

Genesee County Phase II Municipalities Annual Report

November 1, 2015 – October 31, 2016 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



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Acronyms/Abbreviations

Acronyms/Abbreviations	Definition
BMP	Best Management Practice
CAER	University of Michigan – Flint, Center for Applied Environmental Research
EPA	Environmental Protection Agency
FRWC	Flint River Watershed Council
GCCD	Genesee County Conservation District
GCDC	Genesee County Drain Commissioner
GCRC	Genesee County Road Commission
GISD	Genesee Intermediate School District
GREEN	Global Rivers Environmental Education Network
IDEP	Illicit Discharge Elimination Plan
M&M	Monitoring and Mapping
MDEQ	Michigan Department of Environmental Quality
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
PEP	Public Education Plan
PPP	Public Participation Plan
PSD	Point Source Discharge
SEMCOG	Southeast Michigan Council of Governments
SESC	Soil Erosion and Sedimentation Control
SWAC	Storm Water Advisory Committee
SWM	Surface Water Management
SWPPI	Storm Water Pollution Prevention Initiative
WMP	Watershed Management Plan
WQI	Water Quality Index

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, 2015, to October 31, 2016, 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:

- Jurisdictional Permit
- 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 to a Jurisdictional permit

With the new permit originally submitted to the MDEQ in April 2014, we are in the process of moving from a voluntary Watershed permit to a jurisdictional permit. To implement the permit requirements, 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.

Contract Communities

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

Note:

- Of the Phase II communities, Grand Blanc Township is the only Phase II community that does **not** participate through this contract.
- In the 2013-2014 reporting cycle Mundy Township and Flushing Township were able to opt out of the NPDES Ph II permit, and have chosen to not to sign a new contract.
- The contract for Public Education services between City of Flint and Genesee County ended on September 1, 2014. City of Flint chose not to extend the contract. A letter by GCDC-SWM to the

MDEQ was sent 3/26/15 notifying the State that Public Education efforts covered in this report are not being done on behalf of the City of Flint Effective Oct 1, 2014.

• Although *Argentine Township is not a Phase II community, they chose to sign the contract for services.

Table 1-1: Contract Communities

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

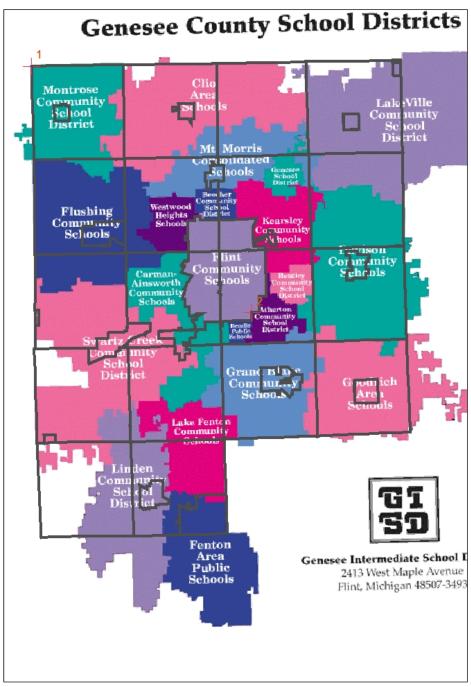
Nested Drainage System Agreements

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

Table 1-2: Nested School Districts

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

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



Note: Genesee County has only nested those portions of districts that are located within Genesee County and the Urbanized area.

Genesee County Storm Water Advisory Committee

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

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

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

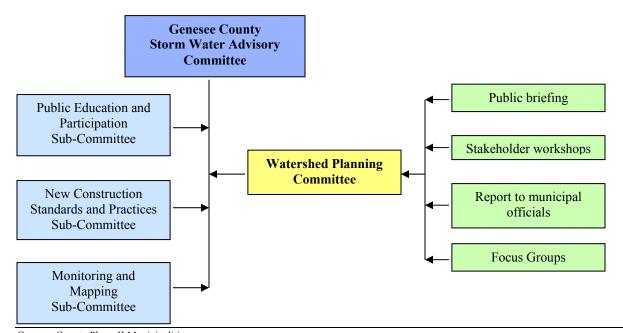
These sub-committees meet as needed along with stakeholders and/or individuals with specific specialized knowledge to implement the watershed plan, education plan and Illicit Discharge Elimination Plan (IDEP). A brief description of sub-committee duties is presented below Figure 1-2. With the new contract,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

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

SWAC meetings during this reporting period were held on:

- October 21, 2015
- November 18, 2015
- December 16, 2015
- January 27, 2016
- February 17, 2016
- March 16, 2016
- April 20, 2016
- May 18, 2016
- September 21, 2016
- October 19, 2016

Figure 1-1: 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.

PUBLIC EDUCATION AND PARTICIPATION SUB-COMMITTEE ACTIVITIES

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

• December 1, 2015 Sub Committee workgroup held for NPDES Phase II SAW grant survey

Many of the Communities that used to be in the Phase II program and were able to opt out. With the 2014/15 permit it was decided that each subcommittee is now a committee of the whole made up of the contract members. (See Table 1-1) Non contract communities are invited, but are not voting members.

The purpose of the PE committee is to implement the Public Education Plan (PEP). This can be found in the Attachment 4 of new Permit Application. The PEP plan was revised to align with the new 2015 permit Application "Public Education Topics". The actual implementation did not change. **The Public Education work is being done on behalf of the contract Communities (table 1-1)**

PUBLIC EDUCATION PLAN

Permit Requirements

The planning and implementation of public education has been cross referenced to reflect the changes in the 2015-2020 permit application item #5 education topics listed below with the EPA-required elements:

- A. Promote public responsibility and stewardship in the applicant's watershed(s).
- **B.** Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.
- C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.
- **D**. Promote preferred cleaning materials and procedures for car, pavement, and power washing.
- E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
- F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.
- **G**. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, and motor vehicle fluids.
- H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.
- I. Educate the public on, and promote the benefits of, green infrastructure and Low Impact Development.
- 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

Partnerships

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

- Program implementation through partnerships:
 - o Education Booth at various events throughout the County, Public Engagement
 - o Maintain the "Our Water" website
 - o Presentations throughout the County

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

Flint River Watershed Coalition: On behalf of the 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 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" Office Campaign. Since 2008. the Drain Commissioner's hosts and undates 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. There was only 1 newsletter produced this/last year. See attachment A. It was about the MI waters new online filing.

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

Social Survey: Genesee County performed a Social survey in 2005 to see the publics' base line level of knowledge in regards to storm water and the behaviors that lead to pollutants getting into surface water. GCDC-SWM received a SAW grant to perform a new social survey and see where we can cross reference information from the original 2005 survey. Surveys were completed in this permit cycle, with the final results in 2016-2017.

For-Mar on the Road: GC Parks and Rec provides free science and nature based programs for k-8 education that meets MI science standards. 5th grade covers water and ecosystems. They have other programs throughout the County and year that touch on surface water and or stewardship. Attached

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

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

	#			
Date	Participants	Group	Venue	Participants
				Business owners in Genesee
19-Jan-16	14	Business Networking Inc.	Walli's East	County
				Leaders & administrators of
21-Jan-16	17	Water Trail project introduction	MTA Flint	Genesee County
			Hagerman	
26-Jan-16	12	Flint Funders Meeting	Foundation	All of Genesee County
			Valley Family	Flint, Flint Twp., Flushing
18-Feb-16	15	West Flint Business Association	Restaurant	
			Northbank Center,	
18-Mar-16	70	Bendle Students – University of MI	U of M	Students from Bendle School
14-April-16	13	Sloan Museum Attendees	Sloan Museum	All of Genesee County
14-Aprii-16	13	Stodii Museum Attendees	Sidan Museum	All of Genesee County
46.4 11.46	754	5 11 5 11 (145)		All of Genesee County -
16-April-16	754	Earth Day – U of M Flint	U of M Campus	College students
6-May-16	22	St. Thomas More Academy	For-Mar	Burton
		,		
17-May-16	15	Downtown Flint Optimist Club	Flint Golf Club	All of Genesee County
11 1 16	O.F.	Fish the Drieke	Diversity on the Doub	All of Consess County
11-June-16	85	Fish the Bricks	Riverfront Park Paddling event	All of Genesee County
22-Aug-16	20	Press and friends paddle	Vietnam Vet Park	All of Genesee County
J		Genesee Co. Parks & Rec Commission		,
25-Aug-16	12	board meeting	Parks Office	All of Genesee County
		Southern County landowners on the Flint	Farmer's Market -	Flushing, Flint, Richfield Twp.,
22-Sept-16	15	River	Flint	Flint Twp., Goodrich
22 Comb 46	20	Northern County landowners on the Flint	Farmers Market –	Montrose, Flushing, Flushing
22-Sept-16	30	River	Montrose	Twp., Mt. Morris Twp.

		For-Mar Ovenight monitoring event for		
24-Sept-16	125	kids – BIOBLITZ	For-Mar	All of Genesee County
	E		Baker College of	
28-Sept-16	17	Sunrise Rotary Club	Flint	All of Genesee County
		MI Environmental Council Annual	MSU School of	
30-Sept-16	Future	Meeting	Medicine – Flint	All of Genesee County
				FRWC followers – All of
2016	1000+	Facebook Post	Facebook	Genesee County

Note: In 2016 four other events were held: Michigan Water Trail Summit, Love our Lake-Thread Lake & Flint Park Lake, and Belle Isle however the audience was not to Phase II communities under this contract, therefore they are not included above.

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

Newsletter Articles: Sometimes permitees, partners, or other publications will print an article on a stormwater topic. Any water related articles during this reporting period are included in attachment A. Two articles were published in the Genesee Conservation District newsletter pertaining to the "Our Water" program. One in the winter/spring and one in the summer/fall. The newsletter was distributed to over 2,500 Genesee County residents.

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

Promotional Giveaways: GCDC purchased 4000 promotional giveaways (premiums) in June of 2015 and 5000 additional promotional giveaways (premiums) in August of 2016. Premiums purchased included water bottles and tote bags; Premiums are given to the public at the information booth (see below). A person can win a premium if they answer a storm water-related question. This allows the booth staff/volunteers to engage the public in conversation, provide stormwater education and give them an educational brochure. Each premium given represents someone from the public that has received storm water education.

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

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



- To educate the elected official
- To allow the communities themselves to teach the public about storm water issues

• To actively involve participants in the learning process

4/2/16 & 4/3/16	During this reporting period, the booth Home & Garden show – Perani Arena	was used at the e	events listed below. 272 educated
8/20/16	Back to the Bricks- Downtown Flint	County Wide	206 educated
8/22/16 - 8/28/16	Genesee County Fair – Genesee Twp.	County Wide	566 educated
8/25/16 — 8/27/16	Crim Health & Fitness Expo-Downtown Flint – Riverfront Banquet Center	County Wide	873 educated
9/13/16	National Night out- Flint Twp. Police Dept.	County Wide	124 educated
9/22/16	Davison Farmer's Market	County Wide	52 educated
9/24/16	Flushing Harvest Festival	County Wide	377 educated
9/25/16	Grand Blanc Farmer's Market	County Wide	92 educated
9/29/16	Davison Farmer's Market	County Wide	48 educated

^{*}Demographic Data by community in Appendix A

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

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

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



GCDC has four "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 2015-2016:

Table 2-1: Breakdown of GCCD Water Quality Presentations in Fiscal Year 2015-16

Tuote	2-1. Breakdown of GCCD water Quanty Frese	School aged children
Month	Event	reached:
1/21/16	Syring Elementary	25-30 per class *
		3 classes
1/27/16	Randels Elementary	25-30 per class *
		3 classes
2/4/16	Rankin Elementary	25-30 per class *
	•	3 classes
2/4/16	Swartz Creek Middle School	25-30 per class *
		3 classes
4/13/16 &	Dieck Elementary	20-30 per class *
4/27/16		3 classes
4/26/16	City School Elementary	20-30 per class *
		1 class
5/3/16 &	Elms Road Elementary	20-30 per class *
5/17/16		3 classes
5/4-5/11-	Moore Elementary	20-30 per class *
5/18-5/25-		3 classes
6/1-6/8/16		
5/19/- 5/23-	Madison Academy High School	20-30 per class *
6/7/16		1 class
5/31/16	Ctata Dand Flamoutom	20. 20 man alaga *
3/31/10	State Road Elementary	20-30 per class * 3 classes
		3 0148868
6/2/16 &	Central Elementary	20-30 per class *
6/3/16	Contrar Elementary	12 classes
6/13 - 6/20 -	U of M Early Childhood Development Center	20-30 per class * 4
6/27/16	(ECDC)	classes
7/11 - 7/18 -	U of M Early Childhood Development Center	15-25 per class *
7/25 - 8/1 -	(ECDC)	4 classes
8/8 - 8/15 -		
8/29/16		
9/23/16	For-Mar Nature Preserve Bio Blitz	15-25 per class *
		1 class

On 4/23/16 GCDC-SWM staff, Bill Poster did an enviroscape presentation for 20 boy scouts. 4 were from Grand Blanc and Davison, the rest were from other Counties throughout MI.

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). In

January 2016 Tom Jones from GCRC_SWM was recognized for all the work he has done for the project GREEN program.

Table 2-2: Breakdown of Project Green Schools in Fiscal Year 2015-16

	Table 2-2: Breakdown of Proje	ct Green Schools in F	1scal Year 2015-16
	School	Teacher	Students located within:
1	Atherton High School	Matt Hyslop	City of Burton
2	Bendle High School	Todd Barden	City of Burton
3	Carman-Ainsworth Middle School	Melissa Warburton	Flint Twp, Mundy Twp
4	Carter Middle School	Dyon Niomi	City of Clio, Vienna Twp,
4	Carter Wilddle School	Ryan Niemi	Thetford Twp, Montrose Twp City of Clio, Vienna Twp,
5	Carter Middle School	Chip McCallum	Thetford Twp, Montrose Twp
6	Davison Middle School	Jody Kosiara	Richfield Twp, Davison Twp, City of Burton
	Bavison Winder School	Jody Rosiara	City of Grand Blanc, Grand Blanc
7	Grand Blanc East Middle School	Deb Lacki	Twp, Atlas Twp
8	Grand Blanc East Middle School	Patricia Nelson	City of Grand Blanc, Grand Blanc Twp, Atlas Twp
	Grand Blane Bast Middle School	Tutilota (Volgoti	City of Grand Blanc, Grand Blanc
9	Grand Blanc East Middle School	Crystal Sobeck	Twp, Atlas Twp
	School	Teacher	Students located within:
			City of Grand Blanc, Grand Blanc
10	Grand Blanc High School	Suzanne Powers	Twp, Mundy Twp.
11	Kearsley Armstrong	Lisa Katzenbeger	Genesee Twp.
12	LakeVille Middle School	Andrea Thelen	Forest Twp, Richfield Twp
13	LakeVille Middle School	Josh Henley	Forest Twp, Richfield Twp
14	Mt. Morris Junior High School	Kate Tallmadge	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp Mt. Morris Twp, City of Mt.
15	Mt. Morris Junior High School	Zack Freeman	Morris, Genesee Twp, Vienna Twp, Thetford Twp
16	Mt. Morris Junior High School	Kim McCormick	Mt. Morris Twp, City of Mt. Morris, Genesee Twp, Vienna Twp, Thetford Twp
17	Northwestern High School	Jarrett Trombley	City of Flint
18	Northwestern High School	Nadina Adversa	City of Flint
19	Powers Catholic High School	Julie Lawrence	County Wide
20	St. John Vianney Catholic School	Janice Matlon	County Wide
21	St. Thomas More Catholic School	Shelley Roberts	County Wide
22	Swartz Creek Middle School	Brandolyn Forbes	Clayton Twp, Gaines Twp, City of Swartz Cr, Flint Twp, Mundy Twp

23	The Valley School	Jeanne Wisenbaugh	County Wide
	Westwood Heights - Hamady High		-
24	School	Arletha Bryant	Mt. Morris Twp

NOTE: many teachers had multiple classes participating

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

- As part of preventive maintenance, the Genesee County Drain Commissioner's Surface Water Maintenance crew cleans and stencils hundreds of catch basins throughout the county each year.
- Starting in 2010 GCDC purchased Storm drain markers like the shown to the right to be installed on catch basin grate covers located within road ditches and rear yards where stenciling is not possible. Markers are installed by GCDC-SWM staff when they are working on storm drains throughout Genesee Co.
- Between Sept 2013 and Jan 2016, GCDC purchased and installed 1260 4" metal storm drain markers for a total of 1460. Between Jan & Sept of 2016 an additional 250 were installed for a total of 1710. Storm drain markers are anticipated to have a 30 year life expectancy allowing for long term passive education.
- Volunteer stenciling groups were organized by both FRWC and GCD. Also GCDC-SWM staff work from time to time with individual stenciling volunteer groups by providing technical support, supplies and catch basin locations for stenciling. Below is a list of volunteer groups that participated.









GCD: Held 8 Storm drain stenciling events:

				<u>Door</u> <u>Hangers</u>	Number of Drains
<u>Date</u>	Municipality	Volunteer Group	Location of stenciling	<u>Distributed</u>	<u>Stenciled</u>
8/8/16	Flushing	Genesee Co. Residents	Chickasaw Trail, Shoshone Trail, Tahquamenon Trail, Overland Trail, Navajo Trail 7 Pine Bluff Dr.	68	18
8/11/16	Flushing	Genesee County Residents	Skyview Dr., Springview Dr., Pleasantview, Clearview, Chestnut St., Bonnie Sue Dr., Sunnyside, Fairfield Dr.	80	21
<u>Date</u>	Municipality	Volunteer Group	Location of stenciling	<u>Door</u> <u>Hangers</u>	Number of Drains Stenciled
9/6/16	Davison	Genesee County Residents	N. Wicklow Dr., Ashford Dr., Lochnayne Lane	60	12
9/6/16	Davison	Genesee County Residents Genesee County	S. Wicklow Dr., Antrim Dr., Kildare Dr. & Kildare Ct. Misty Morning Dr., Krystal Creek Ct.,	50	18
9/13/16	Flushing	Residents	Shady Brook Ln, Fountain View Dr.	42	10
9/19/16	Flushing	Genesee County Residents	Jaclyn Ann Dr. & Jaime Lane	30	8
9/19/16	Flushing	Genesee County Residents	Eastman Dr. & Hickory Circle	38	13
9/20/16	Flushing	Genesee County Residents	Hut-West Dr., Rodney Ave & Daniel	57	16

FRWC: Held 16 Storm drain stenciling events:

			<u>Volunteer</u>			<u>#</u>	<u>#</u>	
<u>Date</u>	Municipality	Volunteer Group	<u>Demographic</u>	<u>Adults</u>	<u>Child</u>	<u>homes</u>	<u>drains</u>	Location of stenciling
								State St. W Young St, W Johnson
10/21/2015	Clio	Clio MS NJHS	City of Clio	3	5	70	10	St., New St., Old St., Pine St.
			Brownstown,					
			MI; Milan, MI; Clinton Twp;					Blair St., Cadillac St., Bagley St.,
10/28/2015	City of Flint	Kettering Sororiety	Allen Park MI	12	0	200	18	Perry St., Dupont St. Gladwyn St.
								Helmsley Dr, Chelmsford Dr.
	Swartz							Daval Dr. Oakview Dr.
6/12/2016	Creek	Swartz Creek HS	Swart Creek	2	7	132	46	Worchester Dr, Winshall Dr.
								Coutant St from N. McKinley to
	Flushing							Circle Dr. Circle Dr & E. Park Ave.
6/28/2016	Twp.	Girl Scout Troop	Flushing Twp.	4	6	85	11	from N. McKinley Rd. to Circle Dr.
	City of	Montrose High School Honors	Flushing Twp,					City of Montrose Orchard St,
8/9/2016	City of Montrose	Society	Flushing & Montrose	4	8	225	89	Baldwin, Creager, Russett, Douglas, Alfred, Leroy, Ray St
0, 3, 2010	Wientrose	Clio-Carter 8 th	Wientrose	•	J	223	03	Poplar St, Clarion St, Rodger
8/16/2016	City of Clio	Grade Students	City of Clio	2	9	123	33	Lodge, Buttler St and Cherry St.
								Woodstock Dr. Walden Dr. Joy
								Dr. Sue Lane, Star Ct., Elaine Dr.,
	Swartz							Park Place, Peri St. Woodside
8/19/2016	Creek	Swartz Creek MS	Swartz Creek	2	5	124	28	Trail
								Fern, Buder, Scottwood, Parkwood, Columbia &
								Schumacher, Eldon Baker,
8/24/2016	Burton	Bendle HS	Burton	1	4	118	30	Mohawk, Shawnee & Cherokee

8/31/2016	Flint	Bill, Kare and Brock Burke	Fenton Twp	2	1	128	12	Butternut Creek, Haven St, Corydon Dr. Wisner St., Harriet St., Walter St.
9/13/2016	Mt. Morris	St. Thomas More Catholic School	Mt. Morris	3	12	170	16	Harwood Rd., Barch Rd., Penwood Rd.
9/19/2016	Mt. Morris	Homeschool Group	Mt. Morris	6	8	220	32	David Berger & Eldon Rd. Mann Hall, Stocker, Knapp, Hughes, Middleton, Mann, Durand, Zimmerman & Farnum
10/8/2016	City of Flint	Kettering Students	Flint	8	0	160	16	·
			Volunteer		61 11 1	. <u>#</u>	. <u>#</u> .	
Data								
<u>Date</u>	Municipality	Volunteer Group	<u>Demographic</u>	<u>Adults</u>	<u>Child</u>	<u>homes</u>	<u>drains</u>	Location of stenciling
10/8/2016	Flint	Kettering Students	Flint	8	0	210	21	Bradley, Hammond, Gainey, Gibson, Fielding, Knight, Reynolds Stocker,, Norwood, Brentwood, Crestwood, Sherwood,
								Bradley, Hammond, Gainey, Gibson, Fielding, Knight, Reynolds Stocker,, Norwood, Brentwood,
10/8/2016	Flint	Kettering Students	Flint	8	0	210	21	Bradley, Hammond, Gainey, Gibson, Fielding, Knight, Reynolds Stocker,, Norwood, Brentwood, Crestwood, Sherwood,
10/8/2016	Flint	Kettering Students Kettering Students	Flint	8	0	210 190	21	Bradley, Hammond, Gainey, Gibson, Fielding, Knight, Reynolds Stocker,, Norwood, Brentwood, Crestwood, Sherwood, Pencombe Place, Sheffield Allendale Place, Westcombe,

GCDC: Stenciled those storm inlets that were cleaned (weather permitting) approx 200+. 1710+ Storm drain markers have been placed since this program began on catch basins and manhole lids.

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



Date of		Portion of Watershed	# of	
Paddle	Name of Paddle	Covered	Participants	Participant Municipalities
28-May-16	Memorial Day Paddle	M-15 to Irish Road	39	Burton, Flint, Fenton, Lapeer, Grand Blanc, Gaines, Davison, Flushing, Columbiaville, Goodrich, Lake Orion
4-Jun-16	Hello Summer Paddle	Flushing Riverview Park to Flushing Township Nature Park	23	Flushing, Davison, Fenton, Howell, Waterford, Lapeer, Burton, Grand Blanc
11-June-16	Kayaking in the Parks	Mott Lake	6	Fenton, Grand Blanc, Clio
18-June-16	River Time Paddle	Dodge Road to Montrose Barber Memorial park	14	Grand Blanc, Flint, Midland, Montrose, Fenton, Swartz Creek, Otisville
23-June-16	Lovely Lapeer Evening Paddle	Rotary Park to Saginaw St. Landing	16	Lapeer **
26-Jun-16	Lazy Days of Summer	Irish Road to Mott Lake	17	Flint, Holly, Lake Orion, Metamora, Flushing, Fenton, Grand Blanc, Lapeer, Otisville, Clarkston, Davison, Mt. Morris
2-July-16	Up North Retreat Right Here at Home	Richfield Park to Mott Lake	29	Flint, Howell, Flushing, Waterford, Lake Orion, Metamora, Otisville
16-July-16	Summer Getaway	Holloway Dam to Irish Road	21	Lansing, Davison, Lapeer
27-July-16	Dog Days of Summer Evening Paddle	M-15 to Irish Road	15	Fenton, Flushing, Grand Blanc, Burton, Flint, Ortonville, Lapeer, Davison
4-Aug-16	Love Your Lakes – Flint Park Lake	Flint Park Lake	15	Flint, Residents of the Flint Park Lake neighborhood
6-Aug-16	Flotilla	Grand Traverse Ave to Mott Park Golf Course	205	Flint **
11-Aug-16	Love Your Lakes – Thread Lake	Thread Lake	14	Flint, Residents of the Thread Lake neighborhood
20-Aug-16	Float the Flint	M-15 to Irish Road	15	Fenton, Flint, Swartz Creek, Lake Orion, Grand Blanc
22-Aug-16	Friends, Funders & Press Paddle	Ends at Vietnam Veteran's Park	20	Flint and surrounding area
28-Aug-16	Fun Times Picnic on the Flint River	Montrose to Birch Run	17	Flint, Imlay City, Fenton, Flushing, Otisville, Clio
3-Sep-16	Pedal to Paddle	Bray Road to Vietnam Veteran's Park	8	FUTURE
17-Sep-16	Experience the Fall Colors	Holloway to Irish Rd.	16	FUTURE
22-Sep-16	Celebrate the Fall Equinox Paddle	Birch Run to Seymour Rd.	16	FUTURE
		Total	285	

^{**} Denotes FRWC sponsored floats, outside the Contract area

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 32 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.

Good Housekeeping Education: Education efforts that related to Good Housekeeping of permitee properties: (Program is also discussed in the Good Housekeeping -Section 5).

- Nov 11, 2015: Susanne Hogan of the GCDC-SWM spoke to the Genesee County Schools Maintenance Group meeting in regards to each nested permittee's SWPPP and good housekeeping practices that have to be maintained. Also let them know that good housekeeping training is now available online. See http://www.gcdcswm.com/PhaseII/SWPPI SWO/SWPPI SWO.htm for links.
- Other communities have requested/taken the training materials for this program to educate their staff:
 - o City of Flushing

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







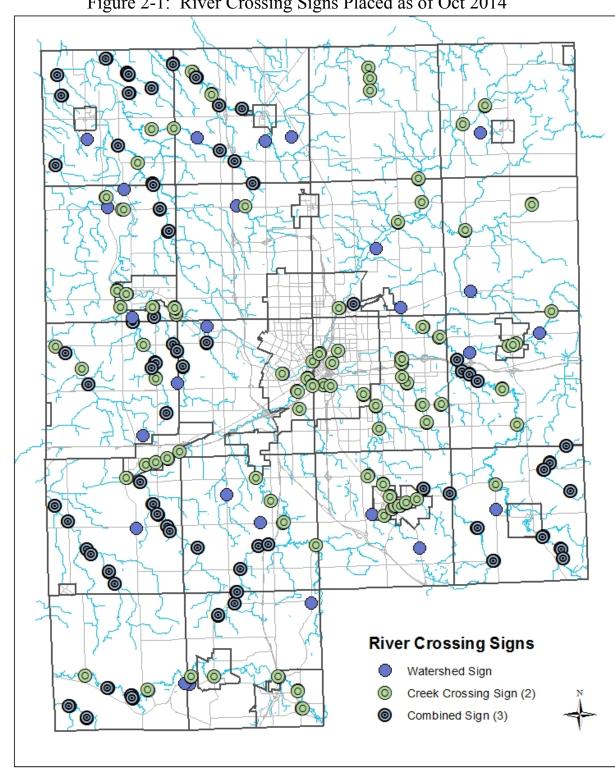


Figure 2-1: River Crossing Signs Placed as of Oct 2014

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

Areas of success:

- Educational materials are constantly expanding and available
- Stenciling program delivered and ongoing
- 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
- Storm drain Markers installed and ongoing
- Implementation of initial education efforts is done

Areas of need:

- Staffing constraints do not allow enough time dedicated solely to education efforts
- Develop additional education efforts

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 indirectly by a local community including Genesee County or a nonprofit group. These efforts are listed below and included in Appendix A to show all efforts of water education within Genesee County and its Communities.

• The FRWC coordinates a river cleanup on the Flint River and its tributaries both within Genesee and Lapeer counties. The Cleanup was on April 30th 2016. Volunteers removed debris/ trash along 13 different locations in Genesee County and 3 locations in Lapeer County on the Flint River and its Tributaries. Staff from the County and local municipalities including the Drain Office, Parks and Rec, City of Flushing, City of Flint and others assisted with the cleanup by provided staff or garbage removal.





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

the health of the Shiawassee River. Drain Office Staff has made arrangements for the FRWC to

- expand the Benthic monitoring program to include 2 sites on the Shiawassee. GCDC staff was contacted by Friends of the Shiawassee to expand or work in tandem with that program. They produced a press release for a Benthic program that is adding 8 sites both upstream and downstream on the Shiawassee outside of Genesee County. They also have been adding adopt a river signs along the river. They also had at least 1 native planting training.
- 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 are completing the securing of grant money to remove the Hamilton and Fabri dams located within and owned by City of Flint. They have partnered with Genesee County Parks and Rec to facilitate the dam removals. They also sponsor an annual Floatilla on the Flint River and other events promoting the Flint River.
- Genesee County Parks provides education on many subjects including storm water. (**H2** kn**O**w!). Genesee County, specifically the Parks and rec owns many acres along the Flint River providing defined access for the public. They also provide support for many water programs.
- Household Hazardous Waste: The Our Water program supports this program by promoting it but this program is developed and managed by Genesee County Planning Commission, General Motors, UAW Local 599, Goodwill Industries, 5R Processors and Keep Genesee County Beautiful & several communities participate and/or support this program both financially and with staff or letting program use their property. In the spring and fall there are HHW and electronic waste collections. City of Flint hosts a permanent site at their Water service center (centrally located within Genesee County). A second site moves to a new location around the County. This is either hosted at a school or municipal property. In the last couple of years this program has been expanded to include electronic waste.
 - October 17, 2015: former Showcase Cinema, Flint Water Service Center
 - o May 21, 2016: Grand Blanc High School, Flint Water Service Center
 - o August 20, 2016: Lake Fenton HS, Flint Water Service Center
 - o October 22, 2016: Trinity Assembly of God-Mt. Morris, 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 Watershed Management plans and if there is a significant event where public input is appropriate.

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

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

CONSTRUCTION STANDARDS AND PRACTICES SUB-COMMITTEE ACTIVITIES

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

Many of the Communities that used to be in the Phase II program and were able to opt out. With the 2014/15 permit it was decided that each subcommittee is now a committee of the whole made up of the contract members. (See Table 1-1) Non contract communities are invited, but are not voting members.

Work is being done on behalf of the contract Communities (table 1-1)

STORM WATER ORDINANCE

The CSP Sub-Committee had worked to establish a template Ordinance for Communities to adopt within Genesee County that would satisfy the new Permit Application. After reviewing State requirements and sample ordinances the CSP Sub-Committee reviewed and tailored the ordinance template. The Ordinances (regulating mechanism) and standards are done and provided to permittees. 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 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.

Genesee County received a SAW grant to provide guidance to the communities to help facilitate the adoption of the ordinances. That work will be occurring in the next permit cycle.

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

Section 5 Good Housekeeping

It should be noted that the standards currently in place deal with water quantity. The new standards will also deal with water quality, and any new ordinances will expand the Community's authority as well as specify development requirements. The Storm Water Ordinance references a BMP Manual (see text below). By keeping the BMP Manual separate, and not including design guidance in the ordinance, changes can be made to the BMP Manual without revising the whole ordinance.

BMP MANUAL

Currently, Genesee County Water & Waste is the County agent (City of Burton is the Municipal Agent in their community) on behalf of Part 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 has developed a BMP Manual, which will represent minimum standards for post construction BMPs for water quantity and quality. These BMPs will not be limited to SESC.

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

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

MONITORING AND MAPPING SUB-COMMITTEE ACTIVITIES

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

Many of the Communities that used to be in the Phase II program and were able to opt out. With the 2014/15 permit it was decided that each subcommittee is now a committee of the whole made up of the contract members. (See Table 1-1) Non contract communities are invited, but are not voting members.

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. Work is being done on behalf of the contract Communities (table 1-1)

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

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.

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 **download** or 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

From time to time, individualized training is offered to each nested agency/ Municipality under the contract. The training focused on establishing and strengthening the Good Housekeeping practices listed above. Training is not offered once or twice a permit cycle. No training was offered this reporting cycle, but it will be offered in 2016-17 reporting period.

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

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.

GCDC-SWM received a SAW grant in this permit cycle. It included:

- Storm sewer asset management for the GCRC within the urbanized areas.
- Social survey
- Post construction education

The saw Grant is a 2-year grant and work will be complete by Oct 1, 2017.

GENESEE GREEN

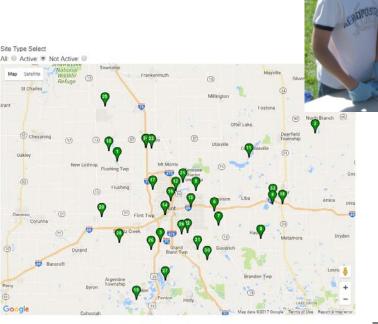
Project Green, now referred to as Genesee GREEN, has grown in Genesee County from approximately 100 students in 1990 to in excess of 1000 in 2016. The ideal is that all of the students visit specific sampling sites along the Flint River Watershed within the same week to conduct a Water Quality Index (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. Many of the students get the opportunity to present their results, compare results to other sites, and get additional education at the Summit dated May 20, 2016. During the last reporting period, participation included:

40+ Participating Educators
1000+ Students
10 Mentors
13 Presenters at the summit



Schools are also are encouraged to participate in a summit, where students are able to present their findings. the student summit was held at Kettering University and students from 16 schools presented collected data.

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



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

Table 7-1: Water Quality Index Calculation Chart

Test Parameter	Q-Value	Weighting Factor	Total
1. Dissolved oxygen	Q_{DO}	0.17	$0.17 \times Q_{DO}$
2. Fecal coliform	Q_{FC}	0.16	$0.16 \times Q_{FC}$
3. pH	Q_{pH}	0.11	0.11 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	$0.10 \times Q_{P}$
7. Nitrates	Q_N	0.10	$0.10 \times Q_{N}$
8. Turbidity	Q_{Turb}	0.08	0.08 x Q _{Turb}
9. Total solids	Q_{TS}	0.07	$0.07 \times Q_{TS}$
	•	Overall WQI	$Sum(Q_x)$

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

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

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

Much effort was spent by Tom Jones from GCDC-SWM to update the Green Website http://flintrivergreen.is-great.org/ to allow teachers to directly enter the data and make that data available to the public.

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

Table 7-2: Genesee Green Results

ID No	Location	Sampled Years	Water Quality Index (WQI)
Lower F	lint River Watershed		
1L	Armstrong Creek at Dodge Road	2006-07, 2011-2012	Good
2L	Craven and Benson Drain off Mt Morris Road	2007	Fair
3L	Mill Street Bridge	1993, 1998-2004, 2006-2009	Good
4L	North corner of Flushing and Linden Roads	1991, 1994, 1998-2004, 2007, 2008, 2010	Good
5L	Pirnie Creek at Beecher Road	2006, 2008	Good
6L	Southeast corner of M-57 and Seymour Road	2001-2011	Good
7L	Clio Bike Path at Jennings Road	2007, 2009, 2011, 2012	Good
8L	Flushing Park at Pavilion #2	2001-02, 2005	Good
9L	Mott Park	1993, 1998-2000, 2010-2013, 2016	Fair
10L	Pine Run at Clio Park	2006, 2009, 2012-13	Good
11L	North of Flushing at Mt. Morris Bridge	1998	Good
12L	Seymour Rd. North of Farrand Rd.	2009	Good
13L	Flint River @ Barber Memorial Park	2015	Good
14L	Lake Drain @ Randy Wise	2015	Fair
	Misteguay Creek	2016	Good
Middle 1	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	Fair
3M	Bridge between UM-Flint and Autoworld	1993-94, 1998, 2001	Fair
4M	Crampton Drain at Kearsley Armstrong	2006, 2008-2011	Good
5M	Downstream from For-Mar Nature Center	2005, 2010	Good
6M	Gilkey Creek behind Central High School	1991-92, 1994,2001-2002, 2009	Poor
7M	Immediately west of the Farmer's Market	2004-06 2012-13	Good
8M	Pierson Drain at Atherton HS	2007, 2015	Good
9M	Swartz Creek at Happy Hollow	1993-94, 2002-2003. 2010-2012	Fair
10M	Swartz Creek at Swartz Creek M.S.	2005-06	Fair
11M	Swartz Creek at Van Slyke Road	2002, 2012	Good
12M	Swartz Creek Golf Course	2001-02	Good
13M	Thread Creek at McCandlish Road	2007-2008	Fair
14M	Thread Creek at Rust Park in Grand Blanc	2005-2006 2012	Good
15M	Timberwolf Turnout off Irish Road	2005	Fair
16M	Kearsley Creek at Goodrich Commons	2004	Good
17M	Kearsley Creek near Goodrich High School	2004-05	Good

ID No	Location	Sampled Years	Water Quality Index (WQI)
18M	Flint River West of Johnson AAA School	2006-2010	Good
19M	Thread Creek at Bristol Rd.	2008-2013	Fair
20M	Upstream of For-Mar Nature Center	2004, 2006-2009, 2011	Good
21M	Swartz Creek at Swartz Creek MS	2012	Good
22M	Black Creek- Abernathy Park	2013	Fair
23M	Swartz Creek @ Frost Gardens	2012-13, 2015	Good
24M	Davison Kearsley Creek	2015	Fair
25 M	Thread Creek @ Perry Road	2015-16	Good
Upper F	Flint River Watershed		
1U	Bear Swamp at Genesee Road	2007	Poor
2U	Oak Road North of Stanley	2001	Good
3U	Bluegill Boat Ramp on Mott Lake	2002, 2005	Good
4U	M-15 north of Stanley Road	1997-98, 2002	Good
5U	Holloway Reservoir at Mt. Morris Bridge	1997, 2001, 2003-05	Good
6U	Mott Farm between house and barn	1993-94, 1998, 2001, 2004	Good
7U	Richfield Park	2001, 2003-2010	Fair
8U	Flint River @ Steeping Stone	2015	Good
Shiawas	ssee River Watershed		<u>.</u>
1S	Platform south of Main Street Bridge in Fenton	1992, 1996, 1998-2004	Fair
2S	Linden Mill Pond (Shiawassee River)	2007, 2010, 2015	Good
3S	Fenton Mill Pond (Shiawassee River)	2009, 2012	Poor
4S	Linden Middle School Grounds	2012-13	Good
Unknow	vn Watershed		·
1UNK	Unlisted Location	2009-2012	Good

Table 7-3: Flint River Green Results for 2015

Location	School	Year	WQI
Davison Kearsley Creek	Davison Middle School	2015	61.82
Farmers Creek	Chatfield	2015	72.36
Flint River @ Barber Memorial Park	Montrose High School	2015	54.82
Flint River @ Steeping Stone Falls	Mt. Morris Middle School	2015	55.39
Lake Drain @ Randy Wise	Hamady High School	2015	49.44
Lapeer Hunters Creek	Lapeer High School	2015	71.08
Linden Mill Pond (Shiawassee River)	Linden Middle School	2015	69.65
Pierson Drain at Atherton HS	Atherton High School	2015	77.41
Silver Creek	Marshall Greene Middle School	2015	75.12
Swartz Creek @ Frost Gardens	Grand Blanc West Middle School	2015	62.64
Thread Creek at Perry Road	Grand Blanc East Middle School	2015	73.1

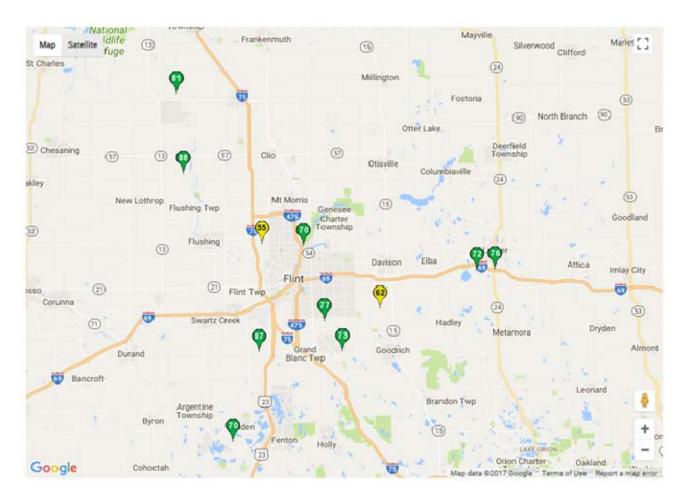


Figure 7-1: Flint River Green Location Map for 2015

Table 7-4: Flint River Green Results for 2016

Location	School	Year	WQI
Farmers Creek	Chatfield	2016	72.5
Misteguay Creek	Valley School	2016	71.9
Mott Golf Course Bridge at hole #6	St. John Vianney	2016	66.1
Thread Creek at Perry Road	Grand Blanc East Middle School	2016	76.5

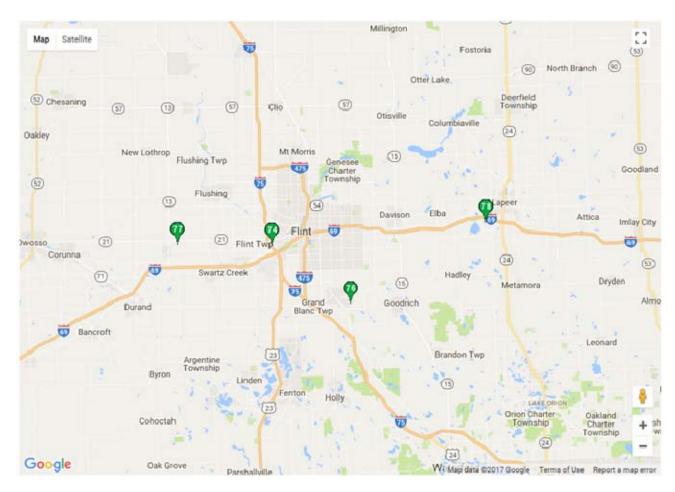


Figure 7-2: Flint River Green Location Map for 2016

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.

One of the study sites received a Water Quality Index rating of "Excellent" while four sites showed a decline in water quality (red font). Macroinvertebrate study was last updated in April & May for 2015 which was included in the 2015 Annual Report.

Table 8-1: Macroinvertebrate Study Results

ID_No	Location	Sampled Years	Water Quality Index (WQI)	Water Quality Fall 2015/Spring 2016
Lower F	lint River Watershed			
A-L	Pine Run Headwaters	1999-2000, 2003-2016	Fair	No Change
B-L	Misteguay Creek Headwaters	1999-2000, 2004-2016	Fair	Good/Fair
C-L	Flint River, Flushing	1999-2016	Excellent	Good/Excellent
D-L	Brent Run	1999-2003, 2005-2016	Good	No Change
E-L	Brent Run Headwaters	1999-2000, 2004-2016	Fair	Poor/Fair
Middle I	Flint River Watershed			
A-M	Swartz Creek	1999-2016	Excellent	Good/Excellent
B-M	Thread Creek	1999-2016	Fair	Poor/Fair
C-M	Thread Creek Headwaters	1999-2016	Fair	Good/Fair
D-M	Kearsley Creek	1999, 2001-2016	Excellent	Good/Excellent
E-M	Kearsley Creek Headwaters	1999-2003, 2005, 2007- 2016	Good	No Change
F-M	Gilkey Creek	1999-2013	Poor	Discontinued
G-M	Gilkey Creek Headwaters	2002-2016	Fair	No Change
I-M	Gilkey Creek Restoration (Kearsley Park)	2009-2016	Good	Fair/Good
J-M	Swartz Creek Headwaters	2007-2016	Excellent	Good/Excellent
Upper F	lint River Watershed			
A-U	Butternut Creek Headwaters	2000-2016	Good	No Change
B-U	Flint River, Richfield	2000-2003	Replaced	Replaced with Clark Drain Site
C-U	Clark Drain, Richfield Park	2009-2016	Good	No Change

D-U	Butternut Creek	1999-2016	Good	No Change
Shiawassee River Watershed				
A-S	Argentine	2008-2016	Fair	No Change
B-S	Linden	2008-2016	Fair	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).

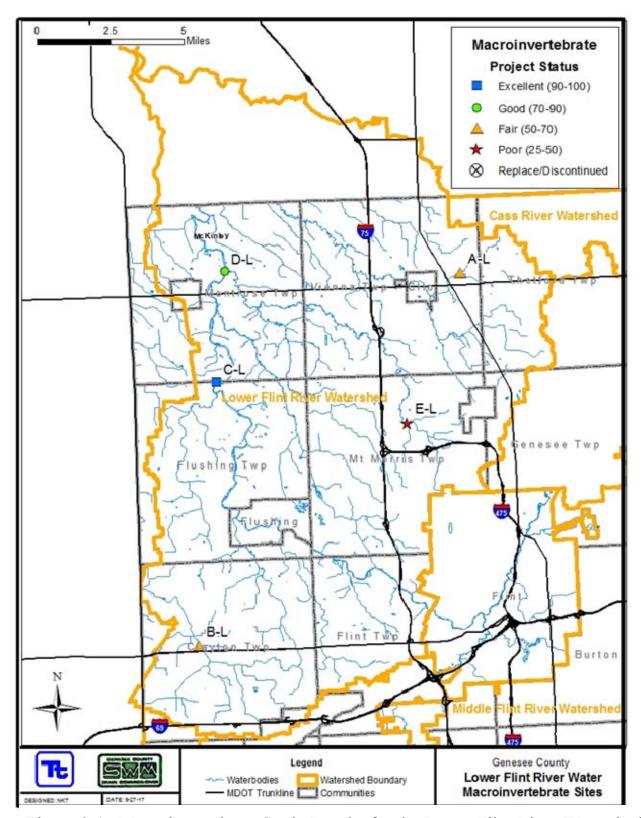


Figure 8-1: Macroinvertebrate Study Results for the Lower Flint River Watershed

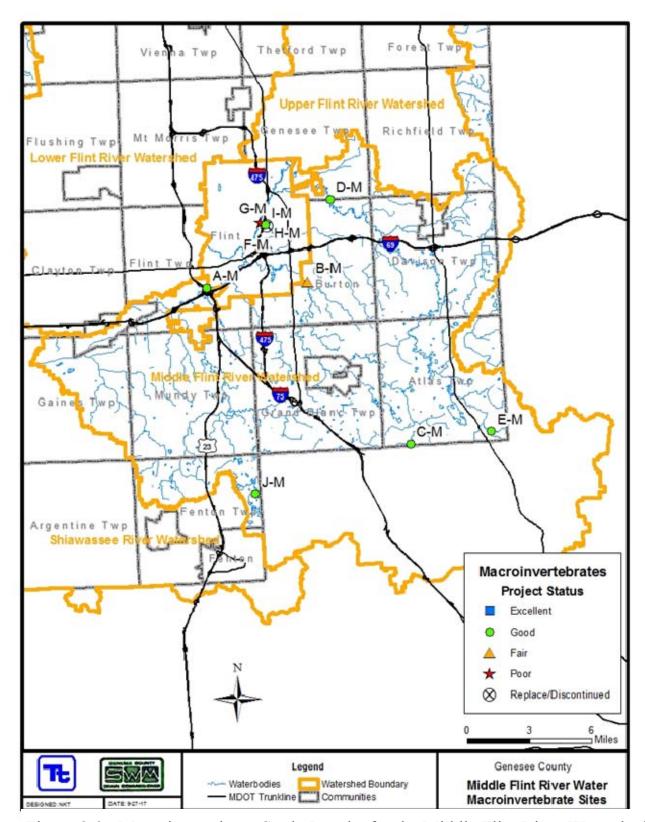


Figure 8-2: Macroinvertebrate Study Results for the Middle Flint River Watershed

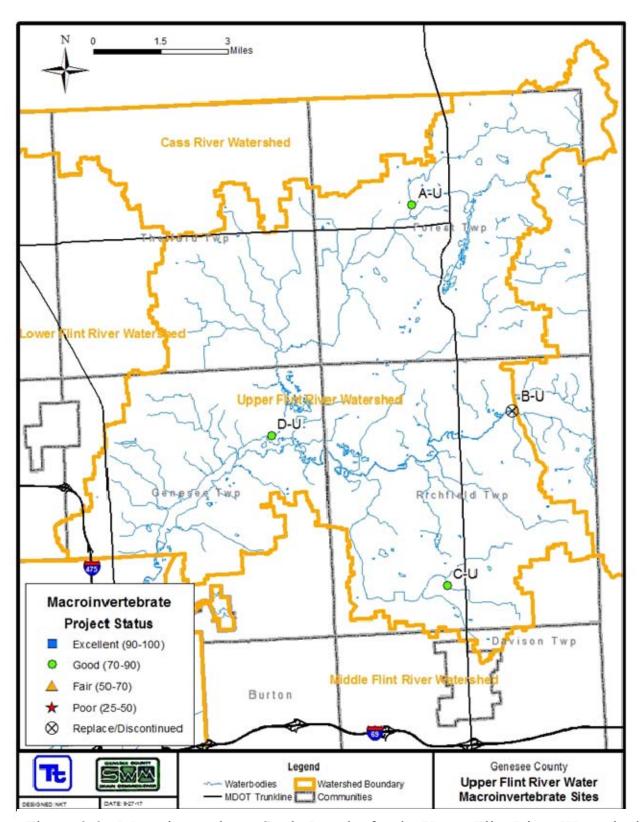


Figure 8-3: Macroinvertebrate Study Results for the Upper Flint River Watershed

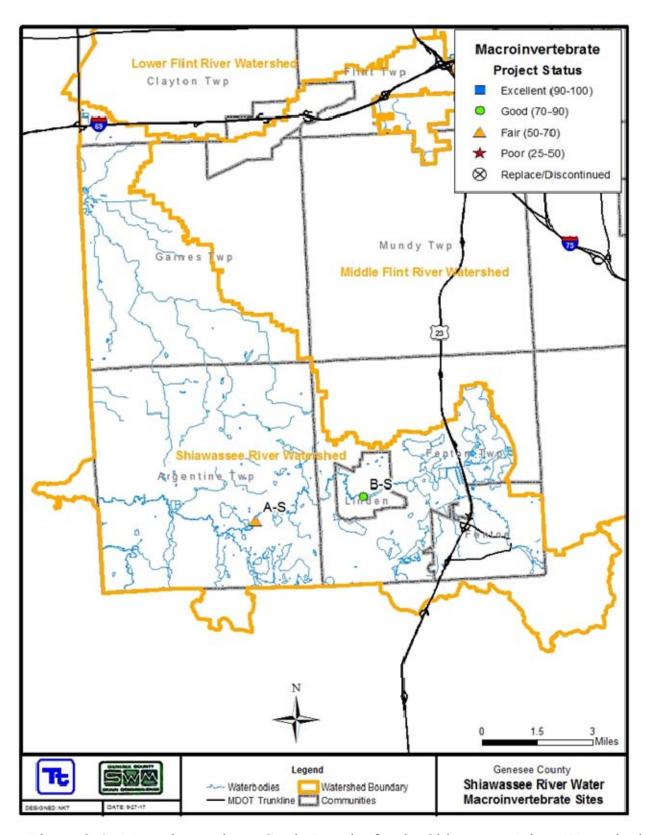


Figure 8-4: Macroinvertebrate Study Results for the Shiawassee River Watershed

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.

This Section summarizes the IDEP activities including the illicit connections identified during the 2015-2016 IDEP field investigations. Also included is a map showing the outfalls investigated (Figure 9-5). Figure 9-6 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.

In 2015-2016, a total of 311 outfalls were investigated (Table 9-2). Eight illicit discharges were found during this investigation period (Table 9-3).

Table 9-2: 2015-2016 Outfalls Investigated

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
5633001	GCDC 0979	Silver Lake	Medium	10/27/2015
5633003	GCDC 0980	Silver Lake	Medium	10/27/2015
5633004	GCDC 0980	Silver Lake	Medium	10/27/2015
5633251	GCDC 1121	Silver Lake	Medium	10/27/2015
5633252	GCDC 1444	Silver Lake	Medium	10/27/2015
5633005	GCRC	Silver Lake	Medium	10/27/2015
5633006	GCRC	Silver Lake	Medium	10/27/2015
5633501	GCRC	Silver Lake	Low	10/27/2015
5633505	GCRC	Silver Lake	Medium	10/27/2015
5626503	C of Fenton	Adams Drain 0124	High	11/5/2015
5634259	C of Fenton	Egyptian Drain 0867	High	11/5/2015
5635003	C of Fenton	Adams Drain 0124	High	11/5/2015
5634252	GCDC 0867	Egyptian 0867	High	11/5/2015
5634274	GCDC 0867	Egyptian Drain	High	11/5/2015
5634267	GCRC	Egyptian Drain	High	11/5/2015
5634271	GCRC	Egyptian Drain	High	11/5/2015
5634272	GCRC	Egyptian Drain	High	11/5/2015

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
7701265	C of Burton	Cochran	Low	12/8/2015
7701764	C of Burton	Cochran Drain 0174	Low	12/8/2015
7701775	C of Burton	Kearsley Creek	Low	12/8/2015
7701776	C of Burton	Kearsley Creek	Low	12/8/2015
7701777	C of Burton	Cochran Drain 0174	Medium	12/8/2015
7701778	C of Burton	Cochran Drain 0174	Medium	12/8/2015
7701779	C of Burton	Brier Creek Drain 0130	Low	12/8/2015
7712254	C of Burton	Kearsley Creek	High	12/8/2015
7712255	GCDC 0264	Kearsley Creek	Medium	12/8/2015
8831759	GCDC 0003	Brier Creek	High	12/9/2015
8831251	GCRC	Powers-cullen Drain 0014	*High	12/9/2015
8831252	GCRC	Powers-cullen Drain 0014	*High	12/9/2015
8831501	GCRC	Brier Drain 0130	Medium	12/9/2015
8831502	GCRC	Brier Drain 0130	Medium	12/9/2015
8831758	GCRC	Brier Drain 0130	High	12/9/2015
8832007	GCRC	Powers-cullen Drain 0014	*High	12/9/2015
8832008	GCRC	Powers-cullen Drain 0014	*High	12/9/2015
8523751	C of Flushing	Bowman, Firman Br 0195	High	2/11/2016
8525010	C of Flushing	Boman Drain 1431	High	2/11/2016
8523509	GC School	Road Ditch to Flint River	High	2/11/2016
8525504	GCDC 0062	Boman Drain 0062	High	2/11/2016
8525258	GCDC 1431	Boman Drain GCDC 0062 via pond	High	2/11/2016
8527758	C of Flushing	Flint River	High	2/17/2016
8527765	C of Flushing	Flint River	High	2/17/2016
8527784	C of Flushing	Flint River	High	2/17/2016
8527861	C of Flushing	Flint River	High	2/17/2016
8527862	C of Flushing	Flint River	High	2/17/2016
8527868	C of Flushing	Flint River	High	2/17/2016
8527703	GCRC	Cole Cr Drain 0764	High	2/17/2016
8527769	C of Flushing	Flint River	High	2/18/2016
8534001	C of Flushing	Cole Creek 0764	High	2/18/2016
8534007	C of Flushing	Cole Creek 0764	Medium	2/18/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
8534009	C of Flushing	Cole Creek 0764	Medium	2/18/2016
8534010	C of Flushing	Cole Creek 0764	Medium	2/18/2016
8631501	GCDC 0005	Flint River	High	2/18/2016
8534012	GCDC 1503	Cole Creek 0764	Low	2/18/2016
6502001	C of Swartz Cr	Swartz Creek, West Branch 0122	High	4/18/2016
6502260	C of Swartz Cr	Swartz Creek, West Branch 0122	High	4/18/2016
6502265	C of Swartz Cr	Swartz Creek, West Branch	Low	4/18/2016
6502266	C of Swartz Cr	Swartz Creek, West Branch	Low	4/18/2016
6502278	C of Swartz Cr	Swartz Creek, West Branch	Low	4/18/2016
6503761	C of Swartz Cr	Swartz Creek, West Branch	Medium	4/18/2016
6502301	GC School	Swartz Creek, West Branch	Medium	4/18/2016
6502302	GC School	Swartz Creek, West Branch	Medium	4/18/2016
6502304	GC School	Swartz Creek, West Branch	Medium	4/18/2016
6502452	GC School	Swartz Creek, West Branch	Medium	4/18/2016
6502256	GCDC 0371	West Br Swartz Creek	High	4/18/2016
6502454	GCDC 0371	West Br Swartz Creek	High	4/18/2016
6502015	C of Swartz Cr	Swartz Creek, West Branch	Low	4/19/2016
6502257	C of Swartz Cr	Swartz Creek, West Branch 0122	High	4/19/2016
6502263	C of Swartz Cr	Swartz Creek, West Branch 0122	High	4/19/2016
6502275	C of Swartz Cr	Swartz Creek, West Branch	Low	4/19/2016
6502276	C of Swartz Cr	Swartz Creek, West Branch	Low	4/19/2016
6502277	C of Swartz Cr	Swartz Creek, West Branch	Low	4/19/2016
6502255	GCDC 0371	West Br Swartz Creek	High	4/19/2016
6501007	GCDC 1079	West Br Swartz Creek	High	4/19/2016
6502003	GCDC 1273	West Br Swartz Creek	High	4/19/2016
6502261	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/9/2016
6502354	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/9/2016
6502356	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/9/2016
6502309	GC School	Swartz Creek, West Branch	Medium	5/9/2016
6502355	GCDC 0355	West Br Swartz Creek	High	5/9/2016
6502293	GCDC 1459	West Br Swartz Creek	High	5/9/2016
6501102	C of Swartz Cr	Swartz Creek, West Branch 0122	Medium	5/19/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
6501103	C of Swartz Cr	Swartz Creek, West Branch 0122	Medium	5/19/2016
6501104	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/19/2016
6501108	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/19/2016
6501301	C of Swartz Cr	Swartz Creek, West Branch 0122	High	5/19/2016
6501302	C of Swartz Cr	Swartz Creek, West Branch 0122	Medium	5/19/2016
6502004	C of Swartz Cr	Swartz Creek, West Branch 0122	Medium	5/19/2016
6502510	C of Swartz Cr	Swartz Creek, West Branch 0122	Medium	5/19/2016
6501105	GCDC 1271	West Br Swartz Creek	High	5/19/2016
5625509	C of Fenton	Shiawassee River	High	5/23/2016
5636001	C of Fenton	Shiawassee River	High	5/23/2016
5636006	C of Fenton	Shiawassee River	High	5/23/2016
5636017	C of Fenton	Shiawassee River	High	5/23/2016
5636018	C of Fenton	Shiawassee River	High	5/23/2016
5636023	C of Fenton	Shiawassee River	High	5/23/2016
5636033	C of Fenton	Shiawassee River	High	5/23/2016
5636036	C of Fenton	Shiawassee River	High	5/23/2016
5636039	C of Fenton	Shiawassee River	High	5/23/2016
5625506	C of Fenton	Shiawassee River	Medium	5/24/2016
5625507	C of Fenton	Shiawassee River	Medium	5/24/2016
5625513	C of Fenton	Shiawassee River	High	5/24/2016
5626251	C of Fenton	Shiawassee River	Medium	5/24/2016
5626255	C of Fenton	Shiawassee River	High	5/24/2016
5626256	C of Fenton	Shiawassee River	Medium	5/24/2016
5626265	C of Fenton	Shiawassee River	Medium	5/24/2016
5626267	C of Fenton	Shiawassee River	High	5/24/2016
5626268	C of Fenton	Shiawassee River	High	5/24/2016
7809251	C of Davison	Black Creek 0704	High	5/25/2016
7809291	C of Davison	Harvey Drain 0631	High	5/25/2016
7809292	C of Davison	Harvey Drain 0631	High	5/25/2016
7809295	C of Davison	Black Creek 0020	High	5/25/2016
7809301	C of Davison	Black Creek 0704	High	5/25/2016
7809302	C of Davison	Black Creek 0704	High	5/25/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
7809758	C of Davison	Black Creek 0704	High	5/25/2016
7810020	C of Davison	Black Creek 0704	High	5/25/2016
7810027	C of Davison	Black Creek 0704	High	5/25/2016
7810028	C of Davison	Black Creek 0704	High	5/25/2016
7810045	C of Davison	Black Creek 0704	High	5/25/2016
7810046	C of Davison	Black Creek 0704	High	5/25/2016
7809511	C of Davison	Long Lake	Medium	5/31/2016
7809520	C of Davison	Black Creek 0704	Medium	5/31/2016
7809524	C of Davison	Black Creek 0704	Medium	5/31/2016
7810502	C of Davison	Black Creek 0704	Low	5/31/2016
7810503	C of Davison	Black Creek 0704	Low	5/31/2016
7810504	C of Davison	Black Creek 0704	Low	5/31/2016
7810505	C of Davison	Black Creek 0704	Low	5/31/2016
7810506	C of Davison	Black Creek 0704	Low	5/31/2016
7809304	Gc School	Harvey Drain 0631	Low	5/31/2016
7806251	GCDC 0003	Brier Creek 0130	High	5/31/2016
7805254	GCDC 1251	Brier Creek Drain 0130	Medium	5/31/2016
7807836	GCDC 1337	Black Creek 0704	High	5/31/2016
7807837	GCDC 1337	Black Creek	High	5/31/2016
7806004	GCDC 1510	Brier Drain 0130	Medium	5/31/2016
7807517	GCRC	Kearsley Creek	Medium	5/31/2016
7808758	GCRC	Black Creek 0704	Medium	5/31/2016
7809501	GCRC	Black Creek 0704	Medium	5/31/2016
7809503	GCRC	Long Lake 0614	Medium	5/31/2016
6710508	C of GrandB	Thread Creek	Medium	6/13/2016
6710512	C of GrandB	Thread Creek	Medium	6/13/2016
6710513	C of GrandB	Thread Creek	Medium	6/13/2016
6710514	C of GrandB	Thread Creek	Medium	6/13/2016
6715003	C of GrandB	Thread Creek	Medium	6/13/2016
6715004	C of GrandB	Thread Creek	Medium	6/13/2016
6716251	C of GrandB	Mancour Drain 1061	Low	6/13/2016
6716252	C of GrandB	Mancour Drain 1061	Low	6/13/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
6716253	C of GrandB	Mancour Drain 1061	Low	6/13/2016
6716255	C of GrandB	Mancour Drain 1061	High	6/13/2016
6716256	C of GrandB	Mancour Drain 1061	High	6/13/2016
6716257	C of GrandB	Mancour Drain 1061	High	6/13/2016
6716258	C of GrandB	Mancour Drain 1061	Low	6/13/2016
6716751	C of GrandB	Layman Drain 0385	Medium	6/13/2016
6716760	C of GrandB	Layman Drain 0385	Medium	6/13/2016
6716763	C of GrandB	Layman, Crosby Branch of 0122	Medium	6/13/2016
6716764	C of GrandB	Layman, Crosby Branch of 0122	Medium	6/13/2016
6714009	C of GrandB	Bush Drain 0007	Medium	6/20/2016
6714501	C of GrandB	Thread Creek	Medium	6/20/2016
6714753	C of GrandB	Bush Drain	Medium	6/20/2016
6714754	C of GrandB	Bush Drain 0007	Medium	6/20/2016
6714755	C of GrandB	Bush Drain 0007	Medium	6/20/2016
6714756	C of GrandB	Bush Drain 0007	Medium	6/20/2016
6714757	C of GrandB	Bush Drain 0007	Medium	6/20/2016
6715252	C of GrandB	Thread Creek	Medium	6/20/2016
6715262	C of GrandB	Thread Creek	Medium	6/20/2016
6715504	C of GrandB	Layman Drain 0385	Medium	6/20/2016
6715505	C of GrandB	Layman Drain 0385	High	6/20/2016
6723004	C of GrandB	Perry Drain 1132	Medium	6/20/2016
6715257	C of GrandB	Thread Creek	Low	6/21/2016
6715263	C of GrandB	Thread Creek	Low	6/21/2016
6715506	C of GrandB	Layman Drain 0385	High	6/21/2016
6715511	C of GrandB	Layman, Crosby Branch of 0710	Medium	6/21/2016
6715512	C of GrandB	Layman, Crosby Branch of 0710	Medium	6/21/2016
6715513	C of GrandB	Layman, Crosby Branch of 0710	High	6/21/2016
6715514	C of GrandB	Layman, Crosby Branch of 0710	High	6/21/2016
6715515	C of GrandB	Layman Drain 0385	High	6/21/2016
6715516	C of GrandB	Layman Drain 0385	High	6/21/2016
6709751	C of GrandB	Thread Creek	High	6/22/2016
6710504	C of GrandB	Thread Creek	Medium	6/22/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
6710506	C of GrandB	Thread Creek	Medium	6/22/2016
6710520	C of GrandB	Thread Creek	Medium	6/22/2016
6715010	C of GrandB	Mancour Drain 1061	High	6/22/2016
6715510	C of GrandB	Layman, Crosby Branch of 0710	Medium	6/22/2016
6716761	C of GrandB	Layman Drain 0385	High	6/22/2016
6716762	C of GrandB	Layman Drain 0385	Medium	6/22/2016
6710521	C of GrandB	Thread Creek	Medium	6/23/2016
6714010	C of GrandB	Thread Creek	High	6/23/2016
6714253	C of GrandB	Bush Drain 0007	Medium	6/23/2016
6714256	C of GrandB	Bush Drain 0007	Medium	6/23/2016
6715005	C of GrandB	Thread Creek	Medium	6/23/2016
6715264	C of GrandB	Thread Creek	Low	6/23/2016
6715265	C of GrandB	Thread Creek	Low	6/23/2016
8706507	C of Mt Morris	Benjamin Run Tributary	Medium	7/5/2016
8601754	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601755	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601758	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601760	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601761	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601767	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8601769	C of Mt. Morris	Benjamin Run Tributary	Low	7/5/2016
8612254	C of Mt. Morris	Craven & Benson, Branch #1	Low	7/5/2016
8612255	C of Mt. Morris	Craven & Benson, Branch #1	Low	7/5/2016
8612257	C of Mt. Morris	Craven & Benson, Branch #1	Low	7/5/2016
8612259	C of Mt. Morris	Craven & Benson, Branch #1	Low	7/5/2016
8706503	C of Mt. Morris	Benjamin Run Tributary	Medium	7/5/2016
8706506	C of Mt. Morris	Benjamin Run Tributary	High	7/5/2016
7809001	Davison Twp	Stockman Drain 0659	High	7/6/2016
7603001	Flint Twp	Hartshorn & Ext	None	7/6/2016
7610251	Flint Twp	Flint River Tributary	Medium	7/6/2016
7617501	Flint Twp	Chapman Drain 0009	Medium	7/6/2016
7622001	Flint Twp	Burroughs Drain 0008	Low	7/6/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
7629762	Flint Twp	Swartz Creek, West Br 0122	Low	7/6/2016
7629763	Flint Twp	Swartz Creek, West Br 0122	Low	7/6/2016
9614762	Vienna Township	Pine Run & Tryon Drain	High	7/6/2016
9622004	Vienna Township	Haven & Dexter Street Outlet	Low	7/6/2016
7804762	C of Davison	Black Creek 0020	Low	7/7/2016
7804764	C of Davison	Black Creek 0020	Low	7/7/2016
7804766	C of Davison	Black Creek 0020	Low	7/7/2016
7804767	C of Davison	Black Creek 0020	Low	7/7/2016
7804768	C of Davison	Black Creek 0020	Low	7/7/2016
7804769	C of Davison	Black Creek 0020	Low	7/7/2016
7804770	C of Davison	Black Creek 0020	Low	7/7/2016
7808001	Davison Twp	Black Creek 0704	High	7/7/2016
7815001	Davison Twp	Long Lake Drain	Medium	7/7/2016
8711003	Genesee Twp	Green Arbor Drain	*None	7/7/2016
8711504	Genesee Twp	Green Arbor Drain	*None	7/7/2016
8735504	Genesee Twp	Kearsley Creek	Medium	7/7/2016
5620501	C of Linden	Shiawassee River	High	7/18/2016
5620502	C of Linden	Shiawassee river	High	7/18/2016
5620503	C of Linden	Shiawassee River	High	7/18/2016
5620504	C of Linden	Shiawassee River	High	7/18/2016
5620514	C of Linden	Shiawassee River	High	7/18/2016
5620516	C of Linden	Shiawassee River	High	7/18/2016
5620517	C of Linden	Shiawassee River	High	7/18/2016
5611251	Fenton Twp	Lake Fenton	Low	7/18/2016
5611252	Fenton Twp	Lake Fenton	Medium	7/18/2016
5611253	Fenton Twp	Lake Fenton	Medium	7/18/2016
5611254	Fenton Twp	Lake Fenton	Medium	7/18/2016
5611255	Fenton Twp	Lake Fenton	Medium	7/18/2016
5611256	GCDC 0505	Lake Fenton	High	7/18/2016
5620255	GCRC	Shiawassee River	Medium	7/18/2016
5620256	GCRC	Shiawassee River	Medium	7/18/2016
5621001	GCRC	Shiawassee River	Medium	7/18/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
5621004	GCRC	Shiawassee River	Medium	7/18/2016
7724254	C of Burton	Phillips 0080	Medium	7/20/2016
7724255	C of Burton	Phillips 0080	Medium	7/20/2016
7724502	C of Burton	Gilkey Creek 0017	Low	7/20/2016
7724755	C of Burton	Phillips 0080	High	7/20/2016
7724756	C of Burton	Phillips, East Br of 0319	High	7/20/2016
7724757	C of Burton	Phillips, East Branch 0319	High	7/20/2016
7724761	C of Burton	Phillips, East Branch 0319	High	7/20/2016
7724762	C of Burton	Phillips, East Branch 0319	High	7/20/2016
7724763	C of Burton	Phillips, East Branch 0319	High	7/20/2016
7725251	C of Burton	Phillips 0080	High	7/20/2016
7725252	C of Burton	Phillips 0080	High	7/20/2016
7725258	C of Burton	Phillips Drain 0080	High	7/20/2016
7725259	C of Burton	Phillips Drain 0080	High	7/20/2016
7725262	C of Burton	Phillips 0080	Medium	7/20/2016
7725263	C of Burton	Phillips 0080	Medium	7/20/2016
7726251	C of Burton	Gilkey Cr 0017	High	7/20/2016
7726252	C of Burton	Gilkey Cr 0017	Medium	7/20/2016
7726254	C of Burton	Gilkey Creek 0017	Low	7/20/2016
7726255	C of Burton	Gilkey Creek 0017	Low	7/20/2016
7825251	GCDC 0080	Phillips 0080	High	7/20/2016
7724760	GCDC 0096	Phillips, East Branch 0319	High	7/20/2016
7725257	GCDC 0155	Phillips Drain 0080	High	7/20/2016
7819344	GCDC 0342	Phillips, East Branch 0319	High	7/20/2016
7714006	C of Burton	Richards Drain 0042	Medium	7/21/2016
7714007	C of Burton	Richards Drain 0042	Medium	7/21/2016
7714008	C of Burton	Richards Drain 0042	Medium	7/21/2016
7714009	C of Burton	Richards Drain 0042	Medium	7/21/2016
7714502	C of Burton	Gilkey Creek 0017	High	7/21/2016
7714503	C of Burton	Gilkey Ck17	High	7/21/2016
7714512	C of Burton	Gilkey Creek 0017	High	7/21/2016
7715265	C of Burton	Gilkey Creek 0017	High	7/21/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
7715763	C of Burton	Gilkey Creek 0017	High	7/21/2016
7715764	C of Burton	Gilkey Creek 0017	High	7/21/2016
7723012	C of Burton	Gilkey Cr 0017	High	7/21/2016
7723253	C of Burton	Gilkey, Coats Br 0261	High	7/21/2016
7723255	C of Burton	Gilkey, Coats Br 0261	High	7/21/2016
7723256	C of Burton	Gilkey, Coats Br 0261	High	7/21/2016
7723261	C of Burton	Gilkey, Coats Br 0261	Medium	7/21/2016
7723262	C of Burton	Gilkey, Coats Br 0178	Medium	7/21/2016
7723263	C of Burton	Gilkey, Coats Br 0178	Medium	7/21/2016
7723264	C of Burton	Gilkey, Coats Br 0178	Medium	7/21/2016
7723265	GCDC 0178	Gilkey, coats Ext 0178	High	7/21/2016
7723254	GCDC 0261	Gilkey, Coats Br 0261	High	7/21/2016
7723258	GCDC 0488	Gilkey, coats Ext 0178	Medium	7/21/2016
7701524	C of Burton	Kearsley Creek	High	7/28/2016
7701525	C of Burton	Kearsley Creek	Medium	7/28/2016
7701531	C of Burton	Kearsley Creek	Medium	7/28/2016
7702764	C of Burton	Kearsley Creek	Medium	7/28/2016
7712253	C of Burton	Kearsley Creek	High	7/28/2016
7714519	C of Burton	Gilkey Creek 0017	High	7/28/2016
7715258	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7715263	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7715752	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7715756	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7715759	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7715760	C of Burton	Gilkey Creek 0017	Medium	7/28/2016
7723001	C of Burton	Gilkey Cr 0017	High	7/28/2016
7723003	C of Burton	Gilkey Cr 0017	High	7/28/2016
7723501	C of Burton	Robinson & Curtis 0344	Low	7/28/2016
7723502	C of Burton	Robinson & Curtis 0344	Low	7/28/2016
7723504	C of Burton	Robinson & Curtis 0344	Low	7/28/2016
7723505	C of Burton	Robinson & Curtis 0344	Low	7/28/2016
7715757	GCDC 0046	Gilkey Creek 0017	High	7/28/2016

Outfall ID	Owner	Receiving Waterbody	Priority	Date Investigated
7701527	GCDC 0120	Kearsley Creek	Medium	7/28/2016
7715261	GCDC 0177	Gilkey Creek 0017	High	7/28/2016
7702767	GCDC 0325	Kearsley Creek	High	7/28/2016
7715761	GCDC 0357	Gilkey Creek 0017	High	7/28/2016
7714518	GCDC 0425	Gilkey Creek 0017	High	7/28/2016

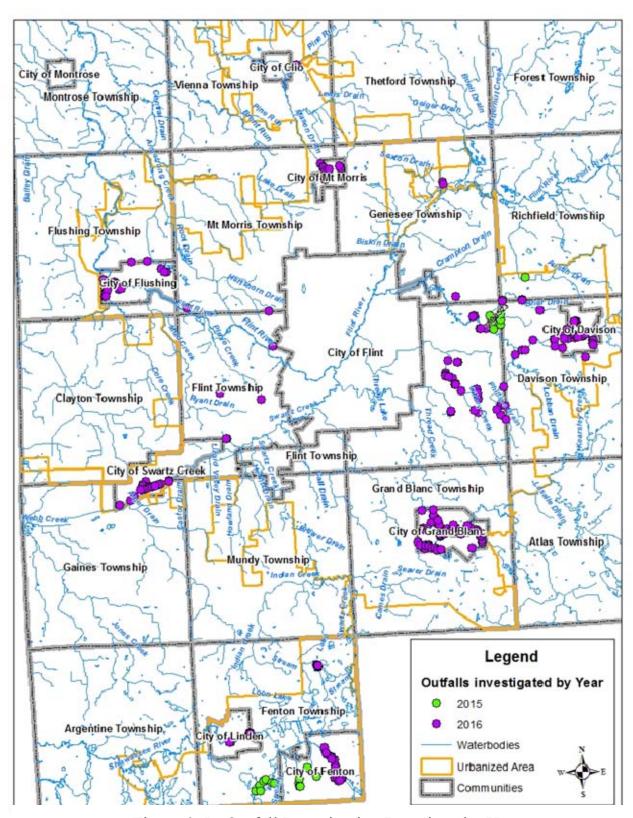


Figure 9-5: Outfall Investigation Locations by Year

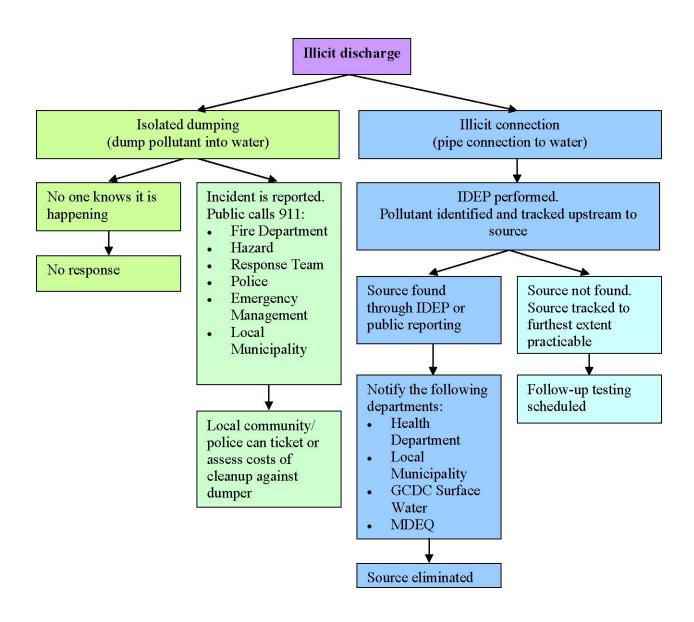


Figure 9-6: Illicit Discharge Notification System Process

When Tetra tech finds an illicit discharge resulting from dry weather testing, it is forwarded to GCDC-SWM for followup. Below is a list of potential illicit discharges found that required followup.

Table 9-3: Illicit Dicharges October 1, 2015 to September 29, 2016

Sample Location	Background and Inspection
Outfall 5634274 Egyptian Drain, Owen Rd. and South Alloy Drive	On 11-16-2015, Tetra Tech field crews sampled dry-weather flow from GCDC Outfall 5634274. Lab Testing confirmed E. coli and surfactant levels above the threshold for investigative action
Outfall 6502001 Swartz Creek	On 4-29-2016, Tetra Tech field crews sampled dry-weather flow from GCDC Outfall 6502001. Lab Testing confirmed E. coli levels above the threshold for investigative action.
Outfall 6502257 Swartz Creek	On 4-29-2016, Tetra Tech field crews sampled dry-weather flow from GCDC Outfall 6502257. Lab testing confirmed E. coli levels above the threshold for investigative action.
Outfall 6715516 Grand Blanc	On 6-30-2016, Tetra Tech field crews sampled dry-weather flow from GCDC Outfall 6715516. Lab testing confirmed E. coli levels above the threshold for investigative action.
Outfall 6716252 Grand Blanc	On 7-5-2016, Tetra Tech field crews sampled dry-weather flow from Grand Blanc Outfall 6716252. Lab testing confirmed E. coli levels above the threshold for investigative action.
Outfall 7810046 Davison	On 7-5-2017, Tetra Tech field crews sampled dry-weather flow from Davison Outfall 7810046. Lab testing confirmed E. coli levels above the threshold for investigative action.
Outfall 7810504 Davison	On 7-5-2017, Tetra Tech field crews sampled dry-weather flow from Davison Outfall 7810504. Lab testing confirmed E. coli levels above the threshold for investigative action.
Outfall 8706506 Mount Morris	On 7-13-2016, Tetra Tech field crews sampled dry-weather flow from Mount Morris Outfall 8706506. Lab testing confirmed E. coli levels above the threshold for investigative action.

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. PSDs are updated on an annual basis. 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
 - o 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. This list was revised as part of the permit review process. Any outfalls up to January 2015 were included and provided to the communities to submit to the MDEQ. Appendix B contains a complete current list of outfalls (Aug 30, 2016).

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 the County's ability to map the Road Commission storm water infrastructure. This will allow us to locate and map outfalls more efficiently. City of Burton had hired an engineering firm to compile storm plans within their community. This list will be used to identify outfalls within the City.

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

Sample Location	Background & Follow-up Inspection	Results & Comments
ID #6502257 5075 Brady Street City of Swartz Creek	On 4/29/16, Tetra Tech sampled Outfall #650257. Sampling results from 36" RCP emptying into Swartz Creek shows a high concentration of E.coli and Surfactant. GCDC-SWM conducted a site inspection and found that 5075 Brady Street washer discharge line and kitchen wastewater line connected to storm sewer. Owner is working to re-route to sanitary sewer	On-going
ID #8706506 City of Mt. Morris	On 7/13/16, Tetra Teach sampled outfall #8706506. City of Mt. Morris storm sewer (24" RCP) connected to GCDC-SWM system at intersection of Walter and Coy street. Tetra Tech sampling results shows a high concentration of E.coli from 24" RCP. City of Mt. Morris has been notified. Currently, City is doing its follow-up investigation to identify the source.	On-going
ID #7810046 City of Davison	On 7/5/16, Tetra Tech sampled outfall #7810046. City of Davison 18" PVC pipe located on south wall of the culvert crossing Black creek at Main street. Tetra Tech sampling results show elevated levels of E. coli and ammonia from the 18" PVC pipe. City of Davison has been notified. Currently, City is doing its follow-up investigation to identify the source	On-going
ID #6715516 12063 S. Saginaw St City of Grand Blanc	On 6/30/16, Tetra Tech conducted dry weather flow inspection of outfall 6715516. Inspection shows a 4" plastic pipe discharging into a "beehive" type catch basin. Tetra Tech sampling results shows high concentration of E. Coli. GCDC-SWM conducted follow-up inspections and identified the source of this illicit connection. GCDC-SWM and Sunset Plaza Apartment working to eliminate the source of this illicit connection.	On-going
2171 E. ParkwoodDrive City Of Burton	On 5/16/16, Homeowner called and complained about his floor drain is connected to our storm sewer and that causing flooding in his basement. This is considered an illicit connection. We have contacted the homeowner several times to schedule a dye test to confirm connectivity.	On-going
ID #6716252 340 Reid Rd Grand Blanc Township Sec-16	7/5/16: During dry weather flow investigation, Tetra Tech observed flow from a 36" pipe flowing southwest. Tetra Tech conducted sampling and sampling results shows high level of E. Coli	On-going
ID #7810504 425 E. Clark Street City of Davison Sec-10	7/5/16: Tetra Tech identified dry weather flow from a 15" RCP at City of Davison storm water outfall. City of Davison is working to identify and eliminate the source.	On-going
ID #7810046 Main St. Crossing Black Creek City of Davison	7/5/16: Tetra Tech identified dry weather flow from a 18" plastic pipe into Black Creek intersecting Main St. City of Davison is working to identify and eliminate the source	On-going

Sec-10		
ID #6502001	On 4/29/16, Tetra Tech sampled Outfall #6502001. Sampling	File Closed
5094 Fairchild St	results from 18" RCP emptying into Swartz Creek shows a	i no cioscu
City of Swartz Creek	high concentration of E.coli. GCDC-SWM conducted a site	
City of Swartz Cicck	inspection and found that 5094 Fairchild Street washer	
	discharge line connected to storm sewer. Owner re-routed	
	washer line to sanitary sewer.	
	On 8/4/16, we have confirmed that illicit connection is	
	eliminated.	
929 E. Main Street	On 6/7/16, City of Flushing called GCDC-SWM about yard	Closed
City of Flushing	waste dumping onto the bank of Flint River across 929 E.	Closed
City of Flushing	Main St. GCDC-SWM conducted a follow-up inspection and	
	met some property owners. And also observed evidence of	
	yard waste dumping. On 7/15/16, GCDC-SWM wrote letter	
	to adjacent property owners indicating dumping yard waste	
	onto the bank of Flint river is not acceptable.	
2505 Warner Road	On 11/4/15, GCDC-SWM conducted a dye test at this	Closed
Flushing Township	property. Dye test confirmed that sanitary lead is connected	Ciosea
riushing rownship	to county storm sewer and confirmed an illicit connection.	
	On 11/4/15, GCDC-SWM wrote a letter to eliminate the	
	illicit connection. On 4/9/16, we have conducted a follow-up	
	inspection and confirmed that sanitary lead re-routed to	
	sanitary sewer.	
3328 Kleinpell Street	On 3/7/16, MDEQ received compliant about oil running	Closed
City of Burton	down from the property. On 3/8/16, GCDC-SWM conducted	Closed
City of Burton	a site inspection and observed a trace of oil sheen flowing	
	south of the property west side of the street. This may	
	resulted from the operation of semi-trucks facility. GCDC-	
	SWM emailed inspection report to MDEQ. 3/14/17 Owner	
	contacted City Burton. He had cleaned up area. Burton	
	DPW and Code enforcement had visited site and found area	
	to be cleaned and no evidence of oil.	
Willowbrook Apt	On 6/1/16, received complaint about willowbrook Apt power	Closed
215 W. South Street	washing swimming pool and then discharging to Black	Closed
City of Davison	Creek. City of Davison stopped direct discharge to Black	
City of Davison	Creek but allowed to discharge into their lawn.	
215 E. Flint Street	On 5/27/16, City of Davison complained about red gel	Closed
City of Davison	coming of weep drain hole from the bottom of 6-feet	Closed
City of Duvison	retaining wall. On 6/10/16, GCDC-SWM inspected the site	
	and observed only one hole at northwest corner shows sign of	
	dry red gel. We inspected storm sewer manhole/catch basin at	
	parking lot of adjacent shopping mall did not observe any	
	sign of red gel	
1141 S. State Road	On 3/4/16, GCDC-WWS reported a gasoline spill at this	Closed
Davison Township	property to GCDC-SWM. GCDC-WWS staff inspected the	210000
Zavison rownship	site on the same day and found no signs of spill on-site.	
	According to GCDC-WWS report, HAZMAT came and	
	sweep the area. GCDC-SWM also conducted a site	
	inspection and observed no sign oil or oil sheen in county	
	storm sewer.	
318 Railway St	On 5/3/16, GCDC-SWM received a letter from the City of	Closed
City of Clio	Clio regarding dumping of debris on the bank of Pine Run	Closed
City of Cito	one regurants dumping of deoris on the bank of time Rull	

City of Grand Blanc	showed at the end of storm water outlet pipe back of his house. We have conducted a site inspection. It was florescent green color and has no odor. City of Grand Blanc Office inspected the site and confirmed that it was a dye.	
2291 Lake Ridge Drive Grand Blanc Township	On 6/24/16, homeowner complained about cleaning residual concrete from a concrete truck into driveway and then flows to a roadside catch basin in front of her house. GCDC-SWM conducted an inspection and stopped contractor from dumping concrete residual water into driveway Spoke to Contractor. They are responsible for providing acceptable discharge point for cleaning concrete.	Closed
Downstream of Mill Pond 02-22-100-035 Village of Goodrich	On 8/4/16, Brian Zuber from MDEQ emailed a complaint concerning a potential oil/sewage discharge into Kearsley Creek just downstream of Mill pond. On 8/5/16, GCDC-SWM conducted a site inspection. I walked around upstream of that location and could not locate any source of this leachate. At that time, I did not observe any active sign of leaching was going on. Kearsley Creek is MDEQ control watercourse and village of Goodrich is not a NPDES Phase II community. GCDC has no jurisdiction over this location.	Closed
Behind "Sagano's" Restaurant, Linco Plaza Flint Twp, Sec-2	On 5/3/16, GCDC-WWS staff observed oil grease on a storm sewer catch basin just behind this Restaurant. On 5/27/16, GCDC-SWM conducted a site inspection and found sign of kitchen grease/used oil spilled over pavement. GCDC-SWM staff talked to Restaurant manager and asked to make sure that used oil/grease do not spill over container.	Closed
6533 W. Pierson Rd Mt Morris Twp	300 Gallons of Gasoline into storm drain was reported by the Flint Journal. This was due to a car colliding with a gas pump on Aug 7, 2016. Complications with the store tuning off the pumps resulted in the volume of 300 to 500 gallons of gasoline spilling into the parking lot. First responders placed barriers to contain and absorb gasoline. Environmental cleanup crew vacuumed drains. GCDC-SWM was not notified of this spill until it appeared in the paper. Follow up was performed. No evidence left of gasoline remained.	Closed
5045 Stanley	GCP&R site, neighbor called on them. Says oil they cleaned up last year is still present. Tetra tech did follow-up investigation to test for oil/ VOC. GCDC Staff and Park Staff present. No evidence onsite of oil.	Closed
Car Wash Business Flushing Road	On 7-5-16, GCDC-SWM received a complaint from Flint Twp about discharging soapy water in the driveway. GCDC-SWM conducted a site inspection on 7-5-16 and did not observe any sign oil stain. GCDC-SWM staff talked with the business owner about the complaint and explained that dumping oil in storm sewer is considered an illicit connection.	File Closed
1535 Lambden Rd Flint Twp, Sec-16	On 9-1-15, GCDC-SWM wrote a letter to the contractor and a copy to GCDC-WWS to stop such illicit activity in the future.	File Closed

Appendix A

Websites

cleargeneseewater.org

gcdcswm.com

GC metropolitan Planning Commission

GC Health Dept

Genesee Conservation Dist

Household hazardous waste promotion materials

Properly dispose of medicines- flyer

Public Education Implementation Table (reconfigured for 2013 permit)

Booth Results

Davison Mats for local restaurants

GCD Education Program Brochure

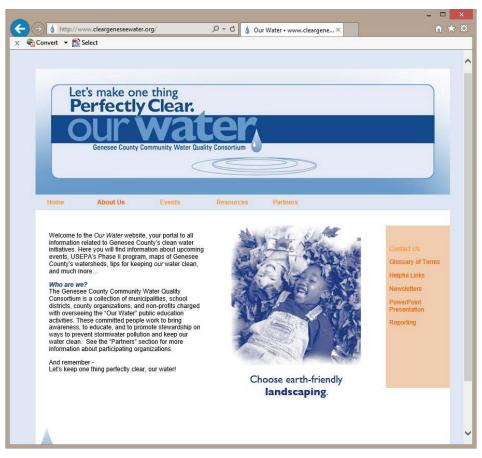
FRWC GREEN Program

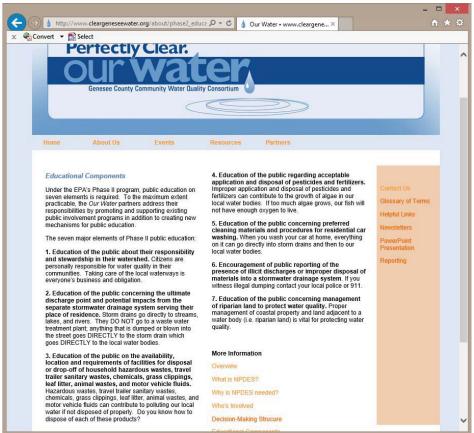
Other Water Programs

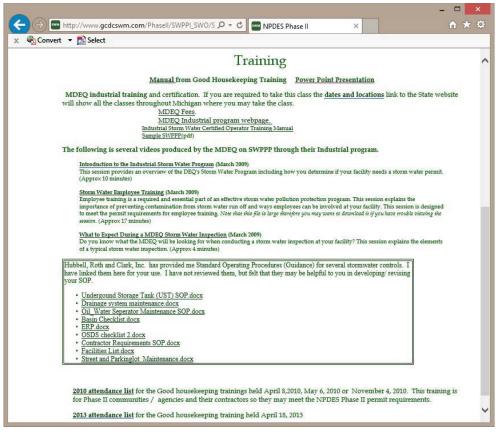
Partner Newsletters

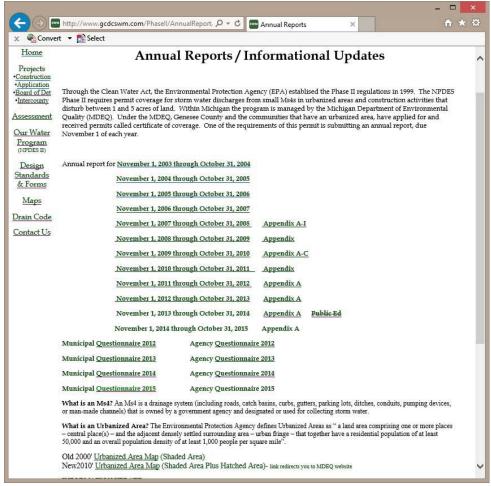
Genesee County Parks Programs

Articles

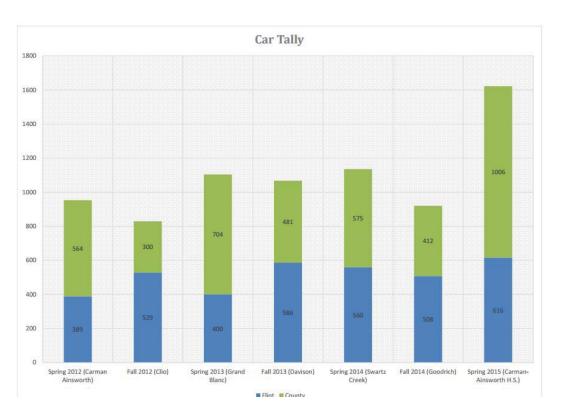


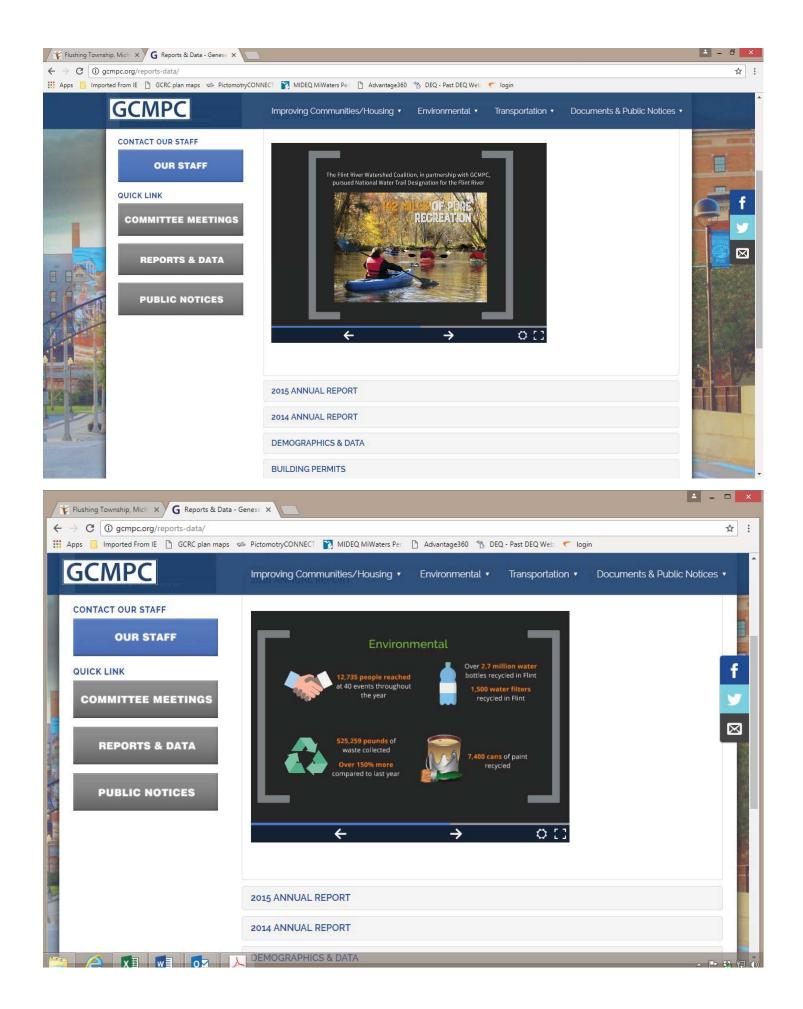


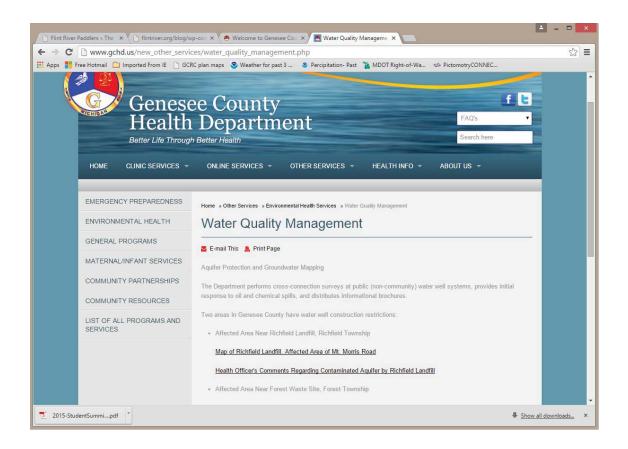


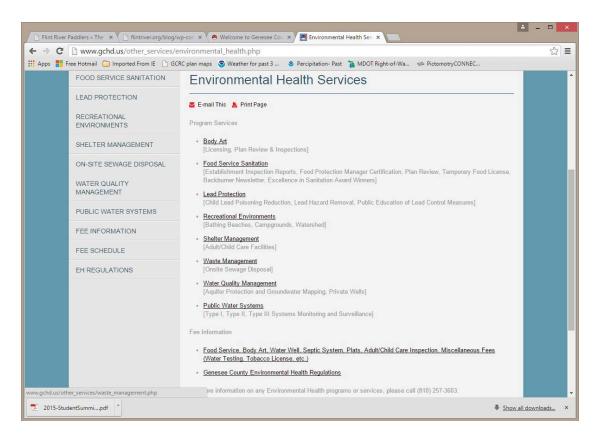


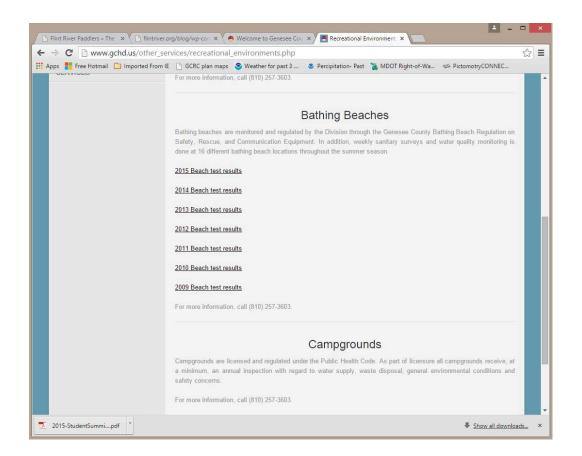


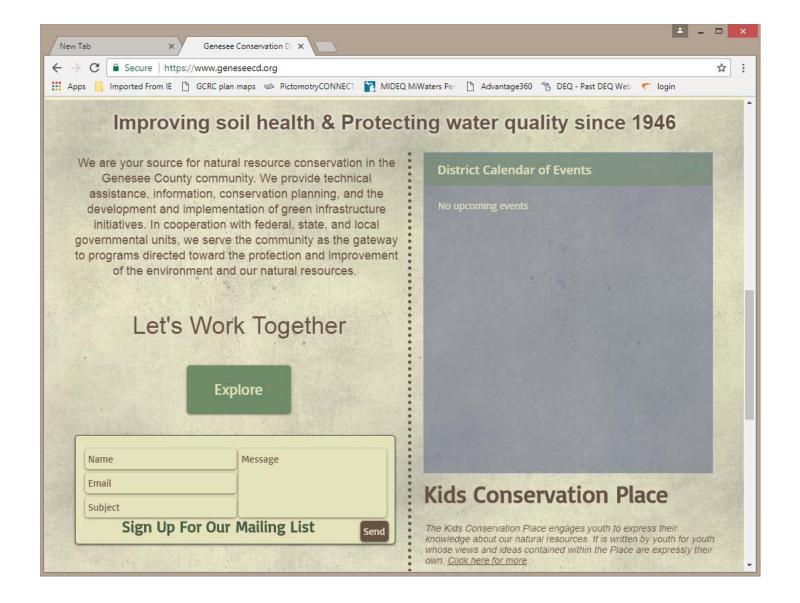


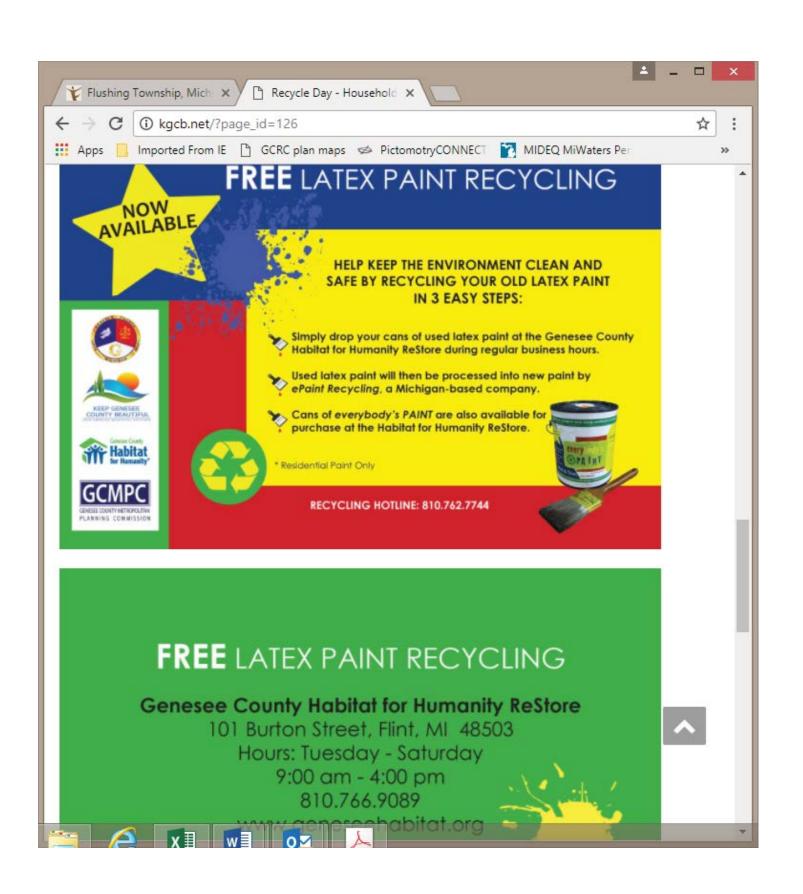












How to sign up for GCMPC's Household Hazardous Waste Event Notifications:



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



Or to receive messages via email, send an email to

hhwevent@mail.remind.com. To unsubscribe, reply with 'unsubscribe' in the subject line.



What is remind and why is it safe?

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

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



Household Hazardous Waste & Electronic Waste Collection Day!

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

Davison Rd

Belsay Rd

E Court St

69

(Formerly) Showcase Cinema East 5205 E. Court St. Burton, MI 48509



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

www.gcmpc.org

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



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

Event Partners:

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













Allowed:

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

Not Allowed:

Commercial Waste, Explosive Material, Industrial Waste, Medical Waste, Radioactive Material. Household Hazardous Waste & Electronic Waste

Recycle Day

Saturday May 21, 2016 10AM - 2PM



Grand Blanc High School
West Campus
1 Jewett Trail
Grand Blanc, MI 48439



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



Spring 2016 HHW

ACCEPTABLE Waste	UNACCEPTABLE Waste
OIL BASED PAINT AND SOLVENTS	GENERAL REFUSE
AEROSOLS	PAPER / DOCUMENTS FOR SHREDDING
CORROSIVES (ACIDS / BASES)	EXPLOSIVES
PESTICIDES / HERBICIDES	Ammunition
REACTIVES / OXIDIZERS	FIREWORKS
LATEX PAINT	WEAPONS
AUTOMOTIVE FLUIDS	RADIOACTIVE MATERIALS
MERCURY (ELEMENTAL)	COMPRESSED GAS CYLINDERS (PROPANE ACCEPTABLE UP TO 30 LBS)
PRESCRIPTION MEDICATION	INDUSTRIAL / COMMERCIAL WASTE
PROPANE CYLINDERS (UP TO 30 LBS/EACH ACCEPTABLE)	YARD WASTE
BATTERIES – MIXED HOUSEHOLD + AUTO	55 GALLON DRUMS OF WASTE
FLUORESCENT LAMPS	MEDICAL WASTE
ELECTRONICS – ALL KINDS	
FIRE EXTINGUISHERS	
SMOKE DETECTORS	
BIOMEDICAL SHARPS (IN RIGID/SEALED CONTAINERS)	
TIRES (OFF-RIM, UP TO 7)	
APPLIANCES / WHITE GOODS	
AIR CONDITIONERS	

Household Hazardous Waste, Electronics, & Appliance

Recycle Day

Saturday, August 20, 2016 10AM - 2PM



Lake Fenton High School 4070 Lahring Rd. Linden, MI 48451



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



✓ ACCEPTED ITEMS

- Oil Based Paint & Solvents
- Aerosols
- Corrosives (Acids/Bases)
- Pesticides/Herbicides
- Reactives/Oxidizers
- Automotive Fluids
- Mercury (Elemental)
- Fluorescent Bulbs
- Electronics All Kinds
- Old Prescriptions

- Fire Extinguishers
- Smoke Detectors
- Tires up to 7 (off rim)
- Appliances
- Air Conditioners
- Propane Cylinders
 (Up to 30 lbs/ea. acceptable)
- Batteries -Mixed Household & Auto
- Biomedical Sharps
 (In Rigid/Sealed Containers)

X NON-ACCEPTED ITEMS

- General Refuse
- Paper/Documents for Shredding
- Industrial/Commercial Waste
- Explosives
- Ammunition
- Fireworks
- Weapons
- Yard Waste
- 55 Gallon Drums of Waste
- Radioactive Materials
- Compressed Gas Cylinders (Propane Acceptable up to 30 lbs)

















Household Hazardous Waste, Electronics, & Appliance

Recycle Day

Saturday, October 22, 2016 10AM - 2PM



Trinity Assembly of God 4363 W. Mt. Morris Rd. Mt. Morris, MI 48458



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



✓ ACCEPTED ITEMS

- Oil Based Paint & Solvents
- Aerosols
- Corrosives (Acids/Bases)
- Pesticides/Herbicides
- Reactives/Oxidizers
- Automotive Fluids
- Mercury (Elemental)
- Fluorescent Bulbs
- Electronics All Kinds
- Old Prescriptions

- Fire Extinguishers
- Smoke Detectors
- Tires up to 7 (off rim)
- Appliances
- Air Conditioners
- Propane Cylinders
 (Up to 30 lbs/ea. acceptable)
- Batteries -Mixed Household & Auto
- Biomedical Sharps
 (In Rigid/Sealed Containers)

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711/16 GC Board - CED Committee agenda

DEREK BRADSHAW

CHRISTINE A. DURGAN ASSISTANT DIRECTOR

COMMUNITY DEVELOPMENT PROGRAM

Room 223 – 1101 Beach Street, Flint, Michigan 48502-1470 * (810) 257-3010 * Fax (810) 257-3185 * www.gcmpc.org

MEMORANDUM

TO:

Commissioner Tony Brown, Chairperson

Community and Economic Development Committee

FROM:

Derek Bradshaw, Director-Coordinator

Genesee County Metropolitan Planning Commission

Date:

July 11, 2016

SUBJECT:

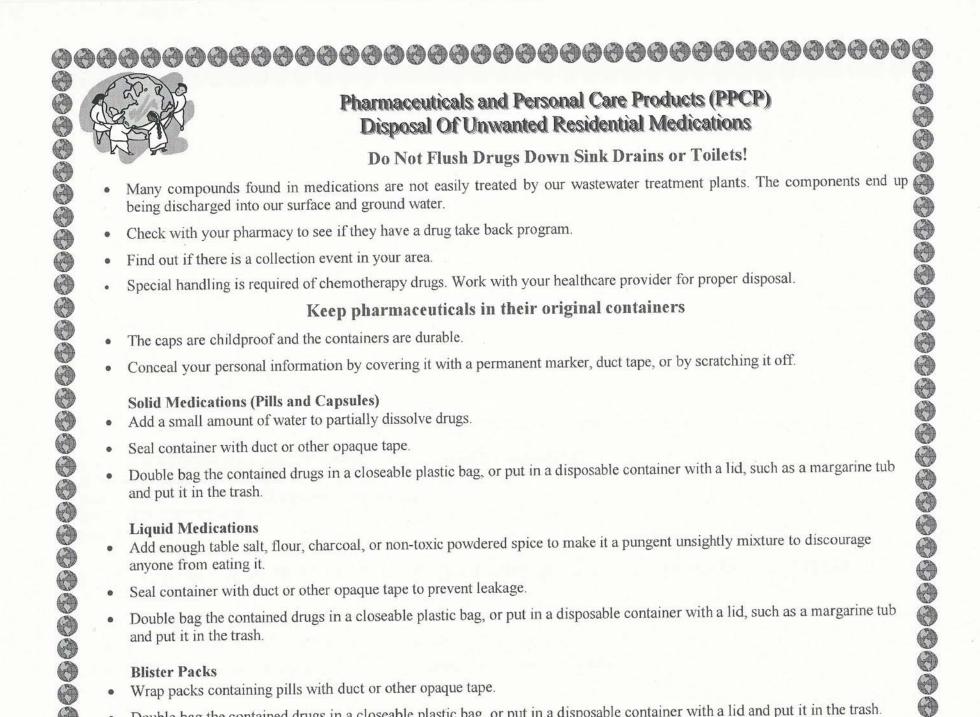
2016 Household Hazardous Waste Collection Totals

The spring 2016 Household Hazardous Waste Collection was a success, collecting over 145,000 lbs. of waste at the out-county location alone. Staff is pleased to announce the spring event achieved a 92% rate for recycling or reuse of all of the waste collected. While event participation and the amount of waste collected have steadily increased, the County is currently paying the lowest cost per pound in the history of the program for household hazardous waste.

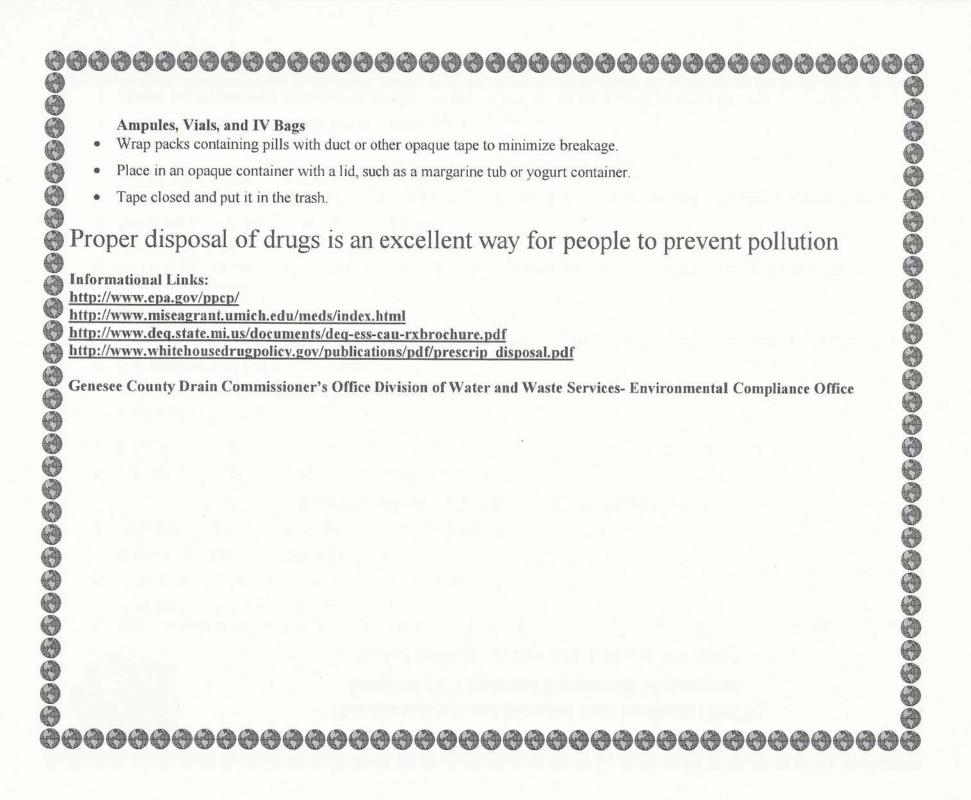
Staff is currently planning a summer Recycle Day for August 20^{th} and a Fall Recycle Day on October 22^{nd} . Locations are yet to be determined.



An Equal Opportunity Organization



• Double bag the contained drugs in a closeable plastic bag, or put in a disposable container with a lid and put it in the trash.



STORMWATER DISCHARGE PERMIT APPLICATION

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

Delivery	Public			Standard of	Mechanism	Mechanism		Timetable	/ Timeline			
Mechanism / Activity	Education Topics	Target Audience(s)	Key Message	Effectiveness (recommended)	Specific Audience (recommended)	Specific Message(s) (recommended)	Milestone(s) (recommended)	Development	Implementation	Responsible Party	Cost (recommended)	Evaluation
Road/stream crossing and watershed signs	В	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/classro oms	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 incorporatin g lessons into curriculum.
Benthic Monitoring Program	АВ	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	#participatin g schools/ sites survey. Information to aid decision- making. Increased public awareness - social survey.

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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://cleargene seewater.org/	A, B, C D, E, F G, H, I J, K	Public	Have messages on most topics.	Residents adopt the recommended behavior changes.	Permittees, home owners, associations, businesses	Same as key message	Number of hits per year stay the same or increase.	Developed	Expand site as new material becomes available. Update as needed	SWM	100 hrs a year. Plus periodic costs for updates.	Number of hits on the site Number of times brochure is downloaded.
Conservation District presentation to school districts with Enviroscapes	A, B, C, D (Depending on who does the training, the following topics can be covered E, F, G, I)	School Children, Teachers	What is a watershed - Importance of a riparian corridor, effects of human activities on waterways and wetlands.	Make presentation 5000 students/ teachers per year	School children	Our actions have impacts on local waterways; how to act to better protect adjacent waterbodies.	Number of presentations per year.	Developed	Schedule presentations annually to reach at least 5000 students/year	SWM\ Conservation District	\$16,000/yr	- Number of presentation s, - Answer questions on social survey - Improvemen t in other metrics
Catch basin stenciling program that includes door to door delivery of brochures	АВ	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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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/fl yers 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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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	К	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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Information Booth: Data Collection

BZB Date: 8/20/16 Event Name: **NUMBERS** CITIES Burton H+1 1161 Clio Davison Fenton Flint HTHT HTHT HTHH HT11 Flushing Grand Blanc Linden Montrose Mt. Morris Swartz Creek HTTI **TOWNSHIPS** Argentine Atlas 11 Clayton Davison Fenton HIT HITHE HIT HIT HAT 1 Flint Flushing Forest Gaines Genesee Grand Blanc Montrose Mt. Morris Mundy Richfield Thetford 111 Vienna OTHER CO. IN ST 11 1111 **OTHER STATES** Total

Let's make one thing Perfectly Clear: OUR Water

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Information Booth: Data Collection

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Perfectly Clear: OUR Water

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Information Booth: Data Collection

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Perfectly Clear: Our water

Total

Information Booth: Data Collection

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Davison						
Fenton	1					
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Perfectly Clear: Our Water General Durchy Generally Visite Bally Education

Information Booth: Data Collection

Closed @ 2:30pm (Rain) ed text

Event Name:

G County	Fruir

Date: 8/25/16

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Grand Blanc	
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Let's make one thing Perfectly Clear: Our Water Geneus Dustly Enterolity Wider Basily Enterolity

Information Booth: Data Collection

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Let's make one thing Perfectly Clear.

Information Booth: Data Collection

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Let's make one thing Perfectly Clear. OUR Water Geneau Dunity Europainty Victor Sanity Connection

Information Booth: Data Collection

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Total 40

Let's make one thing Perfectly Clear: OUR Water

Information Booth: Data Collection

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Fenton	HTHU
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Let's make one thing Perfectly Clear: OUR Water Gracus Ducty Community Visits thatly Conserved.

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Perfectly Clear. OUR Water Generally Visite Balley Connection

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Event Name: NATIONAL N.GHT OUT NUMBERS CITIES Burton Clio Davison Fenton Flint H HAT LAT LAT LAT LAT LANDING IN Flushing Grand Blanc HT/ Linden Montrose Mt. Morris Swartz Creek 14 14 CH 111 **TOWNSHIPS** Argentine Atlas Clayton Davison Fenton HI HI HI HI HI HI HI Flint Flushing Forest Gaines Genesee Grand Blanc Montrose Mt. Morris Mundy Richfield Thetford Vienna

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Let's make one thing Perfectly Clear: OUT Water Gricus Dutry Economity Water Basily Economics

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Let's make one thing Perfectly Clear: OUR Water Groups Stating Expressing Vision Stating Expression Vision Stating Expression Vision Stating Expression Vision Stating Vision

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Let's make one thing Perfectly Clear.

Information Booth: Data Collection

Event Name: GRAND BLANC FARMERS MARKET

September 25, 2016

Date: August 12-18, 2013

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Information Booth: Data Collection

Let's make one thing
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Event Name: Davisor Farmers Market Date: 9/29/16

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Mt. Morris	
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TOTAL 48



May is Stormwater Pollution Prevention Month

Have you ever thought about how much trash we generate??

ightharpoonup Imagine if every family of four disposed of 8 bags of trash per week ightharpoonup that would be 416 bags per year for just one family ightharpoonup and, in the United States alone, where the current population is 470.85 million people ightharpoonup that

would be 941.7 million trash bags per

WEEK going into landfills! RECYCLE!!!



Davison's Wellhead Protection Program

2006 MICHIGAN RURAL WATER ASSOCIATION WATER UTILITY OF THE YEAR
2008 AMERICAN WATER WORKS ASSOCIATION EXEMPLARY EFFORTS IN
ENVIRONMENTAL PROTECTION
2011 MRWA BEST DRINKING WATER IN THE STATE
2015 MRWA EXEMPLARY FFFORTS IN ENVIRONMENTAL PROTECTION AWARI

2015 MRWA EXEMPLARY EFFORTS IN ENVIRONMENTAL PROTECTION AWARD 2015 NRWA EXEMPLARY EFFORTS IN ENVIRONMENTAL PROTECTION AWARD 2016 MRWA BEST DRINKING WATER IN THE STATE

The City of Davison owns and operates their own drinking water system and provides groundwater to area residents and businesses with their five pumping wells located throughout the City. The City has a Source Water Protection Program that is seven square miles covering the entire City, a small portion of Richfield Township and a larger portion of Davison Township. This program is overseen by the Michigan Department of Environmental Quality (MDEQ) and assists the City with ways to safeguard the drinking water supply by

preventing contamination of the water supply. For more information, please call the City of Davison at 810-653-2191.

City of Davison

FIND THE STORMWATER WORDS!

Nonpoint Source Runoff Rain Gardens Nutrients Watershed Sediment Pesticide Monitoring Conservation Fertilizer Environment Xeriscape Water Riparian Pollution Erosion

Low Impact

A N O N P O I N T S O U R C E
N P U L O W I M P A C T I O P
L T S T N E M I D E S W P R A
O W A T R N B K C M L E A A C
N A F D U I Y F F O N U R I S
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T R T P O L L U T I O N N A E
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S E E C M F H I R E D L M S S
N E R I A N N K G P R H P M O
O D I D V O C M D J T J E G R

DID YOU KNOW? One quart of oil can pollute 250,000 gallons of drinking water—enough water to supply a family of four for one year!

How Can You Help??

- ✓ Keep garbage out of storm drains. Put litter in trash cans and dispose of toxic substances properly.
- ✓ Use a broom, not a hose to clean spills.
- Grass clippings clog storm drains and cause water to back up onto the streets. Sweep clippings back on your lawn.
- ✓ Never fertilize before it rains. When it rains, the fertilizer goes into storm drains and causes problems.
- ✓ Landscape to retain rain water.
 - → Create small berms and depressions in your garden to hold rain water.
 - Border your lawn with deep-rooted flowers and shrubs that soak up water and reduce runoff.
- ✓ Landscape to prevent soil erosion.
- ✓ Pick up after your pet. Double bag the waste and put it in the trash (if your community allows) or flush it.
- ✓ Check the pavement where you park your vehicles! If your vehicle is leaking, get it fixed. Otherwise, it ends up going down the storm drain and to the river or lake!



What is Stormwater??

Storm water is rainwater and melted snow that runs off streets, lawns and other areas. The ground, acting as a sponge, absorbs the storm water and as it filters through the ground, replenishes the underlying aquifers. In areas where there is pavement and roofs, rather than naturally soaking into the ground, the stormwater picks up debris, chemicals, dirt and other pollutants and flows into storm drains or directly into rivers, streams and lakes. This polluted stormwater has a dangerous impact on plants, fish, animals and people.

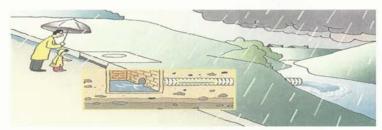


Photo Courtesy of: Montgomery County Department of Environmental Protection



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

Education and Outreach

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

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

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

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

Genesee Conservation District

1525 N. Elms Rd. Flint, MI 48532 Ph: (810) 230-8766 ext. 110 Fax: (810) 230-8596 Email: jeffrey.johnson@macd.org **GCD 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

GCD Staff

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

USDA-NRCS Staff

Joseph Woodruff, District Conservationist Laura Jostock, Farm Bill Specialist

GCD Funding Partners

GCD funding is made possible through fundraising efforts and the generous support of: Ruth Mott Foundation, Anna Paulina Foundation, USDA Forest Service,

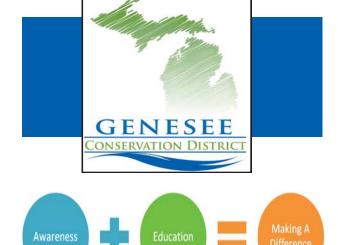
Genesee County Community Drain Commission, Genesee County Farm Bureau,

Michigan Department of Agriculture and Rural Development,

Michigan Department of Natural Resources, USDA Natural Resource Conservation Service.

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

Genesee Conservation District



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

Serving local natural resource needs in Genesee County since 1947

Community Support Initiative

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

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

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



Menu Of Activities

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

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

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

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

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

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

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

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

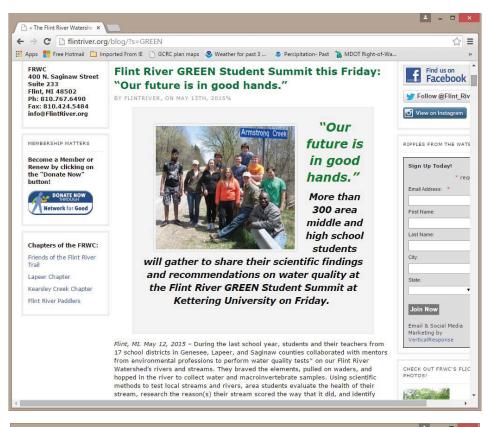
Usable Water: A demonstration that will educate students on the locations of water on earth, and emphasize the need for water conservation. This activity will show the amount of water available for use and consumption by people and animals.

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

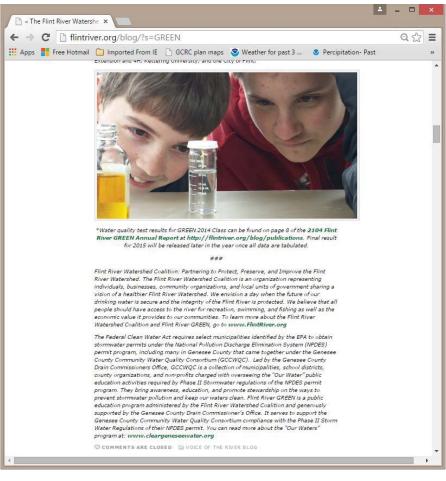
StormWater Savvy: This is a survey to pique the interest of the students taking it, on the subject of prevention. The survey will give them a score based on what they are or are not doing to help prevent stormwater pollution. Used with the "Seven Simple Steps" to clean water.

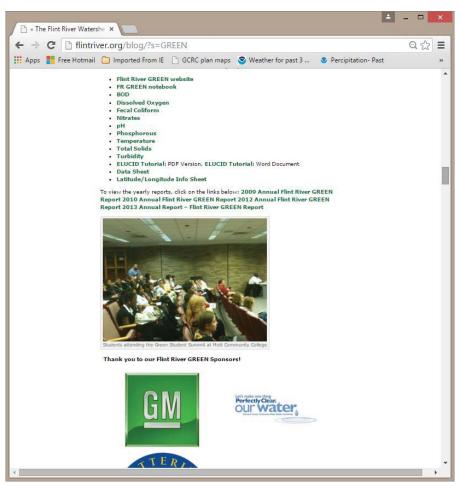
Understanding Insects as Friends or Foes: This engaging presentation will assist students in learning how to identify certain insects and the impact they have on farming. They will learn why there are "good" and "bad" insects, associated with farms. Students will also learn a few of the methods farmers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

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









Flint River GREEN Student Summit 2016

#itsnottheriver

May 20, 2016 Kettering University





History of GREEN and the FRWC

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

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

Locally, the Flint River GREEN project connects mentors from our sponsors, General Motors and environmental professionals from Lapeer and Genesee counties with middle and high school students throughout the watershed to conduct stream monitoring every year. For more information on Flint River GREEN, visit the website of the Flint River Watershed Coalition at 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: Rebe

Rebecca Fedewa, Executive Director

Email: rfedewa@flintriver.org

Sondra Severn, Project Coordinator

Email: ssevern@flintriver.org

Jaime Welch, Education Programs Manager

Email: jwelch@flintriver.org

Edythe Westhoff, Business Manager

Email: ewesthoff@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

Derek Bradshaw Steve Hester Linda Berker Darren Bagley DeAndra McCain S Olof Karlstrom Ryan Londrigan Brad Hill Amy McMillan Jack Minore Terry Reechko Beth Manning Alex Thibeault Sandra Robinson Doug Schultz Jack Stock

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:	NAME					
☐ \$10 Student/Limited Income	ORGANIZATION					
\$25 Individual	ADDRESS					
☐ \$40 Family/Friend						
☐ \$100 River Sponsor	CITY/STATE/ZIP					
\$250 River Patron	PHONE					
☐ \$500 Watershed Protector		Please circle one	WORK	HOME	CELL	
\$1,000+ Watershed Guarantor	EMAIL					
SPECIAL \$5.00 membership for	1 year – for GREEN	participants!				

Presentation Schedule for 2016 Flint River GREEN

Registration: 8:00 am - 8:45 am

Welcome: 8:45 in McKinnon Auditorium

Which is Worse?

Sewer CSI

Wetland Wildlife

Incredible Edible Plants

Environmental Dumpster Diving

Room 4102

Room 4103

Room 4301

Room 4306

Room 4309

Creek Critters - what lives in your river?

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

Auditorium:	Student Presentations				
Room 4102	Creek Critters - what lives in your river?	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers			
Room 4103	Incredible Edible Plants	Peter McCreedy: Ecology Director, Chatfield School			
Room 4301	Environmental Dumpster Diving	Shane Kelley, Carl Thompson: Genesee County Metropolitan Planning Commission			
Room 4305	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research			
Room 4306	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint			
Room 4309	Wetland Wildlife	Anna Darzi, For-Mar Nature Preserve & Arboretum			
Session 2 & 3:	DOUBLE SESSION - 10:05 am - 11:40 am				
Room 4104	Chevy Commons: A Walking Tour	Ryan Londrigan: AKT Peerless Environmental			
Session 2: 10:0	05 am - 10:50 am				
Auditorium:	Student Presentations				
Room 4303	Michigan Plant Identification	Dr. Jim Cohen, Assistant Professor of Biology, Kettering University			
Room 4303	The Chemistry of Water	Dr. Veronica Moorman, Assistant Professor of Biochemistry, Kettering University			
Room 4101	Rats or Lead in Your Drinking Water. Which is Worse?	Darren Bagley: 4-H Youth Development Coordinator, MSU Extension			
Room 4102	Creek Critters - what lives in your river?	Mike Haley, Denny Crispell: FRWC Monitoring Volunteers			
Room 4103	Incredible Edible Plants	Peter McCreedy: Ecology Director, Chatfield School			
Room 4301	Environmental Dumpster Diving	Shane Kelley, Carl Thompson: Genesee County Metropolitan Planning Commission			
Room 4305	Go Green, Help Keep Our Water Clean!	Laura Young: MSU Institute of Water Research			
Room 4306	Sewer CSI	Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint			
Room 4309	Wetland Wildlife	Anna Darzi, For-Mar Nature Preserve & Arboretum			
Session 3: 10:	55 am - 11:40 am				
Auditorium:	Student Presentations				
Room 4303	Michigan Plant Identification	Dr. Jim Cohen, Assistant Professor of Biology, Kettering University			
1100111 4000	Wildingari Flarit Idonandaron				
Room 4303	The Chemistry of Water	Dr. Veronica Moorman, Assistant Professor of Biochemistry, Kettering University			

LUNCH: 11:40 am - 12:25 pm- Lunch will be served in the registration room near McKinnon Auditorium (where presentations are held)

Mike Haley, Denny Crispell: FRWC Monitoring Volunteers

Shane Kelley, Carl Thompson: Genesee County Metropolitan Planning Commission

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

Peter McCreedy: Ecology Director, Chatfield School

Anna Darzi, For-Mar Nature Preserve & Arboretum

Presentation Schedule page 2

Session 4 & 5: DOUBLE SESSION - 12:25 pm - 2:00 pm

Room 4104 Chevy Commons: A Walking Tour

Ryan Londrigan: AKT Peerless Environmental

Session 4: 12:25 pm - 1:10 pm

Auditorium: Student Presentations

Room 4101 Rats or Lead in Your Drinking Water. Which

is Worse?

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

Creek Critters - what lives in your river? Mike Haley, Denny Crispell: FRWC Monitoring Volunteers

Room 4301 Environmental Dumpster Diving Shane Kelley, Carl Thompson: Genesee County Metropolitan Planning Commission

Room 4306 Sewer CSI Eric Brubaker, Thad Domick, Tom Hutchings: Water Pollution Control Specialists, City of Flint

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

Room 4102

Auditorium: Student Presentations

Room 4101 Rats or Lead in Your Drinking Water.

Which is Worse?

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

Room 4102 Creek Critters - what lives in your river?

Mike Haley, Denny Crispell: FRWC Monitoring Volunteers

Room 4301 Environmental Dumpster Diving

Shane Kelley, Carl Thompson: Genesee County Metropolitan Planning Commission

Room 4306 Sewer CSI

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

Room 4310 Catching Big Fish on Little Bugs

Chip McCallum: Blackboard Outfitters

Student Presentation Schedule

Linos

Session 1 9:15 - 10:00	Session 2 10:05 - 10:50	Session 3 10:55 - 11:40	Session 4 12:25 - 1:10	Session 5 1:15 - 2:00
St. John Vianney (Matlon)	Carter MS (McCallum)	Grand Blanc East MS (Nelson, Sobeck)	The Chatfield School (Boyle, LaBaza, Young)	No presentations to allow students to attend breakout sessions
Bendle HS (Barden)	Kearsley Armstrong MS (Katzenberger)	Valley School (Wisenbaugh)	St. Thomas More (Roberts)	
	Southwestern (Aversa, Trombley)	Mt. Morris Jr. HS (Freeman, McCormick, Tallmadge)	Swartz Creek MS (Forbes)	

Lunch will be served in the registration room near the McKinnon Auditorium from 11:40-12:25



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 spans 142 miles and 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 science and provides them with the tools they can use to take 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

Participating GREEN Schools

Atherton High School Teacher: Matt Hyslop

Bendle High School Teacher: Todd Barden Mentor: Katherine Saliga, GM

Bishop Kelley Catholic School Teacher: Carolyn Tuski Mentor: Jaime Welch, FRWC

Carman-Ainsworth Middle School Teacher: Melissa Warburton

Carter Middle School

Teachers: Rvan Niemi, Chip McCallum Mentors: Craig Buike, Aaron Bagwell, Quaker

Chatfield School—Lapeer Teachers: Tracy Boyle, Casey Labaza, Annette Young

Davison Middle School Teacher: Jody Kosiara

Grand Blanc East Middle School Teachers: Deb Lacki,

Crystal Sobeck, Patricia Nelson Mentor: LeeAnn Slosar, GM

Grand Blanc West Middle School Teachers: Victoria Skisson, Elizabeth Lemerond

Mentor: Pat Schultz, GM

Grand Blanc High School Teacher: Suzanne Powers Mentor: Jaime Welch, FRWC

Kearsley Armstrong MS Teacher: Lisa Katzenberger Mentor: John Maksimchuk, GM

LakeVille Middle School Teachers: Josh Henley, Andrea Thelen Lapeer High School Teacher: Cheryl Butterfield

Mt. Morris Junior High School Teachers: Zack Freeman, Kate Tallmadge. Kim McCormick, Rebekah Dhaene Mentor: Tom Jones, Genesee County Drain Commission

Northwestern High School

Teachers: Nadina Aversa, Jarrett Trombley Mentor: Thad Domick, City of Flint

Powers High School Teacher: Julie Lawrence Mentor: Thad Domick, City of Flint

St. John Vianney Catholic School Teacher: Janice Matlon

Mentor: Tom Hutchings, City of Flint

St. Thomas More Catholic School

Teacher: Shelly Roberts Mentors: Nicole Ferguson, Genesee County

Molly Dallaire, Genesee County Parks

Sondra Severn, FRWC

Swartz Creek Middle School

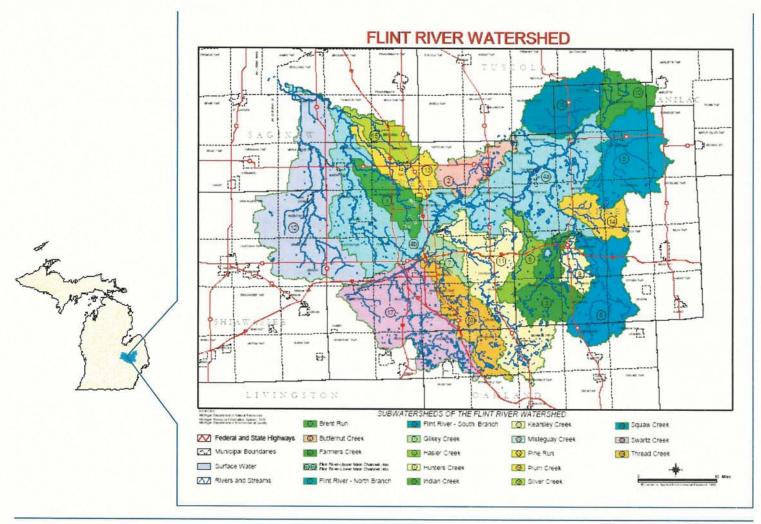
Teacher: Brandolyn Forbes Mentors: Marv Asbury, GM SPO Pat Schultz, GM

The Valley School

Teacher: Jeanne Wisenbaugh Mentor: Tom Jones, Genesee County Drain Commission

Westwood Heights-Hamady High School Teacher: Arletha Bryant

Zemmer Middle School Teachers: Anne Prill, Kelly Gartrell, Wyatt Stevens, Chris Ewald



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 Thanks to the Following for Their Assistance With Planning the Summit:

James Emmerling: Genesee Area Math/Science Center Director, Genesee Intermediate School District
Lisa Hook: Project Coordinator, Genesee Intermediate School District
Julie Simmons: Kettering University - Chemistry, Biochemistry, Chemistry, Engineering & Applied Biology Department

Additional Thanks

Tom Jones for his hard work and dedication in creating a wonderful GREEN website: http://flintrivergreen.is-great.org/ Leyla Sanker with Discovering Place for all her help

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.



Greater Flint

Surface Water Management

THE FLINT RIVER WATERSHED COALITION REPORTER

PARTNERING TO PROTECT, PRESERVE, AND IMPROVE OUR WATERSHED

DECEMBER 2015

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MESSAGE FROM THE EXECUTIVE DIRECTOR REBECCA FEDEWA



Rebecca Fedewa

It's been a tough year for the reputation of the Flint River. When the City of Flint made the switch to using the Flint River as its drinking water source, we supported that decision. Based on the information we received from City officials, and our knowledge of the consistently improving health of the river, we felt (and continue to feel) that the Flint River is a perfectly suitable source of drinking water for the Flint community.

But as the news continued to worsen—first it was the bacterial issues, then the elevated levels of TTHN, and finally the evidence of elevated lead

levels in Flint children—we knew our beloved river was the focus of a firestorm not of its doing.

To be clear, the board and staff of the Flint River Watershed Coalition are dismayed at the fact that our area's most vulnerable were put at risk. We are working with our partners at the Sierra Club to contribute toward assisting residents impacted by lead in their drinking water.

But we also want to set the record straight regarding the quality of the Flint River and the health of our watershed.

- Our benthic monitoring data shows that most reaches of our watershed score in the "good excellent" range and are generally improving. Please visit our website at www.flintriver.org for our benthic monitoring results.
- We have begun independent testing of the chloride levels in the river, and our early results indicate that the levels in the Flint River are well below the threshold for concern (elevated chloride levels were indicated as a potential cause for lead leaching into the drinking water of city residents).
- We also have begun to test for lead downstream of the waste water treatment plant. So far, we have not seen a single hit for lead going back into the river as a result of waste water treated from City of Flint homes.

We will continue our independent testing of chloride and lead in order to draw more definitive conclusions, and will report back to our members on the results as we get them.

As we move into the new year, please extend our invitation to one and all to get out and enjoy the precious resource we have in the Flint River. We have many opportunities, and will be announcing some fun new programs for 2016. Stay Tuned!

Thank you for joining us in our mission to Protect, Preserve, and Improve the Flint River and its watershed. **Now, more than ever, the Flint River needs your voice.**

SPRING GROVE WETLAND RESTORATION SITE

AN ECOLOGICAL GEM IN THE CITY OF FLINT!

This summer, the Flint River Watershed Coalition and the Flint River Corridor Alliance were awarded a \$5,000 grant for ecological restoration services and materials provided by PlantWise of Ann Arbor, MI. The project will build upon what our partners, the Grand Traverse District Neighborhood Association (GTDNA), the Stockton Center, and General Motors (GM) Tool & Die have been working at for many years: ecological restoration and maintenance of the Spring Grove Wetland Restoration Site.

Spring Grove is located on Second St. between Ann Arbor and Hall Streets, across from Swartz Creek in the City of Flint. It is home to two wetland ponds, turtles, frogs, birds, and many desired native species. Unfortunately, Spring Grove is also the breeding ground for non-native (invasive) species that have invaded and crowded out areas of native growth. Invasive species known to be at the site are Phragmites, Chinese Sumac (a.k.a. Tree of Heaven), Garlic Mustard, and Reed Canary Grass.

Through the generosity and hard work of PlantWise, dedicated partners and volunteers, we removed an overwhelming amount of Chinese Sumac and replanted those areas with Michigan native trees and shrubs. The project also included installation of a rain garden to help catch and filter rain water as it flows to the wetland near the Stockton Center.

Spring Grove is a prime example of an urban ecological restoration project and educational opportunity for the community. Its success is due to the hard work of our partners who have dedicated many hours of planning and labor. We are honored to have had the opportunity to help build upon those efforts and look forward to continuing to help with ecological improvements at Spring Grove. For more information on this project contact Sondra Severn, FRWC Project Coordinator at severn@flintriver.org or 810-767-6490. For more information on volunteering with the Flint River Watershed Coalition please visit our volunteer page at www.FlintRiver.org.



To learn more about Michigan Invasive Species visit the Michigan DNR website, Invasive Species page at Michigan.gov/dnr.

For resources on how and why to plant Michigan Native Plant Species visit the MSU, Native Plant and Ecosystem Services website at NativePlants.msu.edu.



FRWC PROGRAM RECAP

2015 has been quite the year for us at the Flint River Watershed Coalition. As we look back over everything that has been accomplished, we can't help but be proud of the efforts of our dedicated volunteers, and of our beautiful Flint River. Here are some of the highlights from this past year:

This summer, we organized 21 different kayaking events, ranging from our scheduled Paddles, to private trips, the 2nd Annual Flotilla, and kayak tours at our 'Love Your Lakes' events. Over 450 people got out on the Flint River to enjoy the peace, beauty, and abundant wildlife that flourishthere.

FUN FACT: You may have heard about our thriving bald eagle population but were you aware that we have a growing number of ospreys now calling the Flint River home?

If you are familiar with the FRWC then you have probably heard about two of our most important programs, Flint River GREEN and the Water Monitoring Program. Both play a vital role in helping to assess the health of the river, highlighting how vibrant the Flint River really is, and serving as an early detection system for changes that would threaten the health of the river.

In 2015 GREEN (Global Rivers Environmental Education Network) engaged 23 middle and high schools with over 1,100 students from across Genesee and Lapeer counties. Students performed chemical water testing at local streams, and shared their results with us and each other at the GREEN Student Summit held at Kettering University in May.

GREEN (Global Rivers Environmental Education Network) has been engaging middle and high school students in chemical water testing for over 25 years. Westwood Heights (Hamady) was one of the 23 schools to participate in 2015. Students, teachers, and their mentors from GM and the Genesee County Drain Commission went out and tested at a stream to see how the water in their area scores.



Our Water Monitoring program targets 35 sites across the watershed. For the last 16 years volunteer monitors have gone out every spring and fall to collect the 'bugs' that call the river home. This past fall season over 65 volunteers donated their time to help with monitoring, including 4 school groups. The amount and diversity of the bugs collected during monitoring, along with measurements taken at the river, result in a "score" for each site. This is compared to historical data to ensure that the site is either improving or continuing to do well.



monitors in the field

In addition to monitoring the Flint River, we also take a more hands-on approach with our Annual Flint River and Community Cleanup, Periodic Cleanups, and Storm Drain Stenciling. Our Annual Flint River and Community Cleanup kicks things off each spring by gathering several hundred



scoring at "Good" or above.

Any low or unusual scores are

hard working clean-up crew!

volunteers at multiple sites across the watershed to clean up the banks and areas surrounding the Flint River. After all the hard work is done a celebration luncheon is held to thank all those who volunteered. Then our River Clean-up volunteers get down and dirty all summer long, pulling tires and other debris from the river at various locations as needed. Lastly, Storm Drain Stenciling is an educational program where volunteers stencil storm drains and spread awareness to homeowners about the dangers of dumping pollutants, such as motor oil, into storm drains which lead directly into local rivers and streams.

There are so many ways to help protect, preserve, and improve your Flint River. Contact us today to get involved!



Each spring the GREEN Student Summit is held at Kettering University. The Summit offers students a chance to share their results and compare them to other streams in the Flint River Watershed. Kids also attend breakout sessions conducted by local environmental professionals such as "Incredible Edible Plants" and "Sewer CSI". It's a great day, as you can see from the picture.

LAPEER HAPPENINGS!

7th graders from Chatfield School in Lapeer canoed from Rotary Park to Saginaw Street on the South Branch of the Flint River this September. Over the years these students have removed more than 120 tires from this section alone. This year they only found 2. They spelled out "Chatfield Loves Lapeer" with river trash to promote their stewardship of the Flint River as part of a weeklong service learning initiative.



Planning, permitting, and fundraising are underway for the new canoe landing being developed at the North Saginaw Street Crossing of the South Branch. This land is owned by the county of Lapeer and access is being facilitated by the FRWC Lapeer Chapter. Recently, The Lapeer Land Conservancy, one of our community partners, designated \$4000 for this purpose.

On October 4, 25 people gathered for a canoe rally on the South Branch of the Flint River. Despite predictions of foul weather, a hearty crew showed up for what

turned out to be a gorgeous afternoon with barely a drizzle at the beginning. The 2.8 mile stretch of river between Millville Landing and Stanley Rd. was clear of obstructions, and even with below average water levels, still provided for a great float. Most participants had never been on this part of the river before and were impressed with the quality of the paddling and the beautiful scenery. Thank you to Joe Suma, Lapeer County Drain Commissioner, for providing yummy pulled pork, potatoes, and salad at the end. Special thanks also to the Sharkey family for hosting our group and for offering to host again next year! We hope to see you then!







400 N. Saginaw St., Suite 233 Flint, MI 48502 810-767-6490

www.FlintRiver.org

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

FRWC Board of Directors

Board Chair

Amy McMillan

Executive Director

Rebecca Fedewa

Board of Directors

Darren Bagley Linda Berker Derek Bradshaw Steve Hester **Brad Hill** Ryan Londrigan **Beth Manning** Jack Minore Steve Montle Terry Reechko Sandra Robinson Doug Schultz Raynetta Speed Jack Stock Alex Thibeault S. Olof Karlstrom, **Member Emeritus**

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

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

Please recycle!



Newsletter design and layout by Jon Wood

CALENDAR OF EVENTS

Third Friday of Every Month - 8:30am Board of Directors Meeting Third Tuesday of Every Month - 7:00pm Lapeer Chapter Meeting

THURSDAY JANUARY 28TH - 6-9PM -ANNUAL VOICE OF THE RIVER CELEBRATION SLOAN MUSEUM IN FLINT'S CULTURAL CENTER

January 30, 2016 EarthForce Professional Development day

February 24, 2016 GREEN Professional Development day

April 30, 2016 9am - 1pm Flint River And Community Clean Up

May 8, 2016 FFRT Sunday Rides Begin

May 18, 2016 7pm Ride of Silence

May 20, 2016 GREEN Summit

Spring monitoring is First Two weeks of May

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

Be sure to find us on social media: Facebook, Twitter, and Flickr for the most up to date information about what is happening in your watershed.

Give The Gift of Membership This Holiday!

MEMBERSHIP APPLICATION DECEMBER 2015

name	student \$10watershed	
organization	protector \$500 individual \$25	
	watershedfamily \$40 guarantor \$1000	
address	river sponsor \$100other	
city/state/zip	river patron \$250	
phone (h)(c)	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.	
email		

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



THE FLINT RIVER WATERSHED COALITION WATERSHED COALITION REPORTER

PARTNERING TO PROTECT, PRESERVE, AND IMPROVE OUR WATERSHED

SPRING 2016

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MESSAGE FROM THE EXECUTIVE DIRECTOR REBECCA FEDEWA

#itsnottheriver



Rebecca Fedewa

Too many of our residents have spent the last 6-12 months (and longer for many) not knowing the safety of the water coming out of their taps. For those not impacted by this crisis, just imagine what it must be like to have to bathe your children with bottled water heated on the stove. Or wondering if you have inadvertently exposed your family to toxic levels of lead just by getting them a glass of water or preparing a bottle of formula. Or spending hours of your week simply procuring bottled water for your household.

It's unconscionable that our residents are going through this.

While the switch to the Flint River as a water source was what initiated this terrible crisis, we want to make one thing clear: It's Not The River.

This crisis was created by government, and then ignored for far too long by the very agencies we rely on to keep us safe. This catastrophe was caused by bureaucracy, not our fabulous Flint River.

The Flint River is a vibrant ecosystem that supports a growing population of species such as eagles and ospreys, who live along and hunt in the Flint River.

Recreational opportunities in and along the Flint River are abundant, and we're seeing higher numbers of users each and every year. Local support for the protection, preservation, and improvement of the river has never been stronger.

We have a great deal of data up on our website www.FlintRiver.org that show the long term benthic monitoring of the Flint River, as well as the current testing we've done in response to the drinking water crisis. What we've found is an overall increase in water quality since our testing began in 1999. As well, our weekly testing of the river in three locations (upstream of the City of Flint at Irish Road, right at the drinking water plant, and just downstream of the wastewater treatment plant) demonstrate that the river is well within the parameters of a healthy river system.

What can YOU do? Join us in our spring programs: don some waders and sample the array of critters living in the river in our water quality monitoring program (page 2). Grab some gloves and a garbage bag or two, and join us at the Flint River and Community Clean Up (page 7). Share your professional expertise with students in our Flint River GREEN program at the Student Summit (page 8). Or donate to help us cover the costs associated with our weekly monitoring program – www.FlintRiver.org. You also might consider donating to the Community Foundation of Greater Flint's Flint Child Health & Development Fund at www.FlintKids.org.

But most of all, share your story about the Flint River with friends and family on social media. Be sure to include the hashtag #itsnottheriver.

See you on the river!



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www.FlintRiver.org

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Please recycle!



Newsletter design and layout by Jon Wood

NATIONAL WATER TRAIL



The FRWC, in conjunction with the Genesee County Parks and Recreation Commission, is seeking a National Water Trail designation from the National Parks Service. We are very excited about this opportunity to show the country our beautiful Flint River! We have already begun the process by convening representatives from the various municipalities along the river, as well as interested individuals and organizations. We're off to a great start, and can't wait to submit our application. Our thanks to the National Park Service for their assistance in preparing our application, and the Genesee County Parks and Recreation for enthusiastically supporting and funding our project. We'll keep you posted on our progress, but if you are interested in participating, connect with us at info@flintriver.org or 810-767-6490.

SPRING MONITORING

April showers bring May benthics? That's the way it is for the volunteers that will be helping this spring as the FRWC conducts its Water Quality Monitoring from May 2nd through May 16th. Labs will be held on May 5th and 14th from 11 am to 5 pm at For-Mar Nature Preserve in Genesee County and on May 5th from 12 to 4 pm at Chatfield Schools. There are over 35 sites across Genesee and Lapeer counties and volunteers are in high demand for this fun and important task. It only takes a few hours of your time but makes a big impact on helping the FRWC monitor the state of the river. Our benthic data has been integral in our efforts to demonstrate that #itsnottheriver! Haven't monitored before? We will pair you up with experienced monitoring volunteers that can walk you through the process step by step. Contact us today!







NEW PLACE, NEW FACES THIS TIME, IT IS THE RIVER WE CELEBRATE!

The Annual 'Voice of the River' Celebration was held at the Sloan Museum on Thursday, January 28, 2016. The new location at Sloan gave our supporters a chance to view the travelling exhibit, 'Water's Extreme Journey', and at the same time participate in the watershed festivities that happen every year. We highlighted the successes of 2015 and laid out plans for the coming year. Of course, the celebration was interspersed with a healthy interchange about the Flint drinking water crisis, a topic that has been forefront on everyone's mind. Attendees at the meeting were also able to get an update on the progress on obtaining a National River Trail designation for the Flint River, and heard an overview of the plans for the downtown Flint River Restoration project.

As always, the focus of the Annual Celebration is to acknowledge those who have contributed to the success of the Flint River Watershed Coalition. We love to give out awards!

The awards and recipients included the Joe Leonardi Leadership Award, presented to Mr. Art Wenzlaff, the Director of School and Community Relations at the International Academy of Flint. Art has played a key role in FRWC efforts to promote and improve the Thread Lake area, one of the beautiful urban lakes that we have targeted in our

'Love Your Lake' efforts. Mr. Tom Jones, a staff engineer at the Genesee County Drain Commissioner's office won the Dr. Gary Pace Volunteer of the Year Award. Tom has been a longtime volunteer in the Flint River GREEN program, and in 2015 took on a huge project on our behalf. Teaching himself very complex website coding, Tom created an on line portal that GREEN teachers and students use to input and analyze their testing data. Finally, the Flint River and Community Cleanup "Golden Gloves" was awarded to the 7th Grade Cleanup Crew from Chatfield School. These enterprising students from Lapeer won the award by being the highest vote recipients through a competitive and fun online poll!

Congratulations to all of the award recipients.

Fundraising is another important element of the success of the Annual Celebration. This year, our sponsors were more generous than ever in demonstrating their ongoing commitment to providing financial support this year. Over \$10,000 was raised from these charitable 'Big Fish' donors:

Pike - \$1,500 and Greater Supporter

Waste Connections, Inc.

Genesee County Parks & Recreation

Director: Amy McMillan

Pike - \$1,000 Supporter

General Motors, Flint Manufacturing Recreation Engineering & Planning Genesee County Drain Commissioner

Director: Jeffrey Wright

Walleye - \$500 Supporter

Kettering University

Tetra Tech

Bass - \$300 Supporter

Linda S. Berker, Attorney & Mediator

Bass - \$250 Supporter

AKT Peerless Environmental & Energy

MPS Group

Drs. Bobby and Srinivas Mukkamala Rowe Professional Services Company

Steve's Plumbing and Heating

Blue Gill - \$100 Supporter

Deborah Cherry,

Genesee County Treasurer

Friends of Dan Kildee

Jack Minore, Friends of the River Trail

Olmsted Associates

PPG Industries

Quaker Chemical Corporation

Six Rivers Regional Land Conservancy

Vern's Collision and Glass

White Horse Tavern



The Chatfield school in Lapeer won the "Golden Gloves" award at the 2016 Annual Voice of the River Celebration



JOIN US FOR SOME RIVER FUN ON "OUR WATER" PADDLES THIS SUMMER

The Flint River has taken a big hit in the last few months. It has been portrayed as dirty, polluted, corrosive, etc. For those of us at the FRWC it has been hard to see our Flint River labeled negatively. We see the Flint River as it really is, the good and the bad. We get to see the osprey catching a fish in the river and turning it in his claws mid-flight, and we see the tires or litter that someone dumped as we do river cleanups. But we see far more of the former than the latter. We see a gorgeous, vibrant river that is thriving and people dedicated to ensuring that it remains that way.

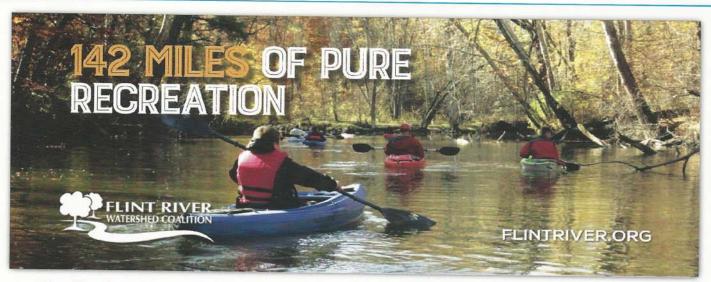
Those who have spent time on the Flint River have seen its beauty and teeming wildlife.

One of the ways that we introduce people to the real Flint River is through our Paddles program. These kayak trips are designed for all skill levels and travel along various parts of the Flint River, May through September. This year we will be hosting more trips than ever before, 18 FRWC Paddles, 3 Kayaking in the Park trips as part of a joint effort with the Genesee County Parks, and we are now taking reservations for private group paddles. Our Paddles get people on the water and show the Flint River in all its glory. Every paddle is led by an experienced guide. and our Kayaking in the Parks trips will also have a naturalist along to help identify the

wildlife encountered during the journey.

Want to get away with your friends, family, or coworkers? Private group paddles are perfect for work outings, family gatherings, or just getting together with friends. You choose the date and destination and let us handle the rest! Enjoy a guided kayak trip along the Flint River, which abounds with beautiful scenery and abundant wildlife, including the chance to see bald eagles. Share the amazing beauty of the Flint River with your group as you paddle downstream. Prices vary, contact Jaime Welch at 810-767-7140 or jwelch@flintriver.org for details.





2016 PADDLE CALENDAR

Locations are subject to change based on water levels, flow, and weather conditions. Please consult www.FlintRiver.org or call Jaime at 810-767-7140 for the latest information. Unless otherwise indicated, paddle participants should meet up by 10 am.

Paddles are generously supported by the Our Water program of the Genesee County Drain Commission

May

21st Millville Rd. to Norway Lake Rd.

28th M-15 to Irish Rd. Memorial Day Paddle

June

4th Riverview Park to Flushing Township Nature Park
18th Dodge Rd to Montrose Barber Memorial Park

18th Dodge Rd. to Montrose Barber Memorial Park22nd Riverview Canoe Landing (Mitson) to River Rd.

23rd Rotary Park to Saginaw St. Landing

26th Irish Rd. to Mott Lake

July

2nd Richfield Park to Mott Lake

16th Holloway Dam to Irish Rd.

24th Irish Rd. to Mott Lake

27th M-15 to Richfield Park

August

6th Flint River Corridor Alliance 3rd Annual Flotilla

17th Birch Run, Morseville Rd. to Seymour Rd.

20th M-15 to Irish Rd.

28th Montrose Barber Memorial Park to Birch Run

September

3rd Bray Rd. to Vietnam Veterans Park

17th Flushing Riverview Park to Dodge Rd.22nd Birch Run, Morseville Rd. to Seymour Rd.

Lapeer Paddle with Six Rivers Conservancy Moderate 3 hrs. Location: Millville Landing, Millville Rd, north of Plum Creek Rd. Contact Jaime Welch or Terry Reechko (734-558-0031)

2 hrs. Location: M-15 north of Coldwater Road.

3 hrs. Location: Flushing Riverview Park on Cherry St.

2 hrs. Location: Dodge Rd., east of Seymour Rd.

2 hrs. Location: Riverview Canoe Landing on Mitson Blvd.

Meet by 4:45 for a 5 pm launch time.

2 hrs. Location: Rotary Park, Lapeer, Nepessing and Lyle.

Meet by 5:45 for a 6 pm launch.

3 hrs. Location: Irish Rd., north of Coldwater Rd.

2.5 hrs. Location: Richfield Park.

3 hrs. Location: Carr Road to Holloway Dam.

3 hrs. Location: Irish Rd. (north of Coldwater Rd.)

1.5 hrs. Location: M-15 just north of Coldwater Rd.

Meet by 4:45 pm for a 5 pm launch.

Please see our website for cost, location, and more information.

2 hrs. Location: Morseville Rd (across from Taymouth Township Office). Meet by 4:45 pm for 5 pm launch.

2 hrs. Location: M-15 just north of Coldwater Rd.

2.5 hrs with a stop at a sand bar for a picnic lunch along the way. Lunch not provided, please bring your own.

Location: Montrose Barber Memorial Park.

2 1/2 hrs. Arrive by 9:45 am at Vietnam Veterans Park for bike ride, 4th Annual Pedal to Paddle launch at 10:30 at Bray Road. This is open to bike ride, paddle, or both! Location: Bray Road, north of Carpenter Rd.

3 hrs. Location: Flushing Riverview Park.

2 hrs. Location: Morseville Rd. (across from Taymouth Township Office) Meet by 4:45 pm for 5 pm launch.

New for 2016 • The Flint River Watershed Coalition is now offering private Paddles for groups. These guided tours down the Flint River are perfect for work outings, group trips, or family gatherings. Prices vary. Contact Jaime Welch 810-767-7140 for details. Limited dates available, book your trip today!

CALENDAR OF EVENTS

April 30	Flint River and Community Cleanup 9 am to noon at various locations
May 1	Friends of the Flint River Trail Sunday rides: First ride of the season! Rides continue weekly through the last Sunday in October
May 2 -16	Water Quality Monitoring
	Genesee County Lab • Thursday May 5th Monitoring lab @ For-Mar 11 am - 5 pm
	Lapeer County Lab • Saturday May 14th Monitoring lab @ For-Mar 11 am – 5 pm
May 14	Monitoring lab @ Chatfield Schools 12 pm – 4 pm
May 7	FRWC Project GREEN Water Testing at Sloan Museum 1 pm
May 14	Join the FFRT at the HealthPlus Tour de Crim
May 20	Flint River GREEN Student Summit at Kettering University
May 21	First Flint River Paddle of the year
lune 11	First monthly Saturday ride of the FFRT begin
lune 11	Kayaking in the Parks: 101 Paddle with Genesee County Parks (see website for details)
uly 9th	Kayaking in the Parks: 101 Paddle with Genesee County Parks (see website for details)
August 4	"Love Your Lakes" Community Celebration Picnic at Flint Park Lake
August 6	FRCA Flotilla
August 11	"Love Your Lakes" Community Celebration Picnic at Thread Lake
August 13	Kayaking in the Parks: 101 Paddle with Genesee County Parks (see website for details)
lugust 28	3rd Annual Picnic on the Flint River Paddle
eptember 3	4th Annual Pedal to Paddle
entember 22	Last Elint Diver Deddle of the

End of September/beginning of October will be the Water Quality Monitoring window. Dates TBA Our kayak trips happen spring through fall! See our Paddles schedule (reverse) for details.

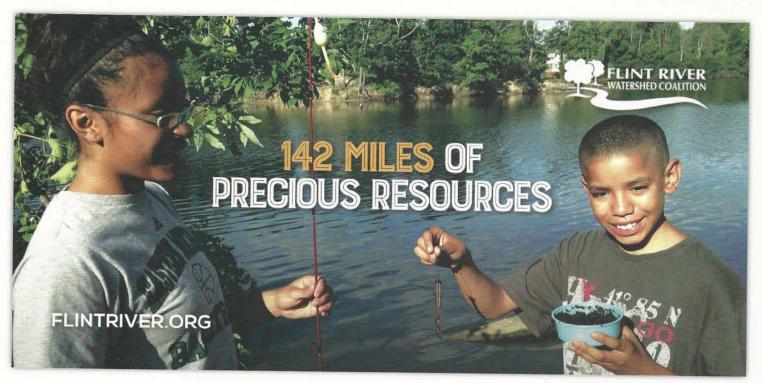
MEMBERSHIP FORM SPRING 2016

name	student \$10	watershed	
organization	individual \$25	protector \$500	
address	family \$40	watershed guarantor \$1000	
	river sponsor \$100	other	
city/state/zip	river patron \$250	\$	
phone (h)(c)email	contribution to an eligible c organization. Please check w	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





SPRING CLEAN UP: SATURDAY APRIL 30TH

Time for some spring cleaning in your watershed! The 2016 Flint River and Community Cleanup will be held on Saturday April 30th from 9:00 am to noon. There are over 15 sites in Genesee and Lapeer counties that need volunteers to assist with picking up litter large and small. Then come celebrate at our volunteer appreciation luncheon from 12-2 pm at Vietnam Veterans Park in Flint and from 12-1 pm at Cramton Park in Lapeer.





While you are out, keep your eyes peeled for any unusual finds you may come across during Cleanup and report them to your site coordinator! We hand out the coveted "Golden Gloves" award

to the person who finds the most unique item during the Cleanup. We have had everything from a sign made out of debris to a beer can from the 1950's.

Interested in getting your hands dirty? During the summer and fall when water levels are lower our Volunteer Cleanup Crews go out and get in the water for River Cleanups in both Genesee and Lapeer counties. Volunteers are always needed and are much appreciated!



Flint, MI 48502

www.FlintRiver.org





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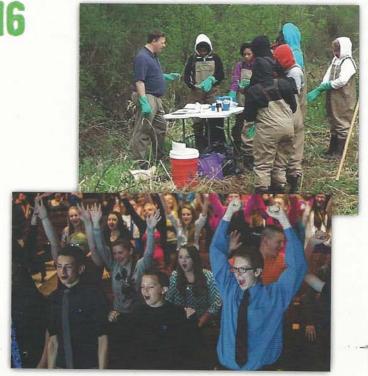
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4 8 1085******5-DIGIT 48532 Genesee County Drain Commissio c/o Mr Jeffrey Wright 4608 BEECHER RD FLINT MI 48532-2617

GREEN PROGRAM 2016

Flint River GREEN (Global Rivers Environmental Education Network) has been engaging middle and high school students from across the watershed in chemical water testing for over 25 years. Students, teachers, and their mentors from GM and the Genesee County Drain Commission venture out to nearby streams and perform a variety of tests to gauge the health of the stream. In 2015 the FRWC had 23 schools and over 1,100 students participate. Currently over 25 schools are set to participate in 2016.

After testing, students are invited to attend the GREEN Student Summit, which will be held this year at Kettering University on Friday, May 20th. The Summit offers the students a chance to share their results with other students from across the watershed and to attend breakout sessions conducted by local environmental professionals such as "Incredible Edible Plants" and "Sewer CSI". This is a great opportunity to see the great work of the students in our area.





Genesee Conservation District

1525 N. Elms Rd., Flint, MI 48532, (810) 230-8766 ext. 3 geneseed.org

Board of Directors

Nancy Szikszay Darren Bagley Andrew Everman Brad Hill Brian VanPatton

Genesee Conservation District Open House

Join us Thursday, March 31st from 11am-2pm in the Atrium of the Flint Farmers' Market for our District open house and directors' election. Residents of Genesee County 18 and over may vote in the directors' election. Stop by to learn more about the district's initiatives.

Like Us On **Facebook**



Instagram

Seasonal High Tunnel

Cost share funding with USDA-NRCS is available to construct seasonal high tunnels (hoop houses) to extend the fresh produce growing season. Contact the District for more information.



grew up in Flint Urbanwood began as City of Flint street trees. When the trees no longer benefit us alive and standing, Genesee Conservation District mills them into lumber products to be reutilized and sold. Find Flint

specific "I Grew Up in Flint ™ " wood at the Genesee County Habitat for Humanity ReStore.

Michigan farmers are voluntarily participating in the Michigan Agricultural Environmental Assurance Program (MAEAP) to address environmental concerns. MAEAP is designed to reduce farmers legal and environmental risks through a 3-phase process:

- 1. Education
- 2. Farm-specific risk assessment

maeap.org

3. On-farm verification

Contact Samantha Braman at the District to learn more about the MAEAP verification process.

FISH Sale: Genesee Conservation District and Harrietta Hills will be hosting Fish Days on May 21st. Buy fish for your pond directly from the truck and take them home in oxygen bags provided. Pre-ordering of fish is required at least 7 days before the Fish Day event, just call Harrietta Hills and tell them what kind of fish you would like.

Pick Up

Date: Saturday May 21st Time: 11:00 am-1:00pm

Place: Genesee Conservation District Address: 1525 North Elms Rd.

Flint, MI 48532

Harrietta Hills Order

From: Harrietta Hills Trout Farm Info: harriettahils.com/fishdavevents.html Phone Number: (877) 389-2514 Minimum Order: 25 of any species

Environmental Education

Sessions are available to classrooms and youth groups throughout Genesee County. Classes are specifically tailored to appeal to young people through hands-on activities covering a variety of concepts tied to state standards. For more information or to schedule a meeting please contact Jeffrey Johnson

jeffrey.johnson@macd.org

HUNTING ACCESS PROGRAM

MDNR'S HUNTING ACCESS PROGRAM (HAP) HAS 10 PRIVATE FARMLAND PARCELS AVAILABLE FOR PUBLIC HUNTING THROUGHOUT GENESEE COUNTY. LOCATIONS FOUND AT MICHIGAN.GOV/HAP



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

GCD is going green!

To receive future notices and tree sale brochures please send us your email address to geneseecd@yahoo.com

Seven Simple Steps to Clean Water

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

Let's make one thing erfectiv Clear

cleargeneseewater.org

What can you do with reclaimed wood?

URBANWOOD CONTEST

Enter your useful object or imaginative work of art to win cash prizes awarded in several rategories. Submit entries using Urbanwood old at Genesee County Habitat of Humanity ReStore by December 10, 2016

For more information visit

geneseecd.or

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

Midwest Invasive Species Information Network (MISIN) is a regional effort to develop and provide an early detection and rapid response (EDRR) resource for invasive species.

Learns: What types of invasives are threatening Michigan's native species. Locates Their whereabouts in your community.

Reports Map the location of targeted invasive species occurrences on MISIN.

misin.msu.edu

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

For-Mar On The Road FREE Nature And Horticulture Programs In YOUR Classroom!

Our interactive programs are modeled around the Common Core State
Standards Initiative which make
For-Mar's programs great reinforcement tools for enhancing science concepts taught in your classroom. We use a variety of interpretive techniques to keep students engaged and excited about learning. These techniques include activities, demonstrations, and multimedia presentations.

Thanks to the generosity of the Ruth Mott Foundation, the Community Foundation of Greater Flint, and the Stella & Frederick Loeb Charitable Trust, Genesee County Parks will offer its 10th year of fun and *FREE* For-Mar On The Road in-school programs to 3rd through 8th grade classrooms. New in 2015, *FREE* programs for K—2nd grade classrooms.





Greater Flint

For good. For ever."



In-School Environmental Education Programs

- <u>FREE</u> to teachers in Flint and Genesee County.
- K-2nd literacy and live animal program: Reading with Reptiles!
- Six unique nature and horticulture programs for 3rd-5th grade students.
- MEECS Water Quality program for 6th-8th grade students.
- Developed by using certified environmental educational curriculums: Projects Wild, Wet, Learning Tree, and Flying Wild.
- Aligned with Common Core and NGSS educational standards.
- Aligned with Michigan Model of Health Expectations.
- Engaging, hands on, and fun!
 Programs available January 4 through June 10, 2016.





Reserve your For-Mar On The Road program today!

Questions and reservations, please contact:

Michelle Maust
(810) 845-6437

mmaust@gcparks.org

For-Mar Nature Preserve and Arboretum 2142 North Genesee Road Burton, MI 48509

For-Mar On The Road - 810.845.6437 Nature Preserve - 810.789.8567 Arboretum - 810.789.8568 Reservations - 810.736.7100, ext. 6

Genesee County Parks Administrative Office 5045 Stanley Road Flint, MI 48506 810.736.7100 800.648.PARK



For-Mar

Nature Preserve & Arboretum



For-Mar on the Road 2016 FREE In-School Programs

geneseecountyparks.org 810.789.8567 800.648.PARK

3rd - 5th Grade Programs

Planet Protector Series

In this two part series, students will gain a better understanding of natural systems and how their day-to-day decisions can change the world around them.



Part I*

Students will first meet a For-Mar animal teacher and discuss what all living things need to survive. Then, students become bear experts in an activity designed to demonstrate how animals fit into their environments. Finally, students complete a full-body movement activity in which they construct a food chain and discover how humans can impact an ecosystem.

Part II*

This program will build on the student's personal experiences with nature. Find out how predators and hunters are beneficial for prey populations in a game of tag. Students will become environmental stewards in our benthic monitoring activity and then connect with nature with an up close and personal live animal experience.

3rd - 5th Grade Programs

H2knOw Series

As Michigan residents we are directly connected to the largest freshwater ecosystem on the planet! These two programs will connect your students to the Great Lakes.

Part I*

For-Mar Naturalist will take you and your students on a trip through the water cycle! Explore the importance of water through live animal demonstrations and experiments. Students get hands-on experience investigating watersheds and how they have a direct impact on the water in the Great Lakes.



Part II*

Dive into water using modern issues and invasive species. Your students will demonstrate the strain large populations have on the availability of water as a natural resource. Also, in a full-body movement activity, students learn how invasive species can slowly take over an aquatic habitat. This program concludes with a hands-on animal experience.

3rd - 5th Grade Programs

Truck Farm Series

Plants in Action! and Worms on Wheels include a visit from the Truck Farm (seasonally available).



Plants in Action!*

Learn what it takes for a tiny acorn to grow into a mighty oak, and how some plants live their entire lifecycle in less than a few months. Horticulturists will visit your classroom to teach your students the essentials of plant science through observation and hands-on activities. Students will learn nonconventional gardening and see plants in action with our mobile garden.

Worms on Wheels*

How can we waste less food, throw less trash away, and make healthy soil for plants? Learn how with Worms on Wheels! Students will see red worms recycling food scraps, examine worms,

and construct a worm bin to keep in their classroom. Students will learn how to maintain an environment in which these decomposers can thrive while keeping food waste out of the dump.



6th - 8th Grade Program

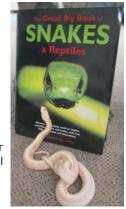
MEECS Lesson 1: Where Is All the Water in the World?

Live animals and hands-on environmental education activities bring the water quality units of Michigan's Environmental Education Curriculum (MEECS) to life in your classroom. It's engaging, interactive and fun! Fall lesson will be focused on where and how water can be found on our planet and why this is important to life on earth.

K-2nd Grade Program

Reading with Reptiles!*

For-Mar on the Road is a natural choice for encouraging your lower elementary students to read. With our scaly friends, your students and a For -Mar naturalist will read stories about reptiles, learn to classify them,



complete grade appropriate literacy activities, and create their own story about one of For-Mar's famous animal teachers. Classrooms that participate in a Reading with Reptiles program receive a book for their classroom and one-on-one interaction with For-Mar's reptilian animal teachers!

*Common Core and NGSS connections provided upon request.

7/29/2016 Love Your Lakes!

Having trouble viewing this email? Click here



Dear Sue,

Michigan has more than 11,000 inland lakes, 79 of them are in Genesee County, which include Flint Park Lake and Thread Lake that are within the City of Flint. The <u>Genesee County Parks</u> along with our partner, the <u>Flint River Watershed Coalition</u> invite you to join us for the 3rd Annual Love Your Lake celebrations. We'll have kayaking, kids fishing, cute crafts, bug discovery with <u>For-Mar Nature Preserve and Arboretum</u>, a picnic dinner, and MORE! Both events are FREE and FUN for EVERYONE! Come and celebrate these gorgeous parks and lakes with your friends and families!

August 4 5:30-7:30pm Flint Park Lake Pavilion, Winthrop Blvd. August 11 5:30-7:30pm McKinley Park/Thread Lake, Vista Center

000___

Amy M. McMillan, Director Genesee County Parks and Recreation Commission



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

Hogan, Susanne

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Dear Sue,

The <u>6th Annual Catfish For a Cause Fishing Tournament</u> kicks off bright and early at <u>Walleye Pike Boat Launch</u> on Sunday, August 21, after all, that's when the fish bite! We're calling all fishermen and fisherwomen to beat last year's record of removing 81.9 lbs of channel catfish from the Holloway Reservoir.

Ridding the reservoir of these catfish will improve the walleye fishery and you'll have a blast reeling them in. We will award prize packages, too! So join us for this FREE fishing tournament. That's right, there is no registration fee to enter the tournament, but purchase of a boat launch vehicle permit is required.





It's for families, all ages and abilities and registration begins at 6 am, fishing begins at 7 am, and weigh in is at noon.

Don't let the big one getaway!



Having trouble viewing this email? Click here



Dear Sue,

They're back... to school that is! And so is For-Mar On The Road! This fall <u>For-Mar Nature Preserve and Arboretum</u> is launching a completely new and expanded menu of FREE science and nature based programs for K-8 grades aligned to the new Michigan Science Standards.



We're so excited because this fall Kindergartners will explore weather patterns and what plants and animals need to survive. First graders will investigate the life cycles and animal classification, Second graders will learn about the plant life cycle and delve into the properties water, and Third graders will engage in Michigan natural history and animal adaptations. Fourth graders can create a nature superhero and explore animal senses and Fifth graders will find out where in the world water is stored and

investigate energy in an ecosystem. Middle schoolers will have the opportunity to learn about watersheds and delve deeper into the complicated connections within an ecosystem. Spice up your classroom curriculum with For-Mar On The Road! For more information about our new grade specific programs, click here.

If you are interested in having For-Mar On The Road come to your classroom, please contact Michelle Maust at 810-249-2380 or mmaust@gcparks.org. Fall programs are being offered from September 26- December 23, 2016. Don't delay, sign up today!

Nicole Ferguson Park Naturalist

Diale Fengreon

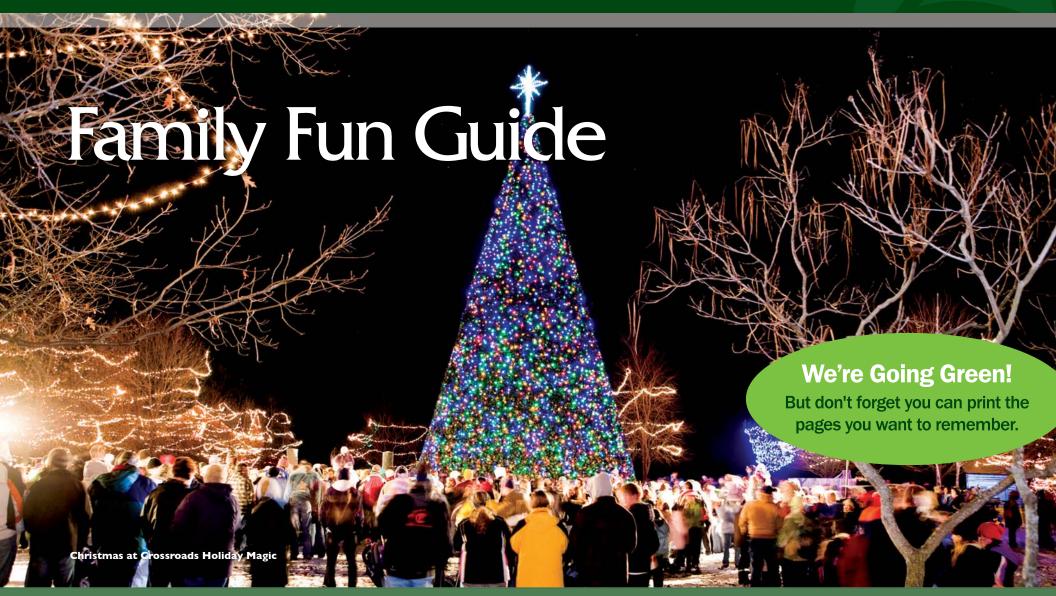
Michelle Maust Environmental Education Outreach Coordinator Brian VanPatten Park Horticulturist



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





FALL WINTER SPRING 2015-2016

"Genesee County Parks' Family Fun Guide is your most complete look into year-round fun in the parks!"

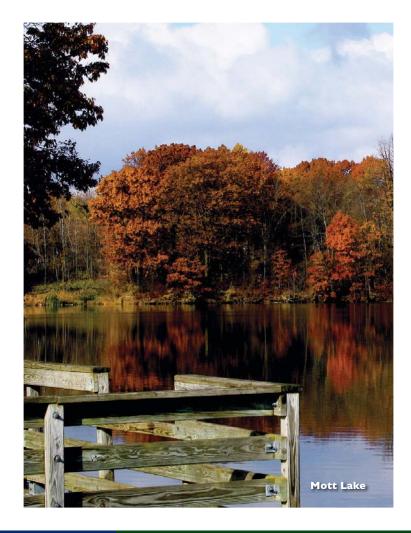
s fall slides into the holidays, we have great times in store for you in the Parks, beginning with our annual Ladies Night Out at Crossroads Village on November 16. Then you're invited back to the Village on November 27 to celebrate the opening of five weeks of festivities during Christmas at Crossroads Holiday Magic!

We will welcome 2016 with plenty of coldweather activities in the Parks to keep you on the go all season. Feeling brave? Take a sled down Toboggan Hill where the screams of excitement and laughter can be yours! Want something a little milder? Take in the peaceful solitude of cross-country skiing through the Parks on new-fallen snow, or trek silently on snow shoes. Mother Nature reminds us each spring of the beauty around us. Come to the Parks and discover flowers beginning to bloom, trees budding, and wildlife on the move. Taste the sweet goodness of maple syrup during Sugar Bush at For-Mar. Rest against a tree and read a book in the warming sunshine.

Whatever the season, Genesee County Parks has something for everyone every day of the year. So get up, get out, and get away, right away! Fall in love all over again with your Genesee County Parks. Visit geneseecountyparks.org for a complete schedule of park activities.

Joe Krapohl, President

Genesee County Parks and Recreation Commission



Genesee County Parks & Recreation Commissioners

Michael Lynch County Commissioner

Bryant NoldenCounty Commissioner

Michael J. Keeler Citizen Representative

Joe Krapohl
President-Citizen Representative

William C. Lucas Citizen Representative Joe Madore

Citizen Representative

James Washington

Citizen Representative

Cloyce Dickerson

Road Commission Designee (Ex-Officio)

Gloria Nealy

Planning Commission Designee (Ex-Officio)

Jeffrey Wright

Drain Commissioner (Ex-Officio)

Genesee County Board of Commissioners

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Brenda Clack, District 2
Chairperson, Jamie W. Curtis, District 3
John Northrup, District 4
Mark Young, District 5
Tony Brown, District 6
Michael Lynch, District 7
Ted Henry, District 8
Pegge Adams, District 9







geneseecountyparks.org 810.736.7100 · 800.648.PARK











Genesee County Parks at a Glance





NOVEMBER

Family Fun for Everyone!



WEDNESDAY, NOVEMBER 4 Knee-High Naturalist: Winter's Coming!

For-Mar Nature Preserve & Arboretum Learn how bears, bees, and bobcats prepare for winter.

For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 11/2/15.

WEDNESDAY, NOVEMBER 4 Wild Adventurers: Don't Mess With Us

For-Mar Nature Preserve & Arboretum Many animals have defenses to help protect them from predators. Come learn all about these animals and meet some critters with astonishing defenses. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 11/2/15.

THURSDAY, NOVEMBER 5 Knee-High Naturalist: Winter's Coming!

For-Mar Nature Preserve & Arboretum

Learn how bears, bees and bobcats prepare for winter.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 11/3/15.

THURSDAY, NOVEMBER 5 Wild Adventurers:

Don't Mess With Us

For-Mar Nature Preserve & Arboretum Many animals have defenses to help protect them from predators. Come learn all about these animals and meet some critters with astonishing defenses. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 11/3/15.

THURSDAY, NOVEMBER 5, 12, 19 & 26

Green Book Club

For-Mar Nature Preserve & Arboretum Join fellow nature enthusiasts as we read and discuss Henry David Thoreau's Walden-Life in the Woods. Participants will receive their own copy of the book

with paid registration.
For ages 13 and up, all abilities.
Time: 10-11:30am. Cost: \$15 per person (includes book).
Pre-registration required by 10/29/15.

SATURDAY, NOVEMBER 7 Run Like a Deer 5K Cross

Country Run/Walk

Join us for the inaugural Run Like a Deer 5K Run and Walk! This off-road race takes you through the beautifully wooded Linden County Park on paved and unpaved trails perfect for every runner and walker. The

Run Like a Deer is perfect for a pre-Turkey Trot tuneup race, so come enjoy the pleasant fall weather and run like a deer!

Time: 10am.

Pre-registration required by November 5 at http://crim.org/races-events/run-like-a-deer/

SATURDAY, NOVEMBER 7 Nature Discovery: Mammals!

For-Mar Nature Preserve & Arboretum What makes a mammal? We're going to have fun learning about and dressing up like many of the mammals we love. For individuals with cognitive disabilities. Time: 10:30am-12pm. Cost: \$2 per person. Pre-registration required by 11/5/15.

SATURDAY, NOVEMBER 7

Growing Gardeners: When the Garden Goes to Sleep

For-Mar Nature Preserve & Arboretum After a summer full of fun and hard work, it's time to prepare our garden for winter. You'll even learn some techniques to help make starting your garden in the spring easier. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 11/5/15.*

Eat Smart, Live Strong for Seniors

TUESDAYS, NOVEMBER 10, 17, 24, DECEMBER 1, 8, 15 (6-WEEK PROGRAM)

For-Mar Nature Preserve & Arboretum
Eat Smart, Live Strong includes
fun, social and interactive sessions
designed to improve fruit and vegetable
consumption and physical activity
among 60-74 year olds. Throughout the
sessions, participants will gain the skills
needed to promote healthy behavior
changes to improve overall health and
wellbeing. Topics Include: Reach Your
Goals; Step by Step; Challenges and
Solutions; Colorful and Classic Favorites;
and Eat Smart, Spend Less. Participants

SATURDAY, NOVEMBER 7 How Does Your Garden Grow?

For-Mar, DeWaters Building, off Potter Rd. Learn what you can be doing in your garden this month for year-round success.

For ages 13 and up, all abilities.

Time: 1-2pm. Cost: \$3 per person.

Pre-registration required by 11/5/15.

SATURDAY, NOVEMBER 7 Kid's Nature Photography Club

For-Mar Nature Preserve & Arboretum Come join the club... the Kid's Nature Photography Club. Join us monthly and learn basic photography skills and get outdoors to take amazing pictures of your favorite For-Mar outdoor areas. Bring your own digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities.

Time: 1:30-2:30pm. Cost: \$3 per student. *Pre-registration not required.*

receive a certificate of completion at the end of the program. Come join the fun! For seniors, all abilities.

Time: 3-4pm. Cost: FREE!

Pre-registration required by 11/6/15. Call or email Betsy Schumacher, (810) 244-8517 or Schuma66@anr.msu.edu. MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status.

TUESDAY, NOVEMBER 10 Knee-High Nature Discovery: Feet are Neat!

For-Mar Nature Preserve & Arboretum Meet animals with special feet. Can you imitate their moves? For children ages 4-10 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. *Pre-registration required by 11/8/15.*

WEDNESDAY, NOVEMBER 11 Knee-High Naturalist:

Fins, Feet and Flippers!
For-Mar Nature Preserve & Arboretum
Feet are neat! Learn about animal
movement and make a foot counting book.
For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 11/9/15.

WEDNESDAY, NOVEMBER 11 Wild Adventurers: Made from the Earth

For-Mar Nature Preserve & Arboretum Many of our fabrics and materials come from the earth. Let's learn all about the natural fibers that help us create many of the products we use today. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 11/9/15.



PAGE 6

THURSDAY, NOVEMBER 12 Knee-High Naturalist: Fins, Feet, and Flippers!

For-Mar Nature Preserve & Arboretum Feet are neat! Learn about animal movement and make a foot counting book. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 11/10/15.

THURSDAY, NOVEMBER 12, Wild Adventurers: Made from the Earth

For-Mar Nature Preserve & Arboretum Many of our fabrics and materials come from the earth. Let's learn all about the natural fibers that help us create many of the products we use today. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 11/10/15.*

SATURDAY, NOVEMBER 14 Nature Photography Club

For-Mar Nature Preserve & Arboretum Calling all photographers! Join us for our photography club designed for both professional and amateur photographers. A different photography technique will be highlighted each month. Then we'll hit the trails to search for and take photos of all Genesee County Parks' secret gems. For ages 16 and older, all abilities.

Time: 9-10:30am. Cost: \$3 per person.

SATURDAY, NOVEMBER 14 Scouting Outing: Giving Back

Pre-registration not required.

For-Mar Nature Preserve & Arboretum For-Mar makes volunteering fun! Join us as we practice the skill of giving back to our community through several service learning projects. Dress for getting dirty and being outdoors.

Suggested for scouts ages 5 and older, all abilities.

Time: 10am-12pm. Cost: FREE! Pre-registration not required.

SATURDAY, NOVEMBER 14 DIY Holiday Centerpiece

For-Mar Nature Preserve & Arboretum Thanksgiving is almost here and it's time to think about the center of your holiday table. Join us as we create unique centerpieces that will wow your guests! Suggested for ages 14 and older, all abilities. Time: 1-2:30pm. Cost: \$8 per participant. Pre-registration is required by 11/12/15.

MONDAY, NOVEMBER 16 9th Annual Ladies Night Out

Crossroads Village & Huckleberry Railroad
This ladies-only extravaganza has
quickly become an annual favorite! It's
a one-night, once-a-year evening of
shopping, laughing, food and fun.
Time: 4-9pm. Cost: \$5 per person or FREE
with a current village Annual Pass.

WEDNESDAY, NOVEMBER 18 Knee-High Naturalist: Thanksgiving Celebration

For-Mar Nature Preserve & Arboretum Join the Thanksgiving celebration and learn why animals are thankful. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 11/16/15.

WEDNESDAY, NOVEMBER 18 Wild Adventurers:

Super Savers

For-Mar Nature Preserve & Arboretum There are many vulnerable animals under threat and on the endangered species list. Come learn how we can help protect them and help them thrive. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 11/16/15.

THURSDAY, NOVEMBER 19 Knee-High Naturalist:

Thanksgiving Celebration
For-Mar Nature Preserve & Arboretum
Join the Thanksgiving celebration and
learn why animals are thankful.
For children ages 3-6, all abilities.
Time: 10-11:30am. Cost: \$3 per child.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 11/17/15.

iece Arboretum and it's time our holiday THURSDAY, NOVEMBER 19 Wild Adventurers: Super Savers For-Mar Nature Preserve & Art There are many vulnerable an

For-Mar Nature Preserve & Arboretum There are many vulnerable animals under threat and on the endangered species list. Come learn how we can help protect them and help them thrive. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 11/17/15.*

FRIDAY, NOVEMBER 20 For-Mar Night Hike

For-Mar Nature Preserve & Arboretum Experience For-Mar at night. Test your night vision skills and learn about nocturnal animals as you travel the trails on this naturalist led hike.

For families, all ages and abilities.

Time: 6-7pm. Cost: \$1.50 per person.

Pre-registration not required.

SATURDAY, NOVEMBER 21 Growing Gardeners: Pilgrims Feast

For-Mar Nature Preserve & Arboretum Learn about the garden goodies the Pilgrims had at the first Thanksgiving and about some traditions that have been created through the years. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 11/19/15.*

SATURDAY, NOVEMBER 21 Conifer ID

For-Mar Nature Preserve & Arboretum Learn the tips and tricks to successfully identifying your conifer trees. This hike through the "pines" will enlighten your senses and stimulate your brain. Bring your walking shoes and dress for the weather.

For adults, ages 16 and older, all abilities. **Time: 10am-12pm. Cost \$5 per person.** *Pre-registration required by 11/19/15.*

SATURDAY, NOVEMBER 21 Nature Discovery in the Garden: When the Garden Goes to Sleep

For-Mar Nature Preserve & Arboretum
After a summer full of fun and hard work, it's time to prepare our garden for winter.
Come help us put the garden to sleep and learn some techniques to help make starting your garden in the spring easier.
For individuals with cognitive disabilities.
Time: 1-2:30pm. Cost: \$2 per person.
Pre-registration required by 11/19/15.

SATURDAY, NOVEMBER 21 Volunteer: Hoop House Work and Learn

For-Mar, DeWaters Building, off Potter Rd. Are you curious about hoop house management? Learn while caring for a variety of crops. Staff will be available to answer questions.

For ages 12 and older, all abilities.

Time: 1-3pm. Cost: FREE! *Pre-registration required by 11/19/15.*

THURSDAY, NOVEMBER 26 Thanksgiving Tradition at The Mounds

The Mounds ORV Park
Starting as early as 6am on Thanksgiving
morning, hundreds of off-road vehicles
line up to be a part of the early morning
tradition at The Mounds.

Time: 8am – Sunset. Cost: Normal pass fees apply and state ORV permit is required for entry.

FRIDAY, NOVEMBER 27 Christmas at Crossroads Holiday Magic – Opening Night

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. This joyful fiveweek celebration opens with fireworks and free admission (opening night only) into the village for all Genesee County residents (ID is required).

Time: 4-9pm.

SATURDAY, NOVEMBER 28 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm. Standard Village rates apply.

SUNDAY, NOVEMBER 29 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm. Standard Village rates apply.

4th Annual Wild Turkey Run

SATURDAY. NOVEMBER 28

For-Mar Nature Preserve & Arboretum Eat too much turkey? We did, too! The feast is over and it's time to come out to For-Mar to run or walk it off.

Kids Turkey Activity Area

Join us for kid's turkey active outdoor activities, live turkeys, and more. A Naturalist will be available to watch children for parents who are running or walking in the race.

For families, all ages and abilities.

Time: 10am-1pm. Cost: FREE! Pre-registration not required.

Kids Turkey Trot

Can you trot like a turkey? Join the Kids' Turkey Trot. Kids get a For-Mar race medallion after the race.

For kids up to age 18, all abilities. Time: 10:30-11am. Cost: \$5 per person,

includes race t-shirt.

Pre-Registration is required by 5pm on 11/23/15 to receive a race shirt. Race begins

at 10:30am sharp. Walk-ins for the race must be registered by 10am in order to race.

Wild Turkey Run/Walk

Dress up in your Wild Turkey Best and join us for a friendly relatively flat 5K trail race through For-Mar. Strut your turkey self around the course dressed like a turkey, or in some other equally goofy costume, to win prizes for the best costume. Prizes will be awarded to both kids and adults for the best costume. Awards will be given to the top three runners who cross the finish line. This year's race will be timed by Race Timing Services.

For ages 8 and older, all abilities.

Time: 11:00am-12pm. Cost \$17 per person until 5pm 11/23/15. After 11/23/15, the cost is \$20 per person.

Pre-registration is required by 5pm 11/23/15 5pm to receive a race shirt. Race begins at 11am sharp. Walk-ins for the race must be registered by 10:30am to race.



DECEMBER

Family Fun for Everyone!





WEDNESDAY, DECEMBER 2 Knee-High Naturalist: Snakes

For-Mar Nature Preserve & Arboretum Learn about snakes as we go on a scavenger hunt to make a snake craft. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 11/30/15.

WEDNESDAY, DECEMBER 2 Wild Adventurers: Teeny, Tiny and Terrifying!

For-Mar Nature Preserve & Arboretum These little microbes don't seem like much, but they sure do pack a punch. That's right ... we're talking about GERMS. Find out why it is so important to keep clean.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 11/30/15.

THURSDAY, DECEMBER 3 Knee-High Naturalist: Snakes

For-Mar Nature Preserve & Arboretum Learn about snakes as we go on a scavenger hunt to make a snake craft. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 12/1/15.

THURSDAY, DECEMBER 3 Wild Adventurers: Teeny, Tiny, and Terrifying!

For-Mar Nature Preserve & Arboretum These little microbes don't seem like much, but they sure do pack a punch. That's right...we're talking about GERMS. Find out why it is so important to keep clean.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 12/1/15.

THURSDAY, DECEMBER 3, 10, 17 **Green Book Club**

For-Mar Nature Preserve & Arboretum Join fellow nature enthusiasts as we read and discuss Sand County Almanac by Aldo Leopold. Participants will receive their own copy of the book with paid registration.

For ages 13 and older, all abilities.

Time: 10-11:30am. Cost: \$15 per person (includes book).

Pre-registration required by 11/26/15.

FRIDAY DECEMBER 4 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

SATURDAY, DECEMBER 5 Growing Gardeners: Gardens Can Get Cold, Too!

For-Mar Hoop House, near the DeWaters building, off Potter Rd. Cold? Put on your winter coat. Is your garden cold? Put on its winter coat. Explore our hoop house as we learn about cold frames and greenhouses. Build and take home your very own mini-greenhouse.

For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 12/3/15.

SATURDAY, DECEMBER 5 Nature Discovery: Ice, Ice, Baby

For-Mar Nature Preserve & Arboretum It's going to be a cold one! Let's learn all about ice and snow.

For individuals with cognitive disabilities. Time: 10:30am-12pm. Cost: \$2 per person. Pre-registration required by 12/3/15.

SATURDAY, DECEMBER 5 How Does Your Garden Grow?

For-Mar DeWaters Building, off Potter Rd. Learn what you can do in your garden this month for year-round success. For ages 13 and older, all abilities.

Time: 1-2pm. Cost: \$3 per person. *Pre-registration required by 12/3/15.*

SATURDAY, DECEMBER 5 Kid's Nature Photography Club

For-Mar Nature Preserve & Arboretum Come join the club ... the Kid's Nature Photography Club. Join us monthly to learn basic photography skills and get outdoors to take amazing pictures of

your favorite For-Mar outdoor areas. Bring your digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities.

Time: 1:30-2:30pm. Cost: \$3 per student. *Pre-reaistration not required.*

SATURDAY, DECEMBER 5 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.



SUNDAY, DECEMBER 6 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

MONDAY, DECEMBER 7 Drive Through Only Night - Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Rather view the Village from your warm car? Visit us on special drive through only nights.

Time: 5-9pm. Cost: \$5 per carload.
The Village streets can not
accommodate buses.

TUESDAY, DECEMBER 8 Knee-High Nature Discovery: Wildlife Feeding

For-Mar Nature Preserve & Arboretum Help feed the wildlife at For-Mar and make a wildlife feeder to take home. For children ages 4-10 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. *Pre-registration required by 12/6/15.*

WEDNESDAY, DECEMBER 9 Knee-High Naturalist: Winter Feeding

For-Mar Nature Preserve & Arboretum Guess who's coming to your wildlife feeder? Make a feeder to take home. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. *Pre-registration required by 12/7/15.*

WEDNESDAY, DECEMBER 9 Wild Adventurers: Be a Miner

For-Mar Nature Preserve & Arboretum Bring the natural side of a popular video game to life. Build, explore, and learn while building and mining natural

For youth ages 7-12, all abilities. **Time: 10-11:30am. Cost: \$3 per student.** *Pre-registration required by 12/7/15.*



THURSDAY, DECEMBER 10 Knee-High Naturalist: Winter Feeding

For-Mar Nature Preserve & Arboretum Guess who's coming to your wildlife feeder? Make a feeder to take home. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 12/8/15.

THURSDAY, DECEMBER 10 Wild Adventurers: Be a Miner

For-Mar Nature Preserve & Arboretum Bring the natural side of a popular video game to life. Build, explore, and learn while building and mining natural resources. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 12/8/15.

THURSDAY, DECEMBER 10 Holiday Walk

For-Mar Nature Preserve & Arboretum The holiday season is in full swing, the weather is getting cooler, and our hearts are growing warmer. Enjoy a light-filled winter walk in the woods with your family at For-Mar Nature Preserve and Arboretum. The cost is free, and the building and grounds will be open for an evening filled with activities and entertainment that the whole family will love. For families, all ages and abilities.

Time: 6-9pm. Cost: FREE!

Pre-registration suggested, but not required, large groups are asked to call ahead.

THURSDAY, DECEMBER 10 Immunization Clinic

For-Mar Nature Preserve & Arboretum
Are you and your children up-to-date on
your immunizations? If not, here's an easy
way to get it done! The Genesee County
Health Department is coming to For-Mar
to help make sure that you're healthy.
For families, all ages and abilities.
Time: 6-7:30nm. Cost: Many insurance

plans are accepted.

For more information and to register, please call 810-237-4588.

FRIDAY, DECEMBER 11 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9om.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

FRIDAY, DECEMBER 11 Holiday Walk

For-Mar Nature Preserve & Arboretum The holiday season is in full swing, the weather is getting cooler, and our hearts are growing warmer. Enjoy a light-filled winter walk in the woods with your family at For-Mar Nature Preserve and Arboretum. The cost is free and the building and grounds will be open for an evening filled with activities and entertainment that the whole family will love.

For families, all ages and abilities.

Time: 6-9pm. Cost: FREE!
Pre-registration suggested, but not required, large groups are asked to call ahead.

FRIDAY, DECEMBER 11 Immunization Clinic

For-Mar Nature Preserve & Arboretum
Are you and your children up-to-date on
your immunizations? If not, here's an easy
way to get it done! The Genesee County
Health Department is coming to For-Mar
to help make sure that you're healthy.
For families, all ages and abilities.

Time: 6-7:30pm. Cost: Many insurance plans are accepted.

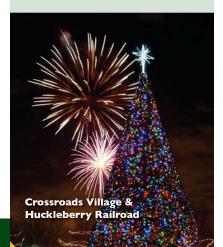
For more information and to register, please call 810-237-4588.

SATURDAY, DECEMBER 12 Nature Photography Club

For-Mar Nature Preserve & Arboretum Calling all photographers! Join us for our photography club designed for both professional and amateur photographers. A different photography technique will be highlighted each month. Then we'll hit the trails to search for and take photos of all Genesee County Parks' secret gems.

For ages 16 and older, all abilities.

Time: 9-10:30am. Cost: \$3 per person. *Pre-registration not required.*



SATURDAY, DECEMBER 12 Scouting Outing: Gifts from Nature

For-Mar Nature Preserve & Arboretum Create a holiday gift from nature for your family, friends, neighbors, or troop leader. For scouts, all ages and abilities.

Time: 10:30am-12pm. Cost: \$5 per person. Pre-registration required by 12/10/15.

SATURDAY, DECEMBER 12 Upcycle: Transformed Terrariums

For-Mar Nature Preserve & Arboretum Learn to transform your old light fixtures, blocks, bulbs and more into amazing terrariums. Take home your own terrarium that will make wonderful presents for your friends and family, or even centerpieces for your holiday party. Suggested for ages 10 and older, all abilities.

Time: 1-3pm. Cost: \$10 per person. *Pre-registration required by 12/10/15.*

SATURDAY, DECEMBER 12 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply. *Train reservations are highly suggested.*

SUNDAY, DECEMBER 13 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

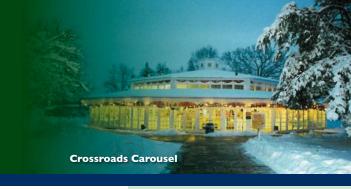
Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

DECEMBER

Family Fun for Everyone!



MONDAY, DECEMBER 14 Drive Through Only Night – Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Rather view the Village from your warm car? Visit us on special drive through only nights.

Time: 5-9pm. Cost: \$5 per carload. The Village streets can not accommodate buses.

WEDNESDAY, DECEMBER 16 Knee-High Naturalist: Reindeer

For-Mar Nature Preserve & Arboretum
Hear a story and do activities to learn
how reindeer survive in the frozen north.
For children ages 3-6, all abilities.
Time: 10-11:30am. Cost: \$3 per child.
Pre-registration required by 12/14/15.

WEDNESDAY, DECEMBER 16 Wild Adventurers: Reading with Reptiles

For-Mar Nature Preserve & Arboretum With our scaly friends, we will read

stories about reptiles and learn to classify them. Meet some amazing reptiles. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 12/14/15.

THURSDAY, DECEMBER 17 Knee-High Naturalist: Reindeer

For-Mar Nature Preserve & Arboretum Hear a story and do activities to learn how reindeer survive in the frozen north. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 12/15/15.

THURSDAY, DECEMBER 17 Wild Adventurers: Reading with Reptiles

For-Mar Nature Preserve & Arboretum With our scaly friends, we will read stories about reptiles, and learn to classify them. Meet some amazing reptiles. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 12/15/15.

FRIDAY, DECEMBER 18 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you. Time: 4-9 m.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

SATURDAY, DECEMBER 19 Growing Gardeners: Evergreen Arrangements

For-Mar Nature Preserve & Arboretum Did you know that historically people would bring in evergreen arrangements to encourage the seasons to change sooner? Bring a little fresh evergreen into your home this holiday season and make your own wreath to take home. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 12/17/15.

SATURDAY, DECEMBER 19 Nature Discovery in the Garden: Evergreen Arrangements

For-Mar Nature Preserve & Arboretum
Did you know that historically people
would bring in evergreen arrangements
to encourage the seasons to change
sooner? Bring a little fresh evergreen
into your home this holiday season and
make your own wreath to take home.
For individuals with cognitive disabilities.
Time: 1-2:30pm. Cost: \$2 per person.
Pre-registration required by 12/17/15.



SATURDAY, DECEMBER 19 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

SUNDAY, DECEMBER 20 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

MONDAY, DECEMBER 21

Drive Through Only Night - Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Rather view the Village from your warm car? Visit us on special drive through only nights.

Time: 5-9pm. Cost: \$5 per carload. The Village streets can not accommodate buses.

TUESDAY, DECEMBER 22 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you.

Time: 4-9pm.

Cost: Standard Village rates apply. *Train reservations are highly suggested.*



WEDNESDAY, DECEMBER 23 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad, and Santa will be there in person to greet you. Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

THURSDAY, DECEMBER 24 Drive Through Only Night - Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Rather view the Village from your warm car? Visit us on special drive through only nights.

Time: 5-9pm. Cost: \$5 per carload. The Village streets can not accommodate buses.

SATURDAY, DECEMBER 26 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

SUNDAY, DECEMBER 27 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty nighttime ride through the snowy countryside on our beloved Huckleberry Railroad.

Time: 4-9am.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

MONDAY, DECEMBER 28 Drive Through Only Night - Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Rather view the Village from your warm car? Visit us on special drive through only nights.

Time: 5-9pm. Cost: \$5 per carload. The Village streets can not accommodate buses.

TUESDAY, DECEMBER 29 Winter Break Camp: Winter Detective

For-Mar Nature Preserve & Arboretum Learn how being a wildlife detective in the winter can be easy and fun. Hike the trails and learn all about the animals that stay active during the winter. Dress to be outdoors.

For children ages 3-6, all abilities. Adult must accompany children.

Time: 10am-12pm. Cost: \$5 per child. Pre-registration required by 12/27/15. Limited to 20 participants.



TUESDAY, DECEMBER 29 Winter Break Camp: Winter Detective

For-Mar Nature Preserve & Arboretum Search the trails for clues so you can solve the winter wildlife mystery! Learn how being a wildlife detective in the winter can be easy and fun. Dress to be outdoors. Please bring a sack lunch, water bottle and a snack. For children ages 7-12, all abilities. Children can be dropped off if registration form is completed.

Time: 10am-2:30pm. Cost: \$10 per

student.

Pre-registration required by 12/27/15. Limited to 20 participants.

TUESDAY, DECEMBER 29 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad. Time: 4-9nm.

Cost: Standard Village rates apply.
Train reservations are highly suggested.

TUESDAY, DECEMBER 29 Immunization Clinic

For-Mar Nature Preserve & Arboretum
Are your children up-to-date on
immunizations? If not, here's an easy way
to get it done! The Genesee County Health
Department is coming to For-Mar to help
make sure that your kids are healthy.
For children, ages 3-12, all abilities.

Time: 12-3:30pm. Cost: Many insurance plans are accepted.

For more information and to register, please call 810-237-4588.

WEDNESDAY, DECEMBER 30 Winter Break Camp: Snow Scientist

For-Mar Nature Preserve & Arboretum Learn and play as we study the science of snow. Dress to be outdoors. For children ages 3-6, all abilities. Adult must accompany children.

Time: 10am-12pm. Cost: \$5 per child. Pre-registration required by 12/28/15. Limited to 20 participants.



WEDNESDAY, DECEMBER 30 Winter Break Camp: Snow Scientist

For-Mar Nature Preserve & Arboretum
From meteorology to biology, learn how
to be a snow scientist while performing
experiments using snow and ice. Dress
to be outdoors. Please bring a sack
lunch, water bottle and a snack.
For children ages 7-12, all abilities.
Children can be dropped off if
registration form is completed.

Time: 10am-2:30pm. Cost: \$10 per student.

Pre-registration required by 12/28/15. Limited to 20 participants.

WEDNESDAY, DECEMBER 30 Christmas at Crossroads Holiday Magic

Crossroads Village & Huckleberry Railroad Make happy memories when the magical feeling of this festive holiday season fills the streets, shops and homes of Crossroads Village, and thousands of tiny lights sparkle in the trees. Gather your friends and family for a toasty night-time ride through the snowy countryside on our beloved Huckleberry Railroad.

Time: 4-9pm.

Cost: Standard Village rates apply.

Train reservations are highly suggested.

WEDNESDAY, DECEMBER 30 Immunization Clinic

For-Mar Nature Preserve & Arboretum Are your children up-to-date on immunizations? If not, here's an easy way to get it done! The Genesee County Health Department is coming to For-Mar to help make sure that your kids are healthy. For children, ages 3-12, all abilities.

Time: 12-3:30pm. Cost: Many insurance plans are accepted.

For more information and to register, please call 810-237-4588.

THURSDAY, DECEMBER 31 Winter Break Camp: No Play Like Snow Play

For-Mar Nature Preserve & Arboretum Learn and play in the snow. Dress to be outdoors.

For children ages 3-6, all abilities. Adult must accompany children.

Time: 10am-12pm. Cost: \$5 per child. *Pre-registration required by 12/29/15. Limited to 20 participants.*

THURSDAY, DECEMBER 31 Winter Break Camp: Winter Survival Skills

For-Mar Nature Preserve & Arboretum Learn the basic needs of surviving outdoors during the winter. Dress warmly and prepare to get dirty, because we will be traveling the For-Mar trails and trying our hand at different survival techniques, including shelter making and fire starting. Please bring a sack lunch, water bottle and a snack.

For children ages 7-12, all abilities. Children can be dropped off if registration form is completed.

Time: 10am-2:30pm. Cost: \$10 per student.

Pre-registration required by 12/29/15. Limited to 20 participants.

ANUARY

Family Fun for Everyone!





SATURDAY, JANUARY 2 Nature Discovery: Food Chains!

For-Mar Nature Preserve & Arboretum Energy passes from one living thing to another. We are all connected through the food chain.

For individuals with cognitive disabilities. Time: 10:30am-12pm. Cost: \$2 per person. Pre-registration required by 12/31/15.

SATURDAY, JANUARY 2 Kid's Nature

Photography Club

For-Mar Nature Preserve & Arboretum Come join the club... the Kid's Nature Photography Club! Join us monthly and learn basic photography skills and get outdoors to take amazing pictures of your favorite For-Mar outdoor areas. Bring your digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities. Time: 1:30-2:30pm. Cost: \$3 per student. Pre-registration not required.

SATURDAY, JANUARY 2 4th Annual Shoe **Year's Day Event**

For-Mar Nature Preserve & Arboretum Walk, Ski, or Shoe! No matter your choice, you can start the New Year out actively at For-Mar during our Shoe Year's Day event. This statewide partnership between the Michigan Recreation and Park Association (MParks), the Michigan DNR, and local parks and recreation agencies includes a one-mile hike, snowshoe or ski. We'll even have presentations on how to set and keep your New Year's resolutions. Come dressed for the weather. Please bring your own cross county skis and snowshoes if you have them. Some snowshoes will be available to check out on a first-come, first-served basis. For families, suggested for ages 5 and older, all abilities.

Time: 1-3pm. Cost: FREE! Pre-registration not required.

SUNDAY, JANUARY 3 Birding Hike: Christmas Bird Count

For-Mar Nature Preserve & Arboretum Each year the National Audubon Society enlists countless birders and outdoor enthusiasts all over the United States to help with the annual Christmas Bird Count, an opportunity to help monitor winter bird populations. Help contribute to a 115-year-old tradition of community conservation projects when you join a For-Mar naturalist in identifying and counting the birds that call For-Mar home. For more information, check the National Audubon Society webpage, www. audubon.org/conservation/science/ christmas-bird-count. For families, all ages and abilities.

Time: 9-10:30am. Cost: FREE! Pre-registration suggested, but not required.

WEDNESDAY, JANUARY 6 Knee-High Naturalist: Who's Been Here in the Snow?

For-Mar Nature Preserve & Arboretum Wear warm clothes, because this program will include a short hike to look for animal tracks in the snow. Bring an old or new t-shirt to make an animal tracks shirt.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 1/4/16.

WEDNESDAY, JANUARY 6 Wild Adventurers: **Out of this World!**

For-Mar Nature Preserve & Arboretum It's full of planets, moons, asteroids, comets and many other exciting things. Let's explore our solar system while having a blast! For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/4/16.

THURSDAY, JANUARY 7 **Knee-High Naturalist: Who's Been Here in the Snow?**

For-Mar Nature Preserve & Arboretum Wear warm clothes because this program will include a short hike to look for animal tracks in the snow. Bring an old or new t-shirt to make an animal tracks shirt. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 1/5/16.

THURSDAY, JANUARY 7 Wild Adventurers: **Out of this World!**

For-Mar Nature Preserve & Arboretum It's full of planets, moons, asteroids, comets and many other exciting things. Let's explore our solar system while having a blast!

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/5/16.

THURSDAY, JANUARY 7, 14, 21 & 28 **Green Book Club**

For-Mar Nature Preserve & Arboretum Join fellow nature enthusiasts as we read and discuss Silent Spring by Rachel Carson. Participants will receive their own copy with paid registration. For ages 13 and older, all abilities.

Time: 10-11:30am. Cost: \$15 per person (includes book).

Pre-registration required by 12/31/15.

SATURDAY, JANUARY 9 Nature Photography Club

For-Mar Nature Preserve & Arboretum Calling all photographers! Join us for our photography club designed for both professional and amateur photographers. A different photography technique will be highlighted each month. Then we'll hit the trails to search for and take photos of all Genesee County Parks' secret gems. For ages 16 and older, all abilities. Time: 9-10:30am. Cost: \$3 per person.

Pre-registration not required.

SATURDAY. JANUARY 9 Growing Gardeners: Let it Snow!

For-Mar Nature Preserve & Arboretum It's winter and even though the garden is asleep, there are still plenty of living plants to be found. Dress for the cold because we're going on a nature hike to learn how plants deal with the cold. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/7/16.

SATURDAY, JANUARY 9 Scouting Outing: Snowshoeing 101

For-Mar Nature Preserve & Arboretum Calling all scouts! Join us on this winter adventure. Learn the history of snowshoeing and how to use them. Then hit the trail to try snowshoeing first hand. For-Mar has a limited number of snowshoes available; bring your own pair if you have them. For scouts, suggested for ages 5 and older, all abilities.

Time: 1-3pm. Cost: \$5 per scout. Pre-registration required by 1/7/16.

TUESDAY, JANUARY 12 Knee-High Nature Discovery: Fur, Feathers and Scales

For-Mar Nature Preserve & Arboretum Touch and feel as we learn about animals with different coverings. For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. Pre-registration required by 1/10/16.

WEDNESDAY, JANUARY 13 Knee-High Naturalist: A Bear is not Bare!

For-Mar Nature Preserve & Arboretum Make a book as one of the activities to learn about animal coverings. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 1/11/16.

Eat Smart, Live Strong for Seniors

MONDAYS, JANUARY 11, 18, 25 AND FEBRUARY 1, 8, 15 (6-WEEK PROGRAM)

For-Mar Mature Preserve & Arboretum Eat Smart, Live Strong includes fun, social and interactive sessions designed to improve fruit and vegetable consumption and physical activity among 60-74 year olds. Throughout the sessions, participants will gain the skills needed to promote healthy behavior changes to improve overall health and wellbeing. Topics Include: Reach Your Goals; Step by Step: Challenges and Solutions: Colorful and Classic Favorites; and Eat Smart, Spend Less. Participants receive

a certificate of completion at the end of the program. Come join the fun! For seniors, all abilities.

Time: 11am-12pm. Cost: FREE!

Pre-registration required by 1/8/16. Call or email Betsy Schumacher, (810) 244-8517 or Schuma66@anr.msu.edu. MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status.

Cooking Matters for Adults

TUESDAYS, JANUARY 12, 19, 26 **AND FEBRUARY 2. 9. 16 (6 WEEK** PROGRAM)

For-Mar Nature Preserve & Arboretum Cooking and nutrition taught by a chef and nutritionist! We'll cover topics that include Healthy Snacks, Shopping Smart, Food Safety at Home, Cooking Tips from the Chef. Planning Balanced Meals, and Tips for Eating Out, and you'll get FREE groceries and a FREE cookbook so you can make the recipes at home.

Time: 1-3pm. Cost: FREE!

Pre-registration required by 1/8/15. Call or email Betsy Schumacher, (810) 244-8517 or Schuma66@anr.msu.edu. MSU is an affirmative-action, equal-opportunity employer, Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status.

WEDNESDAY, JANUARY 13 Wild Adventurers: Forces and Motion

For-Mar Nature Preserve & Arboretum Motion plays a role in many of the everyday things we do. Let's learn about force and motion and the effects of these physical laws in our world. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/11/16.

THURSDAY, JANUARY 14 Knee-High Naturalist: A Bear is not Bare!

For-Mar Nature Preserve & Arboretum Make a book as one of the activities to learn about animal coverings. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 1/12/16.

THURSDAY, JANUARY 14 Wild Adventurers: Forces and Motion

For-Mar Nature Preserve & Arboretum Motion plays a role in many of the everyday things we do. Let's learn about force and motion and the effects of these physical laws in our world. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 1/12/16.

FRIDAY, JANUARY 15 Adults Only Owl Prowl

For-Mar Nature Preserve & Arboretum Join For-Mar Naturalists as we learn about local owls and the unique sounds they make. Then travel the trails to practice your owl-calling skills. Bring your own flashlights; we will provide night vision protection.

For adults, ages 16 and older, all abilities. Time: 6-7:30pm. Cost: \$3 per person. Pre-registration not required.

SATURDAY, JANUARY 16 Snowshoeing 101

For-Mar Nature Preserve & Arboretum Winter hiking can be hard, but with a pair of snowshoes, it becomes an easier adventure. Come learn the history of snowshoeing and how to use them. Then hit the trail to try snowshoeing first-hand. For-Mar has a limited number of snowshoes available on a first-come, first-served basis: bring your own pair if you have them. For families, suggested for ages 5 and older, all abilities.

Time: 10am-12pm. Cost: \$3 per person. Pre-registration required by 1/14/16.

SATURDAY, JANUARY 16 Volunteer: Hoop House Work and Learn

For-Mar Hoop House, near the DeWaters Building, off Potter Rd. Are you curious about hoop house management? Learn while caring for a variety of crops. Staff will be available to answer questions.

For ages 12 and older, all abilities.

Time: 1-3pm. Cost: FREE! Pre-registration required by 1/14/16.

SATURDAY, JANUARY 16 Nature Discovery in the Garden: Let it Snow!

For-Mar Nature Preserve & Arboretum It's winter and even though the garden is asleep, there are still plenty of living plants to be found. Dress for the cold, because we're going on a nature hike to learn how plants deal with the cold. For individuals with cognitive disabilities.

Time: 1-2:30pm. Cost: \$2 per person. Pre-registration required by 1/14/16.

WEDNESDAY, JANUARY 20 Knee-High Naturalist: Famous Wildlife

For-Mar Nature Preserve & Arboretum Children are asked to bring their favorite "famous wildlife" (i.e., Mickey Mouse, Barney) to learn about the differences between real and pretend animals. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 1/18/16.

WEDNESDAY, JANUARY 20 Wild Adventurers: Soar Like an Eagle

For-Mar Nature Preserve & Arboretum These amazing birds were dangerously close to extinction. Learn all about these large, powerful birds of prey. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/18/16.

THURSDAY, JANUARY 21 Knee-High Naturalist: Famous Wildlife

For-Mar Nature Preserve & Arboretum Children are asked to bring their favorite "famous wildlife" (i.e. Mickey Mouse, Barney) to learn about the differences between real and pretend animals. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 1/19/16.

THURSDAY. JANUARY 21 Wild Adventurers: Soar Like an Eagle

For-Mar Nature Preserve & Arboretum These amazing birds were dangerously close to extinction. Learn all about these large, powerful birds of prey. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/19/16.

SATURDAY. JANUARY 23 Growing Gardeners: Out of this World Gardening!

For-Mar Nature Preserve & Arboretum Space, the final frontier ... Plants don't just grow on earth; they also grow in space! Learn about experiments and research being done in space dealing with plant science. You'll even get to plant an experimental plant so you can make your own observations and discoveries. For children ages 4-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 1/21/16.

SATURDAY, JANUARY 23 Beekeeping 101 with **Jim Withers**

For-Mar Nature Preserve & Arboretum Join For-Mar and Withers Mountain Honey Farm head beekeeper Jim Withers for this beginner beekeeping class. You'll leave prepared with what you need to know about equipment and what to do to start your own hive in the upcoming season.

For ages 14 and older, all abilities. Time: 1-4pm. Cost: \$5 per person. Pre-registration required by 1/21/16.

TUESDAY. JANUARY 26 Knee-High Nature Discovery: Reptiles

For-Mar Nature Preserve & Arboretum Learn about the special adaptations that reptiles have when you get close to these amazing creatures. For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. Pre-registration required by 1/24/16.

WEDNESDAY, JANUARY 27 Knee-High Naturalist: Leaping Lizards?

For-Mar Nature Preserve & Arboretum Learn about the special adaptations of reptiles and why most lizards can't leap. For children ages 3-6, all abilities. Time: 10-11:30am, Cost: \$3 per child.

Pre-registration required by 1/25/16.

WEDNESDAY, JANUARY 27 Wild Adventurers: **For-Mar Forensics**

For-Mar Nature Preserve & Arboretum We all love a good detective story. Can you use science to solve a crime? Let's collect the evidence to see how a forensic scientist investigates. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 1/25/16.

THURSDAY, JANUARY 28 Knee-High Naturalist: Leaping Lizards?

For-Mar Nature Preserve & Arboretum Learn about the special adaptations of reptiles and why most lizards can't leap. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 1/26/16.

THURSDAY, JANUARY 28 Wild Adventurers: For-Mar Forensics

For-Mar Nature Preserve & Arboretum We all love a good detective story. Can you use science to solve a crime? Let's collect the evidence to see how a forensic scientist investigates. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 1/26/16.

FRIDAY. JANUARY 29

Owl Prowl

For-Mar Nature Preserve & Arboretum Join For-Mar Naturalists as we learn about local owls and the unique sounds they make. Then travel the trails to practice your owl-calling skills. Bring your own flashlights; we will provide night vision protection. For families, suggested for ages 5 and older, all abilities.

Time: 6-7:30pm. Cost: \$3 per person. Pre-registration not required.

SATURDAY, JANUARY 30 Groundhog Day Fun!

For-Mar Nature Preserve & Arboretum We're celebrating Groundhog Day! Stop in any time from 1-3pm to find out if Punxsutawney For-Mar saw his shadow. We'll have crafts and activities. For families, all ages and abilities.

Time: 1-3pm. Cost: FREE! Pre-registration not required.

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FEBRUARY

Family Fun for Everyone!





WEDNESDAY, FEBRUARY 3 **Knee-High Naturalist: Fairytale Science Fair**

For-Mar Nature Preserve & Arboretum Dress as your favorite fairytale character as we estimate, experiment and explore the science of fairytales. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 2/1/16.

WEDNESDAY, FEBRUARY 3 Wild Adventurers: Blow Your Top!

For-Mar Nature Preserve & Arboretum Volcanos have helped form the earth's surface for millions of years. What exactly happens during this uproar? Learn about the different types of volcanos and have fun experimenting with models.

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/1/16.

THURSDAY, FEBRUARY 4, 11, 18, 25 Green Book Club

For-Mar Nature Preserve & Arboretum Join fellow nature enthusiasts as we read and discuss Adventures of Huckleberry Finn by Mark Twain. Participants will receive free tickets to the Flint Youth Theater's production, Huck Finn, and their own copy of the book with paid registration. For ages 13 and older, all abilities. Time: 10-11:30am, Cost; \$15 per person

(includes book and theater ticket). Pre-registration required by 1/31/16.

THURSDAY, FEBRUARY 4 Knee-High Naturalist: Fairytale Science Fair

For-Mar Nature Preserve & Arboretum Dress as your favorite fairvtale character as we estimate, experiment and explore the science of fairytales. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 2/2/16.

THURSDAY, FEBRUARY 4 Wild Adventurers: Blow Your Top!

For-Mar Nature Preserve & Arboretum Volcanos have helped form the earth's surface for millions of years. What exactly happens during this uproar? Learn about the different types of volcanos and have fun experimenting with models. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/2/16.

SATURDAY. FEBRUARY 6 Do It Yourself Landscape **Design Workshop**

For-Mar Nature Preserve & Arboretum Design your own landscape under the guidance of our local expert who has more than 40 years of experience. Learn the five basic steps to an eve appealing landscape. Bring an architect scale and pictures of your house with dimensions. All other supplies will be provided. For ages 16 and older, all abilities Time: 9am-12pm. Cost: \$25 per person. Pre-registration required by 2/1/16. Minimum 5 participants – Maximum 15

participants. **SATURDAY. FEBRUARY 6** Walk in the Woods: Winter Wildlife

For-Mar Nature Preserve & Arboretum Join For-Mar Naturalists on a hike through the nature preserve and investigate the signs of winter wildlife along the way.

For ages 10 and older, all abilities. Time: 10-11am. Cost: \$1.50 per person. Pre-registration not required.

SATURDAY, FEBRUARY 6 Nature Discovery: Plants We Eat

For-Mar Nature Preserve & Arboretum What parts of a plant do we eat? Learn all about the variety that nature gives us. For individuals with cognitive disabilities. Time: 10:30am-12pm, Cost: \$2 per person.

Pre-registration required by 2/4/16.

SATURDAY, FEBRUARY 6

Gardening in February!

For-Mar. DeWaters Building, off Potter Rd. Learn what you can do in your garden this month for year-round success. For ages 13 and older, all abilities.

Time: 1-2pm. Cost: \$3 per person Pre-registration required by 2/4/16.

SATURDAY, FEBRUARY 6 Kid's Nature **Photography Club**

For-Mar Nature Preserve & Arboretum Come join the club ... the Kid's Nature Photography Club! Join us monthly to learn basic photography skills and get outdoors to take amazing pictures of your favorite For-Mar outdoor areas. Bring your digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities.

Time: 1:30-2:30pm. Cost: \$3 per student. Pre-registration not required.

SATURDAY, FEBRUARY 6 Build-A-Rod for Ice Fishing

For-Mar Nature Preserve & Arboretum Gear up for Free Fishing Weekend on February 13-14 by making your own ice fishing rod! Rod and simple tackle making techniques will be discussed. Supplies are provided.

For families, recommended for children age 7 and older, all abilities.

Time: 2-4pm. Cost: \$5 per pole. Pre-registration required by 2/4/16.

TUESDAY. FEBRUARY 9 Knee-High Nature Discovery: Raccoon Rascals

For-Mar Nature Preserve & Arboretum Make a valentine raccoon and use active play to imitate their nocturnal adventures.

For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. Pre-registration required by 2/7/16.

WEDNESDAY, FEBRUARY 10 Knee-High Naturalist: Raccoon Race!

For-Mar Nature Preserve & Arboretum Learn how raccoons cleverly use special adaptations. Run the raccoon obstacle course.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 2/8/16.

WEDNESDAY, FEBRUARY 10 Wild Adventurers: I **Heart For-Mar!**

For-Mar Nature Preserve & Arboretum We all love For-Mar and For-Mar loves your heart. Your heart is a remarkable organ that keeps your blood pumping. Learn all about your heart and how it

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/8/16.

THURSDAY, FEBRUARY 11 Knee-High Naturalist: Raccoon Race!

For-Mar Nature Preserve & Arboretum Learn how raccoons cleverly use special adaptations. Run the raccoon obstacle course.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 2/9/16.

THURSDAY, FEBRUARY 11 Wild Adventurers: I **Heart For-Mar!**

For-Mar Nature Preserve & Arboretum We all love For-Mar and For-Mar loves your heart. Your heart is a remarkable organ that keeps your blood pumping. Learn all about your heart and how it works.

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/9/16.

SATURDAY, FEBRUARY 13 Nature Photography Club

For-Mar Nature Preserve & Arboretum
Calling all photographers! Join us
for our photography club designed
for both professional and amateur
photographers. A different photography
technique will be highlighted each
month. Then we'll hit the trails to search
for and take photos of all Genesee
County Parks' secret gems.
For ages 16 and older, all abilities.
Time: 9-10:30am. Cost: \$3 per person.
Pre-registration not required.

SATURDAY, FEBRUARY 13
Growing Gardeners:
Nutrient Knowledge

For-Mar Nature Preserve & Arboretum Without vital nutrients in the soil, plants wouldn't be able to grow. See how they are part of a cycle that is constantly moving. Learn how you can do your part to help those nutrients along and create healthy plants.

For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 2/11/16.

SATURDAY, FEBRUARY 13 Nature Discovery in the Garden: Nutrient Knowledge

For-Mar Nature Preserve & Arboretum Without vital nutrients in the soil, plants wouldn't be able to grow. See how they are part of a cycle that is constantly moving. Learn how you can do your part to help those nutrients along and create healthy plants.

For individuals with cognitive disabilities. **Time: 1-2:30pm. Cost: \$2 per person.**Pre-registration required by 2/11/16.



SATURDAY, FEBRUARY 13 Learning to Ice Fish

Buell Lake County Park, Pavilion 1
It's Free Fishing Weekend in Michigan!
Grab your favorite rod and tackle and join
us for an afternoon fishing expedition on
the ice. Learn about the fish found in Buell
Lake while practicing some techniques
to catch them. Dress warmly. There is a
limited supply of equipment available on a
first-come, first-served basis, and bait will
be provided. Remember, this program is
weather permitting; we must have at least
4" of ice to drill!

For families, all ages and abilities.

Time: 1-3pm. Cost: \$3 per person. *Pre-registration required by 2/11/16.*

SATURDAY, FEBRUARY 13 Whooooo's in Love?

For-Mar Nature Preserve & Arboretum Looking for the perfect outdoor romantic Valentine's Day adventure for you and your sweetie? Well, look no further. For the third year, For-Mar is hosting a FREE romantic night outside just for you and your sweetheart. You'll take a moonlit stroll through For-Mar, sip hot cocoa, call owls, and have your photo taken together. Create memories you'll always remember.

For you and your significant other, ages 16 and older, all abilities.

Time: 7-9pm. Cost: FREE! Pre-registration not required.

SUNDAY, FEBRUARY 14 Birding Hike: Great Backyard Bird Count

For-Mar Nature Preserve & Arboretum Join a flock of birders to learn the birding basics from feeders to water features to attracting birds to your yard. Then participate in the 18th annual Great Backyard Bird Count, a four-day (February 12-15, 2016) event sponsored by the National Audubon Society & Cornell Lab of Ornithology. Bird enthusiasts of all ages count birds to create a real-time snapshot of bird sightings across the continent. This is a great opportunity to learn about birds, help your community, and have some fun. For families, all ages and abilities.

Time: 1-2:30pm. Cost: FREE! Pre-registration not required.

WEDNESDAY, FEBRUARY 17 Knee-High Naturalist: Defense! Defense!

For-Mar Nature Preserve & Arboretum Test the fascinating ways animals defend themselves.

For children ages 3-6, all abilities. **Time: 10-11:30am. Cost: \$3 per child.** *Pre-registration required by 2/15/16.*

WEDNESDAY, FEBRUARY 17 Wild Adventurers: SUGAR Science!

For-Mar Nature Preserve & Arboretum Candy and science ... yes please! We will use candy to explore scientific principles. The most delicious experiments you will ever conduct. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/15/16.

THURSDAY, FEBRUARY 18 Knee-High Naturalist: Defense! Defense!

For-Mar Nature Preserve & Arboretum Test the fascinating ways animals defend themselves.

For children ages 3-6, all abilities. **Time: 10-11:30am. Cost: \$3 per child.** *Pre-registration required by 2/16/16.*

THURSDAY, FEBRUARY 18 Wild Adventurers: SUGAR Science!

For-Mar Nature Preserve & Arboretum Candy and science ... yes please! We will use candy to explore scientific principles. The most delicious experiments you will ever conduct. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 2/16/16.*

SATURDAY, FEBRUARY 20 Volunteer: Hoop House Work and Learn

For-Mar Hoop House, near the DeWaters Building, off Potter Rd.

Are you curious about hoop house management? Learn while caring for a variety of crops. Staff will be available to answer questions.

For ages 12 and older, all abilities.

Time: 1-3pm. Cost: FREE! *Pre-registration required by 2/18/16.*

SATURDAY, FEBRUARY 20 Beekeeping 102 with Jim Withers

For-Mar Nature Preserve & Arboretum
Our favorite beekeeper is back for the second installment of our beekeeping series. Join For-Mar and Withers
Mountain Honey Farm head beekeeper
Jim Withers as he teaches you the honeybee how-to's and helps you prepare for the upcoming honeybee season.
For ages 14 and older, all abilities.

Time: 1-4pm. Cost: \$5 per person. *Pre-registration required by 2/18/16.*



TUESDAY, FEBRUARY 23 Knee-High Nature

Discovery: Give a Hoot

For-Mar Nature Preserve & Arboretum Use movement and music to explore owl behavior.

For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child.

Pre-registration required by 2/21/16.

WEDNESDAY, FEBRUARY 24 Knee-High Naturalist: Who-o-o-o-o's In the Night?

For-Mar Nature Preserve & Arboretum Discover the unique characteristics of owls and their lives.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 2/22/16.

WEDNESDAY, FEBRUARY 24 Wild Adventurers: Under the Sea

For-Mar Nature Preserve & Arboretum What lies beneath the water? Explore the layers of the ocean and learn about the creatures that live there. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/22/16.

THURSDAY, FEBRUARY 25 Knee-High Naturalist: Who-o-o-o-o's In the Night?

For-Mar Nature Preserve & Arboretum Discover the unique characteristics of owls and their lives.

For children ages 3-6, all abilities. **Time: 10-11:30am. Cost: \$3 per child.** *Pre-registration required by 2/23/16.*

THURSDAY, FEBRUARY 25 Wild Adventurers: Under the Sea

For-Mar Nature Preserve & Arboretum What lies beneath the water? Explore the layers of the ocean and learn about the creatures that live there. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 2/23/16.

FRIDAY, FEBRUARY 26 Owl Prowl

For-Mar Nature Preserve & Arboretum Join For-Mar Naturalists to learn about local owls and the unique sounds they make. Then travel the trails to practice your owl-calling skills. Bring your own flashlights; we will provide night vision protection.

For families, suggested for ages 5 and older, all abilities.

Time: 6-7:30pm. Cost: \$3 per person. *Pre-registration not required.*

SATURDAY, FEBRUARY 27 Winter Bird Walk

For-Mar Nature Preserve & Arboretum Take a walk around For-Mar looking for birds that stick around through the winter. We'll especially be looking for screech owls nesting in the wood duck boxes. Suggested for ages 8 and older, all abilities.

Time: 9-11am. Cost: \$1.50 per person.

Pre-registration not required.

SATURDAY, FEBRUARY 27 Growing Gardeners: Stepping Stones

For-Mar Nature Preserve & Arboretum Garden mosaic stepping stones are a colorful way to spruce up your garden all summer long. Your garden needs one. Join us and build your very own garden stones. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 2/25/16.*

SATURDAY, FEBRUARY 27 Snow Beast Safari

For-Mar Nature Preserve & Arboretum Learn winter detective skills and become a Cryptozoologist. Then head out on the trails in search of our For-Mar Yeti. Dress to be outdoors.

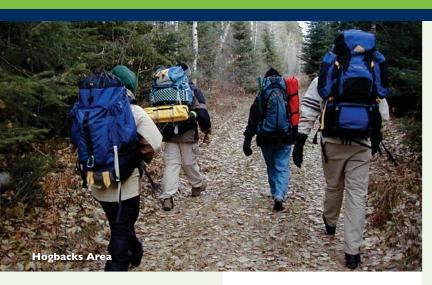
Suggested for children ages 5 and older, all abilities.

Time: 1-3pm. Cost: \$5 per student. *Pre-registration required by 2/25/16.*

MARCH

Family Fun for Everyone!





WEDNESDAY, MARCH 2 Knee-High Naturalist: How Animals Sleep

For-Mar Nature Preserve & Arboretum Explore the many ways animals sleep with a story, games and a craft. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 2/29/16.

WEDNESDAY, MARCH 2 Wild Adventurers: Glow Away!

For-Mar Nature Preserve & Arboretum Bioluminescence, Photoluminescence, and Chemiluminescence, or more simply said ... GLOW! Turn out the lights and let's learn about these luminous effects. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 2/29/16.

Eat Smart, Live Strong for Seniors

FRIDAYS, MARCH 4, 11, 18, 25 AND APRIL 1, 8 (6-WEEK PROGRAM)

For-Mar Nature Preserve & Arboretum
Eat Smart, Live Strong includes fun, social
and interactive sessions designed to
improve fruit and vegetable consumption
and physical activity among 60-74
year olds. Throughout the sessions,
participants will gain the skills needed
to promote healthy behavior changes to
improve overall health and wellbeing.
Topics Include Reach Your Goals; Step
by Step; Challenges and Solutions;
Colorful and Classic Favorites; and Eat
Smart, Spend Less. Participants receive a

certificate of completion at the end of the program. Come join the fun!!!
For seniors, all abilities.

Time: 3:30-4:30pm. Cost: FREE!

Pre-registration required by 2/26/16. Call or email Betsy Schumacher, (810) 244-8517 or Schuma66@anr.msu.edu. MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status.

WEDNESDAY, MARCH 2 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore. Meet at the Visitor's Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30-11:30am. Cost: \$2 per person.

Pre-registration required by 2/28/16.

THURSDAY, MARCH 3 Knee-High Naturalist: How Animals Sleep

For-Mar Nature Preserve & Arboretum Explore the many ways animals sleep with a story, games and a craft. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child.

Pre-registration required by 3/1/16.

THURSDAY, MARCH 3 Wild Adventurers: Glow Away!

For-Mar Nature Preserve & Arboretum Bioluminescence, Photoluminescence and Chemiluminescence, or more simply said ... GLOW! Turn out the lights and let's learn about these luminous effects. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/1/16.

THURSDAY, MARCH 3, 10, 17, 25 & 31 **Green Book Club**

For-Mar Nature Preserve & Arboretum
Join fellow nature enthusiasts as we read
and discuss Michael Pollan's book, The
Omnivore's Dilemma: A Natural History of
Four Meals. Participants will receive their
own copy with paid registration.
For ages 13 and older, all abilities.

Time: 10-11:30am. Cost: \$15 per person (includes book).

Pre-registration required by 2/25/15.

SATURDAY, MARCH 5

Nature Discovery: Gooey Science For-Mar Nature Preserve & Arboretum It's slick, slimy, sticky science!

For individuals with cognitive disabilities Time: 10:30am-12pm. Cost: \$2 per person. Pre-registration required by 3/3/16.

March is Maple Syrup Month

SATURDAY, MARCH 5

Maple Syrup 101

For-Mar, DeWaters Building, off Potter Rd.
From tree ID to tapping basics, you will
learn how to make the most of your maples
this season in this hands-on, how-to maple
syrup program.

Suggested for ages 16 and older, all abilities. **Time: 1-3pm. Cost: \$5 per person.**Pre-registration required by 3/3/16.

SATURDAY, MARCH 12

Growing Gardeners: Sap to Syrup

For-Mar, DeWaters building, off Potter Rd.
The sap has started to flow and it's time to turn it into syrup for our pancakes. Learn some of the history behind For-Mar's Sugar Bush Trail, what it takes to make syrup, and try a few tasty treats in the process.
For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/10/16.

SATURDAY, MARCH 12

Scouting Outing: Sap to Syrup

For-Mar, DeWaters Building, off Potter Rd. Calling all Scouts! The sap has started to flow and it's time to turn it into syrup for our pancakes. Learn some of the history behind For-Mar's Sugar Bush Trail, what it takes to make syrup, and try a few tasty treats in the process.

For scouts suggested for ages 4 and up, all abilities.

Time: 1-2:30pm. Cost: \$3 per Scout. Pre-registration required by 3/10/16.

SATURDAY, MARCH 19 Nature Discovery in the Garden: Sap to Syrup

For-Mar, DeWaters Building, off Potter Rd. The sap has started to flow and it's time to turn it into syrup for our pancakes. Learn some of the history behind For-Mar's Sugar Bush Trail, what it takes to make syrup, and try a few tasty treats in the process. For individuals with cognitive disabilities.

Time: 10-11:30am. Cost: FREE!

Pre-registration required by 3/17/16.



SATURDAY, MARCH 19 Maple Syrup Festival

For-Mar, Dewaters Building, off Potter Rd. Join us at the Dewaters Building near our Sugar Shack for a firsthand look at how one of Michigan's most historically significant natural resources, maple syrup, is made. From tapping to pancake topping, see it all. Trained For-Mar staff will be on hand to share information about winter tree ID. Come anytime between 12pm and 3pm. Hot cocoa will be served.

For families, all ages and abilities. Time: 12-3pm. Cost: FREE! Pre-registration not required.

SATURDAY, MARCH 26

Pancake Taste and Trek

For-Mar Nature Preserve & Arboretum Join the For-Mar staff for a hike back to the Sugar Bush where you will get the chance to see how syrup is made. Then travel back to the For-Mar Visitor's Center for our annual Pancake Cook-Off. Taste test fresh For-Mar syrup and make your own pancakes to go with it. For all ages and abilities.

Time: 12-3pm. Cost: \$5 per person.

Pre-registration required by 3/24/16.

Cooking Matters for Adults

MONDAYS, MARCH 7, 14, 21, 28 AND APRIL 4, 11 (6-WEEK PROGRAM)

For-Mar Nature Preserve & Arboretum Cooking and nutrition taught by a chef and nutritionist! We'll cover topics that include Healthy Snacks, Shopping Smart, Food Safety at Home, Cooking Tips from the Chef, Planning Balanced Meals, and Tips for Eating Out, and you'll get FREE groceries and a FREE cookbook so you can make the recipes at home.

Time: 1-3pm. Cost: FREE!

Pre-registration required by 3/4/16. Call or email Betsv Schumacher. (810) 244-8517 or Schuma66@anr.msu. edu. MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status.

SATURDAY. MARCH 5 Gardening in March!

For-Mar, DeWaters Building, off Potter Rd. Learn what you can be doing in your garden this month for year-round success. For ages 13 and older, all abilities. Time: 1-2pm. Cost: \$3 per person. Pre-registration required by 3/3/16.

SATURDAY, MARCH 5

Kid's Nature Photography Club For-Mar Nature Preserve & Arboretum

Come join the club ... the Kid's Nature Photography Club! Join us monthly and learn basic photography skills and get outdoors to take amazing pictures of your favorite For-Mar outdoor areas. Bring your digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities. Time: 1:30-2:30pm. Cost: \$3 per student. Pre-registration not required.

Pre-registration required by 3/3/16

TUESDAY. MARCH 8 Knee-High Nature Discovery: Animal Helpers

For-Mar Nature Preserve & Arboretum Come and meet some animal helpers. For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. Pre-registration required by 3/6/16.

WEDNESDAY, MARCH 9 Knee-High Naturalist: Animals Helping People

For-Mar Nature Preserve & Arboretum Discover the many ways animals help

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/7/16.

erve & Arboretum

WEDNESDAY, MARCH 9 **Wild Adventurers: Turkey Vulture**

For-Mar Nature Preserve & Arboretum Why are they bald? How do they keep cool? What is their method of keeping away predators? Get all of these questions and more answered during this week's Turkey Vulture exploration. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 3/7/16.

WEDNESDAY, MARCH 9 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitor's Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities. Time: 10:30-11:30am. Cost: \$2 per person. Pre-registration required by 3/7/16.

THURSDAY, MARCH 10 Knee-High Naturalist: Animals Helping People

For-Mar Nature Preserve & Arboretum Discover the many ways animals help people. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/8/16.

THURSDAY, MARCH 10

Wild Adventurers: Turkey Vulture For-Mar Nature Preserve & Arboretum Why are they bald? How do they keep cool? What is their method of keeping away predators? Get all of these questions and more answered during this week's Turkey Vulture exploration. For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 3/8/16.

FRIDAY, MARCH 11 For-Mar Night Hike

For-Mar Nature Preserve & Arboretum It's time to experience For-Mar at night. Test your night vision skills and learn about nocturnal animals as you travel the trails on this naturalist led hike. For families, all ages and abilities. Time: 6:30-7:30pm. Cost: \$1.50 per person. Pre-registration not required.

SATURDAY, MARCH 12

Nature Photography Club For-Mar Nature Preserve & Arboretum Calling all photographers! Join us for our photography club designed for both professional and amateur photographers. A different photography technique will be highlighted each month. Then we'll hit the trails to search for and take photos of all Genesee County Parks' secret gems. For ages 16 and older, all abilities. Time: 9-10:30am. Cost: \$3 per person. Pre-registration not required.



WEDNESDAY, MARCH 16 Knee-High Naturalist: Native American Folklore

For-Mar Nature Preserve & Arboretum Learn about early Native American traditions and animal folklore. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/14/16.

WEDNESDAY, MARCH 16 Wild Adventurers:

Sensing Sound

For-Mar Nature Preserve & Arboretum What is sound? How does it travel to our ears and how do we hear the world around us? Let's experiment with sound vibration and waves.

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/14/16.

WEDNESDAY, MARCH 16 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitor's Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities. Time: 10:30-11:30am. Cost: \$2 per person. Pre-registration required by 3/14/16.

THURSDAY, MARCH 17 Knee-High Naturalist: Native American Folklore

For-Mar Nature Preserve & Arboretum Learn about early Native American traditions and animal folklore. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/15/16.

THURSDAY, MARCH 17 Wild Adventurers: Sensing Sound

For-Mar Nature Preserve & Arboretum What is sound? How does it travel to our ears and how do we hear the world around us? Let's experiment with sound vibration and waves.

For youth ages 7-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/15/16.

SATURDAY, MARCH 19 Birding Hike: Migrating Water Fowl

E.A. Cummings Event Center Walking along the north shore of the Flint River and Mott Lake should vield many species of ducks. We'll meet at the west end of the Event Center. Just look for For-Mar's Turtle Van.

For families, suggested for ages 8 and older, all abilities.

Time: 9-11am. Cost: FREE! Pre-registration not required.

SATURDAY, MARCH 19 Volunteer: Hoop House Work and Learn

For-Mar Hoop House, DeWaters Building, off Potter Rd. Are you curious about hoop house

management? Learn while caring for a variety of crops. Staff will be available to answer questions. For ages 12 and older, all abilities.

Time: 1-3pm. Cost: FREE! Pre-registration required by 3/18/16.



MARCH

Family Fun for Everyone!



SATURDAY, MARCH 19 Immunization Clinic

For-Mar Nature Preserve & Arboretum
Are you and your children up-to-date on
your immunizations? If not, here's an easy
way to get it done! The Genesee County
Health Department is coming to For-Mar
to help make sure that you're healthy.
For families, all ages and abilities.

Time: 12-3pm. Cost: Many insurance plans are accepted.

For more information and to register, please call 810-237-4588.

TUESDAY, MARCH 22 Knee-High Nature Discovery: Desert Animals

For-Mar Nature Preserve & Arboretum Learn about special adaptations of desert animals through active play. For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child. *Pre-registration required by 3/20/16.*

WEDNESDAY, MARCH 23 Knee-High Naturalist: Some Like It Hot and Dry

For-Mar Nature Preserve & Arboretum
Design a mini desert habitat and explore
animals that live there.
For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/21/16.

WEDNESDAY, MARCH 23 Wild Adventurers: The Ants Go Marching

For-Mar Nature Preserve & Arboretum Are ants pests or fascinating little creatures? You decide. Come observe and learn all about these social insects. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 3/21/16.*

WEDNESDAY, MARCH 23 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitor's Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30-11:30am. Cost: \$2 per person.

Pre-registration required by 3/21/16.

THURSDAY, MARCH 24 Knee-High Naturalist: Some Like It Hot and Dry

For-Mar Nature Preserve & Arboretum Design a mini desert habitat and explore animals that live there.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/22/16.

THURSDAY, MARCH 24 Wild Adventurers: The Ants Go Marching

For-Mar Nature Preserve & Arboretum Are ants pests or fascinating little creatures? You decide! Come observe and learn all about these social insects. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/22/16.

SATURDAY, MARCH 26 Growing Gardeners: Eggcellent Gardening

For-Mar Nature Preserve & Arboretum Easter is just around the corner and some pesky rabbit has left eggs all around our garden! Come catch that rabbit and find the eggs it left behind. Then start your first plants of the year in an old eggshell, a natural and egg-cellent way to start seeds. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 3/24/16.

WEDNESDAY, MARCH 30 Knee-High Naturalist: Tales from Michigan

For-Mar Nature Preserve & Arboretum Stories and other activities will teach about Babe the Blue Ox, the Petoskey Stone and other tales.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/28/16.

WEDNESDAY, MARCH 30 Wild Adventurers: Phased by the Moon

For-Mar Nature Preserve & Arboretum
The lunar eclipse is Monday. Come learn
all about the phases of the moon and
what exactly an eclipse is before you
experience one.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 3/28/16.



WEDNESDAY, MARCH 30 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitor's Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30-11:30am. Cost: \$2 per person.

Pre-registration required by 3/28/16.

THURSDAY, MARCH 31 Knee-High Naturalist: Tales from Michigan

For-Mar Nature Preserve & Arboretum Stories and other activities will teach about Babe the Blue Ox, the Petoskey Stone and other tales.

For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 3/29/16.

THURSDAY, MARCH 31 Wild Adventurers: Phased by the Moon

For-Mar Nature Preserve & Arboretum
The lunar eclipse is Monday. Come learn
all about the phases of the moon and
what exactly an eclipse is before you
experience one.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 3/29/16.



APRIL

Family Fun for Everyone!



SATURDAYS, APRIL 2 & APRIL 16 Junior Master Gardener Certification Class

For-Mar Nature Preserve & Arboretum It's time to explore the garden and experience how to go from planting to the dinner table. This class, a partnership between the Master Gardener Association of Genesee County and For-Mar Nature Preserve and Arboretum, will cultivate young minds as we explore what gardens need to be healthy and happy.

For children ages 6-12, all abilities.

Time: 10am-2:30pm. Cost: \$25 per student covers lunch, a t-shirt and materials. Pre-registration required by 3/24/16.

SATURDAY, APRIL 2

Nature Discovery: Amphibians

For-Mar Nature Preserve & Arboretum What makes an amphibian? Come learn all about these slimy creatures we know and love.

For individuals with cognitive disabilities Time: 10:30am-12pm. Cost: \$2 per person. Pre-registration required by 3/31/16.

SATURDAY, APRIL 2 Kid's Nature Photography Club

For-Mar Nature Preserve & Arboretum Come join the club ... the Kid's Nature Photography Club! Join us monthly and learn basic photography skills and get outdoors to take amazing pictures of your favorite For-Mar outdoor areas. Bring your digital camera and dress for the weather.

Suggested for ages 6 and older, all abilities. Time: 1:30-2:30pm. Cost: \$3 per student. Pre-registration not required.

SATURDAY, APRIL 2 Gardening in April!

For-Mar, DeWaters Building, off Potter Rd. Learn what you can be doing in your garden this month for year-round success. For ages 13 and older, all abilities.

Time: 1-2pm. Cost: \$3 per person.

Pre-registration required by 3/31/16.

TUESDAY, APRIL 5

Spring Break Camp: Bug Crazy!

For-Mar Nature Preserve & Arboretum
Big Bugs, Little Bugs ... we love BUGS!
Join us at For-Mar as we learn all about
our creepy crawly friends and meet
For-Mar's bug family. Then create your
own bug catcher to take home.
For children ages 3-6, all abilities.
Time: 10am-12pm. Cost: \$5 per student.
Pre-registration required by 4/3/16.

TUESDAY, APRIL 5 Spring Break Camp: Animal Team Builders

For-Mar Nature Preserve & Arboretum Work as a team to learn how animals can make the best team around. Dress to be outside and bring a change of clothes. Please bring a sack lunch, water bottle and a snack.

For youth ages 7-12, all abilities. Students can be dropped off if a waiver form is signed. **Time: 10am-2:30pm. Cost: \$10 per student.** *Pre-registration required by 4/3/16.*

WEDNESDAY, APRIL 6 Spring Break Camp: ARRRRR You Ready to Become a Pirate?

For-Mar Nature Preserve & Arboretum Follow the treasure map to nature challenges that will lead you to where "X" marks the spot and the hidden treasure lies.

For children ages 3-6, all abilities.

Time: 10am-12pm. Cost: \$5 per student.

Pre-registration required by 4/4/16.

WEDNESDAY, APRIL 6 Spring Break Camp: Pirates of For-Mar

For-Mar Nature Preserve & Arboretum
Learn map reading and geocaching skills
while traveling the For-Mar trails on an
adventure to find the hidden treasure.
Dress to be outside and bring a change
of clothes. Please bring a sack lunch,
water bottle and a snack.
For youth ages 7-12 all abilities

For youth ages 7-12, all abilities. Students can be dropped off if a waiver form is signed.

Time: 10am-2:30pm. Cost: \$10 per student. *Pre-registration required by 4/4/16.*

WEDNESDAY, APRIL 6 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitors Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30am-11:30am. Cost: \$2 per person.

Pre-registration required by 4/3/16.

THURSDAY, APRIL 7 Spring Break Camp: Fairy Tale Science Fair

For-Mar Nature Preserve & Arboretum
Dress as your favorite fairytale character
and estimate, experiment and explore
the science of fairytales.
For children ages 3-6. all abilities.

Time: 10am-12pm. Cost: \$5 per student. Pre-registration required by 4/5/16.

THURSDAY, APRIL 7 Spring Break Camp: Wilderness Survival

For-Mar Nature Preserve and Arboretum Investigate with For-Mar Naturalists as you travel the trails, study the live animals, and create your own outdoor survival shelters. Dress in outdoor gear that can get messy, and wear hiking shoes. We'll picnic outdoors so students should bring a sack lunch that does not need to be refrigerated, a water bottle, and a snack. For youth ages 7-12, all abilities. Students can be dropped off if a waiver form is signed.

Time: 10am-2:30pm. Cost: \$10 per student. Pre-registration required by 4/5/16.

THURSDAY APRIL 7, 14, 21, & 28 Green Book Club

For-Mar Nature Preserve & Arboretum Join fellow nature enthusiasts as we read and discuss The Forest Unseen, A Year's Watch in Nature by David George Haskell. Participants will receive their own copy with paid registration. For ages 13 and older, all abilities.

Time: 10-11:30am. Cost: \$15 per person (includes book).

Pre-registration required by 3/31/15.

SATURDAY, APRIL 9

Nature Photography Club
For-Mar Nature Preserve & Arboretum
Calling all photographers! Join us for
our photography club designed for both
professional and amateur photographers.
A different photography technique will be
highlighted each month. Then we'll hit the
trails to search for and take photos of all
Genesee County Parks' secret gems.

For ages 16 and older, all abilities. Time: 9-10:30am. Cost: \$3 per person. Pre-registration not required.

SATURDAY, APRIL 9 Growing Gardeners: Lettuce Begin

For-Mar Nature Preserve & Arboretum Spring has sprung! After a long, cold winter, it's time to start planting in the garden. Come explore the garden and learn about plants that don't mind a little cold weather from time to time. For children ages 4-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

SATURDAY, APRIL 9 Junior Scientist Camp

Pre-registration required by 4/7/16.

For-Mar Nature Preserve & Arboretum Join the For-Mar crew as we perform mini experiments that will get your kids excited about science. From elephant toothpaste to soda pop explosions, this program is sure to be messy and FUN. For ages 5 and older, all abilities.

Time: 1-4pm. Cost: \$5 per student. Pre-registration required by 4/7/16.

TUESDAY, APRIL 12 Knee-High Nature Discovery: Spring Time Babies

For-Mar Nature Preserve & Arboretum Come and learn about animals that are born in the springs 4-8 with cognitive

For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child.

Pre-registration required by 4/10/16.

WEDNESDAY, APRIL 13 Knee-High Naturalist: Animal Babies

For-Mar Nature Preserve & Arboretum Discover tricks animal babies use to survive. Learn what to do if you are lost. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 4/11/16.

WEDNESDAY, APRIL 13 Wild Adventurers: Cloudy with a Chance of ?

For-Mar Nature Preserve & Arboretum What can clouds tell us about the weather? Let's identify different types of clouds, how they form, and what they mean. For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 4/11/16.

WEDNESDAY, APRIL 13 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitors Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30am-11:30am. Cost: \$2 per person.

Pre-registration required by 4/11/16.

THURSDAY, APRIL 14 Knee-High Naturalist: Animal Babies

For-Mar Nature Preserve & Arboretum Discover tricks animal babies use to survive. Learn what to do if you are lost. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 4/12/16.

THURSDAY, APRIL 14 Wild Adventurers: Cloudy with a Chance of ?

For-Mar Nature Preserve & Arboretum What can clouds tell us about the weather? Let's identify different types of clouds, how they form, and what they mean.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 4/12/16.

APRIL

Family Fun for Everyone!



SATURDAY, APRIL 16 Birding Hike: Eagle Expedition

Zemmer Park

Take a stroll in Zemmer Park and you're likely to find eagles fishing in the Flint River. Join us as we look for eagles and the many other species of waterfowl that call the Genesee County Parks home. Meet at Zemmer Park, off Marathon Rd. Drive straight into the parking area by the Flint River. For families, suggested for ages 8 and older, all abilities.

Time: 9-11am. Cost: FREE! *Pre-registration not required.*

SATURDAY, APRIL 16 Nature Discovery in the Garden: ABC's of Bees

For-Mar Nature Preserve & Arboretum A-B-C, it's simple as buzz, buzz bee! The garden isn't the only thing that wakes up in spring, so do our pollinators. Explore our bee hives, taste a sample of our very own honey, and learn why the pollinators are so important.

For individuals with cognitive disabilities. **Time: 1-2:30pm. Cost: \$2 per person.** *Pre-registration required by 4/14/16.*

SATURDAY, APRIL 16 Scouting Outing: Love the Earth

For-Mar Nature Preserve & Arboretum Learn all about ways you can love and protect the earth during this Earth Day inspired program. Scouts will learn about the 3R's, caring for wildlife and how they can become junior naturalists. For scouts, suggested for ages 5 and older, all abilities.

Time: 10am-12pm. Cost: \$5 per scout. *Pre-registration required by 4/14/16.*

SATURDAY, APRIL 16 Earth Day: Service Day

For-Mar, DeWaters Building, off Potter Rd. It's time to give back and you can help. Volunteer at For-Mar doing garden prep, trail and litter clean up, planting and more. Dress for getting dirty outdoors. Bring your own gloves and rake if you

have them; some will be available. For ages 6 and older, all abilities. Great for scout groups!

Time: 1-3pm. Cost: FREE!

Pre-registration not required, large groups are asked to call ahead.

SATURDAY, APRIL 16 Volunteer: Hoop House Work and Learn

For-Mar Hoop House, DeWaters Building, off Potter Rd. Are you curious about hoop house management? Learn while caring for a variety of crops. Staff will be available to answer questions.

For ages 12 and older, all abilities.

Time: 1-3pm. Cost: FREE!

Pre-registration required by 4/14/16.

WEDNESDAY, APRIL 20 Knee-High Naturalist: Skunks and Other Insect Eaters

For-Mar Nature Preserve & Arboretum Learn about these fascinating animals. Go on an insect hunt!
For children ages 3-6, all abilities.
Time: 10-11:30am. Cost: \$3 per child.
Pre-registration required by 4/18/16.

WEDNESDAY, APRIL 20 Wild Adventurers: Monarchs

For-Mar Nature Preserve & Arboretum
These migrating butterflies are not only
beautiful, but also fascinating. Come
learn about their migration and the roles
they play in our environment.
For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 4/18/16.

WEDNESDAY, APRIL 20 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitors Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities. Time: 10:30-11:30am. Cost: \$2 per person. Pre-registration required by 4/18/16.

THURSDAY, APRIL 21

Knee-High Naturalist: Skunks and Other Insect Eaters

For-Mar Nature Preserve & Arboretum Learn about these fascinating animals. Go on an insect hunt! For children ages 3-6. all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 4/19/16.

THURSDAY, APRIL 21 Wild Adventurers: Monarchs

For-Mar Nature Preserve & Arboretum These migrating butterflies are not only beautiful, but also fascinating. Come learn about their migration and the roles they play in our environment.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student. *Pre-registration required by 4/19/16.*

SATURDAY, APRIL 23 Growing Gardeners: ABC's of Bees

For-Mar Nature Preserve & Arboretum A-B-C, it's simple as buzz, buzz bee! The garden isn't the only thing that wakes up in spring, so do our pollinators. Explore our bee hives, taste a sample of our very own honey, and learn why the pollinators are so important. For children ages 4-12, all abilities. Time: 10-11:30am. Cost: \$3 per student. Pre-registration required by 4/21/16.

SATURDAY, APRIL 23

Arbor Day Festival

For-Mar Nature Preserve & Arboretum
Join For-Mar staff as we celebrate the
wonder of trees. Learn how trees serve
an important role in our ecosystem when
they are alive and dead. Come anytime
between 12pm and 3pm to celebrate
Arbor Day with For-Mar!
For families, all ages and abilities.
Time: 12-3pm. Cost: FREE!
Pre-registration not required.

SATURDAY, APRIL 23 Immunization Clinic

For-Mar Nature Preserve & Arboretum Are you and your children up-to-date on your immunizations? If not, here's an easy way to get it done! The Genesee County Health Department is coming to For-Mar to help make sure that you're healthy. For families, all ages and abilities.

Time: 12-3pm. Cost: Many insurance plans are accepted.

For more information and to register, please call 810-237-4588.

TUESDAY, APRIL 26 Knee-High Nature Discovery: A Home is A Nest

For-Mar Nature Preserve & Arboretum Help the nesting animals build their homes.

For children ages 4-8 with cognitive disabilities.

Time: 10-11am. Cost: \$2 per child.

Pre-registration required by 4/24/16.

WEDNESDAY, APRIL 27 Knee-High Naturalist: Nests! Not Just for the Birds

For-Mar Nature Preserve & Arboretum Learn about the kinds of animals that build nests. Play the nesting game. For children ages 3-6, all abilities.

Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 4/25/16.

WEDNESDAY, APRIL 27 Wild Adventurers: This Drags!

For-Mar Nature Preserve & Arboretum
Air resistance that is! What is air
resistance and how do we use it to our
advantage? Come learn all about air
resistance and how it is used in many
inventions

For youth ages 7-12, all abilities. **Time: 10-11:30am. Cost: \$3 per student.** *Pre-registration required by 4/25/16.*

WEDNESDAY, APRIL 27 Let's Take a Hike!

For-Mar Nature Preserve & Arboretum Get outside, get fit and explore! Meet at the Visitors Center for stretching before hitting the trails. Bring water bottles and wear hiking shoes.

For ages 13 and older, all abilities.

Time: 10:30-11:30am. Cost: \$2 per person.

Pre-registration required by 4/25/16.

THURSDAY, APRIL 28 Knee-High Naturalist: Nests! Not Just for the Birds

For-Mar Nature Preserve & Arboretum Learn about the kinds of animals that build nests. Play the nesting game. For children ages 3-6, all abilities. Time: 10-11:30am. Cost: \$3 per child. Pre-registration required by 4/26/16.

THURSDAY, APRIL 28 Wild Adventurers: This Drags!

For-Mar Nature Preserve & Arboretum Air resistance that is! What is air resistance and how do we use it to our advantage? Come learn all about air resistance and how it is used in many inventions.

For youth ages 7-12, all abilities.

Time: 10-11:30am. Cost: \$3 per student.

Pre-registration required by 4/26/16.

SATURDAY, APRIL 30 Birding Hike: Song Birds

Richfield County Park, Pavilion 1
Take a walk through Richfield County
Park with your For-Mar Naturalist to find
migrating birds and songbirds that make
this Genesee County Park home.
For families, suggested for ages 8 and
older, all abilities.

Time: 9-11am. Cost: FREE! Pre-registration not required.

SATURDAY, APRIL 30 Gardening for Pollinators

For-Mar Nature Preserve & Arboretum Learn basic gardening designs and plant choices to create your very own garden for pollinators in your backyard. Then learn how your backyard can be part of the Monarch Waystation movement to support our pollinator friends. Dress to be outdoors.

Suggested for ages 14 and older, all abilities.

Time: 10-11:30am. Cost: \$5 per person. Pre-registration is required by 4/28/15.



"YOUR COMMUNITY CONNECTION

Thursday, April 7, 2016 • Vol. 1, No. 31

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WELLNESS SECTION INSIDE



Still time for Water's Extreme Journey at Sloan

FLINT – At Sloan Museum and the Longway Planetarium, 1221 E. Kearsley St., journey through an interactive maze that engages visitors in an exciting quest to stay clean, while flowing through rivers, lakes, backyards, and into homes, through May 8.

Through play, scientific inquiry, and art, Water's Extreme Journey empowers visitors to take action, commit to clean water, and express their support for clean water initiatives. After exploring the maze, delve into Flint's water system history, learn the science of filtration, examine current issues and solutions, and investigate the Flint River today. Get more details about the local component of this exhibit.

While investigating winding pathways, visitors are challenged to navigate through Non-Point Source Pollutants originating from agriculture, development, litter, and our homes. Will the farm they pass by be organic? Did their neighbor pour

leftover paint down the drain?

This fully interactive maze experience engages visitors through play, scientific inquiry, art and action, illuminating human impacts great and small while teaching how to contribute to healthy, safe water in their community and beyond.

On April 9, at 1 p.m. there will be a Water Wise event at the exhibit, at 1 p.m. for ages: 8 and up. The fee: \$7 per person, \$6 members. The guest presenter: Genesee Conservation District.

Water is one of Earth's most precious resources and we use it every day, but it needs to be protected. Explore water pollution and conservation with a variety of fast-paced and fun hands-on activities. Investigate the water cycle in the Water Cycle Relay Race. See where rain water flows while building a watershed model, and see if you can engineer a solution to water pollution. Sponsored by Cathleen Hale. Registration required. – G.G.



Why All the Household Dust?

For years, Power Vac, Inc. has been improving the community's health one household at a time. "Did you know that half of all illnesses come directly from dirty indoor air? In fact, our indoor air is up to 90 times more polluted than the air outdoors," said Keith Meadows, Power Vac Owner and Op-

erator. "More than 90% of the phone calls I receive are from distraught people complaining about dust in their homes," added Keith. "Let me tell you, you're not a bad housekeeper. All you need to do is have your ducts cleaned. This simple step will drastically reduce the dust in your household."

April and Keith Meatows help keep indoor air

clean with their local business, Power Vac.

Keith explained that cold air returns suck in dirty air, which, over time, builds up in Do you see puffs of dust seeping out of the edges? That, my friends, is the reason you have uncontrollable dust problems, and this debris cannot be removed without the help of a professional," Keith pointed out.

Choosing the right air duct cleaning company to do the job is important. Many com-

panies use portable units, which are essentially like a Shop-Vac. Then there are companies who claim they have a truck-mounted system, when in reality they have a low-powered portable system inside a van. "We have the equipment powerful enough to get the job done right," Keith said.

"The Power Vac truck is the most powerful equipment in the industry."



Sand. April break

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pipelines into drinkrater. ity water employee I multiple times for rotesters to leave, threats of a tresng charge and a call nt police, but the en remained there ly until the perfor-

GENESEE COUNTY

Recycling events to collect hazardous, electronic waste

By Roberto Acosta

racosta1@mlive.com

Two Genesee County sites are playing host to the latest Genesee County household hazardous waste and electronic waste recycle day.

The recycle day event is set for 10 a.m. to 2 p.m. Saturday at the Flint East Water Service Center, 3310 E. Court St., and Grand Blanc High School's west campus, 1 Jewett Trail.

Residents can drop off the following items:

- Pesticides/herbicides.
- Aerosols.
- Reactives/oxidizers.
- Mercury (elemental).
- Fluorescent light

bulbs.

- Propane cylinders (up to 30 pounds each acceptable).
 - Automotive fluids.
 - Oil-based paints

and solvents.

- Prescriptions.
- Electronics all

kinds.

- Tires, up to seven (off rim).
 - Smoke detectors.
 - Fire extinguishers.
 - Appliances.
 - Air conditioners.
- Batteries mixed household and auto.
- Bio-medical sharps (in rigid/sealed containers).
- Corrosives (acids/bases).

Items not allowed to be dropped off during the event include general refuse, paper/documents for shredding, industrial/commercial waste, explosives, ammunition, fireworks, weapons, yard waste, 55-gallon drums of waste, radioactive materials and compressed gas cylinders.

LAPEER COUNTY

Sheriff launches virtual neighborhood watch

Appendix B

Outfall table

Appendix B

All Outfalls/ Points of Discharge through 10/1/16

Outfall Num	Priority	Receiving Watershed	

City of Burton

7701009	Medium	Kearsley Creek
7701251	Medium	Brier Creek Drain 0130
7701259	Low	Brier Creek Drain 0130
7701262	Low	Brier Creek Drain 0130
7701263	Low	Brier Creek Drain 0130
7701264	Low	Brier Creek Drain 0130
7701265	Low	Cochran
7701501	Medium	Kearsley Creek
7701524	High	Kearsley Creek
7701525	Medium	Kearsley Creek
7701531	Medium	Kearsley Creek
7701764	Low	Cochran Drain 0174
7701775	Low	Kearsley Creek
7701776	Low	Kearsley Creek
7701777	Medium	Cochran Drain 0174
7701778	Medium	Cochran Drain 0174
7701779	Low	Brier Creek Drain 0130
7702008	High	Kearsley Creek
7702753	Low	Kearsley Creek
7702764	Medium	Kearsley Creek
7702768	Low	Kearsley Creek
7703501	Low	Gilkey Creek 0017
7703502	Low	Gilkey Creek 0017
7709251	Low	Gilkey Creek 0017
7710774	Medium	Gilkey Creek 0017
7710778	Medium	Gilkey Creek 0017
7710780	Low	Gilkey Creek 0017
7710781	Low	Gilkey Creek 0017
7710782	Low	Gilkey Creek 0017
7710783	Low	Gilkey Creek 0017
7710784	Low	Gilkey Creek 0017
7710785	Low	Gilkey Creek 0017
7710786	Low	Gilkey Creek 0017
7710787	Low	Gilkey Creek 0017
7711514	Medium	Gilkey Creek 0017
7711756	High	Gilkey Creek 0017
7711758	High	Gilkey Creek 0017
7711759	High	Gilkey Creek 0017
7712253	High	Kearsley Creek
7712254	High	Kearsley Creek
7712502	Medium	Gilkey Creek 0017
7714006	Medium	Richards Drain 0042
7714007	Medium	Richards Drain 0042
7714008	Medium	Richards Drain 0042
7714009	Medium	Richards Drain 0042
7714502	High	Gilkey Creek 0017
7714503	High	Gilkey Creek 0017
7714512	High	Gilkey Creek 0017
7714519	High	Gilkey Creek 0017
7715258	Medium	Gilkey Creek 0017

Outfall Num	Priority	Receiving Watershed
	<u> </u>	
7715263	Medium	Gilkey Creek 0017
7715265	High	Gilkey Creek 0017
7715752	Medium	Gilkey Creek 0017
7715756	Medium	Gilkey Creek 0017
7715759	Medium	Gilkey Creek 0017
7715760	Medium	Gilkey Creek 0017
7715763	High	Gilkey Creek 0017
7715764	High	Gilkey Creek 0017
7716751	High	C of Flint-Robinson & Curtis
7721252	High	Robinson & Curtis 0344
7721253	Low	Robinson & Curtis 0344
7721751	High	Thread Creek
7721752	High	Thread Creek
7721753	High	Thread Creek
7721756	Medium	Thread Creek
7721757	Low	Robinson & Curtis 0344
7722001	High	Robinson & Curtis 0344
7722002	High	Robinson & Curtis 0344
7723001	High	Gilkey Cr 0017
7723003	High	Gilkey Cr 0017
7723012	High	Gilkey Cr 0017
7723253	High	Gilkey
7723255	High	Gilkey
7723256	High	Gilkey
7723261	Medium	Gilkey
7723262	Medium	Gilkey
7723263	Medium	Gilkey
7723264	Medium	Gilkey
7723501	Low	Robinson & Curtis 0344
7723502	Low	Robinson & Curtis 0344
7723502	Low	Robinson & Curtis 0344
7723504	Low	Robinson & Curtis 0344
7723505	Low	Robinson & Curtis 0344 Robinson & Curtis 0344
7724254		
7724254	Medium Medium	Phillips 0080 Phillips 0080
		Gilkey Creek 0017
7724502	Low	Phillips 0080
7724755	High	Phillips 0080 Phillips
7724756	High	
7724757	High	Phillips Phillips
7724761	High	Phillips Phillips
7724762	High	Phillips
7724763	High	Phillips Phillips 0000
7725251	High	Phillips 0080
7725252	High	Phillips 0080
7725258	High	Phillips Drain 0080
7725259	High	Phillips Drain 0080
7725262	Medium	Phillips 0080
7725263	Medium	Phillips 0080
7726002	Medium	Robinson Curtis 0344
7726003	Medium	Robinson Curtis 0344
7726251	High	Gilkey Cr 0017
7726252	Medium	Gilkey Cr 0017

Outfall Num	Priority	Receiving Watershed
7726254	Low	Gilkey Creek 0017
7726255	Low	Gilkey Creek 0017
7726501	High	Thread Creek
7726502	Medium	Thread Creek
7726503	Medium	Thread Creek
7726504	Medium	Thread Creek
7727008	Low	Thread Creek
7727009	Low	Thread Creek
7727010	Low	Thread Creek
7727251	Medium	Robinson Curtis 0344
7727252	Medium	Robinson Curtis 0344
7727502	Low	Thread Creek
7727503	High	Thread Creek
7728251	Medium	Thread Creek
7728252	Medium	Thread Creek
7728757	High	Thread Creek Thread Creek
7729501	Low	Schram & Ext 0320
7729505	Low	Thread Creek (via GCDC0320)
7729506	Low	Thread Creek (via GCDC0320) Thread Creek (via GCDC0320)
7729751	Low	Thread Creek (via GCDC0320) Thread Creek (via GCDC1380)
7729752	Low	Thread Creek (via GCDC1380)
7729753		Thread Creek (via GCDC1380) Thread Creek (via GCDC0320)
7729754	Low	, ,
7729755	Low	Thread Creek (via GCDC0320)
7729756	Low	Thread Creek (via GCDC0320)
	Low	Thread Creek (via GCDC0320)
7729757	Low	Thread Creek (via GCDC0320)
7729758	Low	Thread Creek (via GCDC0320)
7729759	Low	Thread Creek (via GCDC0320)
7729760	Low	Thread Creek (via GCDC0320)
7730501	High	Gibson Creek (via I475 & GC0145)
7730753	High	Gibson Drain 0145
7730754	Low	Gibson Drain 0145
7730755	Low	Gibson Drain 0145
7730756	Low	Gibson Drain 0145
7730757	Low	Gibson Drain 0145
7730758	High	Gibson Creek (via I475 & GC0145)
7730759	High	Gibson Creek (via I475 & GC0145)
7730760	Low	Gibson Creek (via GC0145)
7730761	Low	Gibson Creek (via GC0145)
7730762	Low	Gibson Creek (via GC0145)
7730763	Low	Gibson Creek (via GC0145)
7731003	High	Gibson Drain 0145
7731251	High	Gibson Creek (via I475 & GC0145)
7731252	High	Gibson Creek (via I475 & GC0145)
7731253	Low	Gibson Creek (via GC0145)
7731254	Low	Gibson Creek (via GC0145)
7731255	Low	Gibson Creek (via GC0145)
7731256	Low	Gibson Creek (via GC0145)
7731257	Low	Gibson Creek (via GC0145)
7732001	Low	Gibson Drain 0145
7732002	Low	Gibson Creek (via GC0145)
7732003	Low	Gibson Creek (via GC0145)

Outfall Num	Priority	Receiving Watershed
7732004	Low	Gibson Creek (via GC0145)
7732005	Low	Gibson Creek (via GC0145)
7732006	Low	Thread Creek (via GCDC0320)
7732007	Low	Thread Creek (via GCDC0320)
7732008	Low	Gibson Creek (via GC0320)
7732009	Low	Gibson Creek (via GC0320)
7732010	Low	Gibson Creek (via GC0320)
7732011	Low	Gibson Creek (via GC0320)
7732012	Low	Thread Creek (via GCDC0320)
7732013	Low	Thread Creek (via GCDC0320)
7732253	Low	Thread Creek (via GCDC0320)
7732254	Low	Thread Creek (via GCDC0320)
7732255	Low	Thread Creek (via GCDC0320)
7732256	Low	Thread Creek (via GCDC0320)
7733760	High	Thread Creek
7734011	Low	Thread Creek
7736761	High	Gilkey Creek 0017
7806002	Low	Cochran 0174
7806502	Medium	Cochran 0174
7806523	High	Cochran 0174
7806524	Low	Kearsley Creek
7806525	Low	Kearsley Creek
7806526	Low	Cochran 0174

Outfall Num	Priority	Receiving Watershed	
City of Clio			
9614502	High	Pine Run	
9614523	High	Pine Run	
9614524	High	Pine Run	
9614525	High	Pine Run	
9614530	Medium	Collins Drain 0025	
9614531	Medium	Collins Drain 0025	
9615509	Low	Pine Run	
9615523	Low	Pine run	
9615754	High	Pine Run	
9615757	High	Pine Run	
9615758	High	Pine Run	
9615759	High	Pine Run	
9615760	High	Pine Run	
9615761	High	Pine Run	
9615762	High	Pine Run	
9615765	Medium	Pine Run	
9615770	Medium	Pine RunTributary	
9615771	High	Pine Run	
9615772	Medium	Pine Run	
9615773	Medium	Pine Run	
9622005	Medium	Pine RunTributary	
9623013	High	Benjamin Run	
9623016	Medium	Pine Run	
9623017	Medium	Pine Run	
9623501	High	Benjamin Run	

Outfall Num	Priority	Receiving Watershed	
	J		

City of Davison

	, 15 0 11	
7804758	Low	Black Creek 0020
7804759	Low	Black Creek 0020
7804760	Low	Black Creek 0020
7804761	Low	Black Creek 0020
7804762	Low	Black Creek 0020
7804763	Low	Black Creek 0020
7804764	Low	Black Creek 0020
7804765	Low	Black Creek 0020
7804766	Low	Black Creek 0020
7804767	Low	Black Creek 0020
7804768	Low	Black Creek 0020
7804769	Low	Black Creek 0020
7804770	Low	Black Creek 0020
7804771	Low	Black Creek 0020
7804772	Low	Black Creek 0020
7804773	Low	Black Creek 0020
7804774	Low	Black Creek 0020
7804775	Low	Black Creek 0020
7809251	High	Black Creek 0704
7809263	High	Black Creek 0704
7809291	High	Harvey Drain 0631
7809292	High	Harvey Drain 0631
7809293	High	Harvey Drain 0631
7809294	High	Harvey Drain 0631
7809295	High	Black Creek 0020
7809296	Low	Harvey Drain 0631
7809298	Low	Black Creek 0020
7809300	Low	Black Creek 0020
7809301	High	Black Creek 0704
7809302	High	Black Creek 0704
7809510	Medium	Long Lake
7809511	Medium	Long Lake
7809512	Medium	Long Lake
7809513	Medium	Long Lake
7809520	Medium	Black Creek 0704
7809524	Medium	Black Creek 0704
7809751	High	Long Lake Drain Ext 1 0614
7809752	Low	Black Creek 0704
7809754	Medium	Black Creek 0704
7809756	Medium	Black Creek 0704
7809758	High	Black Creek 0704
7809771	High	Black Creek 0704
7809780	High	Black Creek 0704
7810020	High	Black Creek 0704
7810024	Medium	Black Creek 0704
7810027	High	Black Creek 0704
7810027	High	Black Creek 0704
7810020	High	Black Creek 0704
7810030	High	Black Creek 0704
7810031	Low	Black Creek 0704
/010072	LOW	DIGGR CICCR U/UT

Outfall Num	Priority	Receiving Watershed
7810043	Low	Black Creek 0704
7810044	Low	Black Creek 0091
7810045	High	Black Creek 0704
7810046	High	Black Creek 0704
7810047	Medium	Black Creek 0704
7810262	Low	Black Creek 0704
7810501	Low	Black Creek 0704
7810502	Low	Black Creek 0704
7810503	Low	Black Creek 0704
7810504	Low	Black Creek 0704
7810505	Low	Black Creek 0704
7810506	Low	Black Creek 0704

	Outfall Num	Priority	Receiving Watershed	
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City of Fenton

5623507	Medium	Shiawassee River
5623752	Medium	Shiawassee River
5623754	Medium	Lake Fenton (Shiawassee)
5625002	High	Shiawassee River
5625506	Medium	Shiawassee River
5625507	Medium	Shiawassee River
5625508	Medium	Shiawassee River
5625509	High	Shiawassee River
5625510	Medium	Shiawassee River
5625511	High	Shiawassee River
5625513	High	Shiawassee River
5625751	Low	Shiawassee River
5625752	Low	Shiawassee River
5626005	Medium	Adams Drain 0124
5626007	Medium	Adams Drain 0124
5626251	Medium	Shiawassee River
5626255	High	Shiawassee River
5626256	Medium	Shiawassee River
5626262	High	Shiawassee River
5626265	Medium	Shiawassee River
5626266	Medium	Shiawassee River
5626267	High	Shiawassee River
5626268	High	Shiawassee River
5626501	Medium	Adams Drain
5626502	High	Adams Drain 0124
5626503	High	Adams Drain 0124
5627002	High	Lake (Shiawassee)
5627253	High	Egyptian Drain
5627760	High	Egyptian Drain 0867
5627761	High	Egyptian Drain 0867
5627762	High	Egyptian Drain 0867
5627763	High	Egyptian Drain 0867
5627764	High	Egyptian Drain 0867
5627765	High	Egyptian Drain 0867
5634001	Low	Egyptian Drain 0867
5634002	Low	Egyptian Drain 0867
5634003	Low	Egyptian Drain 0867
5634004	Low	Egyptian Drain 0867
5634005	Low	Egyptian Drain 0867
5634006	Low	Egyptian Drain 0867
5634255	High	Egyptian Drain 0867
5634259	High	Egyptian Drain 0867
5634751	Low	Egyptian Drain 0867
5634752	Low	Egyptian Drain 0867
5634753	Low	Egyptian Drain 0867
5635001	High	Adams Drain 0124
5635003	High	Adams Drain 0124
5635251	High	Adams Drain 0124
5635501	Low	Adams Drain 0124
5635502	Low	Adams Drain 0124
		

Outfall Num	Priority	Receiving Watershed	
5636001	High	Shiawassee River	
5636005	Medium	Shiawassee River	
5636006	High	Shiawassee River	
5636010	High	Shiawassee River	
5636011	High	Shiawassee River	
5636017	High	Shiawassee River	
5636018	High	Shiawassee River	
5636023	High	Shiawassee River	
5636024	Medium	Shiawassee River	
5636026	Medium	Shiawassee River	
5636030	High	Shiawassee River	
5636031	High	Shiawassee River	
5636032	High	Shiawassee River	
5636033	High	Shiawassee River	
5636034	High	Shiawassee River	
5636035	Medium	Shiawassee River	
5636036	High	Shiawassee River	
5636037	Medium	Shiawassee River	
5636038	Medium	Shiawassee River	
5636039	High	Shiawassee River	
5636040	Medium	Shiawassee River	
5636253	Low	Shiawassee River	
5636254	Low	Shiawassee River	
5636255	Low	Shiawassee River	
5636256	Low	Shiawassee River	
5636257	Low	Shiawassee River	
5636258	Low	Shiawassee River	
5636752	Low	Shiawassee River	
5636753	High	Shiawassee River	

Outfall Num Priority Receiving Watershed	
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City of Flushing

8523751	High	Bowman
8525001	Low	Flint River
8525002	Low	Flint River
8525003	Low	Flint River
8525004	Low	Flint River
8525005	Low	Flint River
8525006	Low	Flint River
8525007	Low	Flint River
8525008	Low	Flint River
8525009	High	Boman Drain 0062
8525010	High	Boman Drain 1431
8525011	High	Boman Drain 0062
8525501	Low	Flint River
8525502	Low	Flint River
8525503	Low	Flint River
8525751	Low	Flint River
8525752	Low	French Drain
8526251	Medium	Bowman
8526252	Low	Bowman
8526501	Medium	Flint River
8526502	Medium	Flint River
8526503	High	Flint River
8526507	Medium	Flint River
8526509	Medium	Flint River
8526511	Medium	Flint River
8526513	Medium	Flint River
8526514	High	Flint River Tributary
8526515	High	Flint River Tributary
8526516	High	Flint River Tributary
8526517	High	Flint River Tributary
8526751	Medium	Flint River
8526752	High	Flint River
8526753	Medium	Flint River
8526754	Medium	Flint River
8526770	Medium	Flint River Tributary
8526771	Medium	Flint River Tributary
8526772	Medium	Flint River Tributary
8527256	Medium	Flint River
8527257	Medium	Flint River Tributary
8527258	Low	Schillman Drain
8527259	Low	Cheney Drain
8527501	Medium	Cole Creek 0764
8527504	Medium	Cole Creek 0764
8527751	Medium	Flint River
8527758	High	Flint River
8527765	High	Flint River
8527769	High	Flint River
8527772	High	Flint River
8527780	High	Flint River
8527781	High	Flint River
	<u>_</u>	

Outfall Num	Priority	Receiving Watershed
8527784	High	Flint River
8527861	High	Flint River
8527862	High	Flint River
8527866	High	Flint River
8527868	High	Flint River
8534001	High	Cole Creek 0764
8534007	Medium	Cole Creek 0764
8534009	Medium	Cole Creek 0764
8534010	Medium	Cole Creek 0764
8534011	High	Cole Creek 0764
8534251	Medium	Cole Creek 0764
8534252	Medium	Cole Creek 0764
8534254	Medium	Cole Creek 0764
8534256	Medium	Cole Creek 0764
8534257	High	Flint River
8535012	Medium	Flint River Tributary
8535013	Medium	Flint River Tributary
8535252	Medium	Flint River Tributary
8535253	Low	Flint River Tributary
8535254	Low	Flint River Tributary
8535255	Low	Flint River Tributary
8535256	Low	Flint River Tributary
8535257	Low	Messmore & Cronk 0464
8535751	Low	Flint River Tributary
8535752	Low	Flint River Tributary
8535753	Low	Flint River Tributary
8535754	Low	Flint River Tributary
8536002	High	Flint River
8536010	Medium	Messmore & Cronk
8536260	Medium	Flint River
8536261	Low	French Drain 0426

Outfall Num	Priority	Receiving Watershed	
Outlan I tam	1 110110,	receiving viatershea	

City of Grand Blanc

(700751	IIi.ak	Thursd Cussle
6709751	High Medium	Thread Creek Thread Creek
6710504	Medium	
6710506		Thread Creek Thread Creek
6710508	Medium	Thread Creek
6710512	Medium	
6710513	Medium	Thread Creek
6710514	Medium	Thread Creek
6710520	Medium	Thread Creek
6710521	Medium	Thread Creek
6711751	Medium	Thread Creek
6711756	Medium	Thread Creek
6714009	Medium	Bush Drain 0007
6714010	High	Thread Creek
6714253	Medium	Bush Drain 0007
6714256	Medium	Bush Drain 0007
6714501	Medium	Thread Creek
6714753	Medium	Bush Drain
6714754	Medium	Bush Drain 0007
6714755	Medium	Bush Drain 0007
6714756	Medium	Bush Drain 0007
6714757	Medium	Bush Drain 0007
6715003	Medium	Thread Creek
6715004	Medium	Thread Creek
6715005	Medium	Thread Creek
6715010	High	Mancour Drain 1061
6715252	Medium	Thread Creek
6715257	Low	Thread Creek
6715262	Medium	Thread Creek
6715263	Low	Thread Creek
6715264	Low	Thread Creek
6715265	Low	Thread Creek
6715504	Medium	Layman Drain 0385
6715505	High	Layman Drain 0385
6715506	High	Layman Drain 0385
6715510	Medium	Layman
6715511	Medium	Layman
6715512	Medium	Layman
6715513	High	Layman
6715514	High	Layman
6715515	High	Layman Drain 0385
6715516	High	Layman Drain 0385
6716251	Low	Mancour Drain 1061
6716252	Low	Mancour Drain 1061
6716253	Low	Mancour Drain 1061
6716254	Low	Mancour Drain 1061
6716255	High	Mancour Drain 1061
6716256	High	Mancour Drain 1061
6716257	High	Mancour Drain 1061
6716258	Low	Mancour Drain 1061
6716751	Medium	Layman Drain 0385

Outfall Num	Priority	Receiving Watershed	
6716760	Medium	Layman Drain 0385	
6716761	High	Layman Drain 0385	
6716762	Medium	Layman Drain 0385	
6716763	Medium	Layman	
6716764	Medium	Layman	
6722251	High	Smith Lake 0710	
6723004	Medium	Perry Drain 1132	
6723005	Medium	Perry Drain 1132	

Outfall Num Priority Receiving Watershed
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City of Linden

5617510	High	Shiawassee
5617511	High	Shiawassee
5617512	High	Shiawassee
5619750	High	Shiawassee River
5619751	High	Shiawassee River
5620001	High	Shiawassee River
5620002	High	Shiawassee River
5620251	High	Shiawassee River
5620257	High	Shiawassee River
5620258	Medium	Shiawassee River
5620501	High	Shiawassee River
5620502	High	Shiawassee river
5620503	High	Shiawassee River
5620504	High	Shiawassee River
5620505	Medium	Shiawassee River
5620506	High	Shiawassee River
5620513	Medium	Shiawassee River
5620514	High	Shiawassee River
5620515	High	Shiawassee River
5620516	High	Shiawassee River
5620517	High	Shiawassee River
5620518	High	Shiawassee River
5620519	High	Shiawassee River
5620520	High	Shiawassee River
5620522	Medium	Shiawassee River
5620524	High	Shiawassee River
5620527	High	Shiawassee River
5620753	Medium	Shiawassee River
5620755	Medium	Shiawassee River
5621501	Low	Shiawassee River
5621502	Low	Shiawassee River
5630251	Medium	Byram Lake

City of Mt Morris

8706507	Medium	Benjamin Run Tributary
8601754	Low	Benjamin Run Tributary
8601755	Low	Benjamin Run Tributary
8601756	Low	Benjamin Run Tributary
8601757	Low	Benjamin Run Tributary
8601758	Low	Benjamin Run Tributary
8601759	Low	Benjamin Run Tributary
8601760	Low	Benjamin Run Tributary
8601761	Low	Benjamin Run Tributary
8601762	Low	Benjamin Run Tributary
8601763	Low	Benjamin Run Tributary
8601764	Low	Benjamin Run Tributary
8601765	Low	Benjamin Run Tributary
8601766	Low	Benjamin Run Tributary
8601767	Low	Benjamin Run Tributary
8601768	Low	Benjamin Run Tributary
8601769	Low	Benjamin Run Tributary
8601770	Low	Benjamin Run Tributary
8601771	Low	Benjamin Run Tributary
8612251	Low	Craven & Benson
8612252	Low	Craven & Benson
8612253	Low	Craven & Benson
8612254	Low	Craven & Benson
8612255	Low	Craven & Benson
8612256		Craven & Benson
	Low	Craven & Benson
8612257	Low	
8612258	Low	Craven & Benson
8612259	Low	Craven & Benson
8612260	Low	Craven & Benson
8612261	Low	Benjamin Run Tributary
8612262	Low	Benjamin Run Tributary
8612263	Low	Benjamin Run Tributary
8612264	Low	Benjamin Run Tributary
8612265	Low	Benjamin Run Tributary
8612266	Low	Benjamin Run Tributary
8612267	Low	Benjamin Run Tributary
8612268	Low	Benjamin Run Tributary
8612269	Low	Benjamin Run Tributary
8612270	Low	Benjamin Run Tributary
8706501	Low	Benjamin Run Tributary
8706502	Low	Benjamin Run Tributary
8706503	Medium	Benjamin Run Tributary
8706504	Low	Benjamin Run Tributary
8706505	Low	Benjamin Run Tributary
8706506	High	Benjamin Run Tributary
8707001	Low	Benjamin Run Tributary
8707002	Low	Benjamin Run Tributary
8707003	Low	Benjamin Run Tributary

Outfall Num	Priority	Receiving Watershed
Outian Num	1 1 101 113	Receiving watershed

City of Swartz Creek

6501001	C of Swartz Cr	Low	Swartz Creek	
6501002	C of Swartz Cr	Low	Swartz Creek	
6501003	C of Swartz Cr	Low	Swartz Creek	
6501004	C of Swartz Cr	Low	Swartz Creek	
6501005	C of Swartz Cr	Low	Swartz Creek	
6501006	C of Swartz Cr	Low	Swartz Creek	
6501102	C of Swartz Cr	Medium	Swartz Creek	
6501103	C of Swartz Cr	Medium	Swartz Creek	
6501104	C of Swartz Cr	High	Swartz Creek	
6501108	C of Swartz Cr	High	Swartz Creek	
6501301	C of Swartz Cr	High	Swartz Creek	
6501302	C of Swartz Cr	Medium	Swartz Creek	
6502001	C of Swartz Cr	High	Swartz Creek	
6502002	C of Swartz Cr	High	Swartz Creek	
6502004	C of Swartz Cr	Medium	Swartz Creek	
6502010	C of Swartz Cr	Low	Swartz Creek	
6502011	C of Swartz Cr	Low	Swartz Creek	
6502012	C of Swartz Cr	Low	Swartz Creek	
6502013	C of Swartz Cr	Low	Swartz Creek	
6502014	C of Swartz Cr	Low	Swartz Creek	
6502015	C of Swartz Cr	Low	Swartz Creek	
6502150	C of Swartz Cr	High	Swartz Creek	
6502251	C of Swartz Cr	Low	Swartz Creek	
6502252	C of Swartz Cr	Low	Swartz Creek	
6502253	C of Swartz Cr	Low	Swartz Creek	
6502254	C of Swartz Cr	Low	Swartz Creek	
6502257	C of Swartz Cr	High	Swartz Creek	
6502260	C of Swartz Cr	High	Swartz Creek	
6502261	C of Swartz Cr	High	Swartz Creek	
6502262	C of Swartz Cr	Low	Swartz Creek	
6502263	C of Swartz Cr	High	Swartz Creek	
6502264	C of Swartz Cr	High	Swartz Creek	
6502265	C of Swartz Cr	Low	Swartz Creek	
6502266	C of Swartz Cr	Low	Swartz Creek	
6502267	C of Swartz Cr	Low	Swartz Creek	
6502268	C of Swartz Cr	Low	Swartz Creek	
6502269	C of Swartz Cr	Low	Swartz Creek	
6502270	C of Swartz Cr	Low	Swartz Creek	
6502271	C of Swartz Cr	Low	Swartz Creek	
6502272	C of Swartz Cr	Low	Swartz Creek	
6502273	C of Swartz Cr	Low	Swartz Creek	
6502274	C of Swartz Cr	Low	Swartz Creek	
6502275	C of Swartz Cr	Low	Swartz Creek	
6502276	C of Swartz Cr	Low	Swartz Creek	
6502277	C of Swartz Cr	Low	Swartz Creek	
6502278	C of Swartz Cr	Low	Swartz Creek	
6502283	C of Swartz Cr	Low	Swartz Creek	
6502284	C of Swartz Cr	Low	Swartz Creek	
6502285	C of Swartz Cr	Low	Swartz Creek	
6502286	C of Swartz Cr	Low	Swartz Creek	

Outfall Num	Priority	Receiving Wa	tershed	
6502287	C of Sweet Co	T	Suranta Cuarlo	
6502288	C of Swartz Cr C of Swartz Cr	Low	Swartz Creek	
		Low	Swartz Creek	
6502289	C of Swartz Cr	Low	Swartz Creek	
6502290	C of Swartz Cr	Low	Swartz Creek	
6502291	C of Swartz Cr	Low	Swartz Creek	
6502354	C of Swartz Cr	High	Swartz Creek	
6502356	C of Swartz Cr	High	Swartz Creek	
6502510	C of Swartz Cr	Medium	Swartz Creek	
6503760	C of Swartz Cr	High	Swartz Creek	
6503761	C of Swartz Cr	Medium	Swartz Creek	
6503762	C of Swartz Cr	Medium	Swartz Creek	
6503763	C of Swartz Cr	Medium	Swartz Creek	
6503764	C of Swartz Cr	Medium	Swartz Creek	
7525751	C of Swartz Cr	Low	Swartz Creek	
7525752	C of Swartz Cr	Low	Swartz Creek	
7534751	C of Swartz Cr	Low	Sprague	
7536251	C of Swartz Cr	Low	Swartz Creek	
7536252	C of Swartz Cr	Low	Swartz Creek	
7536253	C of Swartz Cr	Low	Swartz Creek	
7536254	C of Swartz Cr	Low	Swartz Creek	
7536501	C of Swartz Cr	Low	Swartz Creek	
7536502	C of Swartz Cr	High	Swartz Creek	
7536503	C of Swartz Cr	Low	Swartz Creek	
7536504	C of Swartz Cr	Low	Swartz Creek	
7536751	C of Swartz Cr	Low	Swartz Creek	
7629501	C of Swartz Cr	Low	Swartz Creek	
7629502	C of Swartz Cr	Low	Swartz Creek	
7631001	C of Swartz Cr	High	Swartz Creek	
7631002	C of Swartz Cr	High	Swartz Creek	
7631003	C of Swartz Cr	High	Swartz Creek	
7631004	C of Swartz Cr	High	Swartz Creek	
7631251	C of Swartz Cr	High	Swartz Creek	
7632001	C of Swartz Cr	Low	Swartz Creek	
7632002	C of Swartz Cr	Low	Swartz Creek	
7632251	C of Swartz Cr	High	Swartz Creek	

Outfall Num	Priority	Receiving Watershed	
Davison Tov	wnship		
7808001	High	Black Creek 0704	
7809001	High	Stockman Drain 0659	
7815001	Medium	Long Lake Drain	

Fenton Township

5611251	Low	Lake Fenton	
5611252	Medium	Lake Fenton	
5611253	Medium	Lake Fenton	
5611254	Medium	Lake Fenton	
5611255	Medium	Lake Fenton	
5632251	High	Egyptian Drain 0867	

Flint Township

7610251	Medium	Flint River Tributary	
7617501	Medium	Chapman Drain 0009	
7622001	Low	Burroughs Drain 0008	
7629762	Low	Swartz Creek	
7629763	Low	Swartz Creek	

Genesee Township

8711003	*None	Green Arbor Drain
8711504	*None	Green Arbor Drain
8735504	Medium	Kearsley Creek

Mt. Morris Township

8622251	Low	Daly Drain 0420
8627501	Low	Hartshorn
8627502	Low	Hartshorn

Vienna Township

9615520	Low	Pine Run
9622001	Low	Haven & Dexter Street Outlet
9622002	Low	Haven & Dexter Street Outlet
9622003	Low	Haven & Dexter Street Outlet
9622004	Low	Haven & Dexter Street Outlet
9614762	High	Pine Run & Tryon Drain

Outfall Num	Priority	Receiving Watershed

Genesee County

5525001	High	Hogan drain 0969
5525251	Medium	Hogan Drain Tributary 0969
5525751	Medium	Hogan Drain Tributary 0672
5525752	High	Hogan
5526001	Medium	Shiawassee River
5526501	Medium	Shiawassee River
5526502	Medium	Shiawassee River
5526503	Medium	Shiawassee River
5527251	Medium	Shiawassee River
5527252	Medium	Shiawassee River
5527253	Medium	Shiawassee River
5527254	Low	Shiawassee River
5527751	Low	N Ore Creek
5527752	Medium	Shiawassee River
5527753	Medium	Shiawassee River
5527754	Medium	Shiawassee River
5534251	Low	North Ore Creek
5535001	Medium	Soft Water Lake
5535002	Medium	Soft Water Lake
5535251	High	Lobdelle Lake
5535252	High	Lobdelle Lake
5535501	High	Lobdelle Lake
5601001	High	Lake
5602001	High	Dawn Drain 0257
5602002	Medium	Dawn Drain 0257
5602495	Medium	Dawn Drain 0257
5602504	Medium	Dawe Drain 0257
5602505	Medium	Dawe Drain 0257
5602506	Medium	Dawe Dr 0257
5611256	High	Lake Fenton
5612001	High	EDEN GARDENS
5613001	Low	Swartz Cr
5613002	Low	Swartz Cr
5613003	Low	Swartz Cr
5613004	High	Swartz Cr
5613005	Low	Swartz Cr
5613006	Low	Swartz Cr
5613501	Medium	Parker Lake
5613751	Medium	Parker Lake
5613752	Medium	Parker Lake
5613753	Medium	Parker Lake
5613754	Medium	Parker Lake
5614501	High	Shiawassee River
5614502	Medium	Golden Shores
5614503	Medium	Golden Shores
5614504	Medium	Golden Shores
5614505	Medium	Golden Shores
5614506	Medium	Golden Shores
5614507	High	Shiawassee River
5614508	High	Shiawassee River

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Outfall Num	Priority	Receiving Watershed
5616001	Low	Loon Lake- Shiawassee
5616002		Loon Lake-Shiawassee
	High	Loon Lake-Shiawassee Loon Lake- Shiawassee
5616251 5(1(252	Low Medium	
5616252		Loon Lake- Shiawassee
5616751	Low	Shiawassee
5616753	Medium	Shiawassee River
5616754	Medium	Shiawassee River
5617513	High	Shiawassee
5620255	Medium	Shiawassee River
5620256	Medium	Shiawassee River
5620528	Medium	Municipal Storm Sewer
5621001	Medium	Shiawassee River
5621002	Medium	Shiawassee River
5621004	Medium	Shiawassee River
5621751	High	Shiawassee River
5622751	High	Shiawassee River
5623001	Medium	Shiawassee River
5623002	Medium	Shiawassee River
5623003	Medium	Shiawassee River
5623004	Medium	Shiawassee River
5623005	Medium	Shiawassee River via wetland
5625515	Low	Municipal Storm Sewer
5625516	Low	Municipal Storm Sewer
5625517	Low	Municipal Storm Sewer
5625518	Low	Municipal Storm Sewer
5625519	Low	Municipal Storm Sewer
5625520	Low	Municipal Storm Sewer
5625521	Low	Municipal Storm Sewer
5625753	Low	Municipal Storm Sewer
5626751	Low	Municipal Storm Sewer
5626752	Low	Municipal Storm Sewer
5627003	High	Egyptian Drain
5627009	Medium	Egyptian Drain 0867
5630252	Medium	Municipal Storm Sewer
5633001	Medium	Silver Lake
5633002	Medium	Silver Lake
5633003	Medium	Silver Lake
5633004	Medium	Silver Lake
5633005	Medium	Silver Lake
5633006	Medium	Silver Lake
5633251	Medium	Silver Lake
5633252	Medium	Silver Lake
		Silver Lake
5633501 5633504	Low	
5633504	Medium	Silver Lake
5633505	Medium	Silver Lake
5633752	Low	Egyptian
5633754	Medium	Egyptian
5634251	High	Egyptian 0867
5634252	High	Egyptian 0867
5634267	High	Egyptian Drain
5634270	High	Egyptian Drain
5634271	High	Egyptian Drain

On4fall Ni	D	Donalds a W-4L-3
Outfall Num	Priority	Receiving Watershed
5634272	High	Favntian Drain
5634274	High	Egyptian Drain Egyptian Drain
5634275	High	Egyptian Drain Egyptian Drain
5634754	Low	<u> </u>
5634755		Egyptian 0867
	Low	Egyptian 0867
5634756	Low	Egyptian 0867
5634757	Low	Egyptian 0867
5634758	Low	Egyptian 0867
5634759	Low	Egyptian 0867
5635004	High	Adams Drain
5635252	Low	Shiawassee River
5635254	Low	Shiawassee River
5635751	Medium	Municipal Storm Sewer
6501007	High	West Br Swartz Creek
6501105	High	West Br Swartz Creek
6501501	High	Spillane & Branches Drain
6502003	High	West Br Swartz Creek
6502016	Low	Swartz Creek
6502255	High	West Br Swartz Creek
6502256	High	West Br Swartz Creek
6502292	High	West Br Swartz Creek
6502293	High	West Br Swartz Creek
6502294	High	West Br Swartz Creek
6502300	Medium	Swartz Creek
6502301	Medium	Swartz Creek
6502302	Medium	Swartz Creek
6502304	Medium	Swartz Creek
6502305	Medium	Spillane & Branches Drain
6502308	Low	Swartz Creek
6502309	Medium	Swartz Creek
6502310	Low	Swartz Creek
6502351	High	West Br Swartz Creek
6502355	High	West Br Swartz Creek
6502452	Medium	Swartz Creek
6502454	High	West Br Swartz Creek
6503306	Low	Swartz Creek
6503307	Low	Swartz Creek
6503501	Medium	West Br Swartz Creek
6503502	Medium	Swartz Creek
6503503	Medium	Swartz Creek
6503504	Medium	Swartz Creek
6505006	High	Davison Drain 0081
6516502	Medium	Terry Drain 0175
6517757	Low	Terry Drain 0175
6601003	Medium	GCDC 0162
	Medium	Sherwood 0162
6601006		
6601007	Medium	Sherwood 0162
6601008	Medium	Sherwood 0162
6601009	Medium	Sherwood 0162
6601010	Low	Baker Drain
6601251	High	Sherwood 0162
6601253	Medium	Sherwood 0162

Outfall Num	Priority	Receiving Watershed
6601254	Medium	Sherwood 0162
6601255	High	Sherwood Dr 0162
6601757	High	Sherwood 0162
6601760	Medium	Sherwood 0162
6602001	High	Municipal Storm Sewer
6602002	Low	Hudge Drain
6602003	Low	Hudge Drain
6602004	Low	Hudge Drain
6602251	High	Call Ext 0767
6602253	High	Call Ext 0767
6602257	Medium	Call Ext 0767
6602258	Medium	Call Ext 0767
6602262	Low	Call Ext 0767
6602263	High	Can Ext 0/0/
6602264	High	Call Drain
6602755	High	Call Ext 0767
6603501	Medium	Swartz Creek
6603751	Low	George Drain
6604001	High	Howland Drain 0382
6604002	High	Howland Drain 0382
6604003	High	Hewitt Drain 0018
6604004	High	Hewitt Drain 0018
6604766	Medium	Hewitt Drain 0018
6605256	Medium	Howland Drain 0382
6605257	High	Howland Drain 0382
6605258	Medium	Howland Drain 0382
6605259	High	Howland Drain 0382
6605260	Medium	Howland Drain 0382
6605261	Medium	Howland Drain 0382
6605783	Medium	Howland Drain 0382
6608066	Medium	Bloss 0167
6608067	Medium	Bloss 0167
6608068	Low	Bloss 0167
6608104	Low	Bloss 0167
6608298	Medium	Bloss 0167 Bloss 0167
6608301	Medium	Bloss 0167
6608314	Medium	Bloss 0167
6608317	Medium	Bloss 0167
6608324	Medium	Bloss 0167
6608325	Medium	Bloss 0167
6608326	High	Bloss 0167
6608327	Medium	Bloss 0167
6608400	Medium	Bloss 0167
6608401	High	Howland Drain 0382
6608407	Medium	Howland Drain 0382
6608409	High	Howland Drain 0382
6608410	High	Howland Drain 0382
6608653	Low	Bloss 0167
6608656	High	Bloss 0167
6608751	 High	Howland Drain 0382
6608752	 High	Howland Drain 0382
6609150	Medium	Howland Drain 0382
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Outfall Num	Priority	Receiving Watershed
<i>((</i> 001 <i>5</i> 1	Medium	Howland Drain 0382
6609151 6609153		Howland Drain 0382
	Low	
6609155	Medium Medium	Howland Drain 0382
6609156		McCullough Dr 0033
6609251	Medium	Hewitt Drain 0018
6609501	High	Howland Drain 0382
6610001	Medium	Swartz Creek
6610751	High	Swartz Creek
6611251	High	Call Ext 0767
6611253	High	Call Ext 0767
6611505	High	Swartz Creek
6612259	High	Sherwood 0162
6612260	High	Sherwood Drain 0162
6613512	Low	Brewer Drain #0121
6613751	High	Brewer Drain #0121
6614501	High	Swartz Creek
6614502	Low	Swartz Creek
6614503	Low	Swartz Creek
6614504	Low	Swartz Creek
6614752	High	Brewer Drain 0121
6614753	High	Brewer Drain 0121
6617001	High	Lum & Extension
6617252	High	Howland Drain
6617751	Low	Howland
6617752	Low	Howland
6618251	High	Lum & Extension
6618252	High	Lum & Extension
6618304	Medium	Lum & Ext drain 0069
6618758	Medium	Lum & Ext 0069
6618759	Medium	Lum & Ext 0069
6621002	High	Howland Drain 0095
6621501	Low	Howland Drain 0095
6621502	Low	Howland Drain 0095
6621503	Low	Howland Drain 0095
6621504	Low	Howland Drain 0095
6621505	Low	Howland Drain 0095
6621506	Low	Howland Drain 0095
6623001	High	Swartz Creek
6623252	Low	Swartz Creek
6623253	Low	Swartz Creek
6623254	Low	Swartz Creek
6623255	Low	Swartz Creek
6624751	Low	Swartz Creek
6625752	Low	Swartz Creek
6625753	Medium	Swartz Creek
6701006	Low	Thread Creek Pierson Branch
6701007	Low	Thread Creek Pierson Branch
6701008	Low	Thread Creek Pierson Branch
6701009	Low	Thread Creek Pierson Branch
6701013	High	Thread Creek Pierson Branch
6701251	High	Gilkey Creek Tributary
6701501	High	Meyers Drain 0408

Outfall Num	Priority	Receiving Watershed
(701502	III al	Mariana Duain 0400
6701502 6701503	High High	Meyers Drain 0408 Meyers Drain 0408
6701751	High	Lasalle Drain (Jordan)
6701752	High	Lasalle drain 0224
6702001	High	Meyers Drain 0408
6702001	High	Meyers Drain 0408 Meyers Drain 0408
6702006	Medium	Myers Drain
6702508	Medium	Myers Drain
6702524	Medium	Myers Drain
6702526	Medium	Myers Drain
6702530	Medium	Myers Drain
6702533	Medium	Myers Drain
6702535	Medium	Myers Drain
6702539	High	Myers Drain
6702550	Medium	Myers Drain
6702551	Medium	Myers Drain
6702552	Medium	Myers Drain
6702553	Medium	Myers Drain
6702751	High	Myers Drain 0408
6702752	High	Myers Drain 0408
6703253	Medium	Meyers Drain 0408
6703254	High	Meyers Drain 0408
6703256	Low	Myers Drain
6703501	Low	Myers Drain
6703503	Low	Myers Drain
6704006	High	Thread Creek
6704008	Medium	Thread Creek
6704010	High	Thread Creek
6704251	Medium	Meyers Drain 0408
6704254	High	Myers Drain 0408
6704263	Medium	Myers Drain
6704270	Medium	Myers Drain 0408
6704271	Medium	Myers Drain 0408
6704272	Medium	Myers Drain 0408
6705001	Low	Gibson Drain 0423
6705004	Low	Gibson Drain 0423
6705005	Low	Gibson Drain 0423
6705007	Low	Gibson Drain 0423
6705013	Low	Gibson Drain 0423
6705014	Low	Gibson Drain 0423
6705015	Low	Gibson Drain 0423
6705016	Low	Gibson Drain 0423
6705017	Low	Gibson Drain 0423
6705018	Low	Gibson Drain 0423
6705019	Low	Gibson Drain 0423
6705020	Low	Gibson Drain 0423
6705021	Low	Gibson Drain 0423
6705022	Medium	Gibson Drin 0423
6705251	Low	Thread Creek
6705501	Low	Gibson Drain 0423
6705503	Low	Gibson 0423
6705504	Low	Gibson 0423

Outfall Num	Priority	Receiving Watershed
Outlan Mulli	1 11011119	Acceiving watershed
6705505	Medium	Gibson 0423
6705520	High	Gibson 0423
6705521	High	Gibson Drain 0423
6705522	High	Gibson Drain 0423
6705523	Medium	Gibson Drain 0423
6706254	Low	Gibson Drain
6706264	Low	Gibson
6706265	Medium	Gibson
6706266	Medium	Gibson Drain 0423
6706267	Low	Gibson Drain Gibson Drain
6706268	Low	Gibson Drain
6706269	Low	Gibson Drain
6706270	Low	Gibson Drain
		Gibson Drain
6706271	Low	
6706272	Low	Gibson Drain
6707001	High	Sherwood Drain 0162
6707003	High	Sherwood Drain 0162
6707005	Medium	Sherwood Drain 0162
6707006	High	Sherwood Drain 0162
6707007	High	Sherwood Drain 0162
6707008	High	Sherwood Drain 0162
6707010	Medium	Sherwood Drain 0162
6707011	Medium	Sherwood Drain
6707017	Medium	Sherwood Drain
6707019	Medium	Sherwood Drain
6707030	High	Sherwood Drain 0162
6707501	High	Sherwood Drain
6707502	Medium	Sherwood Drain
6707507	Medium	Sherwood Drain
6707510	Medium	Sherwood Drain
6707513	Medium	Sherwood Drain
6707527	Medium	Sherwood Drain
6707541	Medium	Sherwood Drain
6707543	Medium	Sherwood Drain
6707544	Medium	Sherwood Drain
6707545	Medium	Sherwood Drain
6707546	Medium	Sherwood Drain
6707547	Medium	Sherwood drain 0162
6707548	Medium	Sherwood drain 0162
6707751	Low	Gibson
6708005	Medium	Gibson 0423
6708012	High	Gibson 0423
6708021	High	Gibson 0423
6708502	Low	Gibson Drain 0423
6708503	Low	Gibson Drain 0423
6708504	Medium	Gibson Drain
6708508	High	Gibson
6708510	High	Gibson
6708511	High	Gibson
6708751	Medium	Gibson Drain 0423
6708752	Medium	Gibson Drain 0423
6710252	Low	S Branch Myers Drain

Outfall Num	Priority	Receiving Watershed
6710253	Hich	C Drongh Myong Droin
6710253	High	S Branch Myers Drain S Branch Myers Drain
6710254	High Medium	
6710256	Medium	S Branch Myers Drain S Branch Myers Drain
6710503	Medium	Thread Creek
6710503	High	Thread Cr
6710523	High	Thread Cr via 1061 ditch
6710525	Medium	Thread Creek
6710526	Medium	Thread Creek
6711254	Medium	Thread Creek Thread Creek
6711255	Medium	Thread Creek Thread Creek
6711752	Medium	Thread Creek
6711754	High	Thread Creek
6711755	High	Thread Creek
6711757	Medium	Thread Creek
6712001	Medium	Thread Creek
6712002	Medium	Thread Creek
6712256	High	Thread Creek
6712257	Medium	Thread Creek
6712258	Medium	Thread Creek
6712259	Medium	Thread Creek
6712502	Low	Thread Creek
6712751	High	Thread Creek
6712752	High	Thread Creek
6712753	High	Thread Creek
6712754	High	Thread Creek
6712755	Medium	Thread Creek
6712758	Medium	Thread Creek
6712763	Medium	Thread Creek
6712764	Medium	Thread Creek
6712767	Medium	Thread Creek
6712768	Medium	Thread Creek
6712769	Medium	Thread Creek
6713001	High	Bush Drain via Sub drainage
6715520	Low	Layman Drain 0385
6715521	Low	Layman Drain 0385
6715522	High	Layman Drain 0385
6715523	High	Layman Drain 0385
6715524	High	Layman Drain 0385
6715525	High	Layman Drain 0385
6715526	High	Layman Drain 0385
6715527	High	Layman Drain 0385
6715528	High	Layman Drain 0385
6715529	High	Layman Drain 0385
6715530	High	Layman Drain 0385
6715531	High	Layman Drain 0385
6715532	High	Layman Drain 0385
6716765	High	Layman Davin 0295
6716767	High	Layman Drain 0385
6717001	Low	Gibson Drain
6717253	High	Gibson Drain
6717254	High	Gisbon Drain 0423

Outfall Num	Priority	Receiving Watershed
	- y	***************************************
6717255	High	Gisbon Drain 0423
6717751	Medium	Gibson 0423
6717753	High	Gibson 0423
6717754	High	Gibson 0423
6718001	Low	Sherwood Drain
6719513	Medium	Seaver Drain 0043
6719514	Medium	Seaver Drain Br of 1218
6719515	Medium	Seaver Drain Br of 1218
6719522	Medium	Seaver Drain
6719523	Medium	Seaver Drain Br of 1218
6719524	Medium	Seaver Drain 0043
6719525	Medium	Seaver Drain 0043
6719526	Medium	Seaver Drain 0043
6719527	Medium	Seaver Drain 0043
6719528	Medium	Seaver Drain 0043
6719529	Medium	Seaver Drain 0043
6719754	Low	Seaver Drain 0043
6719755	Low	Seaver Drain 0043
6719756	Low	Seaver Drain 0043
6720751	High	Deaver
6721253	High	Layman Drain 0385
6721753	Medium	Layman
6721754	Medium	Layman
6721755	Medium	Layman
6721756	Medium	
6721757		Layman
6721758	High Medium	Layman Drain 0295
		Layman Drain 0385
6721759	Medium	Layman Drain 0385
6721760	Medium	Layman Drain 0385
6722003	Medium	Layman
6722004	Medium	Layman
6722252	Medium	Layman
6722253	High	Layman
6722751	High	Layman
6722752	High	Layman
6722753	High	Layman
6722754	High	Layman
6723006	Low	Bush Drain
6723007	High	Perry Drain 1132
6723501	High	Layman
6724001	Low	Bush 0007
6724751	Low	Bush 0007
6725251	Low	Bush 0007 (via watercourse)
6728007	High	Seaver 0043
6728253	Medium	Seaver 0043
6728254	Medium	Seaver 0043
6729005	Medium	Eames 0864
6729007	Low	Eames 0864
6729014	Medium	Seaver 0043
6729015	Medium	Seaver 0043
6729016	Medium	Seaver 0043
6729017	Medium	Seaver 0043

Outfall Num	Priority	Receiving Watershed
6729101	Medium	Seaver 0043
6729102	Medium	Seaver 0043
6729103	Medium	Seaver 0043
6729104	Medium	Seaver 0043
6729253	High	Seaver Drain
6729254	High	Seaver Drain
6729255	High	Seaver Drain Tributary
6729262	High	Seaver Drain Tributary
6729263	High	Seaver Drain
6729509	High	Eames 0864
6730251	Low	Seaver Drain 0043
6730301	High	Seaver Drain 0043
6730302	Low	Seaver 0043
6735251	Low	Groat 0681
6735252	Low	Groat 0681
6735253	Low	Groat 0681
6735254	Low	Groat 0681
6735255	Low	Groat 0681
6735256	Low	Groat 0681
6735257	Low	Groat 0681
6735258	Low	Groat 0681
6735259	High	Groat 0681
6736001	Low	Slack Lake 0063
6736002	Low	Slack Lake 0063
6736003	Low	Slack Lake 0063
6736004	Low	Slack Lake 0063
6736005	Low	Slack Lake 0063
6736251	Low	Slack Lake 0063
6736501	Low	Slack Lake 0063
6736502	Low	Slack Lake 0063
6736503	Low	Slack Lake 0063
6736504	Low	Slack Lake 0063
6736505	Low	Slack Lake 0063
6736506	Low	Slack Lake 0063
6736507	Low	Slack Lake 0063
6736508	Low	Slack Lake 0063
6736751	Low	Slack Lake 0063
6736752	Low	Slack Lake 0063
6736753	Low	Slack Lake 0063
6736754	Low	Slack Lake 0063
6736755	Low	Slack Lake 0063
6807252	Medium	Lasalle Drain 0224
6808003	Medium	Lasalle Drain 0224
7501001	High	Messmore & Cronk 0464
7501251	Low	Messmore & Cronk 0464
7501751	Low	Messmore and Cromk 0464
7502001	Medium	COLE CREEK 0764
7502002	Medium	COLE CREEK 0764
7502003	Medium	Cole Creek 0764
7502004	Medium	Cole Creek 0764
7502251	Medium	Messmore & Cronk 0400
7502252	High	Tributary of Mud Creek

Outfall Num	Priority	Receiving Watershed
7502253	High	Tributary of Mud Creek
7502501	Low	COLE CREEK 0764
7511753	Medium	Cole Creek 0764
7511755	Medium	Cole Creek 0764
7524001	High	Cole Creek 0764
7524501	Medium	Cranery Drain 0802
7524502	Medium	Cranery Drain 0802
7524751	Low	Cole Cr 0764
7524752	Low	Cole Cr 0764
7524753	Low	Cole Cr 0764
7524754	Low	Cole Creek (Crosswinds)
7532501	High	Davison Drain
7533002	Medium	GCDC 0457
7535501	High	Sprague Drain
7535501 7535502	High	Sprague Drain
7536505	High	Swartz Creek
7536752	High	West Br Swartz Creek
7601001		Municipal Storm Sewer
7601001 7601251	High	•
	High	Municipal Storm Sewer
7601252	High	Municipal Storm Sewer
7602251	High	Municipal Storm Sewer
7603751	High	McCollum Avenue-20
7604004	High	Flint River
7604231	High	Hartshorn & Ext 0458
7604233	Medium	Hartshorn & Ext 0458
7604235	Medium	Hartshorn & Ext 0458
7604237	High	Hartshorn & Ext 0458
7604247	Medium	Flint River
7604249	Medium	Flint River
7604253	High	Flint River
7604753	High	Flint River
7604754	Medium	Flint River
7604755	High	Flint River
7604756	Medium	Flint River
7605005	High	Flint River
7605253	Medium	Hartshorn Drain 0458
7605501	Low	Pirnie Creek (Chapman Outlet)
7605502	Low	Pirnie Creek (Chapman Outlet)
7605757	Low	Flint River
7605765	High	Flint River
7606001	Low	Flint River
7607001	Medium	Messmore & Cronk 0464
7607501	Medium	Messmore & Cronk 0464
7607502	High	Messmore & Cronk 0464
7607503	High	Messmore & Cronk 0464
7608001	Medium	Chapman Dr 0009
7608002	Medium	Chapman Dr 0009
7608751	High	Chapman Drain 0009
7608752	Medium	Chapman Dr 0009
7608752 7608753	Medium	Chapman Dr 0009
7608754	Medium	Chapman Dr 0009
7608755	High	Chapman Dr 0009

Outfall Num	Priority	Receiving Watershed
Outian Num	111011ty	Receiving watersneu
7609001	High	Flint River via GCDC pipe
7609256	High	Flint River
7609257	High	Flint River
7609751	Medium	Flint River Via MDOT/ GCDC
7610001	High	Flint River
7610004	High	Flint River
7610008	Medium	Flint River
7610752	High	Flint River
7610757	Medium	Flint River
7610764	Medium	Flint River
7611251	High	Municipal Storm Sewer
7611252	High	Municipal Storm Sewer
7611252 7611253	High	Municipal Storm Sewer
7612001	High	Municipal Storm Sewer
7613001	Medium	Municipal Storm Sewer
7613002	Medium	Municipal Storm Sewer
7613002 7614751	Medium	
		Municipal Storm Sewer
7614752 7615501	Medium Low	Municipal Storm Sewer
7615501		Chapman (was Dr#310)
7615502 7616001	Low	Chapman (was Dr#310)
7616001 7616002	High	Chapman Drain 0009
7616002 7616002	High	Chapman Drain 0009
7616003	Medium	Chapman Drain 0009
7616004	High	Chapman Drain 0009
7616751	High	Burroughs Drain 0008
7616752	High	Chapman Drain 0009
7617251	High	Chapman Drain 0009
7617252	High	Chapman Drain 0009
7618001	Medium	Messmore & Cronk 0464
7618002	Medium	Messmore & Cronk 0464
7618003	Medium	Messmore & Cronk 0464
7618004	Medium	Messmore & Cronk 0464
7618005	Medium	Messmore & Cronk 0464
7618006	Medium	Messmore & Cronk 0464
7618007	Medium	Messmore & Cronk 0464
7618008	Medium	Messmore & Cronk 0464
7618009	High	Private ditch to 0464
7618501	High	Messmore & Cronk 0464
7618502	High	Messmore & Cronk 0464
7619001	High	Messmore & Cronk 0464
7619002	High	Messmore & Cronk 0464
7619251	High	GCRC
7619252	High	Flint River by way of GCRC Storm
7619501	High	Messmore & Cronk 0464
7619502	Low	Messmore & Cronk 0464
7619751	High	Ryant 0509
7620501	Medium	Ryant 0509
7620502	High	Ryant 0509
7620503	High	Ryant 0509
7620751	High	Ryant Drain 0509
7620752	High	Ryant Drain
7621001	High	Ryant Drain

Outfall Num	Duiouitu	Dessiving Watershed
Outfall Num	Priority	Receiving Watershed
7621501	Medium	Ryant 0509
7621502	High	Ryant Drain
7621502 7621503	High	Ryant Drain 1496
7622251	Medium	C of Flint- Flint River
7622501	Low	GCRC
7622751	High	Swartz Creek
7622752	High	Swartz Creek
7622753	High	Swartz Creek
7624751	High	MDOT
7624752	High	MDOT
7624732 7625001	High	Carman Creek (Gibson)
7625002	High	Carman Creek (Gibson)
7625251	High	Gibson (City of Flint)
7625751	High	Gibson 0423
7625755	High	Gibson 0423
7625757	Medium	Gibson 0423
7625758	High	Gibson 0423
7625760	<u> підіі</u> High	Gibson 0423
7625770	<u> підіі</u> High	Carman Drain
7627001		Swartz Creek
7627001 7627251	High	Swartz Creek
	High	
7627501 7627751	High	Swartz Creek
7627751	High	Call Ext. Drain
7627752	High	Call Ext. Drain
7628555	High	Swartz Creek
7628556	High	Swartz Creek
7628557	High	Swartz Creek
7628558	High	Swartz Creek
7628751	High	Swartz Creek
7628752	High	Swartz Creek
7628753	High	Swartz Creek
7629251	Low	Municipal Storm Sewer
7629764	High	Swartz Creek
7630501	High	Ditch to overland flow
7631252	High	Swartz Cr
7631603	High	West Br Swartz Creek
7632220	High	Swartz Creek
7632222	High	Swartz Creek
7632281	High	Swartz Creek
7632282	High	Swartz Cr
7632284	High	Swartz Cr
7632292	High	Swartz Creek
7632293	High	Swartz Cr
7632415	High	Swartz Cr
7632416	High	Swartz Cr
7632501	Low	Lizzard Valley
7633103	Medium	Swartz Cr
7633509	High	Howland Drain
7633510	High	Howland Drain
7633511	High	Hewitt Outlet
7635001	High	CallDrain 0767
7635002	High	Call Ext 0767

Outfall Num	Priority	Receiving Watershed
7635751	High	Call Ext 0767
7635752	High	Call Ext 0767
7635754	Medium	Call Ext 0767
7636251	High	church property
7636252	High	Parkwood
7636253	Low	Gibson drain 0423
7636254	Low	Gibson Dr via municipal storm
7636751	Medium	Sherwood 0162
7636753	Medium	Sherwood 0162
7701252	Medium	Brier Creek Drain 0130
7701253	Low	Brier Creek Drain 0130
7701257	High	Brier Creek Drain 0130
7701527	Medium	Kearsley Creek
7701530	High	Kearsley Creek
7701751	High	Municipal Storm Sewer
7701752	High	Municipal Storm Sewer
7701766	High	Kearsley Creek
7702002	High	Kearsley Creek
7702007	High	Kearsley Creek
7702009	High	Kearsley Creek
7702010	High	Callahan #0146 to Kearsley Creek
7702011	High	Callahan #0146 to Kearsley Creek
7702751	High	Kearsley Creek
7702767	High	Kearsley Creek
7703251	Medium	Municipal Storm ditch
7703252	Low	Kearsley creek via 0146 pipe
7704251	High	-83.645424
7704252	High	-83.645424
7705001	High	Flint River
7705002	High	Flint River
7705003	High	Flint River
7707001	High	Municipal Storm Sewer
7707002	High	Municipal Storm Sewer
7707751	High	Gilkey Creek
7707752	High	Gilkey Creek
7707753	High	Municipal Storm Sewer
7707754	High	Municipal Storm Sewer
7707755	High	Municipal Storm Sewer
7707756	High	Municipal Storm Sewer
7710005	High	Gilkey Creek 0017
7710006	High	Gilkey Creek 0017
7710012 7710754	High High	Gilkey Creek 0017 Gilkey Creek 0017
7710763	High	Gilkey Creek 0017
7710705	High	Gilkey Creek 0017 Gilkey Creek 0017
7711509	High	Gilkey Creek 0017 Gilkey Creek 0017
7711760	High	Gilkey Creek 0017
7712255	Medium	Kearsley Creek
7712260	Medium	Kearsley Creek
7712504	High	Gilkey Creek 0017
7712505	High	Gilkey Creek 0017 Gilkey Creek 0017
7712751	High	Gilkey Creek 0017
	*****	Sime j Creek 0017

Outfall Num	Priority	Receiving Watershed
7713501	Low	Richards
7713502	Low	Richards
7713503	Low	Richards
7714003	Medium	Richards Drain 0042
7714012	Medium	Richards Drain 0042
7714016	Medium	Richards Drain 0042
7714518	High	Gilkey Creek 0017
7715261	High	Gilkey Creek 0017
7715757	High	Gilkey Creek 0017
7715761	High	Gilkey Creek 0017
7716001	High	Gilkey Creek
7716002	High	Gilkey Creek
7716003	High	Gilkey Creek
7716501	High	Robinson and Curtis (Robinson)
7717251	High	Gilkey Creek
7717501	High	Swartz Creek
7717502	High	Swartz Creek
7718001	High	C of Flint- Flint River
7718002	High	C of Flint- Flint River
7718003	High	C of Flint- Flint River
7718004	High	C of Flint- Flint River
7718005	High	C of Flint- Flint River
7718006	High	C of Flint- Flint River
7718007	High	Flint River (via City Flint)
7718008	High	Flint River (via City Flint)
7718009	High	C of Flint- Flint River
7718010	High	C of Flint- Flint River
7718011	High	C of Flint- Flint River
7718501	High	C of Flint- Flint River
7718502	High	C of Flint- Flint River
7718503	High	C of Flint- Flint River
7718504	High	C of Flint- Flint River
7718505	High	Flint River (via City Flint)
7718506	High	Flint River (via City Flint)
7721001	High	Thread Creek
7721251	High	Robinson & Curtis 0344
7721254	Medium	Thread Creek
7721255	Medium	Robinson & Curtis 0344
7721758	Medium	Thread Creek
7721760	Low	Robinson & Curtis 0344
7721761	Low	Robinson & Curtis 0344
7722003	High	Robinson & Curtis 0344
7722251	High	Robinson & Curtis 0344
7722252	Medium	Robinson & Curtis 0344
7722253	Medium Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
7722254	Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
7722255	Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
7722256	Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
7722258	High	Robinson & Curtis 0344 Robinson & Curtis 0344
7722751	Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
7722752	Medium	Robinson & Curtis 0344 Robinson & Curtis 0344
1144134	ivicuiuiii	Roomson & Carus 0344

Outfall Num	Priority	Receiving Watershed
7722753	High	Robinson & Curtis 0344
7723254	High	Gilkey
7723258	Medium	Gilkey
7723265	High	Gilkey
7723760	High	Gilkey Cr
7724754	Medium	Phillips Drain 0080
7724760	High	Phillips
7725257	High	Phillips Drain 0080
7726001	Medium	Robinson & Curtis 0344
7726253	High	Gilkey Creek 0017
7726508	High	Thread Creek
7726509	High	Thread Creek
7726751	Medium	Gilkey Creek 0017
7726752	Medium	Gilkey Creek 0017
7727504	High	Thread Creek
7727755	Medium	Thread Creek Thread Creek
7727756	Low	Thread Creek Thread Creek
7727757	High	Thread Cr
7727758	High	Thread Cr
7728257	High	Thread Creek
7728755	High	Thread Creek Thread Creek
7729251	High	Municipal Storm Sewer
7729502	High	Schram & Ext 0320
7729503	Low	Schram 20
7729504	High	Schram & Ext 0320
7729507	Low	Schram & Ext 0320
7730001	High	Gibson (watercourse)
7730001	High	Gibson (watercourse)
7731007		Gibson Drain 0145
	High Medium	Gibson Drain 0423
7731013		
7731258	Low	Burton Drain
7731259	Low	Burton Drain
7731260	*High	Cornwell Drain
7731524	High	Sherwood 0423
7731538	High	Gibson Drain 0145
7732251	Low	GCDC 0320
7732252	Low	GCDC 0320
7732257	Low	Schram and Ext
7732258	Low	Schram and Ext
7732259	Low	Schram and Ext
7732501	Low	Burton Drain
7733254	High	Thread Creek
7733258	High	Thread Creek
7733259	High	Thread Creek
7733752	High	Thread Creek
7734501	Medium	C of Flint- Flint River
7735001	High	Thread Creek
7735002	High	Thread Creek
7735005	Low	Thread Creek Pierson Branch
7735251	Medium	Thread Creek
7735252	Medium	Thread Creek
7735253	Medium	Thread Creek

Outfall Num	Priority	Receiving Watershed
7735254	Medium	Thread Creek
7735255	Low	Thread Creek Pierson Branch
7735256	Low	Thread Creek Pierson Branch
7735355	Low	Thread Creek
7735501	Low	Thread Creek Pierson Branch
7735502	Low	Thread Creek Pierson Branch
7735757	Low	Thread Cr
7735758	Low	Thread Cr
7735759	Low	Thread Cr
7735760	Low	Thread Cr
7736001	High	Gilkey Creek 0017
7736002	High	Gilkey Creek 0017
7736008	Medium	Gilkey Creek 0017
7736009	High	Gilkey Creek 0017
7736503	Low	Gilkey Creek 0017
7736751	Medium	Gilkey Creek 0017
7736753	Medium	Gilkey Creek 0017
7736786	High	Gilkey Creek 0017
7802502	Medium	Black Creek 0704
7802503	Medium	Black Creek 0704
7803001	Low	Austin Drain 0160
7803757	Medium	Black Creek 0704
7803758	Medium	Black Creek 0704
7804001	Low	Brier Creek Drain 0130
7804016	High	Brier Cr Drain 0130
7804018	High	Brier Cr Drain 0130
7805001	Medium	Brier Creek Drain 0130
7805002	Medium	Brier Creek Drain 0130
7805006	Medium	Brier Creek 0130
7805007	Medium	Brier Creek 0130
7805010	Medium	Brier Creek 0130
7805013	Medium	Brier Creek Drain 0130
7805021	Medium	Brier Creek Drain 0130
7805252	Medium	Brier Creek Drain 0130
7805254	Medium	Brier Creek Drain 0130
7806003	Medium	Brier Drain 0130
7806004	Medium	Brier Drain 0130
7806251	High	Brier Creek 0130
7806252	High	Brier Creek Drain 0130
7806265	Medium	Brier Creek Drain 0130
7806266	Medium	Brier Creek Drain 0130
7806501	High	Cochran 0174
7806507	Low	Cochran Drain 0174
7806511	Low	Cochran Drain 0174
7806512	Low	Cochran Drain 0174
7806516	Low	Cochran Drain 0174
7806517	Low	Cochran Drain 0174
7806518	Low	Cochran Drain 0174
7806528	Low	Cochran Drain 0174
7806529	Low	Cochran Drain 0174
7806530	Low	Cochran Drain 0174
7806531	Low	Cochran Drain 0174

Outfall Num	Priority	Receiving Watershed
	<u></u>	
7806751	High	Cochran Drain 0174
7807517	Medium	Kearsley Creek
7807836	High	Black Creek 0704
7807837	High	Black Creek
7808758	Medium	Black Creek 0704
7808761	Low	Long Lake 0614
7808762	Low	Long Lake 0614
7808765	Medium	Long Lake 0614
7808767	Medium	Long Lake 0614
7809002	High	Black Creek 0704
7809303	High	Harvey Drain 0631
7809304	Low	Harvey Drain 0631
7809305	Low	Harvey Drain 0631
7809306	Low	Harvey Drain 0631
7809501	Medium	Black Creek 0704
7809503	Medium	Long Lake 0614
7809504	Medium	Long Lake 0614
7809781	Low	Black Creek
7809782	Low	Black Creek
7809783	Low	Black Creek
7809784	Low	Black Creek
7809785	Low	Black Creek
7809786	Low	Black Creek
7810032	High	Black Creek 0704
7810052 7810251	Low	Black Creek 0704 Black Creek 0704
7810257	High	Black Creek 0704 Black Creek 0704
7810257 7810258	High	Black Creek 0704 Black Creek 0704
7810238 7810260	Medium	Black Creek 0704 Black Creek 0704
7810260 7810261	Medium	Black Cr
7810751	Low	Hock & Walterhouse 0091
7810752 7811515	Low	Municipal Storm Sewer
7811515 7815501	Low	Black Cr
7815501 7816252	High	Long Lake 0614
7816252 7816263	High	Long Lake 0614
7816263	Low	Long Lake 0614
7816264 7816266	High	Long Lake 0614
7816266 7816267	Low	Long Lake 0614
7816267 7 816268	Low	Long Lake 0614
7816268	High	Long Lake 0614
7816270	High	Long Lake 0614
7816271 	High	Long Lake 0614
7816272	High	Long Lake 0614
7816501	Medium	MDOT to Black Creek
7816752	High	Long Lake 0614
7817501	Low	Kearsley Creek
7817502	Low	Kearsley Creek
7817512	Medium	Kearlsey Creek
7818002	High	Phillips 0080
7818021	Medium	Kearsley Creek
7818501	High	Phillips Drain 0080
7818502	High	Phillips Drain 0080
7818504	Medium	Phillips 0080

Outfall Num	Priority	Receiving Watershed
Vacion 1 (alli	11101111	receiving viaceioneu
7818507	High	Phillips Drain 0080
7818508	High	Phillips Drain 0080
7818751	Medium	Kearsley Creek
7818757	Low	Kearsley Creek
7818771	Medium	Kearsley Creek
7818774	Medium	Kearsley Creek
7818775	Medium	Kearsley Creek
7819005	High	Phillips 0080
7819251	Low	Lobban 0300
7819253	Low	Lobban Drain 0300
7819265	Low	Lobban Drain 0300
7819267	Low	Lobban Drain 0300
7819271	Low	Lobban Drain 0300
7819271	Low	Lobban Drain 0300
7819290 7819344	High	Phillips
7819344 7819348	High	Phillips
7819348 7819349	High	Phillips
7819349 7819351	Low	Lobban Drain 0300
7820001	Medium	Kearsley Creek
7820001 7820509	Medium	Lobban Drain #0300
7820509 7820511	Low	Lobban Drain 0300
7820511 7820513	Low	Lobban Drain 0300
7820514		Lobban Drain 0300
7820514 7820515	Low	Lobban Drain 0300 Lobban Drain 0030
7820313 7821026	Low	
	Low	Kearsley Creek
7821030 7821031	Low	Kearsley Creek
7821031 7821251	Low	Kearsley Creek
7821251 7821252	High	Kearsley Creek
7821252 7821751	High	Kearsley Creek
7821751 7821754	Low	Kearsley Creek
7821754 7822581	Low	Kearsley Creek
7822501	High	Montague Drain 0317
7825251 7828268	High	Phillips 0080
7828268	High	Kearsley Creek via wetlands
7829003	Medium	Lobban Drain 0300
7829755 782005	High	Lobban Drain 0300
7830095	High	Phillips
7830096 7830100	High	Phillips
7830109 7830110	High	Phillips
7830110 7830251	High	Phillips
7830251	High	Phillips
7830255	Medium	Phillips drain 0319
7830256 	Medium	Phillips drain 0319
7830257	Medium	Phillips drain 0319
7830258	Medium	Phillips drain 0319
7830259	Medium	Phillips 0067
7830503	Medium	Phillips Drain 0530
7830505	Medium	Phillips Drain 0530
7830506	Medium	Phillips Drain 0530
8501516	Medium	Armstrong Creek
8501753	Medium	Central Drain outlet
8512240	Medium	Armstrong Creek

Outfall Num	Priority	Receiving Watershed
8512251	High	Armstrong Creek
8512509	High	Bowman 0062
8512780	High	Root 0185
8513000	High	Bowman 0062
8513001	Medium	Bowman 0062
8513002	Medium	Bowman 0062
8513003	High	Bowman 0062
8513497	High	Cattail Swamp Drain 0401
8513499	High	Cattail Swamp Drain 0401
8513504	Low	Bowman 0062
8513505	High	Bowman 0062
8513751	Medium	Cottrell 0601
8513753	Medium	Cottrell 0601
8513757	Low	Root Drain 0185
8513993	Medium	Root Drain 0185
8513995	Medium	Root Drain 0185
8513999	Medium	Root Drain 0185
8514003	Medium	Tributary of Flint River
8514004	Medium	Tributary of Flint River
8515252	Medium	Tributary of Flint River
8515253	Medium	Tributary of Flint River
8515754	High	GCDC 0538 to Flint River
8522251	High	Flint River
8522252	Medium	Ditch to Flint River
8522253	Medium	Ditch to Flint River
8522254	Low	flint River Tributary
8522255	Low	Flint River via Ponderosa outlet
8522256	Low	Flint River
8522507	High	Flint River
8522508	High	GCDC 1414 to Flint River
8523509	High	Road Ditch to Flint River
8523752	High	Bowman
8523753	High	GCDC 0195
8523754	Low	Bowman
8523755	Low	Bowman
8523756	Low	Bowman
8523757	Low	Bowman
8523758	Low	Bowman
8523759	Low	Bowman
8524001	Low	Bowman 0062
8524002	High	Bowman 0062
8524003	Medium	Bowman
8524251	Medium	Cottrell 0601
8524252	Medium	Cottrell 0601
8524253	High	Cottrell 0601
8524504	Low	Bowman Drain 0062
8524505	Low	Bowman Drain 0062
8524507	Medium	Bowman 0062
8524508	Medium	Bowman 0062
8524516	Medium	Bomen Drain 0062
8524517	High	Boman Drain GCDC 0062
8525012	Low	Bowman Dr via 0280
3020312	20.11	

Outfall Num	Priority	Receiving Watershed
8525258	High	Boman Drain GCDC 0062 via pond
8525504	High	Boman Drain 0062
8526001	Low	Flint River
8526002	Low	Municipal Storm Sewer
8526003	Low	Flint River via 0147
8526004	Low	Schillman Drain 0233
8526005	Low	Flint River via 0147
8526518	Low	Municipal Storm Sewer
8526519	Low	Municipal Storm Sewer
8526520	Low	Municipal Storm Sewer
8527001	Low	Cole Cr via GCRC ditch
8527260	High	Flint River
8527502	Medium	Cole Creek 0764
8527503	Low	Cole Creek 0764
8527696	Medium	Cole Creek 0764
8527698	Medium	Cole Cr Drain 0764
8527700	Medium	Cole Cr Drain 0764
8527701	Low	Cole Cr Drain 0764
8527703	High	Cole Cr Drain 0764
8527704	Medium	Cole Cr Drain 0764
8534012	Low	Cole Creek 0764
8534759	Medium	Cole Creek 0764
8534761	Medium	Cole Creek 0764
8534762	Medium	Cole Cr Drain 0764
8534762 8534763	Medium	Cole Cr Drain 0764 via overland flow
8534764	Medium	Cole Cr Drain 0764 via overland flow
8534765	Low	Crooked Cr outlet via GCRC ditch
		Cole Cr Drain 0764
8534769	Low	
8534770	High	Crooked Creek outlet
8535501	Medium	Cole Creek 0764
8535505	Medium	Cole Creek 0764
8535507	Medium	Cole Creek 0764
8535755	Medium	Messmore & Cronk
8535756	Low	Messmore & Cronk 0464
8536004	High	Flint River
8536005	High	Flint River
8536011	Medium	Messmore & Cronk 0464
8536012	Medium	Messmore & Cronk 0464
8536013	High	Flint River
8536262	High	French Drain 0219 to Flint River
8536263	High	French Drain 0219 to Flint River
8536264	High	French Drain 0219 to Flint River
8536265	High	French Drain 0219
8536266	High	French Drain 0219
8536501	Medium	Messmore & Cronk
8536502	Medium	Messmore & Cronk
8536503	Medium	Messmore & Cronk 0464
8536751	Medium	Flint River
8601001	Low	Mason Drain 0159
8601003	Low	Mason Drain 0159
8601005	Low	Mason Drain 0159
8601009	Low	Mason Drain 0159

Priority	Receiving Watershed
	are a second of the second of
Low	Mason Drain 0159
High	Mason
Low	Mason Drain 0159
Low	Mason Drain 0159
Low	Mason Drain 0159
	Mason Drain 0159
	Mason
	Mason Drain 0159
	Mason Drain 0159
	Mason Drain via 1118
	Craven & Benson 0013
	Central Drain 0109
	Central Drain 0109
	Central Drain 0109
	Central Drain 0109
<u>~</u>	Lake 0057
	Lake 0057
	Craven & Benson 0013
<u>~</u>	Hannan 0110
	Craven & Benson Br1
	Craven & Benson Br1
	Craven & Benson
	Craven & Benson
	Craven & Benson
	?
Medium	Hughes Dr 0024
High	Hughs Drain 0024
High	Hughes Dr 0024
High	Hughes Dr 0024
High	Hughes Dr 0024
High	Hughes Dr 0024
Low	Hughs & Ext 0024
Low	Hughes
Low	Hughes
Low	Hughs
High	Hannan 0110
Medium	Hannan 0110
High	MDOT Road Ditch
	Lake 0057
	Daily Drain 0420
<u> </u>	Delaney Drain 1008
	Delaney Drain 1008
	Root Drain 0185
	Root Drain 0185
111811	KOOL DIGIII VIOJ
	High Low Low Low Low Medium Low Low Low Low Low Low Low High Medium Medium Low

Outfall Num	Priority	Receiving Watershed
OULIAII MUIII	1 11011119	Acceiving water sneu
8619102	High	Root Drain 0185
8619229	High	Root Drain 0185
8619231	High	Root Drain 0185
8619247	High	Root Drain 0185
8619249	High	Root Drain 0185
8619501	Medium	Root Drain 0185
8621251	Medium	Stadler Drain 0113
8621252	Medium	Central Drain 0109
8621491	Medium	Central Drain 0109
8621497	High	Central Drain 0109
8621499	High	Central Drain 0109
8621749	Medium	Cattail Swamp Drain 0401
8621751	High	Stadler Drain 0113
8622247	Low	Central Drain 0109
8622249	Medium	Central Drain 0109
8622747		Central Drain 0109 Central Drain 0109
8622747 8622749	High	Central Drain 0109 Central Drain 0109
	High	
8623001 8623749	High	Lake Drain 0067 Lake Drain 0057
	High	
8623751	High	Lake Drain 0057
8623752	High	Lake Drain 0057
8623753	High	Lake Drain 0057
8623995	Medium	Lake Drain 0057
8623997	Medium	Lake Drain 0057
8624751	Low	GCDC 0032
8625001	High	Municipal Storm Sewer
8625751	High	Municipal Storm Sewer
8626001	High	Municipal Storm Sewer
8626002	High	Municipal Storm Sewer
8627251	Low	Carpenter #1
8627252	Low	Carpenter #1 0181
8628001	Medium	Cattail Swamp Drain 0401
8628003	Medium	Cattail Swamp Drain 0401
8629001	Medium	Root Drain 0185
8629002	Medium	Root Drain 0185
8629004	High	Root Drain 0185
8629005	High	Root Drain 0185
8629006	High	Root Drain 0185
8629501	High	Root Drain 0185
8629503	High	Root Drain 0185
8629751	High	Hartshorn Drain 0458
8629753	High	Hartshorn Drain 0458
8629759	High	Hartshorn & Ext 0458
8629772	Medium	Hartshorn & Ext 0458
8629773	High	Hartshorn & Ext 0458
8629774	High	Hartshorn & Ext 0458
8630251	Medium	Root Drain 0185
8630252	Medium	Root Drain 0185
8630751	High	Root Drain 0185
8630753	Medium	Root Drain 0185
8630758	High	Root Drain 0185
8630759	Medium	Root Drain 0185

Outfall Num	Priority	Receiving Watershed
	<u> </u>	
8631251	Low	GCRC
8631501	High	Flint River
8631508	High	Blackmore Drain 0005
8631509	High	Flint River
8632001	High	Hartshorn Drain 0458
8632003	High	Hartshorn Drain 0458
8632018	High	Hartshorn
8632109	Medium	Hartshorn Pierson br 0928
8632110	Medium	Hartshorn Pierson br 0928
8632117	High	Hartshorn & Ext 0458
8632501	Medium	Hartshorn Drain 0458
8632751	Medium	Hartshorn Drain 0458
8632756	Medium	Hartshorn Drain 0458
8632757	Medium	Hartshorn Drain 0458
8632758	Medium	Hartshorn Drain 0458
8633751	High	Hartshorn & Ext 0458
8634001	High	Hartshorn
8634002	Medium	Hartshorn
8634003	Low	Hartshorn
8634004	High	Hartshorn
8634502	High	Hartshorn & Ext 0458
8634503	High	Hartshorn 0458
8634751	Low	HArtshorn via 0581
8635751	Medium	Municipal Storm Sewer
8635752	Medium	Municipal Storm Sewer
8636501	High	Municipal Storm Sewer
8702252	*High	Butternut Creek
8704752	*High	Saxton Drain 1210
8705751	*High	Saxton Drain 1210
8706251	Low	Mason Drain 0159
8706252	Low	Mason Drain 0159
8706508	Low	Mason Drain 0159
8706509	Low	Mason Drain 0159 Mason Drain 0159
8706510		Mason Drain 0159
8706751	Low	Mason Drain 0139 Mason Drain 0159
	Low	Mason Drain 0159 Mason Drain 0159
8706752 8707004	Low	
8707004	Low	Municipal Storm Sewer
8707005	Low	Municipal Storm Sewer
8707006	Low	Municipal Storm Sewer
8709251	*High	Saxton Drain
8710251	*High	Genesee Drain 0260
8710252	*High	No Name Creek 5- Natural Watercourse
8710253	*High	Genesee Drain 0260
8710501	*High	Flint River
8710757	*High	Flint River (Mott Lake)
8710758	*High	Flint River (Mott Lake)
8711751	*High	Flint river via wetlands to Mott lake
8713001	*High	Tributary of Flint River
8715251	*High	Flint River
8715252	*High	Flint River
8715751	*High	Hiller Drain 0056
8716502	*None	Flint River

Outfall Num	Priority	Receiving Watershed
8716503	*None	Flint River
8716504	*None	Flint River
8716505	*None	Flint River
8720503	*High	Cornwell Drain 0379
8720505	*High	Cornwell Drain 0379
8720507	High	Riskin Drain 0411
8720508	High	Riskin Drain 0411
8720509	High	Riskin Drain 0411
8720510	*High	Cornwell Drain 0379
8721001	*None	Flint River via cormwell stream
8721002	*None	Flint River
8721003	*None	Flint River
8721004	*None	Flint River
8721251	*High	Coggins outlet
8721252	*High	Coggins outlet
8721505	High	Flint River
8722001	*High	Carpenter Dr 0050
8723503	*High	Carpenter Drain 0050
8723504	*High	Carpenter Drain 0050
8723505	*High	Carpenter Drain 0050
8724752	High	Crampton Drain 0012
8724753	Medium	Crampton Drain 0012
8724754	High	Crampton Drain 0012
8725001	Medium	Crampton Drain 0012
8725002	Medium	Crampton Drain 0012
8725011	Medium	Crampton Drain 0012
8725254	Low	Crampton Br of 0099
8725255	High	Crampton Drain 0012
8726251	High	Crampton Drain 0012
8726257	Medium	Crampton Drain 0012
8726258	High	Crampton Drain 0012
8726501	High	Crampton Drain 0012
8726502	Medium	Crampton Drain 0012
8726503	Medium	Crampton Drain 0012
8726512	High	Crampton Drain 0012
8726516	High	Crampton Drain 0012
8727756	High	Crampton Drain 0012
8727759	High	Crampton Drain 0012
8727760	Medium	Crampton Drain 0012
8727761	Medium	Crampton Drain 0012
8727762	Medium	Crampton outlet
8729001	High	Municipal Storm Sewer
8734755	High	Kearsley Creek
8734756	High	Kearsley Creek
8734757	High	Kearsley Creek
8734760	High	Kearsley Creek
8734761	High	Kearsley Creek
8734763	High	Kearsley
8735502	High	Kearsley Creek
8805251	*None	Parker & Scothan 0036
8819501	*High	Cullen & Powers 0014
8827266	Medium	Bird Drain 0002

Outfall Num	Priority	Receiving Watershed
8828502	*High	Cullen and Powers 0014
8828755	*High	Cullen and Powers
8830751	*None	Cullen & Powers #0014
8830752	*None	Cullen & Powers #0014
8831251	*High	Powers-cullen Drain 0014
8831252	*High	Powers-cullen Drain 0014
8831501	Medium	Brier Drain 0130
8831502	Medium	Brier Drain 0130
8831754	High	Brier Drain 0130
8831758	High	Brier Drain 0130
8831759	High	Brier Creek
8832007	*High	Powers-cullen Drain 0014
8832008	*High	Powers-cullen Drain 0014
8833004	*High	Powers-cullen Drain 0014
8833005	*High	Powers-cullen Drain 0014
8833008	*High	Austin Drain 0160
8833016	*High	Austin Drain 0160
8833018	*High	Austin Drain 0160
8833019	*High	Austin Drain 0160
8833020	*High	Austin Drain 0160
8833021	*High	Austin Drain 0160
8833257	*High	Cullen and Powers
8834004	*High	Cullen and Powers 0014
8834005	*High	Cullen and powers #0014
8834501	*High	Cullen and Powers 0014
9603010	High	Trinklien Dr IC
9603251	Medium	Silver Creek IC tributary
9603252	Medium	Silver Creek IC
9608501	High	Pine Run tributary
9608514	Medium	Pine Run tributary
9608751	High	Pine Run
9608967	Low	Pine Run tributary #1582
9608977	Low	Pine Run tributary #1582
9608979	Low	Pine Run tributary #1582
9608997	High	Pine Run tributary
9608999	High	Pine Run tributary
9610497	Medium	Alpine & Blackmore 0098
9610499	Medium	Alpine & Blackmore
9610501	High	Briggs IC 0737
9610502	High	Briggs IC 0737
9610751	High	Collins 0025
9610753	High	Collins 0025
9610758	Medium	Alpine Blackmore Dr 0241
9611977	Medium	Alpine & Blackmore 0098
9611979	Medium	Alpine & Blackmore 0098
9611993	Medium	Alpine & Blackmore 0098
9611999	Medium	Alpine & Blackmore 0098
9613501	Medium	Pine Run 0165
9614001	Low	CollinsDr. (via pipe)
9614532	High	Collins 0025
9614533	Low	Pine Run watercourse
9614534	High	Tributary Pine Run

Outfall Num	Priority	Receiving Watershed
9614535	High	Tributary Pine Run
9614536	High	Pine Run watercourse
9614751	High	Pine Run & Tyron
9614765	High	Pine Run 0165
9614766	Medium	Pine Run 0165
9615254	Low	Collins Drain 0025
9615255	Low	Collins Drain 0025
9615256	Low	Collins Drain 0025
9615257	Medium	Collins Drain 0025
9615258	High	Collins Drain 0025
9615507	High	Pine Run
9615513	High	Pine Run
9615522	High	Haven & Dexter Street Outlet
9616251	High	Briggs IC 0737
9616502	High	Pine Run Via MDOT
9616997	Medium	Pine Run
9616999	Low	Pine Run
9617251	High	Pine Run
9617252	High	Pine Run
9617253	High	Pine Run
9617255	Low	Pine Run
9617257	High	Pine Run
9617751	Medium	Parker Creek
9617762	Medium	Parker Creek
9620253	High	Parker Creek
9620255	High	Parker Creek
9620751	High	Wilson And Linden Drain 0416
9621508	High	Parker Creek
9621509	High	Parker Creek
9621751	High	Parker Creek
9621752	Medium	Parker Creek
9621753	Medium	Parker Creek
9622251	Low	City of Clio
9623509	High	Bejamin Run
9626001	High	Benjamin Run
9626005	High	Benjamin Run
9626007	High	Benjamin Run
9626008	High	Bejamin Run
9626501	High	Bejamin Run
9627501	High	Parker Creek
9627503	Medium	Parker Creek
9627511	Medium	Parker Creek
9627513	Medium	Parker Creek
9628006	High	Brent Run
9628751	Medium	Parker Creek
9634103	Medium	Parker Creek
9635761	High	Benjamin Run
9635763	High	Benjamin Run
9636251	High	Dixie Dort Drain Wisner Drain
9636991	High Modium	Lewis & Powers Drain 1039
9732251	Medium	
9732252	Medium	Lewis & Powers Drain 1039

Outfall Num	Priority	Receiving Watershed
9732751	High	Lewis & Powers Drain 1039
9732752	Medium	Lewis & Powers Drain 1039
9827758	*None	Parker Scothan Br 1 0437
9833251	*None	Parker & Scothan 0036
r6602252	High	Call Ext 0767
r8634501	High	Hartshorn & Ext 0458