	8/4/2014	
8607001	GCRC	Central Drain 0109	Yes	8/4/2014	
8607002	GCRC	Central Drain 0109	Not Found	8/4/2014	Not Found
8607497	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8607499	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8608999	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8610001	GCRC	Lake Drain 0057	Yes	7/23/2014	Non Urbanized Area
8610003	GCRC	Lake Drain 0057	Yes	7/23/2014	Non Urbanized Area
8612271	GC Schools	Craven & Benson, Branch #1	Yes	7/23/2014	
8612272	GC Schools	Craven & Benson, Branch #1	Yes	7/23/2014	
8612273	GC Schools	Craven & Benson, Branch #1	Yes	7/23/2014	
8616005	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8617251	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8617253	GCRC	Stadler Drain 0113	Yes	8/4/2014	
8617501	GCRC	Cattail Swamp Drain 0401	Yes	8/4/2014	
8617503	GCDC 1670	Cattail Swamp Drain 0401	Yes	8/4/2014	
8617513	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	Non Urbanized Area
8617514	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	Non Urbanized Area
8618001	GCDC 0089	Cattail Swamp Drain 0089	Yes	8/4/2014	
8618737	GCRC	Root Drain 0185	Yes	8/6/2014	Non Urbanized Area
8618747	GCRC	Root Drain 0185	Yes	8/6/2014	
8618749	GCRC	Root Drain 0185	Incident Report	8/6/2014	Crushed outfall
8618751	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	Non Urbanized Area
8618753	GCRC	Cattail Swamp Drain 0401	Yes	8/6/2014	Non Urbanized Area
8619229	GCRC	Root Drain 0185	Yes	8/6/2014	
8619231	GCRC	Root Drain 0185	Yes	8/6/2014	
8620241	GCDC 1528	Cattail Swamp Drain 0401	Yes	8/4/2014	
8620243	GCRC	Cattail Swamp Drain 0401	Yes	8/4/2014	
8706251	GC Schools	Mason Drain 0159	Yes	7/22/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
8706252	GC Schools	Mason Drain 0159	Revisit	7/22/2014	Need to reinvestigate unable to open CB cover
8706508	GC Schools	Mason Drain 0159	Yes	7/22/2014	
8706509	GC Schools	Mason Drain 0159	Revisit	7/22/2014	Need to revisit-outfall location unclear
8706510	GC Schools	Mason Drain 0159	Revisit	7/22/2014	Need to revisit-outfall location unclear
8706751	GC Schools	Mason Drain 0159	Yes	7/22/2014	
8706752	GC Schools	Mason Drain 0159	Yes	7/22/2014	
8707004	GC Schools	Municipal Storm Sewer	Yes	7/23/2014	
8707005	GC Schools	Municipal Storm Sewer	Yes	7/22/2014	
8707006	GC Schools	Municipal Storm Sewer	Yes	7/22/2014	
9536501	GCRC	Armstrong Creek	Yes	7/23/2014	Non Urbanized Area
9536747	GCRC	Central Drain 0109	Yes	7/23/2014	Non Urbanized Area
9536749	GCRC	Central Drain 0109	Yes	7/23/2014	Non Urbanized Area
9610497	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9610751	GCRC	Collins 0025	Yes	7/14/2014	
9610753	GCRC	Collins 0025	Yes	7/14/2014	
9611977	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9611979	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9611993	GCRC	Alpine & Blackmore 0098	Not Found	7/14/2014	Not Found
9611995	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9611997	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9611999	GCRC	Alpine & Blackmore 0098	Yes	7/14/2014	
9613501	GCRC	Pine Run 0165	Yes	6/30/2014	
9613502	GCRC	Pine Run 0165	Yes	6/30/2014	
9614001	GC Schools	CollinsDr.	Not an outfall	6/30/2014	Believe this system is a city system and not draining the school. Could not sound any structures on school property to this outfall. Need to revisit the school to remap school system
9614002	GC Schools	CollinsDr.	New outfall 2014	6/30/2014	
9614003	GC Schools	CollinsDr.	New outfall 2014	6/30/2014	
9614004	GC Schools	CollinsDr.	New outfall 2014	6/30/2014	
9614005	GC Schools	CollinsDr.	New outfall 2014	6/30/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
9614533	GC Schools	Pine Run watercourse	Yes	6/23/2014	
9614534	GC Schools	Tributary Pine Run	Yes	6/23/2014	
9614535	GC Schools	Pine Run	Incident Report	6/23/2014	Suspect dumping of floor wax or cleaning compound on ground near outfall.
9614536	GC Schools	Pine Run watercourse	Incident Report	6/23/2014	Incident report roots in manhole causing standing water in system
9614751	GCDC 1140	Pine Run & Tyron	Yes	6/23/2014	
9614761	GCRC	Pine Run 0165	Yes	6/30/2014	
9614765	GC Schools	Pine Run 0165	Yes	6/23/2014	
9614766	GCRC	Pine Run 0165	Yes	6/30/2014	
9615522	GC Schools	Tributary Pine Run	Yes	6/16/2014	
9616997	GCRC	Pine Run	Yes	7/14/2014	
9616999	GCRC	Pine Run	Yes	7/14/2014	
9617257	GCRC	Pine Run	Yes	7/14/2014	
9617751	GCRC	Parker Creek	Yes	7/14/2014	
9617762	GCRC	Parker Creek	Yes	7/14/2014	
9620253	GCRC	Parker Creek	Yes	7/14/2014	
9620255	GCRC	Parker Creek	Yes	7/14/2014	
9621508	GC Schools	Parker Creek	Revisit	7/14/2014	Need to visit-outfall location was unclear in field
9621509	GC Schools	Parker Creek	Revisit	7/14/2014	Need to visit-outfall location was unclear in field
9621752	GCRC	Parker Creek	Yes	7/14/2014	
9621753	GCRC	Parker Creek	Yes	7/14/2014	
9626001	GCRC	Benjamin Run	Yes	7/15/2014	
9626005	GCRC	Benjamin Run	Yes	7/15/2014	
9626007	GCRC	Benjamin Run	Yes	7/15/2014	
9627251	GC Schools	Benjamin Run through GCRC	Yes	7/15/2014	Moved outfall location
9627252	GC Schools	Benjamin Run through GCRC	Yes	7/15/2014	Moved outfall location
9627253	GC Schools	Benjamin Run through GCRC	New outfall 2014	7/15/2014	New outfall 2014
9627501	GCRC	Parker Creek	Yes	7/21/2014	
9627503	GCRC	Parker Creek	Yes	7/21/2014	
9627511	GCRC	Parker Creek	Yes	7/21/2014	
9627512	GCRC	Parker Creek	New outfall 2014	7/21/2014	New outfall 2014
9627513	GCRC	Parker Creek	Yes	7/21/2014	
9628251	GCRC	Parker Creek	Yes	7/14/2014	
9628252	GCRC	Parker Creek	Yes	7/14/2014	
9628751	GCRC	Parker Creek	Yes	7/21/2014	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
9628753	GCRC	Parker Creek	Yes	7/21/2014	
9633251	GCRC	Brent Run	Yes	7/21/2014	
9633253	GCRC	Brent Run	Yes	7/21/2014	
9634101	GCRC	Parker Creek	Yes	7/21/2014	
9634103	GCRC	Parker Creek	Yes	7/21/2014	
9634501	GCRC	Brent Run	Yes	7/21/2014	
9634502	GCRC	Brent Run	Yes	7/21/2014	
9635251	GCRC	Benjamin Run	Yes	7/15/2014	
9635252	GCRC	Mason Drain	New outfall 2014	7/15/2014	New outfall 2014
9730751	GCDC 0501	Lewis Drain 0501	Incident Report	7/23/2014	Illicit Discharge found incident report created
8822251	GCDC 0542	Clark Drain #0184	Yes	12/17/2013	
6502016	GC-School	Swartz Creek	Yes	12/11/2013	
7501001	GCDC 1076	Messmore & Cronk 0464	Yes	12/18/2013	
7633511	GCDC 0498	Hewitt Outlet	Yes	12/11/2013	
8536004	GCDC 1431	Flint River	Yes	12/18/2013	
8536262	GCDC 0426	French Drain 0219 to Flint River	Yes	12/18/2013	
8536263	GCDC 0654	French Drain 0219 to Flint River	Yes	12/18/2013	
8536503	GCRC	Messmore & Cronk 0464	Yes	12/18/2013	
8630251	GCRC	Root Drain 0185	Yes	10/1/2013	
8630252	GCRC	Root Drain 0185	Yes	10/1/2013	
8630751	GCRC	Root Drain 0185	Yes	10/1/2013	
8630753	GCRC	Root Drain 0185	Yes	10/1/2013	
8630758	GCDC 1551	Root Drain 0185	Yes	10/1/2013	
8630759	GCDC 0689	Root Drain 0185	Yes	10/1/2013	
8631251	GC Schools	GCRC	Yes	10/1/2013	
8632018	GCDC 0928	Hartshorn, Pierson Br 0928	Yes	10/1/2013	
8632501	GCDC 0954	Hartshorn Drain 0458	Yes	10/1/2013	
8632756	GCDC 0954	Hartshorn Drain 0458	Yes	10/1/2013	
8632757	GCDC 0954	Hartshorn Drain 0458	Yes	10/1/2013	
8632758	GCDC 0954	Hartshorn Drain 0458	Yes	10/1/2013	
8726258	GCDC 0031	Crampton Drain 0012	Yes	10/29/2013	
8821501	GCDC 0016	Fuller Drain 0010	Yes	12/10/2013	
8821502	GCDC 0035	Parker & Frost Drain 0035	Yes	12/10/2013	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
6507755	GCRC	Terry Drain 0175	Yes	10/10/2013	
6507756	GCRC	Terry Drain 0175	Yes	10/10/2013	
6507757	GCDC 0657	Terry Drain 0175	Yes	10/10/2013	
6508508	GCRC	Terry Drain 0175	Yes	10/10/2013	
6508511	GCRC	Terry Drain 0175	Yes	10/10/2013	
6508512	GCRC	Terry Drain 0175	Yes	10/10/2013	
6508513	GCRC	Terry Drain 0175	Yes	10/10/2013	
6511752	GCDC 0200	Alger Creek 0141	Yes	10/10/2013	
6516502	GCRC	Terry Drain 0175	Yes	10/10/2013	
6516753	GCRC	Terry Drain 0175	Yes	10/10/2013	
6517001	GCRC	Terry Drain 0175	Yes	10/10/2013	
6517757	GCRC	Terry Drain 0175	Yes	10/10/2013	
6521270	GCDC 0175	Terry Drain 0175	Yes	10/10/2013	
6521272	GCRC	Terry Drain 0175	Yes	10/10/2013	
6729005	GCDC 1584	Eames 0864	Yes	12/16/2013	
6729007	GCDC 1638	Eames 0864	Yes	12/16/2013	
6729014	GCDC 1584	Seaver 0043	Yes	12/16/2013	
6729509	GCRC	Eames 0864	Yes	12/16/2013	
6730302	GCDC 1612	Seaver 0043	Yes	12/16/2013	
6732001	GCRC	Eames 0864	Yes	12/16/2013	
6732002	GCRC	Eames 0864	Yes	12/16/2013	
7502003	GCRC	Cole Creek 0764	Yes	10/1/2013	
7502004	GCRC	Cole Creek 0764	Yes	10/1/2013	
7511001	GCRC	Cole Creek 0764	Yes	10/10/2013	
7511003	GCRC	Cole Creek 0764	Yes	10/10/2013	
7511753	GCRC	Cole Creek 0764	Yes	10/10/2013	
7511755	GCRC	Cole Creek 0764	Yes	10/10/2013	
7512501	GCRC	Cole Creek 0764	Yes	10/10/2013	
7604754	GCRC	Flint River	Yes	10/1/2013	
7604756	GCRC	Flint River	Yes	10/1/2013	
7609751	GCRC	Flint River Via MDOT/ GCDC	Yes	10/2/2013	
7610004	GCDC 0166	Flint River	Yes	10/2/2013	
7728755	GCDC 0337	Thread Creek	Yes	12/11/2013	
7733254	GCDC 0375	Thread Creek	Yes	12/11/2013	
7733258	GCDC 0375	Thread Creek	Yes	12/11/2013	
7733752	GCDC 0434	Thread Creek	Yes	12/11/2013	
7809304	Gc School	Harvey Drain 0631	Yes	12/17/2013	
7809305	Gc School	Harvey Drain 0631	Yes	12/17/2013	
7810751	Gc School	Hock & Walterhouse 0091	Yes	12/17/2013	

Outfall No.	Owner	Receiving Water Body	Investigation Status	Date Investigated	Notes
7814001	GCDC 0064	Black Cr, Cummings br of 0064	Yes	12/17/2013	
8534759	GCRC	Cole Creek 0764	Yes	10/1/2013	
8534761	GCRC	Cole Creek 0764	Yes	10/1/2013	
8535501	GCRC	Cole Creek 0764	Yes	10/1/2013	
8535503	GCRC	Cole Creek 0764	Yes	10/1/2013	
8535505	GCRC	Cole Creek 0764	Yes	10/2/2013	
8535507	GCRC	Cole Creek 0764	Yes	10/2/2013	
8633751	GCDC 0927	Hartshorn & Ext 0458	Yes	10/1/2013	
8634501	GCDC 0334	Hartshorn & Ext 0458	Yes	10/2/2013	
8634502	GCDC 0435	Hartshorn & Ext 0458	Yes	10/2/2013	
8722001	GCRC	Carpenter Dr 0050	Yes	10/29/2013	
8726501	GCDC 0171	Crampton Drain 0012	Yes	10/29/2013	
8726502	GCRC	Crampton Drain 0012	Yes	10/29/2013	
8726503	GCDC WWS	Crampton Drain 0012	Yes	10/29/2013	
8727756	GCDC 0311	Crampton Drain 0012	Yes	10/29/2013	
8727759	GCDC 0311	Crampton Drain 0012	Yes	10/29/2013	
8727760	GCRC	Crampton Drain 0012	Yes	10/29/2013	
8727761	GCRC	Crampton Drain 0012	Yes	10/29/2013	
8727762	GCDC 0256	Crampton outlet	Yes	10/29/2013	
8816751	GCRC	Zufelt Drain 0100	Yes	12/17/2013	
8828502	GCRC	Cullen and Powers 0014	Yes	12/10/2013	
8830751	GCRC	Cullen & Powers #0014	Yes	10/29/2013	
8830752	GCRC	Cullen & Powers #0014	Yes	10/29/2013	
8833008	GCDC 0127	Austin Drain 0160	Yes	12/10/2013	
8833016	GCDC 0127	Austin Drain 0160	Yes	12/10/2013	
8833018	GCDC 0127	Austin Drain 0160	Yes	12/10/2013	
8833019	GCDC 0160	Austin Drain 0160	Yes	12/10/2013	
8833020	GCDC 0127	Austin Drain 0160	Yes	12/10/2013	
8833021	GCDC 0127	Austin Drain 0160	Yes	12/10/2013	
8834005	GCDC 0813	Cullen and powers #0014	Yes	12/10/2013	
8835501	GCDC 0014	Cullen and Powers 0014	Yes	12/10/2013	

Figure 0-1: Genesee County Incident Reports for 2013-2014

1. **Tracking Number:** 08-04-2014-01
   Outfall Number: 8501753
   Location: West side of Elms Road and the Central Drain RSC approximately 600 feet north of Mt. Morris Rd.
   Lat/Long Coordinates: 43.119918, -83.81379
   Incident: Woody debris from ditch clearing operations piled up in main flow channel of drain. Flow redirected into bank causing bank erosion.
   Action Required: Remove or reposition woody debris in drain to restore normal flow pattern.

2. **Tracking Number:** 08-06-2014-01
   Outfall Number: 8618749
   Location: Northeast quadrant of Coldwater Road and Root Drain RSC approximately 100 feet east of Elms Road centerline.
   Lat/Long Coordinates: 43.089293, -83.813059
   Incident: 15" corrugated steel outfall pipe is crushed at outlet into drain.
   Action Required: Replace pipe.

3. **Tracking Number:** 08-06-2014-02
   Outfall Number: 8514004
   Location: Southeast quadrant of McKinley Road and Flint River tributary**,** 700 feet south of Stanley Road centerline.
   Lat/Long Coordinates: 43.10129, -83.85305
   Incident: Severe gully erosion along roadside that has advanced to edge of road shoulder. Broken sections of pipe laying in gully and heavy sedimentation into tributary stream.
   Action Required: Replace outfall structure and apply soil erosion prevention practices.

4. **Tracking Number:** 08-07-2014-01
   Outfall Number: 6602264
   Location: Catch basin at north end of parking area in front of Genesee Intermediate School District Special Education building. Also, downstream catch basins to outfall.
   Lat/Long Coordinates: 42.957058, -83.721544
   Incident: Concrete washout from nearby construction project washed into storm sewer.
   Action Required: Construction Stormwater Operator visit site and educate on construction good housekeeping practices.

5. **Tracking Number:** 08-11-2014-01
   Outfall Number: 7736751
   Location: North side of Maple Road and Gilkey Creek RSC, just west of 6341 Maple Rd.
   Lat/Long Coordinates: 43.961429, -83.58086
   Incident: Section of culvert pipe on north side of RSC has separated from culvert pipe under road.
   Action Required: Replace north end section of culvert pipe.

6. **Tracking Number:** 08-11-2014-02
   Outfall Number: 6702001
   Location: On east side of South Genesee Road and the Meyer Drain RSC just north of 5275 South Genesee Road.
   Lat/Long Coordinates: 42.953658, -83.613349
   Incident: Under road culvert on east side of RSC is tilted skyward approximately 20 degrees from level. Stream flow is undercutting culvert pipe.
   Action Required: Repair culvert section.

7. **Tracking Number:** 08-19-2014-01
   Outfall Number: 5633005
   Location: On south side of Owen Road in yard of 4509 Owen at discharge of culvert under Owen Road 50 feet west of seawall.
   Lat/Long Coordinates: 42.789147, -83.764894
   Incident: Culvert under Owen road that drains the ditch along the north side of Owen road empties into an eroded hole in the yard of 4509 Owen Rd. Current pipe configuration is causing erosion and deposition of debris.
   Action Required: Reconfigure culvert pipe to drain directly into nearby canal.

8. **Tracking Number:** 06-16-14-01
   Outfall Number: 6715520
   Location: Grand Blanc High School property.
   Lat/Long Coordinates: 42.920797N, -83.62206W
   Incident: Outfall pipe is dry, but first upstream catch basin on school property is filled with water. Pipe between structures is plugged.
   Action Required: Pipe requires cleaning to regain function.

9. **Tracking Number:** 06-16-14-02
   Outfall Number: 6715523
   Location: Grand Blanc School property off Jewett Rd near DPW yard.
   Lat/Long Coordinates: 42.918589N, -83.630948W
   Incident: Outfall pipe is broken off at embankment causing severe erosion at outfall.
   Action Required: Pipe needs repair and bank requires stabilization.

10. **Tracking Number:** 06-17-14-01
    Outfall Number: 5634271
    Location: Copper Rd. and Egyptian Drain Road Stream Crossing (RSC).
    Lat/Long Coordinates: 42.792856N, -83.732929W
    Photo Number: No photo available.
    Incident: Silt fence failure at construction site on northeast quadrant of RSC. New un-documented 15 inch plastic discharge pipe approximately 15 feet north of Copper Rd. in northeast quadrant of Copper Rd / Egyptian Drain RSC.
    Action Required: Repair silt fence. Create Outfall number for new pipe.

11. **Tracking Number:** 06-23-14-01
Outfall Number: 9614535
Location: City of Clio, east side of Carter Middle School.
Lat/Long Coordinates: 43.179438N, -83.729822W
Photo Number: 3&4
Incident: Suspect dumping of floor wax or cleaner by janitorial staff at school. Compound found on ground outside of rear building entrance storm drain and uphill of drainage swale.

near

Action Required: Reported Incident to GCDC on 6/23/14 via phone message and e-mail. Educate janitorial staff on proper disposal of cleaning waste materials.

12. **Tracking Number:** 06-30-14-01
Outfall Number: 9614536
Location: Clio City Park, east side of park roadway approximately 350 feet from entrance, 100 feet east of road.
Lat/Long Coordinates: 43.180322N, -83.733314W
Photo Number: 5
Incident: Manhole casting offset from structure. Root blockage in pipes.
Action Required: Re-adjust and center casting over manhole. Remove root blockage from pipes.

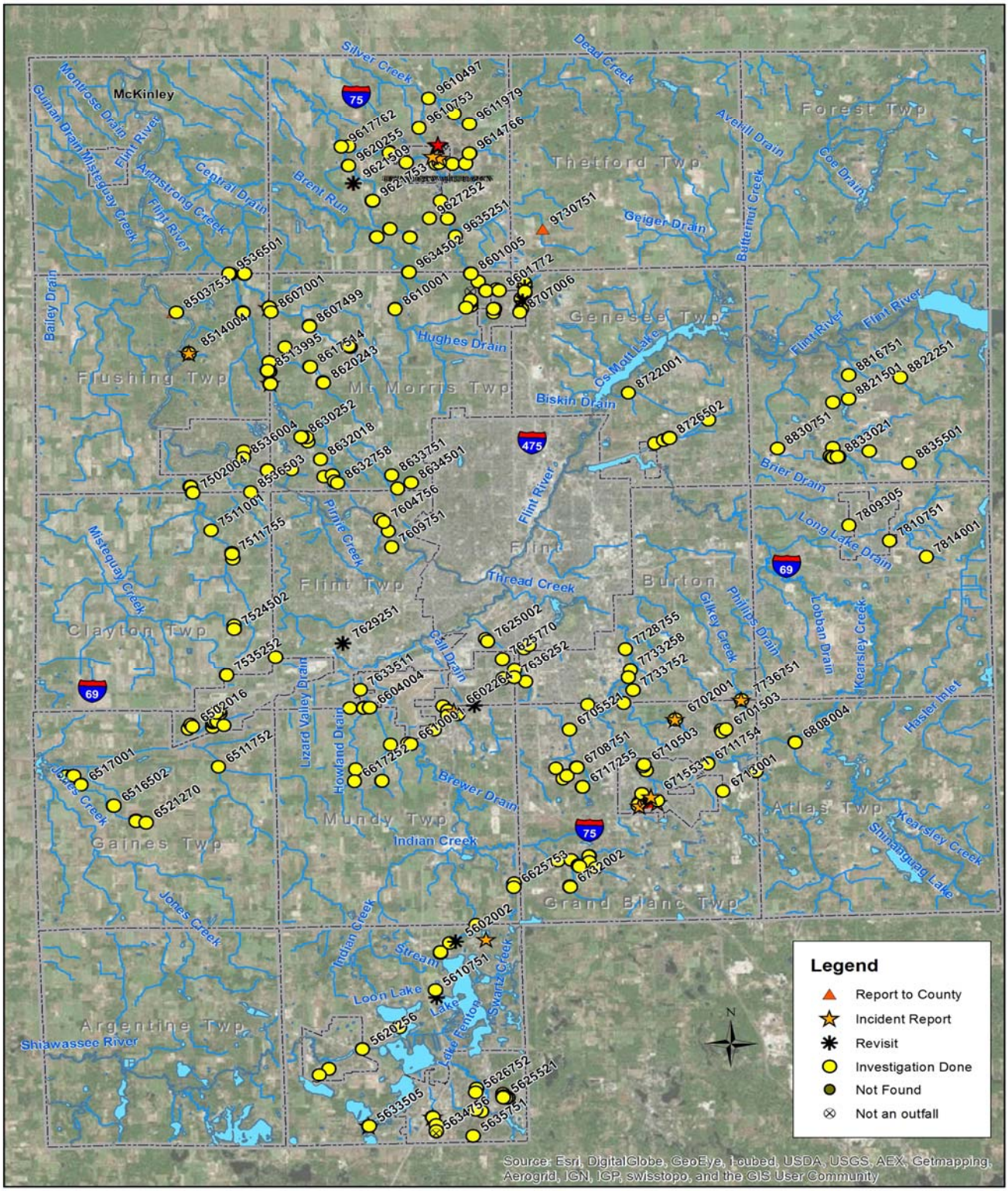
2014-2015 followup from Tetra tech and privately reported suspected illicit discharges.

Sample Location	BACKGROUND & FOLLOW-UP INSPECTION	RESULTS & COMMENTS
Flint Community School Bus Garage. City of Flint	During 2013 Audit of Genesee County IDEP Program by MDEQ, it was discovered that floor drain from the facility connected to storm sewer. On 1-7-14: GCDC-SWM conducted a site inspection and confirmed that illicit connection was eliminated.	FILE CLOSED
Beacon & Bridge Truck Stop 4181 W. Mt. Morris Rd Mt. Morris Twp Sec-9	On 3-28-14, Stephanie kammer informed that a truck discharges waste water into Beacon & Bridge facility and flows into MDOT R/W. 3-28-14, GCDC-SWM conducted a site inspection and walked in and around the facility and did not notice any sign of waste water discharge. Also no foul color and odor was identified.	FILE CLOSED
2504 N. Seymour Rd Clayton Twp Sec-3	On 4-21-14, Homeowner from 2504 Seymour Rd complained that blackish water with sewage smell flows into his rear yard ditch from the house south of him. GCDC-SWM conducted a follow-up site inspection and did not notice any water into the ditch and did not notice sewage smell. Homeowner of 2504 Seymour Rd mentioned that house south of him has been sold recently. He thought that new owner might have fixed septic field problem.	FILE CLOSED.

Sample Location	BACKGROUND & FOLLOW-UP INSPECTION	RESULTS & COMMENTS
Clio School Bus Garage 2242 W. Vienna Rd	During 2013 Audit of Genesee County IDEP program by MDEQ identified potential illicit connection from Bus Garage to county drain. GCDC-SWM conducted follow-up site inspections in two occasions to confirm illicit connection. On 6-26-14, GCDC-SWM confirmed that there is no illicit connection.	FILE CLOSED
1207 Sorrento Lane Mundy Twp Sec-1	On 9-26-14, GCDC-SWM was informed about pumping water from the basement of a fire damaged house. No discoloration of water. Smell of mildew was noted. Lack of SESC measures applied. Informed all parties that similar pumping shall be hauled by a tanker to an approved dump site.	FILE CLOSED
5199 Highwood Dr Mt. Morris Twp Sec-22	On 9-23-13, GCDC conducted a site inspection and confirmed that Modern Concrete discharged cleanout water from a concrete truck mixer to a roadside curb basin. On 10-2-13, GCDC wrote to Modern Concrete not to discharge concrete truck cleanout into county drain in future.	FILE CLOSED
Spray My Lawn 5289 N. Genesee Rd Genesee Twp Sec-22	On 10-15-14, MDEQ received complaint from an anonymous caller that the lawn care company disposed residual fertilizer, pesticides, and herbicides in the yard and then washed out into county drain and storm sewer. On 10-27-14, GCDC-SWM conducted a site inspection in and around the facility and found no evidence of dumping fertilizer, pesticide, and herbicide in and around the building. MDA also inspected the site on 10-26-14 and found no sign of improper disposal.	FILE CLOSED
R.J. Torching Site 5273 Dort Highway Genesee Twp Sec-20	Stephanie Kammer from MDEQ asked to conducted a inspection to determine whether floor drain from R. J. Torching is a potential illicit connection. On 5-9-14, GCDC-SWM conducted a follow-up site inspection and confirmed that floor drain is connected to sanitary sewer.	FILE CLOSED
6004 Pierson Rd Mt. Morris Twp Sec-30	On 4-29-14, anonymous complained that wastes originated wood finish dumped into yard and polluting water and stream. GCDC-SWM conducted a follow-up site inspection and found no sign of waste dumped into yard. Also no sign of color and odor was noticed.	FILE CLOSED
12394 N. Clio Road Vienna Road Sec-14	On 6-17-14, GCDC-SWM discovered that floor drain is connected to county drain. As a result, his basement was flooded due to heavy rain. On 7-15-14, GCDC-SWM conducted a follow-up site inspection and confirmed that floor drain is plugged. Rule out illicit connection.	FILE CLOSED.

Sample Location	BACKGROUND & FOLLOW-UP INSPECTION	RESULTS & COMMENTS
3171 Augusta Road Flint Twp Sec-22	On 5-12-14, GCDC-SWM inspector observed soapy discharges from a sump line. On 6-23-14, GCDC-SWM mailed a certified letter to homeowner to arrange a dye test to confirm illicit. However, homeowner has contacted yet. GCDC-SWM will be trying to contact homeowner.	ON-GOING
10098 N. Lewis Rd Thetford Twp Sec-30	On 7-23-14, GCDC-SWM contractor conducted dry weather flow inspection and observes 3" pipe discharges to roadside ditch. Sampling results showed elevated level of surfactant and E.coli. GCDC-SWM wrote a letter to arrange a dye test to confirm illicit connection. However, we were not able to contact as of today. GCDC-SWM will be trying to contact homeowner.	ON-GOING
5156 Richfield Road Richfield Twp Sec-35	As part of flooding complaint, GCDC-SWM maintenance crew confirmed that floor drain is connected to storm sewer. GCDC-SWM emailed and called over phone to arrange a site visit to confirm floor drain disconnected from storm sewer. However, property owner has not yet.	ON-GOING

Figure 0-2: Genesee County Assigned Outfalls for 2013-2014



Complete list of outfalls through Sept 2014

C of Burton

OutfallNum	Latitude	Longitude	StructureT
7701009	43.040806	-83.593408	Outfall
7701251	43.041659	-83.584345	Outfall
7701259	43.043706	-83.579329	Outfall
7701262	43.045239	-83.578291	Outfall
7701263	43.045759	-83.578122	Outfall
7701264	43.04691	-83.577364	Outfall
7701265	43.040956	-83.576522	Point of Discharge
7701501	43.040788	-83.593343	Outfall
7701524	43.033827	-83.592018	Outfall
7701525	43.033805	-83.591037	Outfall
7701531	43.040586	-83.595624	Outfall
7701764	43.037421	-83.582511	Outfall
7701775	43.035435	-83.576322	Point of Discharge
7701776	43.035444	-83.576322	Point of Discharge
7701777	43.03817	-83.576441	Outfall
7701778	43.038141	-83.576437	Outfall
7701779	43.040545	-83.583993	Outfall
7702008	43.042909	-83.615581	Outfall
7702751	43.036243	-83.603314	Outfall
7702753	43.03672	-83.601926	Outfall
7702764	43.040394	-83.596601	Outfall
7702768	43.037219	-83.600692	Outfall
7703501	43.033669	-83.63532	Point of Discharge
7703502	43.033669	-83.635304	Point of Discharge
7709251	43.032956	-83.635302	Point of Discharge
7710774	43.022174	-83.615337	Outfall
7710778	43.022063	-83.615334	Outfall
7710781	43.02075	-83.61735	Point of Discharge
7710782	43.020809	-83.617501	Point of Discharge
7710783	43.020863	-83.617295	Point of Discharge
7710784	43.021647	-83.620574	Point of Discharge
7710785	43.021542	-83.620644	Point of Discharge
7710786	43.021561	-83.620689	Point of Discharge
7710787	43.021716	-83.62078	Point of Discharge
7711514	43.022196	-83.615062	Outfall
7711756	43.020379	-83.599931	Outfall
7711758	43.020386	-83.598909	Outfall
7711759	43.021901	-83.596833	Outfall
7712253	43.03343	-83.581828	Outfall
7712254	43.033431	-83.581473	Outfall
7712502	43.021452	-83.592297	Outfall
7714006	43.016069	-83.608817	Outfall
7714007	43.01615	-83.608853	Outfall

OutfallNum	Latitude	Longitude	StructureT
7714008	43.016123	-83.608599	Outfall
7714009	43.016039	-83.608552	Outfall
7714502	43.00844	-83.614865	Outfall
7714503	43.008386	-83.614862	Outfall
7714512	43.007341	-83.612577	Outfall
7714519	43.004308	-83.610615	Outfall
7715258	43.010575	-83.617431	Outfall
7715263	43.010435	-83.617468	Outfall
7715265	43.016986	-83.615316	Outfall
7715752	43.010398	-83.617433	Outfall
7715756	43.009126	-83.617658	Outfall
7715759	43.008816	-83.617463	Outfall
7715760	43.008889	-83.617505	Outfall
7715763	43.008357	-83.615091	Outfall
7715764	43.008414	-83.615092	Outfall
7716751	43.010008	-83.635943	Point of Discharge
7721252	43.003156	-83.634638	Outfall
7721253	42.999925	-83.634346	Point of Discharge
7721751	42.990778	-83.642389	Outfall
7721752	42.991749	-83.64218	Outfall
7721753	42.992228	-83.642377	Outfall
7721756	42.989536	-83.638076	Outfall
7721757	42.996023	-83.634151	Point of Discharge
7722001	43.003172	-83.634278	Outfall
7722002	43.003172	-83.634289	Outfall
7723001	43.004119	-83.610561	Outfall
7723003	43.004122	-83.610446	Outfall
7723012	43.000747	-83.606676	Outfall
7723253	42.999027	-83.595022	Outfall
7723255	42.998947	-83.594974	Outfall
7723256	42.998913	-83.594995	Outfall
7723261	43.001032	-83.596585	Outfall
7723262	43.001132	-83.595066	Outfall
7723263	43.001101	-83.595059	Outfall
7723264	43.001087	-83.595048	Outfall
7723501	42.989774	-83.614248	Point of Discharge
7723502	42.989771	-83.614247	Point of Discharge
7723503	42.989781	-83.612476	Point of Discharge
7723504	42.990219	-83.614296	Point of Discharge
7723505	42.990218	-83.614292	Point of Discharge
7724254	43.002014	-83.57528	Outfall
7724255	43.001944	-83.575278	Outfall
7724502	42.996171	-83.594631	Point of Discharge
7724755	42.990373	-83.580853	Outfall
7724756	42.992025	-83.575009	Outfall
7724757	42.991972	-83.575013	Outfall
7724761	42.992415	-83.57782	Outfall
7724762	42.992408	-83.577989	Outfall

OutfallNum	Latitude	Longitude	StructureT
7724763	42.992451	-83.577982	Outfall
7725251	42.990214	-83.580833	Outfall
7725252	42.990213	-83.581202	Outfall
7725258	42.987241	-83.578532	Outfall
7725259	42.987214	-83.578389	Outfall
7725262	42.98452	-83.574749	Outfall
7725263	42.984459	-83.574742	Outfall
7726002	42.98614	-83.614011	Outfall
7726003	42.986077	-83.613994	Outfall
7726251	42.989967	-83.597423	Outfall
7726252	42.98996	-83.597355	Outfall
7726254	42.989082	-83.594496	Point of Discharge
7726255	42.989	-83.594488	Point of Discharge
7726501	42.976258	-83.613847	Outfall
7726502	42.976173	-83.613844	Outfall
7726503	42.976252	-83.613607	Outfall
7726504	42.976159	-83.6136	Outfall
7727008	42.98948	-83.632535	Point of Discharge
7727009	42.98947	-83.63252	Point of Discharge
7727010	42.989454	-83.633658	Point of Discharge
7727251	42.986124	-83.614268	Outfall
7727252	42.986085	-83.614269	Outfall
7727502	42.975112	-83.631913	Outfall
7727503	42.976377	-83.633121	Outfall
7728251	42.98935	-83.63807	Outfall
7728252	42.989319	-83.638258	Outfall
7728757	42.976348	-83.633366	Point of Discharge
7729501	42.97522	-83.671262	Point of Discharge
7729501	42.974647	-83.663412	Point of Discharge
7729502	42.974653	-83.663382	Point of Discharge
7729751	42.974721	-83.659292	Point of Discharge
7729752	42.974729	-83.659259	Point of Discharge
7729753	42.974759	-83.657646	Point of Discharge
7729754	42.974775	-83.656699	Point of Discharge
7729755	42.974742	-83.655576	Point of Discharge
7729756	42.974736	-83.655591	Point of Discharge
7729757	42.974758	-83.654371	Point of Discharge
7729758	42.97475	-83.654371	Point of Discharge
7729759	42.9748	-83.65316	Point of Discharge
7729760	42.97481	-83.653137	Point of Discharge
7730501	42.974372	-83.682773	Point of Discharge
7730753	42.974136	-83.692957	Point of Discharge
7730754	42.97642	-83.681318	Point of Discharge
7730755	42.976427	-83.681319	Point of Discharge
7730756	42.976453	-83.679862	Point of Discharge
7730757	42.976492	-83.677903	Point of Discharge
7730758	42.974344	-83.680393	Point of Discharge
7730759	42.974317	-83.680394	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7730760	42.974388	-83.678903	Point of Discharge
7730761	42.974452	-83.676517	Point of Discharge
7730762	42.974452	-83.674981	Point of Discharge
7730763	42.974507	-83.673516	Point of Discharge
7731003	42.973872	-83.692618	Outfall
7731251	42.974018	-83.682458	Point of Discharge
7731252	42.974113	-83.681407	Point of Discharge
7731253	42.974193	-83.678941	Point of Discharge
7731254	42.974198	-83.678886	Point of Discharge
7731255	42.974184	-83.678113	Point of Discharge
7731256	42.974177	-83.67808	Point of Discharge
7731257	42.974298	-83.67492	Point of Discharge
7732001	42.974389	-83.670788	Point of Discharge
7732002	42.974377	-83.67188	Point of Discharge
7732003	42.973733	-83.672412	Point of Discharge
7732004	42.97436	-83.671487	Point of Discharge
7732005	42.974402	-83.670158	Point of Discharge
7732006	42.974477	-83.665983	Point of Discharge
7732007	42.974471	-83.665975	Point of Discharge
7732008	42.974496	-83.665252	Point of Discharge
7732009	42.974477	-83.665246	Point of Discharge
7732010	42.974505	-83.664469	Point of Discharge
7732011	42.974485	-83.664466	Point of Discharge
7732012	42.974505	-83.663444	Point of Discharge
7732013	42.974503	-83.663429	Point of Discharge
7732253	42.974413	-83.659698	Point of Discharge
7732254	42.974491	-83.657635	Point of Discharge
7732255	42.974519	-83.657368	Point of Discharge
7732256	42.97453	-83.657357	Point of Discharge
7733760	42.96661	-83.633137	Point of Discharge
7734011	42.974966	-83.631951	Point of Discharge
7736761	42.966	-83.5836	Outfall
7806002	43.040959	-83.576335	Point of Discharge
7806502	43.03818	-83.576228	Outfall
7806523	43.038217	-83.57623	Outfall
7806524	43.035438	-83.576135	Point of Discharge
7806525	43.035427	-83.576135	Point of Discharge
7806526	43.040228	-83.576311	Point of Discharge
7806527	43.034067	-83.57606	Point of Discharge

C of Clio

OutfallNum	Latitude	Longitude	StructureT
9614502	43.177678	-83.73232	Outfall
9614523	43.179153	-83.732983	Outfall
9614524	43.179881	-83.734323	Outfall
9614525	43.179924	-83.734401	Outfall
9614530	43.183958	-83.732825	Outfall

OutfallNum	Latitude	Longitude	StructureT
9614531	43.184214	-83.731247	Outfall
9615509	43.180331	-83.751748	Outfall
9615523	43.17952	-83.748618	Point of Discharge
9615754	43.180146	-83.73878	Outfall
9615757	43.179983	-83.734995	Outfall
9615758	43.179985	-83.734885	Outfall
9615759	43.180006	-83.73686	Outfall
9615760	43.180187	-83.735588	Outfall
9615761	43.179925	-83.736836	Outfall
9615762	43.180061	-83.73628	Outfall
9615765	43.180016	-83.740901	Outfall
9615770	43.178271	-83.743082	Outfall
9615771	43.179485	-83.738996	Point of Discharge
9615772	43.18208	-83.739791	Point of Discharge
9615773	43.18144	-83.739447	Point of Discharge
9622005	43.177239	-83.742379	Point of Discharge
9623013	43.175124	-83.731268	Outfall
9623016	43.174148	-83.730136	Outfall
9623017	43.174601	-83.725765	Outfall
9623501	43.169559	-83.729281	Outfall

C of Davison

OutfallNum	Latitude	Longitude	StructureT
7803501	43.038625	-83.509375	Outfall
7803502	43.03816	-83.512897	Outfall
7803503	43.035989	-83.513737	Point of Discharge
7803504	43.035973	-83.513735	Point of Discharge
7803760	43.038209	-83.505544	Outfall
7804751	43.041849	-83.521869	Point of Discharge
7804752	43.04185	-83.521869	Point of Discharge
7804753	43.040868	-83.523606	Point of Discharge
7804754	43.040127	-83.523605	Point of Discharge
7804755	43.039735	-83.521861	Point of Discharge
7804756	43.039443	-83.523602	Point of Discharge
7804757	43.038582	-83.525497	Point of Discharge
7804758	43.0386	-83.524957	Point of Discharge
7804759	43.038609	-83.524715	Point of Discharge
7804760	43.038106	-83.523104	Point of Discharge
7804761	43.036824	-83.523538	Point of Discharge
7804762	43.036322	-83.523005	Point of Discharge
7804763	43.036166	-83.522499	Point of Discharge
7804764	43.036167	-83.522482	Point of Discharge
7804765	43.034686	-83.519798	Point of Discharge
7804766	43.035502	-83.521097	Point of Discharge
7804767	43.035483	-83.521097	Point of Discharge
7804768	43.036203	-83.521108	Point of Discharge
7804769	43.036214	-83.521095	Point of Discharge
7804770	43.036303	-83.521102	Point of Discharge
7804771	43.036188	-83.521853	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7804772	43.037375	-83.518603	Point of Discharge
7804773	43.037353	-83.519231	Point of Discharge
7804774	43.037355	-83.519228	Point of Discharge
7804775	43.037355	-83.519236	Point of Discharge
7809251	43.028099	-83.520377	Outfall
7809263	43.028258	-83.51913	Outfall
7809291	43.0285	-83.522929	Outfall
7809292	43.028453	-83.522927	Outfall
7809293	43.028147	-83.52292	Outfall
7809294	43.030082	-83.522869	Point of Discharge
7809295	43.02928	-83.522706	Point of Discharge
7809296	43.034557	-83.521092	Point of Discharge
7809298	43.033212	-83.521055	Point of Discharge
7809300	43.033208	-83.521042	Point of Discharge
7809301	43.027795	-83.520613	Outfall
7809302	43.027868	-83.520473	Outfall
7809510	43.022317	-83.532103	Outfall
7809511	43.02227	-83.531885	Outfall
7809512	43.022279	-83.532067	Outfall
7809513	43.02195	-83.530813	Outfall
7809520	43.027228	-83.5303	Outfall
7809524	43.027245	-83.527634	Outfall
7809751	43.020638	-83.52548	Outfall
7809752	43.026264	-83.52528	Outfall
7809754	43.027368	-83.523578	Outfall
7809756	43.027366	-83.523027	Outfall
7809758	43.027364	-83.522678	Outfall
7809771	43.027337	-83.521551	Outfall
7809780	43.026258	-83.525328	Outfall
7810020	43.028337	-83.516798	Outfall
7810024	43.028324	-83.515525	Outfall
7810027	43.029235	-83.514496	Outfall
7810028	43.029239	-83.514593	Outfall
7810030	43.03029	-83.513458	Outfall
7810031	43.030395	-83.512399	Outfall
7810042	43.028674	-83.509329	Point of Discharge
7810043	43.028671	-83.509321	Point of Discharge
7810044	43.02943	-83.509327	Point of Discharge
7810045	43.028347	-83.516609	Outfall
7810046	43.028342	-83.516665	Outfall
7810047	43.028387	-83.515319	Outfall
7810262	43.031463	-83.507999	Point of Discharge
7810501	43.020584	-83.507887	Point of Discharge
7810502	43.023506	-83.509004	Point of Discharge
7810503	43.024171	-83.509527	Point of Discharge
7810504	43.025741	-83.509196	Point of Discharge
7810505	43.025858	-83.509208	Point of Discharge
7810506	43.025879	-83.509746	Point of Discharge

C of Fenton

OutfallNum	Latitude	Longitude	StructureT
5623507	42.817312	-83.720147	Outfall
5623752	42.812834	-83.714448	Outfall
5623754	42.817305	-83.713779	Outfall
5625002	42.809972	-83.701862	Outfall
5625506	42.801844	-83.705825	Outfall
5625507	42.800484	-83.706028	Outfall
5625508	42.800825	-83.705956	Outfall
5625509	42.800216	-83.705767	Outfall
5625510	42.799292	-83.707121	Outfall
5625511	42.799004	-83.708212	Outfall
5625513	42.804597	-83.706458	Outfall
5625751	42.803871	-83.686964	Outfall
5625752	42.799609	-83.686887	Outfall
5626005	42.804816	-83.723764	Outfall
5626007	42.804775	-83.723737	Outfall
5626251	42.806304	-83.708622	Outfall
5626255	42.811673	-83.713299	Outfall
5626256	42.808539	-83.712451	Outfall
5626262	42.812284	-83.714063	Outfall
5626265	42.807964	-83.711911	Outfall
5626266	42.809974	-83.712398	Outfall
5626267	42.806226	-83.708692	Outfall
5626268	42.805334	-83.708672	Outfall
5626501	42.803926	-83.722951	Outfall
5626502	42.802704	-83.72327	Outfall
5626503	42.801073	-83.72622	Point of Discharge
5627002	42.805535	-83.74196	Outfall
5627253	42.806468	-83.730245	Outfall
5627760	42.799969	-83.734568	Outfall
5627761	42.80069	-83.734104	Outfall
5627762	42.801557	-83.733857	Point of Discharge
5627763	42.802473	-83.733897	Point of Discharge
5627764	42.804173	-83.734667	Point of Discharge
5627765	42.803981	-83.733462	Outfall
5634001	42.79421	-83.740368	Outfall
5634002	42.795374	-83.737867	Point of Discharge
5634003	42.795124	-83.738732	Point of Discharge
5634004	42.794607	-83.739632	Point of Discharge
5634005	42.789742	-83.744433	Point of Discharge
5634006	42.789742	-83.744452	Point of Discharge
5634255	42.795784	-83.732665	Outfall
5634259	42.795568	-83.732386	Outfall
5634751	42.789633	-83.732143	Outfall
5634752	42.789694	-83.732505	Point of Discharge
5634753	42.789685	-83.732578	Point of Discharge
5635001	42.793748	-83.719848	Outfall

OutfallNum	Latitude	Longitude	StructureT
5635003	42.796192	-83.719761	Outfall
5635251	42.79626	-83.715647	Outfall
5635501	42.789953	-83.721458	Point of Discharge
5635502	42.787938	-83.724408	Point of Discharge
5636001	42.796438	-83.706795	Outfall
5636005	42.795667	-83.706697	Outfall
5636006	42.795304	-83.70667	Outfall
5636010	42.794622	-83.704564	Outfall
5636011	42.794448	-83.704461	Outfall
5636017	42.793734	-83.704095	Outfall
5636018	42.79384	-83.703078	Outfall
5636023	42.794948	-83.701087	Outfall
5636024	42.793764	-83.699543	Outfall
5636026	42.791853	-83.697186	Outfall
5636030	42.797651	-83.706543	Outfall
5636031	42.797581	-83.706689	Outfall
5636032	42.796598	-83.706762	Outfall
5636033	42.796626	-83.70692	Outfall
5636034	42.793843	-83.703035	Outfall
5636035	42.794137	-83.701953	Outfall
5636036	42.794572	-83.701633	Outfall
5636037	42.794865	-83.701201	Outfall
5636038	42.793733	-83.699517	Outfall
5636039	42.794789	-83.705088	Outfall
5636040	42.794635	-83.704856	Outfall
5636253	42.79432	-83.694005	Outfall
5636254	42.79412	-83.693909	Outfall
5636255	42.793606	-83.695089	Outfall
5636256	42.793116	-83.693437	Outfall
5636257	42.792214	-83.692992	Outfall
5636258	42.790828	-83.690854	Outfall
5636752	42.790507	-83.689623	Outfall
5636753	42.788306	-83.693986	Outfall

C of Flushing

OutfallNum	Latitude	Longitude	StructureT
8523751	43.074769	-83.833133	Outfall
8525001	43.067391	-83.830739	Point of Discharge
8525002	43.067291	-83.828266	Point of Discharge
8525003	43.067294	-83.826597	Point of Discharge
8525004	43.067417	-83.825523	Point of Discharge
8525005	43.068322	-83.825534	Point of Discharge
8525006	43.069229	-83.825545	Point of Discharge
8525007	43.070063	-83.825546	Point of Discharge
8525008	43.070899	-83.825542	Point of Discharge
8525009	43.074149	-83.825466	Outfall
8525010	43.070621	-83.822991	Outfall

OutfallNum	Latitude	Longitude	StructureT
8525011	43.074902	-83.828381	Outfall
8525501	43.061959	-83.826136	Point of Discharge
8525502	43.060706	-83.823769	Point of Discharge
8525503	43.062019	-83.823006	Point of Discharge
8525751	43.065799	-83.820969	Point of Discharge
8525752	43.060167	-83.817319	Point of Discharge
8526251	43.074734	-83.838561	Outfall
8526252	43.069975	-83.835501	Point of Discharge
8526501	43.061088	-83.843927	Outfall
8526502	43.061599	-83.847308	Outfall
8526503	43.061582	-83.848928	Outfall
8526507	43.060777	-83.842093	Outfall
8526509	43.06089	-83.843177	Outfall
8526511	43.061014	-83.849024	Outfall
8526513	43.060853	-83.849784	Outfall
8526514	43.065328	-83.845731	Outfall
8526515	43.063314	-83.843938	Outfall
8526516	43.063172	-83.843897	Outfall
8526517	43.063192	-83.843819	Outfall
8526751	43.061192	-83.840613	Outfall
8526752	43.064649	-83.838187	Outfall
8526753	43.065121	-83.836074	Outfall
8526754	43.064111	-83.83448	Outfall
8526770	43.060372	-83.83649	Outfall
8526771	43.06039	-83.836996	Outfall
8526772	43.06031	-83.836148	Outfall
8527256	43.06704	-83.861784	Outfall
8527257	43.07028	-83.85956	Outfall
8527258	43.071181	-83.855113	Point of Discharge
8527259	43.074559	-83.853002	Point of Discharge
8527501	43.062206	-83.863521	Outfall
8527504	43.066373	-83.863102	Outfall
8527751	43.067128	-83.862215	Outfall
8527758	43.062197	-83.857175	Outfall
8527765	43.063065	-83.856399	Outfall
8527769	43.064263	-83.857871	Outfall
8527772	43.064188	-83.859335	Outfall
8527780	43.062695	-83.857116	Outfall
8527781	43.061055	-83.857336	Outfall
8527784	43.062022	-83.85675	Outfall
8527861	43.059974	-83.854309	Outfall
8527862	43.060176	-83.852611	Outfall
8527866	43.060113	-83.852986	Outfall
8527868	43.060123	-83.852936	Outfall
8534001	43.059561	-83.863237	Outfall
8534007	43.057654	-83.864304	Outfall
8534009	43.056207	-83.864543	Outfall
8534010	43.058597	-83.863896	Outfall

OutfallNum	Latitude	Longitude	StructureT
8534011	43.05824	-83.862484	Outfall
8534251	43.055396	-83.861731	Outfall
8534252	43.055406	-83.859593	Outfall
8534254	43.053233	-83.857019	Outfall
8534256	43.05545	-83.859243	Outfall
8534257	43.05908	-83.853355	Outfall
8535012	43.054836	-83.845614	Outfall
8535013	43.053655	-83.846182	Outfall
8535252	43.056579	-83.838736	Outfall
8535253	43.055008	-83.83966	Outfall
8535254	43.055162	-83.841361	Outfall
8535255	43.0537	-83.839094	Outfall
8535256	43.053598	-83.838004	Outfall
8535257	43.054177	-83.83465	Outfall
8535751	43.052176	-83.837894	Outfall
8535752	43.05217	-83.842027	Outfall
8535753	43.052639	-83.841719	Outfall
8535754	43.052654	-83.841966	Outfall
8536002	43.057007	-83.823906	Outfall
8536010	43.054424	-83.83128	Outfall
8536260	43.054975	-83.81937	Outfall
8536261	43.055365	-83.815965	Point of Discharge

C of GrandB

OutfallNum	Latitude	Longitude	StructureT
6709751	42.936991	-83.637909	Point of Discharge
6710504	42.933629	-83.629318	Outfall
6710506	42.932738	-83.627863	Outfall
6710508	42.931181	-83.626271	Outfall
6710512	42.931332	-83.626381	Outfall
6710513	42.931173	-83.626265	Outfall
6710514	42.931338	-83.626394	Outfall
6710520	42.934578	-83.6295	Outfall
6710521	42.937316	-83.629188	Outfall
6711751	42.933449	-83.601122	Outfall
6711756	42.934815	-83.600983	Outfall
6714009	42.926748	-83.602996	Outfall
6714010	42.928058	-83.605229	Point of Discharge
6714253	42.924905	-83.597886	Outfall
6714256	42.92594	-83.598715	Outfall
6714501	42.9235	-83.609488	Outfall
6714753	42.919168	-83.594779	Outfall
6714754	42.920533	-83.594661	Outfall
6714755	42.922326	-83.595265	Outfall
6714756	42.922791	-83.596231	Outfall
6714757	42.923781	-83.596687	Outfall
6715003	42.929382	-83.626479	Outfall

OutfallNum	Latitude	Longitude	StructureT
6715004	42.929386	-83.626458	Outfall
6715005	42.929146	-83.625109	Outfall
6715010	42.93028	-83.631627	Outfall
6715252	42.926958	-83.619796	Outfall
6715257	42.927068	-83.613462	Outfall
6715262	42.925314	-83.617179	Outfall
6715263	42.927542	-83.614454	Outfall
6715264	42.926956	-83.615872	Outfall
6715265	42.928672	-83.615048	Outfall
6715504	42.923982	-83.622233	Outfall
6715505	42.92467	-83.622241	Outfall
6715506	42.922823	-83.624665	Point of Discharge
6715510	42.916957	-83.631067	Outfall
6715511	42.9169	-83.629176	Outfall
6715512	42.916889	-83.62844	Outfall
6715513	42.915918	-83.627188	Outfall
6715514	42.916012	-83.6246	Outfall
6715515	42.923439	-83.624782	Point of Discharge
6715516	42.92304	-83.624379	Point of Discharge
6716251	42.926825	-83.63711	Point of Discharge
6716252	42.926825	-83.63711	Point of Discharge
6716253	42.926763	-83.637205	Point of Discharge
6716254	42.929356	-83.634366	Point of Discharge
6716255	42.927429	-83.634425	Point of Discharge
6716256	42.927514	-83.63421	Point of Discharge
6716257	42.926185	-83.63395	Point of Discharge
6716258	42.927617	-83.637132	Point of Discharge
6716751	42.91674	-83.636669	Outfall
6716760	42.91811	-83.633552	Outfall
6716761	42.92025	-83.641385	Point of Discharge
6716762	42.918585	-83.639585	Point of Discharge
6716763	42.918387	-83.635905	Outfall
6716764	42.918363	-83.633642	Outfall
6722251	42.914689	-83.619491	Outfall
6723004	42.916462	-83.60208	Outfall
6723005	42.916054	-83.602228	Outfall

C of Linden

OutfallNum	Latitude	Longitude	StructureT
5617510	42.828965	-83.780114	Outfall
5617511	42.825997	-83.781654	Outfall
5617512	42.826008	-83.781884	Outfall
5619750	42.813036	-83.790913	Outfall
5619751	42.811526	-83.792701	Outfall
5620001	42.823025	-83.783592	Outfall
5620002	42.823004	-83.783574	Outfall
5620251	42.819529	-83.772482	Outfall

OutfallNum	Latitude	Longitude	StructureT
5620257	42.818759	-83.771419	Outfall
5620258	42.819951	-83.772516	Outfall
5620501	42.815897	-83.782482	Outfall
5620502	42.815827	-83.782453	Outfall
5620503	42.815907	-83.782318	Outfall
5620504	42.815808	-83.782174	Outfall
5620505	42.817741	-83.784245	Outfall
5620506	42.815646	-83.784338	Outfall
5620513	42.817152	-83.777252	Outfall
5620514	42.81584	-83.781667	Outfall
5620515	42.81561	-83.781394	Outfall
5620516	42.815815	-83.782081	Outfall
5620517	42.815676	-83.781678	Outfall
5620518	42.815655	-83.781605	Outfall
5620519	42.815779	-83.782959	Outfall
5620520	42.81585	-83.783742	Outfall
5620522	42.816379	-83.777484	Outfall
5620524	42.81579	-83.782879	Outfall
5620527	42.815637	-83.780798	Outfall
5620753	42.817727	-83.77382	Outfall
5620755	42.819069	-83.773647	Outfall
5621501	42.816946	-83.76561	Outfall
5621502	42.811364	-83.763456	Point of Discharge
5630251	42.807136	-83.793305	Outfall

C of Mt. Morris

OutfallNum	Latitude	Longitude	StructureT
8601754	43.122965	-83.703035	Point of Discharge
8601755	43.122256	-83.702705	Point of Discharge
8601756	43.121572	-83.702348	Point of Discharge
8601757	43.121905	-83.702525	Point of Discharge
8601758	43.120813	-83.701544	Point of Discharge
8601759	43.120653	-83.700505	Point of Discharge
8601760	43.120894	-83.699572	Point of Discharge
8601761	43.121355	-83.69863	Point of Discharge
8601762	43.121406	-83.697579	Point of Discharge
8601763	43.121653	-83.697698	Point of Discharge
8601764	43.121771	-83.695098	Point of Discharge
8601765	43.121745	-83.694557	Point of Discharge
8601766	43.121687	-83.694577	Point of Discharge
8601767	43.124288	-83.704381	Point of Discharge
8601768	43.123431	-83.703502	Point of Discharge
8601769	43.122964	-83.703048	Point of Discharge
8601770	43.119485	-83.698157	Point of Discharge
8601771	43.119485	-83.698135	Point of Discharge
8612251	43.117924	-83.704293	Point of Discharge
8612252	43.116977	-83.704181	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
8612253	43.116968	-83.704194	Point of Discharge
8612254	43.116389	-83.701801	Point of Discharge
8612255	43.116313	-83.7018	Point of Discharge
8612256	43.115675	-83.701792	Point of Discharge
8612257	43.117013	-83.701805	Point of Discharge
8612258	43.114935	-83.701783	Point of Discharge
8612259	43.117005	-83.701796	Point of Discharge
8612260	43.114125	-83.701773	Point of Discharge
8612261	43.118436	-83.696241	Point of Discharge
8612262	43.11844	-83.696052	Point of Discharge
8612263	43.117671	-83.695833	Point of Discharge
8612264	43.117663	-83.696045	Point of Discharge
8612265	43.118404	-83.697613	Point of Discharge
8612266	43.118452	-83.697674	Point of Discharge
8612267	43.119359	-83.698106	Point of Discharge
8612268	43.119275	-83.697768	Point of Discharge
8612269	43.119275	-83.697753	Point of Discharge
8612270	43.1193	-83.697767	Point of Discharge
8706501	43.121731	-83.694301	Point of Discharge
8706502	43.121623	-83.692344	Point of Discharge
8706503	43.122964	-83.691391	Point of Discharge
8706504	43.123402	-83.690084	Point of Discharge
8706505	43.123472	-83.6899	Point of Discharge
8706506	43.121818	-83.690002	Point of Discharge
8706507	43.122964	-83.691391	Point of Discharge
8707001	43.116268	-83.692829	Point of Discharge
8707002	43.116191	-83.692832	Point of Discharge
8707003	43.114078	-83.690198	Point of Discharge

C of Swartz Cr

OutfallNum	Latitude	Longitude	StructureT
6501001	42.956727	-83.827724	Point of Discharge
6501002	42.956158	-83.827716	Point of Discharge
6501003	42.955697	-83.827714	Point of Discharge
6501004	42.955745	-83.829923	Point of Discharge
6501005	42.956483	-83.829956	Point of Discharge
6501006	42.953236	-83.83195	Point of Discharge
6501102	42.956629	-83.821627	Outfall
6501103	42.95673	-83.821659	Outfall
6501104	42.955224	-83.828755	Outfall
6501108	42.954489	-83.830924	Outfall
6501301	42.95678	-83.821426	Outfall
6501302	42.956695	-83.821393	Outfall
6502001	42.952782	-83.840645	Outfall
6502002	42.95239	-83.842237	Outfall
6502004	42.949313	-83.846982	Outfall
6502010	42.95673	-83.837545	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
6502011	42.955973	-83.837524	Point of Discharge
6502012	42.955889	-83.837523	Point of Discharge
6502013	42.955326	-83.837513	Point of Discharge
6502014	42.954693	-83.837504	Point of Discharge
6502015	42.953914	-83.837474	Point of Discharge
6502150	42.950857	-83.845209	Outfall
6502251	42.956526	-83.834679	Point of Discharge
6502252	42.956007	-83.834646	Point of Discharge
6502253	42.957097	-83.834715	Point of Discharge
6502254	42.955818	-83.83437	Point of Discharge
6502257	42.953579	-83.835868	Outfall
6502260	42.952788	-83.840929	Outfall
6502261	42.953772	-83.834828	Outfall
6502262	42.956037	-83.832005	Point of Discharge
6502263	42.954312	-83.831974	Outfall
6502264	42.957025	-83.839452	Point of Discharge
6502265	42.953248	-83.839355	Point of Discharge
6502266	42.953849	-83.839389	Point of Discharge
6502267	42.954687	-83.839407	Point of Discharge
6502268	42.955272	-83.839432	Point of Discharge
6502269	42.955278	-83.839391	Point of Discharge
6502270	42.956531	-83.839439	Point of Discharge
6502271	42.957	-83.839452	Point of Discharge
6502272	42.956858	-83.84078	Point of Discharge
6502273	42.956549	-83.840781	Point of Discharge
6502274	42.955919	-83.840767	Point of Discharge
6502275	42.95526	-83.840805	Point of Discharge
6502276	42.955258	-83.840677	Point of Discharge
6502277	42.954291	-83.840734	Point of Discharge
6502278	42.953353	-83.840684	Point of Discharge
6502283	42.957059	-83.835867	Point of Discharge
6502284	42.955789	-83.835818	Point of Discharge
6502285	42.95207	-83.831906	Point of Discharge
6502286	42.951472	-83.835041	Point of Discharge
6502287	42.95147	-83.835051	Point of Discharge
6502288	42.95226	-83.835229	Point of Discharge
6502289	42.952272	-83.832657	Point of Discharge
6502290	42.952274	-83.832526	Point of Discharge
6502291	42.952277	-83.832124	Point of Discharge
6502354	42.953896	-83.833546	Outfall
6502356	42.953733	-83.834439	Outfall
6502510	42.946859	-83.84987	Outfall
6503760	42.944593	-83.858074	Outfall
6503761	42.944607	-83.857741	Outfall
6503762	42.945136	-83.853349	Outfall
6503763	42.94539	-83.852979	Outfall
6503764	42.946243	-83.851397	Outfall
7525751	42.973953	-83.811538	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7525752	42.971958	-83.811513	Point of Discharge
7534751	42.95748	-83.850563	Point of Discharge
7536251	42.967787	-83.811476	Point of Discharge
7536252	42.967777	-83.811476	Point of Discharge
7536253	42.969142	-83.811493	Point of Discharge
7536254	42.967547	-83.811468	Point of Discharge
7536501	42.957337	-83.829509	Point of Discharge
7536502	42.963475	-83.830553	Point of Discharge
7536503	42.957834	-83.828779	Point of Discharge
7536504	42.958197	-83.828836	Point of Discharge
7536751	42.964454	-83.811449	Point of Discharge
7629501	42.972669	-83.78596	Point of Discharge
7629502	42.972569	-83.789456	Point of Discharge
7631001	42.967327	-83.808833	Point of Discharge
7631002	42.965644	-83.811093	Point of Discharge
7631003	42.965221	-83.80994	Point of Discharge
7631004	42.967187	-83.80475	Outfall
7631251	42.969122	-83.795129	Outfall
7632001	42.97246	-83.786794	Point of Discharge
7632002	42.972515	-83.785883	Point of Discharge
7632251	42.972322	-83.781706	Outfall

Davison Twp

OutfallNum	Latitude	Longitude	StructureT
7808001	43.026871	-83.553148	Outfall
7809001	43.028927	-83.530171	Outfall
7815001	43.01703	-83.515043	Point of Discharge

Fenton Twp

OutfallNum	Latitude	Longitude	StructureT
5611251	42.855943	-83.716718	Point of Discharge
5611252	42.854498	-83.716562	Outfall
5611253	42.854965	-83.716277	Outfall
5611254	42.855346	-83.71632	Outfall
5611255	42.855454	-83.716677	Outfall
5632251	42.789479	-83.770307	Point of Discharge

Flint Twp

OutfallNum	Latitude	Longitude	StructureT
7610251	43.027687	-83.743196	Point of Discharge
7617501	43.003163	-83.782834	Point of Discharge
7622001	42.999152	-83.752814	Point of Discharge
7629762	42.978519	-83.77854	Point of Discharge
7629763	42.978605	-83.779026	Point of Discharge

Genesee Twp

OutfallNum	Latitude	Longitude	StructureT
8711003	43.112952	-83.615704	Outfall
8711504	43.111994	-83.615138	Outfall
8735504	43.051123	-83.608532	Point of Discharge

Mt. Morris Twp

OutfallNum	Latitude	Longitude	StructureT
8622251	43.088952	-83.737965	Outfall
8627501	43.064214	-83.753108	Outfall
8627502	43.064768	-83.753081	Outfall

Vienna Township

OutfallNum	Latitude	Longitude	StructureT
9614762	43.17766	-83.719936	Point of Discharge
9615520	43.178733	-83.748677	Point of Discharge
9622001	43.177322	-83.746237	Point of Discharge
9622002	43.177328	-83.745026	Point of Discharge
9622003	43.17676	-83.746098	Point of Discharge
9622004	43.176711	-83.745	Point of Discharge

GC B&G

OutfallNum	Latitude	Longitude	StructureT
7718002	43.010681	-83.688011	Point of Discharge
7718008	43.012277	-83.685833	Point of Discharge
7718006	43.013795	-83.689838	Point of Discharge
7718005	43.011974	-83.690802	Point of Discharge
7718001	43.01117	-83.686863	Point of Discharge
7718501	43.009287	-83.686329	Point of Discharge
7718502	43.009533	-83.686599	Point of Discharge
7718504	43.010014	-83.687149	Point of Discharge
7718503	43.010018	-83.687152	Point of Discharge
7734501	42.965985	-83.630163	Point of Discharge
7729503	42.979882	-83.672758	Point of Discharge
7729504	42.979216	-83.673047	Point of Discharge
7718003	43.012207	-83.688408	Point of Discharge
7718004	43.012146	-83.688474	Point of Discharge
6723006	42.914214	-83.609436	Point of Discharge

GC motorpool

OutfallNum	Latitude	Longitude	StructureT
7718007	43.012305	-83.685889	Point of Discharge

GC School

OutfallNum	Latitude	Longitude	StructureT
5525251	42.80503	-83.815585	Outfall
5525751	42.802001	-83.814546	Outfall
5535001	42.792189	-83.842242	Outfall
5535002	42.791669	-83.841836	Outfall
5602504	42.85954	-83.729107	Point of Discharge
5602505	42.859327	-83.72911	Point of Discharge
5602506	42.860819	-83.727646	Outfall
5620528	42.81239	-83.784167	Point of Discharge
5625515	42.800495	-83.697089	Point of Discharge
5625516	42.801268	-83.698414	Point of Discharge
5625517	42.802023	-83.698403	Point of Discharge
5625518	42.801213	-83.698343	Point of Discharge
5625519	42.800964	-83.698273	Point of Discharge
5625520	42.800847	-83.698256	Point of Discharge
5625521	42.80071	-83.698237	Point of Discharge
5625753	42.800508	-83.695915	Point of Discharge
5626751	42.804242	-83.711473	Point of Discharge
5626752	42.802624	-83.711807	Point of Discharge
5630252	42.809841	-83.788777	Point of Discharge
5634754	42.789632	-83.731272	Outfall
5634755	42.787187	-83.731244	Outfall
5634756	42.786383	-83.731212	Outfall
5634757	42.785533	-83.731455	Outfall
5634758	42.785158	-83.731534	Outfall
5634759	42.785134	-83.731506	Outfall
5635252	42.795645	-83.711856	Point of Discharge
5635254	42.79504	-83.708709	Point of Discharge
5635751	42.785338	-83.713158	Point of Discharge
6502016	42.950784	-83.851325	Point of Discharge
6502300	42.950595	-83.841549	Outfall
6502301	42.952188	-83.841512	Outfall
6502302	42.952667	-83.840545	Outfall
6502304	42.952891	-83.839116	Outfall
6502305	42.951127	-83.835802	Point of Discharge
6502308	42.956152	-83.837679	Point of Discharge
6502309	42.957013	-83.838231	Point of Discharge
6502310	42.956269	-83.839535	Point of Discharge
6502452	42.952871	-83.839337	Outfall
6503306	42.949769	-83.853352	Point of Discharge
6503307	42.951531	-83.852119	Point of Discharge
6601003	42.955997	-83.704945	Point of Discharge
6601006	42.954516	-83.704131	Outfall
6601008	42.952937	-83.703697	Outfall
6601009	42.952144	-83.704331	Outfall
6601010	42.959189	-83.712315	Point of Discharge
6602001	42.958886	-83.727884	Point of Discharge
6602002	42.957206	-83.725731	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
6602003	42.957062	-83.725739	Point of Discharge
6602004	42.955035	-83.725613	Point of Discharge
6602257	42.956944	-83.719722	Outfall
6602258	42.955815	-83.719733	Outfall
6602263	42.955556	-83.720606	Point of Discharge
6602264	42.956896	-83.722429	Point of Discharge
6701501	42.94941	-83.590782	Point of Discharge
6701502	42.948467	-83.59036	Point of Discharge
6701503	42.949604	-83.58847	Point of Discharge
6705251	42.959493	-83.656581	Outfall
6705505	42.94975	-83.66602	Outfall
6705521	42.949549	-83.6656	Outfall
6705522	42.94963	-83.667637	Outfall
6705523	42.950689	-83.669763	Outfall
6707751	42.933802	-83.672295	Point of Discharge
6708510	42.93087	-83.666949	Outfall
6708511	42.930834	-83.666785	Outfall
6710503	42.935363	-83.628934	Outfall
6710525	42.932991	-83.627882	Outfall
6710526	42.934624	-83.629385	Outfall
6713001	42.924626	-83.589824	Point of Discharge
6715520	42.920105	-83.622128	Point of Discharge
6715521	42.920815	-83.622112	Point of Discharge
6715522	42.923594	-83.629962	Point of Discharge
6715523	42.918655	-83.631042	Point of Discharge
6715524	42.921446	-83.62645	Point of Discharge
6715525	42.921165	-83.626758	Point of Discharge
6715526	42.919784	-83.62899	Point of Discharge
6715527	42.919685	-83.628908	Point of Discharge
6715528	42.921317	-83.626474	Point of Discharge
6715529	42.92156	-83.626101	Point of Discharge
6715530	42.921652	-83.626115	Point of Discharge
6715531	42.922311	-83.625188	Point of Discharge
6715532	42.919893	-83.631295	Point of Discharge
6716767	42.919108	-83.631903	Point of Discharge
6717001	42.929773	-83.668714	Point of Discharge
6722752	42.904291	-83.61313	Outfall
6722754	42.904015	-83.614936	Outfall
7601001	43.040805	-83.710984	Point of Discharge
7601251	43.043906	-83.702344	Point of Discharge
7601252	43.044669	-83.699907	Point of Discharge
7602251	43.040312	-83.720722	Point of Discharge
7603751	43.033048	-83.740228	Point of Discharge
7609001	43.026107	-83.773101	Point of Discharge
7611251	43.026224	-83.720811	Point of Discharge
7611252	43.02636	-83.718893	Point of Discharge
7611253	43.025	-83.721906	Point of Discharge
7612001	43.031726	-83.708564	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7613001	43.014988	-83.712094	Point of Discharge
7613002	43.014602	-83.710025	Point of Discharge
7614751	43.002883	-83.717345	Point of Discharge
7614752	43.002877	-83.717308	Point of Discharge
7615501	43.006909	-83.751021	Point of Discharge
7615502	43.006804	-83.749537	Point of Discharge
7619251	42.996951	-83.793953	Point of Discharge
7619252	43.013786	-83.756717	Point of Discharge
7622501	42.994795	-83.751437	Point of Discharge
7624751	42.999479	-83.702231	Point of Discharge
7624752	42.998909	-83.703012	Point of Discharge
7625001	42.986263	-83.706856	Outfall
7625002	42.985296	-83.705964	Outfall
7625770	42.97807	-83.69863	Outfall
7629251	42.984468	-83.777039	Point of Discharge
7630501	42.978883	-83.810575	Outfall
7636251	42.971669	-83.700415	Point of Discharge
7636252	42.970278	-83.698208	Point of Discharge
7701751	43.035016	-83.695192	Point of Discharge
7701752	43.035016	-83.69519	Point of Discharge
7703252	43.045557	-83.620843	Point of Discharge
7704251	43.040579	-83.645428	Point of Discharge
7704252	43.040578	-83.645428	Point of Discharge
7705001	43.046813	-83.668394	Point of Discharge
7705002	43.046619	-83.668404	Point of Discharge
7705003	43.046038	-83.670717	Point of Discharge
7707001	43.027454	-83.6934	Point of Discharge
7707002	43.025741	-83.693401	Point of Discharge
7707751	43.021781	-83.676627	Point of Discharge
7707752	43.018198	-83.675795	Outfall
7707753	43.025112	-83.676152	Point of Discharge
7707754	43.025248	-83.679695	Point of Discharge
7707755	43.025119	-83.676146	Point of Discharge
7707756	43.025258	-83.679687	Point of Discharge
7712504	43.021606	-83.590425	Outfall
7713501	43.006724	-83.592535	Point of Discharge
7713502	43.006737	-83.592032	Point of Discharge
7713503	43.006762	-83.591159	Point of Discharge
7716001	43.018396	-83.651213	Point of Discharge
7716002	43.016744	-83.652535	Point of Discharge
7716003	43.015932	-83.651359	Point of Discharge
7716501	43.010097	-83.645117	Point of Discharge
7717251	43.016129	-83.661865	Point of Discharge
7717501	43.003648	-83.709745	Point of Discharge
7717502	43.003528	-83.708259	Point of Discharge
7721001	42.997348	-83.645854	Outfall
7721760	42.993898	-83.636204	Point of Discharge
7721761	42.992847	-83.634013	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7727755	42.981002	-83.621188	Outfall
7727756	42.976436	-83.613821	Point of Discharge
7729251	42.987387	-83.658456	Point of Discharge
7729503	42.976968	-83.668733	Point of Discharge
7730001	42.982241	-83.687887	Point of Discharge
7730002	42.98378	-83.685478	Point of Discharge
7731013	42.96892	-83.687058	Outfall
7731258	42.973814	-83.679007	Point of Discharge
7731259	42.973634	-83.678952	Point of Discharge
7731260	43.088269	-83.685901	Point of Discharge
7732251	42.970824	-83.661984	Point of Discharge
7732252	42.970106	-83.66197	Point of Discharge
7732257	42.974501	-83.662545	Point of Discharge
7732258	42.973005	-83.662708	Point of Discharge
7732259	42.973795	-83.660626	Point of Discharge
7732501	42.964372	-83.662427	Point of Discharge
7809304	43.032193	-83.527902	Point of Discharge
7809305	43.032191	-83.527901	Point of Discharge
7809306	43.03228	-83.52433	Point of Discharge
7809781	43.025102	-83.525108	Point of Discharge
7809782	43.023773	-83.523797	Point of Discharge
7809783	43.023764	-83.522903	Point of Discharge
7809784	43.024448	-83.520467	Point of Discharge
7809785	43.025228	-83.520476	Point of Discharge
7809786	43.026468	-83.521218	Point of Discharge
7810751	43.025912	-83.507836	Point of Discharge
7810752	43.027129	-83.507716	Point of Discharge
7820509	42.995551	-83.550106	Outfall
8513757	43.092961	-83.814175	Point of Discharge
8513993	43.094498	-83.814551	Point of Discharge
8513995	43.094429	-83.814343	Point of Discharge
8523509	43.074805	-83.84493	Point of Discharge
8524507	43.081628	-83.832548	Outfall
8524508	43.079671	-83.83174	Outfall
8524516	43.078597	-83.831356	Outfall
8525012	43.071485	-83.825542	Point of Discharge
8526002	43.067451	-83.84809	Point of Discharge
8526003	43.071008	-83.845809	Point of Discharge
8526004	43.070215	-83.852685	Point of Discharge
8526005	43.071066	-83.845809	Point of Discharge
8526518	43.067151	-83.849236	Point of Discharge
8526519	43.06642	-83.84922	Point of Discharge
8526520	43.066427	-83.849201	Point of Discharge
8527001	43.067572	-83.867631	Point of Discharge
8534763	43.050667	-83.859771	Outfall
8534764	43.050618	-83.858176	Outfall
8534765	43.048068	-83.862163	Point of Discharge
8534769	43.048622	-83.862098	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
8601251	43.127189	-83.701476	Point of Discharge
8601772	43.126667	-83.700281	Point of Discharge
8602751	43.126323	-83.714422	Point of Discharge
8602752	43.122828	-83.714369	Point of Discharge
8602753	43.122118	-83.714376	Point of Discharge
8602754	43.120349	-83.714393	Point of Discharge
8602755	43.119838	-83.71667	Point of Discharge
8612271	43.119308	-83.702299	Point of Discharge
8612272	43.119339	-83.703001	Point of Discharge
8612273	43.117731	-83.702971	Point of Discharge
8613104	43.097754	-83.713289	Point of Discharge
8613251	43.100906	-83.701036	Point of Discharge
8613501	43.091101	-83.709084	Point of Discharge
8613502	43.096441	-83.712101	Point of Discharge
8613751	43.093698	-83.698657	Point of Discharge
8614251	43.099709	-83.715082	Point of Discharge
8623753	43.075407	-83.721184	Point of Discharge
8623995	43.075967	-83.723643	Point of Discharge
8623997	43.075729	-83.722171	Point of Discharge
8624751	43.079238	-83.698986	Point of Discharge
8625001	43.073841	-83.705145	Point of Discharge
8625751	43.062617	-83.701366	Point of Discharge
8626001	43.0712	-83.72908	Point of Discharge
8626002	43.069025	-83.72911	Point of Discharge
8627251	43.075283	-83.740806	Point of Discharge
8627252	43.071229	-83.740959	Point of Discharge
8631251	43.054739	-83.802436	Point of Discharge
8634001	43.059784	-83.752985	Point of Discharge
8634002	43.057935	-83.752931	Point of Discharge
8634003	43.055747	-83.750727	Point of Discharge
8634004	43.0598	-83.75299	Point of Discharge
8634751	43.052886	-83.740466	Point of Discharge
8635751	43.052508	-83.723418	Point of Discharge
8635752	43.052504	-83.723424	Point of Discharge
8636501	43.053265	-83.70887	Point of Discharge
8706251	43.129634	-83.687491	Point of Discharge
8706252	43.128112	-83.687451	Point of Discharge
8706508	43.123417	-83.689443	Point of Discharge
8706509	43.122348	-83.688614	Point of Discharge
8706510	43.122352	-83.688601	Point of Discharge
8706751	43.126295	-83.687473	Point of Discharge
8706752	43.125693	-83.687479	Point of Discharge
8707004	43.119322	-83.689178	Point of Discharge
8707005	43.118016	-83.69004	Point of Discharge
8707006	43.11792	-83.69004	Point of Discharge
8710251	43.113339	-83.621866	Point of Discharge
8710252	43.116464	-83.617774	Point of Discharge
8710253	43.113331	-83.621864	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
8729001	43.07545	-83.665963	Point of Discharge
9614001	43.184783	-83.7281	Point of Discharge
9614533	43.177844	-83.731462	Point of Discharge
9614534	43.178085	-83.729783	Outfall
9614535	43.179875	-83.729712	Outfall
9614536	43.180663	-83.732875	Point of Discharge
9614765	43.177611	-83.723307	Point of Discharge
9621508	43.169846	-83.771858	Outfall
9621509	43.169838	-83.771862	Outfall

GCDC

OutfallNum	Latitude	Longitude	StructureT
6601251	42.959417	-83.692718	Outfall
7625251	42.981541	-83.697458	Outfall
7625757	42.97846	-83.698704	Outfall
7636751	42.959714	-83.695299	Outfall
7636753	42.959633	-83.697607	Outfall
7731524	42.960949	-83.690112	Outfall
7731538	42.963059	-83.685043	Outfall
8826001	43.076731	-83.498926	Outfall
8827263	43.075831	-83.506627	Outfall
7806251	43.048332	-83.56017	Outfall
8831759	43.048481	-83.560312	Outfall
8631501	43.049086	-83.805409	Outfall
8631508	43.049269	-83.80514	Outfall
6730301	42.898484	-83.676526	Outfall
7616751	43.007002	-83.761253	Outfall
7616752	43.009388	-83.761554	Outfall
8725255	43.077087	-83.583679	Outfall
8611256	43.115855	-83.719154	Outfall
8835501	43.057277	-83.498397	Outfall
7820513	42.993675	-83.548936	Outfall
7820515	42.992743	-83.54846	Outfall
7711760	43.020229	-83.598507	Outfall
8726512	43.067439	-83.610037	Outfall
7616001	43.013537	-83.768628	Outfall
7616002	43.013506	-83.76855	Outfall
8613106	43.100422	-83.705769	Outfall
9723501	43.1743	-83.618648	Outfall
8726258	43.074631	-83.597123	Outfall
6612259	42.944043	-83.692318	Point of Discharge
7702009	43.041769	-83.612516	Outfall
7636252	42.970626	-83.692863	Point of Discharge
7714016	43.014179	-83.606207	Outfall
7628557	42.973471	-83.768852	Outfall
7629764	42.972879	-83.777578	Outfall
7715757	43.009057	-83.617612	Outfall

OutfallNum	Latitude	Longitude	StructureT
7721254	42.99663	-83.643939	Outfall
7710005	43.028266	-83.630402	Outfall
7710012	43.026292	-83.634919	Outfall
8723505	43.079231	-83.607048	Outfall
6704010	42.959794	-83.644258	Outfall
8715751	43.095052	-83.623542	Outfall
8623751	43.075521	-83.721555	Outfall
8623752	43.075532	-83.721559	Outfall
5616252	42.837173	-83.754504	Outfall
8525504	43.068913	-83.819322	Outfall
6705020	42.954116	-83.669582	Outfall
7830259	42.983395	-83.554749	Outfall
6618754	42.914837	-83.795737	Outfall
8704752	43.120205	-83.643813	Outfall
8709251	43.120013	-83.643731	Outfall
7714012	43.014834	-83.606188	Outfall
9615522	43.17829	-83.746066	Outfall
7701766	43.035078	-83.581136	Outfall
7604755	43.03447	-83.760457	Outfall
6721253	42.914485	-83.641469	Outfall
7825251	42.984486	-83.574739	Outfall
7532501	42.957143	-83.900263	Outfall
7726751	42.981227	-83.596108	Outfall
7728257	42.988814	-83.638112	Outfall
8629759	43.061463	-83.782773	Outfall
8629772	43.064068	-83.780397	Outfall
7625751	42.981117	-83.697631	Outfall
7625755	42.980933	-83.697627	Outfall
7810032	43.030241	-83.509127	Outfall
6621002	42.906824	-83.769697	Outfall
7724760	42.992435	-83.577821	Outfall
8622747	43.078848	-83.74867	Outfall
8611762	43.105761	-83.716174	Outfall
7721251	43.003152	-83.634572	Outfall
7701527	43.033751	-83.587534	Outfall
7701530	43.033964	-83.591944	Outfall
6613751	42.919185	-83.701408	Outfall
5635004	42.792962	-83.722691	Outfall
6722253	42.909058	-83.612115	Outfall
8833008	43.059427	-83.536033	Outfall
8833016	43.059686	-83.532974	Outfall
8833018	43.059814	-83.537173	Outfall
8833020	43.059724	-83.533614	Outfall
8833021	43.059749	-83.533607	Outfall
7804018	43.043559	-83.533144	Outfall
5601001	42.864931	-83.706493	Outfall
9636991	43.137942	-83.694884	Outfall
7702002	43.047415	-83.615802	Outfall

OutfallNum	Latitude	Longitude	StructureT
8526001	43.067395	-83.843464	Point of Discharge
6717753	42.918005	-83.656543	Outfall
7725257	42.987261	-83.578532	Outfall
6601760	42.94479	-83.70208	Outfall
9635761	43.134259	-83.714971	Outfall
9635763	43.134284	-83.714926	Outfall
8833019	43.059413	-83.535611	Outfall
7815501	43.007576	-83.517202	Outfall
7610004	43.029889	-83.754886	Outfall
6608656	42.929683	-83.7806	Outfall
8726501	43.06731	-83.616336	Outfall
7702007	43.045979	-83.614526	Outfall
7806501	43.03822	-83.576217	Outfall
7806517	43.039676	-83.571827	Outfall
7806518	43.039664	-83.571667	Outfall
7806751	43.03894	-83.563179	Outfall
7731007	42.970475	-83.687514	Outfall
7715261	43.010558	-83.617463	Outfall
7723265	43.001094	-83.595111	Outfall
8623749	43.078057	-83.72996	Outfall
8629004	43.070369	-83.784456	Outfall
7605765	43.037288	-83.776685	Outfall
7632415	42.971856	-83.785539	Outfall
7618501	43.005668	-83.808484	Outfall
8523752	43.07624	-83.841575	Outfall
7816252	43.019566	-83.52527	Outfall
7816264	43.016257	-83.522681	Outfall
6602755	42.947413	-83.713982	Outfall
9626008	43.156474	-83.732111	Outfall
8536265	43.055654	-83.813186	Outfall
8536266	43.055634	-83.813141	Outfall
9615513	43.180476	-83.748544	Outfall
8512251	43.114498	-83.818953	Outfall
7721255	43.003996	-83.637007	Outfall
7619751	42.995076	-83.799976	Outfall
8527260	43.072785	-83.857656	Outfall
7628556	42.976283	-83.762116	Outfall
6623001	42.910076	-83.726486	Outfall
8727762	43.065061	-83.623558	Outfall
5602001	42.863344	-83.724574	Outfall
8710757	43.109145	-83.617767	Outfall
8710758	43.109606	-83.618072	Outfall
7723254	42.998981	-83.594987	Outfall
7604237	43.042263	-83.772458	Outfall
7712255	43.033245	-83.581582	Outfall
7712260	43.031446	-83.580999	Outfall
8524517	43.07368	-83.825472	Outfall
6603751	42.949517	-83.73229	Outfall

OutfallNum	Latitude	Longitude	StructureT
8536264	43.054263	-83.814314	Outfall
9616502	43.177894	-83.765656	Point of Discharge
8705751	43.120887	-83.658604	Outfall
7829755	42.978629	-83.545068	Outfall
8523753	43.074559	-83.835552	Outfall
8727756	43.066325	-83.619144	Outfall
8727759	43.067222	-83.616667	Outfall
6708508	42.930806	-83.666922	Outfall
8610751	43.106595	-83.739897	Outfall
8522251	43.08907	-83.860967	Outfall
7822501	42.99679	-83.509101	Outfall
7619001	43.001237	-83.808072	Outfall
7729502	42.980055	-83.670305	Outfall
6602252	42.959129	-83.718751	Outfall
7635751	42.964196	-83.721294	Outfall
7702767	43.040421	-83.596062	Outfall
8634501	43.049212	-83.743614	Outfall
7728755	42.982137	-83.637953	Outfall
7610757	43.021903	-83.739132	Outfall
7819344	42.991997	-83.574844	Outfall
7722003	43.003163	-83.628374	Outfall
7722251	42.998431	-83.618917	Outfall
7722753	42.992393	-83.61456	Outfall
7726001	42.98615	-83.612012	Outfall
6502351	42.9543	-83.831907	Outfall
7625758	42.977924	-83.698356	Outfall
8613248	43.100352	-83.709401	Outfall
8522507	43.077046	-83.86397	Outfall
6704008	42.95289	-83.648971	Outfall
6502355	42.953914	-83.834019	Outfall
7715761	43.008698	-83.617324	Outfall
8629773	43.064661	-83.775349	Outfall
8613103	43.100184	-83.706746	Outfall
7818002	43.012328	-83.573045	Outfall
7628558	42.974788	-83.768189	Outfall
6502255	42.953288	-83.837382	Outfall
6502256	42.95296	-83.839299	Outfall
6502292	42.953622	-83.835627	Outfall
6502454	42.952842	-83.840633	Outfall
6712752	42.932797	-83.574057	Outfall
7733254	42.970703	-83.636596	Outfall
7733258	42.973689	-83.635534	Outfall
8612751	43.111919	-83.696816	Point of Discharge
8720510	43.082545	-83.670849	Outfall
6617252	42.928657	-83.77142	Outfall
6712763	42.93404	-83.576039	Outfall
7622753	42.988698	-83.734592	Outfall
7502251	43.045299	-83.837911	Outfall

OutfallNum	Latitude	Longitude	StructureT
8535755	43.045645	-83.834791	Outfall
6602251	42.959058	-83.718793	Outfall
6602253	42.959047	-83.718792	Outfall
7635752	42.961551	-83.719762	Outfall
6702751	42.949551	-83.603052	Outfall
8720507	43.077662	-83.670543	Outfall
6712256	42.942828	-83.582194	Outfall
7818504	43.006238	-83.570956	Outfall
7819005	43.002619	-83.574441	Outfall
9620751	43.166647	-83.77798	Outfall
7610752	43.017895	-83.740614	Outfall
8614504	43.092642	-83.733116	Outfall
6705520	42.94925	-83.664996	Outfall
6708021	42.941982	-83.664975	Outfall
7714518	43.004271	-83.610813	Outfall
8536262	43.054362	-83.814338	Outfall
8720503	43.082505	-83.668188	Outfall
8720505	43.082463	-83.668206	Outfall
8724752	43.082659	-83.586217	Outfall
7733752	42.965336	-83.634196	Outfall
8634502	43.04707	-83.750243	Outfall
7830251	42.986455	-83.564299	Outfall
7609256	43.029041	-83.75393	Outfall
6719522	42.902279	-83.682875	Outfall
6707501	42.936335	-83.690067	Outfall
7627251	42.986519	-83.741631	Outfall
5622751	42.813883	-83.733452	Outfall
7533002	42.96445	-83.881832	Outfall
9626501	43.153666	-83.725535	Outfall
8614503	43.091976	-83.727481	Outfall
7607503	43.018916	-83.805272	Outfall
6720751	42.90813	-83.656854	Point of Discharge
7536752	42.961292	-83.811373	Outfall
7723258	43.001019	-83.596721	Outfall
7710006	43.028288	-83.629954	Outfall
7633511	42.965541	-83.76863	Outfall
6618252	42.922541	-83.790324	Outfall
5611256	42.856112	-83.717779	Outfall
5616002	42.834209	-83.760868	Outfall
6601007	42.954305	-83.703704	Outfall
7535502	42.964376	-83.849598	Outfall
7625760	42.976896	-83.696181	Outfall
6717751	42.921839	-83.657087	Outfall
7620503	42.990978	-83.782525	Outfall
8515754	43.089439	-83.864929	Outfall
7805006	43.045235	-83.555993	Outfall
7617251	43.016498	-83.775037	Outfall
8725011	43.075835	-83.593239	Outfall

OutfallNum	Latitude	Longitude	StructureT
7618005	43.012572	-83.803692	Outfall
8629774	43.066572	-83.777948	Outfall
7724754	42.995728	-83.584663	Outfall
8524003	43.087768	-83.830284	Outfall
9732251	43.144111	-83.663331	Outfall
9732252	43.144176	-83.66334	Outfall
8828501	43.066902	-83.532651	Outfall
8634503	43.049348	-83.743763	Outfall
8632117	43.057512	-83.782766	Outfall
7736009	42.974013	-83.58569	Outfall
7635002	42.966453	-83.726791	Outfall
7609257	43.029236	-83.753429	Outfall
8524253	43.084239	-83.818303	Outfall
7608001	43.026412	-83.783494	Outfall
6706265	42.95125	-83.675238	Outfall
7714003	43.016157	-83.611349	Outfall
7816271	43.014303	-83.522352	Outfall
8819501	43.083085	-83.568228	Outfall
7620502	42.993911	-83.786128	Outfall
7621001	42.995211	-83.77007	Outfall
7701257	43.044	-83.579699	Outfall
7610008	43.025181	-83.74653	Outfall
7610764	43.022264	-83.744854	Outfall
7605757	43.034596	-83.77774	Outfall
7809303	43.029016	-83.522925	Outfall
7608751	43.018603	-83.777993	Outfall
8621751	43.078318	-83.757924	Outfall
7721758	42.992245	-83.639759	Outfall
6611505	42.933667	-83.725398	Outfall
8721252	43.083661	-83.636278	Outfall
8536263	43.054257	-83.814328	Outfall
6708005	42.940684	-83.663552	Outfall
6708012	42.940668	-83.663554	Outfall
7809002	43.028887	-83.530274	Outfall
7701252	43.042145	-83.584328	Outfall
7712751	43.019301	-83.584385	Outfall
6707005	42.942898	-83.691862	Outfall
6707011	42.941889	-83.691826	Outfall
6707017	42.940432	-83.68862	Outfall
6707019	42.939626	-83.68865	Outfall
6707502	42.935132	-83.688288	Outfall
6707507	42.934249	-83.686603	Outfall
6707510	42.934179	-83.685736	Outfall
6707513	42.93413	-83.684758	Outfall
6707527	42.931122	-83.685521	Outfall
6707541	42.935718	-83.688976	Outfall
6707543	42.934139	-83.685525	Outfall
6707544	42.934182	-83.684768	Outfall

OutfallNum	Latitude	Longitude	StructureT
6707545	42.933307	-83.68469	Outfall
6707546	42.931773	-83.685065	Outfall
6718001	42.929586	-83.682457	Outfall
5525752	42.799165	-83.810587	Outfall
6502294	42.953647	-83.834954	Outfall
6735259	42.887303	-83.595258	Outfall
8630759	43.067472	-83.797638	Outfall
8621251	43.083794	-83.760228	Outfall
8621252	43.085215	-83.755748	Outfall
8723504	43.079233	-83.607032	Outfall
6721757	42.906721	-83.631923	Outfall
6722753	42.904648	-83.611694	Outfall
6723501	42.903703	-83.603	Outfall
7628555	42.975404	-83.766629	Outfall
7735251	42.973086	-83.601419	Outfall
7735252	42.9731	-83.599653	Outfall
7735253	42.973104	-83.599485	Outfall
7735254	42.973127	-83.59876	Outfall
5613501	42.829954	-83.699142	Outfall
5613751	42.829357	-83.696932	Outfall
5613752	42.829356	-83.696957	Outfall
5613753	42.830408	-83.693798	Outfall
5613754	42.829243	-83.691159	Outfall
7810257	43.035055	-83.499744	Outfall
7805007	43.044535	-83.554781	Outfall
7805010	43.044321	-83.553006	Outfall
6623252	42.911578	-83.715747	Outfall
6623254	42.910865	-83.71557	Outfall
6623255	42.908379	-83.71519	Outfall
8710501	43.109626	-83.627462	Outfall
7627751	42.979174	-83.734321	Outfall
7627752	42.978693	-83.734678	Outfall
7703251	43.043541	-83.616284	Point of Discharge
7616003	43.01256	-83.765362	Outfall
7608002	43.026903	-83.783444	Outfall
7608752	43.022198	-83.781547	Outfall
7608753	43.020292	-83.778687	Outfall
7631252	42.968862	-83.796495	Outfall
7726752	42.981174	-83.59624	Outfall
8726251	43.070108	-83.606816	Outfall
7722751	42.990782	-83.62233	Outfall
7722752	42.993887	-83.616086	Outfall
8834005	43.061953	-83.517889	Outfall
8724753	43.077116	-83.587256	Outfall
9614532	43.184698	-83.730655	Outfall
8622749	43.079537	-83.750779	Outfall
8720508	43.077214	-83.668592	Outfall
8720509	43.077214	-83.668616	Outfall

OutfallNum	Latitude	Longitude	StructureT
7608755	43.016679	-83.774998	Outfall
7608754	43.019681	-83.777945	Outfall
6505006	42.954392	-83.906089	Outfall
6710253	42.943464	-83.61801	Outfall
6710254	42.943225	-83.617994	Outfall
6710255	42.942564	-83.618016	Outfall
7524001	43.000658	-83.824731	Outfall
6608298	42.942499	-83.775999	Outfall
6608301	42.942288	-83.776467	Outfall
6608314	42.941606	-83.777892	Outfall
6608317	42.941111	-83.778333	Outfall
6608324	42.940206	-83.779755	Outfall
6608325	42.941281	-83.778209	Outfall
6608326	42.940103	-83.780034	Outfall
6608400	42.943177	-83.774168	Outfall
6608407	42.942103	-83.772422	Outfall
5627003	42.810762	-83.739906	Outfall
5634251	42.791293	-83.732542	Outfall
5634252	42.791293	-83.732527	Outfall
5634270	42.795326	-83.735214	Outfall
5634274	42.791332	-83.731576	Outfall
7627501	42.976933	-83.746572	Outfall
6710522	42.933077	-83.62878	Outfall
6617001	42.922474	-83.790131	Outfall
6705001	42.955003	-83.67261	Outfall
6705004	42.955033	-83.671704	Outfall
6705005	42.954582	-83.669586	Outfall
6705007	42.953848	-83.669528	Outfall
6705013	42.955009	-83.673456	Outfall
6705014	42.955096	-83.671482	Outfall
6705015	42.955099	-83.67047	Outfall
6705016	42.955153	-83.670197	Outfall
6705017	42.952762	-83.669439	Outfall
6705018	42.952152	-83.669592	Outfall
6705019	42.952182	-83.669668	Outfall
6705021	42.953148	-83.669547	Outfall
6706264	42.953543	-83.673359	Outfall
8713001	43.101296	-83.588099	Outfall
8633751	43.052261	-83.753124	Outfall
8632018	43.058598	-83.788319	Outfall
5621751	42.812417	-83.75248	Outfall
6717754	42.918017	-83.656572	Outfall
6610751	42.934154	-83.731587	Outfall
6605257	42.952269	-83.771718	Outfall
8632501	43.051742	-83.786632	Outfall
8632756	43.05227	-83.782465	Outfall
8632757	43.049915	-83.781411	Outfall
8632758	43.049133	-83.779949	Outfall

OutfallNum	Latitude	Longitude	StructureT
9623509	43.165349	-83.734268	Outfall
6605259	42.951086	-83.77158	Outfall
6605783	42.9463	-83.771944	Outfall
5525001	42.80636	-83.81663	Outfall
8613105	43.100201	-83.707839	Outfall
5633001	42.792118	-83.761388	Outfall
5633002	42.793358	-83.759836	Outfall
5633003	42.794579	-83.758504	Outfall
5633004	42.795397	-83.757066	Outfall
8610752	43.106166	-83.734148	Outfall
9615507	43.178631	-83.752629	Outfall
9621751	43.166532	-83.758954	Outfall
6722751	42.904308	-83.615823	Outfall
6716765	42.91661	-83.640781	Outfall
8724754	43.082855	-83.586495	Outfall
9732751	43.14228	-83.658475	Outfall
6710523	42.93056	-83.631487	Outfall
7619002	42.999576	-83.807624	Outfall
7501001	43.045442	-83.822754	Outfall
6704263	42.953391	-83.635483	Outfall
7816270	43.019767	-83.522567	Outfall
6501007	42.955578	-83.827719	Outfall
7536505	42.957817	-83.82461	Outfall
6625752	42.887568	-83.692855	Outfall
6702006	42.953387	-83.612282	Outfall
6702508	42.952385	-83.61149	Outfall
6702524	42.949849	-83.609846	Outfall
6702526	42.949262	-83.609516	Outfall
6702530	42.949209	-83.607473	Outfall
6702533	42.949637	-83.606125	Outfall
6702535	42.949592	-83.606109	Outfall
6702539	42.949818	-83.604529	Outfall
6702550	42.951868	-83.610783	Outfall
6702551	42.951006	-83.610107	Outfall
6702552	42.951022	-83.610027	Outfall
6702553	42.949253	-83.607476	Outfall
6702752	42.94978	-83.601188	Outfall
6609156	42.936236	-83.761138	Outfall
8601005	43.133503	-83.714177	Point of Discharge
5633251	42.793676	-83.752476	Outfall
9833251	43.144425	-83.521057	Outfall
6723007	42.91644	-83.602052	Outfall
7712505	43.021584	-83.591937	Outfall
9614751	43.177775	-83.716919	Outfall
8522252	43.083829	-83.860747	Outfall
8522253	43.082977	-83.86088	Outfall
8522254	43.083685	-83.853711	Outfall
7605005	43.043056	-83.789944	Outfall

OutfallNum	Latitude	Longitude	StructureT
6618251	42.922595	-83.790325	Outfall
8613247	43.100357	-83.709441	Outfall
6501501	42.945848	-83.82284	Outfall
8734763	43.051141	-83.617477	Outfall
7722252	42.999815	-83.62275	Outfall
7722253	42.999847	-83.622729	Outfall
7722254	42.999817	-83.622507	Outfall
7722255	42.999685	-83.621506	Outfall
7722256	42.99966	-83.621498	Outfall
7722258	43.000007	-83.624441	Outfall
7722257	42.999665	-83.621471	Outfall
7621501	42.993336	-83.770488	Outfall
6719513	42.902923	-83.68383	Outfall
6719514	42.902876	-83.68131	Outfall
6719515	42.90293	-83.681337	Outfall
6719523	42.905988	-83.681006	Outfall
6719524	42.902926	-83.682899	Outfall
6719525	42.902688	-83.68509	Outfall
6719526	42.902592	-83.686645	Outfall
6719527	42.902422	-83.688222	Outfall
6719528	42.902919	-83.69002	Outfall
6719529	42.903049	-83.690467	Outfall
6719754	42.900488	-83.679545	Outfall
7631603	42.962408	-83.81085	Outfall
8726516	43.068069	-83.609066	Outfall
6601255	42.958159	-83.700692	Outfall
6728007	42.901054	-83.646089	Outfall
6712769	42.932606	-83.575989	Outfall
6601757	42.945537	-83.694153	Outfall
9628006	43.155702	-83.773871	Outfall
8805251	43.13394	-83.547584	Outfall
7805013	43.0436	-83.550861	Outfall
7805021	43.04264	-83.549027	Outfall
7805252	43.042197	-83.54076	Outfall
7805254	43.042329	-83.547394	Outfall
9636251	43.14592	-83.69491	Outfall
7632416	42.971288	-83.786755	Outfall
6501105	42.954978	-83.829645	Outfall
6502003	42.952444	-83.842204	Outfall
7535501	42.964386	-83.849681	Outfall
7733259	42.969189	-83.64219	Outfall
6701013	42.961145	-83.596733	Outfall
7727757	42.982188	-83.622413	Outfall
7727758	42.975304	-83.620275	Outfall
7632220	42.971875	-83.777199	Outfall
7632281	42.97025	-83.773114	Outfall
7632293	42.971213	-83.772024	Outfall
7807836	43.021655	-83.560928	Outfall

OutfallNum	Latitude	Longitude	StructureT
7807837	43.021597	-83.559196	Outfall
8834004	43.057763	-83.515105	Outfall
9608514	43.195558	-83.789817	Outfall
9617253	43.188161	-83.781423	Outfall
7620501	42.994082	-83.789823	Outfall
7727504	42.975126	-83.631924	Outfall
7502001	43.039499	-83.845158	Outfall
7502002	43.04014	-83.84494	Outfall
6611253	42.942411	-83.712304	Outfall
7830109	42.99041	-83.568984	Outfall
8534762	43.048719	-83.855763	Outfall
7711509	43.02233	-83.60809	Outfall
7628751	42.973099	-83.76116	Outfall
6712257	42.943194	-83.579463	Outfall
6712258	42.943079	-83.577648	Outfall
6712259	42.942961	-83.577386	Outfall
5614502	42.832364	-83.726731	Outfall
5614503	42.833845	-83.723329	Outfall
5614504	42.834081	-83.720856	Outfall
5614505	42.833105	-83.72115	Outfall
5614506	42.831602	-83.720187	Outfall
7622751	42.989499	-83.742162	Point of Discharge
7622752	42.990314	-83.738528	Point of Discharge
5526501	42.80068	-83.841885	Outfall
5526502	42.802595	-83.843497	Outfall
5526503	42.80047	-83.842402	Outfall
5527752	42.801401	-83.8476	Outfall
5527753	42.800449	-83.847341	Outfall
5527754	42.800567	-83.84586	Outfall
5602002	42.863773	-83.721476	Outfall
7821001	43.003549	-83.533633	Outfall
7620751	42.993901	-83.772679	Outfall
7618502	43.003176	-83.807605	Outfall
5614501	42.826791	-83.728171	Outfall
5614507	42.82676	-83.728068	Outfall
7628752	42.978877	-83.755999	Outfall
8522508	43.076965	-83.87113	Outfall
7726253	42.989062	-83.597221	Outfall
7628753	42.980099	-83.752648	Outfall
6710256	42.942062	-83.618035	Outfall
7830255	42.985139	-83.561587	Outfall
7830256	42.985158	-83.561496	Outfall
7607001	43.024705	-83.810172	Outfall
7607501	43.021615	-83.807818	Outfall
7607502	43.018948	-83.805278	Outfall
6704006	42.954045	-83.651936	Outfall
8525258	43.068796	-83.820658	Outfall
8536004	43.059252	-83.82642	Outfall

OutfallNum	Latitude	Longitude	StructureT
7620751	42.987515	-83.777311	Outfall
7618001	43.015092	-83.806818	Outfall
7618002	43.014599	-83.804893	Outfall
7618003	43.014233	-83.803656	Outfall
7618004	43.013205	-83.803654	Outfall
7618006	43.01235	-83.804206	Outfall
7618007	43.01116	-83.806022	Outfall
7618008	43.008927	-83.807256	Outfall
6503501	42.945369	-83.866454	Outfall
6701006	42.954711	-83.592134	Outfall
8605609	43.120269	-83.792496	Outfall
8632109	43.057038	-83.787688	Outfall
8632110	43.058055	-83.787745	Outfall
6706266	42.956348	-83.674698	Outfall
6706254	42.957911	-83.676897	Outfall
6706267	42.957526	-83.677824	Outfall
6706268	42.958219	-83.677174	Outfall
6706269	42.957593	-83.676417	Outfall
6706270	42.953589	-83.673489	Outfall
6706271	42.952734	-83.677098	Outfall
6706272	42.952889	-83.6767	Outfall
5633252	42.793176	-83.750754	Outfall
7821751	42.998077	-83.522571	Outfall
7806507	43.038624	-83.574817	Outfall
7806511	43.03889	-83.574017	Outfall
7806512	43.038906	-83.574099	Outfall
7806516	43.039238	-83.57318	Outfall
7806528	43.039101	-83.568909	Outfall
7806529	43.039095	-83.568861	Outfall
7806530	43.039513	-83.570784	Outfall
7806531	43.039126	-83.567407	Outfall
7524751	42.993548	-83.816387	Outfall
7524752	42.992943	-83.820329	Outfall
7524753	42.98998	-83.818846	Outfall
7619502	42.990593	-83.81043	Outfall
6502293	42.954183	-83.831985	Outfall
6735256	42.886064	-83.594521	Outfall
6735257	42.885847	-83.594152	Outfall
6735258	42.884227	-83.594602	Outfall
6705501	42.951081	-83.669966	Outfall
6705503	42.94954	-83.669351	Outfall
6705504	42.949556	-83.667813	Outfall
6711254	42.939261	-83.595989	Outfall
6711255	42.940095	-83.593686	Outfall
6712002	42.941467	-83.591422	Outfall
7610001	43.027768	-83.744448	Outfall
6711752	42.935843	-83.598995	Outfall
6711757	42.935613	-83.602395	Point of Discharge

OutfallNum	Latitude	Longitude	StructureT
7821754	42.997624	-83.520856	Outfall
6712001	42.942254	-83.591354	Outfall
5623001	42.824628	-83.727321	Outfall
5623002	42.82372	-83.724689	Outfall
5623003	42.824222	-83.723857	Outfall
5623004	42.825424	-83.725012	Outfall
7710754	43.020544	-83.625302	Outfall
7621502	42.992911	-83.764341	Outfall
7621503	42.992925	-83.764335	Outfall
7627001	42.983872	-83.747735	Outfall
8522256	43.084487	-83.853188	Outfall
8534012	43.05649	-83.864426	Outfall
5633754	42.785801	-83.746355	Outfall
7806004	43.048127	-83.574668	Outfall
8831754	43.049149	-83.56458	Outfall
6717253	42.926607	-83.659326	Outfall
7723760	42.991899	-83.60206	Outfall
7710763	43.022218	-83.620223	Outfall
7710775	43.021335	-83.616739	Outfall
7820511	42.994278	-83.548918	Outfall
7820514	42.993259	-83.548815	Outfall
6608066	42.937069	-83.780832	Outfall
6608067	42.937878	-83.780857	Outfall
6608068	42.937963	-83.783434	Outfall
6608104	42.936544	-83.784177	Outfall
6608327	42.939511	-83.780429	Outfall
6608653	42.934738	-83.78074	Outfall
6609155	42.937859	-83.770796	Outfall
7606001	43.041825	-83.807373	Outfall
5617513	42.829327	-83.784651	Outfall
6729103	42.897093	-83.668845	Outfall
6729104	42.897404	-83.666688	Outfall
7828268	42.989275	-83.517914	Outfall
7736503	42.9667	-83.584718	Outfall
5612001	42.849135	-83.704433	Outfall
8535756	43.050622	-83.834375	Outfall
7701253	43.044128	-83.582416	Outfall
7736786	42.961554	-83.577614	Outfall
8536501	43.049819	-83.827399	Outfall
8536502	43.047825	-83.82614	Outfall
8522255	43.081819	-83.861637	Outfall
8523754	43.075699	-83.841553	Outfall
8523755	43.074793	-83.840768	Outfall
8523756	43.074811	-83.839181	Outfall
8523757	43.074808	-83.837498	Outfall
8523758	43.074773	-83.835827	Outfall
6721758	42.908535	-83.636552	Outfall
6721759	42.905482	-83.639194	Outfall

OutfallNum	Latitude	Longitude	StructureT
6721760	42.905069	-83.640497	Outfall
6710252	42.944898	-83.622346	Outfall
8527502	43.063757	-83.866091	Outfall
8527503	43.065149	-83.866009	Outfall
8527696	43.062868	-83.865229	Outfall
8527701	43.065487	-83.865751	Outfall
7810251	43.031531	-83.504918	Outfall
7735005	42.97007	-83.604755	Outfall
7735255	42.969927	-83.603097	Outfall
7735256	42.968664	-83.601141	Outfall
7735355	42.972843	-83.599139	Outfall
7735501	42.967378	-83.604974	Outfall
7735502	42.966502	-83.604991	Outfall
8630758	43.065723	-83.794563	Outfall
7632501	42.965083	-83.788064	Outfall
8536005	43.057118	-83.824515	Outfall
6724001	42.916111	-83.585993	Outfall
7619501	42.993989	-83.807696	Outfall
9615254	43.191302	-83.739658	Outfall
9615255	43.190522	-83.739599	Outfall
9615256	43.189137	-83.739309	Outfall
6708504	42.936684	-83.665011	Outfall
7816752	43.006632	-83.521331	Outfall
7524754	42.989759	-83.821348	Outfall
6729101	42.897019	-83.669121	Outfall
6729102	42.897071	-83.668799	Outfall
7819253	43.003055	-83.560596	Outfall
7819265	43.001523	-83.559929	Outfall
7819267	43.001382	-83.559498	Outfall
7819271	43.000867	-83.559409	Outfall
7819296	42.999401	-83.555775	Outfall
7819351	43.000525	-83.556304	Outfall
7821030	42.999428	-83.531698	Outfall
6617751	42.916146	-83.777675	Outfall
6617752	42.914859	-83.777579	Outfall
6725251	42.897996	-83.581717	Outfall
9608967	43.197547	-83.779101	Outfall
9608977	43.196443	-83.778072	Outfall
9608979	43.196459	-83.778027	Outfall
6729005	42.894767	-83.661384	Outfall
6729014	42.896925	-83.664805	Outfall
6729015	42.898056	-83.663481	Outfall
6729016	42.898059	-83.664548	Outfall
6729017	42.898124	-83.663297	Outfall
7501251	43.039508	-83.822148	Outfall
5613001	42.839515	-83.701509	Outfall
5613002	42.837462	-83.702694	Outfall
5613005	42.836263	-83.702266	Outfall

OutfallNum	Latitude	Longitude	StructureT
5613006	42.835788	-83.699231	Outfall
8834501	43.056847	-83.503314	Outfall
7821026	42.99934	-83.531863	Outfall
7821031	42.999776	-83.535549	Outfall
6701251	42.959302	-83.580189	Outfall
7811515	43.025265	-83.496222	Outfall
6624751	42.903525	-83.69979	Outfall
7501751	43.035989	-83.814517	Outfall
7502501	43.034252	-83.84224	Outfall
7605501	43.035381	-83.787306	Outfall
7605502	43.032899	-83.78719	Outfall
5633752	42.784831	-83.751144	Outfall
6602262	42.953653	-83.718965	Outfall
5616001	42.838635	-83.758316	Outfall
5616251	42.838541	-83.757501	Outfall
6730302	42.896677	-83.671204	Outfall
6701007	42.955297	-83.591762	Outfall
6701008	42.954837	-83.589422	Outfall
6701009	42.955075	-83.588103	Outfall
7804001	43.043074	-83.538138	Outfall
7816501	43.009027	-83.52784	Outfall
7808761	43.022871	-83.540621	Outfall
7808762	43.022896	-83.539438	Outfall
9617255	43.188015	-83.781386	Outfall
6613512	42.918354	-83.706029	Outfall
6621501	42.904852	-83.764432	Outfall
6621502	42.903018	-83.764218	Outfall
6621503	42.902128	-83.764066	Outfall
6621504	42.901867	-83.761027	Outfall
6621505	42.901699	-83.761012	Outfall
6621506	42.900821	-83.760961	Outfall
6703256	42.952413	-83.61888	Outfall
5527751	42.797184	-83.851935	Outfall
5534251	42.793156	-83.846052	Outfall
5616751	42.831611	-83.757219	Outfall
6735251	42.883075	-83.59696	Outfall
6735252	42.883355	-83.595965	Outfall
6735253	42.883465	-83.594798	Outfall
6735254	42.883466	-83.594742	Outfall
6735255	42.882497	-83.593189	Outfall
6736001	42.886729	-83.584548	Outfall
6736002	42.885402	-83.582191	Outfall
6736003	42.881768	-83.590705	Outfall
6736004	42.882659	-83.590974	Outfall
6736005	42.880551	-83.590994	Outfall
6736251	42.883271	-83.577828	Outfall
6736501	42.880407	-83.582195	Outfall
6736502	42.878853	-83.582359	Outfall

OutfallNum	Latitude	Longitude	StructureT
6736503	42.877441	-83.583221	Outfall
6736504	42.876325	-83.584772	Outfall
6736505	42.875351	-83.583442	Outfall
6736506	42.877542	-83.588237	Outfall
6736507	42.879701	-83.588943	Outfall
6736508	42.8792	-83.590415	Outfall
6736751	42.877214	-83.577594	Outfall
6736752	42.875857	-83.579276	Outfall
6736753	42.87502	-83.578679	Outfall
6736754	42.875124	-83.577947	Outfall
6736755	42.874024	-83.575934	Outfall
6729007	42.894388	-83.660729	Outfall
6703501	42.952252	-83.630655	Outfall
6703503	42.950951	-83.628892	Outfall
6623253	42.911266	-83.715207	Outfall
7818757	43.009051	-83.558643	Outfall
7819251	43.004444	-83.560833	Outfall
6712502	42.936505	-83.584991	Outfall
8606757	43.120374	-83.797626	Outfall
9622251	43.170846	-83.739936	Point of Discharge
6609153	42.941723	-83.770172	Outfall
7735757	42.967184	-83.60021	Outfall
7735758	42.967785	-83.601177	Outfall
7735759	42.96708	-83.600274	Outfall
7735760	42.965648	-83.598483	Outfall
7804016	43.043056	-83.533056	Outfall
7803001	43.046888	-83.516415	Outfall
6614502	42.917925	-83.723261	Outfall
6614503	42.919024	-83.724925	Outfall
6614504	42.920249	-83.723705	Outfall
6719755	42.905232	-83.676921	Outfall
6719756	42.903997	-83.680761	Outfall
5613003	42.837021	-83.703134	Outfall

GCDC WWS

OutfallNum	Latitude	Longitude	StructureT
8726503	43.067324	-83.61623	Outfall

GCP&R

OutfallNum	Latitude	Longitude	StructureT
8715251	43.101179	-83.621108	Outfall
8715252	43.099311	-83.621517	Outfall
8716502	43.091768	-83.647676	Outfall
8716503	43.09184	-83.650982	Outfall
8716504	43.091978	-83.65244	Outfall
8716505	43.092897	-83.652947	Outfall

OutfallNum	Latitude	Longitude	StructureT
8721001	43.086146	-83.652437	Outfall
8721002	43.087394	-83.650126	Outfall
8721003	43.08794	-83.649795	Outfall
8721004	43.08804	-83.649736	Outfall
8721505	43.076828	-83.650538	Outfall

GCRC

OutfallNum	Latitude	Longitude	StructureT
5526001	42.80696	-83.83957	Outfall
5527251	42.805489	-83.85496	Outfall
5527252	42.805455	-83.855154	Outfall
5527253	42.803543	-83.854408	Outfall
5527254	42.803621	-83.854228	Outfall
5535251	42.790796	-83.834397	Outfall
5535252	42.788641	-83.834243	Outfall
5535501	42.786777	-83.836344	Outfall
5602495	42.870845	-83.711625	Outfall
5613004	42.836397	-83.702398	Outfall
5614508	42.826677	-83.728102	Outfall
5616753	42.829256	-83.749677	Outfall
5616754	42.829146	-83.749514	Outfall
5620255	42.820394	-83.767688	Outfall
5620256	42.82021	-83.767648	Outfall
5621001	42.820409	-83.767519	Outfall
5621002	42.820278	-83.7675	Outfall
5621004	42.820172	-83.767458	Outfall
5627009	42.807671	-83.737831	Outfall
5633005	42.789374	-83.764392	Outfall
5633006	42.789369	-83.763971	Outfall
5633501	42.7894	-83.760874	Outfall
5633504	42.789207	-83.764491	Outfall
5633505	42.789199	-83.764276	Outfall
5634267	42.792855	-83.733029	Outfall
5634271	42.792852	-83.732874	Outfall
5634272	42.792701	-83.732841	Outfall
5634275	42.792719	-83.732908	Outfall
6503502	42.945417	-83.864881	Outfall
6503503	42.945391	-83.864923	Outfall
6503504	42.945402	-83.864835	Outfall
6516502	42.918829	-83.890089	Outfall
6517757	42.918797	-83.890348	Outfall
6601253	42.959378	-83.694158	Outfall
6601254	42.959385	-83.694211	Outfall
6603501	42.943938	-83.745307	Outfall
6604001	42.958176	-83.766889	Outfall
6604002	42.958187	-83.767092	Outfall
6604003	42.958214	-83.764292	Outfall

OutfallNum	Latitude	Longitude	StructureT
6604004	42.958202	-83.764081	Outfall
6604766	42.943818	-83.753758	Outfall
6605256	42.952704	-83.771607	Outfall
6605258	42.95188	-83.771599	Outfall
6605260	42.951266	-83.771583	Outfall
6605261	42.951029	-83.771622	Outfall
6608401	42.943237	-83.772798	Outfall
6608409	42.94224	-83.771281	Outfall
6608410	42.942177	-83.771297	Outfall
6608751	42.933538	-83.77091	Outfall
6608752	42.933547	-83.770931	Outfall
6609150	42.94202	-83.770931	Outfall
6609151	42.942074	-83.770896	Outfall
6609251	42.943508	-83.75383	Outfall
6609501	42.933758	-83.770686	Outfall
6610001	42.943684	-83.743896	Outfall
6611251	42.943945	-83.714792	Outfall
6612260	42.944097	-83.692313	Outfall
6614501	42.915001	-83.721228	Outfall
6614752	42.91913	-83.715819	Outfall
6614753	42.918889	-83.715833	Outfall
6618304	42.928163	-83.795408	Outfall
6618758	42.913761	-83.794765	Outfall
6618759	42.913739	-83.794214	Outfall
6625753	42.885927	-83.693042	Outfall
6701751	42.946936	-83.575651	Outfall
6701752	42.946987	-83.575749	Outfall
6702001	42.953608	-83.613355	Outfall
6702002	42.953658	-83.613375	Outfall
6703253	42.95365	-83.613536	Outfall
6703254	42.953589	-83.613556	Outfall
6704251	42.960278	-83.638889	Outfall
6704254	42.957909	-83.634055	Outfall
6704270	42.960291	-83.639123	Outfall
6704271	42.9561	-83.635538	Outfall
6704272	42.957563	-83.634192	Outfall
6705022	42.953966	-83.66951	Outfall
6707001	42.943534	-83.691898	Outfall
6707003	42.943235	-83.691879	Outfall
6707006	42.942751	-83.691884	Outfall
6707007	42.942455	-83.691889	Outfall
6707008	42.942114	-83.691842	Outfall
6707010	42.941889	-83.691863	Outfall
6707030	42.943954	-83.691949	Outfall
6707547	42.931117	-83.685513	Outfall
6707548	42.930893	-83.685478	Outfall
6708502	42.934141	-83.662239	Outfall
6708503	42.93419	-83.66219	Outfall

OutfallNum	Latitude	Longitude	StructureT
6708751	42.934096	-83.662011	Outfall
6708752	42.934205	-83.662011	Outfall
6711754	42.93575	-83.59751	Outfall
6711755	42.93587	-83.59756	Outfall
6712751	42.932727	-83.574069	Outfall
6712753	42.932605	-83.573825	Outfall
6712754	42.932676	-83.573644	Outfall
6712755	42.936386	-83.58248	Outfall
6712758	42.935042	-83.582396	Outfall
6712764	42.933896	-83.575685	Outfall
6712767	42.933323	-83.581697	Outfall
6712768	42.933587	-83.578451	Outfall
6717254	42.92646	-83.659244	Outfall
6717255	42.92646	-83.65914	Outfall
6721753	42.906955	-83.633677	Outfall
6721754	42.906962	-83.633469	Outfall
6721755	42.906856	-83.633668	Outfall
6721756	42.906858	-83.63347	Outfall
6722003	42.912567	-83.623829	Outfall
6722004	42.912616	-83.623776	Outfall
6722252	42.909033	-83.612277	Outfall
6724751	42.909566	-83.581454	Outfall
6728253	42.900923	-83.640278	Outfall
6728254	42.900919	-83.640103	Outfall
6729253	42.898384	-83.655969	Outfall
6729254	42.89851	-83.655991	Outfall
6729255	42.896238	-83.655667	Outfall
6729262	42.893805	-83.652552	Outfall
6729263	42.89861	-83.655705	Outfall
6729509	42.88629	-83.66541	Outfall
6730251	42.900359	-83.679363	Outfall
6807252	42.944433	-83.554472	Outfall
6808003	42.944444	-83.554167	Outfall
7502003	43.045195	-83.851285	Outfall
7502004	43.04521	-83.851122	Outfall
7502252	43.03871	-83.832241	Outfall
7502253	43.038573	-83.832238	Outfall
7511753	43.020954	-83.831915	Outfall
7511755	43.020525	-83.831922	Outfall
7524501	42.991642	-83.830986	Outfall
7524502	42.990154	-83.830983	Outfall
7604004	43.038841	-83.768064	Outfall
7604231	43.044352	-83.773309	Outfall
7604233	43.044125	-83.773407	Outfall
7604235	43.043774	-83.773408	Outfall
7604247	43.039797	-83.770249	Outfall
7604249	43.039755	-83.770829	Outfall
7604753	43.035083	-83.761259	Outfall

OutfallNum	Latitude	Longitude	StructureT
7604754	43.034458	-83.758704	Outfall
7604756	43.033559	-83.757006	Outfall
7605253	43.045848	-83.774153	Outfall
7609751	43.023346	-83.753244	Point of Discharge
7616004	43.01517	-83.772805	Outfall
7617252	43.015199	-83.773192	Outfall
7618009	43.0123	-83.81205	Outfall
7632222	42.972673	-83.780619	Outfall
7632282	42.971296	-83.772014	Outfall
7632284	42.971309	-83.772061	Outfall
7632292	42.972279	-83.781316	Outfall
7633103	42.971197	-83.771711	Outfall
7633509	42.958377	-83.766795	Outfall
7633510	42.958387	-83.766963	Outfall
7635001	42.968147	-83.724022	Point of Discharge
7635754	42.95926	-83.718769	Outfall
7636254	42.973309	-83.692932	Point of Discharge
7702010	43.047486	-83.615791	Outfall
7702011	43.047344	-83.615807	Outfall
7710780	43.020832	-83.617238	Point of Discharge
7726508	42.975389	-83.610884	Outfall
7726509	42.975383	-83.610739	Outfall
7735001	42.975209	-83.610769	Outfall
7735002	42.975194	-83.610387	Outfall
7736001	42.975598	-83.590039	Outfall
7736002	42.975597	-83.590099	Outfall
7736008	42.973984	-83.586234	Outfall
7736751	42.961425	-83.580845	Outfall
7736753	42.961406	-83.580915	Outfall
7802502	43.036836	-83.498203	Outfall
7802503	43.036951	-83.498226	Outfall
7803757	43.03695	-83.498416	Outfall
7803758	43.036852	-83.49842	Outfall
7805001	43.045272	-83.55699	Outfall
7805002	43.045204	-83.556998	Outfall
7806003	43.048121	-83.574772	Outfall
7806252	43.048333	-83.560278	Outfall
7806265	43.045274	-83.557242	Outfall
7806266	43.045195	-83.55723	Outfall
7807517	43.019357	-83.566316	Outfall
7808758	43.027109	-83.537584	Outfall
7808765	43.023399	-83.53746	Outfall
7808767	43.023349	-83.537507	Outfall
7809501	43.027092	-83.537428	Outfall
7809503	43.023384	-83.53723	Outfall
7809504	43.023358	-83.537223	Outfall
7810258	43.035069	-83.499751	Outfall
7810260	43.035068	-83.499833	Outfall

OutfallNum	Latitude	Longitude	StructureT
7810261	43.028241	-83.498416	Outfall
7816263	43.016294	-83.522685	Outfall
7816266	43.015863	-83.52239	Outfall
7816267	43.014927	-83.522367	Outfall
7816268	43.014285	-83.522336	Outfall
7816272	43.014282	-83.522373	Outfall
7817501	43.009762	-83.555294	Outfall
7817502	43.009858	-83.555271	Outfall
7817512	43.00538	-83.549289	Outfall
7818021	43.019195	-83.56631	Outfall
7818501	43.011336	-83.572676	Outfall
7818502	43.011357	-83.572575	Outfall
7818507	43.011515	-83.572611	Outfall
7818508	43.011527	-83.572745	Outfall
7818751	43.011594	-83.562264	Outfall
7818771	43.009856	-83.555629	Outfall
7818774	43.01178	-83.562092	Outfall
7818775	43.011765	-83.562427	Outfall
7819348	42.990557	-83.573655	Outfall
7819349	42.990542	-83.573738	Outfall
7820001	43.005254	-83.54884	Outfall
7821251	42.99992	-83.526589	Outfall
7821252	43.000018	-83.526604	Outfall
7829003	42.990673	-83.54824	Outfall
7830095	42.990389	-83.573394	Outfall
7830096	42.990374	-83.573512	Outfall
7830110	42.990405	-83.568374	Outfall
7830257	42.985012	-83.561577	Outfall
7830258	42.985012	-83.561503	Outfall
7830503	42.975961	-83.571306	Outfall
7830505	42.975962	-83.57126	Outfall
7830506	42.975952	-83.571279	Outfall
8501516	43.11802	-83.826656	Outfall
8501753	43.119877	-83.813792	Outfall
8512239	43.11776	-83.826802	Outfall
8512240	43.117768	-83.826671	Outfall
8512509	43.103451	-83.825265	Outfall
8512780	43.103571	-83.819511	Outfall
8513000	43.103292	-83.825186	Outfall
8513001	43.098762	-83.82859	Outfall
8513002	43.098609	-83.828604	Outfall
8513003	43.103281	-83.825039	Outfall
8513497	43.097802	-83.813679	Outfall
8513499	43.097896	-83.813681	Outfall
8513504	43.089523	-83.833422	Outfall
8513505	43.089506	-83.833306	Outfall
8513751	43.089374	-83.820891	Outfall
8513753	43.089378	-83.820828	Outfall

OutfallNum	Latitude	Longitude	StructureT
8513999	43.094078	-83.813678	Outfall
8514003	43.101489	-83.853033	Outfall
8514004	43.101456	-83.853043	Outfall
8515252	43.10152	-83.853165	Outfall
8515253	43.101484	-83.853166	Outfall
8523759	43.076929	-83.842828	Point of Discharge
8524001	43.089305	-83.833411	Outfall
8524002	43.089321	-83.833299	Outfall
8524251	43.089235	-83.820885	Outfall
8524252	43.089231	-83.820814	Outfall
8524504	43.078269	-83.831132	Outfall
8524505	43.078504	-83.831186	Outfall
8527698	43.065616	-83.865136	Outfall
8527700	43.065666	-83.865187	Outfall
8527703	43.065572	-83.865327	Outfall
8527704	43.065357	-83.865125	Outfall
8534759	43.047787	-83.852523	Outfall
8534761	43.047701	-83.852517	Outfall
8534770	43.049798	-83.862198	Outfall
8535501	43.047792	-83.85229	Outfall
8535503	43.047685	-83.85227	Outfall
8535505	43.045354	-83.851144	Outfall
8535507	43.045355	-83.851289	Outfall
8536011	43.057004	-83.831885	Outfall
8536012	43.056836	-83.831993	Outfall
8536013	43.054747	-83.82416	Outfall
8536503	43.045579	-83.822779	Outfall
8536751	43.05027	-83.813244	Outfall
8601001	43.13367	-83.714258	Point of Discharge
8601003	43.133581	-83.714244	Point of Discharge
8601009	43.130323	-83.710599	Point of Discharge
8601011	43.130324	-83.710681	Point of Discharge
8601501	43.126693	-83.706915	Point of Discharge
8601503	43.126687	-83.706967	Point of Discharge
8601505	43.126564	-83.706781	Point of Discharge
8601507	43.126568	-83.706814	Point of Discharge
8602251	43.133702	-83.714375	Point of Discharge
8602253	43.13367	-83.71438	Point of Discharge
8605597	43.119838	-83.784969	Outfall
8605599	43.119557	-83.786201	Outfall
8605601	43.119642	-83.786468	Outfall
8606503	43.119867	-83.813606	Outfall
8606761	43.118746	-83.797586	Outfall
8607001	43.118021	-83.812805	Outfall
8607002	43.118005	-83.812677	Outfall
8607253	43.118508	-83.797718	Outfall
8614237	43.104042	-83.729079	Outfall
8614239	43.10404	-83.72896	Outfall

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8615001	43.104344	-83.745368	Outfall
8615002	43.104343	-83.745252	Outfall
8618747	43.089305	-83.813115	Outfall
8618749	43.08931	-83.813029	Outfall
8619101	43.083392	-83.810398	Outfall
8619102	43.083399	-83.810304	Outfall
8619229	43.089101	-83.813089	Outfall
8619231	43.089109	-83.812994	Outfall
8619247	43.083519	-83.810526	Outfall
8619249	43.083508	-83.810347	Outfall
8619501	43.078295	-83.808953	Outfall
8621491	43.086358	-83.753743	Outfall
8621497	43.089882	-83.755071	Outfall
8621499	43.089885	-83.755002	Outfall
8621749	43.075169	-83.771808	Outfall
8622247	43.086362	-83.753512	Outfall
8622249	43.086435	-83.753529	Outfall
8623001	43.08945	-83.726504	Outfall
8628001	43.075	-83.7718	Outfall
8628003	43.075	-83.771667	Outfall
8629001	43.074946	-83.787713	Outfall
8629002	43.074934	-83.787751	Outfall
8629005	43.067731	-83.785155	Outfall
8629006	43.06774	-83.785104	Outfall
8629501	43.067597	-83.785152	Outfall
8629503	43.067601	-83.785034	Outfall
8629751	43.060563	-83.782793	Outfall
8629753	43.060572	-83.782666	Outfall
8630251	43.067631	-83.797533	Outfall
8630252	43.067636	-83.797818	Outfall
8630751	43.067488	-83.797737	Outfall
8630753	43.06751	-83.795313	Outfall
8631509	43.051255	-83.812812	Outfall
8632001	43.060326	-83.782769	Outfall
8632003	43.060326	-83.78269	Outfall
8632751	43.045996	-83.774036	Outfall
8702252	43.136111	-83.598847	Outfall
8711751	43.106183	-83.606805	Outfall
8721251	43.084044	-83.636746	Outfall
8722001	43.085472	-83.636553	Outfall
8722754	43.078561	-83.616957	Outfall
8723501	43.078586	-83.616701	Outfall
8723502	43.07859	-83.616712	Outfall
8723503	43.078547	-83.616697	Outfall
8725001	43.074685	-83.596971	Outfall
8725002	43.074606	-83.596982	Outfall
8726257	43.074667	-83.597203	Outfall
8726502	43.067275	-83.616333	Outfall

OutfallNum	Latitude	Longitude	StructureT
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8727761	43.067259	-83.616669	Outfall
8734755	43.05134	-83.617325	Outfall
8734756	43.051132	-83.61716	Outfall
8734757	43.051132	-83.616877	Outfall
8734760	43.050231	-83.616108	Outfall
8734761	43.05022	-83.616091	Outfall
8735502	43.050267	-83.615861	Outfall
8827266	43.076718	-83.49909	Outfall
8828502	43.063335	-83.535852	Outfall
8828755	43.063429	-83.525734	Outfall
8830751	43.062985	-83.563095	Outfall
8830752	43.062982	-83.563193	Outfall
8831251	43.060423	-83.557615	Outfall
8831252	43.060348	-83.557607	Outfall
8831501	43.048305	-83.574661	Outfall
8831502	43.048299	-83.574444	Outfall
8831758	43.048478	-83.56039	Outfall
8832007	43.060352	-83.557396	Outfall
8832008	43.060432	-83.5574	Outfall
8833004	43.063093	-83.535854	Outfall
8833005	43.063091	-83.535758	Outfall
8833257	43.063173	-83.52572	Outfall
9603010	43.218698	-83.745428	Outfall
9603251	43.221383	-83.740783	Outfall
9603252	43.221394	-83.737585	Point of Discharge
9608501	43.191914	-83.792019	Outfall
9608751	43.191909	-83.780881	Outfall
9608770	43.194784	-83.774485	Outfall
9608997	43.194866	-83.774505	Outfall
9608999	43.194749	-83.774503	Outfall
9610497	43.204013	-83.73489	Outfall
9610499	43.204043	-83.734904	Outfall
9610501	43.19205	-83.749213	Point of Discharge
9610502	43.192049	-83.754199	Point of Discharge
9610751	43.192058	-83.739708	Outfall
9610753	43.192014	-83.739664	Outfall
9610758	43.192039	-83.743225	Outfall
9611977	43.19358	-83.71492	Outfall
9611979	43.19351	-83.71492	Outfall
9611993	43.1978	-83.72222	Outfall
9611999	43.197718	-83.722341	Outfall
9613501	43.1818	-83.714697	Outfall
9614766	43.181816	-83.714937	Outfall
9615257	43.19187	-83.739703	Outfall
9615258	43.191872	-83.739628	Outfall
9616251	43.191788	-83.754441	Point of Discharge
9616997	43.1822	-83.7544	Outfall

OutfallNum	Latitude	Longitude	StructureT
9616999	43.1825	-83.7544	Outfall
9617251	43.191721	-83.780673	Outfall
9617252	43.191755	-83.781173	Outfall
9617257	43.184621	-83.774486	Outfall
9617751	43.184491	-83.778073	Outfall
9617762	43.184477	-83.778014	Outfall
9620253	43.176933	-83.774517	Outfall
9620255	43.176937	-83.774466	Outfall
9621752	43.16292	-83.76288	Outfall
9621753	43.16288	-83.76268	Outfall
9626001	43.162752	-83.729297	Outfall
9626005	43.155704	-83.725693	Outfall
9626007	43.155708	-83.725555	Outfall
9627501	43.14828	-83.74429	Outfall
9627503	43.148294	-83.744218	Outfall
9627511	43.15162	-83.75391	Outfall
9627513	43.15158	-83.75391	Outfall
9628751	43.15155	-83.75412	Outfall
9634103	43.148185	-83.744213	Outfall
9732752	43.142203	-83.658446	Outfall
9827758	43.151706	-83.504114	Outfall

Appendix A

Website

- cleargeneseewater.org
- gcdcswm.com
- Genesee County

Public Education Implementation Table (reconfigured for 2013 permit)

Booth Results

Household hazardous waste promotion materials

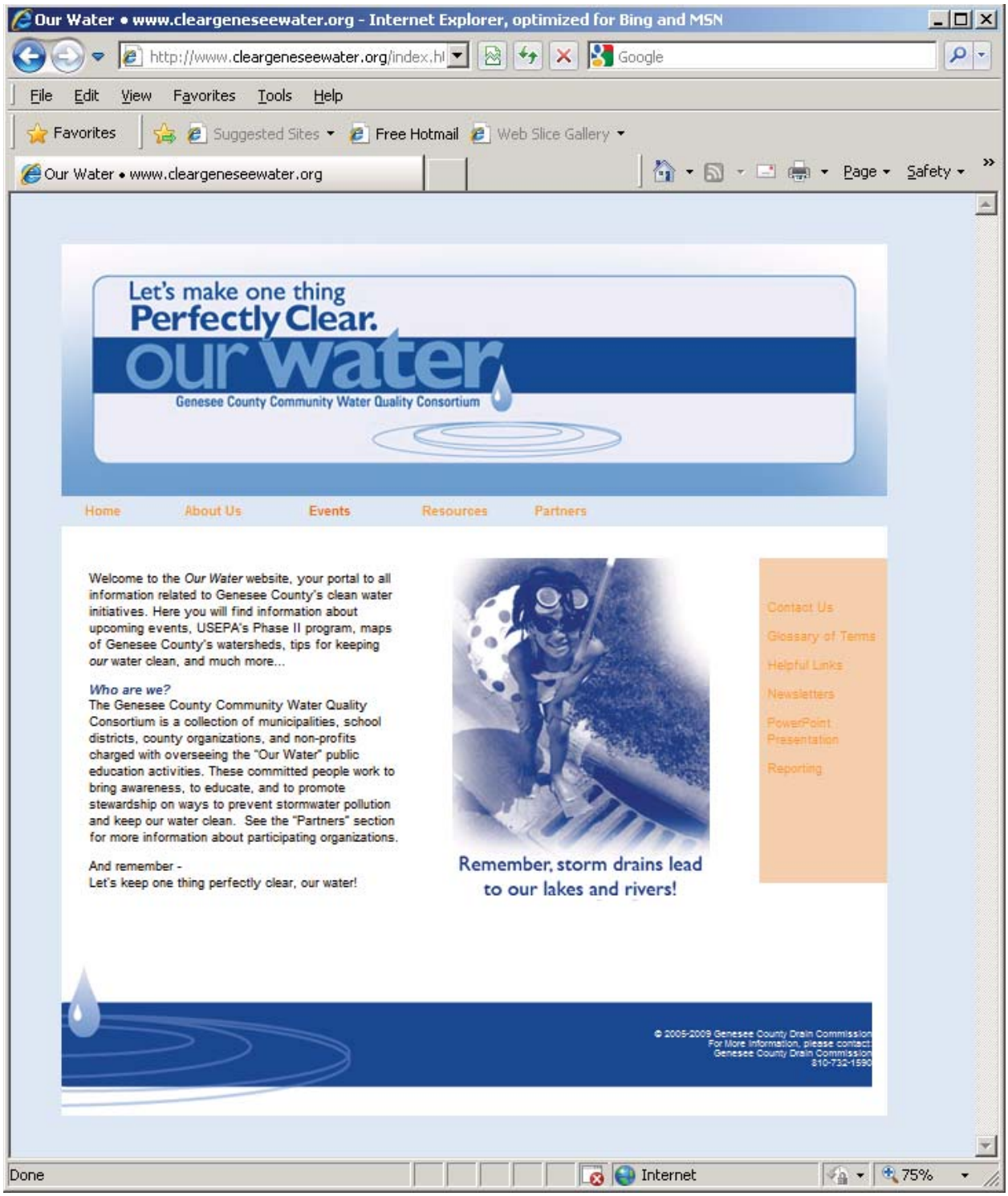
GCD Education Program Brochure

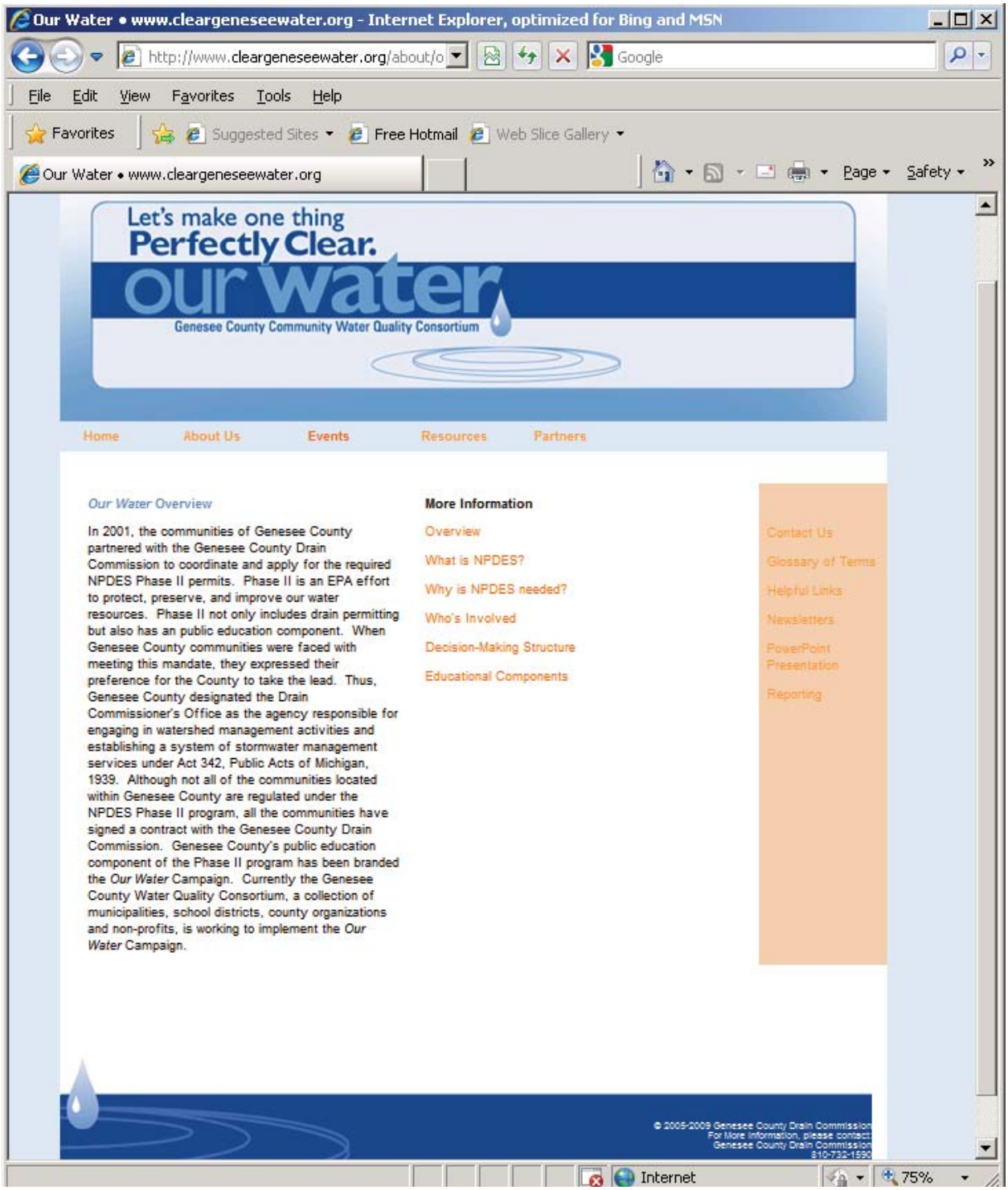
Partner Newsletters

Other Water Programs

- Genesee County Parks Programs
- City of Flint
- Articles

www.cleargeneseewater.org

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Our Water Overview
In 2001, the communities of Genesee County partnered with the Genesee County Drain Commission to coordinate and apply for the required NPDES Phase II permits. Phase II is an EPA effort to protect, preserve, and improve our water resources. Phase II not only includes drain permitting but also has an public education component. When Genesee County communities were faced with meeting this mandate, they expressed their preference for the County to take the lead. Thus, Genesee County designated the Drain Commissioner's Office as the agency responsible for engaging in watershed management activities and establishing a system of stormwater management services under Act 342, Public Acts of Michigan, 1939. Although not all of the communities located within Genesee County are regulated under the NPDES Phase II program, all the communities have signed a contract with the Genesee County Drain Commission. Genesee County's public education component of the Phase II program has been branded the Our Water Campaign. Currently the Genesee County Water Quality Consortium, a collection of municipalities, school districts, county organizations and non-profits, is working to implement the Our Water Campaign.
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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Newsletters
PowerPoint Presentation
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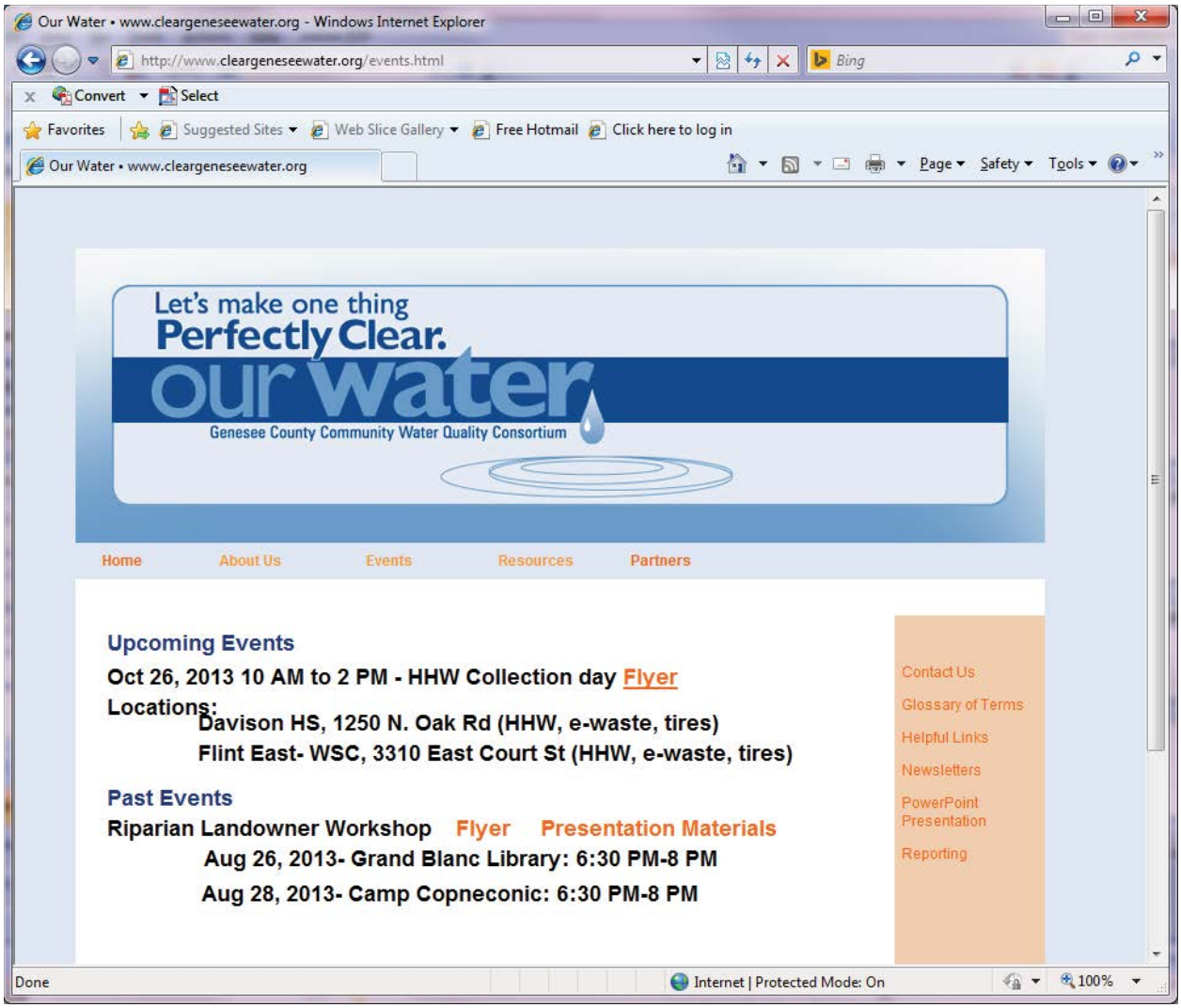
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Perfectly Clear.
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Upcoming Events
Oct 26, 2013 10 AM to 2 PM - HHW Collection day Flyer
Locations:
Davison HS, 1250 N. Oak Rd (HHW, e-waste, tires)
Flint East- WSC, 3310 East Court St (HHW, e-waste, tires)
Past Events
Riparian Landowner Workshop Flyer Presentation Materials
Aug 26, 2013- Grand Blanc Library: 6:30 PM-8 PM
Aug 28, 2013- Camp Copneconic: 6:30 PM-8 PM
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September 27, 2014 10 AM to 2 PM - HHW Collection day (Flyer)
Locations:
Flint East- WSC, 3310 East Court St (HHW, e-waste, tires)
Goodrich Middle School, 7500 S. Gale Rd
What is Hazardous Waste?
Throughout Summer we sponsor Canoe/ Kayak trips down the Flint River through the FRWC. 2014 Schedule
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.
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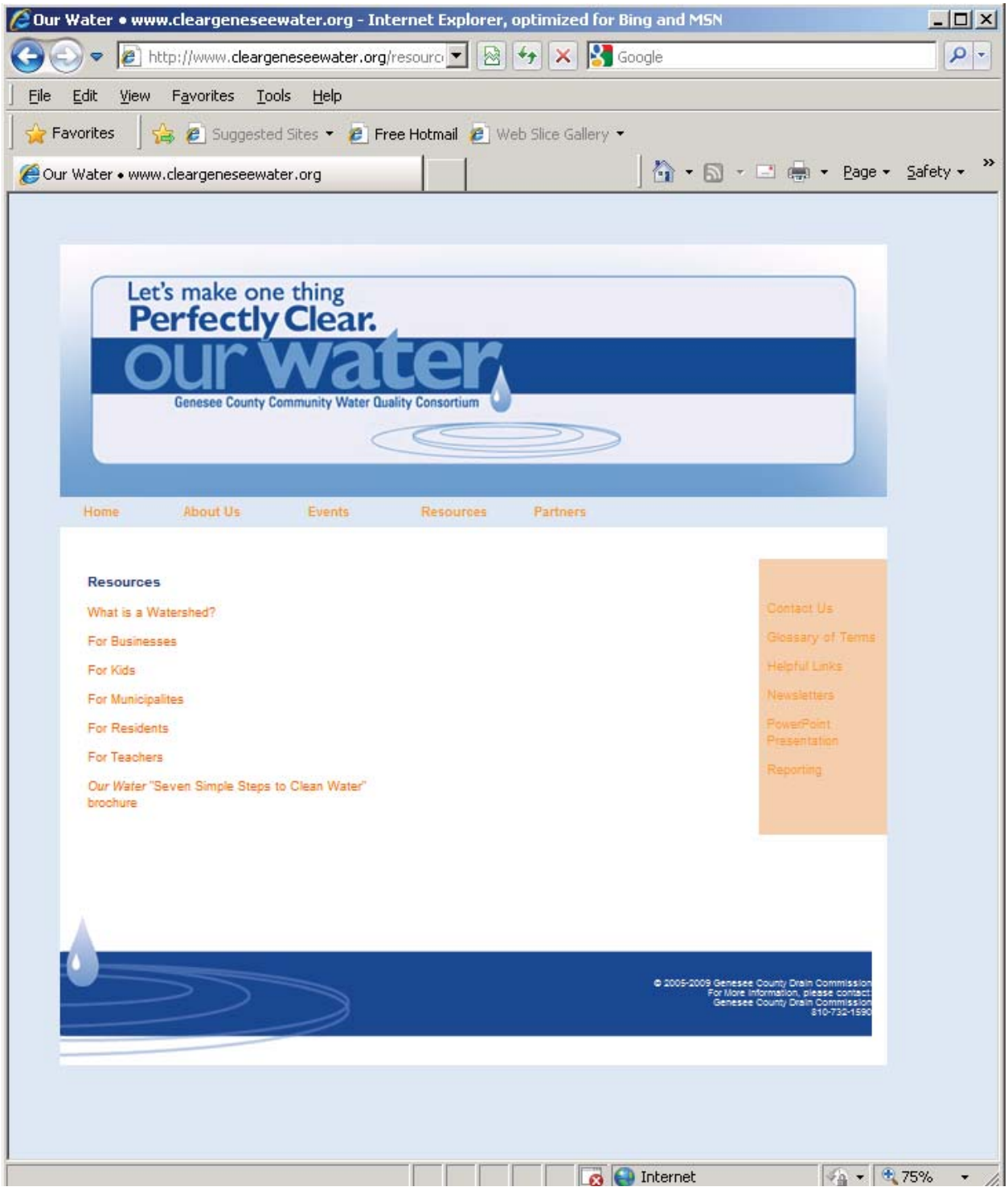
810-732-1590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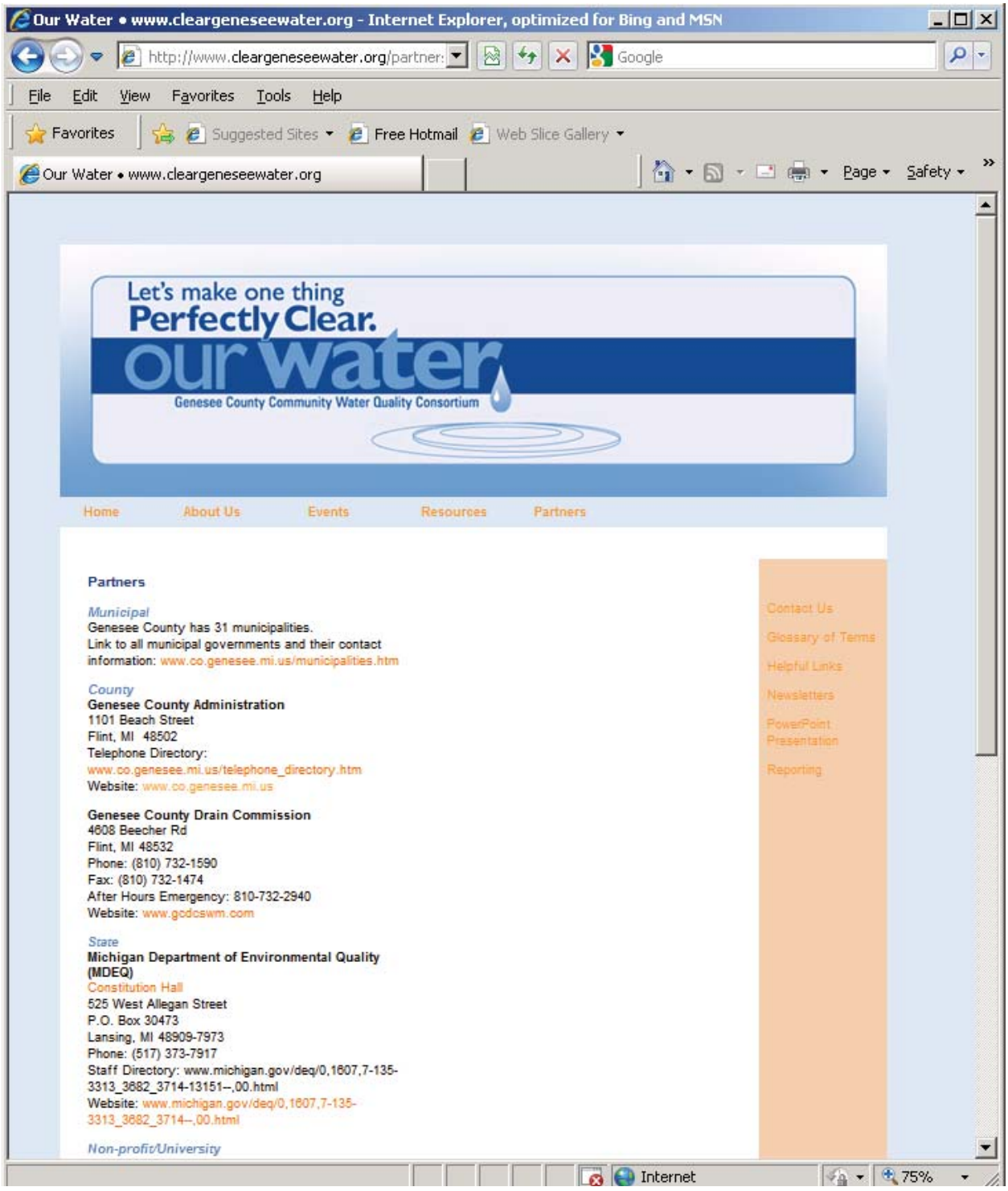
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Municipal
Genesee County has 31 municipalities.
Link to all municipal governments and their contact information: www.co.genesee.mi.us/municipalities.htm
County
Genesee County Administration
1101 Beach Street
Flint, MI 48502
Telephone Directory:
www.co.genesee.mi.us/telephone_directory.htm
Website: www.co.genesee.mi.us
Genesee County Drain Commission
4608 Beecher Rd
Flint, MI 48532
Phone: (810) 732-1590
Fax: (810) 732-1474
After Hours Emergency: 810-732-2940
Website: www.gcdcswm.com
State
Michigan Department of Environmental Quality (MDEQ)
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909-7973
Phone: (517) 373-7917
Staff Directory: www.michigan.gov/deq/0,1607,7-135-3313_3682_3714-13151--,00.html
Website: www.michigan.gov/deq/0,1607,7-135-3313_3682_3714--,00.html
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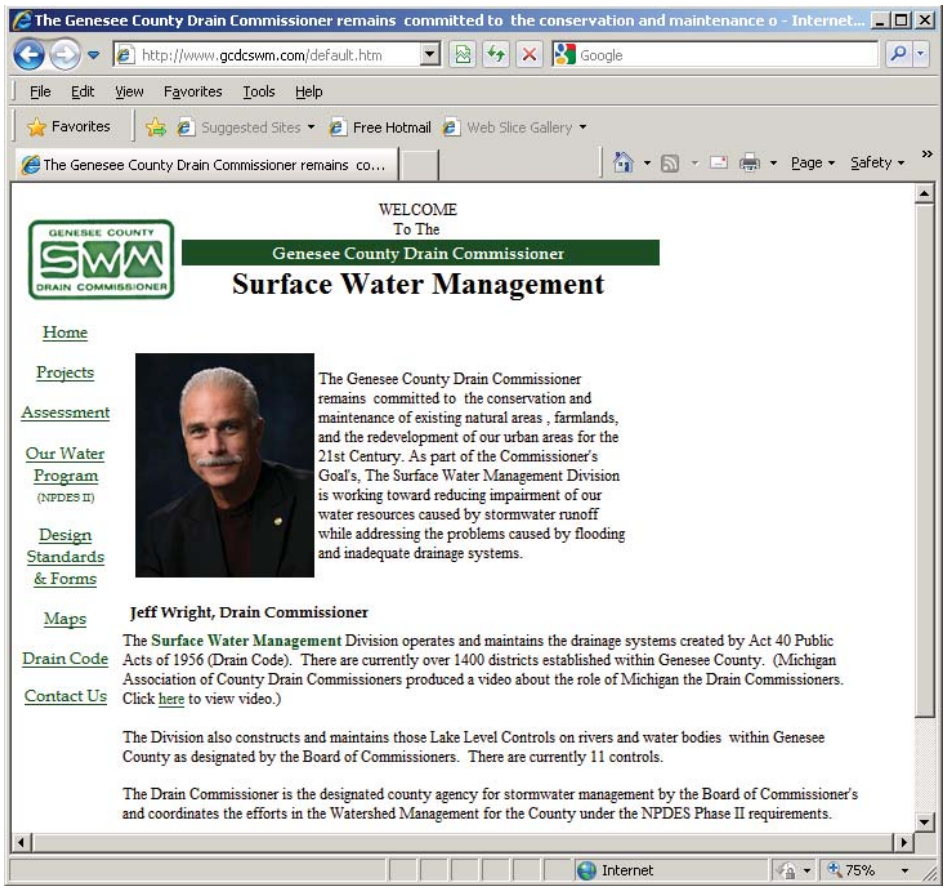

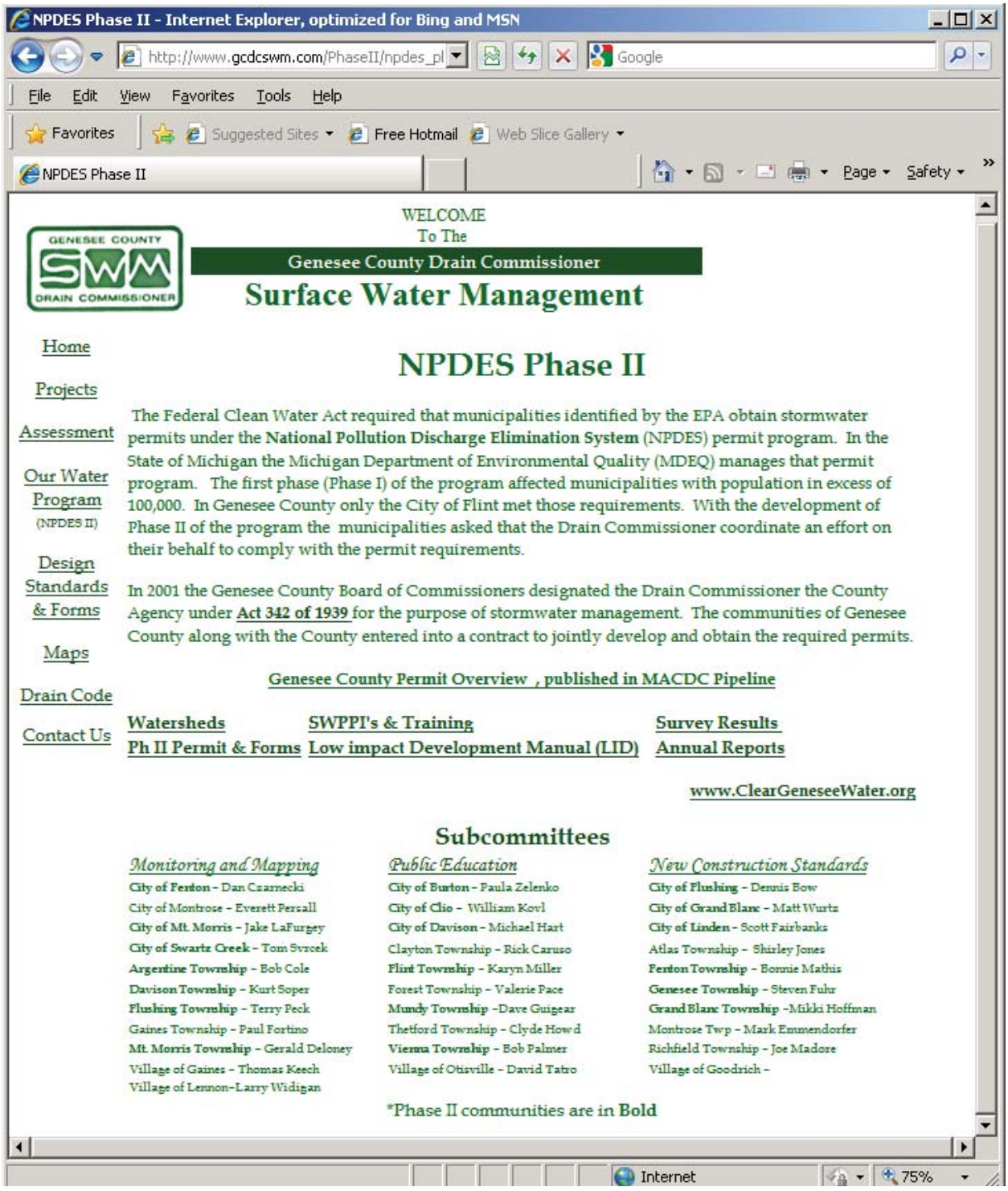
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NPDES Phase II
The Federal Clean Water Act required that municipalities identified by the EPA obtain stormwater permits under the National Pollution Discharge Elimination System (NPDES) permit program. In the State of Michigan the Michigan Department 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
Watersheds
SWPPI's & Training
Survey Results
Ph II Permit & Forms
Low impact Development Manual (LID)
Annual Reports
www.ClearGeneseeWater.org
Subcommittees
Monitoring and Mapping
City of Fenton - Dan Czarnecki
City of Montrose - Everett 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
Public Education
City of Burton - Paula Zelenko
City of Clio - William Kovl
City of Davison - Michael Hart
Clayton Township - Rick Caruso
Flint Township - Karyn Miller
Forest Township - Valerie Pace
Mundy Township -Dave Guigear
Thetford Township - Clyde Howd
Vienna Township - Bob Palmer
Village of Otisville - David Tatro
New Construction Standards
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 Twp - Mark Emmendorfer
Richfield Township - Joe Madore
Village of Goodrich -
*Phase II communities are in Bold
Internet
75%

Planning Commission

Quick Info

Genesee County Metropolitan Planning Commission

Fall 2014 Household Hazardous Waste & Electronic Waste Collection
Saturday Sept. 27, 2014
10a.m. - 2p.m.

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

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

Click Here for list of Accepted Hazardous Waste Items

Click Here for a list of Accepted Electronic Waste Items

For any additional questions call: (810) 762-7744

Click here for the annual list of Obligated Transportation Improvement Program (TIP) projects (FY 2013)

Alan Himelhoch, Chairperson — Alexander Isaac, Vice-Chairperson — Gloria J. Nealy, Secretary

Mark Young, Janice Karcher, Jamie Curtis, Carl V Arthur III, Michael Lynch, John Mandelaris, Cheryl Sclater, Ted Henry

Click here for Staff Contact Information

GCMPC provides staff resources, technical support, and services to assist Genesee County municipalities with the needs and demands of a rapidly urbanizing county. GCMPC's two divisions, Community Development and Transportation, perform under the administrative direction of Director-Coordinator Derek Bradshaw and Assistant Director Christine Durgan.

MISSION STATEMENT

To provide a framework and encourage development that enhances the quality of life in Genesee County through government and community partnerships.

An Equal Opportunity Organization

Equal Housing Opportunity

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. Waterbodies 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 watershed; specific waterbodies; 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, appox. 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 watershed; specific waterbodies; 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/work shop - $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 occures	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.	Increased 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	#participating schools/ sites survey. Information to aid decision-making. Increased public awareness - social survey.

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J. Promote methods for managing riparian lands to protect water quality. **K**. Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to stormwater runoff.

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
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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://cleargeneseewater.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
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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 develpoend 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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STORMWATER DISCHARGE PERMIT APPLICATION

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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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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 maintenance 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 1st year of hire or within permit cycle.	Training is developed. Tansfering 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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Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Collaborative

Information Booth: Data Collection

Event Name: KGCB Conference **Date:** 3/8/14

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

Total 114

Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Consortium

Information Booth: Data Collection

Event Name: EARTH DAY @ U of M FLINT **Date:** 04/12/14

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

Total 146

FLINT CONT. 𝍸 𝍸 III

Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Consortium

Information Booth: Data Collection

Event Name: Home & Garden Show Lapeer **Date:** 3/29/14

CITIES	NUMBERS
Burton	14
Clio	13
Davison	13
Fenton	13
Flint	48
Flushing	6
Grand Blanc	17
Linden	7
Montrose	6
Mt. Morris	8
Swartz Creek	13
TOWNSHIPS	
Argentine	
Atlas	
Clayton	1
Davison	1
Fenton	
Flint	9
Flushing	1
Forest	
Gaines	5
Genesee	3
Grand Blanc	
Montrose	4
Mt. Morris	1
Mundy	2
Richfield	4
Thetford	
Vienna	
OTHER CO. IN ST	30
OTHER STATES	

Total 290

FLINT CONT. 14 11

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

Event Name: Home & Garden Show **Date:** 3/30/14

CITIES	NUMBERS
Burton	𝍸
Clio	11
Davison	𝍸 𝍸 11
Fenton	1111
Flint	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 111
Flushing	111
Grand Blanc	𝍸 𝍸 𝍸 𝍸
Linden	𝍸
Montrose	111
Mt. Morris	𝍸 𝍸 111
Swartz Creek	𝍸 11
TOWNSHIPS	
Argentine	111
Atlas	𝍸 11
Clayton	
Davison	
Fenton	
Flint	11
Flushing	
Forest	
Gaines	1
Genesee	
Grand Blanc	
Montrose	
Mt. Morris	
Mundy	
Richfield	11
Thetford	
Vienna	
OTHER CO. IN ST	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 11
OTHER STATES	

Total 202

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

Event Name: Flint Farmers Market **Date:** 7/17/2014

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

Total 72

Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Consortium

Information Booth: Data Collection

Monday

Event Name: Genesee County Fair **Date:** August 18 – 24, 2014

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

Total 196

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

TUESDAY RAINED OUT

Event Name: Genesee County Fair **Date:** August 18-24, 2014

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

Total 177

Let's make one thing Perfectly Clear. our water

Information Booth: Data Collection

WEDNESDAY

Event Name: Genesee County Fair **Date:** August 18 – 24, 2014

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

Total 212

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

THURSDAY

Event Name: Genesee County Fair **Date:** August 18-24, 2014

CITIES	NUMBERS
Burton	111
Clio	𝍸 11
Davison	𝍸 11
Fenton	𝍸 11 𝍸 𝍸 111
Flint	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Flushing	𝍸 11
Grand Blanc	𝍸 𝍸 11
Linden	1
Montrose	
Mt. Morris	𝍸 1111
Swartz Creek	𝍸 1
TOWNSHIPS	
Argentine	1111
Atlas	111
Clayton	1
Davison	𝍸 11
Fenton	11
Flint	𝍸 1
Flushing	1
Forest	
Gaines	
Genesee	𝍸 𝍸 𝍸 𝍸 1111
Grand Blanc	𝍸 11
Montrose	1111
Mt. Morris	𝍸 𝍸
Mundy	11
Richfield	11
Thetford	𝍸 𝍸 1
Vienna	𝍸 11
OTHER CO. IN ST	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 11
OTHER STATES	𝍸 𝍸

Total 267

Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Cooperative

Information Booth: Data Collection

FRIDAY

Event Name: Genesee County Fair **Date:** August 18 – 24, 2014

CITIES	NUMBERS
Burton	6
Clio	14
Davison	8
Fenton	3
Flint	42
Flushing	7
Grand Blanc	4
Linden	
Montrose	1
Mt. Morris	
Swartz Creek	2
TOWNSHIPS	
Argentine	
Atlas	1
Clayton	
Davison	8
Fenton	
Flint	1
Flushing	1
Forest	
Gaines	
Genesee	14
Grand Blanc	
Montrose	
Mt. Morris	16
Mundy	1
Richfield	7
Thetford	11
Vienna	1
OTHER CO. IN ST	21
OTHER STATES	

Total 201

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

SATURDAY

Event Name: Genesee County Fair **Date:** August 18-24, 2014

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

Total 236

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

SUNDAY

FAIR TOTAL 1443

Event Name: GENESEE COUNTY FAIR **Date:** AUGUST 24, 2014

CITIES	NUMBERS
Burton	4
Clio	13
Davison	13
Fenton	1
Flint	49
Flushing	
Grand Blanc	4
Linden	
Montrose	
Mt. Morris	4
Swartz Creek	1
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	9
Flushing	
Forest	8
Gaines	
Genesee	1
Grand Blanc	
Montrose	
Mt. Morris	6
Mundy	
Richfield	
Thetford	1
Vienna	
OTHER CO. IN ST	6
OTHER STATES	12

TOTAL 154

Let's make one thing Perfectly Clear.
our water
Genesee County Community Water Quality Consortium

Information Booth: Data Collection

Event Name: Women 2 Women Expo **Date:** 09/05/2014

CITIES	NUMBERS
Burton	11
Clio	2
Davison	7
Fenton	2
Flint	41
Flushing	7
Grand Blanc	11
Linden	
Montrose	
Mt. Morris	1
Swartz Creek	8
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	1
Fenton	
Flint	1
Flushing	
Forest	1
Gaines	
Genesee	6
Grand Blanc	2
Montrose	2
Mt. Morris	6
Mundy	1
Richfield	
Thetford	1
Vienna	1
OTHER CO. IN ST	22
OTHER STATES	

TOTAL 159

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

TOTAL 335

Event Name: Women 2 Women Expo **Date:** 09/06/2014

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

Let's make one thing Perfectly Clear. our water

Information Booth: Data Collection

Event Name: Bikes on the Bricks **Date:** 9/13/2014

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

Flint Continued… – 卌 卌 卌 卌 卌 \|

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

TOTAL 415

Event Name: BIKES ON THE BRICKS **Date:** 9/14/2014

CITIES	NUMBERS
Burton	𝍸 11
Clio	111
Davison	
Fenton	
Flint	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Flushing	𝍸 𝍸 1
Grand Blanc	
Linden	
Montrose	
Mt. Morris	𝍸 1
Swartz Creek	11
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	1
Flint	11
Flushing	
Forest	
Gaines	
Genesee	
Grand Blanc	1
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
OTHER STATES	𝍸 111
2011 Total	168
OTHER COUNTRY	11
FLINT CONTINUED:	𝍸 𝍸 1

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

Event Name: FLINT FARMERS MARKET **Date:** 9/23/14

CITIES	NUMBERS
Burton	III
Clio	IIII
Davison	
Fenton	
Flint	~~IIII IIII IIII IIII IIII IIII IIII IIII IIII IIII IIII~~ I
Flushing	~~IIII~~
Grand Blanc	IIII
Linden	
Montrose	
Mt. Morris	
Swartz Creek	
TOWNSHIPS	
Argentine	
Atlas	
Clayton	
Davison	
Fenton	
Flint	~~IIII~~ I
Flushing	~~IIII~~ I
Forest	
Gaines	
Genesee	
Grand Blanc	IIII
Montrose	
Mt. Morris	
Mundy	
Richfield	
Thetford	
Vienna	
OTHER CO. IN ST	~~IIII~~ IIII
OTHER STATES	
2011 Total	97

Let's make one thing Perfectly Clear.
our water

Information Booth: Data Collection

Event Name: Applewood Harvest Festival **Date:** 09/27/2014

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

FLINT CONT. - 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 \|\|\|

Household Hazardous Waste & Electronic Waste Collection Day!

Saturday, October 26, 2013
10:00 a.m. - 2:00 p.m.

For more information call or email:
Genesee County Recycle Hotline:
(810) 762-7744
recycle@co.genesee.mi.us
or Keep Genesee County Beautiful:
(810) 767-9696

Things you should bring...

Household pesticides
Herbicides, Fertilizers
Fluorescent light bulbs
- compact and tube
Batteries
- household and car
Gasoline
Aerosol cans
Antifreeze
Mercury
Used oil

Oil-based paint
Old prescriptions
Paint thinners
Tires - up to 7*

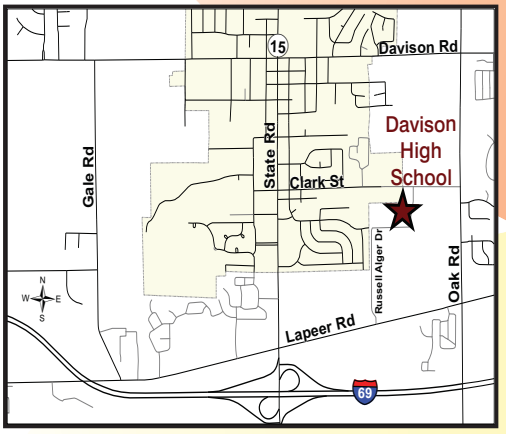
**No tractor or semi tires and they must be off the rim.*

Television Sets
Computer Monitors
Laptops & Notebooks
Printers & Copiers
DVD & VCR Players
Fax Machines
Cell Phones
Video Cameras
Stereo Equipment

Things you should NOT bring...

Commercial waste
Explosive material
Industrial waste
Latex paint
Medical waste
Radioactive material
TV Consoles

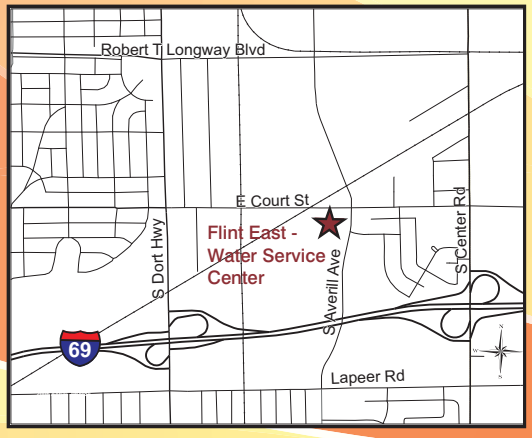
Facility locations...



Davison High School
1250 N. Oak Rd
Davison, MI 48423
10:00 a.m. - 2:00 p.m.
HHW, E-Waste, & Tires

GENESEE COUNTY METROPOLITAN PLANNING COMMISSION
RECYCLE

GCMPC
GENESEE COUNTY METROPOLITAN PLANNING COMMISSION



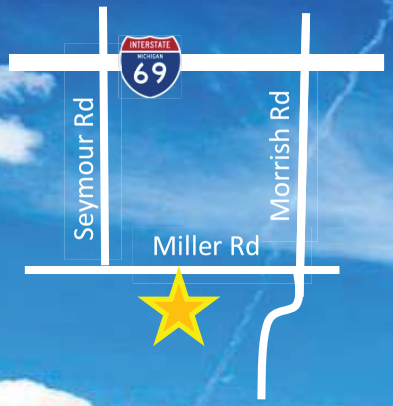
Flint East - Water Service Center
3310 East Court St., Flint MI 48506
10:00 a.m. - 2:00 p.m.
HHW, E-Waste, & Tires

Coordinated by the Household Hazardous Waste Consortium of Genesee County including the Genesee County Metropolitan Planning Commission, General Motors Environmental Staff in Flint, UAW Local 599, Goodwill Industries, 5R Processors. Genesee County Sheriff's Department and Keep Genesee County Beautiful. Trash services provided by Emterra Environmental, USA. Major support provided by the Genesee County Board of Commissioners, the City of Flint, and several local units of government.

Household Hazardous Waste & Electronic Waste Collection Day!

Saturday, June 7, 2014

10 a.m. – 2 p.m.



Swartz Creek High School
8354 Cappy Lane
Swartz Creek, MI 48473

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

www.gcmpc.com

Coordinated by the Household Hazardous Waste Consortium of Genesee County including the Genesee County Metropolitan Planning Commission, General Motors Environmental Staff in Flint, Goodwill industries, 5R Processors, Genesee County Sheriff's Department, Boy Scouts of Grand Blanc Troup 238, and Keep Genesee County Beautiful. Trash services provided by Emterra Environmental.

Flint East – Water Sewer Center
3310 East Court St.
Flint, MI 48506

Event Partners:

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

GCMPC
GENESEE COUNTY METROPOLITAN PLANNING COMMISSION

KEEP GENESEE COUNTY BEAUTIFUL

Goodwill
Industries of Mid-Michigan, Inc.

Allowed:
Household Pesticides, Herbicides, Fertilizers, Fluorescent Light Bulbs, Batteries, Gasoline, Aerosol Cans, Antifreeze, Mercury, Used Oil, Oil-based Paint, Prescription Drugs, 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

Youth volunteers participating in a local drain stenciling project

Education and Outreach

[redacted]

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

[illegible] Staff

[illegible]der,
[illegible]rester
[illegible]lin, Soil
[illegible]vation Technician
[illegible]on Whittaker,
[illegible]ironmental Engineer
[illegible] O'Brien,
Environmental Engineer
Jeffrey Johnson,
Education Coordinator
Brian Schorr, Soil
Conservation Technician

USDA-NRCS Staff

Jermaine Jenkins, 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

GENESEE
CONSERVATION DISTRICT

Awareness + Education =

Making a Difference

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

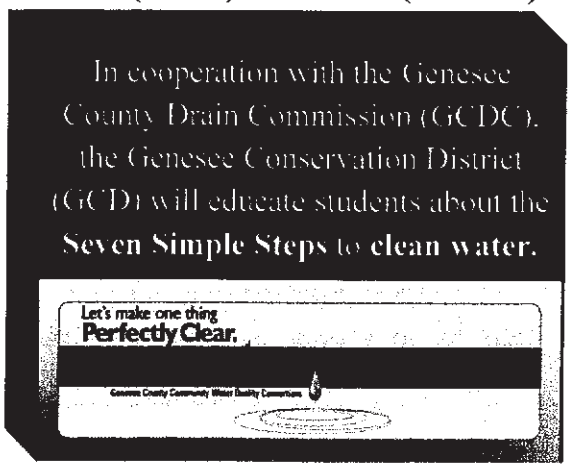
This initiative is a 3 phase program. Designed along with a menu of activities to engage the youth of Genesee County, and motivate them to become active in their own community.

- 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.



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.

The Incredible Journey: 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.

Enviroscape Activity: A model of a city used to show how everyday pollution ends up in our rivers and lakes. This is a interactive activity. Students will use household items to represent pollution, then using spray bottles "make it rain" and watch the flow of the stormwater through the cityscape into the river or lake.

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.

StormWater 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.

Water Treatment Model: This is a model sewage 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.

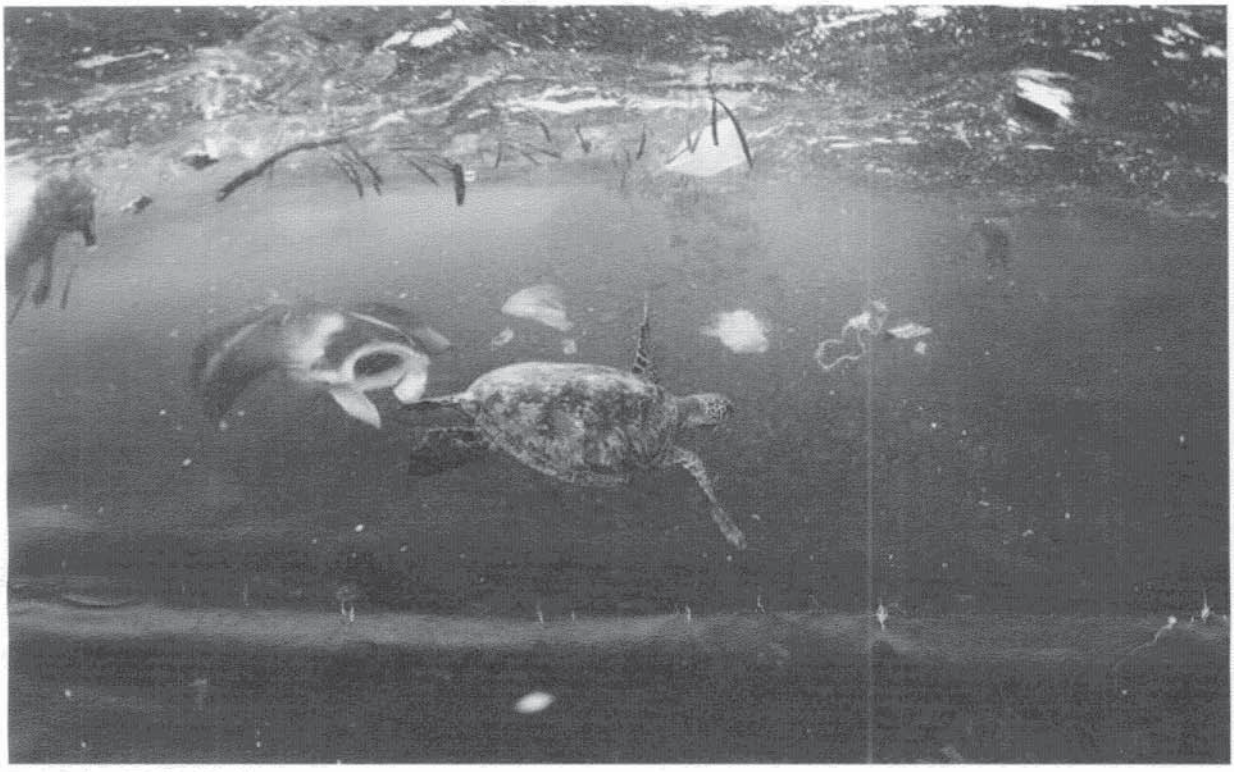
Turtle T. Chronicles

Chief Editor: Ben
Managing Editors: Shelby L. Brant / Emily J. Hyatt / Lena

Story Editor: Cecilia Sobocinski

Monday, July 14, 2014

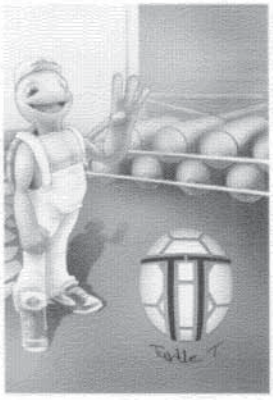
Turtle T.'s Side



Turtle T.'s Side Story By: Emily J. Hyatt

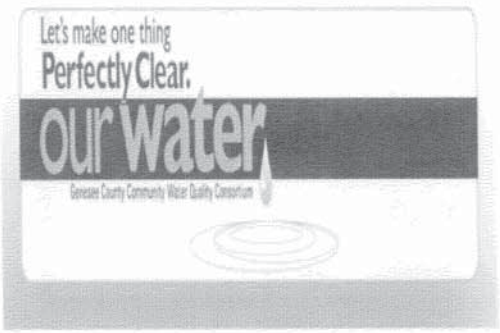
We are the GUG (Growing Up Green) from E.C.D.C. (Early Childhood Development Center) at U of M Flint. We are helping Turtle T., and other turtles that are suffering what the turtle in the picture above is suffering. Imagine living in trash 24/7 everywhere you look. Plus it's up your nose, in your eyes, and plugging your ears. That's what these turtles are suffering. Keep reading the Turtle T. Chronicles to find out how you can help!! ☺

Turtle T. Has Fun at U of M



Turtle T. visited the U of M early childhood development center June 30th. He really enjoyed meeting the GUG students. Mr. T has been very busy trying to educate Genesee County citizens about storm water runoff and non-point source pollution. Turtle T. teamed up with Jeffrey J. (from the Genesee Conservation District) a few months ago and they have been going everywhere telling people how they can help.

Seven Simple Steps



Seven Simple Steps

1. Practice good car care.
2. Fertilize sparingly and caringly.
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.

Pick up your trash

Water Conservation

Story By: Sanket Makkar

Water bill issues have been rising in importance for the past 3-5 years and we know why, but before we get to that, let me tell you how bad it's going to get.

Water bills are increasing by 1% yearly. So in time the water bill will build up. Sooner or later your water bill will go up by $100.00 at least.

The reason it is so bad is because we let too much water into the storm drain. We waste too much water. Now that you know, you can help. I hope you will help as much as you possibly can. There is one more reason we need to help. (continued in next column)

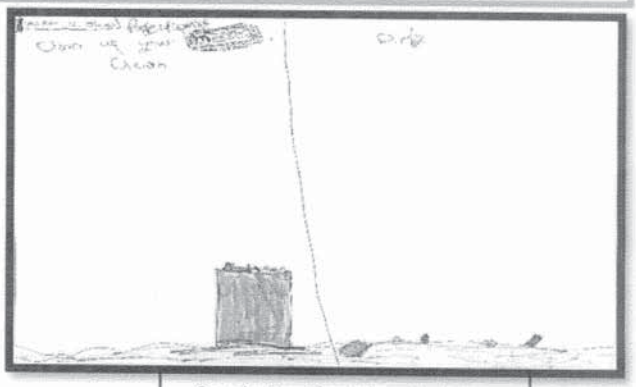
Water Conservation continued...

Story By: Sanket Makkar

If we can fix our mistakes now, then future generations won't suffer a water shortage. Now here are some examples of how you can help. First do simple things like turn the faucet off whenever you don't need it, or wash your car in the grass instead of the driveway. Less water will go into the storm drain because your grass will absorb most of it. If you do this now it will benefit you later.

Ice Age Water – Story By: Matthew

I wish the water on Earth was clean like in the movie Ice Age. There would be no pollution, it would be nice. The animals ate grass and they didn't pollute.



Comic By: Sheridan N. Jones

Golf Course Decides to use less water.

Story By:

Dre Parker

In 2012 the people at Walter's Country Club helped save water. They always used a ton of water to water the fairways and the putting greens at the golf club. Some people were unhappy because in order to be eco-friendly and save water they stopped watering the grass as much as the players were used to. The grass did turn brown which is what upset some of the people, but they saved a lot of water. Good job! More actions like this can save our fresh water.

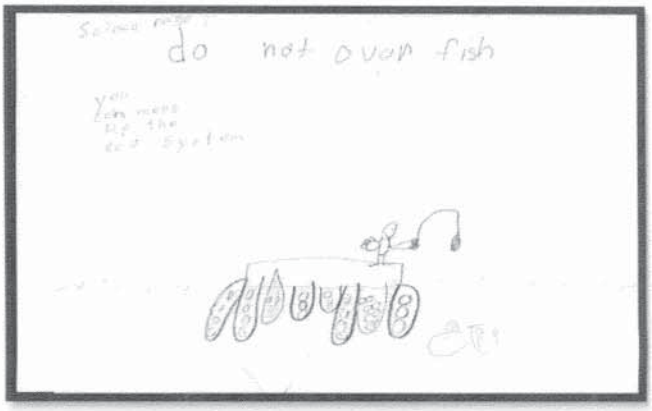
University switches to Eco – Friendly Football Field.

Story By: Ahmed

The University of Georgia took a big step in helping our environment. In order to conserve water the university installed an artificial field. The turf doesn't need to be cut or watered like real grass, which will help the environment.

Stop Hurting the Environment it affects the Animals – Story by: Gage & Sanket

Local people say turtles have suffered enough. They have had fishing nets in the water strangle them and worse. Do you really want harmless animals to be harmed?!! Every local animal is very physically challenged because of trash in their water. Imagine trying to swim around trash which you can't see!!! I doubt you in your everyday life have to deal with things like this. So remember respect animals it will help you later and it will help them, they may not realize it but the appreciate it.



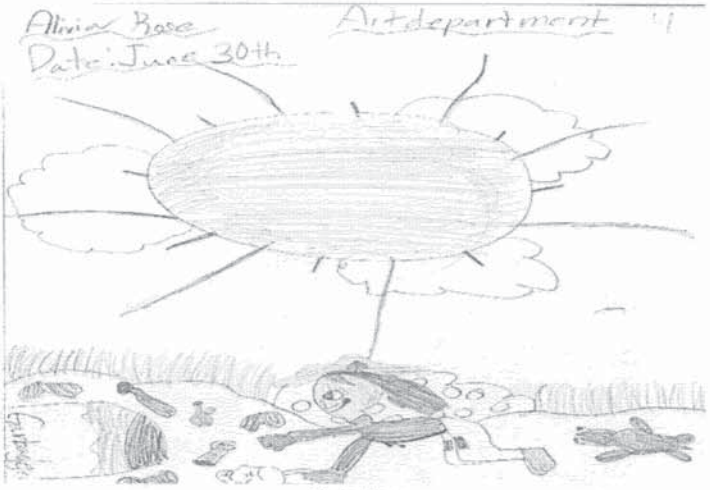
Bat houses at Michaels.	Rain barrels wanted.
Compost bins at urban city garden.	Wash your car on the grass.
Take quicker showers. Don't leave the water running while brushing your teeth.	1 pair of jeans takes up 1,800 gallons of water to make.
Ahmed is good at not littering and picking up trash.	Gage needs some workers to build a filter.
Emily, Shelby and Lena are looking for jobs picking up trash to help save the environment.	Publisher wanted for Cecilia's writings
Isaih is making art about saving water.	Turtle T needs your help!

Water – A Poem By: Madison

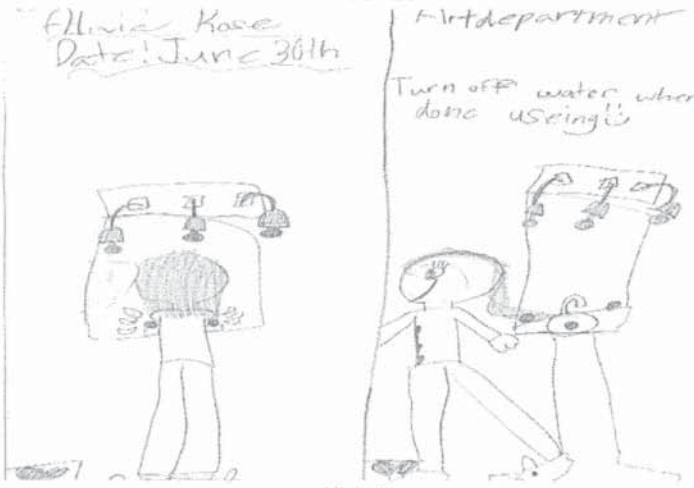
Water, water everywhere... I wash my face, hands and hair.

Do Not Waste Water!

Alivia Rose



Alivia Rose



Alivia Rose

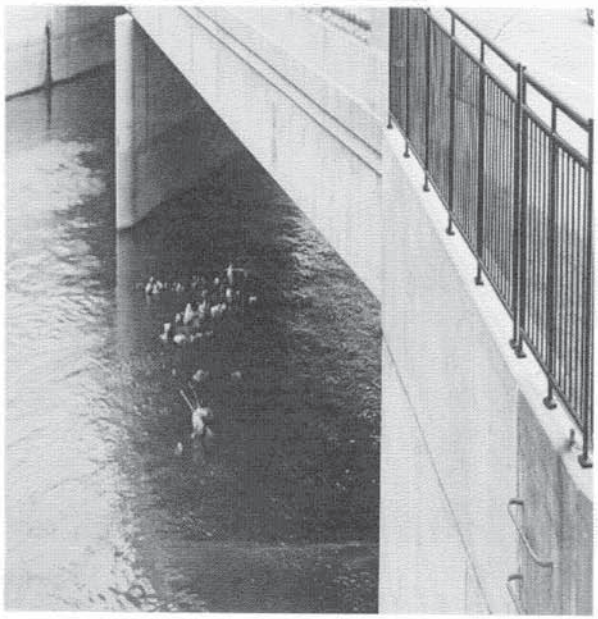
Courtney

Ella

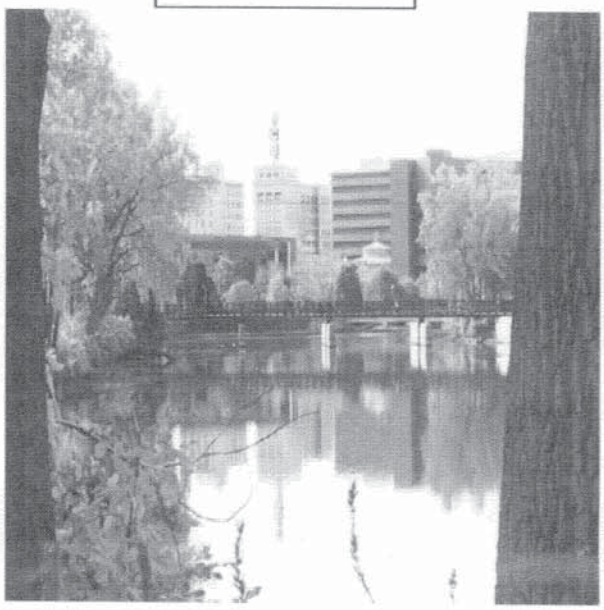
Kallie

Flint River, What?

NOW



With Care



Story By:

Emily J. Hyatt

I'm Emily, a GUG student. As I was going to the bathroom with a GUG teacher, Mrs. Rhonda, she told me a story her dad once told her. It goes something like this, "When my dad was a little boy he swam in the Flint River. Crazy huh? He just swam and swam all day, just swam. Then some factories started dumping their trash in the river not knowing what they were doing. They didn't stop for a long time. None of the kids could swim any more. They were very sad." It caused the picture under "now" to be that way. (continued in next column)

Flint River, What? continued...

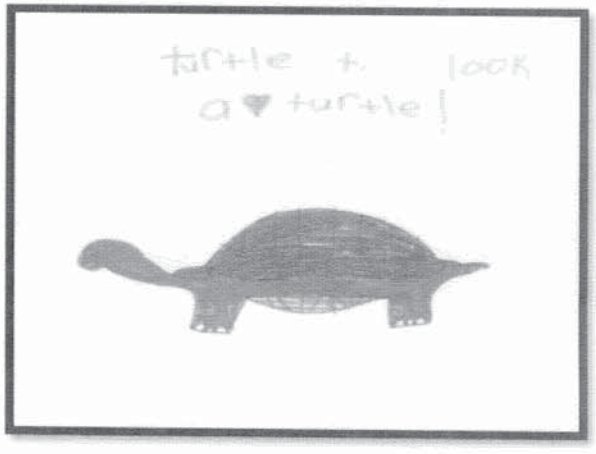
Story By:
Emily J. Hyatt

If we recycle we can make things better. We can make it look like the picture under "with care"! You can make a difference just try!

Don't Pollute Water – Story By: Andrew Hyatt

Turtle T's home and family got split up in a rain storm. Turtle T's home and family got separated because of storm water pollution. I'm sad for Turtle T. because he got split up from his home and family. So if people don't pollute, Turtle T. will get his home back.

Don't Pollute Water!



Environment cont.

TERRIBLE TRASH

BY:CECILIA SOBOCINSKI

HAVE YOU EVER SEEN A BUNCH OF LITTER AND WANTED TO GET RID OF ALL THAT TYPE OF TRASH? I SURE HAVE. SOME EXAMPLES ARE WALMART BAGS, USED LEAKED CAR OIL AND CANDY WRAPPERS.

WHAT WOULD YOU GET RID OF?

THAT'S WHAT I ASKED SOME GUG KIDS AND HERES WHAT THEY SAID.

SHELBY:PLASTIC BOTTLES

LENA: USED CAR OIL

EMILY: PLASITC BAGS

TRISTAN: PLASTIC CANDY WRAPPERS

DAVID: USED CAR OIL

RYAN: MY BROTHER

AHMED: PLASTIC BOTTLES

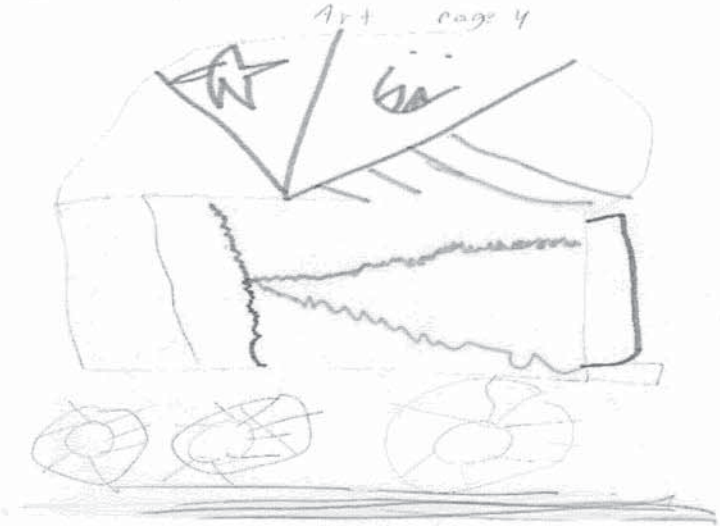
GAGE: ALL OF IT

MAX: DUNKIN' DOUGHNUTS CONTAINERS

JAXSON: USED PAINT

THERE YOU HAVE IT. WHAT EVERY ONE WANTS TO KNOW ABOUT POLLUTION! I PERSONALLY WOULD GET RID OF BROKEN FLIP FLOPS. SADLY I HAVE BROKEN A MILLION FLIP FLOPS.

CONSERVER WATER & SAVE THE EARTH!



Kennedy

Riley

Sharyah Gregory

Zain

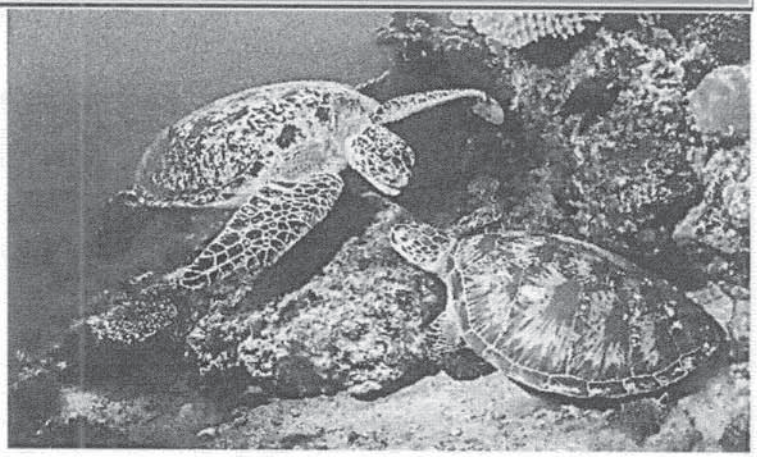
Xander

Tristan

Photos & captions selected by: Shelby L. Brant / Emily J. Hyatt / Lena

Photography

The pollution makes the Flint River look filthy.



Turtles are happy because there is no pollution here.

May be imagine living in this muck.

Look at the pollution we did to this body of water.

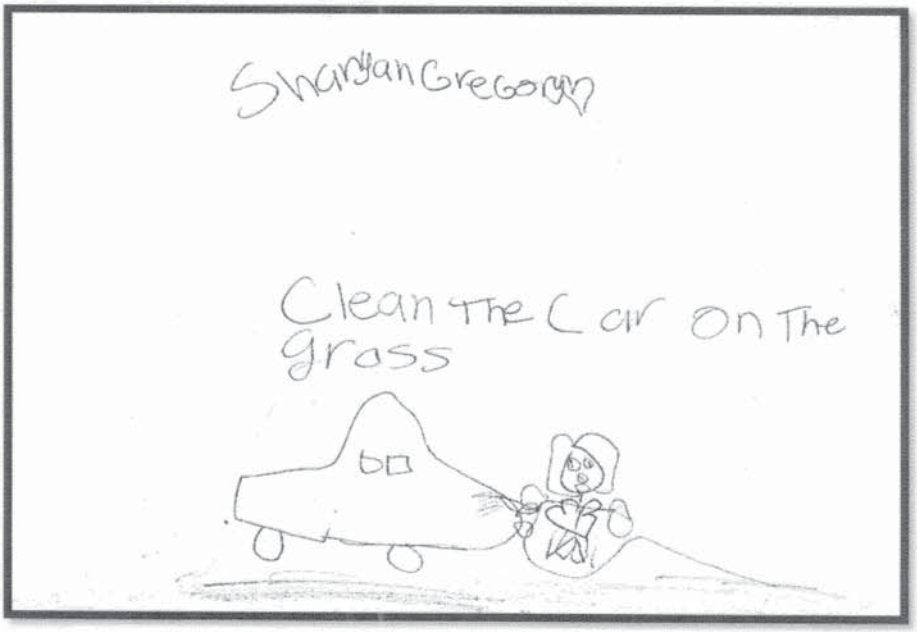
Stop doing this and you can help fix it.

Hopefully someday the whole Flint River will look like this.

Turtles don't just sit there, they love swimming around...and if there is pollution around they could wander into a plastic bag and die.

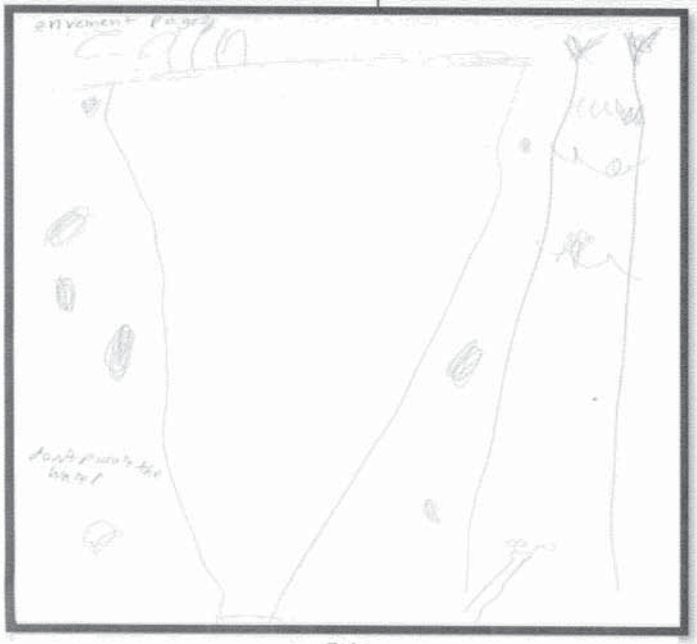
Sea turtles often lay their eggs on shore. When they hatch, they go for the sea. If there is pollution everywhere, they can get hurt easily, because they are young and inexperienced.

Meara

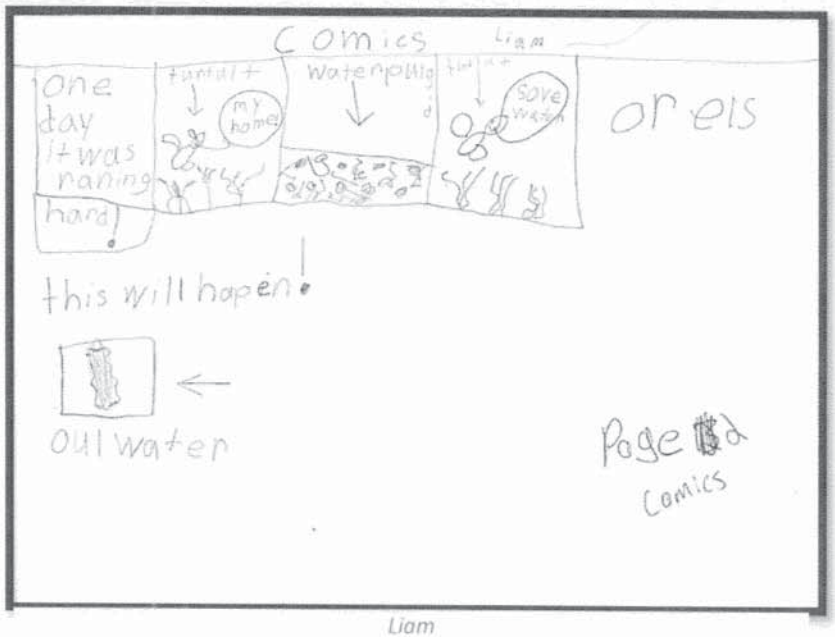


Sharyah

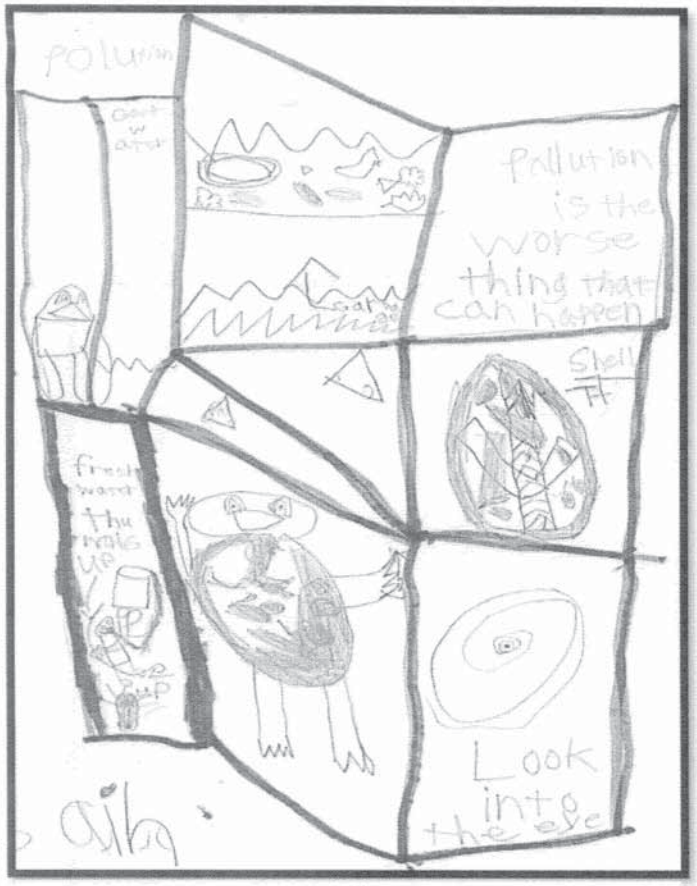
Comics



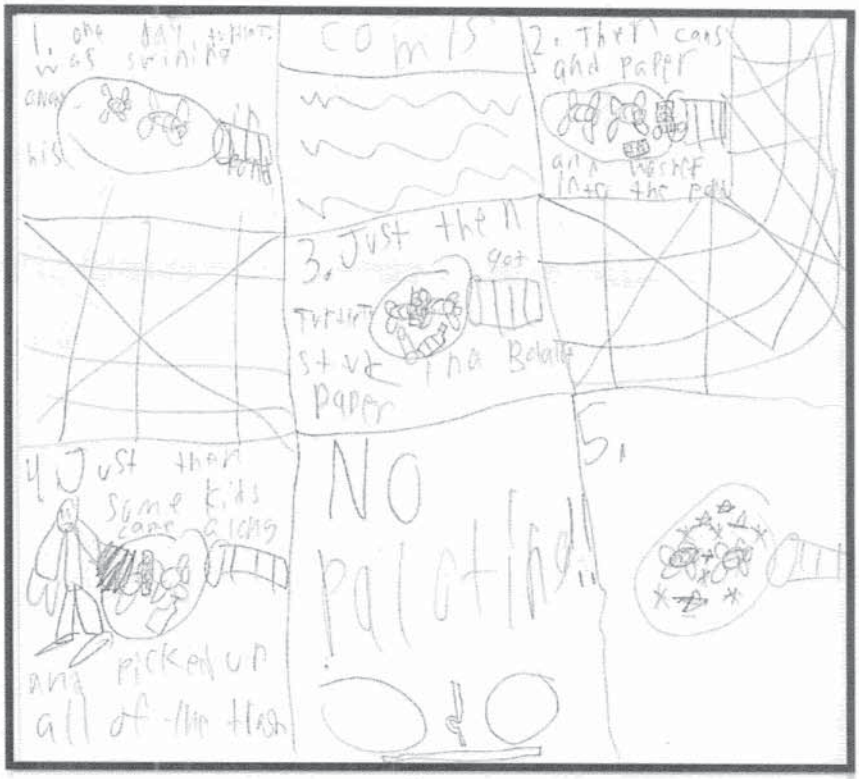
Zain



Liam



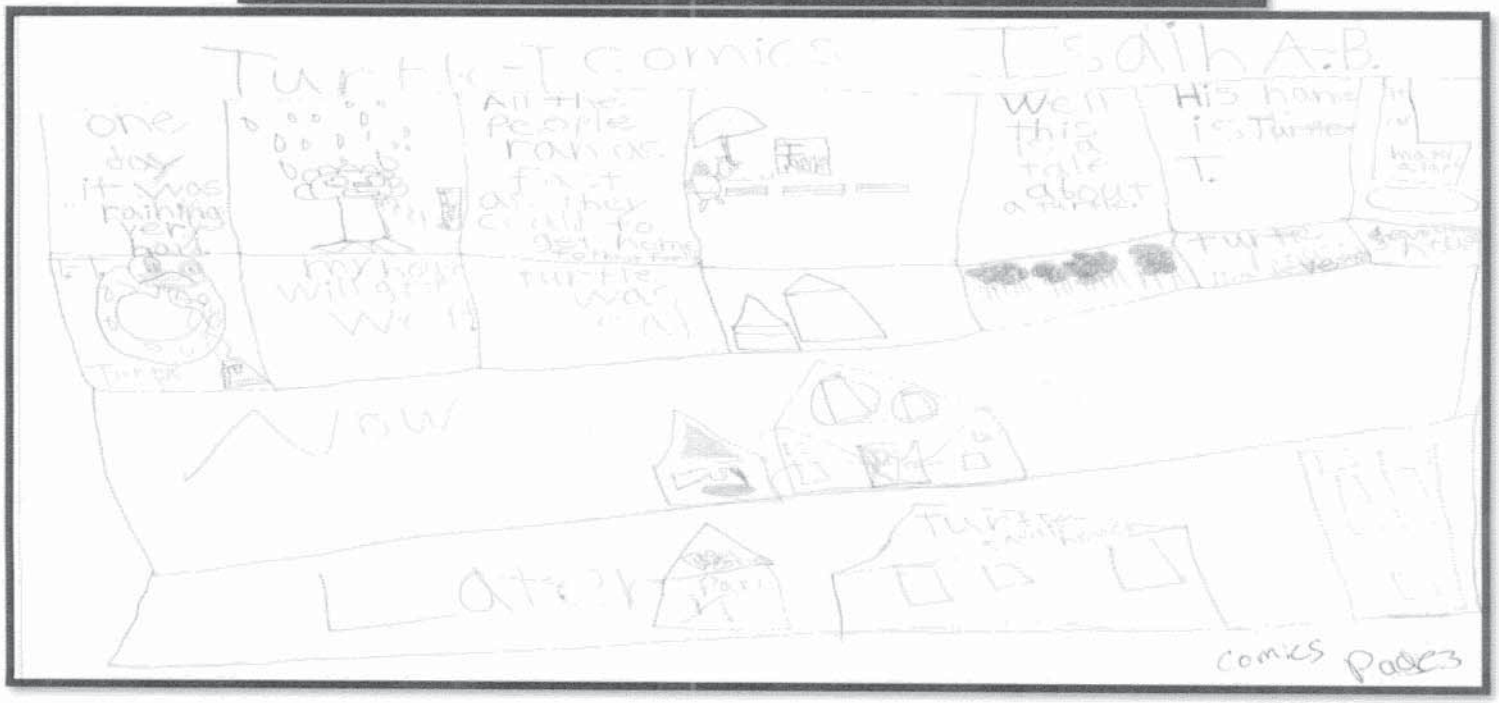
Isaih



Ryan

Comics

Comic by: Jayden Brewton



Comic by: Isaih B.

Flint River GREEN
Student Summit 2014

Celebrating 25 years!

May 16th, 2014
Kettering University

FLINT RIVER
WATERSHED COALITION

EARTH FORCE

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, Program Manager
Email: jwelch@flintriver.org

Stephanie Nummer, Program Coordinator
Email: snummer@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	Irene Bashore	Linda Berker	Derek Bradshaw
Duane Elling	Steve Hester	Brad Hill	Daugherty Johnson
S. Olof Karlstrom	Ryan Londrigan	Bob McAllister	Amy McMillan
Jack Minore	Steve Montle	Greg Palinsky	Sandra Robinson
Doug Schultz	Raynetta Speed		

FLINT RIVER WATERSHED COALITION

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

NAME _____
ORGANIZATION _____
ADDRESS _____
_____
CITY/STATE/ZIP _____
PHONE _____
Please circle one WORK HOME CELL
EMAIL _____

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

Presentation Schedule

Registration: 8:00 am - 8:45 am

Welcome: 8:45 in McKinnon Auditorium

Session 1: 9:15 am - 10:00 am

Auditorium:	Student Presentations	
Room 4101	Paddling the Flint River!	Riley McLincha: Watershed Enthusiast
Room 4102	Catching Big Fish on Little Bugs	Josh Henley, Andy Neeson, Chip McCallum: Blackboard Outfitters
Room 4104	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research
Room 4303	Creek Critters	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers
Room 4305	Who Wants to be an Environmentalist?	Jeff Johnson, Brian Schorr: Genesee Conservation District
Room 4306	Incredible Edible Plants	Peter McCreedy: Ecology Director, Chatfield School

Session 2 & 3: DOUBLE SESSION - 10:00 am - 11:30 am

Room 4301	Chevy in the Hole: A Walking Tour	Ryan Londrigan: AKT Peerless Environmental

Session 2: 10:00 am - 10:45 am

Auditorium:	Student Presentations	
Room 4101	Paddling the Flint River!	Riley McLincha: Watershed Enthusiast
Room 4102	Catching Big Fish on Little Bugs	Josh Henley, Andy Neeson, Chip McCallum: Blackboard Outfitters
Room 4103	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint
Room 4104	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research
Room 4303	Creek Critters	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers
Room 4305	Who Wants to be an Environmentalist?	Jeff Johnson, Brian Schorr: Genesee Conservation District
Room 4306	Incredible Edible Plants	Peter McCreedy: Ecology Director, Chatfield School
Room 4309	Rats in Your Drinking Water	Darren Bagley: 4-H Youth Development Coordinator, MSU Extension

Session 3: 10:45 am - 11:30 am

Auditorium:	Student Presentations	
Room 4101	Paddling the Flint River!	Riley McLincha: Watershed Enthusiast
Room 4103	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint
Room 4104	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research
Room 4303	Creek Critters	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers
Room 4305	Who Wants to be an Environmentalist?	Jeff Johnson, Brian Schorr: Genesee Conservation District
Room 4306	Incredible Edible Plants	Peter McCreedy: Ecology Director, Chatfield School
Room 4309	Rats in Your Drinking Water	Darren Bagley: 4-H Youth Development Coordinator, MSU Extension

LUNCH: 11:30 am - 12:30 pm - Lunch will be served near McKinnon Auditorium (where presentations are held)

Students may eat in the breakout classrooms or outdoors

Continued on Back

Presentation Schedule page 2

Session 4 & 5: DOUBLE SESSION - 12:30 pm - 2:00 pm

Room 4301	Chevy in the Hole: A Walking Tour	Ryan Londrigan: AKT Peerless Environmental

Session 4: 12:30 pm - 1:15 pm

Auditorium:	Student Presentations	
Room 4101	Paddling the Flint River!	Riley McLincha: Watershed Enthusiast
Room 4102	Catching Big Fish on Little Bugs	Josh Henley, Andy Neeson, Chip McCallum: Blackboard Outfitters
Room 4103	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint
Room 4104	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research
Room 4303	Creek Critters	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers
Room 4305	Who Wants to be an Environmentalist?	Jeff Johnson, Brian Schorr: Genesee Conservation District
Room 4309	Rats in Your Drinking Water	Darren Bagley: 4-H Youth Development Coordinator, MSU Extension

Session 5: 1:15 pm - 2:00 pm

Auditorium:	Student Presentations	
Room 4101	Paddling the Flint River!	Riley McLincha: Watershed Enthusiast
Room 4102	Catching Big Fish on Little Bugs	Josh Henley, Andy Neeson, Chip McCallum: Blackboard Outfitters
Room 4103	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint
Room 4303	Creek Critters	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers
Room 4305	Who Wants to be an Environmentalist?	Jeff Johnson, Brian Schorr: Genesee Conservation District
Room 4309	Rats in Your Drinking Water	Darren Bagley: 4-H Youth Development Coordinator, MSU Extension

Participating GREEN Schools

Atherton High School
Teacher: Matt Hyslop
Mentor: John Moldovan, *GM Retiree*

Beecher Middle School
Teacher: Don Hammond
Mentor: Darren Bagley, *MSU-E*

Bendle High School
Teacher: Todd Barden

Brandon Middle School
Teacher: Dave Green
Mentor: Rick McAvinchey, *Forestry Specialist*

Carman-Ainsworth High School
Teacher: Julie Lawrence
Mentor: Irene Bashore, *GM*

Chatfield School—Lapeer
Teachers: Tracy Boyle, Lori Raymond, Annette Young

Carter Middle School
Teachers: Ryan Niemi, Chip McCallum
Mentor: Craig Buike, *Quaker Chemical*

Davison Middle School
Teachers: Jody Kosiara, Marc Pittenger (assisting)
Mentor: Irene Bashore, *GM*

Flushing High School
Teacher: Paul Taylor
Mentor: Heather Griffin, *UM Flint Alumni*

Grand Blanc East Middle School
Teachers: Deb Lacki, Crystal Sobeck, Patricia Nelson

Grand Blanc West Middle School
Teachers: Elizabeth Lemerond, Victoria Skrisson
Mentor: Pat Schultz, *GM*; Dennis Weiler, *GM*

Kearsley Armstrong Middle School
Teacher: Cindy Sierra
Mentor: John Moldovan, *GM Retiree*

LakeVille Middle School
Teachers: Ginny Gaudard, Josh Henley
Mentor: Irene Bashore, *GM*

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
Mentor: Tom Jones, *Genesee County Drain Commission*

North Branch High School
Teacher: Carrie Wenta
Mentor: John Maksimchuk, *GM*

North Branch Middle School
Teacher: Julie Tumblin
Mentor: John Maksimchuk, *GM*

Rolland –Warner Middle School
Teachers: Anne Prill, Chris Prill, Wyatt Stevens

St. John Vianney Catholic School
Teacher: Janice Matlon
Mentor: Tom Hutchings, *Flint Water Pollution Control*

Swartz Creek Middle School
Teachers: Brandolyn Forbes, Paul Speck
Mentor: Marv Asbury, *GM SPO*

Westwood Heights—Hamady High School
Teachers: Arletha Bryant, John Horton

Zemmer Middle School
Teacher: Lisa Bjork
Mentor: Angella Sigler, *GM*

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, Onottoway, 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.

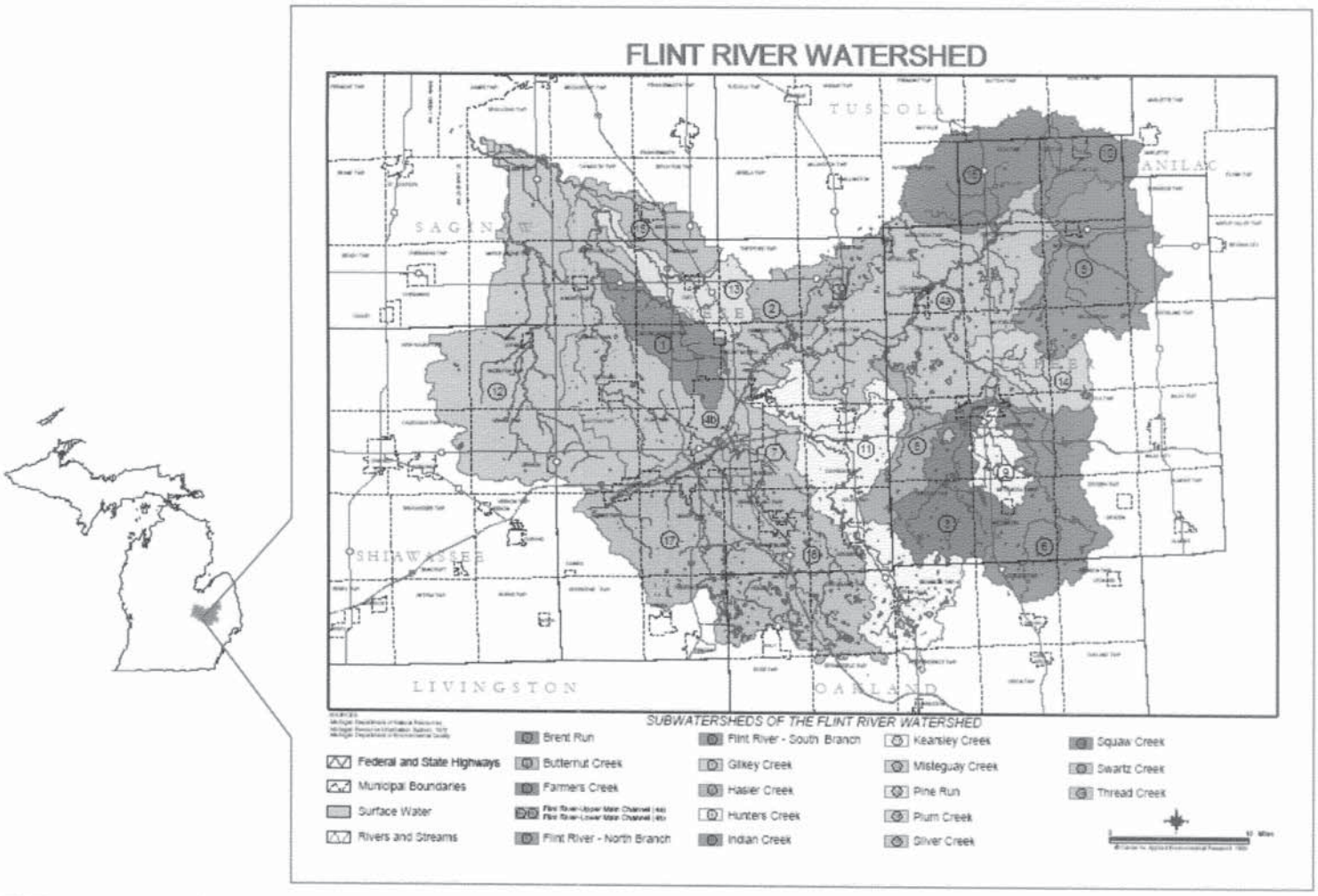
In 2008, Genesee ISD and Flint River GREEN joined the Earth Force Watershed STEM Initiative (WSI). WSI engages students active in Flint River GREEN with environmental stewardship. Through the WSI, teachers combine STEM and civic education into service learning projects. Students investigate watershed 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 10:00 - 10:45	Session 3 10:45 - 11:30	Session 4 12:30 - 1:15	Session 5 1:15 - 2:00
Mt. Morris Jr. HS (Carr, D'Haene, McCormick)	North Branch MS (Tumblin)	Carter MS (McCallum, Niemi)	Marshall-Greene MS (Daenzer, Rothe)	Linden MS (Cornell, Nester)
St. John Vianney (Matlon)	Atherton HS (Hyslop)	Kearsley Armstrong MS (Sierra)	The Chatfield School (Boyle, Raymond, Young)	Rolland-Warner MS (A. Prill, C. Prill, Stevens)
Grand Blanc West MS (Lemerond, Skrisson)	Bendle HS (Barden)	LakeVille MS (Gaudard, Henley)	Swartz Creek MS (Forbes, Speck)	Zemmer MS (Bjork)

Lunch will be served near the McKinnon Auditorium from **11:30 - 12:30**



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: Genesee Area Math/Science Center Director, Genesee 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.

FLINT RIVER WATERSHED COALITION

EARTH FORCE

MICHIGAN STATE UNIVERSITY EXTENSION GENESEE COUNTY

Let's make one thing Perfectly Clear. our water

GM

KETTERING UNIVERSITY

GENESEE COUNTY SWM DRAIN COMMISSIONER

Surface Water Management

GISD

LCISD

Summer/Fall 2013

ON THE GROUND

Genesee Conservation District provides a full spectrum of services from education and public awareness, to implementing and improving sustainable conservation practices in our community.

Hill named Director of the Year by MACD

MACD President, Art Pelon, presents Brad Hill with the 2012 MACD Director of the Year award.

For his outstanding work and leadership in natural resource conservation, the Michigan Association of Conservation Districts (MACD) named Brad Hill, board member of the Genesee Conservation District (GCD) as the 2012 Director of the Year during the MACD Annual Convention, in November, 2012, held at the Best Western Plus – Hotel and Conference Center in Lansing. "Brad has a great passion for the environment and has volunteered considerable amounts of time as a director of GCD," said Angela Warren, Administrator for GCD. "Brad was instrumental in securing Great Lakes Restoration Initiative funding which has greatly assisted in establishing proven conservation practices throughout the county."

Brad has long been involved in natural resource conservation at the local, regional, and state levels. He spent several years supporting and advising watershed committees in the Saginaw Bay watershed before joining GCD. He has been tireless in his efforts and strong commitment to Michigan's natural resources, the work of Conservation Districts, and to establish GCD as a leader in environmental conservation in Genesee County.

Michigan Association of Conservation Districts (MACD), is a non-profit organization that represents the interests of Michigan Conservation Districts and works to strengthen Districts through leadership, information and representation at the state level. Michigan's 78 Conservation Districts are the local providers of natural resource management services that help our citizens conserve their lands and our environment for a cleaner, healthier, economically stronger Michigan.

USDA NRCS

In partnership with the District, the United States Department of Agriculture (USDA)-Natural Resources Conservation Service (NRCS) administers conservation management practices locally on the land as provided in the 2008 Farm Bill.

Staff are available to provide technical assistance to landowners and producers and to assist with the application process for cost share programs, which are accepted year-round. Implemented practices positively impact the environmental health of our natural resources.

Calling All Artists:

What can you do with reclaimed wood?

Genesee Conservation District and Genesee County Habitat for Humanity are teaming up to present:

THE URBANWOOD SHOWCASE

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

Entering is easy. Information and entry forms are available from either sponsor or at gettrees.org. Projects must be complete when entering by November 1, 2013. Awards will be given in several categories.

Farmers protecting the environment--

Did you know that Genesee County has nearly 1,000 farms in operation encompassing over 100,000 acres? It's true. According to the most recent US Agriculture Census data (2007) these farms' production market value is nearly $59 million; chief among the crops is soybeans. Many of these farms are actively protecting the environment by voluntarily participating in the Michigan Agriculture Environmental Assurance Program, commonly referred to as MAEAP. With strong support from Governor Snyder, Michigan is a leader among the states in natural resource protection.

Becoming MAEAP verified is comprehensive and proactive—designed to reduce farmers' legal and environmental risks through a three-phase process: education, farm-specific risk assessment (A*Systs), and on-farm verification that ensures the farmer has implemented environmentally sound practices.

At the local level, partners of MAEAP, Genesee County Farm Bureau and GCD, are collaborating to encourage participation in the program, with outreach efforts strengthened thanks to a Michigan Farm Bureau grant. A Conservation District MAEAP technician is available to work with farmers through the process. More at meap.org.

MDNR's Hunting Access Program (HAP) has 10 private farmland parcels available for public hunting in Genesee County serving nearly 50 hunters at any given time. Parcel locations may be found at Michigan.gov/hap.

Seven Simple Steps to Clean Water

- Practice good **car care**.
- **Fertilize** sparingly and caringly.
- Clean up after your **pet**.
- Save **water.**
- Carefully store and dispose of **household cleaners, chemicals, and oil**.
- Help keep pollution out of **storm drains**.
- Choose earth-friendly **landscaping**.

Our Water Education Program is Flowing

On location, the District educates the community on the importance of clean water by using the Genesee County Drain Commission's "Our Water" Program. From school programs to community events to sports camps, reaching the intended audience, oftentimes youth, takes a special approach. "By putting words into actions that resonate with people, it gives them perspective to understand how we all play a role in water quality," said Jeff Johnson, GCD Education/Outreach Coordinator.

Jeff Johnson educating youth at the Genesee County Fair.

Recently, Johnson presented the Our Water Program to youth participants of the Mateen Cleaves basketball camp. In an engaging activity, Johnson demonstrated how improperly discarded trash, like candy and fast food wrappers left on the street, is pulled by rainwater into storm drains that lead directly to lakes, streams, and rivers. Further, he noted the importance of hydration to athletes; scoring points with the need for clean drinking water. More at cleargeneseewater.org.

GCD held its 2013 Annual Meeting in collaboration with Longway Planetarium this past April. An estimated 200 community members participated in the afternoon of fun, hands-on science activities for the whole family. Among the attendees was Danielle Ward of Flint whose name was drawn as the recipient of the conservation prize package.

Tree Selection Guide

Species	Growth	Roots	Soils / pH	Soils Conditions	Height
Balsam Fir	Moderate	shallow roots	Moist areas/4.0-6.0	Silt loams, stony loams, gravelly sands	40-80'
Canadian Hemlock	Slow	water dependent	Moist to well drained/ 4.0-7.0	upland sandy loams, loamy sands, silt loams	60-100'
ConColor Fir	Moderate	horizontal roots	Well drained/4.5-7.0	well drained sandy or clay loam soils	40-80'
Northern White Cedar	Slow	shallow roots	Moist to well drained/ 5.0-7.0	shallow loam	70-80'
Norway Spruce	Fast	horizontal and vertical roots	Moist to well drained/ 5.0-7.5	Loamy sandy clay soils	40-60'
Red Pine	Moderate	horizontal and vertical roots	Well drained/5.0-8.0	dry sandy soils and gravelly ridges, low soil fertility	60-100'
White Pine	Fast	horizontal roots	Sandy - poorly drained/4.0-8.0	Sandy to heavy textured soil	70-100'

GENESEE CONSERVATION DISTRICT

Fall Tree Sale Fundraiser going on now!
Use the enclosed order form or order at www.gettrees.org

NONPROFIT ORGANIZATION
US POSTAGE PAID
FLINT, MI
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Genesee Conservation District
1525 N. Elms Rd.
Flint, MI 48532
Phone: (810) 230-8766 ext. 3
Fax: (810) 230-8596

GCD & NRCS STAFF

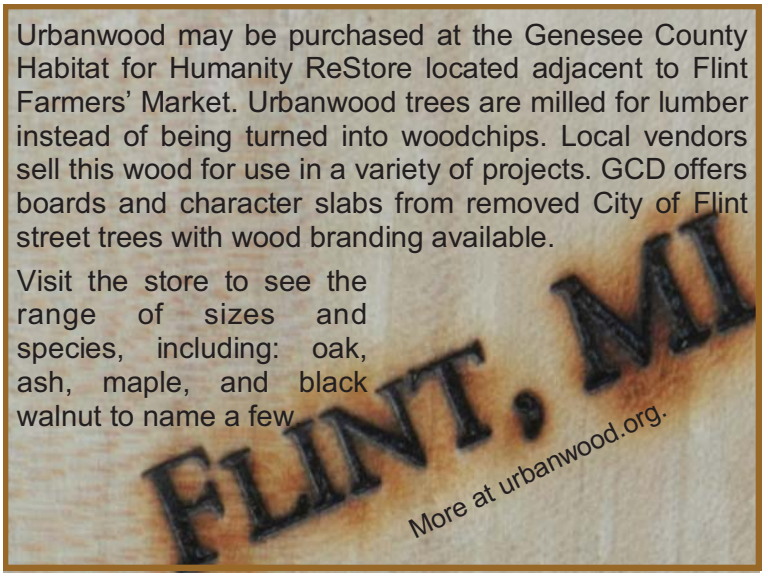
- Angela Warren—Administrator
- Jermaine Jenkins—District Conservationist
- John Bauer—Soil Conservation Technician
- Jeff Johnson—Education/Outreach Coordinator
- Laura Jostock—Soil Conservation Technician
- Luke O'Brien—Environmental Engineer
- Brian Schorr—Soil Conservation & Watershed Tech
- Dana Voorheis—Forestry Coordinator
- Brandon Whittaker—Environmental Engineer

GCD BOARD OF DIRECTORS

Nancy Szikszay, *Chairperson*
Darren Bagley, *Vice Chair*
Dora King, *Director*
Erin Caudell, *Director*
Brad Hill, *Director*

Urbanwood may be purchased at the Genesee County Habitat for Humanity ReStore located adjacent to Flint Farmers' Market. Urbanwood trees are milled for lumber instead of being turned into woodchips. Local vendors sell this wood for use in a variety of projects. GCD offers boards and character slabs from removed City of Flint street trees with wood branding available.

Visit the store to see the range of sizes and species, including: oak, ash, maple, and black walnut to name a few.



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.

Summer/Fall 2014

ON THE GROUND

Promoting natural resource conservation in our community.

Got MAEAP?

Szikszay Family Farms

Genesee County has an abundance of farmland and farmers who play a vital role in Michigan's agriculture industry. During the past five years the production market value has almost doubled per farm, going from $59,489 in 2007 to $109,389 in 2012. This has made the total production market value for Genesee County Farms rise to over $91 million, up 55% from the almost $59 million in 2007. However, for farmers in Michigan, it's not always all about the money. Many farmers are concerned about their impact on the environment, in addition to making a profit.

To address their environmental concerns, Michigan farmers have volunteered to participate in the Michigan Agricultural Environmental Assurance Program or "MAEAP". MAEAP is a program designed to reduce farmers' legal and environmental risks through a three-phase process: education, farm-specific risk assessment (A*Systs), and on-farm verification that ensures the farmer has implemented environmentally sound practices. One of the outcomes of MAEAP is the potential for reducing phosphorus loading to our waterways. The phosphorus can come from excess fertilizer applications, one of the many practices that MAEAP aims to address. Recently, those phosphorus levels were so high they caused algae blooms in Lake Erie, which resulted in the City of Toledo, Ohio placing a ban on the drinking water.

Randy Markley

Story continued on next page.

USDA NRCS

In partnership with the District, the United States Department of Agriculture (USDA)-Natural Resources Conservation Service (NRCS) administers conservation management practices locally on the land as provided in the 2014 Farm Bill.

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Got MAEAP? continued

Dowler Farms

Dr. Laura Johnson, a water quality scientist at Heidelberg University in Tiffin, OH, claims that the majority of the algae related phosphorus can be traced back to agricultural fertilizer applied on farms across northwest Ohio, northeast Indiana and southeast Michigan.

Michigan farmers are aware of the dangers of a contaminated water supply. Beginning the MAEAP verification process is the first step for farmers towards implementing best management practices (BMPs) on their land, in an effort to prevent future situations like the water crisis in Toledo, Ohio. At the local level, partners of MAEAP, Genesee County Farm Bureau and GCD, are collaborating to encourage participation in the program, with outreach efforts strengthened thanks to a Michigan Farm Bureau grant. A Conservation District MAEAP technician is available to work with farmers through the process.

Thread Creek Farm

Maintained locally by GCD, MDNR's Hunting Access Program (HAP) has 10 private farmland parcels available for public hunting in Genesee County serving nearly 50 hunters at any given time. Parcel locations may be found at Michigan.gov/hap.

MAEAP Verified Farms in Genesee County

Congratulations to all the MAEAP verified farms in Genesee County

Anthony Bees Farms — David Anthony

Dowler Farm — Mike Dowler

KSL Farm — Larry & Susan Guith

Malone Family Farm — Robert Malone

Markley Farm — Randy Markley

Notta Lotta Acres — Nancy Caulfield

Prairie View — Brian Pratt

Raymond Family Farm — Michael & Dawn Raymond

Riddle's Farms — Roger Riddle

S & L Honey Farm — Leo Stevens

Szikszay Family Farms — William & George Szikszay

Thread Creek Farm — Emma Blinkenberg, Michael & Virginia Knag

Tree Source LLC — Tom Daly

Trim Pines Farm, Inc. — George & Christina Yancho

Trowbridge Farm — Mark Trowbridge

Whispering Pines Tree Farm — Fred & Karen Fras

Learn more @ MAEAP.org

MAEAP

Tree Selection

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Balsam Fir	Moderate	shallow roots	Moist areas/4.0-6.0	Silt loams, stony loams, gravelly sands	40-80'
Canadian Hemlock	Slow	water dependent	Moist to well drained/ 4.0-7.0	Upland sandy loams, loamy sands, silt loams	60-100'
Northern White Cedar	Slow	shallow roots	Moist to well drained/ 5.0-7.0	Shallow loam	70-80'
White Spruce	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'
Red Pine	Moderate	horizontal and vertical roots	Well drained/5.0-8.0	Dry sandy soils and gravelly ridges, low soil fertility	60-100'
White Pine	Fast	horizontal roots	Sandy - poorly drained/ 4.0-8.0	Sandy to heavy textured soil	70-100'

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Seven Simple Steps to Clean Water

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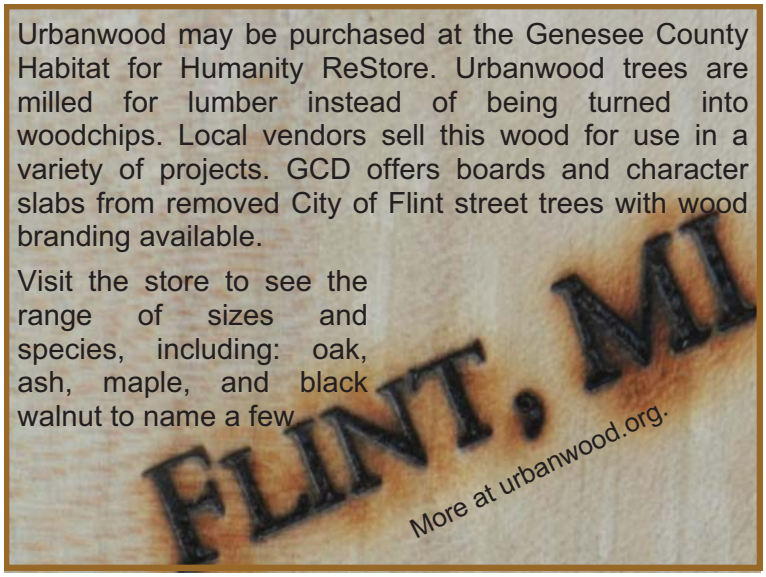
6. Help keep pollution out of **storm drains**.
7. Choose earth friendly **landscaping**.

Let's make one thing Perfectly Clear. our water
Genesee County Community Water Quality Consortium

Urbanwood may be purchased at the Genesee County Habitat for Humanity ReStore. Urbanwood trees are milled for lumber instead of being turned into woodchips. Local vendors sell this wood for use in a variety of projects. GCD offers boards and character slabs from removed City of Flint street trees with wood branding available.

Visit the store to see the range of sizes and species, including: oak, ash, maple, and black walnut to name a few.



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THE FLINT RIVER WATERSHED COALITION

Watershed REPORTER

PARTNERING TO PROTECT OUR NATURAL RESOURCES

FALL 2013

TRANSITIONS

REBECCA FEDEWA, EXECUTIVE DIRECTOR

Rebecca Fedewa

One of the best parts of working at the Flint River Watershed Coalition is the great group of people that come to work with us, either as volunteers, board members, donors, members, partners, or staff. The passion, dedication, and love you all bring to the Flint River and its watershed motivate us to keep working every day in our mission to protect, preserve, and improve this freshwater treasure that flows through our communities.

You may have noticed some new faces and new voices here at the FRWC. Over the summer, we were incredibly fortunate to work with both the Boys and Girls Club and the Flint and Genesee Chamber of Commerce to employ two wonderful interns. This year, George Lumpkin III and Cochise Hardy, both now in their senior year at Hamady High School, provided their brains and brawn to many of our summer programs. They also worked tirelessly to keep our local River Bank Park free of litter. Additionally, we were joined by Patrick Murphy this summer. Patrick is an undergraduate student at Oakland University, and he put his expertise to work, conducting a great deal of research, helping us through the identification of our spring benthic macroinvertebrate collection, and performing many other invaluable tasks around the office. We really enjoyed having all three join us this summer, and already miss their great attitudes and smiling faces. We wish

Summer interns Cochise Hardy, George Lumpkin III, and Patrick Murphy

George, Cochise, and Patrick good luck and best wishes as they transition back to their studies this fall.

We've also seen some big changes at the staff level. In August, we bid a fond but bittersweet farewell to two of our valued colleagues, Casey Foote and Holly Rosser. Casey served as our very first Development Director, and helped build our major donor base as well as organized a variety of fun and engaging events for members. Holly worked on many of our education and outreach programs – including GREEN, our annual clean up, and our storm drain stenciling program. We are sad to see them go, but excited about the next chapter in their lives.

These transitions mean we also have some new faces! Please help me welcome Stephanie Nummer and Sondra Severn. Stephanie is taking on GREEN, stenciling, and the spring clean up. Stephanie has a strong background in education, and is finishing her degree at UM-Flint this spring. Sondra is filling a new position with the FRWC, managing two projects we are carrying out in partnership with Michigan State University (see page 4 for more info). Sondra has worked with several nonprofits in the Saginaw Bay region, and will graduate this December from UM-Flint.

Stephanie Nummer

Sondra Severn

Both Stephanie and Sondra have hit the ground running, and we are very excited about the new skills and perspectives they bring to the FRWC. That's what transition is all about, and it takes the great people of the FRWC to carry it through.

PAGES INSIDE THIS ISSUE >>

FLINT RIVER WATERSHED COALITION

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

810-767-6490

www.FlintRiver.org

The Watershed Reporter is published quarterly by the Flint River Watershed Coalition. The Coalition is dedicated to promoting the importance of protecting our natural resources. It works closely with public and private agencies and citizens' groups to carry out its mission.

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

Friends of the Flint River Trail

As you read this, the 'official' bicycling season is drawing to a close. The trees are starting to turn, and the rides only get more beautiful! Our Sunday rides run through the end of October, starting at 2 PM at the Flint Farmers' Market.

Our final 'Third Saturday' ride is October 19th. It is the longest and hilliest of the year. Riders meet at 10am at the YMCA in Milford, MI – and from there head to Kensington Metro Park and Island Lake Recreation area – all on a continuous trail of about 33 miles.

Rides have been more popular than ever this year! We average about 45 riders per week on Sunday, with riders coming from 29 different zip codes. The Saturday rides are getting larger also, with an average of about 25 riders per month.

With the virtually certain move of the Flint Farmers' Market in the spring, we have not yet finalized where we'll begin our rides next year. One thing is sure: The trail clean up will occur on the last Saturday in April, at the Vietnam Veterans Park on the west side of the river between Hamilton Ave. and Longway Blvd.

The first ride of 2014 will be on the first Sunday in May – as they have been for over 15 years.

Flint River TRAIL

Storm Drain Stenciling is Underway

The Flint River Watershed Coalition is out and about across Genesee County reminding residents that all drains lead directly to their nearest river or stream. With support from the Genesee County "Our Water" program, we're partnering with a variety of groups and individuals to stencil as many storm drains as possible. This project educates neighborhoods about the storm drains on their streets – these drains collect the rain water that travels on the streets, picking up pollutants such as trash, oils, and fertilizers, as it makes it way to our rivers.

So far, about 130 drains have been stenciled as a visual reminder to the public of where the storm water drains. The seven volunteer sessions that have occurred over the past two months have allowed us reach over 700 homes. Besides stenciling the drains, we provide literature that describes ways to decrease the amount of pollutants in our storm water runoff.

It's not too late to volunteer! Your group can help us get the message out that protecting our storm drains helps prevent the number one source of pollution in our watershed – i.e. non point source or runoff pollution. The volunteer session includes a short training period and will last between one to two hours. Contact Stephanie Nummer if you are interested in participating or if you have any further questions. 810-767-9491 or snummer@flintriver.org.

Fall Water Monitoring

Fall Monitoring is here!! Our fall season is about to begin, but there is still time to get involved! The FRWC and our water monitor volunteers will spend 2 weeks conducting water quality monitoring at 34 sites around the watershed. Volunteer monitors visit their site and complete site assessments, and will collect benthic samples (such as stonefly and mayfly larvae) from their location. The samples are then taken back to one of our lab locations in Genesee or Lapeer County for identification, and those identifications are then verified by our Master Identifiers. From that information we are able to tell how healthy our local streams are and if there are any areas where benthic scores have dropped. We share our results with several local and state agencies. This information is available on our website under the Water Monitoring tab.

It is never too late to volunteer and get involved. This is a fun and interesting way to make a difference in the watershed and to get family and friends involved in protecting our precious waterways. To find out more about water monitoring, contact Jaime Welch at 810-767-7140 or at jwelch@flintriver.org. If you are new to monitoring, we will walk you through the process and pair you up with an experienced monitor at one of our sites.

Our lab days for monitoring this fall will be Thursday, October 3rd from 2-6 pm, and Saturday, October 12th from 12-4 pm in Genesee County and on Saturday, October 5th from 12-4 pm in Lapeer County. With 34 sites around the watershed, there are plenty of locations to choose from and there are always openings for new volunteers. Monitoring only takes a few hours but makes a difference that lasts. Come join us in the river and find out how your local streams are doing. There's a spot waiting for you!

New Directions for the FRWC

The FRWC is teamed up with Michigan State University on two great projects: The Institute of Water Research (IWR), and the Planning & Zoning Center (PZC).

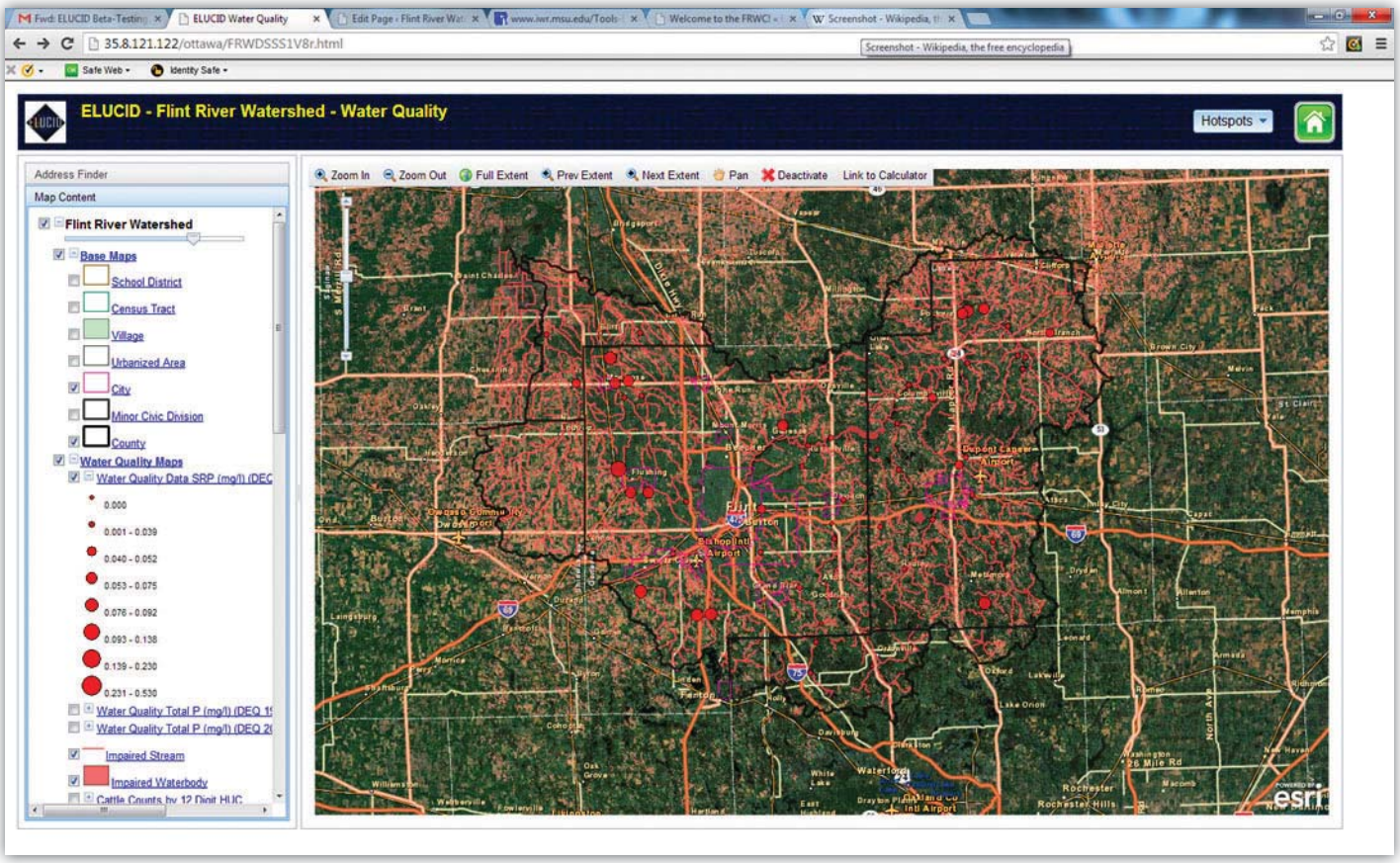
The project with IWR will bring a remarkable mapping tool called ELUCID (**E**nvironmental **L**earning **U**sing **C**omputer **I**nteractive **D**ecisions) to area farmers, students, government and nonprofit agencies, and anyone else interested in learning what impact various land use practices can have on our water quality.

ELUCID is a fun, user-friendly, web based program that will aid technicians in identifying areas that hold the greatest potential in improving water quality. To learn more about this project visit our website at flintriver.org under Programs, Mapping Tools. ELUCID is not yet live, but check back soon. We'll announce the program's availability on our web page, our Facebook page, and through our email newsletter the Ripples.

Our project with the Planning and Zoning Center allows us to reach out to communities that surround Flint's three lakes: Thread Lake, Flint Park Lake, and Kearsley Reservoir. The staff of the PZC also brings its expertise to the City of Flint master planning process, where they've helped identify key provisions to protect, preserve, and improve the Flint River and its streams as they flow through the city.

The City of Flint is fortunate to have these abundant water resources. Together with the PZC staff, the FRWC is engaging directly with the residents that live near and use these beautiful lakes. So far we've had a great amount of support and interest from Flint residents and look forward to working more with all who feel these lakes are an integral part of their city and our watershed. If you see us out or in YOUR neighborhood, stop and say "Hi"! For more information on this project and how you can get involved please visit our website at flintriver.org under Programs, Planning & Zoning or contact us directly at 810-767-6490.

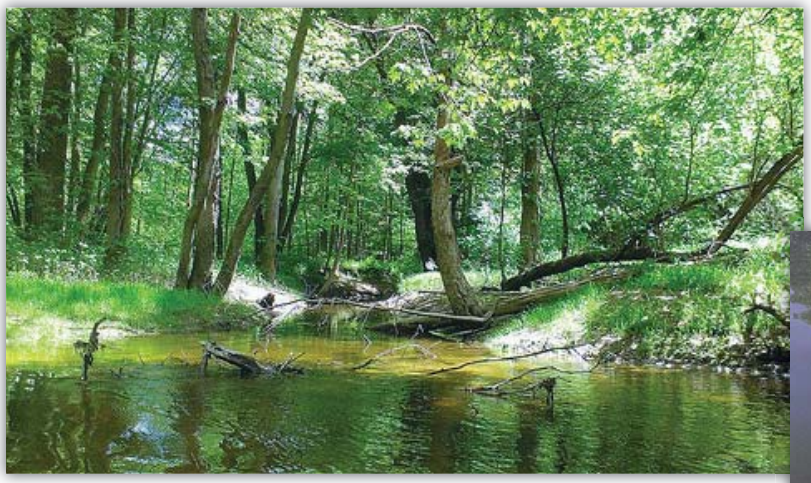
We are thrilled to be working with MSU on such exciting projects! We are confident that our work with them will create a positive outlook on the value and quality of our watershed.



"To cherish what remains of the Earth and to foster its renewal is our only legitimate hope of survival."
- Wendell Berry

Fantastic Summer Paddles

What a fantastic summer for paddling the Flint River! From Flushing to Birch Run, downtown Flint to Montrose, it was great to experience the beauty of the river and make friends with the wonderful people who came along on our paddling trips. Participants saw bald eagles, muskrats, turtles, fish, and enjoyed the scenery that gives that "up north" feeling right here at home.



The FRWC Paddles are made possible by the Genesee County Drain Commission through the 'Our Water' program and we greatly appreciate their continued support. This summer the weather cooperated and we hosted 8 paddling trips between May and September. Each trip takes us to a different part of the watershed, giving participants a chance to see all the diversity that the Flint River has to offer and an opportunity to better understand why this resource is so important.

We've had participants tell us how floating down the Flint River changes them. It gives them a sense of stewardship, of ownership, that this is "their" river and it deserves protection. This point was driven home as a paddle group encountered some unusual trash in the water during their respective journeys. Participants would stop and grab many an interesting find, including a fire extinguisher, a child's Barbie jeep, several lawn chairs, and a bucket. All of these items (and more) found their way into a canoe or kayak and were disposed of properly at the end of the trip. It was great to see people doing this not because they were asked to but because they wanted to. The FRWC has "Creek Clean Up Crews" in Lapeer and Genesee counties that have been hard at work keeping our river clean and navigable and are always looking for help with their efforts.

We look forward every spring to getting into the water and seeing what has changed from the previous year. The river is always changing, always evolving, and always beautiful. We will be starting our trips back up in May 2014, so mark your calendars now and set aside the 1st and 3rd Saturdays of the month to paddle with us!

Great Time To Become A Member

River Life is Hard, But Someone Has to Do It

. . . . bugs to count . . .
. . . . tires to reclaim . . .
. . . . garbage to gather . . .
. . . . storm drains to stencil . . . .
. . . . kayaks to paddle . . . .
. . . . bike trails to be explored . . . .

You get the idea.

Summer is the most fun time of year. The friends and families (and staff) of the Flint River Watershed Coalition are out on the river! You'll see river enthusiasts every week on every stretch as we participate in the programs that are so critical to preserving our watershed. As a result, the summer is also a slow time for membership. The weather is much too nice to think about renewing your affiliation with the organization, and that's fine. We get it. So, SPECIAL KUDO's go out to the individuals and businesses below who supported us by making membership payments. Thanks to them from the bottom of our river-loving hearts!

They are:

Linda Berker ***
Mark Bilodeau ***
David Churchill ***
Raeann Gatenby
Tim Larkin ***
Mass Transportation Authority ***
Peter Osborne
Jeanne Pepper & Tom Herman***
Diana Phillips ***
GM Foundation ***
Lisa and Doug Schultz ***
Karen Spinney
Allan Taylor
Fred and Alycemae Townsend
Pedals to Paddles ***
Wade Trim, Inc. ***
Dale Wolfgram

Don't let these people show you up. Right now, cut the membership application out of this newsletter and make sure you:

. . . . write us a check . . . .
. . . . donate on line . . . .
. . . . call us with your credit card number . . . .
. . . . stop in the office with your payment . . . .

Thank you so much, and go have FUN on your Flint River!!

**** Denotes a membership payment of $100.00 or more.*

Become a Member of the FRWC now!

Membership Application - Fall 2013

name_____

organization_____

address_____

city/state/zip_____

phone (h)_____(c)_____

email_____

_____student $10
_____individual $25
_____family $40
_____river sponsor $100
_____river patron $250
_____watershed protector $500
_____watershed guarantor $1000
_____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

The FRWC Board of Directors meet at 8:30am on the third Friday of every month. Meetings take place at the Genesee County Parks and Recreation Administration Building .

The Lapeer Chapter of the FRWC meets at 7:00pm on the third Tuesday of every month.

Sat Aug 17, 2013	10:00am – 12:30pm	Fun Times on the Flint River Paddle - University Ave to River Road
Sat Sep 7, 2013	10:00am – 1:00pm	Welcome in Fall Paddle - Mitson to Flushing
Sat Sep 14, 2013	9:30am – 12:30pm	Benthic Monitoring Training - For Mar
Sat Sep 21, 2013	10:00am – 1:00pm	Celebrate the Fall Colors Paddle - Flushing to Montrose
Thu Oct 3, 2013	2:00pm – 6:00pm	Monitoring Lab Day - MSU Extension
Sat Oct 5, 2013	12:00pm – 4:00pm	Lapeer Monitoring Lab Day - Willows at Chatfield School
Tue Oct 8, 2013	7:00pm – 9:00pm	Thread Lake Visioning Session - International Academy of Flint
Sat Oct 12, 2013	12:00pm – 4:00pm	Monitoring Lab Day - MSU Extension
Tue Oct 15, 2013	9:00am – noon	
cont'd	1:00pm – 4:15pm	ELUCID Training - Computer Lab 2121, MCC Regional Technology Center
Thu Jan 30, 2014	**6:00pm**	**FRWC Annual Gathering "Celebrating 25 Years Of GREEN"**

For more detail on the location of these events, please call the offices of the Flint River Watershed Coalition: (810) 767-6490 or email us at info@flintriver.org

Sign up for our e-newsletter, The Ripples, by visiting our website: www.flintriver.org

THE SEASON FOR GREEN IS COMING

With the start of the school year, the season for GREEN is right around the corner! We are currently looking for teachers and mentors to participate in this great learning opportunity for the youth of the Flint River Watershed.

If you are a teacher interested in bringing field testing into your classroom, an environmental professional eager to share your knowledge with others, or just seeking to volunteer time to a great project, then GREEN is what you are looking for. There are opportunities to participate for everyone. For information about GREEN, becoming a GREEN teacher or mentor, or volunteering please contact Stephanie Nummer at:

summer@flintriver.org or 810-767-9491.

Tom Hutchings working with GREEN students in the field.

FLINT RIVER
WATERSHED COALITION
400 N. Saginaw St., Suite 233
Flint, MI 48502
www.FlintRiver.org

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Mark Your Calendar!
FRWC Annual Celebration
Thursday January 30, 2014
"Celebrating 25 Years of GREEN"

Volunteers Help Clear Tires And Litter

With low water levels, a large number of tires under the Dort Highway bridge became exposed and were just begging for removal. A group of volunteers (part of our Genesee Clean Up Crew) got together and in one afternoon pulled over 50 tires out of one small stretch of river. They also filled up several bags with trash that was littering the banks in the area. We would like to say thank you to both our Genesee and our Lapeer Clean Up Crews. Their hard work keeps our watershed beautiful.

FLINT RIVER WATERSHED COALITION

Watershed REPORTER

PARTNERING TO PROTECT OUR NATURAL RESOURCES APRIL 2014

SPRING HAS COME TO THE WATERSHED!

Mark your calendars for these dates on the river

Flint River and Community Cleanup

Saturday, April 26

9 am to noon

See our website for cleanup locations in Genesee and Lapeer county www.flintriver.org

Lunch and an insulated bag provided to all volunteers.

No advance registration required. Call our offices for more information, 810-767-6490, or snummer@flintriver.org

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Benthic Monitoring

Two spring lab days:

Saturday, May 10 12:00 to 5:00 & Thursday, May 15 1:00 to 6:00

Contact Jaime Welch to learn about training and testing. 810-767-7140, jwelch@flintriver.org

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Friends of the Flint River Trail

The trail cleanup is on Saturday, April 26 from 9 am to noon.

Meet at Vietnam Veterans' Park.

The Sunday rides of the FFRT start the first Sunday in May, and run through the month of October.

For more information, see the FFRT Facebook page, or contact jacksonmin@aol.com, or bnbaton@gmail.com.

Flint River GREEN

Student testing is the week of April 21

Student Summit – May 16 at Kettering University

Paddles

The June paddles are on Saturday, June 7 – Irish Road to Mott Lake, and Saturday, June 21 from Birch Run

Paddles start in June and run all summer long. Contact us for the summer schedule. Jaime Welch at 810-767-7140, jwelch@flintriver.org. Please pre-register.

Flint River Watershed Coalition

Voice of the River
Annual Celebration Success
Marking 25 Years of Flint River GREEN

Fun Times in the Cold
Annual Celebration, January 28, 2014
Flint Institute of Arts

The Flint River Watershed kicked off 2014 with a celebration marking the start of **'25 Years of Flint River GREEN.'** For the first time, the Flint Institute of Arts served as the venue for the evening of networking, learning about the FRWC, and fundraising for watershed programs.

Through the generosity of our sponsors and silent auction donors, we raised over $19,000.

Over 125 supporters braved the cold to join us. After a dinner of hearty hors d'oeuvres, our guests got a chance to peruse our program booths, bid on our silent auction items, and meet our

staff and board. The FIA very generously opened their exhibit halls, so an evening of art was a treat for our environmental friends. Most importantly, everyone learned about Flint River GREEN, and the importance of this program in the schools in Genesee and Lapeer counties.

A short program included a presentation to our 2013 award recipients, John Maksimchuk, *the Volunteer of the Year*, Olof Karlstrom, *the Joe Leonardi Leadership* award recipient, and Michael Freeman, the *'Golden Gloves'* Flint River and Community Cleanup winner. In conclusion, departing board members, Brent Nickola, David Churchill, and Jim Ananich were thanked for their service to the FRWC.

Thank you to all who attended. The Annual Celebration is our way of showcasing the great work of the FRWC. We plan to return to the FIA next year.

Join us in January 2015 and find out what we have in store for our 26th year of GREEN!

Award Winners

Volunteer of the Year Award
John Maksimchuk, III (pictured at left)

Joe Leonardi Leadership
Olof Karlstrom (pictured below)

"Golden Gloves" *- Michael Freeman*

Our Valued Supporters
Silent Auction Donors

Jim Ananich - State Senator, Linda Berker, Ellen Brothers, Cabela's, David Churchill, Dale's Natural Foods, Laurie Elbing, Duane Elling, Pam Faris, Essential Balance Massage of Fenton, *Denise Penwell,* Flint Institute of Arts, Flint River Watershed Council, Greater Flint Arts Council, Lotus Dragon Bodywork & Massage, *Tammie Heazlit* - Lotus H2O, Steve Hester, Hoffman's Deco Deli, Kearsley Park, Kay Kelly, King Par Superstore, Amy McMillan, Marr Chiropractic, Ortonville, Mexico at the Market, Jack Minore, John Mrozik and Heather Sisto, Peg Myers - *Mary Kay Consultant,* Greg Palinsky, Wade Pyles - *Berkshire Hathaway Home Services,* Luis Rivera, Rowe Professional Services Company - *John Matonich,* Arlene Schmitzer, Doug Schultz, Suski Automotive - Birch Run, University of Michigan - Flint, Rec Center, Yoga Loft of Flint and SHARP Fitness - *Lois Schneider,* Gabe Zawadzki

Through the generous support of our sponsors, silent auction donors, and members, we are able to carry out our important programs, such as Flint River GREEN!

See our GREEN kids in action

Voice of the River

Annual Celebration Sponsors

Voice of the River
Key Sponsor – $4,400

A collection of gifts made in loving memory of

Linda Joyce Fedewa

Pike – $1,000 Sponsor Level

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Genesee County SWM Drain Commissioner

Walleye - $500 Sponsor Level

GM

PPG Industries
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TETRA TECH

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FLINT RIVER WATERSHED COALITION

400 N. Saginaw Street, Suite 233
Flint, MI 48502
www.flintriver.org

Celebrating 25 Years of Flint River **GREEN**

Lots to do in the Watershed

Join us on Saturday, April 26, 2014 for our first activity on the River!

2014 FLINT RIVER AND COMMUNITY CLEANUP

9:00 am to noon
Lunch and an insulated bag provided to all volunteers

Meet at any of our sites in Genesee and Lapeer counties.

- **Downtown Flint by Café Rhema**
- **Atwood Stadium**
- **Flushing Riverview Park**
- **Gilkey Creek by Pierce Park**
- **Vietnam Veterans' Park**
- **Riverbank Park in Flint**
- **Holloway Dam Canoe Access**
- **Kearsley Park**
- **Thread Lake in McKinley Park**
- **Mott Park**
- **Happy Hollow**
- **Thread Creek**
- **Carriage Town by Durant Hotel in Flint**
- **& our new site at Carriage Town Ministries *(NEW)***
- **All Lapeer volunteers report to Cramton Park in Lapeer**

FROM THIS IN APRIL:

TO THIS ALL SUMMER:

Make a Difference!

FLINT RIVER WATERSHED COALITION

Watershed REPORTER

PARTNERING TO PROTECT OUR NATURAL RESOURCES July 2014

SUMMER FUN IN THE WATERSHED!

Mark your calendars for these dates on the river

Paddles

We hope you can join us all summer long on the first and third Saturdays of the month.
See page 4 for a detailed paddle schedule. We provide equipment, transportation, and fun!
Please pre-register with Jaime Welch at 810-767-7140, jwelch@flintriver.org.

Friends of the Flint River Trail

Ride your bike on the trail every Sunday
Meet at 1:45 at the former site of the Flint Farmers' Market, E. Boulevard Drive
Or, Join the FFRT for rides on the third Saturday of every month
July - Paint Creek Trail • August - Lansing River Trail • September - Bay City Loop • October - Kensington Metro Park
See the FFRT Facebook page, or contact jacksonmin@aol.com, or bnbaton@gmail.com.

Flint River FLOTILLA

Hosted by the Flint River Corridor Alliance, a chapter of the FRWC
The first annual 'FLOTILLA' will launch on August 2, 2014 at 3:00 pm
Bring your inflatable raft, float, pool, etc, and join the fun!
Details: www.flintriver.org, or send an email to info@flintriver.org. Call 810-767-6490.

Flint Park Lake and Thread Lake Community Celebrations

The FRWC is partnering with the Genesee County Parks and neighborhood groups

'Love Your Lake' - Flint Park Lake Picnic
Thursday, July 17, 5:30 – 7:30pm
Meet at the pavilion off Winthrop Boulevard

'Love Your Lake' - Thread Lake Picnic
(Joint with International Academy of Flint)
Thursday, July 24, 5:30 – 7:30 pm
McKinley Park near the Vista Center

Join us for a picnic! Food, games, music, and water activities at these fun celebrations.
If you are interested in helping out, contact Sondra at ssevern@flintriver.org, or 810-618-5969.

River Path Clearing is ongoing in Lapeer!

Join our volunteers in Lapeer County to help clear the river of woody obstructions.
Supervised by the Department of Natural Resources, this activity ensures clear canoe and kayak passage all summer long. Contact Joe Leonardi to participate. leonardij@michigan.gov.

Fall Season Benthic Monitoring Will Be Here Before We Know It

Get trained and help us monitor the quality of our watershed
Monitoring Training: Saturday, September 13, 10:00 am to 12:00 pm at For-Mar Nature Preserve
Genesee County fall monitoring labs are on Saturday, October 11 and Thursday, October 16
Lapeer lab dates and times will be announced later. Join us.

2014: Celebrating 25 Years of Flint River GREEN

Global Rivers Environmental Education Network

Flint River GREEN

Gathering data on the watershed

Presenting results

Created in 1989, the Global Rivers Environmental Education Network (GREEN) is a nationally replicated program that offers a unique and hands on experience for middle and high school students. 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 their area's water. They then share this information with their peers and community officials at the annual student summit.

On May 16, 2014 GREEN mentors, community members, students from 23 schools, teachers, and volunteers gathered together at Kettering University for the annual Student Summit.

2014 was a great year to celebrate the 25th anniversary of this important curriculum.

Participating GREEN Schools in 2014

• Atherton High School • Beecher Middle School • Bendle High School • Brandon Middle School • Carman-Ainsworth High School • Chatfield School - Lapeer • Carter Middle School • Davison Middle School • Flushing High School • Grand Blanc East • Grand Blanc West • Kearsley Armstrong Middle School • Lakeville Middle School • Linden Middle School • Marshall Greene Middle School • Mt. Morris Junior High School • North Branch High School & Middle Schools • Rolland-Warner Middle School • St. John Vianney • Swartz Creek Middle • Westwood Heights/Hamady High School • Zemmer Middle •

Thank you to our partners

City of Flint, Earth Force, Genesee County Drain Commissioner's Office, Genesee County Parks and Recreation Commission, Genesee Intermediate School District, General Motors Corporation, General Motors Foundation, Kettering University, Lapeer Intermediate School District, Michigan State University 4-H Youth Development

Another year of cleanup success

FROM THIS IN APRIL:

TO THIS ALL SUMMER!

2014 Flint River and Community Cleanup

We could not do it without our sponsors

$500 Clean Up Advocates

Center for COMMUNITY PROGRESS
Turning Vacant Spaces into Vibrant Places

Diplomat Specialty Pharmacy

GENESEE COUNTY LANDBANK

$250 Clean Up Supporters

MOTT COMMUNITY COLLEGE

KEEP GENESEE COUNTY BEAUTIFUL

WADE TRIM

ROWE PROFESSIONAL SERVICES COMPANY

Friends of Dan Kildee

Friends of the Flint River Trail

$100 - $200 Basic Supporters

HealthPlus OF MICHIGAN
The Plus makes all the difference.

Security Credit Union
Dedicated. Secure. Trusted.

Additional In-Kind Donations

Rich Rhein Disposal – Lapeer City of Flint Flint DDA Kroger
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FLINT RIVER WATERSHED COALITION

400 N. Saginaw Street, Suite 233
Flint, MI 48502
www.flintriver.org

Celebrating 25 Years of Flint River **GREEN**

Enjoy your summer in the Watershed

Join us on the first and third Saturday each month!

2014 FLINT RIVER PADDLING SCHEDULE

Meet at the designated paddle location at 9:45. Paddles leave at 10:00 unless noted.

$15 per person if you are providing your own canoe/kayak, and $20 per person if you need to rent equipment

- **July 5th** – Dog Days of Summer Paddle - Mitson Canoe Launch
- **July 19th** – Summer Getaway - Holloway Dam
- **August 2nd** – Flint River Corridor Alliance 'Flotilla' *(Starts at 3:00 pm)*
- **August 16th** – Fun Times Picnic on the Flint River – Meet at Montrose Barber Park with bag lunch
- **September 6th** – Bike and paddle - 2nd Annual Pedals to Paddles. *See www.flintriver.org for meeting times and locations*
- **September 20th** – Experience the Fall Colors - Flushing Riverview Park
- **September 23rd** – (TENTATIVE) Celebrate the Fall Solstice Evening Paddle - Morseville Road launch

paddle the watershed

FLINT RIVER WATERSHED COALITION

2014 Annual Report

Flint River Watershed Coalition

Partnering to Protect, Preserve, and Improve the Flint River Watershed Since 1997

Partnering to Protect, Preserve, and Improve the Flint River Watershed

2014 Board of Directors

Executive Committee

Amy McMillan	Genesee County Parks and Recreation *Board Chair*
Irene Bashore	General Motors LLC, Flint Assembly *Board Vice-Chair*
Darren Bagley	Michigan State University Extension, Genesee County *Board Secretary*
Derek Bradshaw	Genesee County Metropolitan Planning Commission *Board Treasurer*

Directors

Linda Berker	Sierra Club: Nepessing Group
Duane Elling	Charles Stewart Mott Foundation
Steve Hester	Zoom Digital Media
Brad Hill	Genesee Conservation District
Daugherty Johnson	City of Flint
S. Olof Karlstrom	Attorney-At-Law (Retired)
Ryan Londrigan	AKT Peerless
Dr. Robert McAllister	Kettering University
Jack Minore	Friends of the Flint River Trail
Steve Montle	Resource Recycling Systems
Greg Palinsky	Palinsky Tools and Engineering
Sandra Robinson	South Park Neighborhood Assoc
Patrick Ryals, Sr.	Flint Park Lake Neighborhood Assoc
Doug Schultz	Rowe Professional Services
Raynetta Speed	Genesee County Land Bank

Staff

Rebecca Fedewa	Executive Director
Lauri Elbing	Outreach and Events Manager
Sondra Severn	Project Coordinator
Jaime Welch	Program Coordinator
Edythe Westhoff	Business Manager
Stephanie Nummer	Program Coordinator*

Copies of this report are available on our website or by contacting:
Flint River Watershed Coalition, 400 N. Saginaw Street, Suite 233, Flint, MI 48502
(810) 767.6490 | info@FlintRiver.org | www.FlintRiver.org

**Left the organization in 2014*

The Voice of the River

Partnering to Protect, Preserve & Improve the Flint River Watershed

What is a watershed? A watershed is an area of land that drains to a particular stream, lake or wetland. The Flint River Watershed is increasingly healthy and strong, and offers many recreational, educational, and environmental opportunities. It is home to more than 600,000 people who live within its 1,400 square mile area. It encompasses 59 townships, 25 cities and villages and 43 school districts within 7 counties. The Flint River Watershed Coalition (FRWC) believes that all people should have access to the Flint River, its tributaries and lakes for recreation, swimming, and fishing as well as the ecosystem services and economic values it provides to our communities: it is a right, but also a collective responsibility to keep our watershed healthy.

FRWC is an organization representing individuals, businesses, community organizations, and local units of government sharing a vision of a healthier Flint River Watershed. As the leading community-based advocate for clean water resources in the region, the FRWC promotes efforts to protect, preserve, and improve the region's ecosystem through partnership, public education, scientific projects, and community involvement. The FRWC provides the necessary resources, knowledge, and capacity to area resident and decision makers to protect local water quality through science-based resource management and citizen stewardship.

You can read more about FRWC's programs and successes here and on our website at www.FlintRiver.org.

2014 Watershed Moments














Joint Report from the Board Chair & Executive Director

Dear Friends:

If you want to get something done, you can just do it yourself. But if you want to make great strides in pursuing your mission and goals, partnerships are where we get the biggest bang for *your* buck. The Flint River Watershed Coalition was established and has flourished on a foundation of partnership, cooperation, and collaboration across our seven-county region. Together, we are achieving steady gains on water quality and quality of life for those living in the Flint River Watershed.

We are thrilled to share a few of the highlights from 2014 with you in this report.

Working with the MSU Institute for Water Research, we now have a powerful web-based decision making tool that can be accessed by anyone interested in developing incredibly sophisticated maps (see page seven for more information on ELUCID). And with MSU's Planning and Zoning Center (PZC), we now have detailed action plans for improving access and water quality for two of the lakes within the City of Flint boundaries (see page 7 for more information). In the process of both projects, we've developed many new relationships and exciting opportunities for partnerships in the coming years.

Our work with PZC happened to dovetail beautifully into the long and productive history of partnership between the FRWC and the Genesee County Parks and Recreation Commission. Our organizations' common interest in ensuring the lakes within the City of Flint are safe, accessible, and used by area residents culminated this year in the "Love Your Lakes" celebrations at Flint Park Lake and Thread Lake. At Thread Lake, we also are excited to work with the International Academy, Diplomat Pharmacy, and other members of the South Saginaw Task Force to implement ambitious economic, recreation, and safety developments in the neighborhoods.

In addition, long-term partnerships with the Genesee County Drain Commission has meant sustainable funding for all of our education programs. Their support means more residents experience first-hand the beauty of our river, water quality data is consistently collected and shared, hundreds of students are "*learning by doing"* about water quality and watershed protection, and citizens stewards remind us all that storm drains go directly to their nearest river or stream.

And from the halls of the capital to city hall, and from boardrooms to streambeds, our Chapters get things done. Our cyclist and paddlers bring our river to the masses through recreation. Our newest chapter, Flint River Corridor Alliance, is ensuring plans for substantial improvements along the Flint River in downtown Flint are realized. The Lapeer Chapter, our oldest, continues the work of maintaining canoe paths throughout the county, coordinating water quality monitoring and cleanup efforts, as well as advocating for water quality protection measures…and this team gets results. You can read more about our Chapters on pages nine and ten.

Yes, 2014 had been an inspirational and fulfilling year here in our Flint River Watershed thanks to the constancy and friendship of our members, volunteers, funders and partnerships. We are stronger together and look forward to another rewarding year ahead as we join together as a community to care for and share all that is great about our corner of the world.

Thank you for all you do…with our best wishes for a healthy, happy, prosperous year.

Rebecca Fedewa
Executive Director

Amy McMillan
Chair, Board of Directors

Partnering to Protect, Preserve, and Improve the Flint River Watershed

Flint River Watershed Coalition Programs

River and Community Clean Ups prepare the Flint River and its tributaries, their banks, trails and nearby parks for a summer's worth of fun. Our heartfelt thanks goes out to hundreds of volunteers, community leaders and sponsors for the hard work and dedication they deliver on the last Saturday in April each year. Volunteers collect bags of trash, tires, and usually a few dumpsters worth of large debris such as old lumber, broken glass, carpeting, and roofing materials. There are always some unique items discovered, and these particular gems compete in a public poll to win the "Golden Glove" award, which is bestowed the following year at the Voice of the River Annual Celebration each January.

Water Quality Monitoring is undertaken every Spring and Fall at 35 sites in the Flint River Watershed across Genesee and Lapeer Counties by FRWC staff and citizens scientists trained according to Michigan DEQ standards. Volunteers take measurements and collect insect nymphs and larvae (a.k.a. *benthics*) that spend a good portion of their lives in the substrates of our local rivers and streams. Once analyzed, the number and variety of benthics collected reveals stream health. The data is then compared to previous seasons and analyzed for trends and anomalies. While most monitoring sites are steadily increasing with scores of "good" or "excellent," FRWC identified a decreasing score at one particular site for the last 3 years, prompting an investigation into the causes by the Genesee County Drain Commission. Data is reviewed by our monitoring committee and shared with local and state agencies, as well as on the FRWC website: www.FlintRiver.org.

Flint River GREEN offers students a hands-on experience to assess the water quality of their local stream by conducting nine different tests, including levels of dissolved oxygen, fecal coliform, and biological oxygen demand. Students can investigate what contributes to their local water's conditions and create action plans to improve or maintain their local water quality. Flint River GREEN culminates in the annual Student Summit, which was generously hosted by Kettering University in 2014. At the Student Summit, students present their findings and recommendations to an audience made up of peers and local officials. Sixteen schools from around the Flint River Basin participated in the 2014 Student Summit. Flint River Green Annual Reports are on the FRWC website at www.FlintRiver.org.

"*Our Water*" Program Partnership

Creating Citizen Stewards and Memorable Experiences

Thanks to the generous support of the Genesee County Community Water Quality Consortium and the Genesee County Drain Commissioner, the FRWC implements several public education programs that educate residents and promote citizen stewardships through ways to prevent stormwater pollution and to keep our water clean. Genesee County Drain Commissioner also generously supports the Flint River GREEN program, as well as the annual Flint River and Community Clean Up.

Storm Drain Stenciling program is part of the "Our Water Campaign" to promote storm water awareness. This project educates communities about the water that runs into the storm drains in the area. The Storm Drain Stenciling project addresses how storm drains can transport pollutants. Volunteers stenciling the message "Dump No Waste, Drains to River," near the storm drains and distribute door hanger to local homes that provide information on simple steps residents can take to help reduce pollution runoff into storm drains. Adults and children of all ages volunteer with this program to protect the waters of the Flint River.

Paddles in 2014 were more popular than ever and it was a great year to be on the water! Every first and third Saturday from May through October, the Flint River Watershed Coalition hosts paddles through various stretches of the Flint River. These trips allow participants to experience the true beauty of the Flint River, while reinforcing the importance of preserving it. One trip last summer included an unexpected treat: a bald eagle nest with three lively juveniles. Bald eagles only have a 4% chance of laying 3 or more eggs and the sight of three juveniles is a wonderful testament to the health of the Flint River. You can read about the Press and Friends Paddle FRWC sponsored on August 10, 2014: "The Flint River isn't what you think it is, and here's why you should check it out." A powerful and persuasive article written by Scott Atkinson with photos by Jake May of the Flint Journal created positive reverberations across the watershed, enticing even more people to give paddling a try in this gorgeous river.

Educational Presentations are another way the FRWC promotes citizen stewardship around the watershed. The goal of the presentations are twofold: to educate citizens on specific actions they can employ to avoid contributing nonpoint source pollution to our watershed, and to share stories and opportunities on the wonderful recreational activities the river provides right here in our own back yard. The presentations cover the Seven Simple Steps of the "Our Water" program sponsored by The Genesee County Water Quality Consortium. For more detailed information on The Seven Simple Steps look on our website at www.FlintRiver.org.

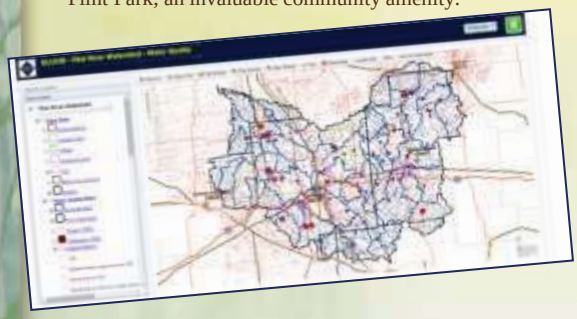
Partnering to Protect, Preserve, and Improve the Flint River Watershed

Engaging the Community

City of Flint Master Plan Moves Forward: After serving on various advisory committees during the Mater Planning process, this year the FRWC shifted from planning to implementation strategies. FRWC staff and board members serve on the Environmental Features, Parks & Open Space and the Infrastructure & Community Facilities Implementation Task Groups. Projects that focus on recognizing, protecting, and bringing awareness to the river and surrounding areas were selected and initial assignments were made. We look forward to the coming year to fine tune the plans and begin implementation.

These two "Super Volunteers" take a moment away from the "Love Your Lake" Community Celebration preparations to pose for a picture on the new Flint Park Lake floating dock installed by Genesee County Parks in a partnership agreement to maintain and improve Flint Park; an invaluable community amenity.

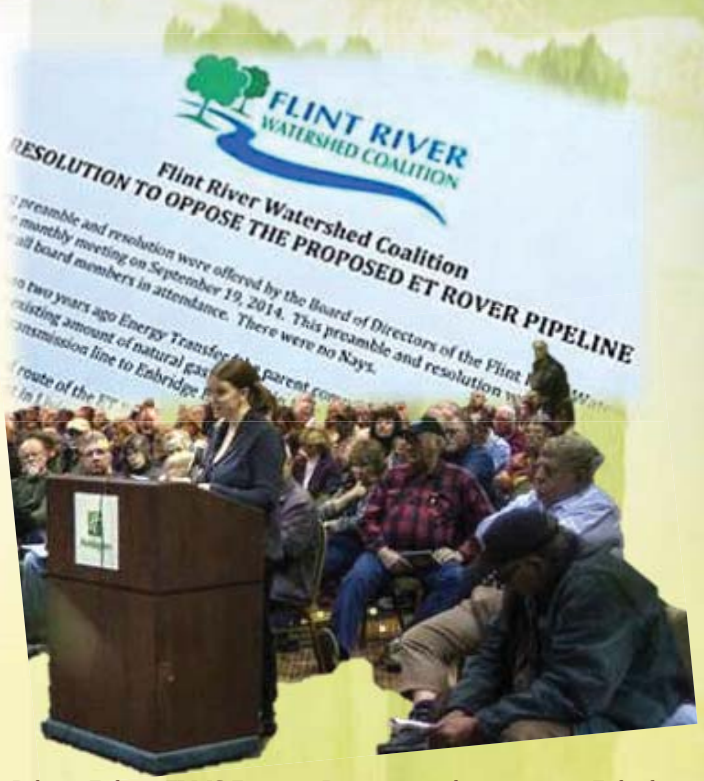
Thread Lake and Flint Park Lake get some TLC: The FRWC along with MSU Planning and Zoning Center (PZC) engaged City of Flint residents, businesses, and organizations from the neighborhoods surrounding the three lakes within the City of Flint borders: Flint Park Lake, Thread Lake, and Kearsley Reservoir. In this final year of the project vision documents were developed by PZC from resident feedback for Flint Park Lake and Thread Lake, and a future engagement strategy document was created for Kearsley Reservoir. With the intent to maintain the momentum driven by residents, this summer the FRWC successfully partnered with the Genesee County Parks and Recreation Commission at both lakes and also with the International Academy of Flint at Thread Lake to hold 'Love Your Lake' events. With over one hundred in attendance at each event, residents enjoyed food, games, give-a-ways, and bounce houses along with the company of their neighbors. In 2015, we will continue to find ways in which to implement the "visions" articulated by the residents surrounding Thread and Flint Park Lakes.



Web-based Tools to Identify and Mitigate Non-Point-Source-Pollution: During a two-year partnership with Michigan State University Institute of Water Research (IWR) the FRWC worked to provide and deliver feedback from a variety of potential user groups during development of an innovative land management tool: Environmental Learning Using Computer Interactive Decisions (ELUCID). This tool is web-based and currently available to the public online. ELUCID will enable users from across the Flint River watershed to assess their current or potential land use practices with precision, to illuminate risks and test solutions to improve water quality outcomes. FRWC and staff presented ELUCID to teachers taking part in the Flint River GREEN program, local and county planning officials, and shared ELUCID on the FRWC website. For more information on this project and to see how we partner with IWR on other efforts please visit www.FlintRiver.org under the "Programs" tab, then clicking on "Mapping Tools."

Outreach and Advocacy

FRWC is the "Voice of the River" and serves as the region's principal resource on the Flint River Watershed. FRWC promotes and advocates for the Flint River watershed on issues that impact the function and integrity of the basin in part or as a whole at the local, regional, state, and federal level. Examples of our outreach and advocacy work include: partnering to secure implementation of watershed management plans across the watershed; collaborating with partner organizations on common priorities within the greater Saginaw Bay watershed; taking a leadership role in the Flint River Corridor Alliance mission to transform the Downtown Flint stretch of the Flint River from a distressed waterway to a natural resource that is an asset to the community; serving on City of Flint Master Plan development and implementation teams; and providing testimony to the Federal Energy Regulatory Commission on the Rover Pipeline proposal.



Rebecca Fedewa, FRWC Executive Director, provides testimony at Federal Energy Regulatory Commission Public Hearing opposing the Rover Pipeline. (photo credit: Erin Kirkland | MLive.com)

FRWC Board collaborates with Friends of the Shiawassee River Board on common priorities.

"A Vision for Thread Lake & Adjoining Neighborhoods" is a report prepared by the MSU Planning and Zoning Center, FRWC and the surrounding communities that focuses on Thread Lake, and is one of three prepared to promote a better future for these lakes and the people of the neighborhoods that surround them.

FRWC and FRCA accept a grant from Saginaw Bay WIN for Hamilton Dam Naturalization

Genesee County Commissioner Omar Simms tours Thread Lake with FRWC staff in anticipation of "Love Your Lake" Community Celebration.

Partnering to Protect, Preserve, and Improve the Flint River Watershed

FRWC Chapter Accomplishments

Flint River Corridor Alliance
First Annual Flint River Flotilla

Flint River Corridor Alliance
Spearheading Hamilton Dam Naturalization

Friends of the Flint River Trail
Annual Pedals to Paddles event

Friends of the Flint River Trail (FFRT) host Sunday rides every week from May through October. Along with a core group of cyclists that have been riding on Sundays for more than ten years, these rides bring new cyclists to the trail almost every week. FFRT also leads rides on a several Saturdays to explore trails within an hour drive from Flint. The Flint River Trail and Genesee County Parks are included in the current draft of the Governor's "State to State Showcase Trail;" a trail from Detroit, across the Straits of Mackinac, and across the UP to Wisconsin - a little over 1,200 miles.

Flint River Corridor Alliance (FRCA) is a community-based organization of government, non-profit, and private sector stakeholders organized to initiate, support, and sustain projects in the Flint River Corridor that revitalize the river as a community asset while enriching the quality of life for the area's residents, businesses, and visitors. FRCA is leading efforts to support the naturalization of the Hamilton Dam. FRCA secured critical funding and local cooperation to move this economically, ecologically, and socially significant project forward. FRCA also hosted the first annual Flint River Flotilla in August, bringing well over 100 people together for a fun float through Chevy Commons.

Flint River Paddlers (FRP) is group of paddle sport enthusiasts who share common goals for paddling and conservation on the Flint River. FRP promotes recreational canoeing and kayaking, and advocate to increase and maintain public access sites. FRP invests countless volunteer hours at paddle events promoting the Flint River as a safe, family friendly outdoor experience, including the FRCA Annual Flotilla and the FRWC Paddles, among other events.

Lapeer County Chapter (LCC) is one of FRWC's oldest chapters, and the volunteers in Lapeer County are tireless in their conservation and protection activities. Maintaining canoe paths throughout the county, coordinating water quality monitoring and cleanup efforts, as well as advocating for water quality protection measures with local officials and decision makers are the LCC's highest priorities, and this team gets results.

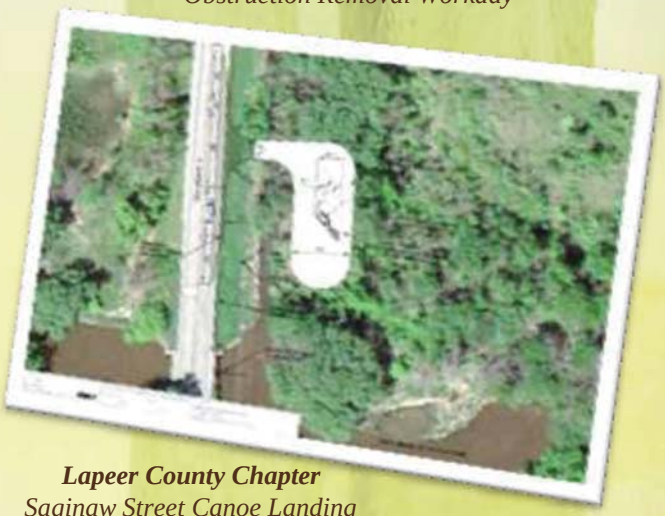
On January 8, 2015, the Lapeer County Commissioners voted in favor of allowing LCC to move forward with the development of the Saginaw Street Canoe Landing. In 2006, FRWC volunteers passed the hat to come up with the $1,250 needed to buy 5 acres that were in foreclosure. LCC purchased the land and then donated it to the county to add to the inventory of other canoe landings they own and maintained. We now have drawings of the proposed parking lot/landing, preliminary cost estimates of $27,000, and have begun the permitting process and fundraising. This stretch of the South Branch of the Flint River is the closest to town, usually the first to be cleared of obstructions, and the most widely used by student groups. The development of this landing and LCC's plans to improve access at Rotary Park will showcase this amazing section of the river and highlight the important work done by Lapeer's amazing team of obstruction removal volunteers.

The obstruction removal partnership with the DNR and Lapeer County Probation Department continues to battle poison ivy, mosquitoes, and a seemingly endless amount of fallen trees. This project concluded its 9th consecutive year. Crews cleared 16 sections and put in over 450 hours to remove 58 obstructions, clearing 11.7 miles of river.

LCC's Benthic Monitoring crew covered the majority of sites again this year and even recruited a college trained entomologist to work at the lab! The river cleanup was composed of about 75% students, with many repeat volunteers reporting that there was less trash. LCC had several Lapeer County schools participate in Project Green again, testing local streams, storm drain stenciling, and attending the Green Summit.

LCC's #1 goal in 2015 is to recruit more volunteers.

Lapeer County Chapter
Obstruction Removal Workday



Lapeer County Chapter
Saginaw Street Canoe Landing

Lapeer County Chapter
South Branch before obstruction removal project

Kearsley Creek Chapter
Last remaining cool water fishery in the Flint River Watershed

Kearsley Creek Chapter (KCC) represents northern Oakland County portions of the Flint River Watershed. KCC monitors and advocates for what is the last remaining cool water fishery in the Flint River Watershed. They promote stewardship and recreation through the popular Annual Ortonville Creek Fest event, as well as biannual water quality monitoring and FRWC's River and Community Clean Up.

Partnering to Protect, Preserve, and Improve the Flint River Watershed

Grants & Major Sponsors

The following individuals and organizations are the major source of grants and financial support for the operations and projects of the Flint River Watershed Coalition. Without the generosity of these foundations, businesses, and individuals, we would not be able to carry out the FRWC mission. We look forward to a continued strong relationship with our supporters in 2015 and beyond. Thank You

Grants and Program Support in 2014

Reinvent Michigan, Senator James Ananich
Captain Planet
Center for Community Progress
Ms. Deborah Cherry, Genesee County Treasurer
The Conservation Fund
Diplomat Specialty Pharmacy
E & L Construction Group
Flint Institute of Arts
Flint River Corridor Alliance
General Motors, LLC
Genesee County Drain Commissioner's Office
Health Plus of Michigan
Dan Kildee for Congress
King Par Superstore
Land Bank of Genesee County
Lotus H2O, Lotus Dragon Bodywork & Massage, Tammie Heazlit
C. S. Mott Foundation
C. S. Mott Foundation, Matching Gifts Program
Drs. Bobby & Srinivas Mukkamala
Laura Jane Musser Fund
Michigan State University
Michigan State University - Institute for Water Research
Michigan State University - Planning and Zoning Center
Mott Community College
MPS Group
Ruth Mott Foundation
PPG Chemical
Quaker Chemical Corporation
Rowe Professional Services Group
Security Federal Credit Union
Six Rivers Regional Land Conservancy
Steve's Plumbing and Heating Company, Inc., Mr. Rick Figula
Suski Automotive, Birch Run
Tetra Tech
University of Michigan - Flint, Rec Center
Vern's Collision, Mr. Michael Herriman
Wade Trim, Inc.
Waste Connections, Inc.
The Yoga Loft of Flint, and SHARP Fitness, Ms. Lois Schneider

We have dozens of sources of valued in-kind support, and wish that space would allow individual recognition for all. Please contact the offices of the FRWC for a list of our in-kind donors, or to find out how you can offer support to our programs.

Partnerships

The Flint River Watershed Coalition would like to thank the following partners who have helped build the success of the organization and its many programs.

C. S. Mott Foundation
Ruth Mott Foundation
Genesee County Drain Commissioner
Genesee County Water Quality Consortium
Genesee County Parks and Recreation Commission
University of Michigan – Flint
Genesee County Conservation District
Lapeer County Conservation District
Michigan State University Planning and Zoning Center
Michigan State University Institute of Water Research
Flint Institute of Arts
Diplomat Specialty Pharmacy
Keep Genesee County Beautiful
Flint Downtown Development Authority
Genesee Intermediate School District
Lapeer Intermediate School District
Six Rivers Regional Land Conservancy
City of Flushing
City of Flint
City of Lapeer
Epic Technology Solutions
Earth Force
General Motors

Partnering to Protect, Preserve, and Improve the Flint River Watershed

Membership Matters

The Flint River Watershed Coalition is a grass roots organization that depends on its supporters and members for financial and volunteer viability. We have made a lot of progress in increasing our membership and sponsorship base, and in expanding the ways that we reach out to those who share our love of the Flint River.

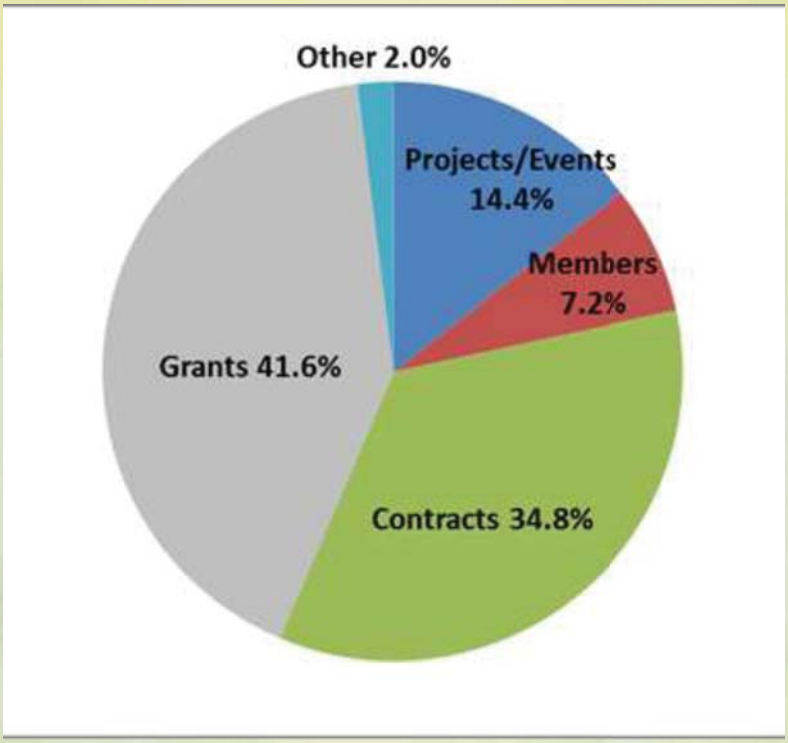
There are many ways that the community, businesses and individuals can become members of the Flint River Watershed Coalition. We accept contributions in the traditional way with cash and checks, but now, at any time during the year, members can use the convenience of the internet. By going to the FRWC website at www.flintriver.org and pressing the 'Donate Now through Network for Good' button on the home page, credit card users can become new members or renew their membership in the Coalition.

There are seven levels of membership available, and four 'Big Fish' sponsorship opportunities. Please contact any one of our Board members or staff if you are interested in membership, sponsorship, or volunteer opportunities with the Coalition.

FRWC ANNUAL MEMBERSHIP LEVELS

Student $10.00
Individual $25.00
Family or Group $40.00
River Sponsor $100.00
River Patron $250.00
Watershed Protector $500.00
Watershed Patron $1,000.00

Community Support from Memberships, Sponsorships, and Local Program Awards:
$53,037.00



Flint River Watershed Coalition
Statement of Activities
31-Dec-14
UNAUDITED

Revenues and Support	2014
Contributions, Fundraising, Events	$ 15,594.00
Foundation grants	208,000.00
In-kind donations	15,000.00
Interest income	25.00
Mem bership fees	16,822.00
Miscellaneous	4,743.00
Project revenues	100,391.00
Total revenue and support	$ 360,575.00
Net Fiduciary Assets Added to Restrictions	(94,704.00)
Total revenue, support and net assets released from restrictions	265,871.00
Expenses	
Program services	$ 124,429.00
Support services	
Management and general	76,290.00
Total expenses	$ 200,719.00
Increase (Decrease) in Net Assets	159,856.00
Beginning Year Assets - All Funds	104,546.68
Increase (Decrease) in Net Assets	159,856.00
Total Ending Year Assets - All Funds	264,402.68
Restricted Fiduciary Funds	94,704.00
Unrestricted Funds - Available for Programs and Operations	169,700.00
Total Ending Year Assets - All Funds	264,404.00

FRWC Financial Information

The Balance Sheet and Activities Statement reflects the accounts of the Flint River Watershed Coalition as of December 31, 2014. These statements are not audited as of the printing of this annual report. The last audit of the organization's financial statements were conducted for the accounts as of December 31, 2012. See the audit report dated July 2013 by Taylor & Morgan, Certified Public Accountants. The INDEPENDENT AUDITORS' REPORT stated that there were no material exceptions to the FRWC records. A copy of the auditor's report can be found on line at www.flintriver.org or by calling the Flint River Watershed at 810-767-6490.) The next bi-annual audit is scheduled to be conducted in 2015, and will cover the period January 1, 2013 through December 31, 2014. When that report is completed, the results will be available on our website at www.flintriver.org.

Thank You!

...for your continued support of the Flint River Watershed Coalition and its mission to protect, preserve and improve our region's most important natural assets.

FLINT RIVER WATERSHED COALITION

Copies of this report are available on our website or by contacting:
Flint River Watershed Coalition, 400 N. Saginaw Street, Suite 233, Flint, MI 48502
(810) 767.6490 | info@FlintRiver.org | www.FlintRiver.org

FLINT RIVER
WATERSHED COALITION

Flint River GREEN

Annual Report 2013

Flint River Watershed Coalition

Board of Directors

Amy McMillan, *Board Chair*

Irene Bashore, *Vice Chair*

Derek Bradshaw, *Treasurer*

Darren Bagley, *Secretary*

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Linda Berker

David Churchill

Duane Elling

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Brad Hill

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S.Olof Karlstrom

Bob McAllister

Jack Minore

Steve Montle

Brent Nickola

Greg Palinski

Raynetta Speed

Staff

Rebecca Fedewa
Executive Director

Edythe Westhoff
Business Manager

Casey Foote
Development Director

Jaime Welch
Program Manager

Holly Rosser
GREEN Program Coordinator

A Letter from the Executive Director

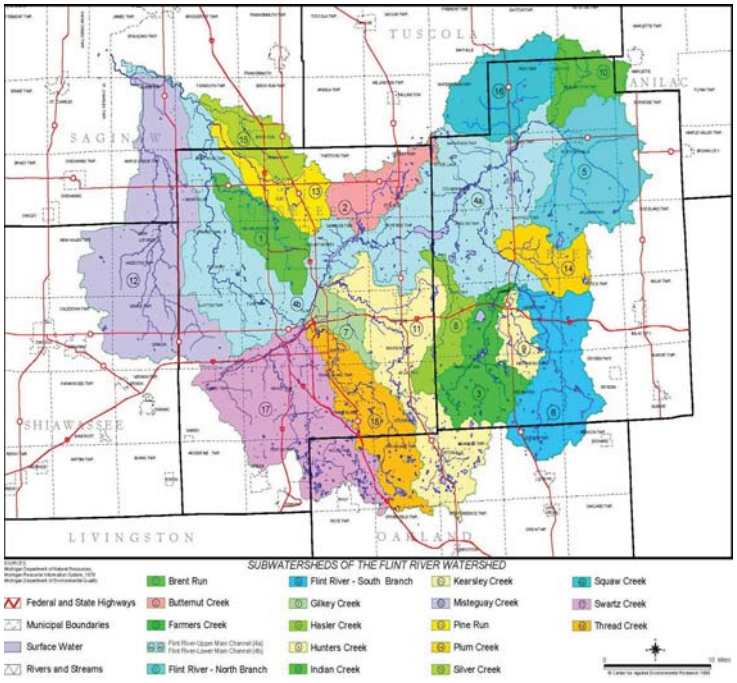
Every year, through the Flint River GREEN program we watch students from across the Flint River watershed as they experience their local stream in an entirely new way. For many, it's the first time they've ever visited that, or any, stream. The wonder and excitement they show is certainly contagious! We're so pleased to be a part of bringing that experience to our local schools. It's an invaluable experience that simply can not be replicated in the classroom.

And once again, we are excited to partner with Kettering University as the host of the 2013 GREEN Student Summit. Our GREEN students had a great time while experiencing one of the premiere engineering colleges in the country. Many thanks to Kettering for providing a wonderful venue for this year's event.

Flint River GREEN wouldn't be possible without the support of our participating schools, funders, mentors, speakers, and myriad other volunteers who make this program a success, year after year. We thank you!

See you in 2014,

Rebecca Fedewa
Executive Director



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 year's GREEN season. This dedicated group brings their expertise, resources, and enthusiasm to the GREEN program. The planning committee oversees the planning for the summit and professional development day for teachers, mentor and teacher pairings, seeks funding sources, and works with community partners to increase the scope of GREEN. This year's Professional Development Day for teachers was hosted by Mott Community College. The planning committee collaborates to improve and expand the program year to year. Its efforts ensure that GREEN continuously provides the best experience possible for teachers and students.

"During GREEN, I learned that our creek is in good condition."

— Grand Blanc West Middle School 8th grade student

Planning Committee

Darren Bagley

Irene Bashore

James Emmerling

Rebecca Fedewa

Tammie Heazlit

Lisa Hook

Tom Hutchings

Tom Jones

John Maksimchuk III

Ashley Miller-Helmholdt

John Moldovan

Holly Rosser

Jan Sneddon

Deb Wilson

Edythe Westhoff

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 their area's water, and then share this information with their peers and community at the annual student summit. Teachers participate in a Professional Development Day to learn about GREEN, and learn about 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 teacher's annual curriculum. The 2014 season will mark **25** years of GREEN!

"I learned that you can kayak all the way from the Flint River to Niagara Falls."
— Swartz Creek Middle School 8th grade student

"I learned that many chemicals, objects, rats, etc. can be found in wells."
— Davison Middle School 7th grade student

GREEN Participating Schools

Beecher Middle School
Teacher: Don Hammond

Bendle High School
Teacher: Todd Barden

Birch Run (Marshall-Greene) Middle School
Teachers: Tammy Daenzer & Roger Rothe

Brandon Middle School
Teacher: Dave Green

Carman-Ainsworth-High School
Teacher: Julie Lawrence

Chatfield School
Teachers: Annette Young, Karla Pretty & Lori Raymond

Clio (Carter) Middle School
Teachers: Chip McCallum & Ryan Niemi

Davison Middle School
Teacher: Jodi Kosiara

Flushing Middle School
Teacher: Steve Groulx

Grand Blanc Middle School-East
Teachers: Deb Lacki & Lauren Drury

Grand Blanc Middle School-West
Elizabeth Lemerond & Vicki Skrisson

Kearsley (Armstrong) Middle School
Teacher: Cindy Sierra

Lakeveille Middle School
Teachers: Josh Henley & Andrea Thelen

Lapeer East High School
Teacher: Cheryl Butterfield

Linden Middle School
Teacher: Charlene Nester

Mt. Morris Jr. High School
Teachers: Bekah D'Haene, Scott Smith & Kim McCormick

North Branch High School
Teacher: Carrie Wenta

North Branch Middle School
Teacher: Julie Tumblin

Rolland-Warner Middle School
Teachers: Anne Prill, Wyatt Stevens & Mike Wiltse

St. John Vianney Catholic School
Teacher: Janice Matlon

Swatrz Creek Middle School
Teacher: Brandolyn Forbes

Hamady High School
Teacher: Tammy Wylie

"During GREEN I learned that anything we do can affect the watershed that we live in." — Marshall-Greene Middle School 7th grade student

The Water Quality Index rating, (WQI), is the overall score the body of water receives after the field tests have been preformed and the results tabulated.

Water Quality Field Tests

Dissolved Oxygen
Fecal Coliform
B.O.D
pH
Nitrates
Turbidity
Total Solids
Temperature
Total Phosphate

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

A * denotes that complete testing results were not available due to inclement weather on the testing day, calculation, or testing errors. Trial and error is part of the scientific process. Students were able to learn about what factors may have contributed to these results and correct them for next season. GREEN is a valuable and continuous learning experience.

GREEN School	Testing Location	WQI
Beecher Middle School	Kalamazoo River, Talmadge Creek	*
Bendle High School	Thread Creek at Bristol Rd.	**68.58**
Birch Run Marshall-Greene Middle School	Silver Creek	*
Carman-Ainsworth High School	For-Mar Nature Preserve	**77.4**
Chatfield School-Lapeer	Farmer's Creek	**82.45**
Clio Carter Middle School	Pine Run at Clio Park	**77.55**
Davison Middle School	Black Creek-Abernathy Park	**68.2**
Flushing Middle School	Unidentified Location	*
Grand Blanc East Middle School	Armstrong Creek at Dodge Road	*
Grand Blanc West Middle School	Frost Gardens	**85.9**
Kearsley Armstrong Middle School	Thread Creek, Grand Blanc	*
Lakeville Middle School	Swartz Creek, near school.	*
Lapeer East High School	Unidentified Location	*
Linden Middle School	Linden Middle School Grounds	**77.14**
Mt. Morris Junior High School	Farmer's Creek	*
North Branch High School	Unidentified Location	*
North Branch Middle School	Gravel Creek, North Branch	**77.95**
Rolland Warner Middle School, Lapeer	Silver Creek	**72.4**
St. John Vianney Catholic School	Flint River, Mott Park	**59.62**
Swartz Creek Middle School	Swartz Creek, Hill Road Bridge	**77.51**
Westwood Heights-Hamady High School	Clio Bike Path	*

"We can talk to farmers near the creek about the fertilizers they use."

— Marshall Greene Middle School 7th grade student

On May 17th, 2013, GREEN students, teachers, mentors, community members, and volunteers gathered for the pinnacle of every GREEN season: the annual Student Summit. This year's summit was hosted by Kettering University. Here, the students presented their water testing results, action plans, and other information gathered from their days of study and field testing.

Presentations and follow up inquires from the audience were facilitated by emcee, Mr. Tom Jones from the Genesee County Drain Commissioner's Office and the Our Water Program.

When not presenting, students participate in a variety of break out sessions. These sessions are led by community members excited about sharing their knowledge with the GREEN students, and include demonstrations and activities focused on the environment.

Summit Break Out Sessions

Beyond Sim City:
Geospatial Technologies & Our World
Laura Young, *Michigan State University Institute of Water Research*

Being A Bee Keeper
Carol Winn, *Bee and Nature Specialist*

Sewer CSI
Thad Domick, Eric Brubaker, Tom Hutchings, *City of Flint - Water Pollution Control Specialists*

Incredible Edible Plants
Peter McCreedy, *Ecology Director - Chatfield School*

Paddling the Flint River
Riley McLincha, *Watershed Enthusiast*

Rats In Your Drinking Water
Darren Bagley, *Michigan State University Extension, 4-H Youth Development Coordinator*

Chevy In The Hole Tour
Joel Parker, *Environmental Consulting & Technology, Inc.*

Be A Fly Fisher
Josh Henley, *Trouts Unlimited & Lakeville Schools*

Meet The Macro Invertebrates
Mike Haley & Denny Crispell, *Flint River Watershed Coalition Monitors*

"I learned that our meals travel about 1,500 miles to get to our table. When we need food, we should think about looking for edible plants and making natural foods."

— Rolland Warner Middle School 8th grade student

Flint River Project GREEN Summit Evaluation 2013

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.	12	**53**	25	8
I can make a difference in the health of the Flint River.	5	32	**43**	18
I understand how a river may become polluted.	6	20	34	**38**
I want to do things to help the environment.	7	20	**42**	29
I know about jobs in the environment field.	26	28	**37**	6
After Project Green				
Answer Options	**1 (Strongly DISAGREE)**	**2 (DISAGREE)**	**3 (AGREE)**	**4 (Strongly AGREE)**
The Flint River is clean and healthy.	6	**38**	37	17
I can make a difference in the health of the Flint River.	1	3	36	**58**
I understand how a river may become polluted.	0	0	12	**86**
I want to do things to help the environment.	0	4	40	**54**
I know about jobs in the environment field.	2	6	**49**	40

"I learned to put plants along the creek to absorb fertilizer."
— Clio Carter Middle School 8th grade student

"I learned that seagulls and other birds affect the fecal coliform levels."
— Linden Middle School 8th grade student

GREEN mentors offer assistance in both the classroom and at the testing site. Working closely with the teachers, they visit classrooms and speak with the students about GREEN, the tests they will perform, the proper way to carry out those tests, safety procedures, and how to interpret their results. They offer insight as to what may cause a certain result to be high or low, as well as help the 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 exposes students to the value of environmental stewardship and potential career paths in a science, technology, engineering, or mathematics field.

"During GREEN, I learned that there are lots of jobs in the environmental field."
— Rolland-Warner Middle School 8th grade student

GREEN Mentors

Marv Ashbury
General Motors, CCA Swartz Creek

Darren Bagley
Michigan State University Extension - Genesee County 4-H

Irene Bashore
General Motors, Flint Assembly

Craig Buike
Quaker Chemical

Thad Domick
City of Flint- Water Pollution Control Division

Rob Fenn
General Motors, Flint Engine Operations

Heather Griffin
Naturalist, University of Michigan-Flint

Tom Hutchings
City of Flint- Water Pollution Control Division

Tom Jones
Genesee County Drain Commission- Our Water Program

John Maksimchuk III
General Motors, Flint Metal Center

Renee Mietz
General Motors

John Moldovan
Retiree, General Motors

Pat Schultz
General Motors

Brent Wilson
General Motors, Flint Tool & Die

Appreciation

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

Dort Federal Credit Union

Earth Force

Flint River Watershed Coalition

Genesee County Drain Commissioner's Office

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

Merit Labs

Mott Community College

"I learned how small things can affect the water in many ways."

— Grand Blanc West Middle School 8th grade stu-

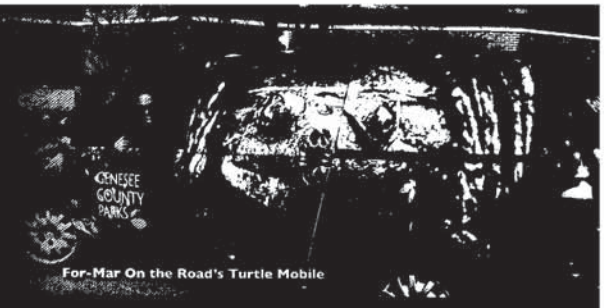
FLINT RIVER
WATERSHED COALITION

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

Join us, as we celebrate
25 years
of GREEN in 2014!

JUNE

Family Fun for Everyone!



For-Mar On the Road's Turtle Mobile

For-Mar Nature Preserve & Arboretum's TRUCK FARM

MONDAY, JUNE 2
Ultimate Dash Training Program-Beginner
Linden County Park, Clover Beach Pavilion
Time: 5:30-6:30pm. *Please refer to page 2 for program details and cost.*

TUESDAY, JUNE 3
Avian Adventures: Cavity Nesters
E.A. Cummings Event Center
Join a For-Mar naturalist as we explore the many species of birds that inhabit the E.A. Cummings Event Center, more specifically the species that would nest in a cavity. We'll look for everything from sparrows to swallows and wrens to bluebirds. Learn how to identify these birds by sight and sound. Bring your binoculars if you've got them (limited quantity will be available for those without) and meet us at the Turtle Van. For families, all ages and abilities.
Time: 6-8pm. Cost: FREE!
Pre-registration not required.

WEDNESDAY, JUNE 4
Knee-High Naturalist: Mother Nature's Helpers
For-Mar Nature Preserve & Arboretum
Earn your "Jr. Naturalist" badge as we explore ways to help Mother Nature. For children ages 3-6, all abilities.
Time: 10-11:30am. Cost: $3 per child.
Pre-registration required by 6/2/14.

WEDNESDAY, JUNE 4
Wild Adventures: Frog Frenzy
For-Mar Nature Preserve & Arboretum
Would you be able to survive without modern day commodities? How would you find food, water and shelter? Learn the skills necessary to survive in the wild! For youth ages 7-12, all abilities.
Time: 10-11:30am. Cost: $3 per student.
Pre-registration required by 6/2/14.

WEDNESDAY, JUNE 4
Truck Farm: Help a Sister Out; Companion Planting
E.A. Cummings Event Center
Join us in the garden to experience Native American culture by using this companion planting technique to help us plant a Three Sisters garden. Learn about some other garden companions and even pot up a couple to grow at home. For children ages 4-6 and 7-12, all abilities.
Time: 7-8pm. Cost: FREE!
Pre-registration is not required.

THURSDAY, JUNE 5
Knee-High Naturalist: Mother Nature's Helpers
For-Mar Nature Preserve & Arboretum
Earn your "Jr. Naturalist" badge as we explore ways to help Mother Nature. For children ages 3-6, all abilities.
Time: 10-11:30am. Cost: $3 per child.
Pre-registration required by 6/3/14.

THURSDAY, JUNE 5
Ultimate Dash Training Program- Intermediate/ Advanced
Linden County Park, Clover Beach Pavilion
Time: 5:30-6:30pm. *Please refer to page 2 for program details and cost.*

THURSDAY, JUNE 5
For-Mar On The Road: Wonderful Wildflowers
E.A. Cummings Event Center
It's true that many wonderful wildflowers bloom in late May, however, different species will arise at different times of the year. This wildflower program will act as a companion to the Wonderful Wildflowers program held on May 24 at Wolverine Campground, or as a stand-alone learning experience. Learn to identify common, invasive and endangered species of wildflowers found in and around the E.A. Cummings Event Center. Program participants will create and take home a DIY flower press. For all ages, all abilities.
Time: 11am-12pm. Cost: FREE!
Pre-registration not required.

FRIDAY, JUNE 6
Outdoor Explorer Series: Build-a-Blind
For-Mar Nature Preserve & Arboretum
Build a ground blind and test its effectiveness by playing capture the flag with a twist. Class will be held outdoors. Please wear appropriate clothing. For youth ages 8 and older, all abilities.
Time: 6-7:30pm. Cost: $3.
Pre-registration required by 6/4/14.

SATURDAY, JUNE 7
10th Annual Kids Fishing Derby
Bluegill Boat Launch
It's summertime and the fishing is easy! Bring fishing gear if you have it; we'll supply the bait, the boats, the experts and lunch! A limited number of rods and reels will be available for kids who don't have their own. Co-sponsored by the Flint River Valley Steelheaders and Fishing Tackle Grab Bag. For families, all ages and abilities.
Time: 9am-2pm. Cost: Purchase of an annual or daily pass required for entrance into the facility. Participation in the Fishing Derby is FREE!
Pre-registration not required. Please refer to page 2 for vehicle fees.

SATURDAY, JUNE 7
Mini BioBlitz: What's in your Water?
For-Mar Nature Preserve & Arboretum
Join Darren Bagley from MSU Extension as he takes you on a trip to the different bodies of water at For-Mar to get down and dirty searching for the creepy crawlies that call our water home. Then identify the creatures you find and learn how they can tell us how healthy our water is. Finally, learn how you can be part of a local Citizen Science group, Flint River Watershed Coalition's Project GREEN, which studies and monitors the health of the water in Genesee County. For families, all ages and abilities.
Time: 10am-12pm. Cost: FREE!
Pre-registration required by 6/1/14.

SATURDAY, JUNE 7
Here Fishy...Fishy!
Buell Lake County Park, docks
Come learn all about fish and have fun fishing!
For individuals with cognitive disabilities.
Time: 10:30am-12pm. Cost: $2 per person.
Pre-registration required by 6/5/14.

SATURDAY, JUNE 7
For-Mar On The Road: Fillet Your Fish
Wolverine Campground, meet behind the camp store.
It's the DNR's bi-annual free fishing weekend! Hurray! Now that you've caught the fish, bring it to For-Mar's fish cleaning workshop. We'll demonstrate the proper ways to clean your pan fish for eating. But before we do that, we should preserve our catch. Before cleaning your fish, immortalize it in a traditional Japanese fish print! For all ages and abilities.
Time: 11am-12pm. Cost: FREE!
Pre-registration not required.

SATURDAY, JUNE 7
Truck Farm: Help a Sister Out; Companion Planting
Wolverine Campground, meet behind the camp store.
Join us in the garden to experience Native American culture by using this companion planting technique to help us plant a Three Sisters garden. Learn about some other garden companions and even pot up a couple to grow at home. For children ages 4-6 and 7-12, all abilities.
Time: 1:30-3pm. Cost: FREE!
Pre-registration not required.

SATURDAY-SUNDAY, JUNE 7-8
Free Fishing Weekend
Fish all weekend without a DNR Fishing License! All state regulations still apply.

MONDAY, JUNE 9
Ultimate Dash Training Program-Beginner
Crossroads Village, Ticket Booth
Time: 5:30-6:30pm. *Please refer to page 2 for program details and cost.*

MONDAY , JUNE 9
Geocaching 101
Linden County Park, Pavilion 2
Join the Auto City Cachers for a beginner's course in geocaching, an adventure game using GPS that combines technology with location-based gaming, social networking, treasure hunting, GPS navigation and outdoor recreation. Geocaching is a worldwide game of hiding and seeking treasure and is like a secret worldwide swap meet! Bring a GPS if you have one, but come even if you don't! We'll have some available for your use. For families, all ages and abilities.
Time: 6:30-8:30pm. Cost: FREE!
Pre-registration not required.

TUESDAY, JUNE 10
Geocaching 101
Flushing County Park, Pavilion 1
Join the Auto City Cachers for a beginner's course in geocaching, an adventure game using GPS that combines technology with location-based gaming, social networking, treasure hunting, GPS navigation and outdoor recreation. Geocaching is a worldwide game of hiding and seeking treasure and is like a secret worldwide swap meet! Bring a GPS if you have one, but come even if you don't! We'll have some available for your use. For families, all ages and abilities.
Time: 6:30-8:30pm. Cost: FREE!
Pre-registration not required.

FRIDAY, JUNE 13
Arthritis Foundation Exercise Program
For-Mar Nature Preserve & Arboretum
Join Abbie Mars, Program Development Coordinator at the Valley Area Agency on Aging, for this low-impact physical activity program proven to reduce pain and decrease stiffness. The routines include gentle range-of-motion exercises that are suitable for every fitness level. Program will be held outdoors if weather permits. Chairs will be used both indoors and outdoors during the program. For seniors, all abilities.
Time: 10:30-11:30am. Cost: FREE!
Individual pre-registration suggested by 6/10/14. Group pre-registration required.

FRIDAY, JUNE 13
Yoga in Nature
For-Mar Nature Preserve & Arboretum
Looking for a good stretch and relaxation? Maybe you just want time away from everyday stress. Learn breathing techniques and posture control. Plan to be outdoors. Class will be held indoors in cases of bad weather. Wear layered, loose, comfortable clothing. Bring your yoga mat or blanket. Some mats are available. For ages 9 and older, all abilities.
Time: 6-7pm. Cost: $2 per participant.
Pre-registration required by 6/11/14.

FRIDAY, JUNE 13
Outdoor Explorer Series: Where's Waldo?
For-Mar Nature Preserve & Arboretum
Camouflage is more than a fashion trend! Discover how to effectively disguise yourself. Class will be held outdoors. Please wear appropriate clothing. Bring camouflage clothing if you have it. We will have some available. For youth ages 8 and older, all abilities.
Time: 6-7:30pm. Cost: $3 per student.
Pre-registration required by 6/11/14.

SATURDAY, JUNE 14
Maple ID Walk
For-Mar Nature Preserve & Arboretum
Join us as we take a look at the many species of maple trees at For-Mar and learn how to identify the various species based on leaf and other characteristics. For adults ages 16 and older, all abilities.
Time: 10-11:30am. Cost: $5 per person.
Pre-registration not required.

SATURDAY, JUNE 14
Scouting Outing: Flowers
For-Mar Nature Preserve & Arboretum
Flowers are so beautiful that we bring them from the outside into our homes to add cheer to a room. But there is more to flowers than just good looks. Without them, plants could not make seeds, and scientists think the world would be a lot drier. Dig up more flower secrets, and Junior Girl Scouts, earn your flower badge. Then make a bouquet to give to your sweetest! For youth, all abilities.
Time: 10:30-12pm. Cost: $5 per scout.
Pre-registration required by 6/12/14.

SATURDAY, JUNE 14
For-Mar On The Road: Nature Journaling
Wolverine Campground, meet behind the camp store.
A time-honored way of developing one's connection to nature. An experienced For-Mar naturalist will guide you through thought-provoking activities that will encourage creativity and curiosity in the natural world. All of which you can record in your nature journal. Build on the journal you already use or start a new journal today! For families, all abilities.
Time: 11am-12pm. Cost: FREE!
Pre-registration not required.

SATURDAY, JUNE 14
Truck Farm: Edible Enchanted Gardens
Wolverine Campground, meet behind the camp store.
Join us in the garden as we learn about enchanted gardens and their residents. Help us plant an edible enchanted garden to share with the fairies, trolls and gnomes. Plant your own mini-enchanted garden for your home. For children ages 4-6 and 7-12, all abilities.
Time: 1:30-3pm. Cost: FREE!
Pre-registration not required.

SATURDAY, JUNE 14
Dirty Dash
E.A. Cummings Event Center
Have you ever said to yourself, "Marathons are too easy, and Triathlons are for sissies?" We haven't either ... those races are really hard. Think about it ... the first person to run a marathon actually died. HE DIED! ... and he probably didn't even have fun along the way! Well, welcome to a new kind of race: THE DIRTY DASH. This race puts all other races to shame. The Dirty Dash is a mud-run obstacle course where a military boot camp meets your inner five-year-old's fantasy

June events continued on next page »

Where Did My Lunch Come From?

Where was my lunch grown? How far did it travel to make it to my plate? Why is it so good for me? We'll answer these and more when you learn how to grow your lunch right in your very own garden! For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

WEDNESDAY, JUNE 18
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, JUNE 19
10:30am-12pm. *For-Mar*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, JUNE 20
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, JUNE 21
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

Natural Tie Dye

The science of dyeing has evolved through history and we're going to put it to the test in some natural dyeing experiments. We will be dyeing our very own bandanas to wear in the garden. For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

WEDNESDAY, JUNE 25
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, JUNE 26
10:30am-12pm. *For-Mar*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, JUNE 27
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, JUNE 28
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

For-Mar On The Road

Celebrating Urban Birds

Ages 3-6: Become a Citizen Scientist your very first week of For-Mar On The Road! Help the For-Mar naturalists find out which bird species survive and thrive in the Genesee County Parks. All junior birders who participate will create their own birding tool kit to include such essential tools as binoculars, bird callers and local species identification guides.

Ages 7-12: For our first week of summer programs, we will be doing our part to help out migrating birds in the Genesee County Parks, as well as in your own backyard. Join For-Mar naturalists in evaluating proper bird habitats in the parks, all while learning how to create good habitats for avian travelers who might also visit your home.

Cost: FREE! *Pre-registration not required.*

TUESDAY, JUNE 17
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, JUNE 18
11am-12pm. *For-Mar*
2-3pm. *Richfield County Park, Playground Pavilion*

THURSDAY, JUNE 19
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

FRIDAY, JUNE 20
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, JUNE 21
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

A Feisty Forest: Wilderness Survival Skills

Ages 3-6: Warning coloration in plants, common warning animal behaviors, and avoiding unknowns; our young friends will learn these and other simple tips and tricks to help them understand when something in nature is safe or unsafe. Program participants will go home with their own safety whistle.

Ages 7-12: Older brothers and sisters will get an introduction to wilderness survival skills. We're learning how to build a shelter, find clean drinking water, and start a fire. You'll also create a survival kit to keep in your day pack.

Cost: FREE! *Pre-registration not required.*

TUESDAY, JUNE 24
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, JUNE 25
11am-12pm. *For-Mar*
2-3pm. *Richfield County Park, Playground Pavilion*

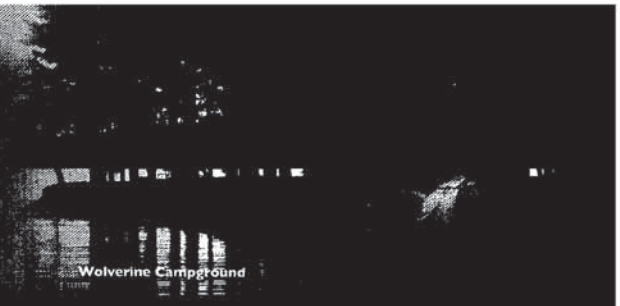
THURSDAY, JUNE 26
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

FRIDAY, JUNE 27
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, JUNE 28
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

AUGUST

Family Fun for Everyone!



MONDAY-FRIDAY, AUGUST 1-28
Summer Playground Program
Bluebell Beach, Pavilion 1; Flushing County Park, Pavilion 1 and Davison Roadside Park Pavilion
The FREE summer playground program is back! Kids ages 4-18 can drop in daily for crafts, gardening, nature, games and all kinds of fun stuff! Monday-Friday, June 23-August 28. For kids ages 4-18, all abilities.
Time: 11am-3:30pm. Cost: FREE!
Pre-registration is not required, but parents/guardians must complete a release form before kids can participate.

FRIDAY, AUGUST 1
Acting Workshops with Flint Youth Theatre
For-Mar Nature Preserve & Arboretum
Working with an FYT theatre educator, students will create amazing characters and stories from literature and their own imaginations, while working on acting techniques, teamwork, confidence, self-worth and responsibility. Class will be outside, weather permitting. For families, all ages and abilities.
Time: 10-11am. Cost: FREE!
Pre-registration required by 7/31/14.

FRIDAY, AUGUST 1
Outdoor Explorer Series: Beginner Orienteering
For-Mar Nature Preserve & Arboretum
Learn the basics of using a compass. Then test your navigation skill on a timed course. Class will be held outdoors. Please wear appropriate clothing and bring a compass if you have one. We will have a limited supply available. For youth ages 8 and older, all abilities.
Time: 6-7:30pm. Cost: $3 per student.
Pre-registration required by 7/30/14.

FRIDAY, AUGUST 1
Firefly Hike
For-Mar Nature Preserve & Arboretum
Come light up with firefly knowledge. We will learn about fireflies, building firefly holders, and take a night hike to catch & view fireflies. For families, all ages and abilities.
Time: 8:30-10pm. Cost: $3 per person.
Pre-registration required by 7/31/14.

SATURDAY, AUGUST 2
Planting for Monarchs
For-Mar Nature Preserve & Arboretum
Monarch butterflies are kings of the butterfly world, and these kings need to feast. Join us as we walk the gardens at For-Mar and see what plants these winged wonders feed upon. For adults ages 16 and older, all abilities.
Time: 10-11:30am. Cost: $5 per person.
Pre-registration not required.

SATURDAY, AUGUST 2
Rookie Ranger Academy
Flushing County Park, Pavilion 5
What does it take to become a Genesee County Parks park ranger? See all the police and fire equipment that park rangers use every day. Become a detective finding hidden fingerprints, identifying wildlife, and solving a crime by collecting clues on a scavenger hunt. Learn what to do if you see a gun and the proper way to call 911, and much more. Prizes, lunch and snacks provided (special needs to be supplied by parent/guardian). Dress for the weather. Wear tennis shoes. **No flip flops.** For ages 8-13, all abilities.
Time: 10am-4pm. Cost: FREE!
Pre-registration required by 8/1/14.

SATURDAY, AUGUST 2
Water is Wonderful
For-Mar Nature Preserve & Arboretum
Water is important to all of us! Learn all about where we get our water and how to keep it clean! For individuals with cognitive disabilities.
Time: 10:30am-12pm. Cost: $2 per person.
Pre-registration required by7/31/14.

SATURDAY, AUGUST 2
Critters of *Alice in Wonderland*
For-Mar Nature Preserve & Arboretum
Join us at For-Mar to learn all about the many animal friends who take part in Lewis Carroll's *Alice's Adventures in Wonderland*. Meet these fascinating animals and plants and get ready for the Flint Youth Theatre's production of *Alice in Wonderland*. Participants will create their own mini mushroom garden to take home. For families, all ages and abilities.
Time: 1-2:30pm. Cost: $5 per person.
Pre-registration not required.

For-Mar Nature Preserve & Arboretum's TRUCK FARM

Treats From Nature
Join us as we explore the many treats that nature provides for us for free. We will take an exploratory hike to see if we can locate some tasty morsels to sample. For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

WEDNESDAY, AUGUST 6
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, AUGUST 7
10:30am-12pm. *For-Mar Nature Preserve & Arboretum*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, AUGUST 8
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, AUGUST 9
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

Shake, Rattle & Roll!
Come join us for some horticulture inspired movement, music and art in the garden. For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

MONDAY, AUGUST 4
SKIP Nutrition Playgroup
Flushing County Park, Pavilion 5
For families with kids ages 0-5, not yet in kindergarten, all abilities.
Time: 10-11am. Cost: FREE!
Pre-registration not required.

MONDAY, AUGUST 4
Cooking with Kids
Stepping Stone Falls Picnic Area
For kindergarten-6th grade students, all abilities.
Time: 1:30-2:30pm. Cost: FREE!
Pre-registration not required.

WEDNESDAY, AUGUST 13
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, AUGUST 14
10:30am-12pm. *For-Mar Nature Preserve & Arboretum*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, AUGUST 15
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, AUGUST 16
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

Please, Feed the Worms!
It's the wonderful world of vermicomposting! Learn how these tiny worms turn our garden trash into food for plants. For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

WEDNESDAY, AUGUST 20
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, AUGUST 21
10:30am-12pm. *For-Mar Nature Preserve & Arboretum*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, AUGUST 22
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, AUGUST 23
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

Garden to Table
It's harvest time! We're picking garden goodies and trying new recipes. For children ages 4-6 and 7-12, all abilities.
Cost: FREE! *Pre-registration not required.*

WEDNESDAY, AUGUST 27
10:30am-12pm. *Linden County Park, Pavilion 2*
1:30-3pm. *Flushing County Park, Pavilion 1*

THURSDAY, AUGUST 28
10:30am-12pm. *For-Mar Nature Preserve & Arboretum*
1:30-3pm. *Davison Roadside Park Pavilion*

FRIDAY, AUGUST 29
10:30am-12pm. *Buell Lake County Park, Pavilion 1*
1:30-3pm. *Bluebell Beach, Pavilion 1*

SATURDAY, AUGUST 30
11am-12pm. *Richfield County Park, Pavilion 5*
1:30-3pm. *Wolverine Campground, behind camp store*

TUESDAY, AUGUST 5
Cooking with Kids
Wolverine Campground & Buttercup Beach. Program will be behind the camp store. Park at the beach.
For kindergarten-6th grade students, all abilities.
Time: 1:30-2:30pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Empowering Youth (Nutrition Education/Cooking)
Davison Roadside Park Pavilion
For 6th grade and older, all abilities.
Time: 3-4pm. Cost: FREE!
Pre-registration not required.

MONDAY, AUGUST 4
Cooking Matters
Davison Roadside Park Pavilion
For families, all ages and abilities.
Time: 6-8pm. Cost: FREE!
Register for this program by calling 810.591.5134. Families are asked to commit to the entire 6-week program. Class size is limited, so register early!

MONDAY, AUGUST 4
Birthday Card Workshop
Linden County Park, Clover Beach Pavilion
Handmade birthday cards, the perfect present! Learn a few card-making techniques and make your own hand-stamped and decorated cards with Michelle Litwiller from Stampin' Up! All supplies are provided and all skill levels welcome. For families, all ages and abilities.
Time: 7-8:30pm. Cost: FREE!
Pre-registration not required.

MONDAY, AUGUST 4
Bokwa®
Flushing County Park, Pavilion 5
Join certified instructor Terri Sweet Herrick for Bokwa® in MI Big Green Gym, the Genesee County Parks! What Is Bokwa®? It's a new and completely different approach to group exercise! Participants draw letters and numbers with their feet while performing an energizing and addictive cardio workout routine to today's hit music. No counting steps or complicated choreography, and it doesn't even feel like working out! Because of the energizing music, the fun and predictable steps, and great motivation coming from people moving together to music, you'll get addicted and you won't even realize that you just burned up to 1,200 calories in one workout session. For all ages and abilities.
Time: 7-8pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
SKIP Nutrition Playgroup
Davison Roadside Park Pavilion
For families with kids ages 0-5, not yet in kindergarten, all abilities.
Time: 10-11am. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Cooking with Kids
Davison Roadside Park Pavilion
For kindergarten-6th grade students, all abilities.
Time: 1:30-2:30pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Empowering Youth (Nutrition Education/Cooking)
Davison Roadside Park Pavilion
For 6th grade and older, all abilities.
Time: 3-4pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Empowering Youth (Nutrition/Cooking)
Wolverine Campground & Buttercup Beach. Program will be behind the camp store. Park at the beach.
For 6th grade and older, all abilities.
Time: 3-4pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Avian Adventures: Shorebirds
E.A. Cummings Event Center
Explore the shores of the ponds and the Flint River in search of our wading water birds with your For-Mar naturalist. Specialized for preying on fish, amphibians and invertebrates that live along the water's edge, we'll be looking for great blue herons, egrets, green herons and more in today's Avian Adventure. Bring your binoculars if you've got them (limited quantity will be available for those without) and meet us at the Turtle Van. For families, all ages and abilities.
Time: 6-8pm. Cost: FREE!
Pre-registration not required.

TUESDAY, AUGUST 5
Zumba® Kids & Zumba® Kids Jr.
Davison Roadside Park Pavilion
Terri Sweet Herrick brings Zumba® Kids and Zumba® Kids Jr., the ultimate dance-fitness party for kids ages 4-11 who love loud music and rockin' it out with their friends, at the Genesee County Parks! This program features age-appropriate music and the opportunity for kids to move to the beat. It's all about feeling fearless on the dance floor, beginning the journey to a healthy future, and reinforcing the idea that it's okay to just be yourself. It's time to dance like no one's watching! For kids ages 4-11, all abilities.
Time: 7-8pm. Cost: FREE!
Pre-registration not required.

August events continued on next page »

For-Mar On The Road

Return of the Dinosaurs
Ages 3-6: Back by popular demand, take a journey back in time with your For-Mar naturalists to meet the prehistoric creatures that once roamed the Earth. Travel back to a time when the Earth was younger and the animals that inhabited it much stranger. Play games and complete a craft all about these ancient reptiles.
Ages 7-12: New discoveries have been made that indicate dinosaurs may have been much bigger than we originally thought! What other parts of these rambunctious, ravenous reptiles might be different? Create your own dinosaur to take home.
Cost: FREE! *Pre-registration not required.*

TUESDAY, AUGUST 5
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, AUGUST 6
11am-12pm. *For-Mar Nature Preserve & Arboretum*
2-3pm. *Richfield County Park, Playground Pavilion*

THURSDAY, AUGUST 7
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

FRIDAY, AUGUST 8
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, AUGUST 9
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

Nature at Nighttime
Ages 3-6: Humans and many other animals get their rest at night, however there are just as many that prefer to stay active when the sun goes down. In preparation for our visit from Bat Zone, let's learn about what it means to be nocturnal, and which animals call nighttime nature home.
Ages 7-12: Put yourself in the shoes of a nocturnal animal, act out nighttime animal adaptations with your For-Mar naturalist. Discover what it means to be an after-hours animal with interpretive games and a craft.
Cost: FREE! *Pre-registration not required.*

TUESDAY, AUGUST 12
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, AUGUST 13
11am-12pm. *For-Mar Nature Preserve & Arboretum*
2-3pm. *Richfield County Park, Playground Pavilion*

THURSDAY, AUGUST 14
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

FRIDAY, AUGUST 15
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, AUGUST 16
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

What Big Teeth You Have! Predators
Ages 3-6: We'll do our best to make some of Earth's more ferocious animals not seem quite so scary. We'll imagine what life might be like for some of Michigan's most iconic predators including bear, bobcat and bald eagle.
Ages 7-12: Often misunderstood and feared, predators are some of the planet's most clever creatures and can come in a wide variety of stealthy forms. Predators are a vital part of any healthy ecosystem! Take a close look at the wolves of Isle Royal and why they are so important to the moose also found on the island.
Cost: FREE! *Pre-registration not required.*

TUESDAY, AUGUST 19
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, AUGUST 20
11am-12pm. *For-Mar Nature Preserve & Arboretum*
2-3pm. *Richfield County Park, Playground Pavilion*

THURSDAY, AUGUST 21
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

FRIDAY, AUGUST 22
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, AUGUST 23
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

What Does the Fox Say? Animal Communication
Ages 3-6: Wouldn't it be interesting to find out what some animals are thinking? This week we'll find out! One of our experienced naturalists will show your preschooler how certain animals communicate. We'll have them dancing like a deer and singing like a robin in no time.
Ages 7-12: Humans display one of the most complex forms of communication — speech. We certainly make it look easy, but other plants and animals make it look amazing! Explore communication in the animal kingdom, including what foxes do and do not say.
Cost: FREE! *Pre-registration not required.*

TUESDAY, AUGUST 26
2-3pm. *Davison Roadside Park Pavilion*

WEDNESDAY, AUGUST 27
11am-12pm. *For-Mar Nature Preserve & Arboretum*
2-3pm. *Richfield County Park, Playground Pavilion*

THURSDAY, AUGUST 28
11am-12pm. *Buell Lake County Park, Pavilion 1*
2-3pm. *Bluebell Beach, Pavilion 1*

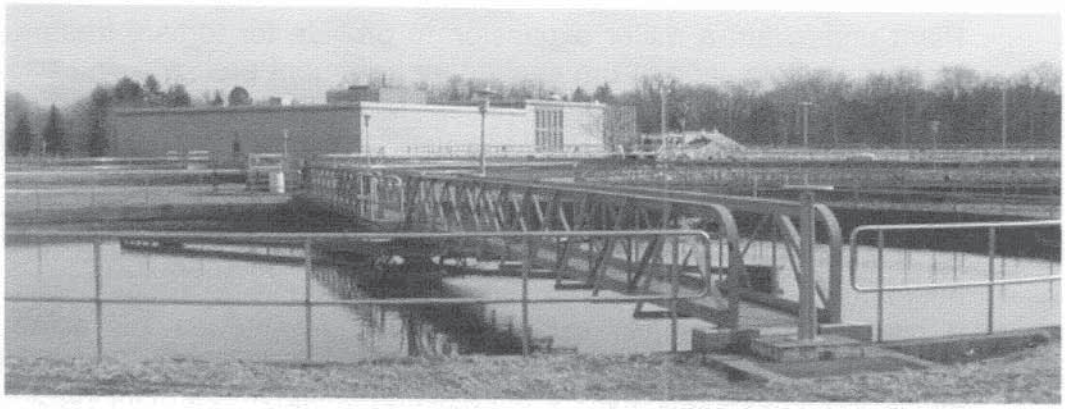
FRIDAY, AUGUST 29
11am-12pm. *Flushing County Park, Pavilion 1*
2-3pm. *Linden County Park, Clover Beach Pavilion*

SATURDAY, AUGUST 30
11am-12pm. *Wolverine Campground, behind camp store*
2-3pm. *Creasey Bicentennial Park, Sledding Hill Pavilion*

The City of Flint's Water Pollution Control Division (WPC) is responsible for maintaining a clean Flint River in a variety of ways. First, it operates and maintains a 50 million gallon per day capacity treatment plant and 9 remote pumping stations for conveying sewage through sanitary sewers. It cleans this wastewater from homes, businesses, and industries before discharging it to the river. WPC also supports the City's Storm water Management Plan, designed to prevent water pollution caused by illegal discharges to rivers via the street drains (storm sewers) that empty directly into them. WPC monitors chemical spills and other illicit discharges to the City's storm water collection system. Finally, to prevent overloading of the plant or damage to sewers, WPC administers an Industrial Pretreatment Program (IPP). The IPP tests and regulates discharges from industries into the sanitary sewers.

WPC is proud of its long history of protecting the Flint River, public health, and the environment through the operation of these programs and maintaining the cleanliness of wastewater discharge, consistently exceeding the standards set by the Michigan Department of Environmental Quality and the U. S. Environmental Protection Agency.

How you can help keep the Flint River clean and healthy:
Keep trash and pollutants out of storm sewers
Report dumping of polluting wastes to the Environmental Compliance Unit at (810) 766-7210
Report sewer backups or blockages to Sewer Maintenance at (810) 766-7079



For additional information or to schedule a tour, please (810) 766-7210

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City of Flint

Water Pollution Control Plant Historical Highlights

October 1925 — Sewage flow diverted from Flint River to WPC through 50" force main
WPC included 4 Imhoff tanks and 40 sludge drying beds

1931 – 1932 — Plant was expanded to include trickling filters, 2 secondary clarifiers and chlorination

1953 – 1956 — Plant was expanded to include 2 sludge digesters, 2 final clarifiers, one grit removal chamber, northwest pump station, and modifications to influent structure and trickling filter piping

1962 – 1964 — Plant was expanded to provide activated sludge secondary treatment. It then included 1 additional grit chamber, 6 primary settling tanks, 1 15,000 CFM and 2 30,000 CFM blowers, 3 aeration tanks, 3 final tanks, a digester building with 1 additional sludge storage tank and a gas storage sphere, pre-aeration tanks, chlorine contact tanks, two vacuum filters, two multiple-hearth incinerators, 1 ash lagoon (north), administration building and remodeling of the service building

1973 plant expansion

Plant underwent a major expansion to provide for tertiary treatment and biological nitrification in the secondary treatment process. The expansion increased the design capacity to 50 MGD. It included mechanical bar screens at Northwest and Third Avenue Pumping stations, grit removal and handling equipment (B-Grit), 4 more primary settling tanks, phosphorus removal equipment, 6 aeration tanks (Battery B), 3 40,000 CFM blowers (#4-6), 4 more final tanks, a trickling filter effluent lift station, 6 fine mesh microstrainers, chlorination equipment, 2 high pressure air compressor units, a dissolved air flotation sludge thickening system, a low pressure air oxidation system (Zimpro), 3 vacuum filter units, 2 new multiple hearth incinerators (& modification of the existing multiple hearth incinerators), an ash handling system, 1 ash lagoon (south), and various metering devices, instrumentation equipment and process pumping units

September 1983 — East Pump Station, new relief sewers, and deep tunnel network put in service

August 1985 — Primary effluent flow to trickling filters was terminated

April 1987	Two belt filter presses were put on line, and the zimpro process was shut down
September 1987	Liquid propane gas facility was put in service as an alternate fuel system
December 1987	Battery b aeration system was modified to incorporate sanitaire fine bubble diffusers
March 1988	Battery A aeration system was modified to incorporate sanitaire fine bubble diffusers
June 1988	The activated sludge aeration system was modified to route waste activated sludge to the primary tanks for co-settling purposes and the DAF thickener building was shut down
December 1988	Stockroom/vehicle storage building additions were completed.
November 1990	Completed modifications to women's locker room and office area in the administration building
December 1990	Completed the removal of all category 1 asbestos containing building material from WPC and Third Avenue Pumping Station
April 1991	Sulfur Dioxide dechlorination system was brought on line
May 1991	Belt filter presses were modified to include rotary screen thickeners (RSTS)
1991	Polymer storage facilities added Blower monitoring (Bently-Nevada) established East digester floating cover removed and replaced with geodesic aluminum roof
1997	Microstrainers permanently bypassed, increasing peak hydraulic flow to 76 MGD Two additional belt filter presses with RSTs installed
1998	Third Ave. Pump Station - First variable frequency drive installed on Pump #1
1999	Closed north ash lagoon; installed overflow structure on south side
2001	Rerouted discharge from ash lagoon to plant headworks
2005	Began replacement of all motor control centers

2006	Incinerator feed system modifications
2007	Incinerator Control System replacement: digitally controlled, with variable gas burners
2009	Demolished gas storage sphere. Began reconstruction of North Digester (with Swedish Biogas)
2010	Completed replacement of North Digester equipment, flare, new pump house, and new digestate storage tank Resumed anaerobic digestion of all sludge
2011	Removed South Digester cover and cleaned out the tank to prepare for renewal. Replaced the two older BFP units with centrifuges
2012	Began rebuilding final settling tanks with new mechanical equipment LPG tanks removed
2013	Completed rebuild of B-Grit facility with all new mechanical equipment Replaced bar screen and other mechanical equipment at Third Avenue Pump Station. Added monitoring and control equipment and enabled operation from the WWTP Began using cellular equipment to monitor all remote pump stations
2014	Unmanned operation of Third Avenue Pump Station. Replaced chlorination equipment; began feeding chlorine gas only Replacing bar screen and raking equipment at East and Northwest Pumping Stations
2015	Biosolids Loadout Facility to be constructed; all biosolids diverted to landfill and Incinerators shut down.

Historical Perspective, 2014

There have been significant changes over the years in both the treatment plant itself, and the challenges it has had to face. Currently, the 50 MGD treatment plant handles a dry weather flow of about 20 MGD. The steady reduction in dry weather flows has occurred since the 70s due to loss of both population and industry.

This has affected the quality of sewage treated as well. In the 70s, about 40% came from various industrial sources, principally GM facilities. Today, most of those sources have been eliminated, and new ones that have replaced them use only a small fraction of the previous amounts of water. The new GM facilities are also designed to release very little waste in their effluent. Consequently, today only about 5% of the wastewater is from industrial sources, and Flint can no longer be characterized as an industrial city.

One thing that has not changed, however, are the wet weather flows, which still can exceed 100 MGD, although rarely. Since 1983, flows beyond the plant hydraulic maximum, about 75 MGD, overflow into a 10 MG Retention and Treatment Basin. If the RTB capacity is exceeded, these dilute flows are given basic treatment and disinfection only before discharge.

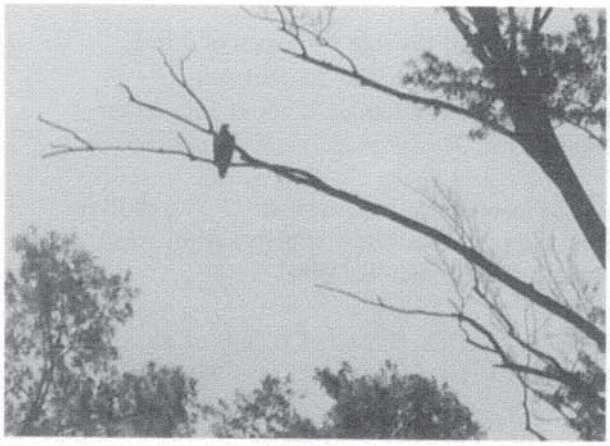
The City does have separated storm sewers, but most building footing drains still empty into the sanitary system. Leaks in the collection system (Inflow and Infiltration) contribute the rest. Wet weather flows and their management remain a great challenge.

FLINT RIVER
WATERSHED COALITION

Background memo
Flint River Press & Friends Paddle
August 11, 2014

Three Eaglets Nesting on Our Flint River

...and they are in the upper 4% among their peers.



The Flint River Watershed Coalition partners with the Genesee County Drain Commission to sponsor public kayak trips down the Flint River through the "Our Water" program. Just a few weeks ago, we had a once in a lifetime privilege to witness ***three fledglings*** in and around their nest under one of the parent's watchful eye during one of the public paddles. Only 4% of nesting eagles lay a "clutch" of 3 eggs. Given mortality rates for first flight attempts, this large family of bald eagles is profoundly unique. It would be a rare treat for anyone across this country to see, and yet they are right here in our backyard.

FLINT RIVER WATERSHED COALITION

Background memo
Flint River Press & Friends Paddle
August 11, 2014

Bald Eagle Factoids[1]

The bald eagle is both the national bird and national animal of the United States of America. The bald eagle appears on its Seal. It was chosen as the emblem of the United States of America because of its long life, great strength, and majestic appearance. This selection had its detractors, most notably Benjamin Franklin who expounded on the bald eagle's "bad moral character."

The bald eagle is a bird of prey found in North America. Its range includes most of Canada and Alaska, all of the contiguous United States, and northern Mexico and is found near large bodies of open water with an abundant food supply and old-growth trees for nesting.

The bald eagle is the second largest North American bird of prey, with an average wingspan of 7 feet. (California condor is largest). Body size varies widely, with adult total length 2.3 -3.1 feet and wingspans 5.5 - 8.0 feet. Adult body weights range from 10 -14 pounds. The female is about 25% larger than the male; otherwise there is no distinction between the sexes.

Bald eagles are not actually bald; the name derives from an older meaning of "white headed." The adult is mainly brown with a white head and tail. The sexes are identical in plumage. The distinctive white head, neck, and tail are not attained until 5.5 years of age, which is the age of sexual maturity.

The bald eagle is a powerful flier, and soars on thermal convection currents. It reaches speeds of 35–43 mph when gliding and flapping, and about 30 mph while carrying fish. Its dive speed is between 75–99 mph, though it seldom dives vertically.

The bald eagle is an opportunistic feeder which subsists mainly on fish, which it swoops down and snatches from the water with its talons. In 20 food habit studies across the species' range, fish comprised 56% of the diet of nesting eagles, birds 28%, mammals 14% and other prey 2%.

When Europeans first arrived on the North American continent there were an estimated one-quarter to one-half million bald eagles. Bald eagle populations declined due to deliberate killing for feathers and trophies, loss of prey, loss of habitat, intentional poisoning, and unintentional poisoning, especially via widespread use of the pesticide DDT (dichloro-diphenyl-trichloroethane).

By the late 20th century, bald eagles were on the brink of extinction in the continental United States, and in 1963 the population reached a low with only 417 nesting pairs in the lower 48 states.

Although bald eagles had been protected at federal and state levels since 1940 and 1954, respectively, they received much greater protection after the ratification of the Endangered Species Act in 1973, and the Michigan endangered species act in 1974. Under the protection of the Endangered Species Act (ESA), and the banning of the use of DDT, the bald eagle population has nearly doubled every 7 to 8 years.

Bald eagles are sexually mature at four or five years of age. When they are old enough to breed, they often return to the area where they were born. It is thought that bald eagles mate for life. However, if one member of a pair dies or disappears, the other will choose a new mate.

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[1] Prepared using direct and paraphrased excerpts from the Michigan Department of Natural Resources webpage on bald eagles, the Species Assessment for Bald Eagle in Wyoming by Amber Travsky and Dr. Gary P. Beauvais in November 2004, and the Wikipedia bald eagle webpage.

FLINT RIVER
WATERSHED COALITION

Background memo
Flint River Press & Friends Paddle
August 11, 2014

Bald eagle courtship involves elaborate, spectacular calls and flight displays. The flight includes swoops, chases, and cartwheels, in which they fly high, lock talons, and free fall, separating just before hitting the ground. Usually, a territory defended by a mature pair will be ½ - 1¼ miles of waterside habitat.

It builds the largest nest of any North American bird and nests may be used year after year, resulting in huge constructions approaching 12 feet in height and 8 feet in diameter. They are the largest tree nests ever recorded for any animal species.

From late March to early April, one to four pure white eggs, approximately twice the size of a chicken egg, are laid (referred to as a "clutch of eggs"). The clutch is most often 2 eggs (79%), occasionally 1 egg (17%) or 3 eggs (4%). Clutches of 4 eggs are extremely rare.

Incubation is primarily by females, with some assistance from males. Incubation lasts about 35 days. The first eaglet to hatch has a significant advantage in competing for food; mortality for subsequent hatchlings is relatively high.

In nests with more than one eaglet the largest chick often receives the most food. Adults preferentially respond to the most noticeable eaglet, both in terms of size and noise. Sibling competition and mortality is greatest early in the nestling period, when size differences are greatest. Nestlings are rarely killed by their nestmates. Similar to other young birds, juvenile eagles are particularly vulnerable to accidents, predation, or starvation during their first year.

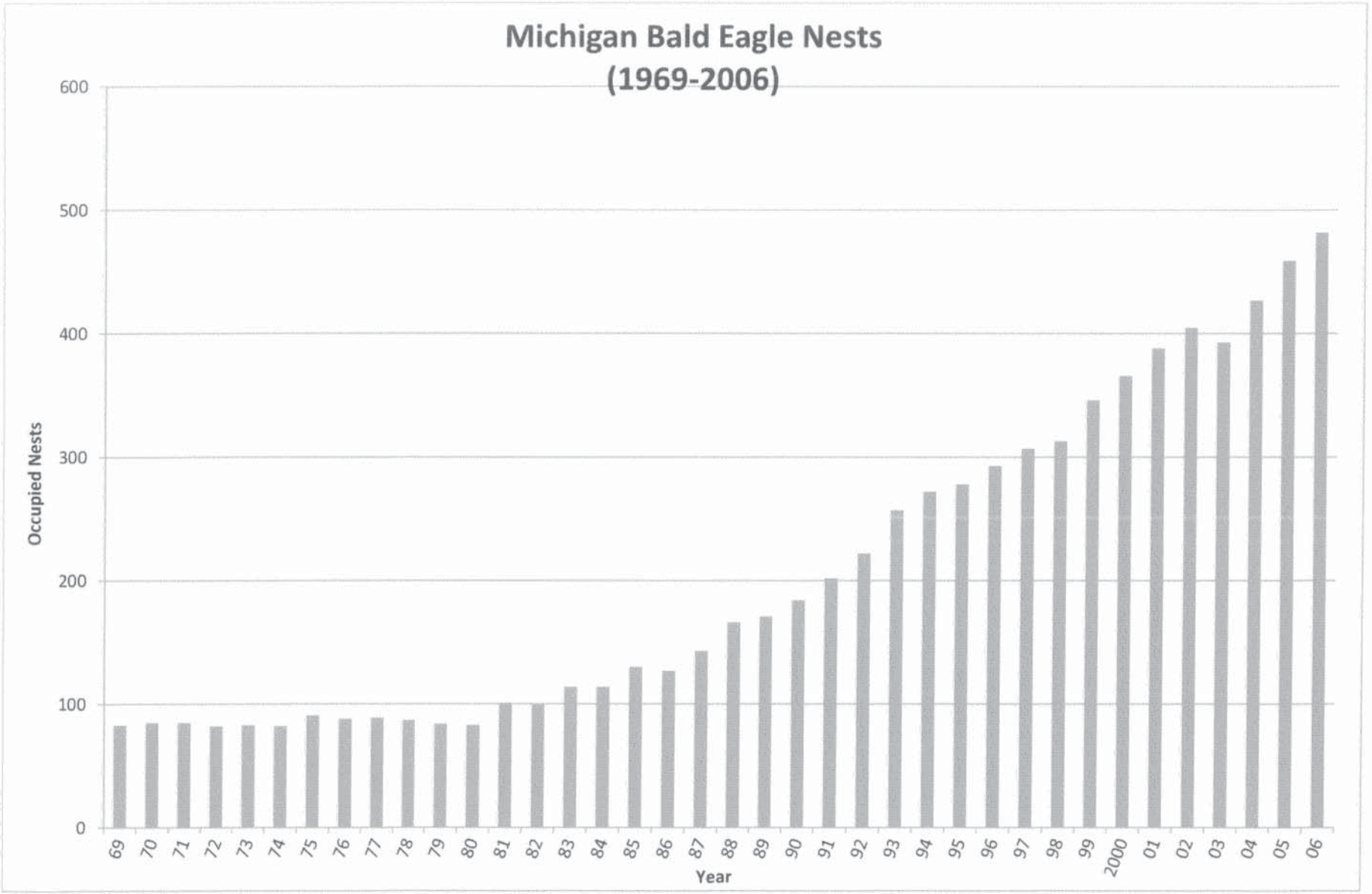
When first hatched, a bald eagle is covered with thick, silky down. At about 3 weeks of age the whitish down is replaced by shorter, thicker, and darker down. At 5 -6 weeks of age blackish feathers begin to appear on the body and wings; at 7 -8 weeks eaglets are fairly well feathered, with only a little down showing between feathers.

Fledging (to become capable of flight) occurs 10 -12.5 weeks of age, but up to half of nest departures are unsuccessful and the young may remain on the ground for weeks before regaining flight ability. In most such cases, the parents will continue to feed the young even if they're on the ground. The adults continue to care for the young and they may remain around the nest for several weeks after fledging.

Juvenile bald eagles, with their generally all-brown appearance, can be confused with adult golden eagles.

The longevity record for bald eagles in the wild is >28 years. Captive birds have lived to 47 years, and they are believed to be capable of reproducing for 20-30 years.

Full grown bald eagles have few natural enemies, and the most frequently reported causes of adult bald eagle mortality are human-related. Major threats include habitat loss, disturbance by humans, biocide contamination, decreasing food supply, and illegal shooting.


Michigan Bald Eagle Nests
(1969-2006)
Occupied Nests
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The Flint River isn't what you think it is, and here's why you should check it out

Loading Photo Gallery

Scott Atkinson | satkins1@mlive.com By **Scott Atkinson | satkins1@mlive.com**
Email the author
on August 11, 2014 at 5:50 PM, updated August 11, 2014 at 5:51 PM

FLINT, MI -- We were just outside of town when we saw the thing we'd been most hoping to see.

"Bald eagle! Bald eagle!" I shouted as the bird emerged from around the trees that reached out over the river. It flew just over our heads, its white head and brown body clear against the blue sky.

"Did you see its talons?" Jaime Welch asked. She's the Flint River Watershed Coalition's education programs coordinator, and she was leading the group of local officials, professionals and media members on a kayak trip down a stretch of the Flint River. The goal: prove that the Flint River isn't what people think it is.

I hadn't seen the talons, but I wasn't disappointed. I'd already seen herons (or, as we suspected, one heron that we kept chasing down the river), clams on the riverbed, ducks, what we thought was a wood duck, and the eagle had flown right over my head. A few minutes before, we'd taken time to paddle against the slight current and stare at the eagle nest -- perhaps 5 feet wide, though it was hard to tell. They've been found as big as 10 feet wide, and this one was not made of twigs and grass, but branches, thick as your fingers, woven into the crook of a dead tree that the years had stripped of bark, making it as bald-looking as the eagles who nested there.

Mostly, though, what we saw was the river itself, and that was what Welch and her FRWC cohorts wanted. They had invited us out as part of a mission to prove that the Flint River was not what people still insisted it was.

They did a good job, or maybe once they got us out there, the river did it for them.

"Everyone goes up north to go on the river, and we've got this gorgeous river...two minutes from downtown Flint," said Rebecca Fedewa, who director of the FRWC.

I admitted that I myself had been up north, in Au Gres (if you count that as up north, which I do) that very morning, but had come back for the trip.

It was worth coming back, even if I was working -- in fact once out on the river, I joked with the dozen or

so people who showed up for the event that if you were to take a picture of where we were and show it to anyone from the state, they would believe they were in northern Michigan.

And it's safe. It's clean. You can eat the fish there. This is something the FRWC folks cannot say enough, mostly, they say, because people either don't know or don't believe them.

Laurie Elbing handles outreach and events for the FRWC. She grew up living on the Flint River and loving the outdoors, but as a girl said she thought she'd never get to enjoy it.

"I grew up on the river, and it was a place you did not go," she said, not long before she stepped into her kayak.

When she was 6 years old, in 1973, things began to change. That was the year that the Clean Water Act was signed, and companies had to start complying with regulations.

What pollution the river now has doesn't come from corporations dumping waste anymore, as it once had. Now it comes from surface runoff, with contaminants from roads, fertilizer and other chemicals from lawns and farmers' fields making their way to the river.

There's also the garbage. The river is home to the occasional empty bottle, milk crate, plastic bag. There were two orange traffic barrels along our stretch.

"I fill a garbage bag every time I go out," Welch said.

Tires are also a problem, and they're something the FRWC targets when they hold volunteer cleanup events.

Overall, the river looks clean and natural, aside from these occasional reminders that the work is never done.

There are still problems, but they are not like the problems the river used to have.

Those eagles are proof.

They and their offspring live off almost exclusively fish, and the fact that they can live in the the area shows that the river has bounced back.

The Flint River has the same fishing advisory as the Great Lakes. It's home to smallmouth bass, walleye, and some trout, and people can eat them all.

A note on those eagles: They're rare. Having them in the area is rare enough, but it's the fledglings that make them interesting. There are three. Elbing said there's about a 4 percent chance that a bald eagle nest

will have three eggs. To have all three hatch and thrive "is off the charts" she said.

The great part about kayaking with the FRWC people is that they know the river as intimately as anyone can. Welch led the float and is out on the water about once a week. For work, that is. She spends more time there on her own.

Every spring and fall they visit sites up and down the river and throughout the entire watershed -- a 1,400-square-mile area -- studying it to see how healthy it it.

Welch is just as fascinated by what's in the water that you can't see easily as she is in all the things you can see.

Her favorites are dragonflies.

They collect bugs and insects on all their outings. In general, finding bugs is good. There are some creatures, like leaches, that can grow anywhere. Many insects are more delicate. If you find them, especially several different species, the river is doing well.

She gets excited talking about the dragonflies. If you've ever seen a dragonfly, chances are you've seen it as it was approaching death, because for the first year or two of their lives, dragonflies live under the water. Once they get their wings and emerge, they're alive for seven to eight weeks.

They're interesting survivors. Dragonflies under the water have been found as far as 350 miles out to sea. When they feed, their bottom jaws detach and shoot forward to snatch their prey. Theirs jaws are what inspired the creepy anatomy of the mouths of the creatures in the "Alien" movies.

"They're beasts," Welch said. "I love them."

Welch's favorite stretch of the river is between the Halloway reservoir and Irish Road, because of the things she's seen there. Once, by passing by Richfield Park, they witnessed a traditional Irish wedding and a female bagpipe player, outfitted in full traditional dress, serenaded them as they paddled by. Another time, they passed a man playing a traditional Native American flute.

Our stretch of the river started in Flint Township, at a launch point near Flushing Road and Ballenger Road. We kayaked about five miles to another launch at River Road in Flushing.

It was a trip full of wildlife, but one that also took us past other things.

There are several back yards, and many of them may be emblematic of what Welch and her cohorts are trying to change. The river's edge is covered in brambles, and its clear that though the river is literally in their back yard, they're not using it. She can't believe this.

When we pass by a golf course, one golfer stopped his cart by the shore and shouts to whoever will listen. He was wondering where where you can paddle, where the launch points are, how it all works.

Welch stuck her paddle in the river, keeping herself still against the current, and while the rest of us drifted on, she told him everything she can, more than he'll ever need to know to get him on the river.

The Flint River Watershed Coalition will be hosting more kayaking events throughout the rest of the summer and fall. For more information, visit the ***FRWC website****.*

Flint residents learn how to protect the environment and save money at 'Green Life' event

glen wilson.JPG
Glenn Wilson, president and CEO of Communities First Inc., talks to Flint residents about how to lower energy costs and protect the environment at the organization's first Green Life event in the Berston Field House Tuesday, June 3. *(Nathan Clark)*

Nathan Clark | nclark1@mlive.com By **Nathan Clark | nclark1@mlive.com**
Follow on Twitter
on June 03, 2014 at 8:30 PM, updated June 04, 2014 at 9:50 AM

FLINT, MI – Flint residents looking to protect the environment and save on their energy costs gathered in the Berston Field House Tuesday, June 3, to learn what they can do.

Communities, First Inc., a nonprofit organization that works to better the lives of residents in distressed communities, hosted its first Green Life community education event in Flint providing residents with information about what they can do to save money and improve their community.

"It's our goal to educate and empower residents to make their communities environmentally friendly," said Glenn Wilson, president and CEO of Communities First Inc. "It's good for the environment and for other residents. People don't think about all the little things they can do to help the environment."

Wilson said little things like cleaning up litter on your property and keeping your lawn mowed can have a major impact on the overall environment in a neighborhood.

Flint resident Peggy Stribling came to the event looking to learn how to save more money on her energy bills.

"I want to put my energy into saving, not just paying the bill," Stribling said.

Stribling looked at one of the available pamphlets at the event and was happy to see she was already on the right track doing many of the things suggested by the program.

Wilson introduced representatives from various organizations to speak about how residents can save money and be more environmentally friendly.

Jef Johnson, education outreach coordinator for the Genesee Conservation District, told residents how letting grass grow to between 2 and half and 4 inches is better for a lawn than cutting it short.

"The longer you let the grass grow, the stronger the roots become and it will need less water," Johnson said.

Johnson also told attendees about some of the things residents used to do to the environment around the area and how some people still do it today, such as pouring used motor oil down storm drains.

The next Green Life event will be held 5:30 – 7:30 p.m. Thursday, June 5, in the McCree Theater located at 5005 Cloverlawn drive.

Everyone is welcome to attend. There will be free food and a raffle for prizes at the end.

For more information about Green Life events and Communities First Inc., visit **communitiesfirstinc.org**