

**Genesee County
Phase II Municipalities**



Annual Report Nov. 1, 2007 to Oct. 31, 2008

Submitted to:

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

Submitted by:

**Genesee County Drain Commissioner
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LIST OF ACRONYMS

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

1. NPDES PERMIT REQUIREMENTS AND ADMINISTRATION

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

PERMIT REQUIREMENTS

This annual report summarizes activities completed for the period from November 1, 2007 to October 31, 2008 by Genesee County Phase II Municipalities to meet the requirements of their National Pollutant Discharge Elimination System (NPDES) permit, including:

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

WATERSHED MANAGEMENT ADMINISTRATION

Storm Water System Service District

To implement the 2003 permit requirements and perform watershed management planning, Genesee County established a Storm Water System Service District for the entire County under the authority of the Michigan Public Act 342 of 1939. With the new 2008 permit cycle, many of the communities were able to opt out of the permit. All but 1 of the phase II communities and many of the non phase II communities have agreed to pass a resolution to work together for this next permit cycle.

Watershed Delineation

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

- Lower Flint River Watershed
- Middle Flint River Watershed
- Upper Flint River Watershed
- Shiawassee River Watershed
- Cass River Watershed (deferred)

Figure 1-1 shows the watershed boundaries. The Shiawassee River Watershed boundary was adjusted in 2005 to minimize overlap with effort proceeding in Livingston County. Also after discussions with MDEQ the upper and lower watershed lines were changed in 2007. The five major watersheds listed above were divided into 20 sub-watershed planning areas.

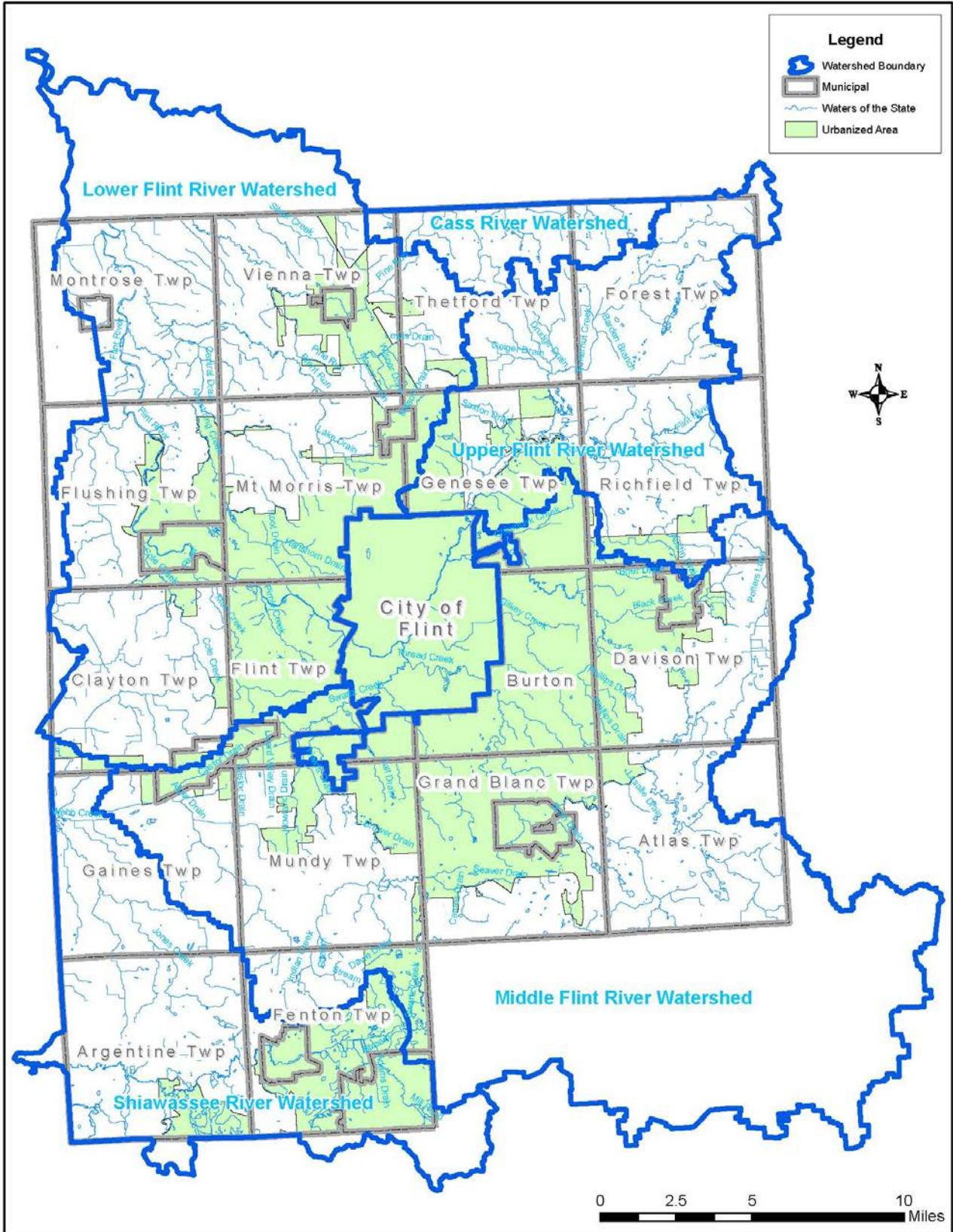


Figure 1-1 Genesee County Watershed Boundaries

Contract Communities

Table 1-1 lists 32 Genesee County watershed-planning communities (contract communities). Note that not all contract communities have NPDES permits and that Phase II status was realigned during this reporting period. This is for permit cycle 2003–2008. Within the 2008–2013 cycle, many of the non-Phase II municipalities will not re-sign the 342 contract. Of the Phase II communities, Grand Blanc Township is the only one that chose not to re-sign the 342 contract and provide all their own requirements for the new permit cycle. For the purpose of this report, any work done from Oct 2007 – Sept 2008 was done on Grand Blanc Township’s behalf.

Table 1-1 Contract Communities

Argentine Township	Flushing Township	Montrose Township
Atlas Township	Forest Township	City of Mount Morris
City of Burton	Gaines Township	Mount Morris Township
Clayton Township	Village of Gaines	Mundy Township
City of Clio	Genesee Township	Village of Otisville
City of Davison	Village of Goodrich	Richfield Township
Davison Township	City of Grand Blanc	City of Swartz Creek
City of Fenton	Grand Blanc Township	Thetford Township
Fenton Township	Village of Lennon	Vienna Township
Flint Township	City of Linden	Genesee County
City of Flushing	City of Montrose	

Current Phase II Permittees are in **Bold**

Nested Drainage System Agreements

The County has met with the schools and the MDEQ to come to an agreement that would allow the County to continue nesting the schools. Currently, the new contract is being reviewed by lawyers and it is our intent that the schools should be nested again within the next year.

Table 1-2 School Districts Interested in Nested Jurisdiction

School District	Within an urbanized area
Atherton	Yes
Beecher	Yes
Bendle	Yes
Bentley	Yes
Carman-Ainsworth	Yes
Clio	Yes
Davison	Yes
Fenton	Yes
City of Flint	Yes
Flushing	Yes
Genesee Intermediate School District (GISD)	Yes
Genesee	Yes
Goodrich	No
Grand Blanc	Yes
Kearsley	Yes
Lake Fenton	Yes
Lake Ville	No
Linden	Yes
Montrose	No
Mt. Morris	Yes
Swartz Creek	Yes
Westwood Heights	Yes

The nested school districts have requested that the Genesee Intermediate School District (GISD) be their representative in this program. The GISD would attend meetings and disseminate information to the individual school districts. Genesee County's attorney drew up an agreement for the schools to sign, but the schools' lawyer objected on major issues. As of October 1, 2008, the schools have a new lawyer and contract discussions continue.

Charter Schools, which are not required to participate, include:

- Academy of Flint
- Burton Glen Academy
- Grand Blanc Academy
- Questar Academy
- Woodland Park Academy

These schools of choice do not need to sign an agreement because they do not own property: they rent it from a corporation they formed as a group.

Genesee County Storm Water Advisory Committee

The Genesee County Storm Water Advisory Committee (SWAC) includes Genesee County and its 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. The only notable exception is the City of Flint, which is a Phase I community, and, therefore, does not participate on the SWAC.

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

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

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

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

SWAC meetings during this reporting period were held on:

- October 17, 2007
- November 21, 2007
- December 19, 2007
- January 16, 2008
- February 20, 2008
- March 19, 2008
- April 16, 2008
- May 21, 2008
- June 18, 2008
- September 17, 2008
- October 15, 2008

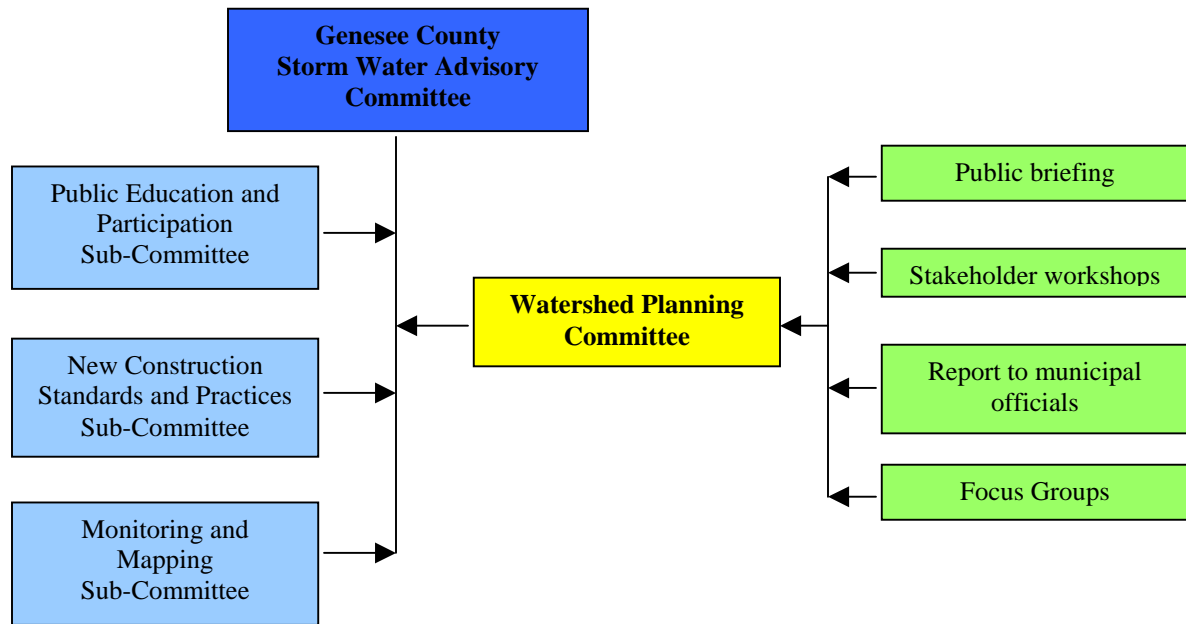


Figure 1-2 Watershed Planning Decision Making Flowchart

Public Education (PE) and Participation Sub-Committee

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

New Construction Standards and Practices (CSP) Sub-Committee

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

Monitoring and Mapping (M&M) Sub-Committee

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

Watershed Management Plans and Storm Water Pollution Prevention Initiatives

Since 2004, GCDC and Tetra Tech have developed a Public Participation Process that was implemented by working with the Watershed Planning Committee(s), stakeholders, and the public to develop WMPs and SWPPIs for each watershed. Beginning in May 2006, the permittees found out that the WMPs were not “Approvable” by the MDEQ. At that time Tetra Tech and the Drain Commissioner’s Office met with the MDEQ to discuss necessary changes and extending the time line.

During this reporting period, the WMPs were found acceptable. Since the Cass River WMP is deferred, the other four plans were updated and submitted to the State, see Table 1-3. We were able to proceed with writing a SWPPI template based on the acceptable WMPs. After several revisions and meetings with both the communities and the State, the SWPPIs were submitted in spring 2008. Approval letters for the SWPPI's were received in the summertime.

The new applications for permit cycle 2008- 2013 were due this year. They were all prepared and sent to the Phase II communities that will continue with the 342 contract. Each community was to review the application sign it and send it in.

Table 1-3 Watershed Management Plan Submittal Dates

Watershed	WMP Submitted
Upper Flint	February 22, 2008
Shiawassee River	February 27, 2008
Lower Flint	February 29, 2008
Middle Flint	February 2008

All SWPPIs were due and prepared by Mar 1, 2008, before the permit cycle ran out. Revised SWPPIs were fixed and resubmitted throughout the summer as the MDEQ letters were received.

2. PUBLIC EDUCATION AND PARTICIPATION SUB-COMMITTEE ACTIVITIES

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

- January 28, 2008
- February 25, 2008
- May 19, 2008
- July 22, 2008
- September 23, 2008

PE Membership included:

- City of Burton – Charles Smiley
- City of Clio – William Kowl
- City of Davison – Pete Auger
- Clayton Township – Rod Shumaker
- Flint Township – Sandra Wright
- Forest Township – Valerie Pace
- Mundy Township – Karen Bond
- Thetford Township – Shelly Ayotte
- Vienna Township – Bob Palmer
- Village of Otisville – David Tatrow

Their purpose included implementation of the Public Education Plan (PEP) and assigned objectives in the draft action plan (section 8 of the Watershed Management Plan).

PUBLIC EDUCATION PLAN

Permit Requirements

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

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

Partnerships

Center for Applied Environmental Research: The PE Sub-Committee has been working with the University of Michigan Flint Center for Applied Environmental Research (CAER) to coordinate, develop, and implement several elements of the PEP. During the last reporting period, CAER staff discussed and finalized contract issues, and kept open communication with the Drain Office.

Work during the last year included:

- Conducted research and provided examples of riparian landowner workshop materials
- Got quotes for non-woven bags and brochures for promotional purposes
- Designed logo for non-woven bags
- Discussed program implementation with drain office
- Discussed the potential for a K-12 curriculum guide and in-service teacher training
- Transferred the “Our Water” website account to the drain office
- Attended meetings at the drain office
- Re-designed the “Our Water” brochure and sent to drain office for editing
- Recruited volunteers and booth materials for the Genesee County Fair
- Staffed booth at the Genesee County Fair
- Planned newsletter with drain office and researched content (see **Appendix A**)
- Attended environmental educators meeting for Genesee County
- Researched events suitable for Phase 2 education community outreach
- PEP Evaluation Plan

Genesee Conservation District: GCDC contracted with the Genesee County Conservation District (GCCD) to provide storm water education services to school-aged children on behalf of the Phase II permittees. During this permit cycle, GCDC reached over 8,000 participants in the Phase II communities through educational activities correlated to the Michigan Department of Education Standards and Benchmarks and the Phase II Storm Water Education Elements. A newsletter was published in Fall 2008 (see **Appendix B.**) GCCD also began developing Certificates of Appreciation to award to participating Phase II communities. This effort will continue into the next reporting period.

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

- PowerPoint presentations on storm water education for adult audiences such as municipal officials, rotary clubs, neighborhood associations, lake associations, etc.
- Hosting up to six river walks on the Flint River, Shiawassee River, or tributaries:

8/21/08	10 pm Night Walk in Linden	1 Attendee
9/8/08	12 pm Richfield Park in Davison	1 Attendee
9/24/08	10 am Hogbacks	12 Attendees
9/24/08	8 pm Flushing/Genesee Co. River Trails	10 Attendees
10/8/08	10 am Clio’s George Atkins River Trail	8 Attendees
- Hosting up to two canoe trips on the Flint River (9/9/08 event shown in photos):

8/2/08	River Rally from Downtown Flushing to FTNP	42 Attendees
9/9/08	Canoe from Chatfield Schools FTNP to Montrose	28 Attendees



- Project Global Rivers Environmental Network (GREEN) Educational Program through the M&M Sub-Committee (See Section 7). A news feature is shown in **Appendix C**. Participation from:
 - 15 School Districts
 - 22 Classrooms
 - 1,100+ Students
 - 30 Mentors
 - 21 Presenters
- Bi-annual Benthic Macroinvertebrate Monitoring through the M&M Sub-Committee (See Section 8).
 - Fall '07 14 sites covered in Genesee County
7 sites covered in other counties
53 monitors participating
 - Spring '08 Training session at Wild Lapeer (4/26/08)
15 sites covered in Genesee County
7 sites covered in other counties
43 monitors participating
 - 9/18/08 ~15 people trained on World Water Monitoring Day
- During this reporting period, FRWC published its newsletter, *The Watershed Reporter*, in April, July, and September 2008. These can be found in **Appendix D**.

NOTE: *both project GREEN and benthic monitoring are supported by the Monitoring & Mapping Subcommittee, They are included here due to their education components of their programs. That includes pairing a mentor with a classroom.*

Activities Update

“Our Water” Campaign Webpage: The development of an easy-to-use webpage with information about the seven storm water elements was identified as critical to the successful implementation of the “Our Water” Campaign. CAER worked with the Public Education and Participation Sub-Committee to develop, host and update the www.ClearGeneseeWater.org web page. The “Our Water” webpage was posted in July 2006.

Updates to the web page began in October 2008 and include a new masthead, additional informational tabs and links on the homepage, easy-to-follow navigation, and an events calendar. Updates are scheduled for review in Fall 2008. Additional content updates will be identified and made by CAER every other month through May 2009.

Monitoring of web traffic was provided by the hosting service in prior years. This year, the hosting was taken over by the Drain Commissioner’s Office. Once the transition was over, we were able to begin tracking visits to our site. Here are the findings:

July 2008	640 visits
Aug 2008	432 visits
Sep 2008	434 visits

Materials and Presentation for Riparian Land Owners: An informational mailer is being developed by CAER that will be sent to riparian land owners. The mailer will also advertise a free or low cost workshop for land owners. The intent is to educate riparian land owners on what to do and what not to do next to the river. In addition, it is our hope is to get a grant or donation of time for a landscape architect or designer to work with riparian land owners on environmentally-friendly landscaping improvements that the homeowner could make. At this time, we intend to send the mailer to the first group in the spring of 2009.

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

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

Date	Group	Headcount	“Our Water” Steps Discussed
8/2008	Nepessing Group of the Sierra Club	18	2, 3, 4, 6, 7, SDS
8/2008	Rotary Club of Burton	19	2, 7, and SWE
9/2008	Friends of the Flint River Trail	26	1, 6
9/2008	Friends of the Flint River Trail	21	1, 3, 6
9/2008	Daily Dolan East Organization	14	1, 2, 3
9/2008	Mid Michigan Pond & Water Garden	27	1, 2, 3, 4, 6, 7, SDS
9/2008	Grand Blanc Heritage Association	15	2, 7
9/2008	Flushing Historical Society	20	3, 4
9/2008	St. John Vianney Middle School	27	2, 3, 4, 6, 7, SDS
9/2008	Kathy's Wine & Dine Night & River Walk	10	3, 6, 7, SDS
10/2008	Bentley Environmental Group	22	1, 2, 3, 5, 6, SDS

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

The GCDC staff also did presentations in this reporting cycle:

12/2007	Small Cities & Villages Assoc (CVA)	42	SWE, Permit
3/2008	Michigan Township Association (MTA)	20	3, SDS, SWE, Permit
5/2008	School Superintendents meeting	24	Permit

Brochures: In the last permit cycle, an educational brochure was developed to provide information about EPA’s seven mandated elements of storm water education. Brochures are passed out to the public, typically at events (see information booth heading below). Each municipality is also given brochures to distribute as they see fit. 5,000 brochures were printed in November 2006, and we are down to the last 500. A new printing will take place in the coming year. The brochures are given away actively at events, and many have been passively picked up by the public at local community centers. One unique event where brochures were passed out to audience members was at the performance of a play written about the Flint River. This was part of a program called Green Arts, developed by CAER.

Newsletter Articles and Tip Cards: Several of the communities in Genesee County requested that the PE Subcommittee develop and distribute prepared articles to be used in community and non-profit organization newsletters. CAER worked with SEMCOG to adapt several newsletter articles for the Flint River Watershed. Informational packets with compiled information, such as CDs with articles on them and tip cards, etc., were mailed to municipalities to use by putting it on their website, in their newsletter, etc. FRWC adopted articles from our website and placed them in two of their newsletters this year.

Time of Sale Packets: Information to help educate septic system owners on proper maintenance is currently in the design phase and will be implemented in 2009 per the SWPPI.

Promotional Giveaways: GCDC had to repurchase promotional giveaways (premiums) in 2008 to further



storm water awareness. Premiums purchased included water bottles, tote bags, and piggy banks for the kids; a coloring book was also printed in-house to reach out to children. Premiums are given to the public at the information booth (see below). A person can win a premium if they answer a storm water-related question. This allows the booth staff/volunteers to engage the public in conversation and everyone who received a premium was given some verbal education and handed an educational brochure.

Information Booth: A display booth was developed in 2006 by CAER and the PE committee. The booth includes a table, a small free-standing banner outlining the seven simple steps to clean water and a large banner with the logo and this image. Educational activities were also developed to help engage people at public events.

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



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



During this reporting period, the booth was used at the events listed below. For events 1 – 7, FRWC set up a portion of the "Our Water" display in conjunction with their own booth. At these seven events, FRWC passed out "Our Water" literature (250 pieces), "Our Water" water bottles (192), "Our Water" bags

(35), plus their own literature and premiums to participants.

- 1) Flint River Valley Steelheader's Boat and Fishing Show (Birch Run, MI) March 2 – 4, 2008

<i>Total visitors to the booth</i>	<i>180</i>
<i>Visitors from Genesee County</i>	<i>101</i>
<i>Confirmed Visitors from Phase II Communities</i>	<i>16</i>
- 2) Flushing Walleye Festival Show (Flushing, MI) March 7 – 9, 2008

<i>Total visitors to the booth</i>	<i>108</i>
<i>Visitors from Genesee County</i>	<i>101</i>
<i>Confirmed Visitors from Phase II Communities</i>	<i>12</i>
- 3) Clio Healthy Community Event (Clio, MI) April 17, 2008

<i>Attendees</i>	<i>Over 700</i>
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- 4) Annual Earth Day and Garden Celebration (Mott Comm. College) April 19, 2008
Attendees Over 750
- 5) Wild Lapeer (Lapeer, MI) April 26, 2008
Attendees Over 1,000
- 6) Ortonville Creekfest (Ortonville, MI) June 7, 2008
Attendees Over 750
- 7) Flower Day at Flint's Farmers Market (Flint, MI) May 17, 2008
Attendees Over 480
- 8) Genesee County Fair (Mt. Morris, MI) August 11 - 17, 2008
Attendees 909
Visitors from Genesee County 729
Confirmed Visitors from Phase II Communities 380
- 9) Flushing Township Nature Park: Fresh Water Forever day (Flushing, MI) August 2, 2008
Attendees 45

At the Fresh Water Forever day the whole day was dedicated to water. A Flyer with the events is included in **Appendix E**.

At the County Fair, we were able to be in the farm bureau tent this year and staff interacted with nearly twice as many individuals as last year (909 vs. 532). Each of these individuals received a copy of the information brochure and a premium for participating in the event. New for this year, we began asking individuals what community they live in for better feedback. Also we prepared a short survey on our programs and general watershed knowledge. Out of the 909 people we spoke to, 99 (10.9%) filled out the survey. We were pleased with this level of participation and the results, which are compiled in **Appendix F**.

Community Name and Number of Attendees at the County Fair

Argentine Township	2	Flushing Township	16	Montrose Township	5
Atlas Township	10	Forest Township	24	City of Mount Morris	20
City of Burton	37	Gaines Township	11	Mount Morris Township	36
Clayton Township	4	Village of Gaines	0	Mundy Township	17
City of Clio	40	Genesee County	14	Village of Otisville	7
City of Davison	15	Genesee Township	58	Richfield Township	30
Davison Township	34	Village of Goodrich	15	City of Swartz Creek	13
City of Fenton	0	City of Grand Blanc	9	Thetford Township	34
Fenton Township	6	Grand Blanc Township	40	Vienna Township	22
City of Flint	118	Village of Lennon	0	Other Counties	180
Flint Township	75	City of Linden	3		
City of Flushing	10	City of Montrose	4	TOTAL ATTENDEES	909

Phase II Communities shown in bold

Many of the Communities financially support Household Hazardous Waste including Genesee County. Since the fall HHW was happening on October 11, 2008, we took this opportunity to promote it to anyone we talked to that lives within Genesee County. See **Appendix G**. Also the Farm Bureau showed videos throughout the day including the EPA's "After the Storm" video.

Enviroscapes: GCDC has four “Enviroscape” interactive models that demonstrate how pollutants can reach bodies of water. The Conservation District keeps one of the Enviroscope models fulltime for the education program that they contract with the GCDC to do on behalf of the Our Water program (see next section.)



The other three models are available to be checked out to teachers in their classrooms or other education groups, but we would like to increase their use. FRWC checks out one to do public education. In this reporting period, we met with the Genesee Intermediate School District (GISD) about the best way to either train teachers on the model to build enthusiasm or get them in classrooms with a staff person such as what the conservation district does. Discussions are going well and we hope to see greater use of the models with the hope that we will have to purchase additional units.

During this reporting period, 11,000 people viewed the models. Presentations by FRWC included almost 3000 of those:

Date	Event	Headcount
3/18/08	Genesee GREEN Teacher & Mentor's Workshop	30
4/10/08	Clio Middle School 8 th Grade Science	45
4/17/08	Clio Middle School 8 th Grade Science (makeup for missing students)	15
4/17/08	Clio Healthy Community Event	100 est.
4/19/08	Annual Earth Day & Garden Celebration	750 est.
4/26/08	Wild Lapeer Earth Day Event	800 est.
5/2/08	U of M Flint Super Science Friday (presented by CAER)	500 est.
5/17/08	Flower Day at Flint’s Farmer’s Market (focus on water conservation & BMPs)	480 est.
6/7/08	Ortonville Creekfest	130 est.
7/29/08	Seven Ponds Nature Center Class (middle school)	26
8/2/08	Fresh Water Forever Event at FTNP	26
8/5/08	Seven Ponds Nature Center Class (upper class)	24
9/13/08	Southern Links Trailways Grand Opening (rain resulting in low attendance)	25 est.
TOTAL		2951 est.

Genesee County Conservation District Education Program: The PE Sub-Committee has a contract with the Conservation District to provide education to the school-aged public as required by the NPDES Phase II Permit. The GCCD has modified an existing program to meet some of the EPA-required elements and the three-hour program also meets Michigan Educational Assessment Program (MEAP) standards.

This year, the program reached over 8,000 school-aged children in Genesee County, over twice as many as last year. The program can be taught at any site, either in the classroom or as part of a field trip.

The Enviroscope model is the primary focus of the Conservation District’s education program. Because of the large request for presentations from kindergarten through second grade, a less technical alternative was also needed. In 2008, the Conservation District developed a program called the Water Cycle Game. It is played by individual water droplets, the students, who travel through the water cycle. The water droplet’s journey is marked with different colored beads at each station that kids pick up to put on their water cycle bracelet. In the end, they take home their bracelet and some information for their parents. The water cycle game is geared toward k-1st grade and the enviroscope is used for older children.

Here is a break down of educational program participants by month:

Month	Kids	Adults	Total	
January 2008	3	62	65	
February 2008	344	91	435	
March 2008	1743	833	2576	
April 2008	769	324	1093	
May 2008	87	17	104	
June 2008	117	29	146	
July 2008	282	195	477	
August 2008	81	100	181	
September 2008	1500	600	2100	
October 2008	475	398	873	Grand Total: 8050

Participants listed above are based on attendance at the following programs:

School/Organization	Program
S. Bendle Elementary	Career Fair
Genesee County School	Project Red
S. Bendle Elementary	Water Cycle
Webelos @ Randell Elementary	Water Quality
Randell Elementary	Water Quality
Fenton Middle School	Career Fair
Flint Schools	Career Fair
Genesee Area Skill Center	Water Quality
Elms Road Elementary	Watersheds
Girl Scout Camp	Conservation
Girl Scout Meeting-Mason Elem.	Water Conservation/Quality
Genesee County Fair	Water Quality
Fall Harvest Festival @ Applewood	Water Quality
Ligon Center Fall Festival	Water Quality
Humane Society	Proper Pet Waste Disposal
4-Cs Children's Fair	Water Quality
Girl Scout Plane Pull	Water Conservation/Quality

Watershed Signs: In cooperation with the Genesee County Road Commission (GCRC), the PE committee began installing 24X30 watershed signs throughout the Shiawassee and Flint River Watersheds in late 2006. Stream/river crossing identification signs have also been placed to increase public awareness. During this reporting period, another 210 signs were placed at 80 sites. This raises the total placements to date at 306 signs in 135 locations within Genesee County. See Figure 2-1 for locations.

Public identification of these signs is high, with 70% of the people asked if they have seen the signs saying yes during the survey taken at the County Fair in August 2008. Some of these respondents were also able to identify which watershed they live in as a result of these signs. (See *Information Booth* above.)



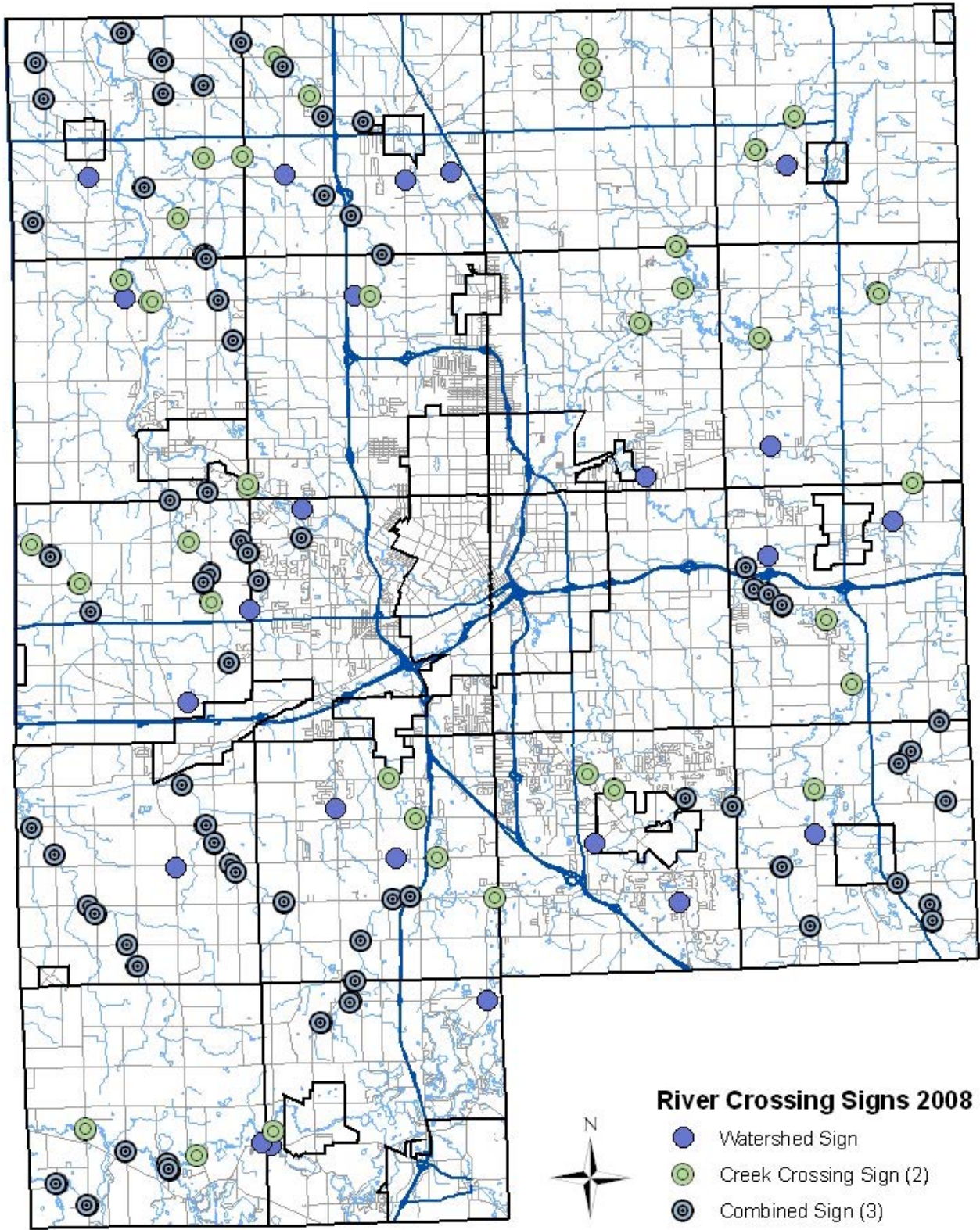
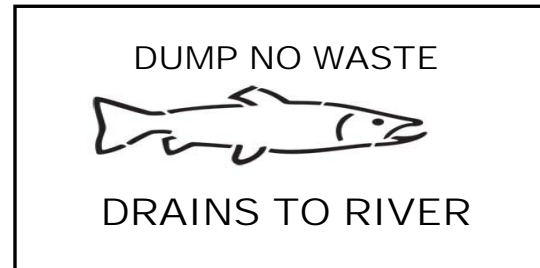


Figure 2-1 River Crossing Signs Placed as of October 2008

Catch Basin Stenciling Program: The GCDC has a catch basin stenciling program. The stencils say “No Dumping - Flows to River”. Since November 1, 2006 there have been more than 900 stencils placed on Genesee County Roads. CAER and the PE Sub-Committee have developed and printed doorknob hangers to educate residents adjacent to the stenciling locations. Stenciling is done by volunteers and the Genesee County Drain Commissioner’s Office.

- As part of preventive maintenance, the Genesee County Drain Commissioner’s Surface Water Maintenance crew has a goal to place several hundred stencils throughout the county each year. This year over 380 were placed next to catch basins that were cleaned out.
- FRWC has taken over the coordination of the volunteer program. Building support has been a slow process. Word is getting around and there will be at least 14 volunteer groups for next year.
- From October 2007 through September 2008 there have been over 400 stencils placed near catch basins in public roads.



Local Watershed Maps: The PE Sub-Committee is working with the GISD to develop and distribute educational material to science teachers within the nested school districts. The MEAP recently changed curriculum requirements for grades K-12. The PE Sub-Committee has been meeting with the GISD to work out the best way to align our programs and materials with these new requirements and ensure their delivery to appropriate teachers. The PE Sub-Committee has already developed watershed maps and CAER is in the process of producing mock-ups that the Conservation District and the GISD can show to teachers for feedback before the final maps are produced and distributed.

Global Rivers Environmental Education Network (GREEN): Project GREEN is a curriculum based, mentored program that seeks to engage young people as active citizens to improve conditions in their watersheds now and in the future. This project has been in existence for fifteen years in Genesee County under the direction of the GISD. In 2003, the FRWC was asked to be the coordinator of the GREEN in the Flint River Watershed. As part of this program, students receive classroom education on water quality and testing procedures and are trained to obtain samples at various sites within the watershed. Each year, schools participate in a summit, where the students are able to present their results. Section 7 provides additional detail on Project GREEN.

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

Public Education Plan Evaluation: An evaluation plan for the PEP is being developed. The evaluation plan will focus on monitoring outputs and outcomes of the education program. Currently, CAER 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.). CAER, Tetra Tech and the PE Sub-Committee are working on a robust evaluation plan to monitor outcomes (changes in behavior, changes in knowledge, etc.) in addition to outputs currently being monitored. Initial areas of success and areas needing improvement are summarized as follows.

Areas of success:

- Program is up and running
- Many of the materials are available
- Stenciling program delivered
- Brochure delivered
- Booth (for outside events) delivered

Areas that need improvement:

- Structural lack of administrative support
- CAER and Tetra Tech assigned specific deliverables
- Administration needs to be more flexible regarding areas that pop up between contracts

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.

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 which 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 **Appendix A**. Municipalities are also given brochures and information packets to dispense to the public.

Also as previously mentioned, the Drain Commissioner's Office met with Municipal officials through the 3 meetings they were invited to, the advisory meetings and during the development of the SWPPI, GCDC staff met with each community individually.

12/2007	Small Cities & Villages Assoc (CVA)
3/2008	Michigan Township Association (MTA)
5/2008	School Superintendents meeting

Advisory meetings- all communities attend.

10/17/07	4/16/08
11/21/07	5/21/08
12/19/07	6/18/08
1/16/08	9/17/08
2/20/08	10/15/08
3/19/08	

3. CONSTRUCTION STANDARDS AND PRACTICES SUB-COMMITTEE ACTIVITIES

The Construction Standards and Practices (CSP) Sub-Committee oversees new construction standards and post construction (Good Housekeeping) practices for Genesee County, including storm water Best Management Practices (BMPs). This Sub-Committee also updates ordinances to ensure compliance with Environmental Protection Agency (EPA) requirements. In this reporting period, the CSP Sub-Committee held six meetings on the following dates:

- November 5, 2007
- January 15, 2008
- March 18, 2008
- May 20, 2008
- July 15, 2008
- September 16, 2008

CSP Membership included:

- City of Flushing – Dennis Bow
- City of Grand Blanc – Randy Byrne
- City of Linden – Jim Letts
- Atlas Township – Paul Amman
- Fenton Township – Bonnie Mathis
- Genesee Township – Scott Streeter
- Grand Blanc Township – Jeff Zittel
- Montrose Township – Mark Emmendorfer
- Richfield Township – James Jacques
- Village of Goodrich – Jakki Sidge

The focus in these meetings was on finishing the draft Storm Water Ordinance, and continuing work on the BMP Manual.

STORM WATER ORDINANCE

The CSP Sub-Committee has been working with communities to establish an approach for developing a Storm Water Ordinance for communities within Genesee County. After reviewing State requirements and sample ordinances from other Counties, Kent County's ordinance was selected as a model. The CSP Sub-Committee reviewed and tailored the ordinance, and it is currently in draft form for legal review. All communities were encouraged to provide input to the draft ordinance.

The CSP Sub-Committee is setting the minimum standards for communities to adopt. The local governments may elect to adopt stricter standards, but must use the Sub-Committee's Storm Water Ordinance at a minimum. They may also choose to modify it, although the ordinance was written to be simple to administer, easily understood, and focused on improving water quality. Each community will have to adopt an ordinance, whether they choose the Sub-Committee's or a more stringent version.

Currently, the only enforcement powers the County has are those given to them from the State (SESC, the Drain Code or Septic rules). Individual communities will have their own police power to enforce the ordinance. They also have the right to extend those powers to another entity to enforce the ordinance on their behalf.

When the ordinances are adopted, there will be a fundamental change in how development occurs. Currently, the Genesee County Drain Commissioner (GCDC) Surface Water Management (SWM) reviews approximately 70% of the site plans (i.e., if a county drain is involved, the GCDC must be involved.) With the implementation of a county-wide ordinance, close to 100% of the site plans will be reviewed by the County or to the County's standards.

The goals of the storm water ordinance, currently in draft form, are:

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

The new standards will deal with water quantity and quality, and 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 has construction BMPs for Soil Erosion and Sedimentation Control (SESC). Individual communities may or may not have ordinances that regulate construction and post construction. The CSP Sub-Committee is developing a BMP Manual, which will represent minimum standards for construction and post construction BMPs. These BMPs will not be limited to SESC.

Communities will be able to either adopt the CSP Sub-Committee's BMP Manual or create their own. The Sub-Committee is also working to address long-term BMP operation, maintenance, and schedule issues. The BMP Manual is slated for completion in the winter of 2009.

4. MONITORING AND MAPPING SUB-COMMITTEE ACTIVITIES

The Monitoring and Mapping (M&M) Sub-Committee held five meetings during this reporting period:

- October 30, 2007
- January 8, 2008
- March 11, 2008
- May 13, 2008
- September 9, 2008

M&M Membership included:

- City of Fenton – Leslie Bland
- City of Montrose – Frank Crosby
- City of Mt. Morris – Jake LaFurgey
- City of Swartz Creek – Tom Svrcek
- Argentine Township – Bob Cole
- Davison Township – Kurt Soper
- Flushing Township – Andrew Trotoget
- Gaines Township – Paul Fortino
- Mt. Morris Township – Paul Long
- Village of Gaines – Diane Nowak
- Village of Lennon – Barbara Baker-Omerod

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

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

- Section 5 Road-Stream Crossing Survey
- Section 6 319 Nonpoint Source Grant Projects
- Section 7 Project GREEN (and its educational aspects discussed in Section 2)
- Section 8 Macroinvertebrate Study (and its educational aspects discussed in Section 2)
- Section 9 IDEP Program
- Section 10 New Storm Water Point Source Discharges

5. ROAD-STREAM CROSSING SURVEY

During the summer of 2007 and 2008 a team of consultants from Tetra Tech and Wade Trim conducted a visual assessment of road stream crossings in the Lower and Middle Flint River and Shiawassee River Watersheds. The crews investigated 183 road-stream crossings along the rivers. Survey locations for 77 of them are presented in Figure 5-1. At this time not all the data for the other 106 has been compiled, sites will be included in future reports. The river assessment identified the bottom substrate, type of bank vegetation, and surrounding land use. Water quality monitoring was not conducted during the road-stream crossing surveys.

During investigations, field crews used a data sheet (Figure 5-2) to record the physical habitat of each road stream crossing which included:

- Background information
- Percentage of substrate
- River morphology
- Physical appearance
- Instream cover
- Stream corridor
- Adjacent land use
- Road crossing information
- Potential sources
- Site summary

Each of the crew members attended a half-day training session to familiarize them with the methodology developed by the Michigan Department of Environmental Quality (MDEQ). This methodology can be found in an April 2000 MDEQ document titled “Stream Crossing Watershed Survey Procedure.”



Jones Creek and Reid Road Crossing



Atherton Drain and Cook Road



Harding Drain and Van Vleet Road

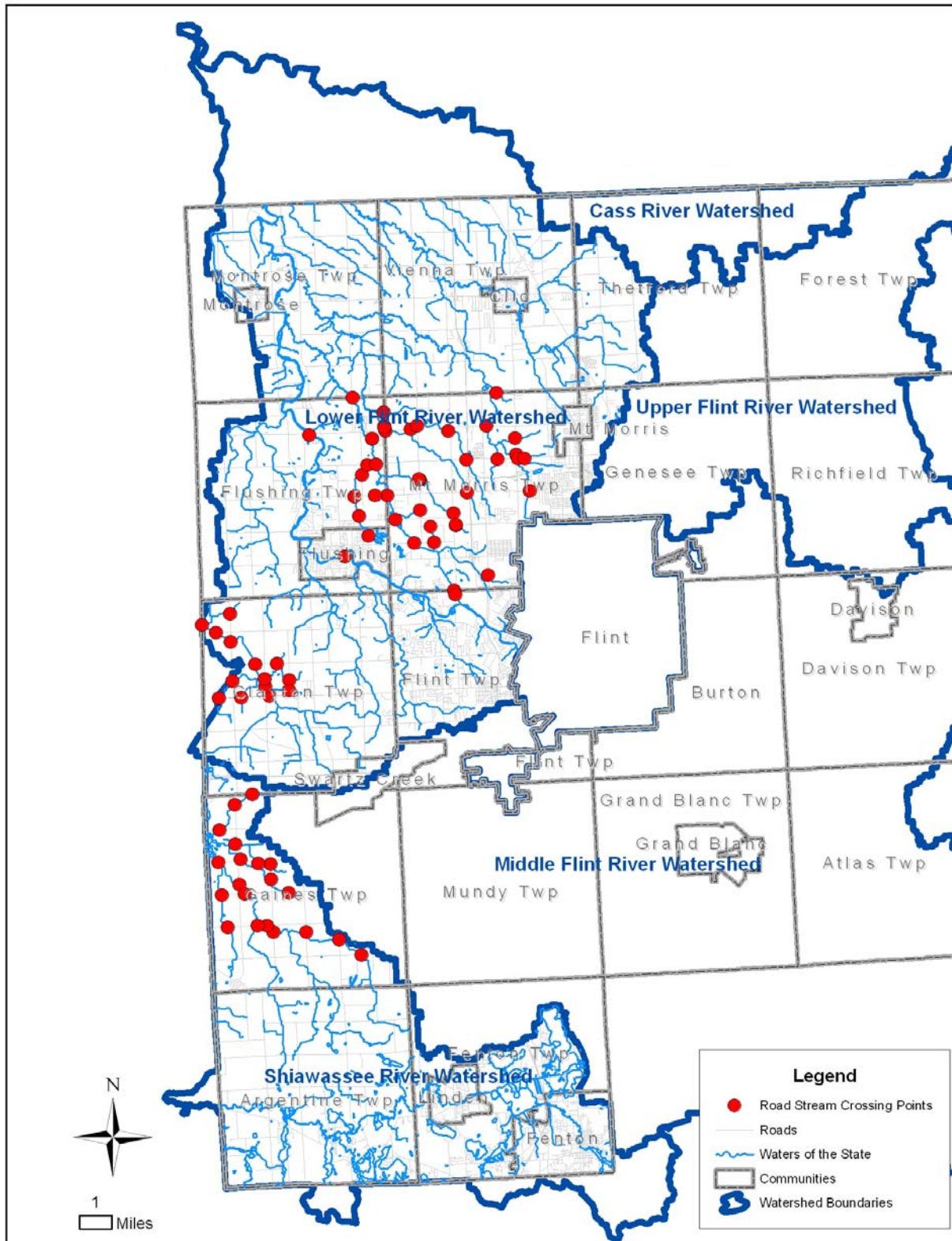


Figure 5-1 Road-Stream Crossing Locations

Figure 5-2 Watershed Survey Data Sheet Time: _____

Date: _____
 Waterbody Name: _____ County: _____ Station #: _____
 Location: _____ Township: _____ Sec T R ¼ ¼
 Investigator: _____ Lat: _____ Long: _____
 Coordinate Determination Method (check the one that applies):
 ___ GPS ___ GPS w/ DBR ___ Digital mapping software ___ Topographic map ___ Other (describe _____)
 Map Scale (if known _____)

PHYSICAL HABITAT																				
BACKGROUND INFORMATION - pg. 18						PHYSICAL APPEARANCE - pg. 20														
						U/S (Check all that apply)			D/S (Check all that apply)											
Event Conditions noted at site	None	Light	Moderate	Heavy		Aquatic Plants	Present	Abundant	Present	Abundant										
	≤ 1	2	≥ 3	Unknown		Floating Algae	Present	Abundant	Present	Abundant										
Days since Rain						Filamentous Algae	Present	Abundant	Present	Abundant										
Water Temp./D.O./pH *						Bacterial Sheen/Slimes	Present	Abundant	Present	Abundant										
Water Color	Clear	Gray	Brown	Black	Green	Turbidity	Present	Abundant	Present	Abundant										
Waterbody Type-u/s	Stream	Lake	Impd	Wetland		Oil Sheen	Present	Abundant	Present	Abundant										
Waterbody Type-d/s	Stream	Lake	Impd	Wetland		Foam	Present	Abundant	Present	Abundant										
Stream Width (ft.)	<10	10-25	25-50	>50		Trash	Present	Abundant	Present	Abundant										
Avg. Stream Depth (ft.)	<1	1-3	>3	Unknown																
Water Velocity (ft./sec) *																				
Stream Flow Type	Dry	Stagnant	L	M	H															
SUBSTRATE (add to 100%) - pg. 22						INSTREAM COVER - pg. 23														
						U/S (%)	D/S (%)			U/S (x)			D/S (x)							
Boulder - 10 in. diam.								Undercut Banks												
Cobble/Gravel - 10 to .08 in. diam.								Overhanging Veg.												
Sand - coarse grain								Deep Pools												
Silt/Debris/Muck - fine grain/organic matter								Boulders												
Hardpan/Bedrock - solid clay/rock surface								Aquatic Plants												
Artificial - manmade								Logs or Woody Debris												
Unknown																				
RIVER MORPHOLOGY - pg. 23						STREAM CORRIDOR - pg. 26														
						U/S			D/S				U/S			D/S				
Riffle	Present	Abundant	Present	Abundant		Riparian Veg. Width ft.(L)	<10	10-30	30-100	>100	<10	10-30	30-100	>100						
Pool	Present	Abundant	Present	Abundant		Riparian Veg. Width ft.(R)	<10	10-30	30-100	>100	<10	10-30	30-100	>100						
Channel	Natr	Recv	Maintn d	Natr	Recv	Maintn d	0	L	M	H	0	L	M	H						
Designated Drain	?	Y	N	?	Y	N	B	G	S	T	B	G	S	T						
Highest Water Mark (ft.)	?	<1	1-3	3-5	5-10	>10	Stream Canopy %								<25	25-50	>50	<25	25-50	>50
Stream Cross Section						Adjacent Land Uses														
						Wetlands	L	R	L	R										
						Shrub or Old Field	L	R	L	R										
						Forest	L	R	L	R										
						Pasture	L	R	L	R										
						Crop Land	L	R	L	R										
						Animal Feeding Operation	L	R	L	R										
						Maintained Lawns/Parks	L	R	L	R										
						Impervious Surfaces	L	R	L	R										
						Disturbed Ground	L	R	L	R										
						No Vegetation	L	R	L	R										

Date:

Watershed Survey Data Sheet (pg. 2)

Station #:

ROAD CROSSING INFORMATION								
Crossing Type	Bridge	Round Culvert(s)	Box Culvert(s)	Arch Culvert(s)	Other:			
Road Surface	Paved	Gravel	Sand	Clay	Grass	Other:		
Road Ownership	MDOT	County	USFS	MDNR	Municipal	Priv/Corp	Unknown	Other:
Culvert Problems	Poor Alignment	Inadequate Armoring	Impounding Water	Obstructed	Structural Integrity	Other:		
Perched Culvert	< 3"	3-12"	> 12"	Plunge Pool				
Crossing Erosion	Crossing Embankment	Road Approaches	Road Ditches					

POTENTIAL SOURCES (Severity: S – slight; M – moderate; H – high) – pg. 28

	U/S			D/S				U/S			D/S		
	S	M	H	S	M	H		S	M	H	S	M	H
Crop Related Sources	S	M	H	S	M	H	Land Disposal	S	M	H	S	M	H
Grazing Related Sources	S	M	H	S	M	H	On-site Wastewater Systems	S	M	H	S	M	H
Intensive Animal Feeding Operations	S	M	H	S	M	H	Silviculture (Forestry NPS)	S	M	H	S	M	H
Highway/Road/Bridge Maintenance and Runoff (Transportation NPS)	S	M	H	S	M	H	Resource Extraction (Mining NPS)	S	M	H	S	M	H
Channelization	S	M	H	S	M	H	Recreational/Tourism Activities (general)	S	M	H	S	M	H
Dredging	S	M	H	S	M	H	• Golf Courses	S	M	H	S	M	H
Removal of Riparian Vegetation	S	M	H	S	M	H	• Marinas/Recr. Boating (water releases)	S	M	H	S	M	H
Bank and Shoreline Erosion/Modification/Destruction	S	M	H	S	M	H	• Marinas/Recr. Boating (bank or shoreline erosion)	S	M	H	S	M	H
Flow Regulation/Modification (Hydrology)	S	M	H	S	M	H	Debris in Water	S	M	H	S	M	H
Upstream Impoundment	S	M	H	S	M	H	Industrial Pt. Source	S	M	H	S	M	H
Construction: Highway/Road/Bridge/Culvert	S	M	H	S	M	H	Municipal Pt. Source	S	M	H	S	M	H
Construction: Land Development	S	M	H	S	M	H	Natural Sources	S	M	H	S	M	H
Urban Runoff (Residential/Urban NPS)	S	M	H	S	M	H	Source(s) Unknown	S	M	H	S	M	H

SITE SUMMARY INFORMATION – pg. 33

SURVEY DIRECTION	N/A	U/S	D/S
SITE SIMILARITY	?	Y	N
OVERALL SITE RANKING	Good	Fair	Poor
FOLLOW UP	L	M	H

Data Analysis

The data is summarized by actions that could be done to improve the watershed condition. For the purposes of this analysis, all road-stream crossing data as entered into the database was assumed to be accurate. It is the intent for this data to be used as a monitoring method and therefore to revisit these sites every 1-3 years to show over time if the conditions are getting better, worse or staying the same.

Actions to improve stream quality include:

1. Improve Canoeing and Recreation
2. Streambank Stabilization
3. Stabilize Disturbed Ground
4. Decrease Embeddedness
5. Increase Shade Cover
6. Establish 30-Foot Riparian Buffer
7. Establish 100-Foot Riparian Buffer
8. Trash Clean Up
9. IDEP Investigations

The methods for summarizing the data and a list of preliminary tasks are provided for each of the actions in Table 5-1.

Table 5-1 Road-Stream Crossing Action Methodology

Action	Criteria	Follow-Up Tasks
1. Improve Canoeing and Recreation	If a stream channel was observed to be wider than 25 feet, deeper than 3 feet, and woody debris and logs were present, the site was identified as a problem.	Remove logs and debris in a habitat sensitive manner.
2. Streambank Stabilization	Streambank erosion identified at a site as either moderate or heavy was identified as a problem.	Have a professional revisit the site and determine the extent and cause of the erosion. Stabilize the bank using soil bioengineering techniques.
3. Stabilize Disturbed Ground	If disturbed ground was identified during the survey on either the right or left bank then the site was identified for additional work.	Have a professional revisit the site and verify the existence of a problem. Stabilize the disturbed ground
4. Decrease Embeddedness	Channels observed as having a substrate composed of greater than 80 percent silt or sand were identified as having a potential embeddedness problem.	Determine the cause of embeddedness problems. Stabilize the problem areas.
5. Increase Shade Cover	The site was determined to be impacted if the volunteers noted these three observations: <ul style="list-style-type: none"> - Lack of aquatic plant cover - Lack of overhanging vegetation - Stream canopy cover was less than 25 percent or was not noted. 	Professional observation indicated that sites most likely exist and will fall under the tasks for increasing riparian buffers.
6. Establish 30-ft Riparian Buffer	Areas where a buffer was identified as being 30 feet or less were identified as a problem.	Establish a 30 foot wide buffer.
7. Establish 100-ft Riparian Buffer	Areas where a buffer was identified as being between 30 and 100 feet in width were identified.	Establish a 100 foot wide buffer.

Action	Criteria	Follow-Up Tasks
8. Trash Clean Up	Volunteers were able to identify whether trash was not present, present, or abundant. Reaches requiring cleaning were assumed to include any reaches with trash present or in abundance.	Visit the site and clean up the trash. For long term purposes, coordinate with existing river clean up programs to extend the program to these areas.
9. Illicit Discharge Investigations	<p>Illicit discharges investigations are additional investigations of pollutant sources to the water body. These may include nutrients, sewage, animal wastes, sediment, oil, or any discharges from point sources. The observations collected from the road/stream crossing survey were reviewed for the following parameters and conditions:</p> <ul style="list-style-type: none"> - Abundant aquatic plants - Abundant floating algae - Abundant filamentous algae - Abundant bacteriological slime - Abundant turbidity - Present or abundant oil sheens - Present or abundant foam - Septic tanks ruled as a moderate or high priority pollutant source - Industrial point sources identified as a moderate or high priority pollutant source - Municipal point sources identified as a moderate or high priority pollutant source 	Have a professional revisit the site and verify the existence and nature of the problem. Stop the illicit discharge or remove the illicit connection.

Results

Table 5-2 summarizes the results of the road stream crossing assessments. The “X” in the table signifies that the collected data for the site met the criteria indicated in Table 5-1. The results are then extrapolated to the rest of the watershed as a means of estimating the magnitude of problems throughout the watershed.

Road-stream assessments were completed at approximately 38% (114 out of 299) of the crossings in the Lower Flint River Watershed and 42% (39 out of 93) in the Shiawassee River Watershed. Each assessment considered upstream and downstream conditions independently. For statistical purposes, this results in an assumed 598 (299*2) possible sites in the Lower Flint and 182 (93*2) in the Shiawassee River Watershed.



Jones Creek and Cook Road Upstream



Harding Drain and Van Vleet Road

Table 5-2 Results of the Road Stream Crossing Assessments

LOCATION INFORMATION					RESULTS									
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
PORTER-1	U/S	8/13/08	Porter Drain	Baldwin Morrish-Seymour	Shiawassee River	-	-	-	X	-	X	-	-	-
PORTER-1	D/S	8/13/08	Porter Drain	Baldwin Morrish-Seymour	Shiawassee River	-	-	-	X	-	X	-	-	-
PORTER-3	U/S	8/13/08	Porter Drain	Porter & Seymour Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
PORTER-3	D/S	8/13/08	Porter Drain	Porter & Seymour Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
PORTER-5	U/S	8/13/08	Porter Drain	Van Vleet Cook & Baldwin	Shiawassee River	-	-	-	X	-	X	-	-	-
PORTER-5	D/S	8/13/08	Porter Drain	Van Vleet Cook & Baldwin	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-1	U/S	8/13/08	Jones Creek	Nichols Cook-Baldwin	Shiawassee River	-	-	-	X	-	X	-	-	X
JONES-1	D/S	8/13/08	Jones Creek	Nichols Cook-Baldwin	Shiawassee River	-	-	-	X	-	X	-	-	X
JONES-3	U/S	8/13/08	Jones Creek	Jones Creek-Cross Cook Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-3	D/S	8/13/08	Jones Creek	Jones Creek-Cross Cook Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
ATHERTON-1	U/S	8/13/08	Atherton Creek	Duff & Nichols Cook Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
ATHERTON-1	D/S	8/13/08	Atherton Creek	Duff & Nichols Cook Rd	Shiawassee River	-	-	-	X	-	X	-	X	-
CORRIGALL-1	U/S	8/13/08	Corrigan	Corrigan & Cook Rd Cross	Shiawassee River	-	-	-	X	-	X	-	-	-
CORRIGALL-1	D/S	8/13/08	Corrigan	Corrigan & Cook Rd Cross	Shiawassee River	-	-	-	X	-	X	-	-	-
CORRIGALL-3	U/S	8/13/08	Corrigan	Corrigan & Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
CORRIGALL-3	D/S	8/13/08	Corrigan	Corrigan & Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-5	U/S	8/13/08	Jones Creek	Jones & Duffield Rd	Shiawassee River	-	X	-	X	-	X	-	-	X
JONES-5	D/S	8/13/08	Jones Creek	Jones & Duffield Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-7	U/S	8/13/08	Jones Creek	Duff & Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-7	D/S	8/13/08	Jones Creek	Duff & Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
TERRY-1	U/S	8/13/08	Terry Drain	Terry Drain @ Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
TERRY-1	D/S	8/13/08	Terry Drain	Terry Drain @ Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
TERRY-3	U/S	8/13/08	Terry Drain	Nichols Ried@Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
TERRY-3	D/S	8/13/08	Terry Drain	Nichols Ried@Grand Blanc Rd	Shiawassee River	-	-	-	X	-	X	-	-	-
WEBB-1	U/S	8/13/08	Webb Creek	Webb Creek-cross Nichols Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
WEBB-1	D/S	8/13/08	Webb Creek	Webb Creek-cross Nichols Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
WEBB-3	U/S	8/13/08	Webb Creek	Duffield-Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
WEBB-3	D/S	8/13/08	Webb Creek	Duffield-Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-9	U/S	8/13/08	Jones Creek	Duffield-Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
JONES-9	D/S	8/13/08	Jones Creek	Duffield-Nichols	Shiawassee River	-	-	-	X	-	X	-	-	-
WEBB-5	U/S	8/13/08	Webb Creek	Webb Drain & Duffield Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
WEBB-5	D/S	8/13/08	Webb Creek	Webb Drain & Duffield Rd	Shiawassee River	-	-	-	X	-	X	-	-	X

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Table 5-2 Results of the Road Stream Crossing Assessments

LOCATION INFORMATION				RESULTS										
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
TERRY-5	U/S	8/13/08	Terry Drain	Terry Drain @Rad Rd Crossing	Shiawassee River	-	-	-	X	-	X	-	-	-
TERRY-5	D/S	8/13/08	Terry Drain	Terry Drain @Rad Rd Crossing	Shiawassee River	-	-	-	X	-	X	-	-	-
DAV-1	U/S	8/12/08	Davison Drain	Davison Drain @ Hill Rd	Shiawassee River	-	-	-	X	-	-	-	-	X
DAV-1	D/S	8/12/08	Davison Drain	Davison Drain @ Hill Rd	Shiawassee River	-	-	-	X	-	X	-	-	X
DAV-3	U/S	8/12/08	Davison Drain	Duffield Rd, S. of Miller, N of Hill	Shiawassee River	-	-	-	X	-	-	X	-	X
DAV-3	D/S	8/12/08	Davison Drain	Duffield Rd, S. of Miller, N of Hill	Shiawassee River	-	-	-	X	-	-	X	-	X
DAV-5	U/S	8/12/08	Davison Drain	Miller Rd, Duffield-Nichols	Shiawassee River	-	-	-	X	-	-	-	-	X
DAV-5	D/S	8/12/08	Davison Drain	Miller Rd, Duffield-Nichols	Shiawassee River	-	-	-	X	-	-	-	-	X
Number of occurrences						0	1	0	38	3	22	8	1	16
Percentage of occurrences						0.0%	2.6%	0.0%	97.4%	7.7%	56.4%	20.5%	2.6%	41.0%
Extrapolate to (93*2) 182 sites throughout the watershed						0	5	0	181	14	105	38	5	76
PEN-1	U/S	8/13/08	Penoyer Drain	Duffield-Beecher & Porter	Lower Flint River	-	-	-	X	-	X	-	-	-
PEN-1	D/S	8/13/08	Penoyer Drain	Duffield-Beecher & Porter	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-1	U/S	8/13/08	Mistegay Creek	M-13 from Beecher/Porter	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-1	D/S	8/13/08	Mistegay Creek	M-13 from Beecher/Porter	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-3	U/S	8/13/08	Mistegay Creek	Beecher between M-13/Duffield	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-3	D/S	8/13/08	Mistegay Creek	Beecher between M-13/Duffield	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-5	U/S	8/13/08	Mistegay Creek	Duffield between Beecher & Calkins	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-5	D/S	8/13/08	Mistegay Creek	Duffield between Beecher & Calkins	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-7	U/S	8/13/08	Mistegay Creek	Calkins between Duffield, Nichols	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-7	D/S	8/13/08	Mistegay Creek	Calkins between Duffield, Nichols	Lower Flint River	-	-	-	X	-	X	-	-	-
HARD-1	U/S	8/13/08	Branch of Harding Drain	Calkins, Van Vleet/Nichols	Lower Flint River	-	-	-	X	-	X	-	-	-
HARD-1	D/S	8/13/08	Branch of Harding Drain	Calkins, Van Vleet/Nichols	Lower Flint River	-	-	-	X	-	X	-	-	-
HARD-3	U/S	8/13/08	Branch of Harding Drain	Van Vleet-Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
HARD-3	D/S	8/13/08	Branch of Harding Drain	Van Vleet-Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
OTTA-1	U/S	8/13/08	Ottaway Drain	Van Vleet between Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
OTTA-1	D/S	8/13/08	Ottaway Drain	Van Vleet between Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-9	U/S	8/13/08	Mistegay Creek	Corunna Rd Between Nichols/Van Vleet	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-9	D/S	8/13/08	Mistegay Creek	Corunna Rd Between Nichols/Van Vleet	Lower Flint River	-	-	-	X	-	X	-	-	-
MIST-11	U/S	8/13/08	Mistegay Creek	Nichols between Calkins/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-

Table 5-2 Results of the Road Stream Crossing Assessments

LOCATION INFORMATION				RESULTS										
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
MIST-11	D/S	8/13/08	Mistegay Creek	Nichols between Calkins/Corunna	Lower Flint River	-	-	-	X	X	X	-	-	-
HARD-5	U/S	8/13/08	Harding Drain	Nichols, Between Calkins/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
HARD-5	D/S	8/13/08	Harding Drain	Nichols, Between Calkins/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
CUTIN-1	U/S	8/13/08	Cutin Drain	Corunna Rd between Nichols/Duffield	Lower Flint River	-	-	-	-	-	X	-	-	-
CUTIN-1	D/S	8/13/08	Cutin Drain	Corunna Rd between Nichols/Duffield	Lower Flint River	-	-	-	X	-	-	X	-	-
MOORE-1	U/S	8/13/08	Moore Drain	Duffield, Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
MOORE-1	D/S	8/13/08	Moore Drain	Duffield, Calkin/Corunna	Lower Flint River	-	-	-	X	-	X	-	-	-
MOORE-3	U/S	8/13/08	Moore Drain	Corunna, M-13/Duffield	Lower Flint River	-	-	-	X	-	X	-	-	X
MOORE-3	D/S	8/13/08	Moore Drain	Corunna, M-13/Duffield	Lower Flint River	-	-	-	X	-	X	-	-	X
BOW 1	U/S	5/22/07	Bowman Drain	Corunna, M-13/Duffield	Lower Flint River	-	-	X	X	-	X	-	-	X
BOW 1	D/S	5/22/07	Bowman Drain	Across from 7526 Coldwater Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 2	U/S	5/22/07	Bowman Drain	Carpenler Rd.	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 2	D/S	5/22/07	Bowman Drain	Carpenler Rd.	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 1	D/S	5/23/07	Cattail Drain	Carpenler E. of Linden	Lower Flint River	-	-	-	X	-	X	-	X	X
CAT 1	U/S	5/23/07	Cattail Drain	Carpenler E. of Linden	Lower Flint River	-	-	-	X	-	X	-	X	X
CAT 2	U/S	5/23/07	Cattail Drain	Cattail Swamp & Linden	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 2	D/S	5/23/07	Cattail Drain	Cattail Swamp & Linden	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 3	D/S	5/23/07	Bowman Drain	Sunnyside Drive	Lower Flint River	-	-	-	X	X	X	-	X	X
BOW 3	U/S	5/23/07	Bowman Drain	Sunnyside Drive	Lower Flint River	-	-	-	X	X	X	-	X	X
BOW 4	U/S	5/24/07	Bowman Drain	Bowman Dr at Johnson Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 4	D/S	5/24/07	Bowman Drain	Bowman Dr at Johnson Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 5	U/S	5/24/07	Bowman Drain	Bowman Dr at Stanley Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
BOW 5	D/S	5/24/07	Bowman Drain	Bowman Dr at Stanley Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
ARM 101	U/S	5/24/07	Armstrong Drain	Armstrong Drain at Stanley Rd.	Lower Flint River	-	-	-	X	-	X	X	-	X
ARM 101	D/S	5/24/07	Armstrong Drain	Armstrong Drain at Stanley Rd.	Lower Flint River	-	-	-	X	-	X	X	-	X
CAT 2	U/S	5/31/07	Cattail Drain	Cattail Drain and Carpenter Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 2	D/S	5/31/07	Cattail Drain	Cattail Drain and Carpenter Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 3	U/S	5/31/07	Cattail Drain	Cattail Drain at Webster Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 3	D/S	5/31/07	Cattail Drain	Cattail Drain at Webster Rd	Lower Flint River	-	X	-	X	-	X	-	-	-
CAT 4	U/S	6/11/07	Cattail Drain	Cattail Drain at Mt. Morris Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
CAT 4	D/S	6/11/07	Cattail Drain	Cattail Drain at Mt. Morris Rd	Lower Flint River	-	-	-	X	-	X	-	-	-
CEN 103	U/S	6/12/07	Central Drain	Frances Rd east of Morrish	Lower Flint River	-	X	-	-	-	X	-	X	-

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Table 5-2 Results of the Road Stream Crossing Assessments

LOCATION INFORMATION				RESULTS										
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
CEN 103	D/S	6/12/07	Central Drain	Frances Rd east of Morrish	Lower Flint River	-	X	-	X	-	-	-	-	-
CEN 101	U/S	6/12/07	Central Drain Trib	Elms Intersection	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 101	D/S	6/12/07	Central Drain Trib	Elms Intersection	Lower Flint River	-	-	-	X	-	-	-	-	-
ROOT 1	D/S	6/18/07	Root Drain	Oleksyn Intersection	Lower Flint River	-	-	-	X	-	-	-	-	X
ROO 309	U/S	6/18/07	Root Drain	Kelley/Root Intersection	Lower Flint River	-	-	-	X	X	-	-	-	X
ROO 309	D/S	6/18/07	Root Drain	Kelley/Root Intersection	Lower Flint River	-	-	-	X	X	-	-	-	X
ROOT 2	D/S	6/18/07	Root Drain	Kelley/Root Intersection	Lower Flint River	-	-	-	X	-	-	-	-	-
ROOT 2	U/S	6/18/07	Root Drain	Kelley/Root Intersection	Lower Flint River	-	-	-	X	-	-	-	-	-
ROOT 3	U/S	6/18/07	Root Drain	Carpenter Rd/Root Drain	Lower Flint River	-	-	-	X	-	-	-	X	-
ROOT 3	D/S	6/18/07	Root Drain	Carpenter Rd/Root Drain	Lower Flint River	-	-	-	X	-	-	-	-	X
MON 101	U/S	6/21/07	Monroe Drain	Webster Rd - 1/4 mile N of Carpenter	Lower Flint River	-	-	-	X	-	-	-	-	X
MON 101	D/S	6/21/07	Monroe Drain	Webster Rd - 1/4 mile N of Carpenter	Lower Flint River	-	-	-	X	-	-	-	-	X
ROO 105	U/S	6/21/07	Root Drain	Coldwater RD - JUST e OF Elms Rd.	Lower Flint River	-	-	-	X	-	-	-	-	X
ROO 105	D/S	6/21/07	Root Drain	Coldwater RD - JUST e OF Elms Rd.	Lower Flint River	-	-	-	X	X	-	-	-	X
STA 107	U/S	6/21/07	Stadler Drain	Coldwater Rd. just W of I-75	Lower Flint River	-	-	-	X	-	-	-	-	X
STA 107	D/S	6/21/07	Stadler Drain	Coldwater Rd. just W of I-75	Lower Flint River	-	-	-	X	-	-	-	-	X
CAT 103	U/S	6/21/07	Cattail Drain	Central drain and Webster Rd. crossing	Lower Flint River	-	-	-	X	X	-	-	-	-
CAT 103	D/S	6/21/07	Cattail Drain	Central drain and Webster Rd. crossing	Lower Flint River	-	-	-	X	X	-	-	-	-
STA 101	U/S	6/21/07	Stadler Drain	Webster Rd - 1/2 mile N of Coldwater	Lower Flint River	-	-	-	X	-	-	-	-	-
STA 101	D/S	6/21/07	Stadler Drain	Webster Rd - 1/2 mile N of Coldwater	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 107	U/S	6/21/07	Central Drain	Mt. Morris Rd. W of Webster	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 107	D/S	6/21/07	Central Drain	Mt. Morris Rd. W of Webster	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 107	D/S	6/21/07	Central Drain	Mt. Morris Rd. W of Webster	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 105	U/S	6/21/07	Central Drain	Mt. Morris Rd. E of Elms Rd.	Lower Flint River	-	-	-	X	-	-	-	-	X
CEN 105	D/S	6/21/07	Central Drain	Mt. Morris Rd. E of Elms Rd.	Lower Flint River	-	-	-	X	-	-	-	-	X
CEN 103	U/S	6/21/07	Central Drain	Elms Rd N of Mt. Morris	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 103	D/S	6/21/07	Central Drain	Elms Rd N of Mt. Morris	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 101	U/S	6/21/07	Central Drain	Elms S of Frances Rd.	Lower Flint River	-	-	-	X	-	-	-	-	-
CEN 101	D/S	6/21/07	Central Drain	Elms S of Frances Rd.	Lower Flint River	-	-	-	X	X	-	-	-	-
CEN 109	U/S	6/21/07	Central Drain	Mt. Morris between Webster and Linden	Lower Flint River	-	-	-	X	-	-	-	-	X
CEN 109	D/S	6/21/07	Central Drain	Mt. Morris between Webster and Linden	Lower Flint River	-	-	-	X	-	-	-	-	X
COT 101	U/S	6/21/07	Cottell Drain	Coldwater W of Elms	Lower Flint River	-	-	-	X	-	-	-	-	X
COT 101	D/S	6/21/07	Cottell Drain	Coldwater W of Elms	Lower Flint River	-	-	-	X	-	-	-	-	X

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LOCATION INFORMATION				RESULTS										
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
BRE 101	D/S	7/13/07	Brent Run	Mt. Morris	Lower Flint River	-	-	-	X	-	-	X	-	-
BRE 101	U/S	7/13/07	Brent Run	Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	-	-
CRA 101	U/S	7/13/07	Craven-Benson	S of Mt. Morris @ Clio	Lower Flint River	-	-	-	X	-	X	-	-	-
CRA 101	D/S	7/13/07	Craven-Benson	S of Mt. Morris @ Clio	Lower Flint River	-	-	-	X	-	X	-	-	X
HUG 101	U/S	7/13/07	Hughes Drain	Clio Rd N of Stanley	Lower Flint River	-	-	-	X	-	X	-	-	-
HUG 101	D/S	7/13/07	Hughes Drain	Clio Rd N of Stanley	Lower Flint River	-	-	-	X	-	X	-	-	-
HUG 103	U/S	7/13/07	Hughes Drain	Stanley E of Clio	Lower Flint River	-	X	-	X	-	X	-	X	-
HUG 103	D/S	7/13/07	Hughes Drain	Stanley E of Clio	Lower Flint River	-	X	-	X	-	X	-	X	-
FLI 101	U/S	7/13/07	Flint River	Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	X	-
FLI 101	D/S	7/13/07	Flint River	Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	X	-
CEN 201	U/S	7/13/07	Central Drain	Webster N of Mt. Morris	Lower Flint River	-	X	-	X	-	X	-	-	-
CEN 201	D/S	7/13/07	Central Drain	Webster N of Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	-	-
FLI 103	U/S	7/13/07	Flint River	Main St in Flushing	Lower Flint River	-	-	-	X	-	X	-	-	X
FLI 103	D/S	7/13/07	Flint River	Main St in Flushing	Lower Flint River	-	-	-	X	-	X	-	-	X
BRE 103	U/S	7/13/07	Brent Run	Between Jennings and Flushing	Lower Flint River	-	-	-	X	-	X	-	-	X
BRE 103	D/S	7/13/07	Brent Run	Between Jennings and Flushing	Lower Flint River	-	-	-	X	-	X	-	-	X
HAR 101	U/S	7/18/07	Harshorn	Jennings near Pasadena	Lower Flint River	-	-	-	X	-	X	-	X	-
HAR 101	D/S	7/18/07	Harshorn	Jennings near Pasadena	Lower Flint River	-	-	-	X	-	X	-	X	-
HAR 103	U/S	7/18/07	Harshorn	Pasadena West of Linden	Lower Flint River	-	X	-	X	-	X	-	-	-
HAR 103	D/S	7/18/07	Harshorn	Pasadena West of Linden	Lower Flint River	-	-	-	X	-	X	-	-	-
HAR 105	U/S	7/18/07	Harshorn	Linden South of Pasadena	Lower Flint River	-	-	-	X	-	X	-	-	-
HAR 105	D/S	7/18/07	Harshorn	Linden South of Pasadena	Lower Flint River	-	-	-	X	-	X	-	-	-
HUG 105	U/S	7/18/07	Hughes Drain	Stanley E of Clio	Lower Flint River	-	-	-	X	-	X	-	-	X
HUG 105	D/S	7/18/07	Hughes Drain	Stanley E of Clio	Lower Flint River	-	-	-	X	-	X	-	-	X
HUG 105	U/S	7/18/07	Hughes Drain	Stanley E of Jennings	Lower Flint River	-	-	-	X	-	X	-	-	X
HUG 105	D/S	7/18/07	Hughes Drain	Stanley E of Jennings	Lower Flint River	-	-	-	X	-	X	-	-	X
DEL 101	D/S	7/18/07	Delaney Drain	Stanley E of Jennings	Lower Flint River	-	-	-	X	-	X	-	-	X
DEL 101	U/S	7/18/07	Delaney Drain	Stanley E of Jennings	Lower Flint River	-	-	-	X	-	X	-	-	X
CEN 301	U/S	7/18/07	Central Drain	Stanley next to I-75	Lower Flint River	-	-	-	X	-	X	-	-	X
CEN 301	D/S	7/18/07	Central Drain	Stanley next to I-75	Lower Flint River	-	-	-	X	-	X	-	-	X
LAK 101	U/S	7/18/07	Lake Drain	Coldwater between Clio and Ballard	Lower Flint River	-	X	-	X	-	X	-	-	-
LAK 101	D/S	7/18/07	Lake Drain	Coldwater between Clio and Ballard	Lower Flint River	-	X	-	X	-	X	-	-	-
CEN 303	U/S	7/18/07	Central Drain	Linden S of Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	-	-
CEN 303	D/S	7/18/07	Central Drain	Linden S of Mt. Morris	Lower Flint River	-	-	-	X	-	X	-	-	X

Genesee County Phase II Municipalities
2008 Annual Report

Table 5-2 Results of the Road Stream Crossing Assessments

LOCATION INFORMATION					RESULTS									
Sta #	Direction	Date	Waterbody Name	Location	Watershed	1. Improve Canoeing and Recreation	2. Streambank Stabilization	3. Stabilize Disturbed Ground	4. Decrease Embeddedness	5. Increase Shade Cover	6. Establish 30-ft Buffer	7. Establish 100-ft Buffer	8. Trash Clean Up	9. Illicit Discharge Investigations
Number of occurrences						0	10	1	110	23	93	23	15	34
Percentage of occurrences						0.0%	8.8%	0.9%	96.5%	20.2%	81.6%	20.2%	13.2%	29.8%
Extrapolate to (299*2) 598 sites throughout the watershed						0	52	5	577	121	488	121	79	178
Total Number of occurrences						0	11	1	148	26	115	31	18	50
Total Percentage of occurrences						0.0%	7.2%	0.7%	96.7%	17.0%	75.2%	20.3%	10.5%	32.7%

6. 319 NONPOINT SOURCE GRANT PROJECTS

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

There are two 319-grant projects within Genesee County. Both are within the Middle Flint Watershed; the Swartz Creek Watershed Project and the Kearsley Creek Watershed Project. CAER and FRWC developed the Swartz Creek WMP and GCDC with the help of Spicer developed the Kearsley Creek WMP to control nonpoint sources of pollution. Projects may include implementing structural BMPs, non-physical BMPs, and information and education activities to eliminate nonpoint source pollution.

SWARTZ CREEK WATERSHED PROJECT

Key activities for the Swartz Creek Watershed Project included physical inventory, public involvement, and public education.

Physical Inventory

A physical inventory of the watershed has been completed including road stream crossings, identification of critical areas and specific sites for BMP implementation. The WMP was submitted to the 319 department of the Michigan Department of Environmental Quality (MDEQ) for review.

In summary, the water quality of the Swartz Creek Watershed is negatively impacted by the affects of non-point source pollutants. The impact of these pollutants becomes progressively worse as one moves downstream within the watershed. It also appears that water quality within the watershed is likely to continue to worsen if a coordinated and watershed wide plan is not implemented.

Historically, development has taken place in the lower reaches of the watershed and has caused severe degradation to the system in only the lowest portions of the watershed. However, as increased growth continues in the relatively healthy portion of the watershed (i.e. the headwaters), it is likely we will see larger reductions in water quality then we have experienced in the past.

The Swartz Creek Watershed has two designated uses that are impaired, including total body contact and warm water fisheries. The partial body contact, aquatic wildlife, and agricultural uses appear to be threatened. The industrial water supply and public water supply are not current uses but are included as threatened because of the likely inability of these uses to be supported if it was so desired. Table 6-1 details the status of each of the designated uses and the known and suspected pollutants affecting each use. The table excludes several areas upstream of the Ray Road stream crossing over the southern branch in Section 1 of Fenton Township. Upstream of this crossing the watershed appears to currently be meeting all designated uses. This area will be addressed in the critical areas discussion as a priority for preservation of water quality.

In order to protect water quality from the pollutants identified above, specific source areas and causes of the pollutants were identified. Table 6-2 outlines the linkages between pollutants, sources and causes in the Swartz Creek Watershed. Each of the pollutants are discussed further in the WMP, where specific critical areas for each pollutant are described and identified.

Table 6-1 Designated Use Attainment/Threats Below Ray Road

Designated use	Status	Pollutants
Agricultural	Threatened (S)	Hydrology (K)
Navigation	Threatened (S)	Hydrology (K)
*Industrial Water Supply	Threatened (S)	Hydrology(K)
*Public Water Supply at point of water intake	Threatened (S)	Hydrology (K)
Warm Water Fisheries	Impaired (K)	Hydrology (K) Sediment (K) Nutrients(K) Pesticides (S) Thermal (S)
Other indigenous aquatic life and wildlife	Threatened (S)	Hydrology (K) Sediment (K) Nutrients (K) Pesticides(S) Thermal (S)
Partial Body Contact	Impaired (S)	Bacteria\pathogens (K) Toxins (K)
Total Body Contact	Impaired (k)	Hydrology (K) Bacteria (K) Toxins (K)

K= Known
S = Suspect

Public Education

A Public Education Plan (PEP) for the Swartz Creek Project is included in the WMP. The goals and objectives of the plan are intended to focus on the specific pollutant identified in the planning process. The PEP is divided into three phases including awareness, education, and action phases. Target audiences, specific messages and tools have been identified to be used in the implementation of the PEP for the 319 WMP area. A large portion of the early phases of the PEP implementation focuses on assisting Phase II communities take advantage of recommendations set forth in the plan.

Table 6-2 Pollutant, Source, and Cause of Nonpoint Source Pollutants in Swartz Creek Watershed

Pollutant	Source	Cause
Hydrology (K)	1. Urban Storm water (K)	Directly Connected Impervious Surfaces (K) Insufficient storm water management practices (K)
	2. Channel Alterations (K)	Removal of flood plain (localized) (K)
	3. Loss of Wetlands (K)	Loss of wetlands for agricultural use (K)
	4. In stream structure (K)	Western Branch dam (K)
Sediment (K)	Stream banks (K)	Erratic flows / High Runoff (K) Insufficient Riparian Buffers (K)
	Road Stream Crossings (K)	Erosive road or shoulder surfaces (K) Undersized crossing (K)
	Developed and developing areas (K)	Insufficient Riparian Buffers (K) Inadequate soil erosion practices (S)
	Roads, parking lots (K)	Inadequate storm water mgt in commercial and industrial parking lots (K)
Toxins (K)	Agricultural Lands (K)	Insufficient riparian vegetation buffers (K)
	Parking lots (K)	Inadequate storm water mgt techniques (K)
Nutrients (S)	Roadways (K)	Road drains directly to stream (K)
	Residential Lawns (K)	Over application of Fertilizer (S)
	Residential Septic Systems (S)	Failing septic systems (S)
Bacteria (S)	Agricultural application (S)	Insufficient Riparian management
	Human Waste (S)	Illicit connections to storm sewers (S)
Thermal (S)	Animal Waste	Direct Connection in urban areas (S)
	Roads & Parking Lots (K)	Insufficient storm water mgt. practices (K)
	Direct solar radiation (K)	Removal of overhanging vegetation (K)

K= Known
S = Suspect

KEARSLEY CREEK WATERSHED PROJECT

The Kearsley Creek Water Quality Improvement Plan was revised per MDEQ comments and was resubmitted in October, 2006.

Based on a baseline study and physical inventory, stream bank erosion and sediment input are the primary pollutants for the Kearsley Creek Watershed. Hydrologic and hydraulic analyses were conducted to determine the changes to the watershed with regards to the Master Plan upon watershed build outs and the resulting impacts upon full build out. The hydraulic capacities at the bridge and culvert structures at full build out in the watershed were also verified.

Staff prioritized restoration work efforts based on a field inventory of 29 stream segments within Kearsley Creek from the county line to the Flint River. A rating system was developed based on the severity of erosion within that segment. Six of the segments inventoried were rated as “high” indicating substantial erosion. Seventeen segments were rated as “moderate”. For-Mar Nature Center had the highest erosion rating (due to soils). Potential BMPs may consist of cross vanes, vanes, j-hooks and gabion baskets at the For-Mar Nature Center where the bluff is over steepened and there is a potential for building failure.

A review of ordinances from the eleven governmental entities within the watershed showed that few ordinances are adopted to protect the Kearsley Creek corridor from development and runoff. None of the ordinances provide the same review criteria for decision making.

The Water Quality Improvement Plan includes a Long-Term Monitoring Plan and Information and Education Plan to inform the public of the major issues within the Kearsley Creek watershed, and preliminary findings of the WMP.

During the field work many riparian homeowners had express concern about bank erosion in areas that mowing to the bank was occurring. The Public Education Subcommittee will be using the Kearsley Creek as a pilot area for their Riparian landowner literature, with the intent of further education so the property owners can make environmentally friendly changes to their property.

7. PROJECT GREEN

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 now and in the future. GREEN empowers young people to learn more about the watersheds they live in and use their findings to create lasting solutions to pressing water quality issues. GREEN has been in existence for fifteen 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 data. During the last reporting period, participation included:

15	School Districts
22	Classrooms
1,100+	Students
30	Mentors
21	Presenters

Schools are also encouraged to participate in a summit, where students are able to present their findings. On May 11, 2007, a symposium was held at Mott Community College and students presented collected data. A copy of the symposium brochure, a summary table, and news article are included at the end of this section.

Each site visited is categorized as excellent, good, fair (medium), poor (bad), or very poor (very bad) based on the National Sanitation Foundation (NSF) Water Quality Index (WQI). 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 water quality index (WQI). If all nine water quality tests are not available then multiply the total of those samples available by the inverse their total weighting factors.

Table 7-1 Water Quality Index Calculation Chart

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

The WQI ranges are categorized as follows: 90-100 Excellent; 70- 90 Good; 50- 70 Fair (medium); 25- 50 Poor (bad); 0- 25 Very Poor

It should be noted that there was no discernable correlation between the Project 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 Project Green.

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

Table 7-2 and Figures 7-1 to 7-4 summarize project GREEN results for the Lower, Middle, and Upper Flint River and Shiawassee River Watersheds. Sites categorized as "poor" are identified in the table with red font. Three sites out of the 38 sites visited were categorized as either poor or very poor.

Table 7-2 Project GREEN Results

ID_No	Location	Sampled Years	Water Quality Index (WQI)
<i>Lower Flint River Watershed</i>			
1L	Armstrong Creek at Dodge Road	2006-07	Good
2L	Craven and Benson Drain off Mt Morris Road	2007	Fair
3L	Mill Street Bridge	1993, 1998-2007	Fair
4L	North corner of Flushing and Linden Roads	1991, 1994, 1998-2004, 2007	Fair
5L	Pirnie Creek at Beecher Road	2006	Poor
6L	Southeast corner of M-57 and Seymour Road	2001-07	Good
7L	Clio Bike Path at Jennings Road	2007	Good
8L	Flushing Park at Pavilion #2	2001-02, 2005	Good
9L	Mott Golf Course Bridge at hole #6	1993, 1998-2000	Good
10L	Pine Run at Clio Park	2006	Good
11L	North of Flushing at Mt. Morris Bridge	1998	Good
<i>Middle Flint River Watershed</i>			
1M	Swartz Creek at Hill Road Bridge	2005-06	Fair
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	Fair
5M	Downstream from For-Mar Nature Center	2005	Fair
6M	Gilkey Creek behind Central High School	1991-92, 1994, 2002	Good
7M	Immediately west of the Farmer's Market	2004-06	Good
8M	Pierson Drain at Atherton HS	2007	Good
9M	Swartz Creek at Happy Hollow	1993-94, 2002, 2004	Fair
10M	Swartz Creek at Swartz Creek M.S.	2005-06	Fair
11M	Swartz Creek at Van Slyke Road	2002	Fair
12M	Swartz Creek Golf Course	2001-02	Good
13M	Thread Creek at McCandlish Road	2007	Fair
14M	Thread Creek at Rust Park in Grand Blanc	2005-06	Good
15M	Timberwolf Turnout off Irish Road	2005	Fair
16M	Kearsley Creek at Goodrich Commons	2004	Good

17M	Kearsley Creek near Goodrich High School	2004-05	Good
18M	Flint River West of Johnson AAA School	2006-07	Fair
<i>Upper Flint River Watershed</i>			
1U	Bear Swamp at Genesee Road	2007	Poor
2U	Oak Road North of Stanley	2001	Good
3U	Bluegill Boat Ramp on Mott Lake	2002, 2005	Good
4U	M-15 north of Stanley Road	1997-98, 2002	Good
5U	Holloway Reservoir at Mt. Morris Bridge	1997, 2001, 2003-05	Good
6U	Mott Farm between house and barn	1993-94, 1998, 2001, 2004	Very poor
7U	Richfield Park	2001, 2003-07	Good
<i>Shiawassee River Watershed</i>			
1S	Platform south of Main Street Bridge in Fenton	1992, 1996, 1998-99, 2001-02, 2004	Fair
2S	Linden Mill Pond (Shiawassee River)	2007	Excellent

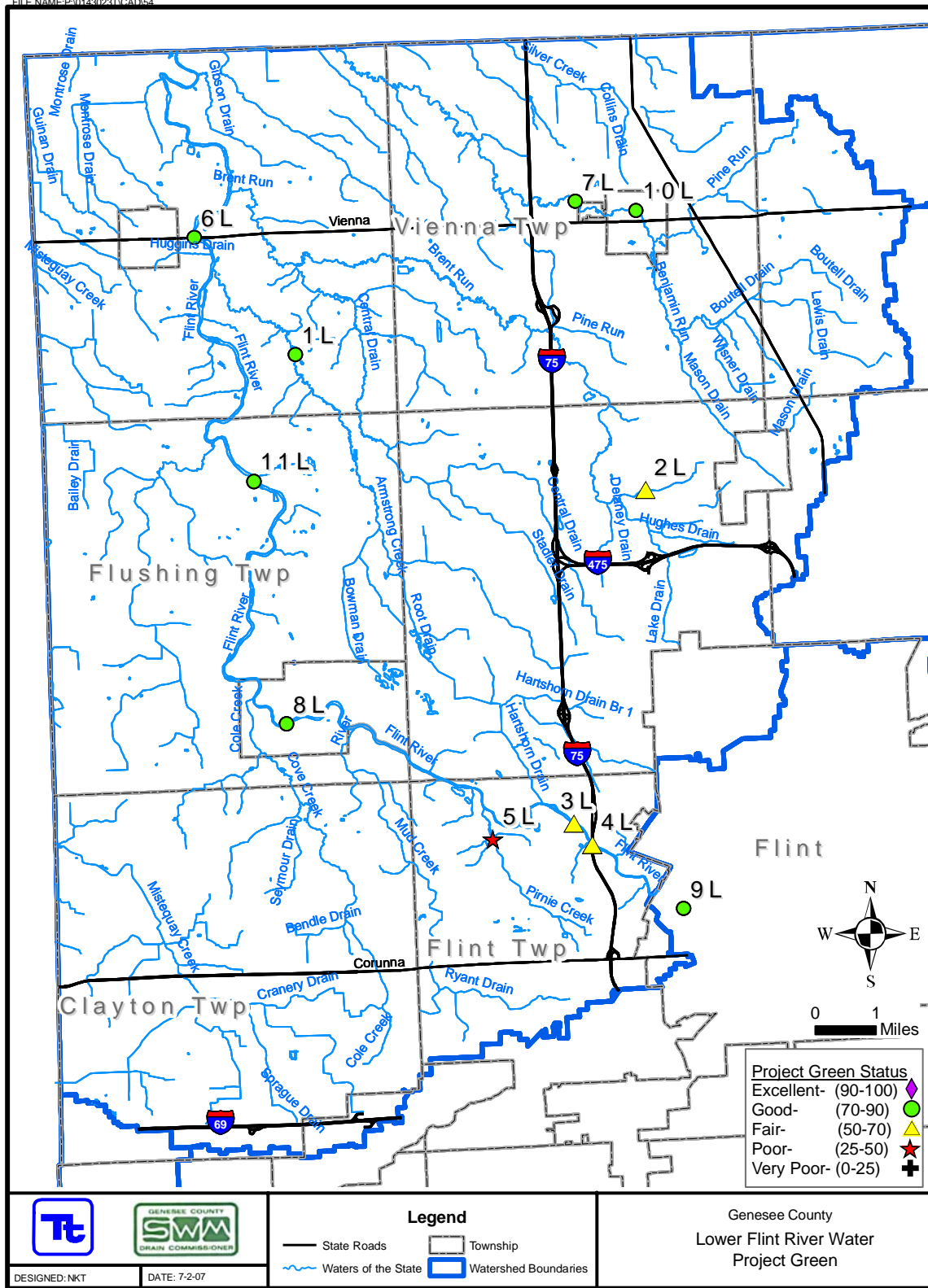


Figure 7-1 Project GREEN Results for the Lower Flint River Watershed

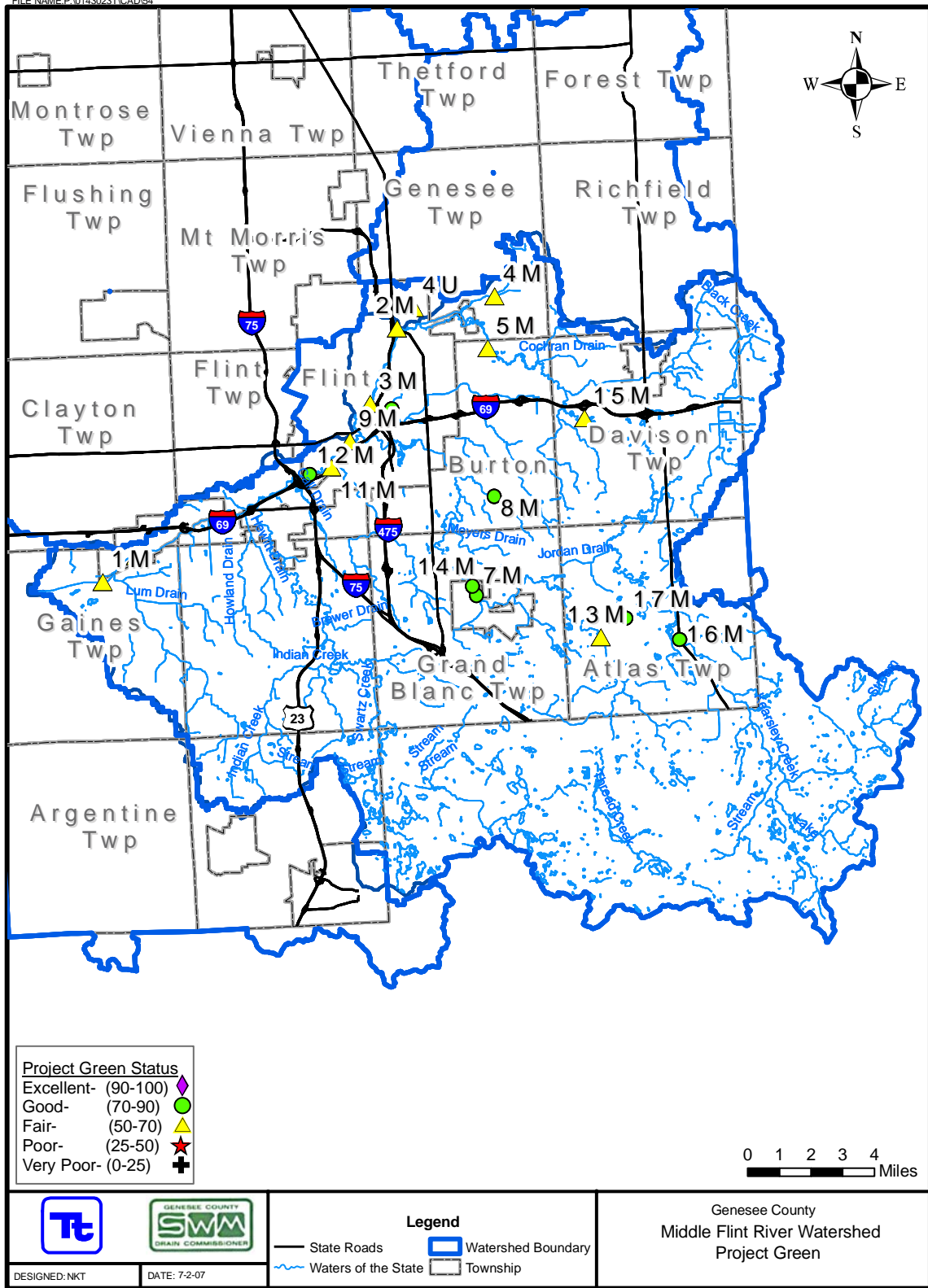


Figure 7-2 Project GREEN Results for the Middle Flint River Watershed

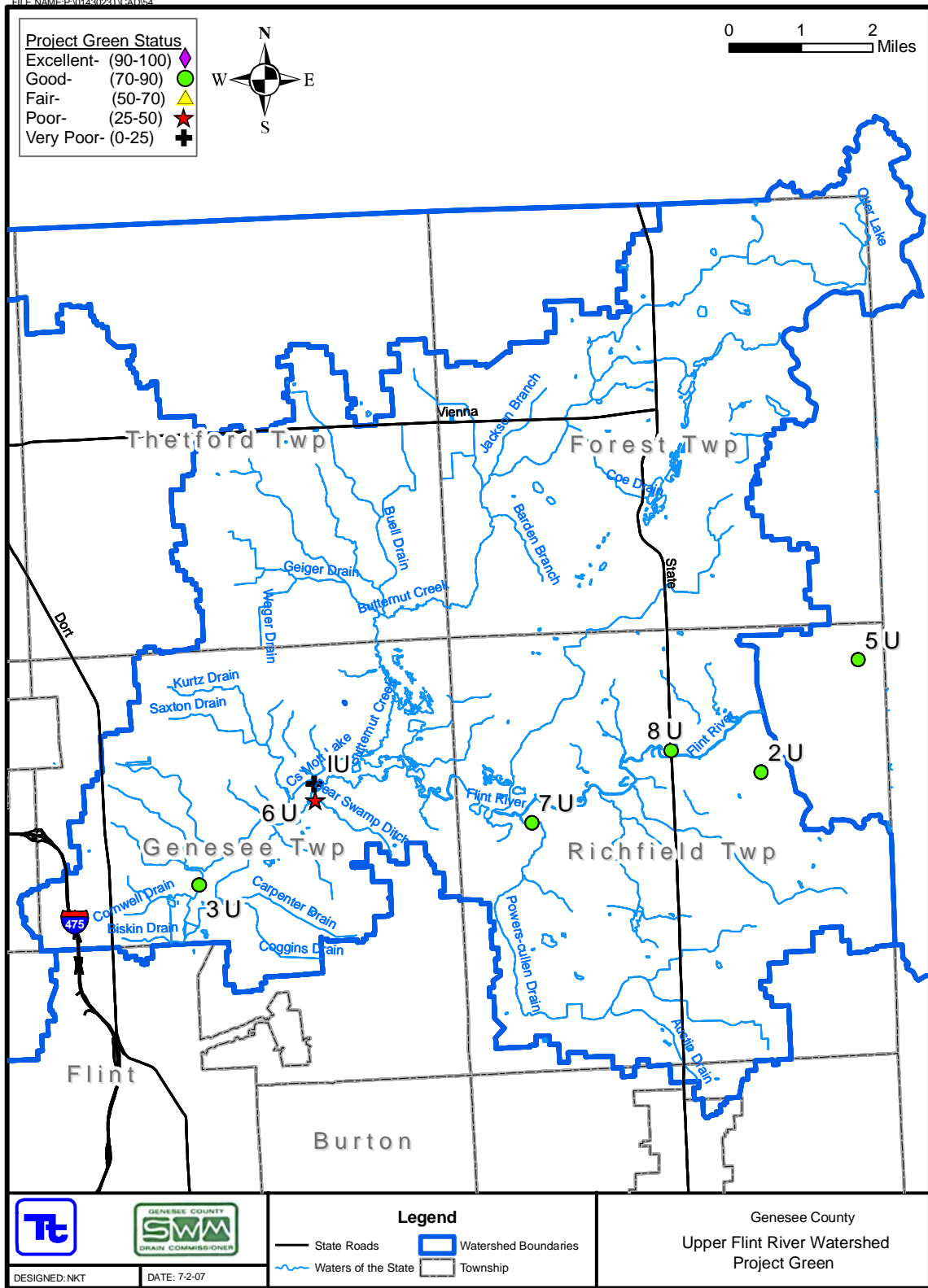


Figure 7-3 Project GREEN Results for the Upper Flint River Watershed

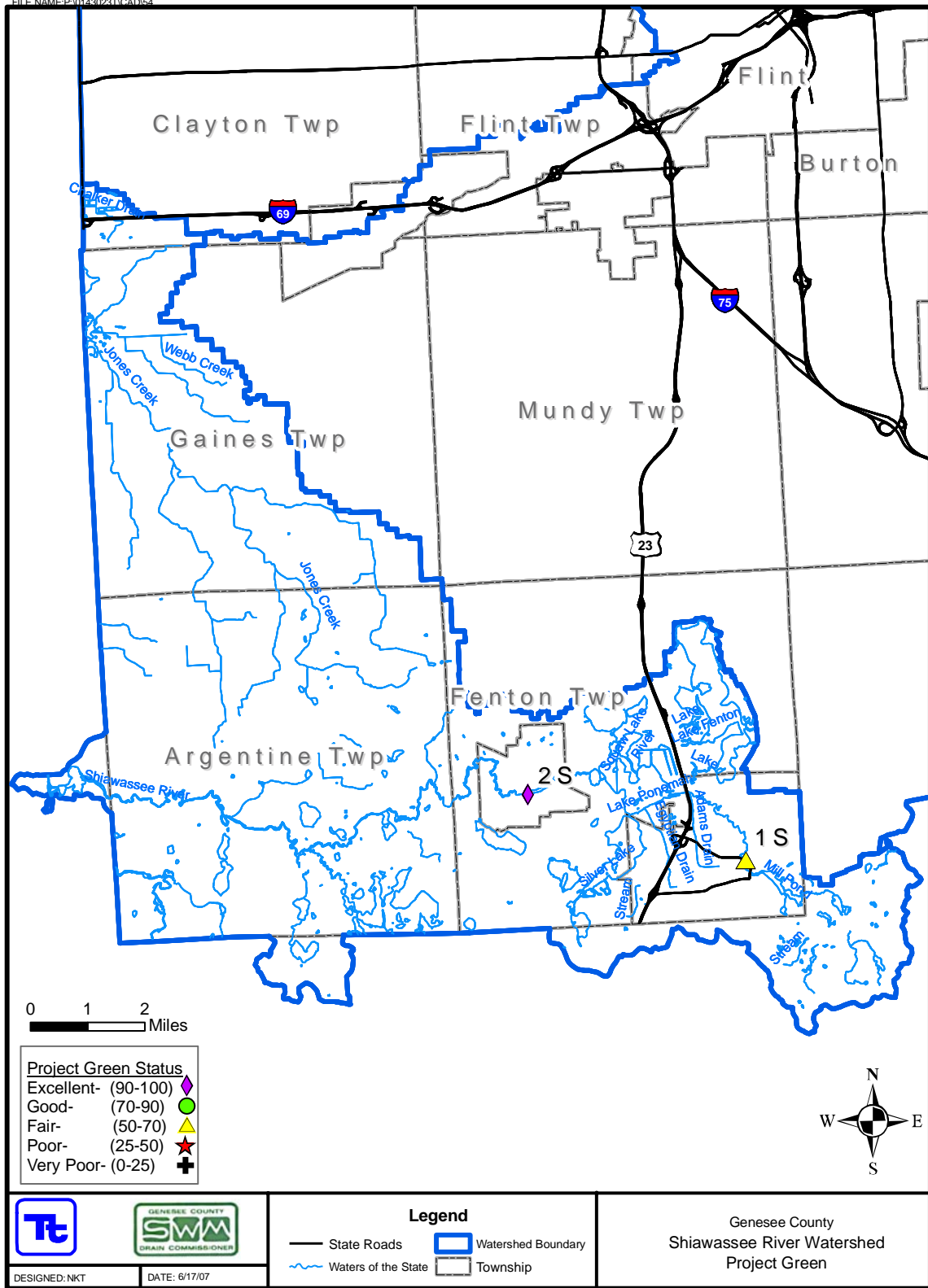


Figure 7-4 Project GREEN Results for the Shiawassee River Watershed

Student Water Summit 2008

Genesee GREEN



Friday, May 16, 2008
Mott Community College * Gorman Science Building
Flint, Michigan



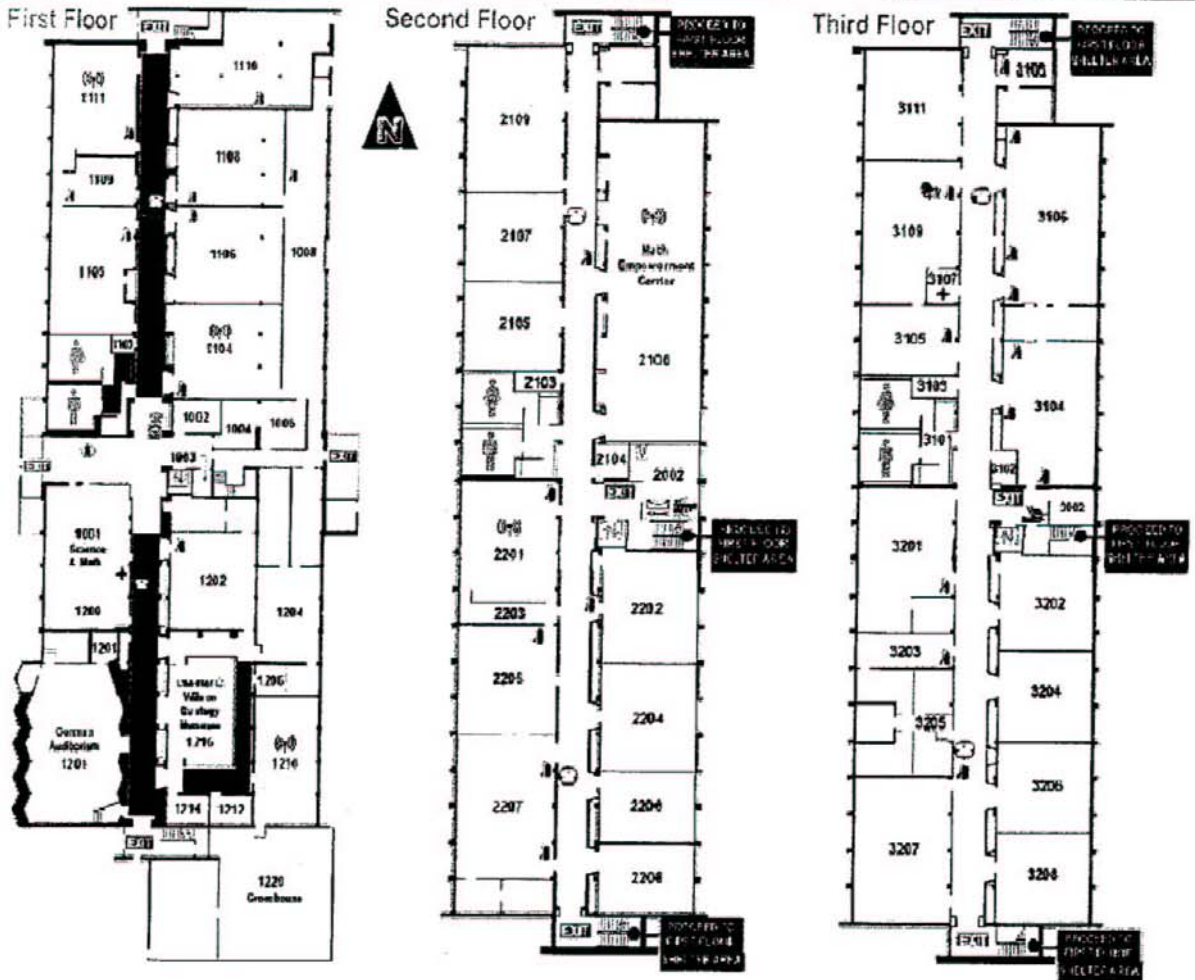
GREEN Student Water Summit Agenda

7:30 a.m.	Arrival / Student Registration
8:00 a.m.—8:35 a.m.	Student Presentations / Session 1 Speakers
8:45 a.m.—9:20 a.m.	Student Presentations / Session 2 Speakers
9:30 a.m.—10:05 a.m.	Student Presentations / Session 3 Speakers
10:15 a.m.—10:50 a.m.	Student Presentations / Session 4 Speakers
10:55 a.m.—11:35 a.m.	LUNCH
11:45 a.m.—12:20 p.m.	Student Presentations / Session 5 Speakers
12:30 p.m.—1:05 p.m.	Student Presentations / Session 6 Speakers
1:05 p.m.—1:15 p.m.	Summit Evaluations (in Session 6)

GORMAN SCIENCE BUILDING



- | | | | | |
|--------------------|-------------------------|------------------------|--------------------|---------------------------|
| Conference Room | Emerg. Evacuation Chair | Fire Hose | Pay Phone (w/ TTY) | Student Copier |
| Elevator | Exit | First Aid | Restroom - Men | Student Email/Reg Kiosk |
| Emergency Exit | Fire Blanket | Heart Defibrillator | Restroom - Women | Vending Machines |
| Emergency Call Box | Fire Extinguisher | LD./Debit Card Machine | Storm Shelter | Wireless Access (Student) |



Breakout Sessions

Session 1: 8:00 a.m.—8:30 a.m.

Room 1104	<i>"How the Health Department Looks At Water Quality"</i>	Robert Bausick, Field Inspector, Genesee County Health Department
Room 1106	<i>"Leadership: Why It Matters?"</i>	John Waldo, Director, Resource Center, Flint
Room 1108	<i>"Gilkey Creek Restoration"</i>	Erin Caudell, Program Specialist, Ruth Mott Foundation—Applewood Estate
Room 3202	<i>"Comparing the Flint River to China's Rivers"</i>	Gary McDaniel, Retired GREEN Director
Room 3206	<i>"How Water Treatment Works"</i>	Ann Hall, Genesee County Drain Office
Room 3207	<i>"The Politics of Water Legislation"</i>	Nathan Murphy, Environmental Policy Analyst, Senate Democratic Caucus
Room 3208	<i>"The Beauty of ForMar"</i>	Katie McGlashen, Genesee County Parks and Recreation

Session 2: 8:45 a.m.—9:15 a.m.

Room 1104	<i>"How the Health Department Looks at Water Quality"</i>	Robert Bausick, Field Inspector, Genesee County Health Department
Room 1106	<i>"Watersheds...What Are They?"</i>	Megan McMahon and Stephanie Barney, Analysts, Michigan Department of Environmental Quality
Room 1108	<i>"Gilkey Creek Restoration"</i>	Erin Caudell, Program Specialist, Ruth Mott Foundation—Applewood Estate
Room 3202	<i>"Comparing the Flint River to China's Rivers"</i>	Gary McDaniel, Retired GREEN Director
Room 3204	<i>"Sewer CSI"</i>	Dawn Welsh, Tom Hutchings and Eric Brubaker, Water Pollution Control Specialists, Flint Waste Water Treatment Center
Room 3206	<i>"How Water Treatment Works"</i>	Ann Hall, Genesee County Drain Office
Room 3207	<i>"Water and the Animals"</i>	Lois Rheume, Naturalist, Seven Ponds Nature Center
Room 3208	<i>"You Have the \$ Power to Make a Difference"</i>	Maggie Fields, Analyst, Michigan Department of Environmental Quality

Breakout Sessions

Session 3: 9:30 a.m.—10:00 a.m.

Room 1106	<i>"Watersheds...What Are They?"</i>	Megan McMahon and Stephanie Barney, Analysts, Michigan Department of Environmental Quality
Room 1108	<i>"Gilkey Creek Restoration"</i>	Erin Caudell, Program Specialist, Ruth Mott Foundation—Applewood Estate
Room 3202	<i>"Comparing the Flint River to China's Rivers"</i>	Gary McDaniel, Retired, FRWC
Room 3204	<i>"Sewer CSI"</i>	Dawn Welsh, Tom Hutchings and Eric Brubaker, Water Pollution Control Specialists, Flint Waste Water Treatment Center
Room 3206	<i>"The Politics of Water Legislation"</i>	Nathan Murphy, Environmental Policy Analyst, Senate Democratic Caucus
Room 3207	<i>"Water and the Animals"</i>	Lois Rheume, Naturalist, Seven Ponds Nature Center
Room 3208	<i>"You Have the \$ Power to Make a Difference"</i>	Maggie Fields, Analyst, Michigan Department of Environmental Quality

Session 4: 10:15 a.m.—10:45 a.m.

Room 1104	<i>"How the Health Department Looks at Water Quality"</i>	Robert Bausick, Field Inspector, Genesee County Health Department
Room 1106	<i>"Watersheds...What Are They?"</i>	Megan McMahon and Stephanie Barney, Analysts, Michigan Department of Environmental Quality
Room 1108	<i>"Gilkey Creek Restoration"</i>	Erin Caudell, Program Specialist, Ruth Mott Foundation—Applewood Estate
Room 3202	<i>"Leadership: Why It Matters?"</i>	John Waldo, Director, Resource Center, Flint
Room 3204	<i>"Sewer CSI"</i>	Dawn Welsh, Tom Hutchings and Eric Brubaker, Water Pollution Control Specialists, Flint Waste Water Treatment Center
Room 3206	<i>"How Water Treatment Works"</i>	Ann Hall, Genesee County Drain Office
Room 3207	<i>"Water and the Animals"</i>	Lois Rheume, Naturalist, Seven Ponds Nature Center
Room 3208	<i>"You Have the \$ Power to Make a Difference"</i>	Maggie Fields, Analyst, Michigan Department of Environmental Quality
Greenhouse	<i>"Walk Through the MCC State of the Art Greenhouse and Geology Museum"</i>	
Geology Museum	<i>"Walk Through the MCC State of the Art Geology Museum and Greenhouse"</i>	

LUNCH: 10:55–11:25 AM on the Second Floor

Breakout Sessions

Session 5: 11:30 a.m.—12:00 p.m.

Room 1104	<i>"The Health and Future of the Great Lakes"</i>	Margaret Lansing, NOAA/Great Lakes Environmental Research Laboratory
Room 1106	<i>"Watersheds...What Are They?"</i>	Megan McMahon and Stephanie Barney, Analysts, Michigan Department of Environmental Quality
Room 1108	<i>"Rats in Your Drinking Water"</i>	Darren Bagley, Agent, Extension Educator, 4-H Youth Development, MSU-E
Room 3202	<i>"Environmental Law, Policy, and Activism"</i>	Linda Berker, Attorney at Law, Flint Watershed Coalition Board Member, Sierra Club Chairperson
Room 3204	<i>"Civic Action Implications"</i>	Erin Gallay, Michigan Coordinator, Earth Force
Room 3206	<i>"How Water Treatment Works"</i>	Ann Hall, Genesee County Drain Office
Room 3207	<i>"Water and the Animals"</i>	Lois Rheume, Naturalist, Seven Ponds Nature Center
Room 3208	<i>"You Have the \$ Power to Make a Difference"</i>	Maggie Fields, Analyst, Michigan Department of Environmental Quality
Greenhouse	<i>"Walk Through the MCC State of the Art Greenhouse and Geology Museum"</i>	
Geology Museum	<i>"Walk Through the MCC State of the Art Geology Museum and Greenhouse"</i>	

Session 6: 12:15 p.m.—12:45 p.m.

Room 1104	<i>"The Health and Future of the Great Lakes"</i>	Margaret Lansing, NOAA/Great Lakes Environmental Research Laboratory
Room 1108	<i>"Rats in Your Drinking Water"</i>	Darren Bagley, Agent, Extension Educator, 4-H Youth Development, MSU-E
Room 3202	<i>"Environmental Law, Policy, and Activism"</i>	Linda Berker, Attorney at Law, Flint Watershed Coalition Board Member, Sierra Club Chairperson
Room 3204	<i>"Civic Action Implications"</i>	Erin Gallay, Michigan Coordinator, Earth Force
Room 3206	<i>"Leadership: Why It Matters?"</i>	John Waldo, Director, Resource Center, Flint
Room 3207	<i>"Water and the Animals"</i>	Lois Rheume, Naturalist, Seven Ponds Nature Center
Room 3208	<i>"Comparing the Flint River to China's Rivers"</i>	Gary McDaniel, Retired, FRWC

History of GREEN and The FRWC

The Global Rivers Environmental Education Network—GREEN—founded in 1984 by Dr. William Stapp of the University of Michigan, 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 is aimed at teaching 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 Genesee GREEN project connects mentors from our sponsors, General Motors and The Genesee County Drain Office, as well as other environmental professionals with middle and high school students throughout the watershed. The students conduct stream monitoring every year. For more information on Genesee GREEN, visit www.geneseegreen.org



The Flint River Watershed Coalition (FRWC) was born 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 from pollution. The FRWC was incorporated as a non-profit 501c3 organization in August of 1998.

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Edythe Westhoff, Office Manager
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Sue Lossing, Education/Outreach Coordinator
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Telephone: (810) 767-6490—Fax: (810) 767-2149
www.flinriver.org



Flint River Watershed Coalition
432 N. Saginaw St., Suite 1001, Flint, Michigan 48502
Phone: (810) 767-6490 – Fax: (810) 767-7183

YES, I want to join the FRWC!

Enclosed is my membership amount:

\$10 Student/Limited Income

\$25 Individual

\$40 Family/Friend

\$100 River Sponsor

\$250 River Patron

\$500 Watershed Protector

\$1,000+ Watershed Guarantor

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

NAME _____

ORGANIZATION _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE _____

EMAIL _____

Please circle one WORK HOME CELL

Participating GREEN Schools

- ◆ **Atherton Middle School**
 - Teachers: Chris Carlson, Matt Hyslop
 - Mentor: Julie Lenz, Gina Couturier, GM Flint Tool & Die
- ◆ **Beecher Middle School**
 - Teacher: Annette Zemon-Parker
 - Mentor: Jennifer Tegen-GM/Flint Truck
- ◆ **Bendle High School**
 - Teacher: Todd Barden
 - Mentor: Darren Bagley-GCDC/FRWC
- ◆ **Bentley High School**
 - Teacher: Cheryl Hobson
 - Mentor Eric Hakel-TetraTech and Dan McComb, GM Flint Engine South
- ◆ **Carman Ainsworth High School**
 - Teachers: Julie Lawrence, Judy Stone
 - Mentors: Julie Lenz and Gina Couturier, GM Flint Metal Center
- ◆ **Clio Middle School**
 - Teachers: Ryan Nemi, Chip McCallum
 - Mentors: Rebecca Fedewa, Sue Lossing, FRWC
- ◆ **Fenton Middle School**
 - Teacher: Clair Reynolds
 - Mentor: Stacey Helton-GM Flint North
- ◆ **Flint Johnson AAA**
 - Teacher: Chris Ochodnicki
 - Mentor: Tom Hutchens-Flint Water Pollution Control
- ◆ **Flint Northern High School**
 - Teacher: Nadina Aversa
 - Mentor: Sharon Sawyer-GM Flint North
- ◆ **Flint Whittier Middle School**
 - Teachers: Jarrett Trombley and Robert Ryan
 - Mentors: John Moldovan-GM GLTC, and Sara McDonald, CAER
- ◆ **Flushing High School**
 - Teacher: Chad Anderson
 - Mentors: Alex Thibeault-GM Flint Truck, Mark Williams-TetraTech
- ◆ **Genesee High School**
 - Teacher: Matt Malonich
 - Mentor: Rich Schomaker-GM Grand Blanc Metal Center
- ◆ **Goodrich Middle School**
 - Brad Dawson, Craig Salter, Cindy Rivet
 - Mentors: Pier Bollini and Al Putney, Delphi-Flint
- ◆ **Hamady High School**
 - Teacher: Tammy Wylie
 - Mentor: Eric Brubaker-Flint Water Pollution Control
- ◆ **Kearsley-Armstrong Middle School**
 - Teachers: Jennifer Hall, Diana Bowman
 - Mentors: Sue Kubic, Genesee County Drain Commission, Joshua Gonzalez, FRWC/UM Flint Alumni
- ◆ **Lakeville Middle School**
 - Teacher: Josh Henley
 - Mentor: John Bradburn-GM Pontiac
- ◆ **Linden Middle School**
 - Teacher: Kim Cornell, Charlene Nester
 - Mentor: Dan Harrett, GM Retiree
- ◆ **Montrose – Kuehn-Haven Middle School**
 - Teachers: Tammy Belson, Bob Masser
 - Mentors: Bob Carlyon-GCDC/Rowe Engineering Bill Welch-GISD
- ◆ **Mt. Morris Middle School**
 - Teacher: Al Peter
 - Mentor: Tom Jones-Genesee County Drain Commission
- ◆ **Swartz Creek Middle School**
 - Teacher: Dori Hill
 - Mentors: Dennis Weiler-GM/Flint SPO, Pat Schultz, GM/Flint SPO

Thank You!

To the Students...

Your involvement in protecting our water resources is very important and greatly appreciated! We value your hard work and your dedication to this project.

To the Teachers...

Through your participation in the GREEN project, you bring science to life for your students!

To the Presenters...

Thank you for taking time to be a part of this GREEN Student Summit. You are key to turning students into environmental stewards.

To the Mentors...

Your involvement with the students sends the message that environmental awareness is for everyone – students, parents, teachers, and business. Thank you for your dedication to educating our young people.

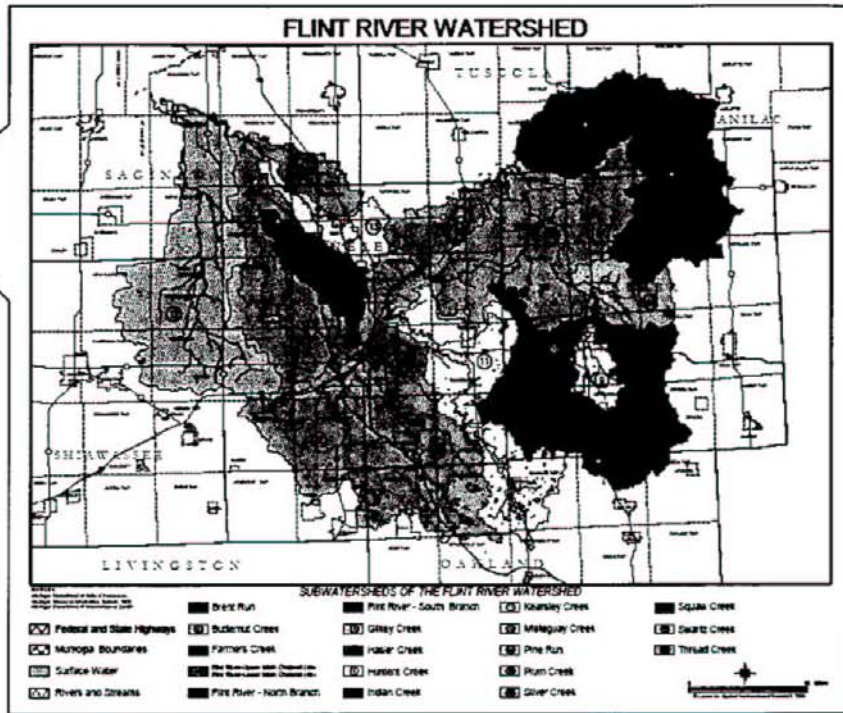
Core Beliefs

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.



Did You Know...?

- The Flint River has 1639 total river miles—over 753 of those river miles have water in them all the time.
- The Flint River Watershed is made up of 18 smaller watersheds (such as Kearsley Creek and Swartz Creek).
- The Flint River Watershed encompasses more than 1358 square miles and portions of 7 counties, 20 cities & villages, and 58 townships.



Sponsors and Supporters of Genesee GREEN

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



Genesee GREEN
Student Water Summit
May 16, 2008
Mott Community College - Gorman Science Building

School	7:30 AM	8:00 AM	8:45 AM	9:30 AM	10:15 AM	10:55 AM	11:45 AM	12:30 PM
Atherton	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Flint Whittier	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Bentley	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Swartz Creek	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Clio (McCaullum)	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Hamady HS	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Kearsley (Hall)	Registration	Auditorium	Auditorium	Session 3	Session 4	LUNCH	Session 5	Session 6
Flushing	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Goodrich	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Kearsley (Bowman)	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Lakeville	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Linden	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Flint Northern	Registration	Session 1	Session 2	Auditorium	Auditorium	LUNCH	Session 5	Session 6
Clio (Neimi)	Registration	Session 1	Session 2	Session 3	Session 4	LUNCH	Auditorium	Session 6
Hamady HS	Registration	Session 1	Session 2	Session 3	Session 4	LUNCH	Auditorium	Session 6
Flint Johnson	Registration	Session 1	Session 2	Session 3	Session 4	LUNCH	Auditorium	Session 6

8. MACROINVERTEBRATE STUDY

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

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 scores for each site visit were 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 provide an indication of macroinvertebrate community health but also act as a good Water Quality Index. Table 8-1 and Figures 8-1 to 8-3 summarize macroinvertebrate sampling results for the Lower, Middle, and Upper Flint River Watersheds. Sites categorized as “poor” are identified in the table with red font. Only one site out of the 14 visited, the Brent Run Headwaters, was categorized as “poor”.

Table 8-1 Macroinvertebrate Study Results

ID_No	Location	Sampled Years	Water Quality Index (WQI)
<i>Lower Flint River Watershed</i>			
A-L	Pine Run Headwaters	1999-2000, 2003-06	Fair
B-L	Misteguay Creek Headwaters	1999-2000, 2004-06	Fair
C-L	Flint River, Flushing	1999-2006	Fair
D-L	Brent Run	1999-2003, 2005-06	Good
E-L	Brent Run Headwaters	1999-2000, 2004-06	Poor
<i>Middle Flint River Watershed</i>			
A-M	Swartz Creek	1999-2006	Fair
B-M	Thread Creek	1999-2006	Fair
C-M	Thread Creek Headwaters	1999-2006	Good
D-M	Kearsley Creek	1999, 2001-06	Good
E-M	Kearsley Creek Headwaters	1999-2003, 2005	Fair
F-M	Gilkey Creek	1999-2006	Good
G-M	Gilkey Creek Headwaters	2002-06	Good
<i>Upper Flint River Watershed</i>			
A-U	Butternut Creek Headwaters	2000-06	Good
B-U	Flint River, Richfield	2000-05	Fair

It should be noted that there was no discernable correlation between the Project 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 Project GREEN (which is more geared toward inspiring youth).

In October 2007 two additional sites were added in the Shiawassee River. Data set from October 2007 has been performed but not compiled at this time. It will be reflected in future reports.

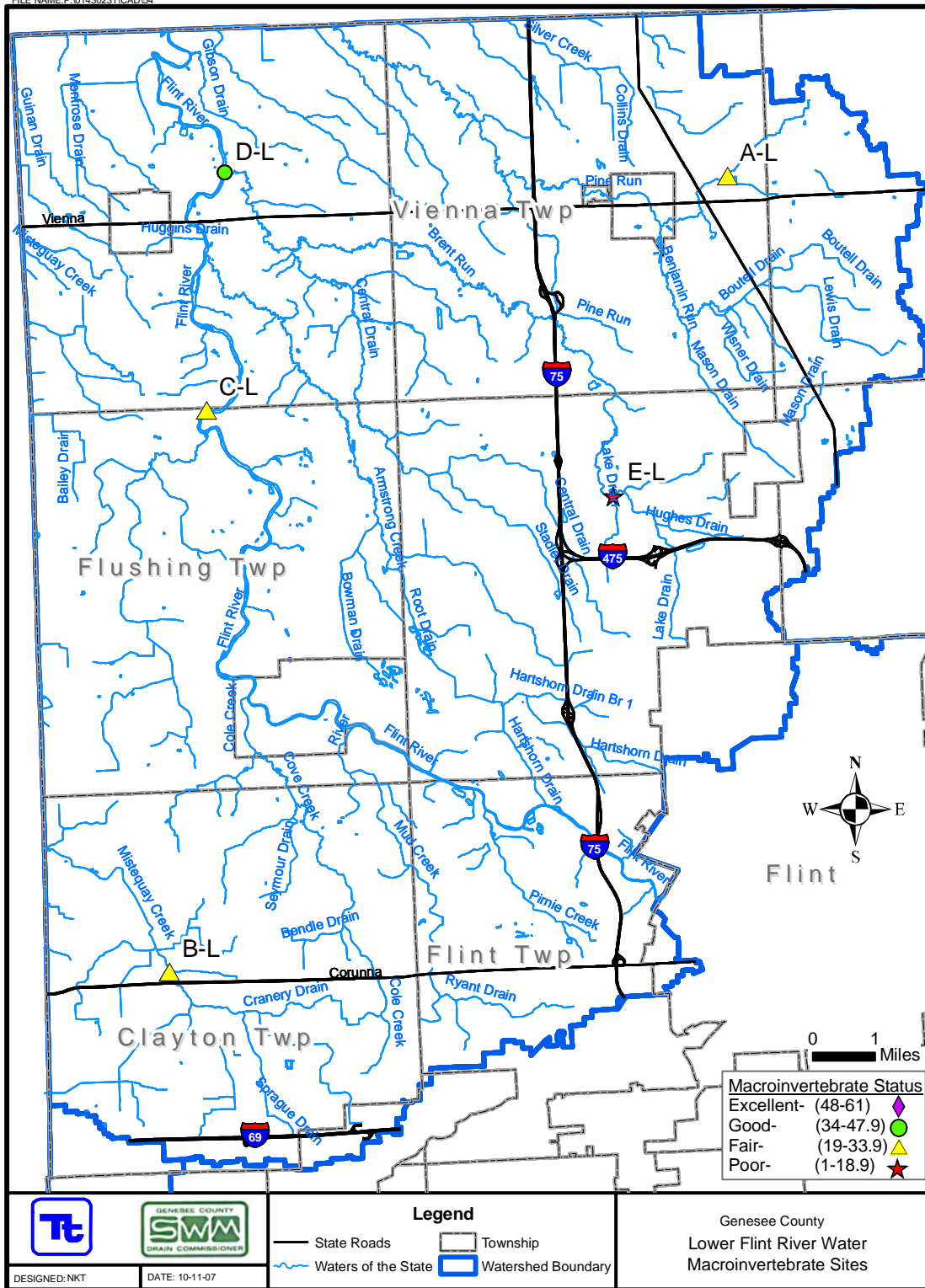


Figure 8-1 Macroinvertebrate Study Results for the Lower Flint River Watershed

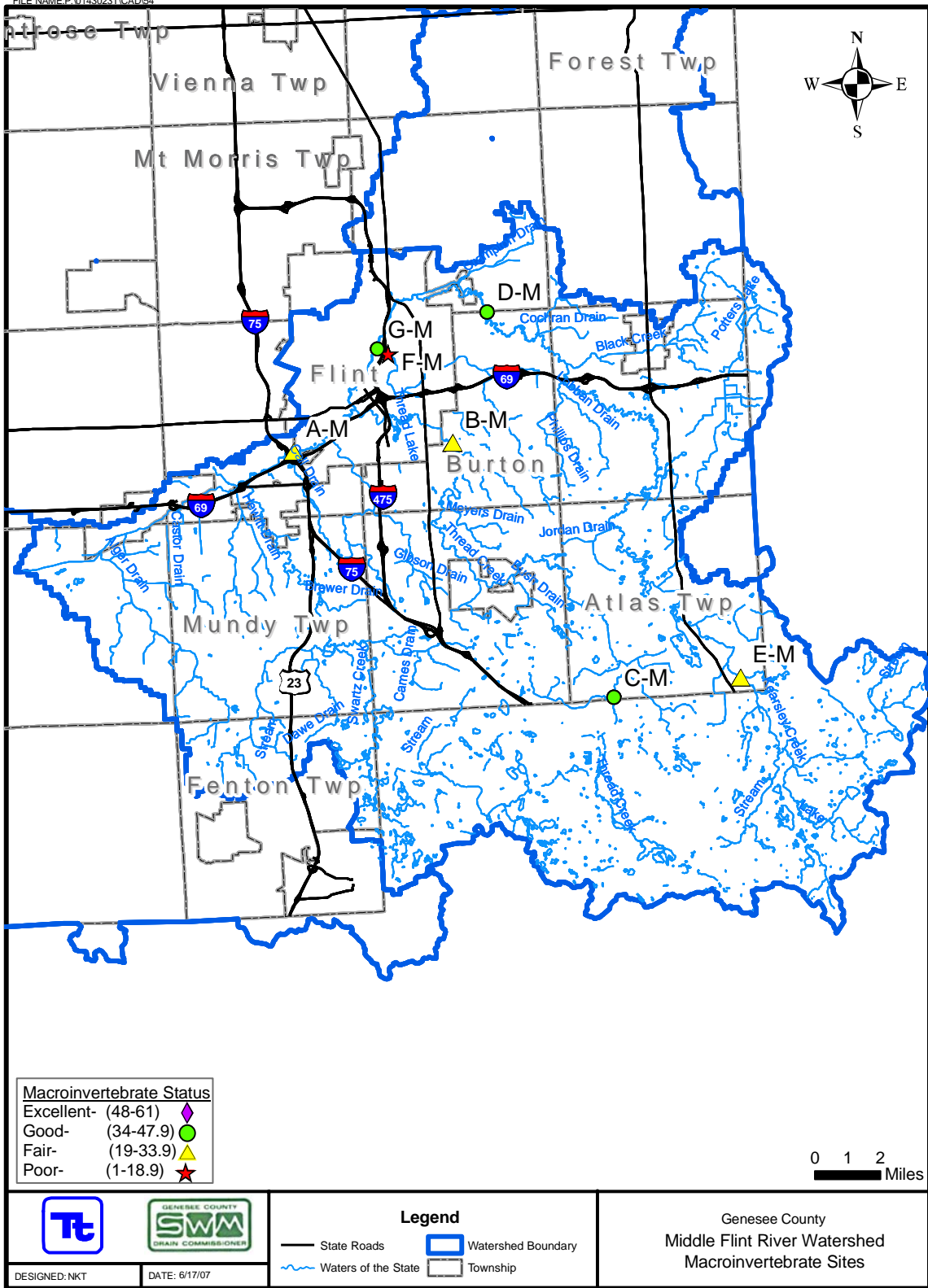


Figure 8-2 Macroinvertebrate Study Results for the Middle Flint River Watershed

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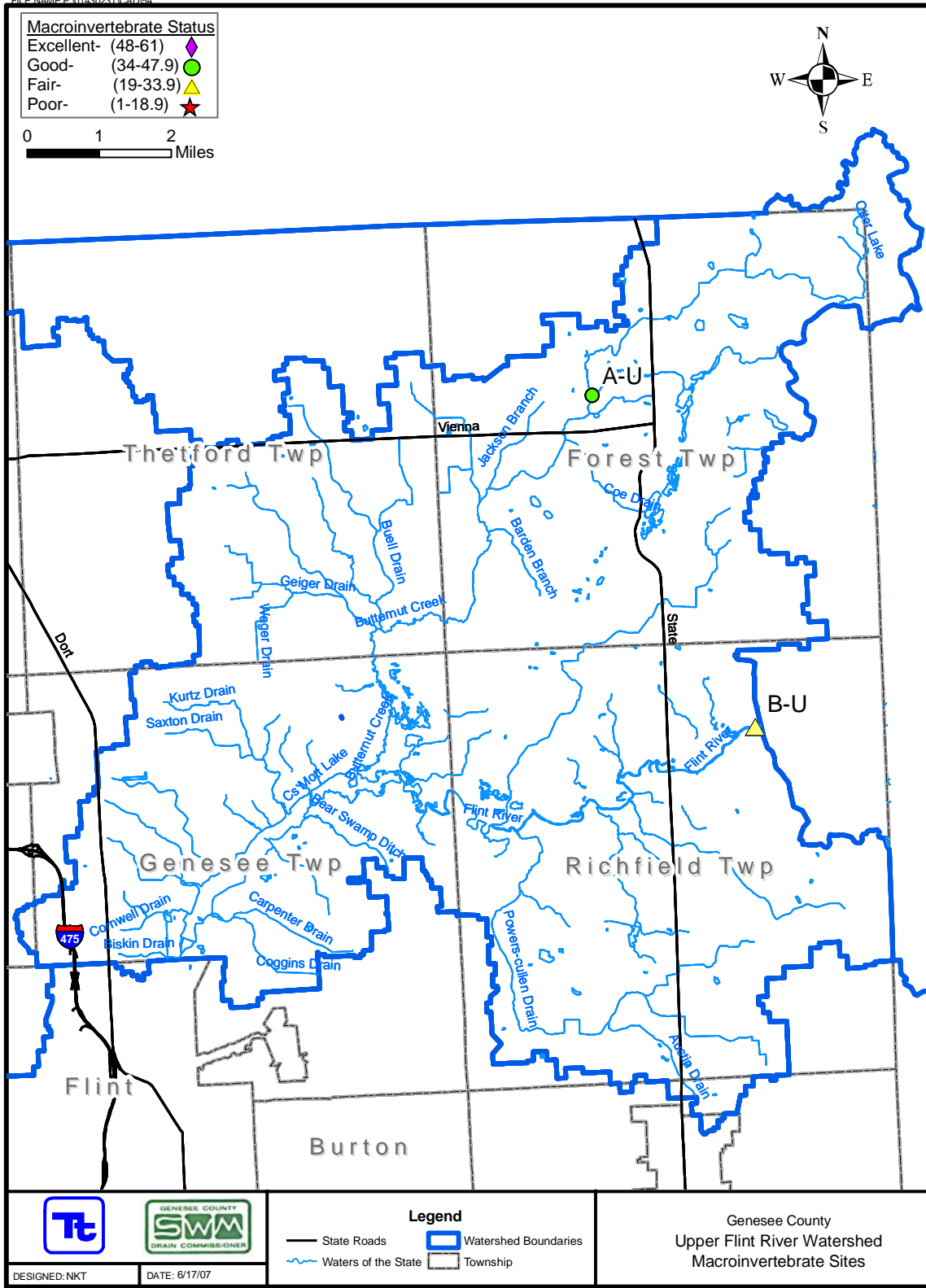


Figure 8-3 Macroinvertebrate Study Results for the Upper Flint River Watershed

9. ILLICIT DISCHARGE ELIMINATION PLAN (IDEP)

The purpose of the Illicit Discharge Elimination Plan (IDEP) is to establish a program to prohibit and 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 as they enter the waters of the state, 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 and illicit connections identified within each watershed. Section 10 provides a list of PSDs identified during 2008 IDEP field investigations. Section 10 also includes Phase II Permit application maps and tables for by municipalities with PSDs.

Figure 9-1 shows the illicit discharge notification system process. During field investigations, two-person crews investigate MS4 outfalls and private drains by walking within the County drainage system or by kayaking the waters of the state. Each outfall is mapped and investigated at least once every five years. When outfalls are submerged, field crews conduct additional upstream investigations. If dry weather flow is present at an outfall during investigation, the flow is sampled and analyzed. If a possible illicit connection is identified, the pollutant source is isolated and businesses, property owners, and governmental units are contacted in an effort to eliminate these discharges.

The status of IDEP work for each of the following five major watersheds is described in this section:

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

Note: As a new program in 2003, funds and resources needed were estimated. IDEP field investigations have been prioritized to focus on MS4s and urban areas. Not all drains identified in the permit will be investigated by the end of the IDEP cycle, which is April 2009. Due to the prioritizing, those areas will be mostly undeveloped land that should not have any outfalls. Per the 342 agreement with local communities, GCDC will continue to investigate PSDs not previously investigated on behalf of the communities under the permit.

To date, Genesee County has focused on completing Dry Weather Flow investigations within Phase II community's urbanized areas, and some laterals, especially along I-75 and I-69. A total of 41 illicit connections have been found and Tetra Tech conducted follow up investigations. All of the IDEP information has been entered into a web-based database and PSD points are plotted on a GIS map. When the mapping is complete for the entire County, it will be available on the GCDC public website. In addition, the County has added an illicit discharge reporting page on their web site. This page will give general information about illicit discharges and phone numbers to call when someone finds an illicit discharge.

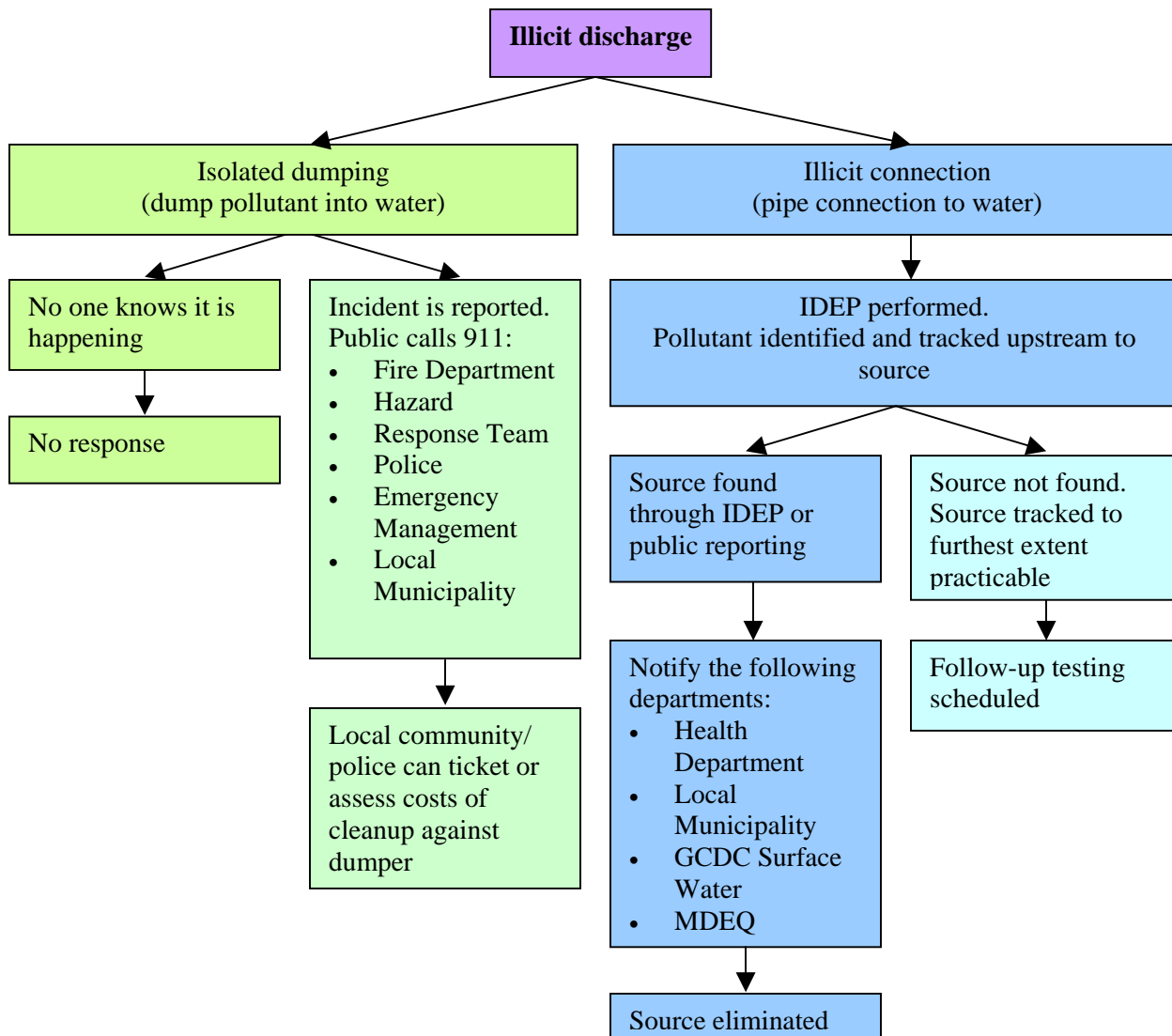


Figure 9-1 Illicit Discharge Notification System Process

LOWER FLINT RIVER WATERSHED

In 2008, IDEP investigations were conducted in the Lower Flint River Watershed. Figure 9-2 shows the number of miles walked or kayaked by year. In 2008, it was 190 miles, in 2007, 78 miles and in 2006, it was 2 miles, for a total of 270 miles investigated. Figure 9-3 shows the 20 possible illicit connections that were found. Table 9-1 provides a description of the illicit connections, corrective actions taken, and current status.

Ten illicit connections were removed, two confirmed and eight are still pending further investigation. The County will dye test suspected properties to confirm and coordinate disconnection. Once an illicit connection is confirmed, Genesee County will notify MDEQ in accordance with its NPDES storm water permit and will proceed to remove the connection. Field crews will continue follow-up investigations of the pending PSDs within the Lower Flint River Watershed through the end of 2008. Additional illicit connections found will be included in the next permit cycle.

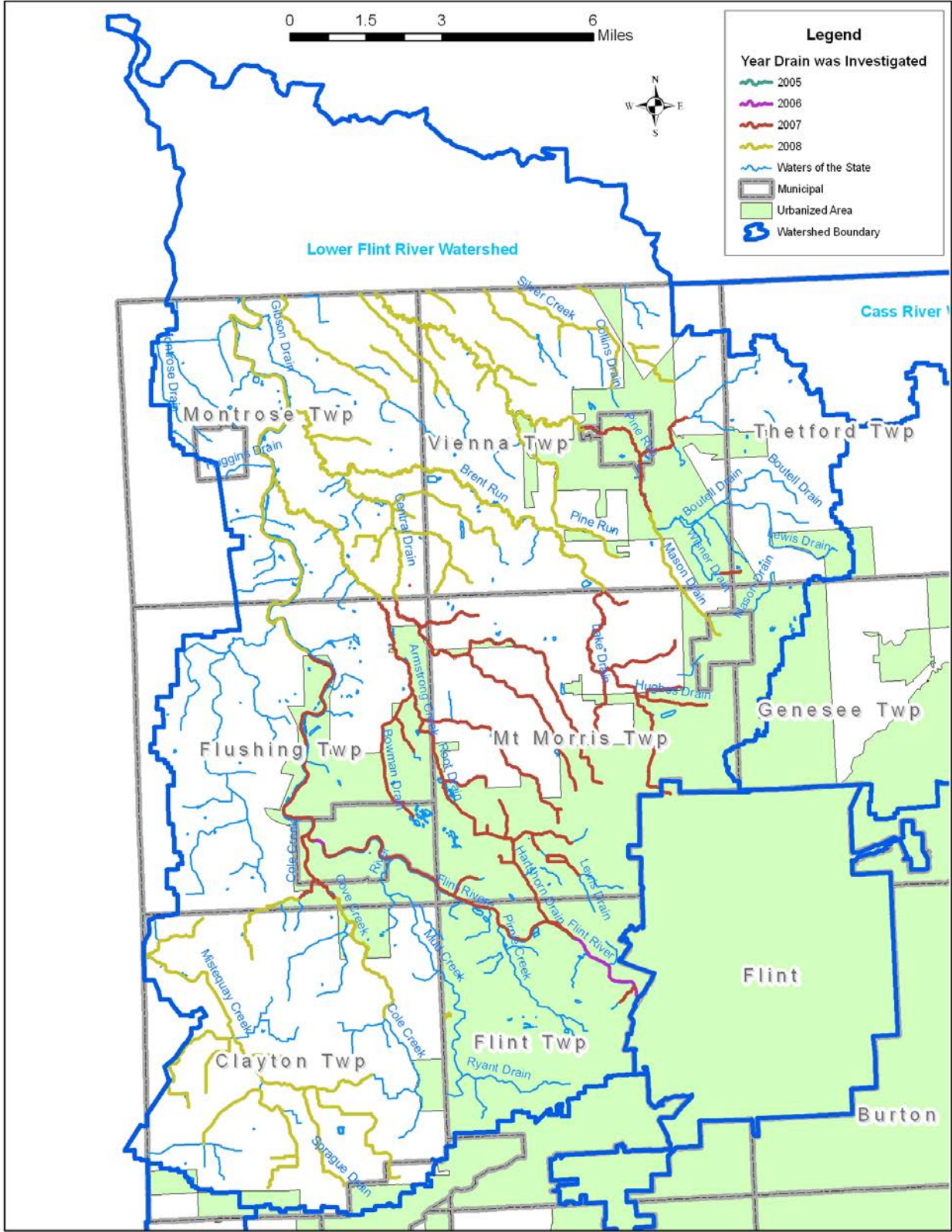


Figure 9-2 Lower Flint River Watershed – IDEP Program Status

Table 9-1 Illicit Connections - Lower Flint River Watershed

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
7508010	Dry weather flow, odor, ammonia, E. coli and color consistent with sanitary discharge were observed in pipe behind 11375 Beecher rd.	Recommend GCDC set up dye test at 11375 Beecher Rd.	Pending dye test
7513251	(ICE 1)--County notified Tetra Tech on 4-29-08 about a possible illicit discharge.	Investigated upstream, found source of contamination, notified county	Illicit Removed
7603499	On August 06, 2008 investigators conducted a visual inspection of a laundry connection at 3104 W. Dartmouth Road Flint, MI 48504. This illicit connection was located by the GCDC.	Visual inspection confirmed that the laundry connection has been re-routed to the sanitary system.	Illicit Removed
7605761	Field crews' investigation outfall 7605761 found ammonia levels of 3.0mg/L. The source of the dry weather flow was found to be the City of Flint Wastewater Treatment Plant. Plant operators indicated the pipe had been abandoned and plugged, but it appears the abandonment was incomplete.	It is recommended that the GCDC determine if the outlet pipe is within the jurisdiction of the Flint City Wastewater Treatment Plant and work with them to correct the problem.	Pending jurisdictional determination
8512502	Investigators made contact with the property owner at 7266 Stanley Road Flushing, MI 48433 regarding an illicit discharge to the County's storm drain. The original investigation in 2007 identified an <i>E. coli</i> source from numerous domestic waterfowl living on the property and having access to the drain.	Homeowner removed domestic waterfowl.	Illicit removed
8513005	Dry weather flow, <i>E.coli</i> , detergents, ammonia and visual observations of sewage odor, soapsuds and grease/oil at levels above actions limits indicate an illicit connection at 6448 Johnson Rd.	Inspection confirmed new septic system at 6448 Johnson Rd. and removal of illicit connection	Illicit removed
8513247	Dry weather flow, <i>E.coli</i> , and visual observations of black staining in pipe and sewage odor at levels above actions limits indicate an illicit connection at 6268 Johnson Rd.	No dye observed at outfall. Homeowner suggested that illicit connection was coming from septic system of 6268 Johnson Rd. Dye test confirmed illicit connection at 6268 Johnson Rd.	Illicit connection confirmed, removal pending
8513503	No dry weather flow present, visual observation of lint and hair indicate an illicit connection at 7526 Coldwater, Flushing inspected.	Inspection confirmed illicit laundry connection removed from 7526 Coldwater.	Illicit removed
8526756	Dyed water test of apartments at 726 E. Main St., Flushing found no illicit connection from buildings. Visual tracking of sanitary pipe led to surcharging City of Flushing sanitary manhole discharging sanitary flow overland to the Flint River.	GCDC notified City of Flushing who removed obstruction from sewer line.	Illicit removed
8527254	Dry weather flow <i>E.coli</i> , at levels above actions limits indicate an illicit connection	GCDC dyed test for 4463 and 4444 N. Seymour Road and no illicit connection found. Need to dye test another house.	Pending, investigate further

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
8527698	High levels of <i>E. coli</i> , surfactant, and ammonia indicate sanitary connection upstream of outfall.	GCDC to set up dye tests for upstream buildings along Seymour Rd.	Pending dye test
8527862	Dry weather flow, <i>E.coli</i> , at levels above actions limits indicate an illicit connection at 213 Main St, Flushing.	Dye test confirmed removal of illicit connection.	Illicit removed
8609747	The presence of <i>E. coli</i> and surfactant at elevated levels at the outfall into the Central Drain indicate an illicit discharge.	Recommend that GCDC schedule a dye test at 4384 E. Stanley Rd.	Pending dye test
8616245	Sewage odor, black staining, high levels of <i>E. coli</i> , surfactant and ammonia at the outfall indicate an illicit sewage discharge.	Recommend GCDC schedule dye test at 6496 N. Linden Rd.	Pending dye test
8619101	Dry weather flow, detergents, and visual observations soapsuds at levels above actions limits indicate an illicit connection at 6467 Chicago Rd.	Removal of illicit connection confirmed.	Illicit removed
8619237	No dry flow present, visual observations of toilet paper indicate an illicit connection at 5518 N. Elms Rd.	No dye observed at outfall, however dye was observed leaching into drain downstream of pipe in question. Recommend GCDC look into leaky drain field behind 5518 N. Elms.	Illicit connection confirmed, removal pending
8619240	Illicit discharge found while investigating upstream pipe (8619237)	GCDC to notify resident of failing septic field and oversee repair/replacement.	Illicit connection confirmed, removal pending
8620753	Dry weather flow detergents, ammonia at levels above actions limits indicate an illicit connection at 5244 Linden Road Flint, MI 48504.	Confirmed new septic field installed.	Illicit removed
8623747	Dry weather flow, <i>E.coli</i> , detergents, and visual observations of soapsuds at levels above actions limits indicate an illicit connection at Randy Wise Chevrolet, 5100 N. Clio Rd.	Dye test confirmed removal of illicit connection.	Illicit removed
9503237	Dry weather flow, <i>E.coli</i> , detergents, ammonia and visual observations of soapsuds at levels above actions limits indicate an illicit connection at 9347 Willard R.	Recommend GCDC set up dye test for 9347 Willard Rd.	Pending dye test

MIDDLE FLINT RIVER WATERSHED

Figure 9-3 shows the status of the IDEP Program for the Middle Flint River Watershed, including the:

- Gibson and Sherwood Drains (Clean Michigan Initiative Grant)
- Thread Creek and tributaries (Funded by community taxes)
- Swartz Creek and tributaries (Funded by community taxes)
- Kearsley Creek and tributaries (Funded by community taxes)

A total of 229 drain miles have been walked from 2006-2008. The status of IDEP work for each of these project areas is described as follows.

Gibson and Sherwood Drains

GCDC was awarded a Clean Michigan Initiative (CMI) Grant to conduct investigations for the Gibson Drain. The Quality Assurance Project Plan (QAPP) was submitted to MDEQ in December 2004 and was approved in January 2005. A consultant was hired to conduct the IDEP investigations. The final project report, fact sheet, and release of claims were submitted to MDEQ in August 2006.

In 2005, field crews walked the main branch of the Gibson Drain and its tributary branches, including the Sherwood Drain. A total of 15 miles of drain were walked and no additional field work is needed for this drain, other than follow-up illicit connection investigations.

Table 9-2 provides a list of eight illicit connections in the Middle Flint watershed in the Gibson and Sherwood Drains and summarizes corrective actions and current status. Six illicit connections have been removed which included two sanitary system connections from residential areas, a sanitary connection from a car dealership, concrete wash off from construction, a commercial car wash facility, and wash water from stone cutting operations at Genesee Cut Stone Company (industrial permit acquired). Also included in the table are two sites where no further actions are required at this time. One pipe was unable to be located and the other was re-sampled and lab results were within limits. In the Gibson Drain, all illicit connections have been removed or there is no need for further investigations at this time.

Thread Creek and Tributaries

In 2006, GCDC acquired funds from local communities to conduct IDEP investigations in the Middle Flint River Watershed. Field crews walked the Thread Creek and its tributary branches in the spring and summer of 2006. About 37 miles of drain were walked. Table 9-3 provides a description of the one pending illicit connection. Once an illicit connection is confirmed, the County will notify MDEQ in accordance with its NPDES storm water permit and begin action to remove the connection.

Swartz Creek and Tributaries

As part of the 2006 funding, field crews walked 67 miles of the Swartz Creek and its tributary branches in the spring and summer of 2006. Two illicit connections were removed in the Swartz Creek drainage area and three potential illicit connections are pending investigation. Table 9-3 provides a description of the illicit connections and summarizes corrective actions taken to date and current status. The County will dye test the suspected properties to confirm and coordinate disconnection. Once an illicit connection is confirmed, the County will notify MDEQ in accordance with its NPDES storm water permit and begin action to remove the connection.

Kearsley Creek and Tributaries

As part of the 2006 funding, field crews walked 60 miles of the Kearsley Creek and its tributary branches in 2007 and 50 miles in 2008. Table 9-3 shows the one identified illicit connection that is being generated.

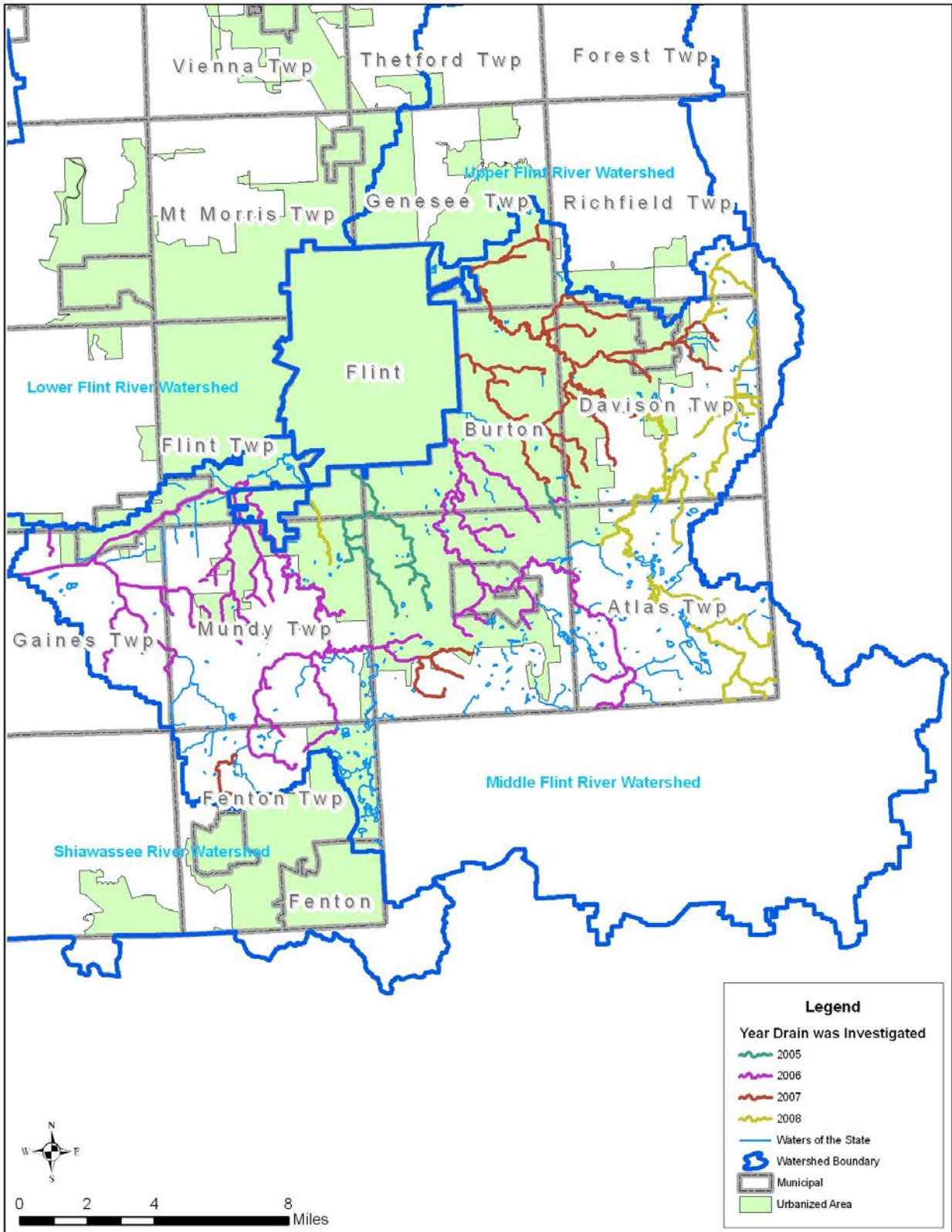


Figure 9-3 Middle Flint River Watershed – IDEP Program Status

Table 9-2 Confirmed Illicit Connections in Middle Flint River Watershed - Gibson and Sherwood Drains

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
6705007	Turbid dry weather flow was found discharging from the property of Genesee Cut Stone.	MDEQ conducted a site inspection of the facility and identified the discharge water was in violation of Part 31 of the NREPA. On November 15, 2005, MDEQ notified Genesee Cut Stone Co. that they are required to obtain an NPDES storm water permit.	Illicit removed
6705505	(previously 6705007)-- Field crews re-investigated Gibson Drain behind McGrath Elementary School, at the end of Leroy Street.	Lab samples taken at the outfall on 10-30-07 indicated no illicit connection.	No action required
6705508	(previously 6705511)-- Dry weather flow, <i>E.coli</i> , detergents, at levels above actions limits indicate an illicit connection on Fern and Rollin Streets.	Samples taken from the GCDC storm sewer on 9-22-08 confirmed that the illicit connection on Fern and Rollin has been removed.	Illicit removed
6705016	Dry weather flow, <i>E.coli</i> , detergents, and visual observations of black particulates at levels above actions limits indicate an illicit connection at 5050 S. Saginaw Rd.	A dyed water test conducted on September 3, 2008 confirmed an illicit connection at 5050 S. Saginaw Rd. (Victor George Jeep/Chrysler).	Illicit removed
6706257	Investigators found wastewater being discharged into the Gibson Drain from a pipe located directly behind 1362 Maple Rd.	Further investigation by GCDC and Tetra Tech found the house abandoned and the basement flooded. No further action is possible. Report results to MDEQ.	No action required
7625751	Dry weather flow, <i>E.coli</i> , and visual observations of sewage at levels above actions limits indicate an illicit connection at the end of Lynton Ave.	GCDC worked with homeowner to remove illicit connection. Removal was confirmed by dye testing.	Illicit removed
7625759	Concrete wash off coming from Baker College parking lot.	No construction going on when re-investigated. No further action necessary.	Illicit removed
7731005	Scrub-A-Dub car wash has over land flow form car wash.	County needs to work with carwash to control over land flow. Letter sent to owner about BMPs.	Illicit removed

Table 9-3 Illicit Connections in Middle Flint River Watershed - Thread, Swartz, and Kearsley Creeks

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
6502454	Dry weather flow <i>E.coli</i> , detergents, and visual observations of soapsuds, excessive algae and black staining at levels above actions limits indicate an illicit connection discharging into Swartz Creek. Upstream investigation led to several houses on Fairchild St. in Swartz Creek.	Recommended GCDC schedule dye testing for the following addresses in the City of Swartz Creek: 5025, 5027, 5037 & 5045 Fairchild St, Swartz Creek	Pending dye test
6512503	Dry weather flow <i>E.coli</i> , detergents, ammonia and visual observations of excessive algae, black staining and sanitary odor at levels above actions limits indicate an illicit connection	Recommended that GCDC set up a dye test the residence at 6317 Morrish Rd.	Pending dye test
6512508	Dry weather flow was present coming from Geraldine Dr. Field crew identified that it was a relief pipe from a temporary septic system for new subdivision.	Lab samples confirm that the subdivision is now connected to township sanitary and no illicit connection has been removed	Illicit removed
6607507	Dry weather flow <i>E.coli</i> , detergents, ammonia and visual observations of green scum, soap suds and sanitary odor at levels above actions limits indicate an illicit connection.	GCDC and Tetra Tech crew visited the residence at 6474 Reid Rd and homeowner confirmed laundry connection to drain. Homeowner will work with GCDC to remove connection	Pending removal
6709001	Dry weather flow <i>E.coli</i> , detergents, ammonia at levels above actions limits indicate an illicit connection. Upstream investigation found connection from the outfall to a CB in the parking lot of Al Serra Auto Plaza. Samples taken from the CB also indicated an illicit connection to the GCDC storm drain system.	GCDC to set up dye testing of Al Serra Auto Plaza complex to find source of illicit discharge.	Pending dye test
7826753	Field crews investigating the Big Swamp Drain found evidence of an illicit connection in a pipe behind 11269 E. Bristol. Laboratory results indicate a sanitary connection.	It is recommended that the GCDC schedule a dye test at 11269 E. Bristol Road Davison, MI 49423.	Pending dye test
7828257	Dry weather flow, <i>E.coli</i> , and visual observations of sanitary odor at levels above actions limits indicate an illicit connection. Dye testing of homes upstream of the outfall found a sanitary connection at 3260 Creekview Dr.	GCDC is working with homeowner to remove the illicit connection.	Pending removal
6054 Fenton Rd Unit 2	Overland flow from sanitary cleanout running into county storm drain system.	At request of GCDC, sanitary line cleaned out and cleanout cap replaced.	Illicit removed

UPPER FLINT RIVER WATERSHED

In 2006, IDEP investigations were conducted in the Upper Flint River Watershed. As shown in Figure 9-4, field crews walked or kayaked Mott Lake and Butternut Creek and tributary branches. A total of about 93 miles of drain were walked. Table 9-4 provides a description of the illicit connections and summarizes corrective actions taken to date and current status. Six illicit connections were identified. Of the six, five have been removed, and one was confirmed by dye testing. The County will notify MDEQ in accordance with its NPDES storm water permit and begin action to remove the connection.

Table 9-4 Illicit Connections in Upper Flint River Watershed

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
8717751	Discharge from pipe originating adjacent to property at 2369 Coldwater Rd. St indicated illicit sewage connection.	GCDC dye test confirmed sanitary connection at 2385 Coldwater Rd.	Illicit connection confirmed. removal pending
8717752	Dry weather flow <i>E.coli</i> , at levels above actions limits indicate an illicit connection at 2369 Coldwater.	GCDC to set up dye test at 2369 Coldwater Rd.	Pending dye test
8717753	Dry weather flow, <i>E.coli</i> , and visual observations of sanitary odor and soap suds at levels above actions limits indicate an illicit connection.	Illicit sanitary and failed septic at 2385 Coldwater Rd.	Illicit connection confirmed, removal pending.
9734501	No dry weather flow present, visual observation indicate an illicit connection at 4173 Francis, Mt. Morris	Confirmed new septic field and confirmed outlet pipe was dry.	Illicit removed
9734502	Dry weather flow <i>E.coli</i> , and visual observations of sanitary odor and debris at levels above actions limits indicate an illicit connection at 4191 Francis, Mt. Morris	Confirmed new septic field and confirmed outlet pipe was dry.	Illicit removed
9735251	Dry weather flow <i>E.coli</i> , detergents, ammonia and visual observations of soap suds at levels above actions limits indicate an illicit connection 5402 Dodge Rd.	Recommend GCDC set up dye test at 5402 Dodge Rd.	Pending dye test
9735753	Dry weather flow <i>E.coli</i> , ammonia and visual observations of sanitary odor and debris at levels above actions limits indicate an illicit connection at 5467 Francis, Mt Morris	Confirmed new septic field and confirmed outlet pipe was dry.	Illicit removed
8703501	Dry weather flow <i>E.coli</i> , detergents, ammonia and visual observations of sanitary odor at levels above actions limits indicate an illicit connection at 8296 Center Rd.	Confirmed new septic field and confirmed outlet pipe was dry.	Illicit removed

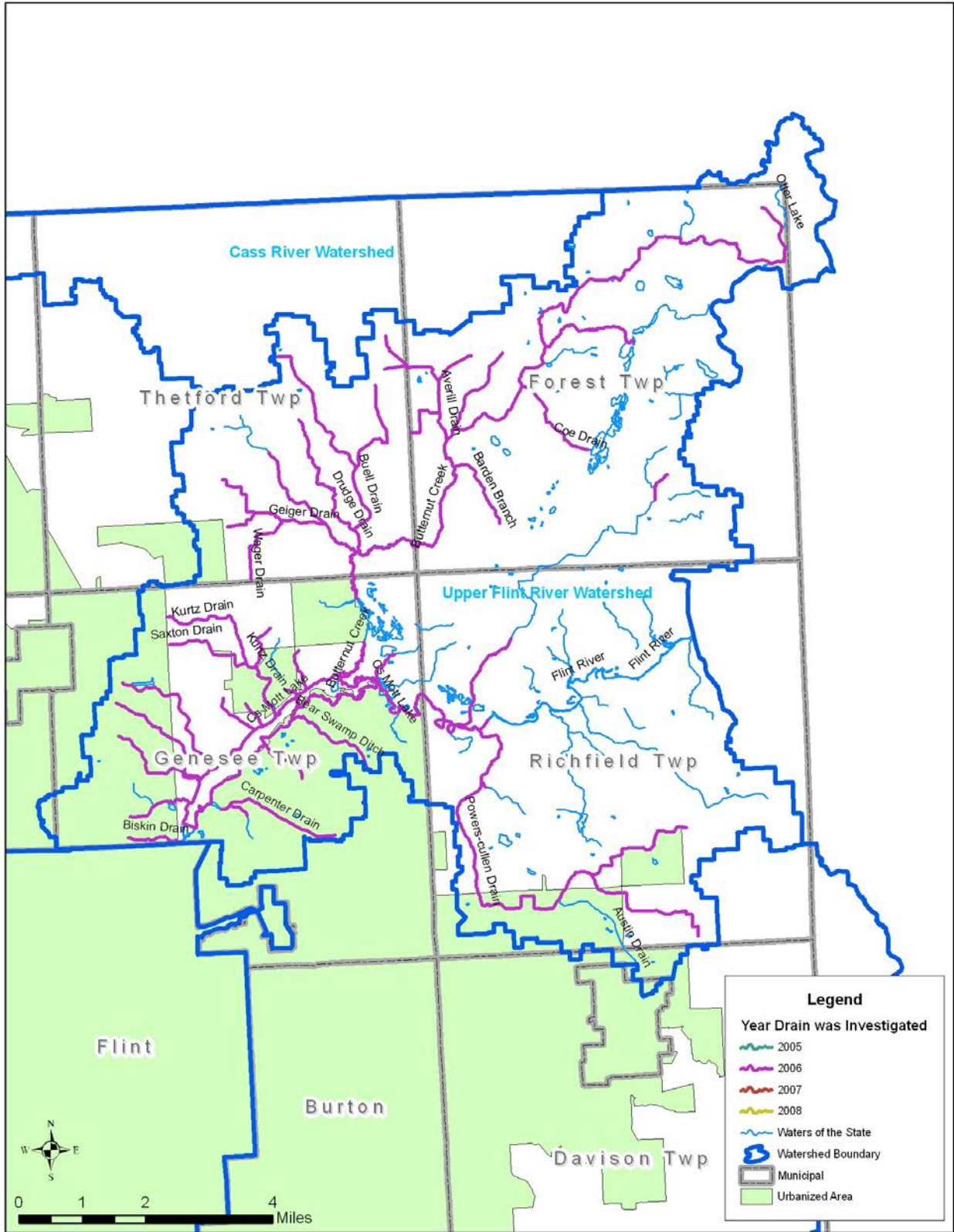


Figure 9-4 Upper Flint River Watershed – IDEP Program Status

SHIAWASSEE RIVER WATERSHED

GCDC acquired funds from local communities to conduct IDEP investigations in the Shiawassee River Watershed. Field crews walked its tributary branches and kayaked the Shiawassee River in the summers of 2006, 2007 and 2008. As shown in Figure 9-5, 70 miles drain and river were walked and kayaked. Table 9-5, one possible illicit connection was found, pending dye test of residence. Once an illicit connection is confirmed the County will notify MDEQ in accordance with its NPDES storm water permit and has begun action to remove the connection.

Table 9-5 Illicit Connections in Shiawassee River Watershed

Outfall Number	Confirmed Illicit Connection	Corrective Actions	Status
5625507	Dry weather flow <i>E.coli</i> , at levels above actions limits indicate an illicit connection. Upstream investigations led to a pipe coming from 106 Fifth St discharging into a storm manhole in the parking lot of Dewey's Auto Repair at 608 N. Leroy St. A preliminary dye test indicated an illicit connection coming from 106 Fifth St.	It is recommended that the County make contact with the resident at 106 Fifth st. to set up a thorough dye test of the residence.	Pending dye test

CASS RIVER WATERSHED

At this time, no IDEP work has been conducted and no IDEP work is currently planned for the Cass River Watershed.

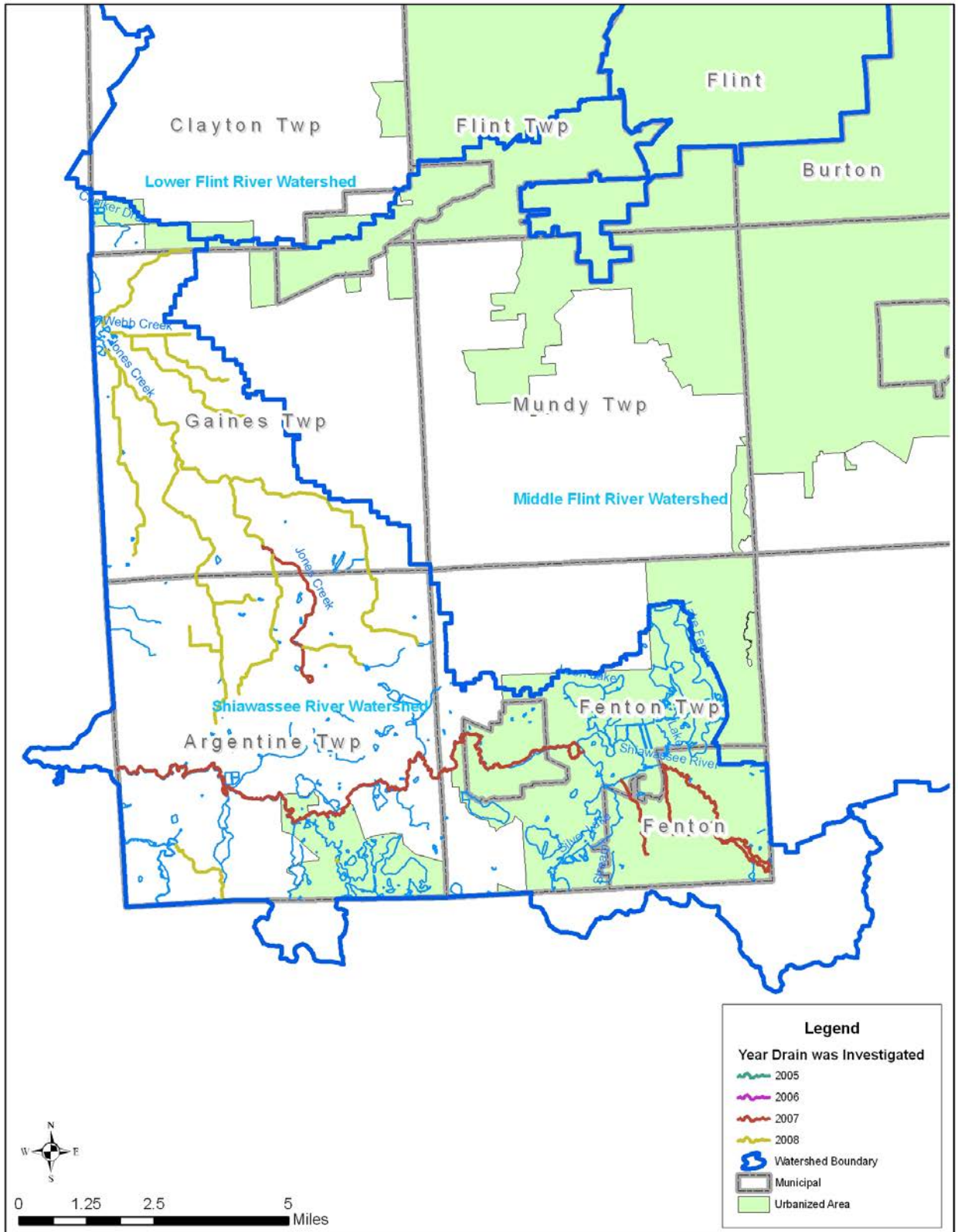


Figure 9-5 Shiawassee River Watershed – IDEP Program Status

10. NEW STORMWATER POINT SOURCE DISCHARGES

In the past, we separated the PSDs by watershed and identified them as private or public points. In 2008, the data was re-analyzed by the County and appropriate ownership was assigned to each PSD from the list of government entities below:

- Argentine Township
- Atlas Township
- City of Burton
- Clayton Township
- City of Clio
- City of Davison
- Davison Township
- City of Fenton
- Fenton Township
- Flint Charter Township
- City of Flushing
- Flushing Charter Township
- Forest Township
- Gaines Township
- Genesee Charter Township
- Genesee County Drain Commissioner
- Genesee County Road Commissioner
- Grand Blanc Township
- City of Grand Blanc
- City of Linden
- Montrose Township
- City of Mt. Morris
- Mt. Morris Charter Township
- Mundy Charter Township
- Richfield Township
- City of Swartz Creek
- Thetford Township
- Vienna Township

Past information should be replaced with the August 1, 2008 permit application maps and tables which are the bases for management of the MS4 areas in the second permit cycle. These maps and tables clearly denote PSD ownership by entity. We have included these maps and tables at the end of this section, but have eliminated those for communities with no known discharge points (Argentine Township, Clayton Township, Davison Township, Fenton Township, Flint Charter Township, Flushing Charter Township, City of Mt. Morris, Mt. Morris Charter Township, Vienna Township, and Genesee County within Linden, Mt. Morris, Clayton Township, Montrose Township).

In 2008, field crews investigated the Lower Flint, Middle Flint and Shiawassee River Watersheds. Figure 10-1 shows the PSDs investigated by watershed that were identified in 2008. There were 708 PSDs in the Lower Flint River Watershed, 507 in the Middle Flint River Watershed, and 424 in the Shiawassee River Watershed. These PSDs will be assigned ownership in the coming year.

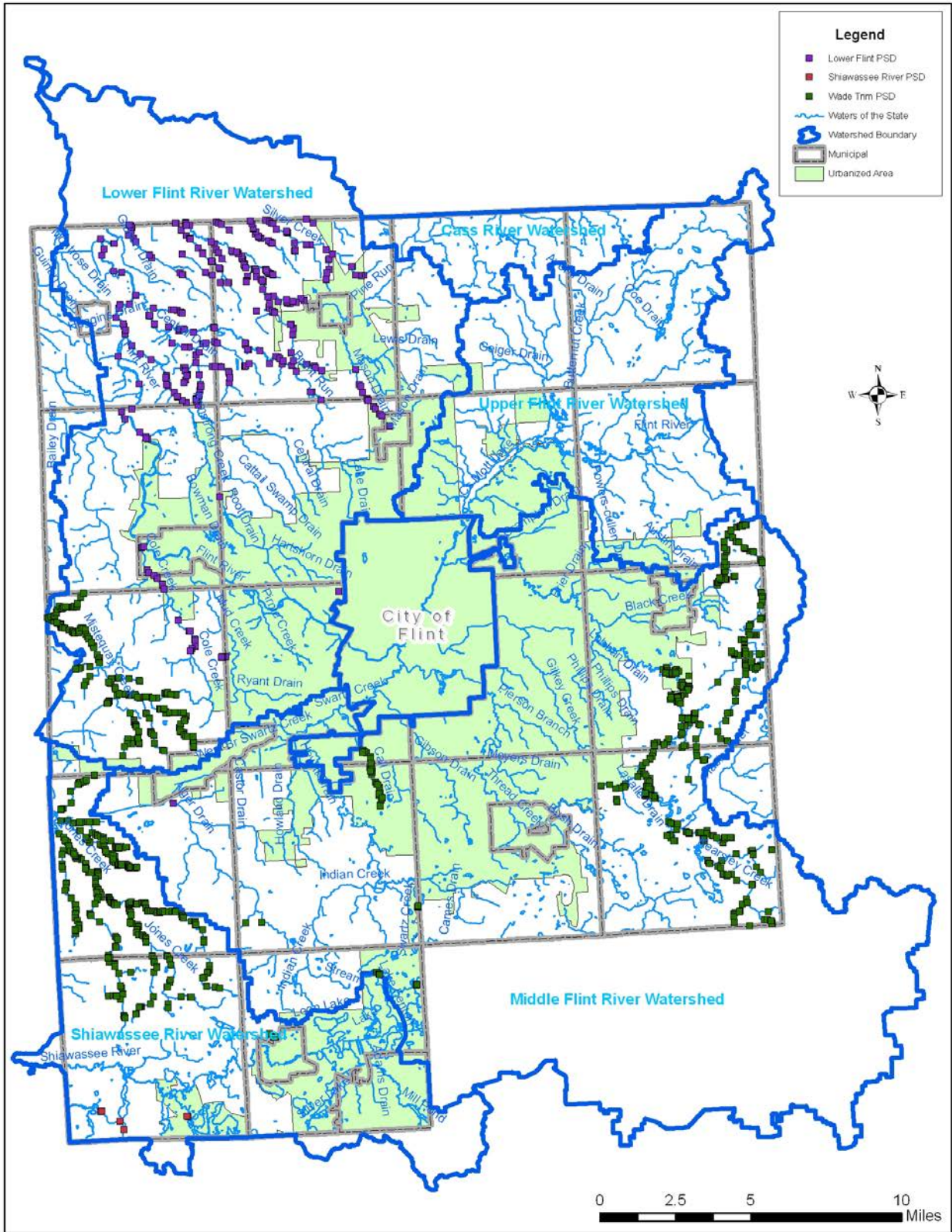
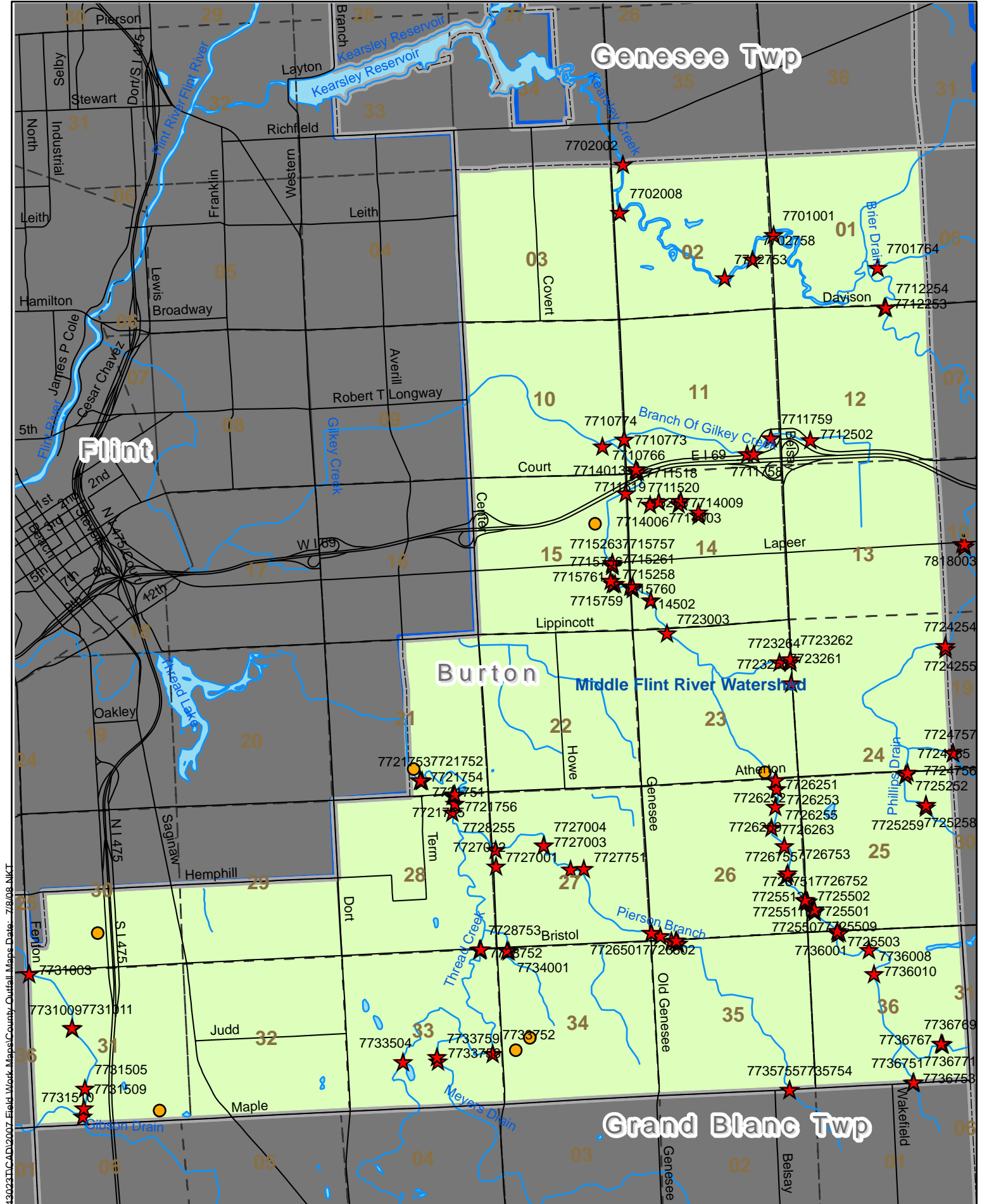


Figure 10-1 PSDs Investigated in 2008 (ownership not yet assigned)



FILE NAME: P:\04\230231\ICAD\2007 Field Work Maps\County Outfall Maps Date: 7/8/08 MKT



Legend

- ★ Known Discharge Points
- Categorical Discharge Points
- Waters of the State
- Municipal
- Section
- Watershed
- Urbanized Area

**City of Burton NPDES Phase II
Permit Application
Genesee County**

Storm Sewer Discharge Maps



City of Burton Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
7701001	43.040556	-83.595556	18	Corrigated Steel Pipe	Kearsley Creek
7701764	43.037222	-83.582500	24	RCP	Cochran Drain
7702002	43.047500	-83.614444	0	Open Channel	Kearsley Creek
7702008	43.043056	-83.615000	0	Open Channel	Kearsley Creek
7702753	43.036667	-83.601944	27	RCP	Kearsley Creek
7702758	43.038333	-83.598333	12	PVC	Kearsley Creek
7710766	43.021389	-83.618056	12	Corrigated Steel Pipe	Gilkey Creek
7710773	43.021944	-83.615278	12	Corrigated Steel Pipe	Gilkey Creek Ext 2
7710774	43.021944	-83.615278	12	Corrigated Steel Pipe	Gilkey Creek Ext 2
7711518	43.019167	-83.613889	4	Corrigated Plastic	Gilkey Creek
7711519	43.019153	-83.613875	21	RCP	Gilkey Creek
7711520	43.018889	-83.613653	12	RCP	Gilkey Creek
7711756	43.020278	-83.599722	18	RCP	Gilkey Creek Ext 5
7711758	43.020278	-83.598889	18	RCP	Gilkey Creek Ext 7
7711759	43.021667	-83.596667	30	Poured In Place	Gilkey Creek Ext 10
7712253	43.033504	-83.581789	12	RCP	Kearsley Creek
7712254	43.033504	-83.581589	36	RCP	Kearsley Creek
7712502	43.021389	-83.591667	0	Open Channel	Gilkey Creek Ext 9
7714002	43.015833	-83.612222	12	Metal	Gilkey Creek Ext 3
7714003	43.016111	-83.611111	18	RCP	Gilkey Creek Ext 3
7714006	43.015833	-83.608611	12	Corrigated Steel Pipe	Gilkey Creek Ext 3
7714008	43.016111	-83.608333	12	Corrigated Steel Pipe	Gilkey Creek Ext 3
7714009	43.016111	-83.608333	12	Corrigated Steel Pipe	Gilkey Creek Ext 3
7714010	43.015000	-83.606111	12	Corrigated Steel Pipe	Gilkey Creek Ext 3
7714011	43.014722	-83.606111	15	Corrigated Steel Pipe	Gilkey Creek Ext 3
7714013	43.018889	-83.613889	0	Open Channel	Gilkey Creek Ext 3
7714502	43.008056	-83.614722	12	Corrigated Steel Pipe	Gilkey Creek
7714503	43.008333	-83.614722	18	Corrigated Steel Pipe	Gilkey Creek
7714512	43.006944	-83.612500	18	Corrigated Steel Pipe	Gilkey Creek
7715258	43.010278	-83.617222	12	Metal	Gilkey Creek
7715261	43.010278	-83.617222	12	Corrigated Steel Pipe	Gilkey Creek
7715263	43.010556	-83.617222	15	VCP	Gilkey Creek
7715265	43.016944	-83.615278	0	Open Channel	Gilkey Creek
7715756	43.008889	-83.617500	12	Corrigated Steel Pipe	Gilkey Creek
7715757	43.010556	-83.617222	0	Open Channel	Gilkey Creek
7715759	43.008611	-83.617222	12	Corrigated Steel Pipe	Gilkey Creek
7715760	43.008611	-83.617222	12	Corrigated Steel Pipe	Gilkey Creek
7715761	43.008611	-83.616944	18	Corrigated Steel Pipe	Gilkey Creek
7715763	43.008333	-83.615000	12	Corrigated Steel Pipe	Gilkey Creek
7715764	43.008333	-83.615000	12	Corrigated Steel Pipe	Gilkey Creek
7721751	42.990810	-83.642120	18	RCP	Thread Creek Drain
7721752	42.990870	-83.642325	0	Unknown	Thread Creek Drain
7721753	42.990840	-83.642389	0	Unknown	Thread Creek Drain
7721754	42.990831	-83.642338	0	Unknown	Thread Creek Drain
7721755	42.989410	-83.638202	0	Unknown	Thread Creek Drain
7721756	42.989444	-83.638056	24	RCP	Thread Creek Drain
7723003	43.003889	-83.610556	18	Corrigated Steel Pipe	Gilkey Creek
7723253	42.998889	-83.595000	0	Open Channel	Branch of Coates ExtCi

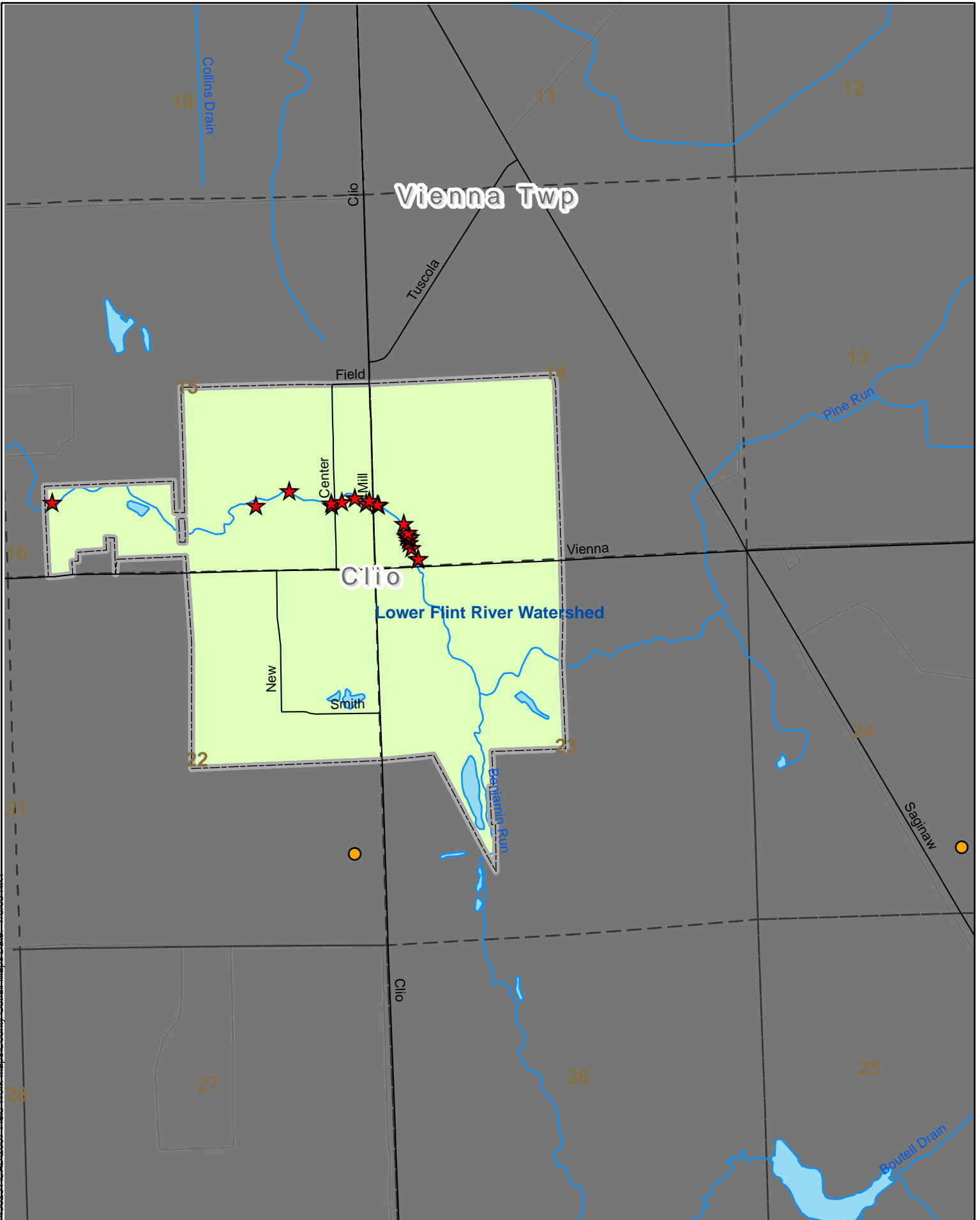
City of Burton Known Discharge Points, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
7723261	43.000833	-83.596389	18	Corrigated Steel Pipe	Coates Ext of the Gilkey
7723262	43.001111	-83.595000	0	Open Channel	Coates Ext of the Gilkey
7723264	43.000833	-83.595000	0	Open Channel	Coates Ext of the Gilkey
7724254	43.001944	-83.575278	0	Open Channel	Phillips Drain
7724255	43.001667	-83.575278	0	Open Channel	Phillips Drain
7724755	42.990278	-83.580556	0	Open Channel	Phillips Drain
7724756	42.991944	-83.574722	0	Open Channel	Phillips Drain
7724757	42.991944	-83.574722	12	Corrigated Steel Pipe	Phillips Drain
7725251	42.990000	-83.580833	12	Corrigated Steel Pipe	Phillips Drain
7725252	42.990000	-83.580833	0	Open Channel	Phillips Drain
7725257	42.987222	-83.578333	12	Corrigated Steel Pipe	Phillips Drain
7725258	42.987222	-83.578333	12	Corrigated Steel Pipe	Phillips Drain
7725259	42.986944	-83.578333	12	Corrigated Steel Pipe	Phillips Drain
7725501	42.978550	-83.593736	0	Open Channel	Gilkey Creek
7725502	42.978589	-83.593722	12	Corrigated Steel Pipe	Gilkey Creek
7725503	42.975778	-83.590022	18	RCP	Gilkey Creek
7725507	42.977800	-83.593014	0	Open Channel	Gilkey Creek
7725509	42.977803	-83.592881	0	Open Channel	Gilkey Creek
7725511	42.977586	-83.592850	0	Open Channel	Flint River
7725513	42.977636	-83.592847	0	Open Channel	Gilkey Creek
7726251	42.989939	-83.597297	0	Open Channel	Gilkey Creek
7726252	42.989911	-83.597289	0	Open Channel	Gilkey Creek
7726253	42.989069	-83.597225	36	Corrigated Steel Pipe	Gilkey Creek
7726255	42.987425	-83.597453	12	RCP	Gilkey Creek
7726263	42.985508	-83.598003	21	RCP	Gilkey Creek
7726269	42.983822	-83.596442	18	RCP	Gilkey Creek
7726501	42.976111	-83.613611	0	Open Channel	Pierson Drain
7726502	42.976111	-83.613611	0	Open Channel	Pierson Drain
7726503	42.975778	-83.612500	12	Metal	Pierson Drain
7726507	42.975278	-83.611111	0	Open Channel	Pierson Drain
7726508	42.975278	-83.610556	0	Open Channel	Pierson Drain
7726509	42.975311	-83.610492	15	Corrigated Steel Pipe	Pierson Drain
7726751	42.978653	-83.594031	48	RCP	Gilkey Creek
7726752	42.978731	-83.594028	0	Open Channel	Flint River
7726753	42.981244	-83.596117	15	Corrigated Steel Pipe	Gilkey Creek
7726755	42.981031	-83.596278	0	Unknown	Gilkey Creek
7727001	42.984167	-83.633056	12	PVC	Pierson Drain
7727002	42.982670	-83.633056	15	Corrigated Steel Pipe	Pierson Drain
7727003	42.984444	-83.626944	24	PVC	Pierson Drain
7727004	42.984444	-83.626944	24	PVC	Pierson Drain
7727005	42.982222	-83.623611	60	RCP	Pierson Drain
7727751	42.982222	-83.621944	0	Open Channel	Pierson Drain
7728251	42.989364	-83.638064	15	RCP	Thread Creek Drain
7728252	42.989322	-83.638325	12	RCP	Thread Creek Drain
7728254	42.988611	-83.638056	12	Corrigated Steel Pipe	Thread Creek Drain
7728255	42.987772	-83.638400	36	Corrigated Steel Pipe	Thread Creek Drain
7728752	42.974974	-83.635442	0	Unknown	Thread Creek Drain
7728753	42.975000	-83.635278	15	Metal	Thread Creek Drain
7731003	42.973870	-83.692620	24	RCP	Gibson Drain
7731009	42.968712	-83.687343	0	Unknown	Gibson Drain

City of Burton Known Discharge Points, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
7731011	42.968770	-83.687400	15	Corrigated Steel Pipe	Gibson Drain
7731505	42.963120	-83.685970	30	Unknown	Gibson Drain
7731509	42.961290	-83.686170	12	RCP	Gibson Drain
7731510	42.960510	-83.686330	21	RCP	Gibson Drain
7733251	42.974935	-83.635439	0	Unknown	Thread Creek Drain
7733252	42.974939	-83.635385	0	Unknown	Thread Creek Drain
7733504	42.964722	-83.645556	12	RCP	Thread Creek Drain
7733752	42.965278	-83.634167	24	RCP	Thread Creek Drain
7733758	42.964722	-83.641111	0	Open Channel	Meyers Drain
7733759	42.965097	-83.641228	0	Open Channel	Meyers Drain
7734001	42.974783	-83.631967	18	RCP	Tributary of Thread Creek
7734002	42.974778	-83.631750	18	RCP	Tributary of Thread Creek
7735001	42.975000	-83.610278	12	Corrigated Steel Pipe	Pierson Drain
7735002	42.975000	-83.610278	0	Open Channel	Pierson Drain
7735754	42.961111	-83.596667	12	Corrigated Steel Pipe	Pierson Drain
7735755	42.961111	-83.596667	0	Open Channel	Pierson Drain
7736001	42.975556	-83.589722	0	Open Channel	Gilkey Creek
7736002	42.975556	-83.590000	0	Open Channel	Gilkey Creek
7736008	42.973889	-83.586111	0	Open Channel	Gilkey Creek
7736010	42.971667	-83.585556	0	Open Channel	Gilkey Creek
7736751	42.961500	-83.580900	0	Open Channel	Gilkey Creek
7736753	42.961400	-83.581000	0	Open Channel	Gilkey Creek
7736767	42.964956	-83.577197	4	PVC	Gilkey Creek
7736769	42.965008	-83.577272	36	RCP	Gilkey Creek
7736771	42.964961	-83.577094	6	VCP	Gilkey Creek
7818003	43.011389	-83.572500	12	Corrigated Steel Pipe	Lobban Drain
7818004	43.011389	-83.572778	0	Unknown	Lobban Drain
7818501	43.011111	-83.572500	0	Open Channel	Lobban Drain
7818502	43.011111	-83.572500	0	Open Channel	Lobban Drain

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Legend

-  Known Discharge Points
-  Categorical Discharge Points
-  Roads
-  Waters of the State
-  Municipal
-  Urbanized Area
-  Section

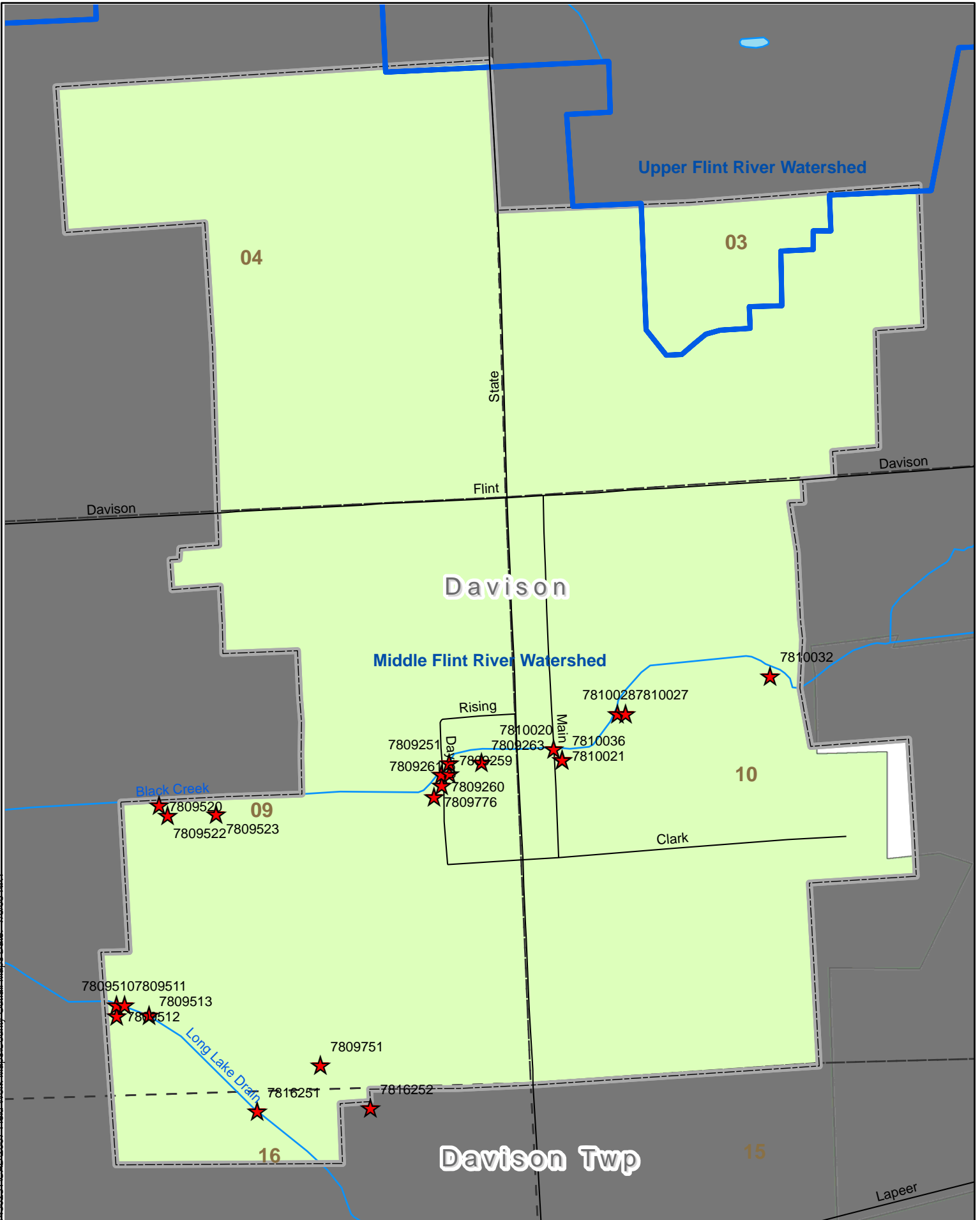
**City of Clio NPDES Phase II
Permit Application
Genesee County**
Storm Sewer Discharge Maps



City of Clio
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
9615761	43.179924	-83.736827	24	Corrigated Steel Pipe	Pine Run
9615753	43.180533	-83.739070	12	Corrigated Steel Pipe	Pine Run
9614503	43.177731	-83.732319	15	Corrigated Steel Pipe	Pine Run
9614515	43.177764	-83.732294	3	PVC	Pine Run
9614516	43.178189	-83.732633	4	Corrigated Plastic	Pine Run
9614518	43.178389	-83.732761	18	Corrigated Plastic	Pine Run
9614517	43.178500	-83.732806	6	Corrigated Plastic	Pine Run
9614521	43.178614	-83.732706	6	Corrigated Plastic	Pine Run
9614520	43.178644	-83.732892	6	RCP	Pine Run
9614519	43.178678	-83.732867	6	RCP	Pine Run
9614522	43.178786	-83.732808	4	Corrigated Plastic	Pine Run
9614523	43.179133	-83.733006	4	Corrigated Plastic	Pine Run
9615759	43.180061	-83.736278	6	PVC	Pine Run
9615759	43.180006	-83.736856	10	PVC	Pine Run
9615765	43.180010	-83.740877	8	VCP	Pine Run
9614524	43.179881	-83.734319	12	Corrigated Plastic	Pine Run
9614525	43.179928	-83.734392	12	RCP	Pine Run
9615757	43.179986	-83.734992	18	Corrigated Steel Pipe	Pine Run
9615758	43.180064	-83.734814	12	Corrigated Plastic	Pine Run
9615760	43.180189	-83.735583	6	PVC	Pine Run
9615509	43.180333	-83.751739	0	Open Channel	Pine Run

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Legend

-  Known Discharge Points
-  Waters of the State
-  Urbanized Area
-  Categorical Discharge Points
-  Municipal
-  Watershed
-  Roads
-  Section

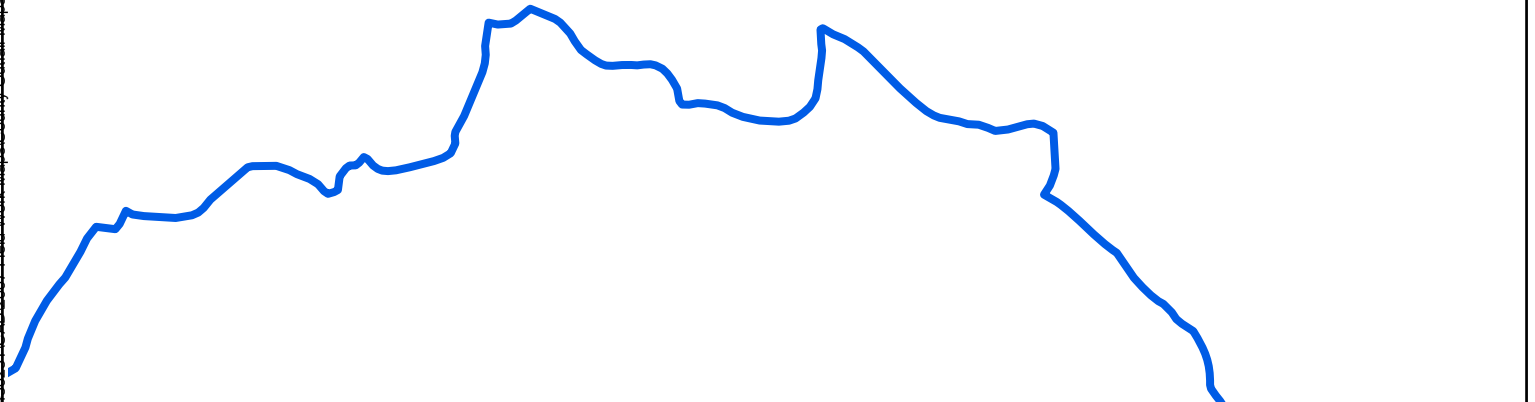
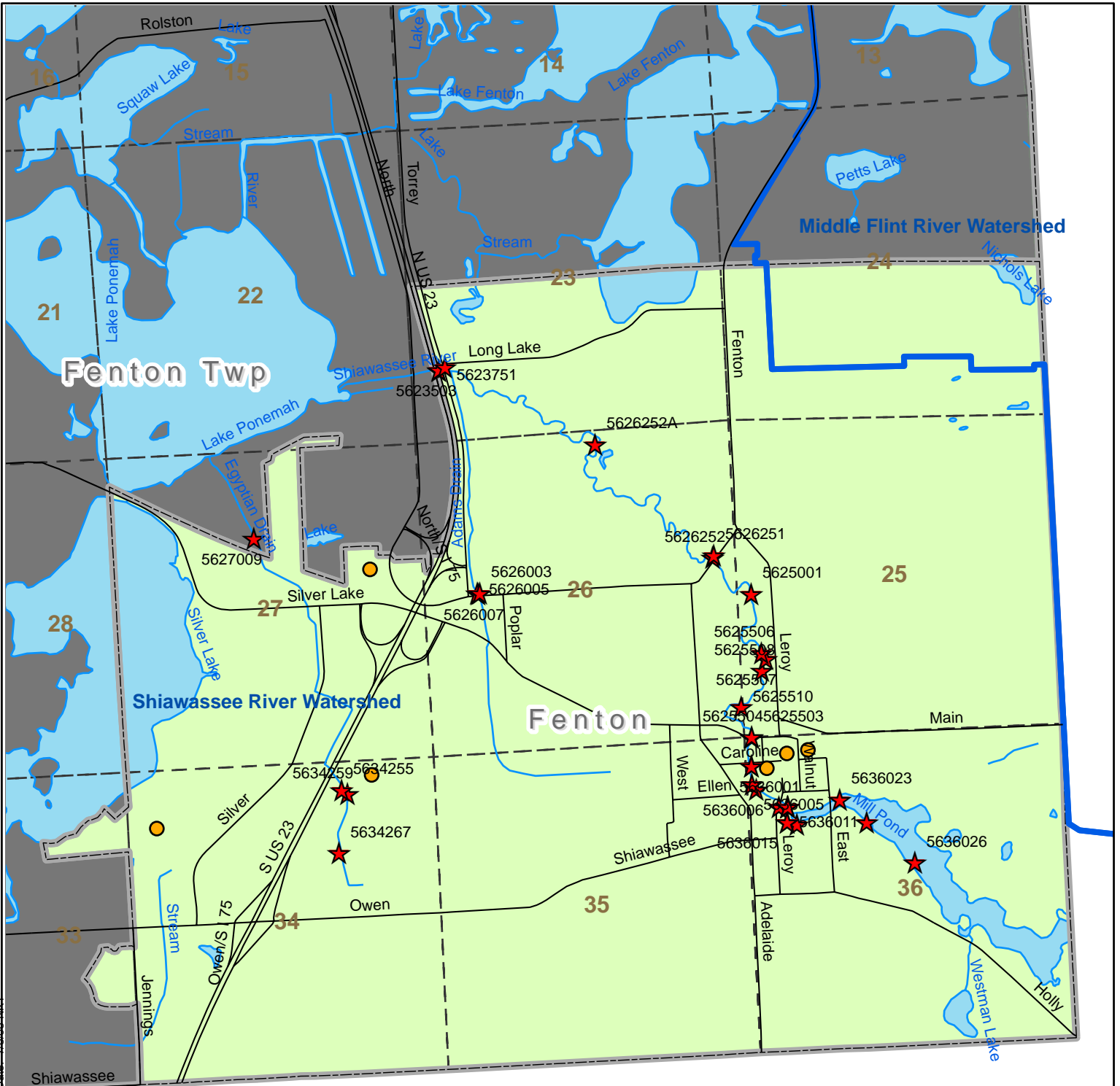
**City of Davison NPDES Phase II
Permit Application
Genesee County**
Storm Sewer Discharge Maps



**City of Davison
Known Discharge Points**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
7809512	43.021944	-83.531944	18	Corrigated Steel Pipe	Long Lake Drain
7809513	43.021944	-83.530833	0	Open Channel	Long Lake Drain
7809510	43.022222	-83.531944	12	Corrigated Steel Pipe	Long Lake Drain
7809511	43.022222	-83.531667	12	Corrigated Steel Pipe	Long Lake Drain
7809522	43.026944	-83.530000	3	Corrigated Plastic	Black Creek
7809523	43.026944	-83.528333	4	Corrigated Plastic	Black Creek
7809520	43.027222	-83.530278	12	PVC	Black Creek
7810032	43.030000	-83.509167	42	RCP	Black Creek
7809751	43.020556	-83.525000	0	Open Channel	Long Lake Drain
7816251	43.019444	-83.527222	24	VCP	Long Lake Drain
7809263	43.028056	-83.519167	24	Corrigated Steel Pipe	Black Creek
7809776	43.027222	-83.520833	1	PVC	Black Creek
7809261	43.027500	-83.520556	12	Corrigated Steel Pipe	Black Creek
7809260	43.027778	-83.520556	12	RCP	Black Creek
7809259	43.027778	-83.520278	12	RCP	Black Creek
7809251	43.028056	-83.520278	18	RCP	Black Creek
7810021	43.028056	-83.516389	18	Corrigated Steel Pipe	Black Creek
7810036	43.028056	-83.516389	6	PVC	Black Creek
7810020	43.028333	-83.516667	12	Corrigated Steel Pipe	Black Creek
7810028	43.029167	-83.514444	12	RCP	Black Creek
7810027	43.029167	-83.514167	18	RCP	Black Creek
7816252	43.019444	-83.523333	18	RCP	Long Lake Drain

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- Legend**
- ★ Known Discharge Points
 - Categorical Discharge Points
 - Waters of the State
 - Watershed
 - Roads
 - Municipal
 - Section
 - Urbanized Area

**City of Fenton NPDES Phase II
Permit Application
Genesee County**

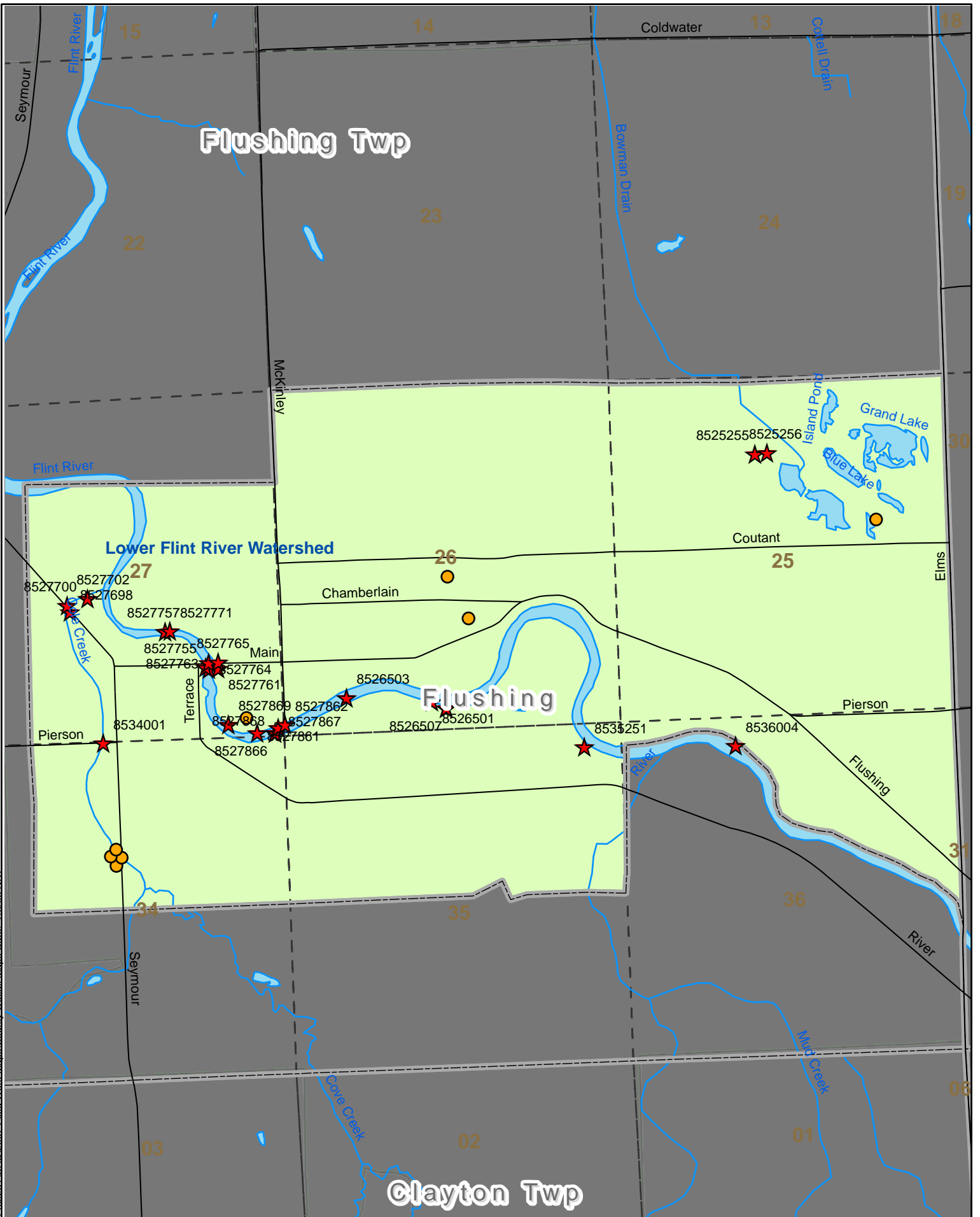
Storm Sewer Discharge Maps



City of Fenton
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
5634259	42.795600	-83.732380	24	Corrigated Steel Pipe	Egyptian Drain
5634255	42.795800	-83.732750	24	RCP	Egyptian Drain
5636001	42.796389	-83.706667	18	RCP	Shiawasee River
5625507	42.801389	-83.705556	12	RCP	Shiawasee River
5625506	42.801667	-83.705833	36	RCP	Shiawasee River
5625510	42.799167	-83.707222	8	PVC	Shiawasee River
5636016	42.793611	-83.703889	12	RCP	Shiawasee River
5636005	42.795556	-83.706667	18	RCP	Shiawasee River
5636014	42.793728	-83.704489	3	PVC	Shiawasee River
5636015	42.793728	-83.704489	6	Cast Iron	Shiawasee River
5636010	42.794444	-83.704444	18	RCP	Shiawasee River
5636012	42.794444	-83.704444	12	PVC	Shiawasee River
5636013	42.794444	-83.704444	8	Cast Iron	Shiawasee River
5636011	42.794444	-83.704444	5	Cast Iron	Shiawasee River
5636006	42.795278	-83.706389	18	RCP	Shiawasee River
5623751	42.815450	-83.725440	0	Open Channel	Shiawasee River
5626252A	42.811644	-83.716036	0	Open Channel	Shiawasee River
5634267	42.792855	-83.733029	0	Open Channel	Egyptian Drain
5636023	42.794722	-83.701111	18	RCP	Shiawasee River
5636004	42.796389	-83.706667	8	VCP	Shiawasee River
5636026	42.791667	-83.696440	24	RCP	Shiawasee River
5636024	42.793611	-83.699440	24	RCP	Shiawasee River
5625001	42.804444	-83.706389	24	RCP	Shiawasee River
5636009	42.794444	-83.705000	12	Corrigated Steel Pipe	Shiawasee River
5626007	42.804780	-83.723740	18	RCP	Cole Creek
5626005	42.804820	-83.723790	15	Corrigated Steel Pipe	Cole Creek
5626003	42.804840	-83.723640	24	RCP	Cole Creek
5626252	42.806179	-83.708782	0	Unknown	Shiawasee River
5626251	42.806308	-83.708694	18	RCP	Shiawasee River
5625508	42.800833	-83.705833	8	VCP	Shiawasee River
5625504	42.797733	-83.706604	0	Unknown	Shiawasee River
5625503	42.797745	-83.706604	0	Unknown	Shiawasee River
5623504	42.815263	-83.725841	0	Unknown	Shiawasee River
5623503	42.815312	-83.725855	0	Unknown	Shiawasee River
5627009	42.807660	-83.737908	0	Open Channel	Egyptian Drain

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Legend

- ★ Known Discharge Points
- Categorical Discharge Points
- Roads
- Waters of the State
- Municipal
- Section
- Urbanized Area
- Watershed

**City of Flushing NPDES Phase II
Permit Application
Genesee County**
Storm Sewer Discharge Maps

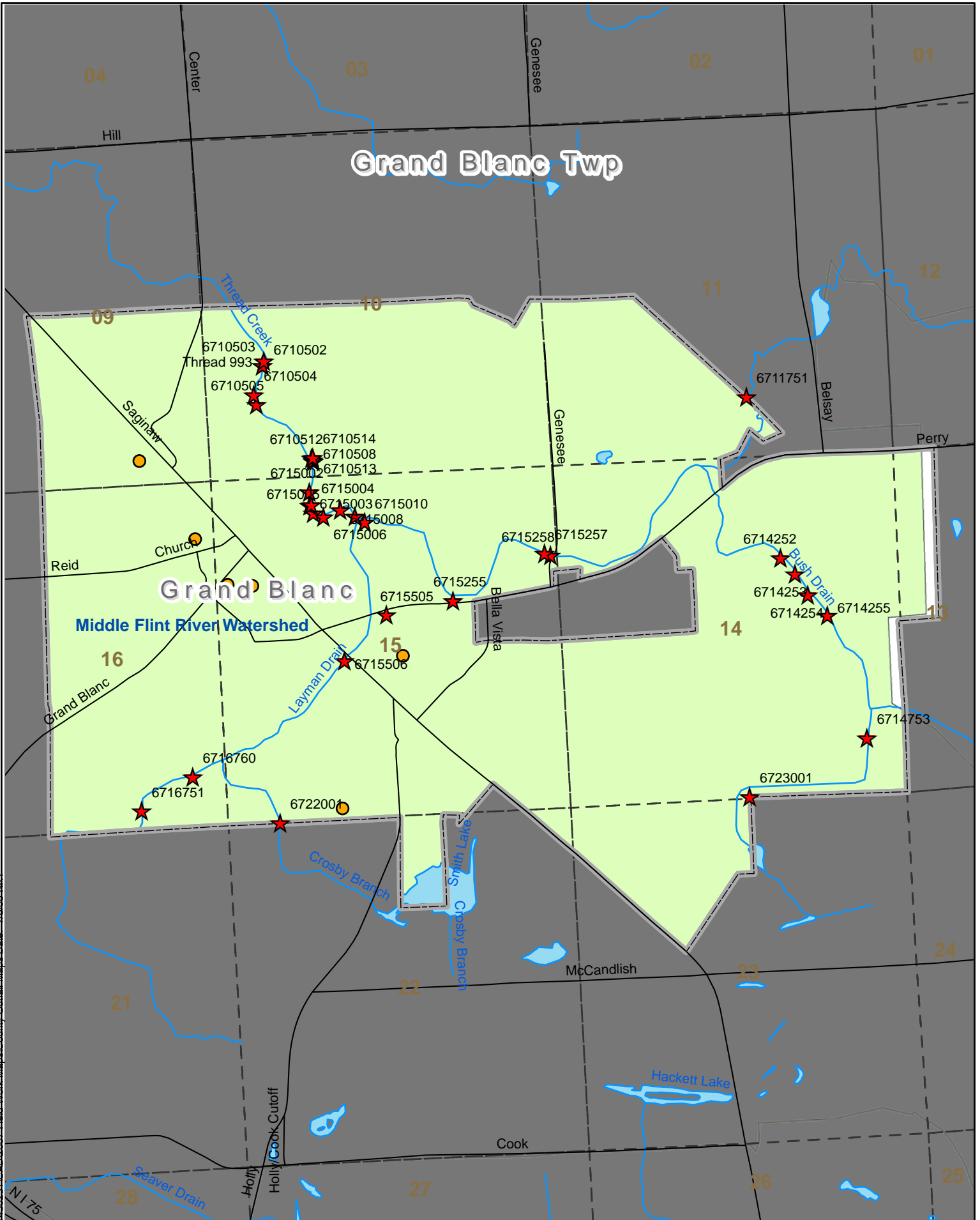


**Map
1**

City of Flushing
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
8527867	43.060177	-83.852958	3	Corrigated Plastic	Flint River
8527761(2006)	43.062778	-83.856389	6	Corrigated Steel Pipe	Flint River
8527868	43.059949	-83.853154	15	Metal	Flint River
8527866	43.059949	-83.853154	12	Corrigated Steel Pipe	Flint River
8527861	43.059970	-83.854202	21	Corrigated Steel Pipe	Flint River
8527869	43.060375	-83.855882	4	VCP	Flint River
8526509	43.060833	-83.843056	21	RCP	Flint River
8526507	43.060833	-83.843056	21	RCP	Flint River
8526501	43.061111	-83.843889	12	RCP	Flint River
8527763(2006)	43.062778	-83.856944	0	Open Channel	Flint River
8527755	43.062867	-83.857124	0	Open Channel	Flint River
8527764	43.063056	-83.856944	0	Open Channel	Flint River
8527765	43.063056	-83.856389	48	Corrigated Steel Pipe	Flint River
8527757	43.064444	-83.859444	8	RCP	Flint River
8527771(2006)	43.064444	-83.859167	10	Cast Iron	Flint River
8527862	43.060295	-83.852549	21	RCP	Flint River
8526503	43.061389	-83.848889	18	RCP	Flint River
8535251	43.059000	-83.835000	15	Metal	Flint River
8527702	43.065953	-83.863961	0	Open Channel	Cole Creek
8534001	43.059703	-83.863261	15	Corrigated Steel Pipe	Cole Creek
8527698	43.065397	-83.865017	18	RCP	Cole Creek
8527700	43.065678	-83.865176	12	Corrigated Steel Pipe	Cole Creek
8525255	43.071417	-83.824530	15	PVC	Bowman Drain
8525256	43.071444	-83.823819	3	PVC	Bowman Drain
8536004	43.058889	-83.826111	54	Corrigated Steel Pipe	Flint River

FILE NAME: P:\2023\2023CAD\2007 Field Work Maps\County Outfall Maps Date: 7/8/08 MKT



Legend

- ★ Known Discharge Points
- Categorical Discharge Points
- Roads
- Waters of the State
- Municipal
- Section
- Urbanized Area
- Watershed

**City of Grand Blanc NPDES Phase II
Permit Application
Genesee County**

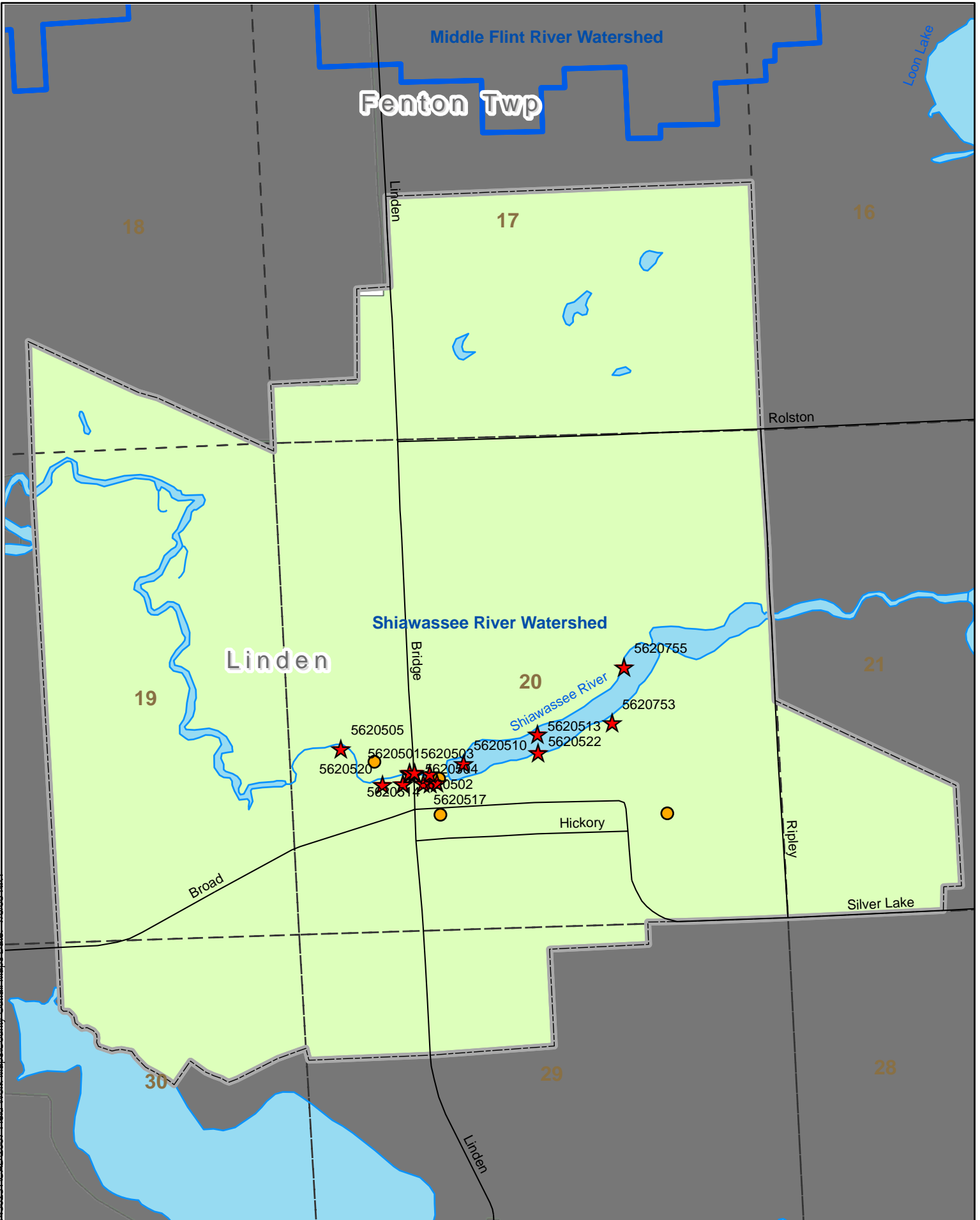
Storm Sewer Discharge Maps



**City of Grand Blanc
Known Discharge Points**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
6715006	42.928894	-83.625708	12	Corrugated Steel Pipe	Thread Creek Drain
6715008	42.929167	-83.624722	0	Open Channel	Thread Creek Drain
6715257	42.927090	-83.613010	15	Corrugated Steel Pipe	Thread Creek Drain
6715009	42.928889	-83.623889	12	RCP	Thread Creek Drain
6710502	42.935556	-83.628889	10	PVC	Thread Creek Drain
Thread 993	42.935360	-83.628980	36	Corrugated Steel Pipe	Thread Creek Drain
6710503	42.935360	-83.628980	10	PVC	Thread Creek Drain
6715010 (6715005)	42.928611	-83.623333	18	RCP	Thread Creek Drain
6715258	42.926980	-83.612670	15	RCP	Thread Creek Drain
6715003	42.929400	-83.626480	18	RCP	Thread Creek Drain
6715004	42.929430	-83.626390	18	Corrugated Steel Pipe	Thread Creek Drain
6715002	42.929953	-83.626475	12	RCP	Thread Creek Drain
6710513	42.931261	-83.626189	24	RCP	Thread Creek Drain
6710508	42.931306	-83.626211	36	RCP	Thread Creek Drain
6710514	42.931428	-83.626222	15	Corrugated Steel Pipe	Thread Creek Drain
6715005	42.929061	-83.626283	30	RCP	Thread Creek Drain
6710512	42.931390	-83.626300	15	RCP	Thread Creek Drain
6723001	42.916544	-83.601580	24	Corrugated Steel Pipe	Bush Drain
6710505	42.933731	-83.629389	18	Metal	Thread Creek Drain
6710504	42.934128	-83.629517	12	PVC	Thread Creek Drain
6722001	42.916000	-83.628700	12	PVC	Crosby Drain
6715505	42.924664	-83.622236	24	RCP	Layman Drain
6715255 (6715253)	42.925200	-83.618370	15	RCP	Thread Creek Drain
6714255	42.924100	-83.596800	18	PVC	Bush Drain
6714254	42.925000	-83.597900	30	RCP	Bush Drain
6714253	42.925900	-83.598600	30	RCP	Bush Drain
6714252	42.926600	-83.599400	24	RCP	Bush Drain
6714753	42.918889	-83.594722	0	Open Channel	Bush Drain
6715506	42.922778	-83.624722	24	RCP	Crosby Drain
6716751	42.916667	-83.636667	10	Corrugated Steel Pipe	Layman Drain
6716760	42.918053	-83.633672	30	RCP	Layman Drain
6711751	42.933460	-83.601100	12	RCP	Thread Creek Drain
7701253	42.961272	-83.580875	0	Open Channel	Gilkey Creek
7701251	42.961294	-83.580858	0	Open Channel	Gilkey Creek

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Legend

-  Known Discharge Points
-  Categorical Discharge Points
-  Roads
-  Waters of the State
-  Watershed
-  Municipal
- Section
-  Urbanized Area
-  Watershed

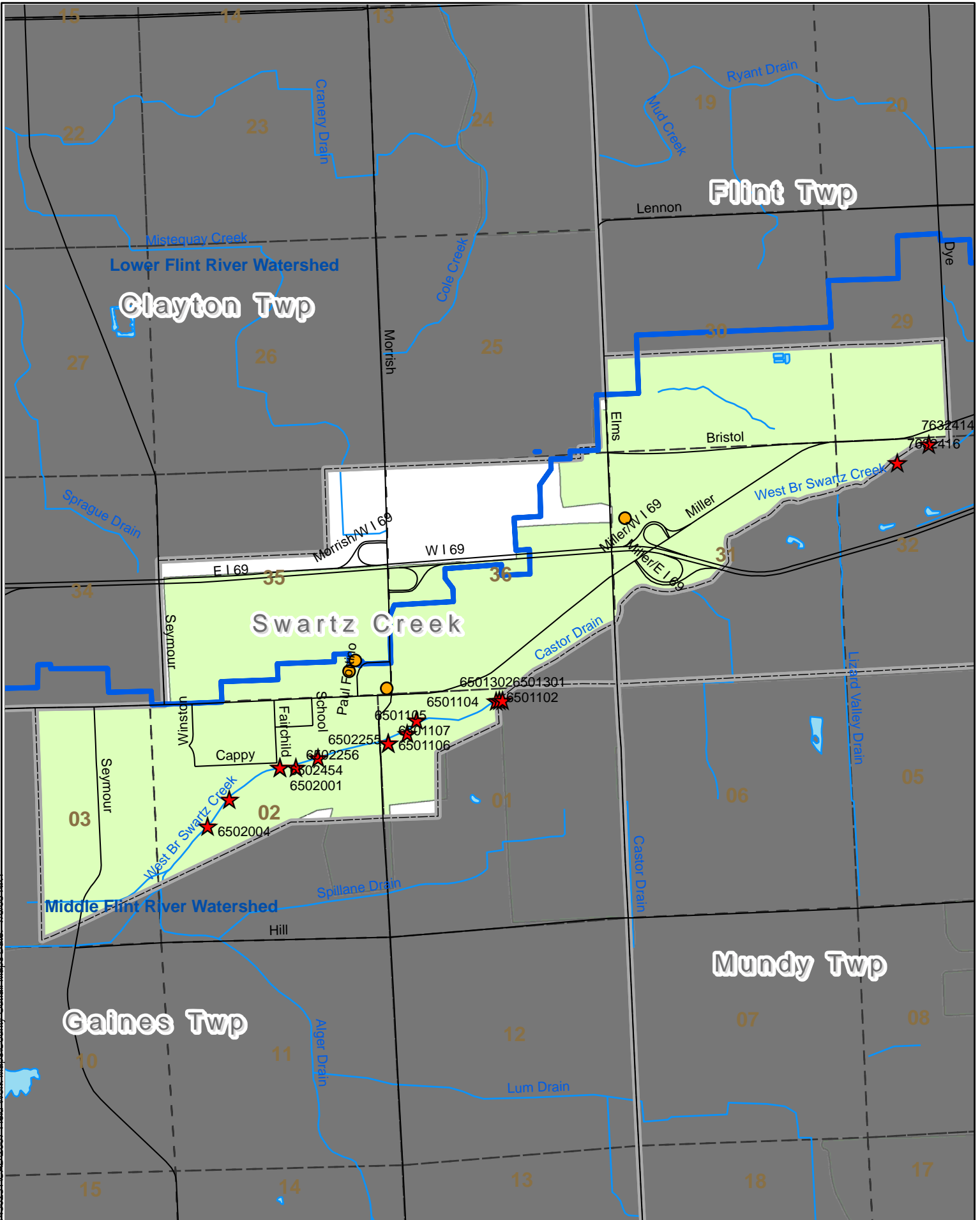
**City of Linden NPDES Phase II
Permit Application
Genesee County**
Storm Sewer Discharge Maps



City of Linden
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
5620510	42.816111	-83.780278	8	VCP	Shiawasee River
5620501	42.815894	-83.782494	10	RCP	Shiawasee River
5620502	42.815847	-83.782486	12	RCP	Shiawasee River
5620504	42.815853	-83.782281	12	RCP	Shiawasee River
5620503	42.815900	-83.782292	8	RCP	Shiawasee River
5620520	42.815556	-83.783611	6	Corrigated Plastic	Shiawasee River
5620519	42.815556	-83.782778	24	RCP	Shiawasee River
5620524	42.815556	-83.782778	6	PVC	Shiawasee River
5620516	42.815556	-83.781667	12	PVC	Shiawasee River
5620518	42.815556	-83.781667	6	VCP	Shiawasee River
5620515	42.815556	-83.781389	24	RCP	Shiawasee River
5620517	42.815556	-83.781944	8	VCP	Shiawasee River
5620514	42.815833	-83.781667	12	Corrigated Steel Pipe	Shiawasee River
5620505	42.816667	-83.785278	12	Corrigated Plastic	Shiawasee River
5620513	42.816944	-83.777222	24	RCP	Shiawasee River
5620755	42.818889	-83.773611	36	Corrigated Steel Pipe	Shiawasee River
5620522	42.816389	-83.777222	30	Poured In Place	Shiawasee River
5620753	42.817222	-83.774167	24	Corrigated Steel Pipe	Shiawasee River

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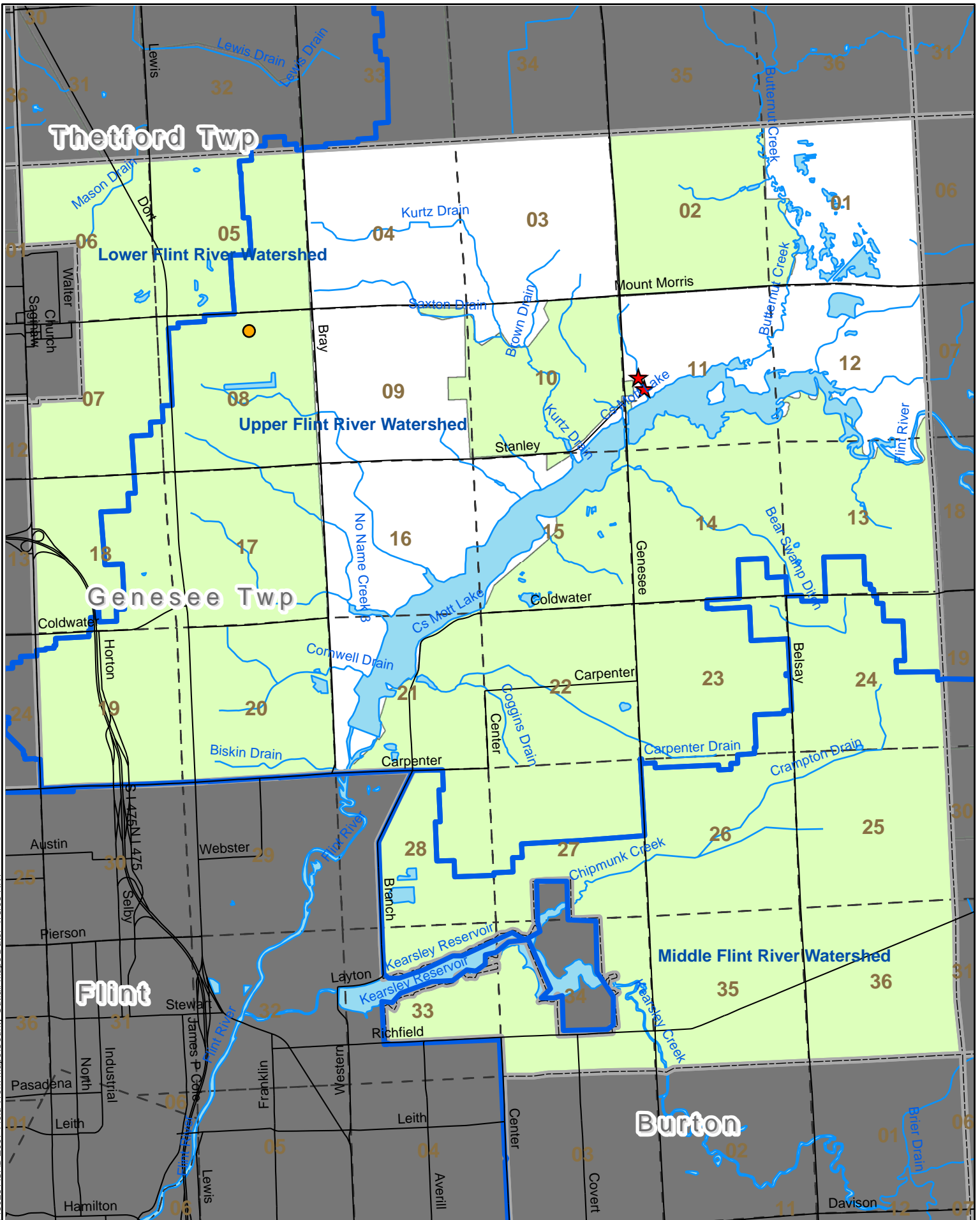
- Legend**
- Known Discharge Points
 - Waters of the State
 - Urbanized Area
 - Categorical Discharge Points
 - Watershed
 - Roads
 - Municipal
 - Section


**City of Swartz Creek NPDES Phase II
Permit Application
Genesee County
Storm Sewer Discharge Maps**



**City of Swartz Creek
Known Discharge Points**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
7632416	42.971111	-83.786389	54	RCP	West Swartz Creek
7632414	42.972222	-83.783611	24	RCP	West Swartz Creek
6501302	42.956667	-83.821389	36	Corrigated Steel Pipe	Swartz Creek West Branch
6501301	42.956667	-83.821111	36	Corrigated Steel Pipe	Swartz Creek West Branch
6501104	42.955556	-83.828611	12	RCP	West Swartz Creek
6501107	42.954167	-83.831111	10	Metal	Swartz Creek West Branch
6501106	42.954167	-83.831111	18	Corrigated Steel Pipe	West Swartz Creek
6502004	42.949167	-83.846944	54	RCP	West Swartz Creek
6502001	42.952778	-83.840556	24	RCP	Swar Drain
6502454	42.952778	-83.840556	24	RCP	Swar Drain
6502256	42.952778	-83.839167	24	Corrigated Steel Pipe	West Swartz Creek
6501102	42.956667	-83.821667	24	Corrigated Steel Pipe	Swartz Creek West Branch
6502255	42.953333	-83.837222	18	Corrigated Steel Pipe	West Swartz Creek
6501105	42.954722	-83.829444	12	Corrigated Steel Pipe	Swartz Creek West Branch
6502150	42.950833	-83.845000	30	RCP	Swartz Creek West Branch






TETRA TECH

Legend

- ★ Known Discharge Points
- Categorical Discharge Points
- Waters of the State
- Urbanized Area
- Watershed
- Roads
- Section
- Municipal

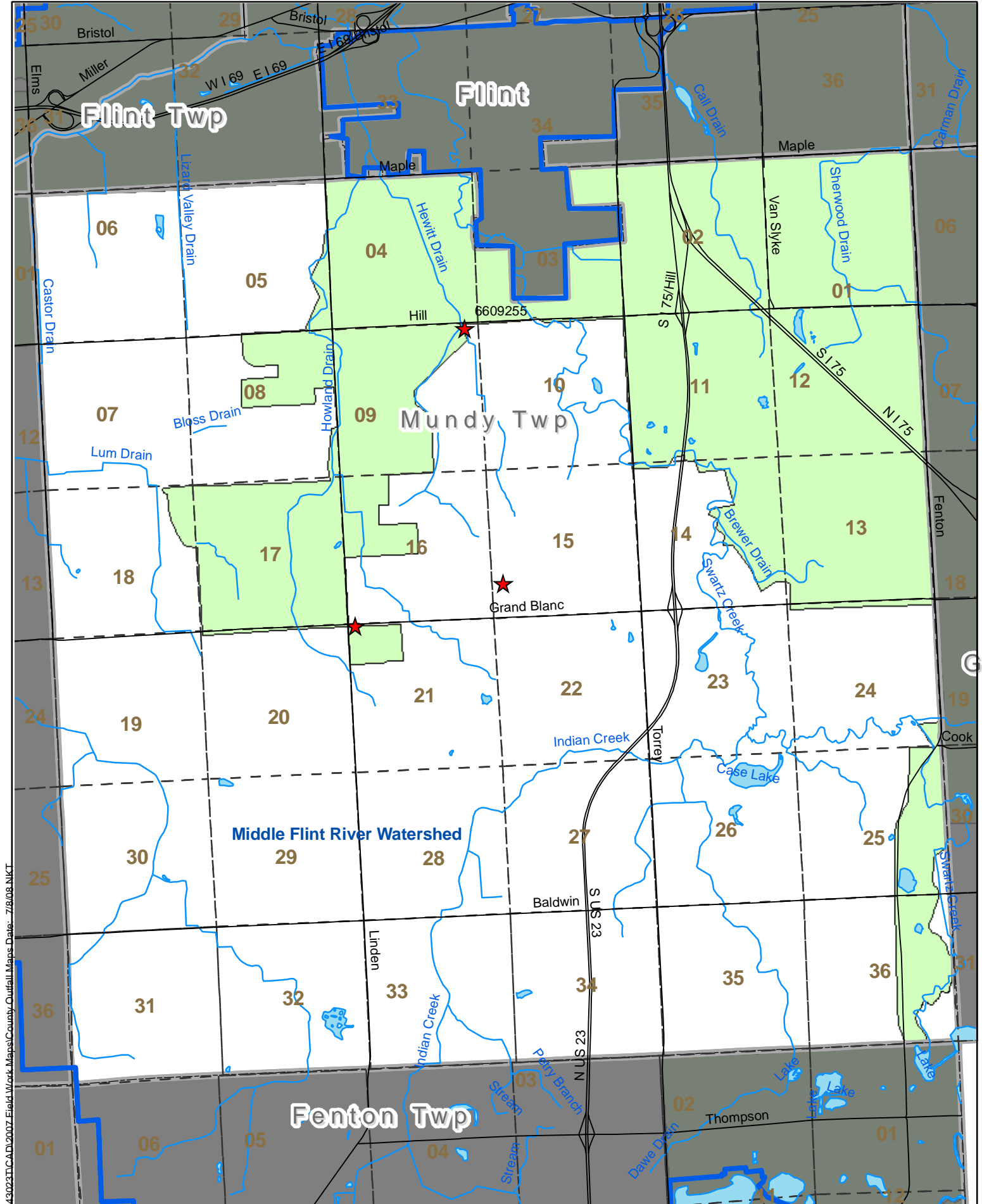
**Genesee Charter Township NPDES
Phase II Permit Application
Genesee County**

Storm Sewer Discharge Maps










Genesee Charter Township
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
8711504	43.111667	-83.615000	12	Corrigated Steel Pipe	Green Arbor Drain
8711003	43.112790	-83.615710	15	RCP	Green Arbor Drain

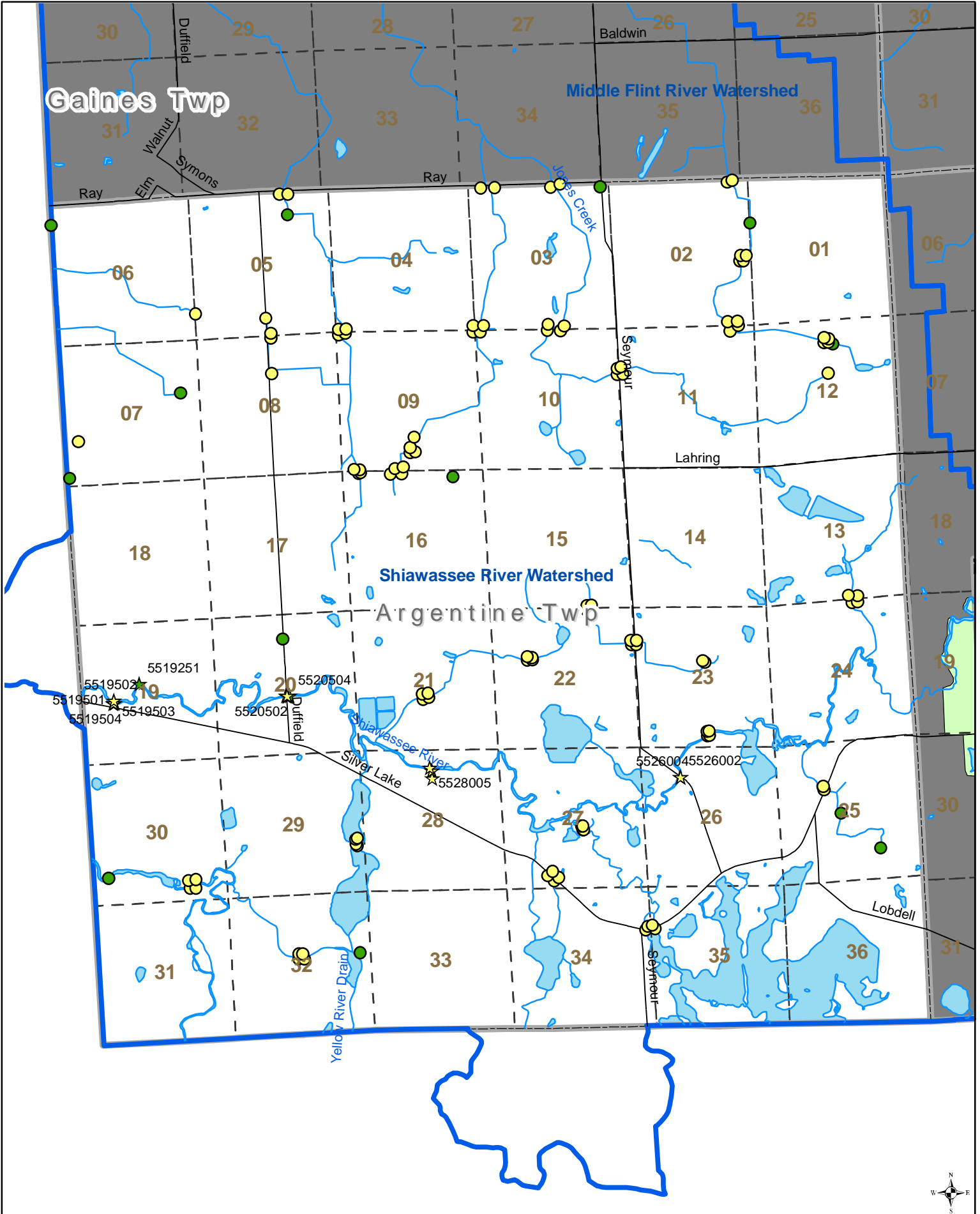


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 <p>TETRA TECH</p>	<p>Legend</p> <ul style="list-style-type: none"> ★ Known Discharge Points ● Categorical Discharge Points — Roads  Waters of the State  Section  Municipal  Watershed  Urbanized Area 	<p align="center">Mundy Charter Township NPDES Phase II Permit Application Genesee County</p> <p align="center">Storm Sewer Discharge Maps</p>	
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Mundy Charter Township
Known Discharge Points

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody
6609255	42.943056	-83.753333	18	PVC	Hewitt Drain



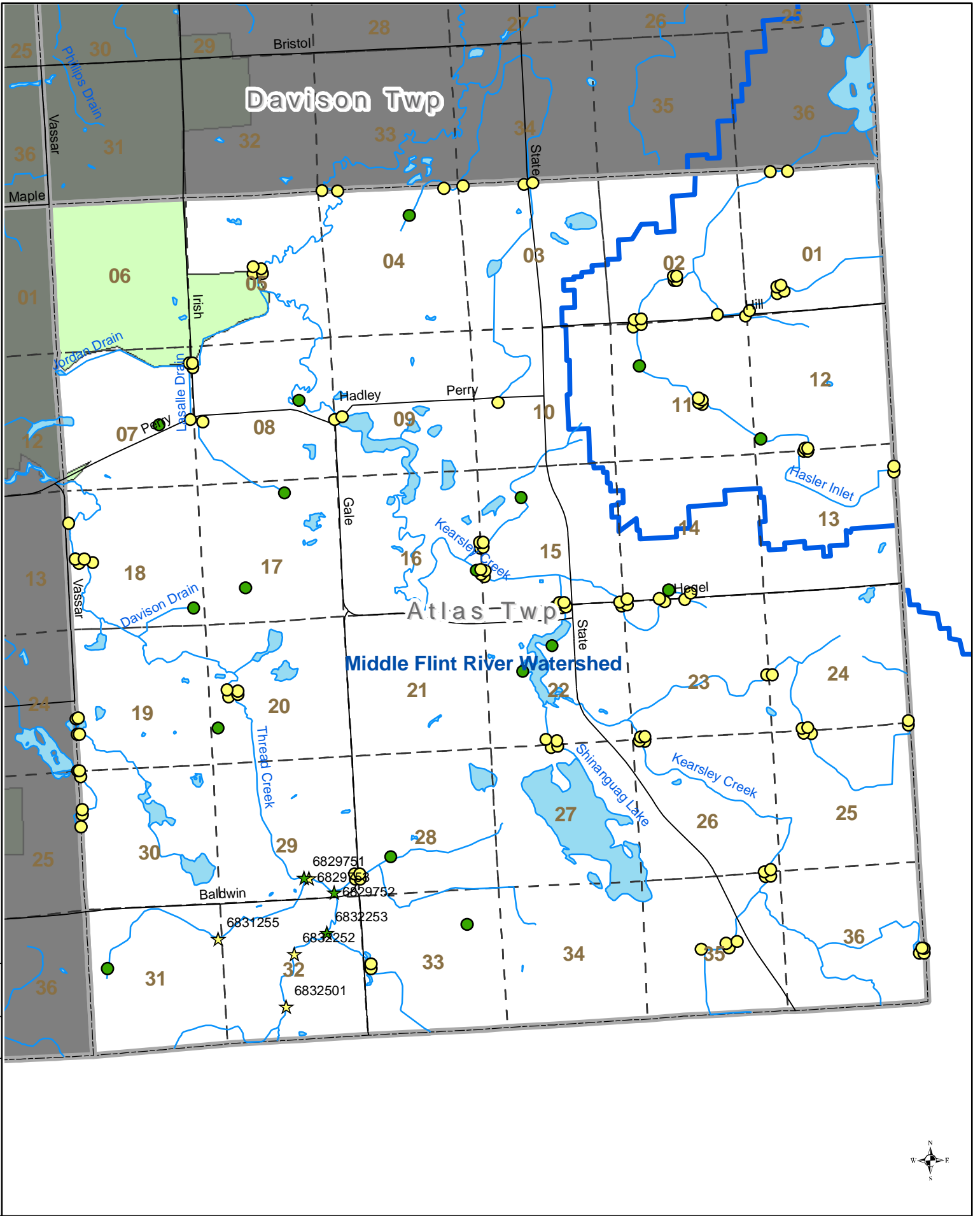
Legend	
● GC Drain Comm	★ GC Drain Comm
● GC Road Comm	★ GC Road Comm
Waters of the State	Section
Roads	Urbanized Area
Municipal	Watershed

**Genesee County NPDES Phase II
Permit Application
Argentine Township**
Storm Sewer Discharge Maps

Genesee County
Known Discharge Points in Argentine Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
5519251	42.818378	-83.916081	0	Open Channel	Shiawassee River	GC Drain Comm SWM	★
5519501	42.816428	-83.919836	18	Corrigated Steel Pipe	Shiawassee River	GC Road Comm	★
5519502	42.816702	-83.919732	0	Unknown	Shiawassee River	GC Road Comm	★
5519503	42.816471	-83.919781	0	Unknown	Shiawassee River	GC Road Comm	★
5519504	42.816453	-83.919628	18	Corrigated Steel Pipe	Shiawassee River	GC Road Comm	★
5520501	42.816772	-83.895372	0	Open Channel	Shiawassee River	GC Road Comm	★
5520502	42.816781	-83.895194	0	Open Channel	Shiawassee River	GC Road Comm	★
5520503	42.816733	-83.895125	0	Open Channel	Shiawassee River	GC Road Comm	★
5520504	42.816750	-83.894839	24	Corrigated Steel Pipe	Shiawassee River	GC Drain Comm SWM	★
5526002	42.807268	-83.839859	0	Unknown	Shiawassee River	GC Road Comm	★
5526004	42.807237	-83.839890	0	Unknown	Shiawassee River	GC Road Comm	★
5528003	42.807778	-83.875000	0	Open Channel	Shiawassee River	GC Road Comm	★
5528005	42.808889	-83.875278	0	Open Channel	Shiawassee River	GC Road Comm	★
5528251	42.808611	-83.875000	12	PVC	Shiawassee River	GC Road Comm	★
5528253	42.808611	-83.875000	0	Open Channel	Shiawassee River	GC Road Comm	★

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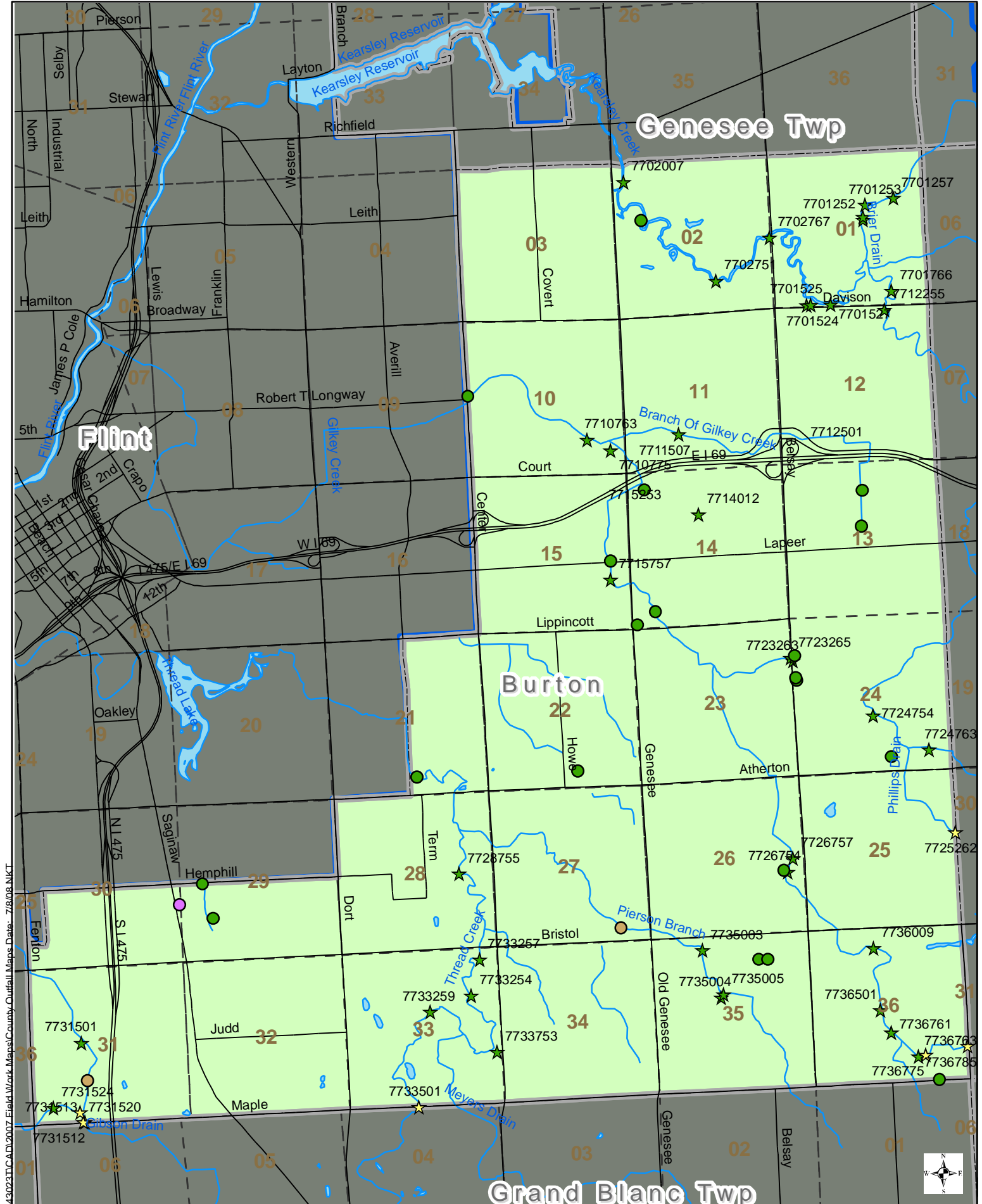
Legend	
★ GC Drain Comm	★ GC Road Comm
● GC Drain Comm	● GC Property
● GC Road Comm	● Unknown
— Roads	— Waters of the State
— Municipal Section	— Watershed
— Urbanized Area	

Genesee County NPDES Phase II Permit Application
Atlas Township
 Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in Atlas Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6832501	42.877778	-83.543611	0	Open Channel	Thread Creek Drain	GC Road Comm	★
6832252	42.883211	-83.542258	12	Corrigated Steel Pipe	Thread Creek Drain	GC Road Comm	★
6831255	42.885000	-83.552900	0	Open Channel	Thread Creek Drain	GC Road Comm	★
6832253	42.885280	-83.537570	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★
6829752	42.889444	-83.536389	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★
6829753	42.890980	-83.539890	12	RCP	Thread Creek Drain	GC Road Comm	★
6829751	42.891056	-83.540544	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★



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Legend	
★ GC Road Comm	● GC Property
★ GC Drain Comm	● Unknown
★ GC Drain Comm	● GC Drain Comm
— Roads	— Waters of the State
— Municipal Section	■ Urbanized Area
	■ Watershed

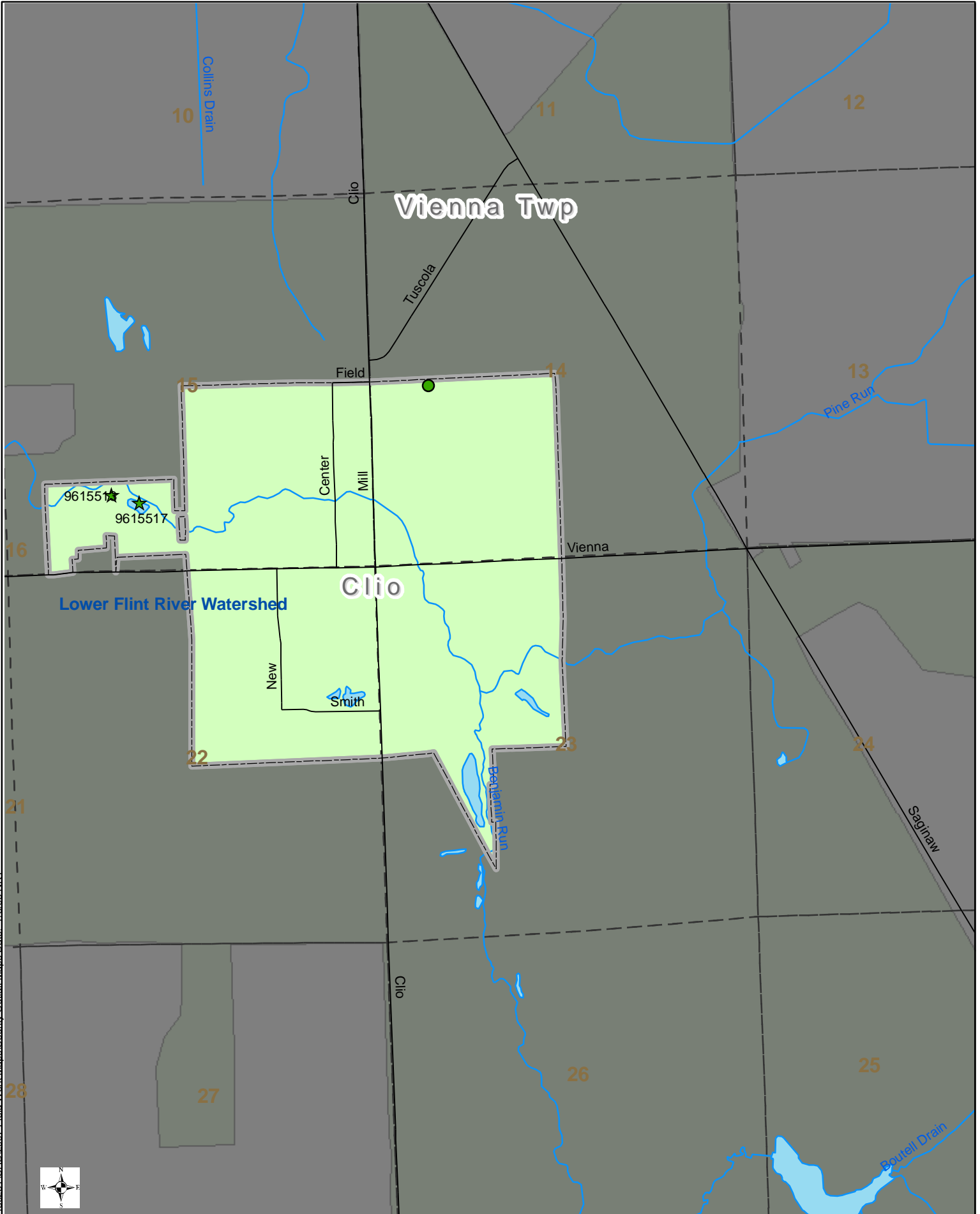
Genesee County NPDES Phase II Permit Application
City of Burton
 Storm Sewer Discharge Maps



**Genesee County
Known Discharge Points in the City of Burton**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
7701251	43.041667	-83.584167	24	Corrigated Steel Pipe	Brier Drain	GC Drain Comm SWM	★
7701252	43.041944	-83.584167	24	Corrigated Steel Pipe	Brier Drain	GC Drain Comm SWM	★
7701253	43.043056	-83.583889	48	RCP	Brier Drain	GC Drain Comm SWM	★
7701257	43.043611	-83.580278	24	RCP	Brier Drain	GC Drain Comm SWM	★
7701524	43.033889	-83.591667	48	RCP	Kearsley Creek	GC Drain Comm SWM	★
7701525	43.033911	-83.591111	48	RCP	Kearsley Creek	GC Drain Comm SWM	★
7701527	43.033889	-83.588611	0	Unknown	Kearsley Creek	GC Drain Comm SWM	★
7701766	43.035000	-83.580833	54	RCP	Kearsley Creek	GC Drain Comm SWM	★
7702007	43.045833	-83.614444	42	RCP	Kearsley Creek	GC Drain Comm SWM	★
7702751	43.036389	-83.603056	60	RCP	Kearsley Creek	GC Drain Comm SWM	★
7702767	43.040278	-83.596111	32	Corrigated Steel Pipe	Kearsley Creek	GC Drain Comm SWM	★
7710763	43.021944	-83.620000	30	RCP	Gilkey Creek	GC Drain Comm SWM	★
7710775	43.020917	-83.617028	24	RCP	Gilkey Creek	GC Drain Comm SWM	★
7711507	43.022222	-83.608333	18	RCP	Gilkey Creek	GC Drain Comm SWM	★
7712255	43.033256	-83.581811	24	RCP	Kearsley Creek	GC Drain Comm SWM	★
7714012	43.014722	-83.606111	42	Corrigated Steel Pipe	Gilkey Creek	GC Drain Comm SWM	★
7715757	43.008889	-83.617500	36	Corrigated Steel Pipe	Gilkey Creek	GC Drain Comm SWM	★
7723263	43.000833	-83.594722	39	Corrigated Steel Pipe	Coates Ext of Gilkey	GC Drain Comm SWM	★
7723265	43.001111	-83.595000	45	Corrigated Steel Pipe	Coates Ext of Gilkey	GC Drain Comm SWM	★
7724754	42.995556	-83.584722	36	RCP	Phillips Drain	GC Drain Comm SWM	★
7724763	42.992222	-83.577778	12	Corrigated Steel Pipe	Phillips Drain	GC Drain Comm SWM	★
7726754	42.981222	-83.596128	42	Corrigated Steel Pipe	Gilkey Creek	GC Drain Comm SWM	★
7726757	42.982500	-83.595442	12	Corrigated Steel Pipe	Gilkey Creek	GC Drain Comm SWM	★
7728755	42.981944	-83.637778	24	Corrigated Steel Pipe	Thread Creek Drain	GC Drain Comm SWM	★
7731501	42.967190	-83.686230	18	RCP	Gibson Drain	GC Drain Comm SWM	★
7731524	42.961230	-83.690010	36	RCP	Sherwood Drain	GC Drain Comm SWM	★
7733254	42.970556	-83.636667	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★
7733257	42.973900	-83.635500	30	RCP	Thread Creek Drain	GC Drain Comm SWM	★
7733259	42.969167	-83.641944	48	Corrigated Steel Pipe	Thread Creek Drain	GC Drain Comm SWM	★
7733753	42.965278	-83.633611	36	RCP	Thread Creek Drain	GC Drain Comm SWM	★
7735003	42.974167	-83.607222	0	Open Channel	Pierson Drain	GC Drain Comm SWM	★
7735004	42.969722	-83.605000	0	Open Channel	Pierson Drain	GC Drain Comm SWM	★
7735005	42.970000	-83.604722	24	RCP	Pierson Drain	GC Drain Comm SWM	★
7736009	42.973889	-83.585556	24	RCP	Gilkey Creek	GC Drain Comm SWM	★
7736501	42.968100	-83.584900	8	PVC	Gilkey Creek	GC Drain Comm SWM	★
7736761	42.966000	-83.583600	24	RCP	Gilkey Creek	GC Drain Comm SWM	★
7736763	42.963711	-83.580258	0	Open Channel	Gilkey Creek	GC Drain Comm SWM	★
Genesee County Road Commission was left in City of Burton because the points where on the boarder.							
7731513	42.959810	-83.686050	18	RCP	Gibson Drain	GC Road Comm	★
7731512	42.959820	-83.686240	12	RCP	Gibson Drain	GC Road Comm	★
7725262	42.984444	-83.574722	0	Open Channel	Phillips Drain	GC Road Comm	★
7731520	42.960730	-83.686620	12	Corrigated Steel Pipe	Sherwood Drain	GC Road Comm	★
7733501	42.960348	-83.643704	0	Unknown	Thread Creek Drain	GC Road Comm	★
7736775	42.963853	-83.579322	0	Brick	Gilkey Creek	GC Road Comm	★
7736785	42.964572	-83.574003	0	Open Channel	Gilkey Creek	GC Road Comm	★

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Legend

- | | | | |
|-------------------------------|--------------------------------------|-----------------------|------------------|
| Known Discharge Points | Categorical Discharges Points | — Roads | — Section |
| ★ GC Drain Comm | ● GC Drain Comm | ~ Waters of the State | ■ Urbanized Area |
| | | □ Municipal | |

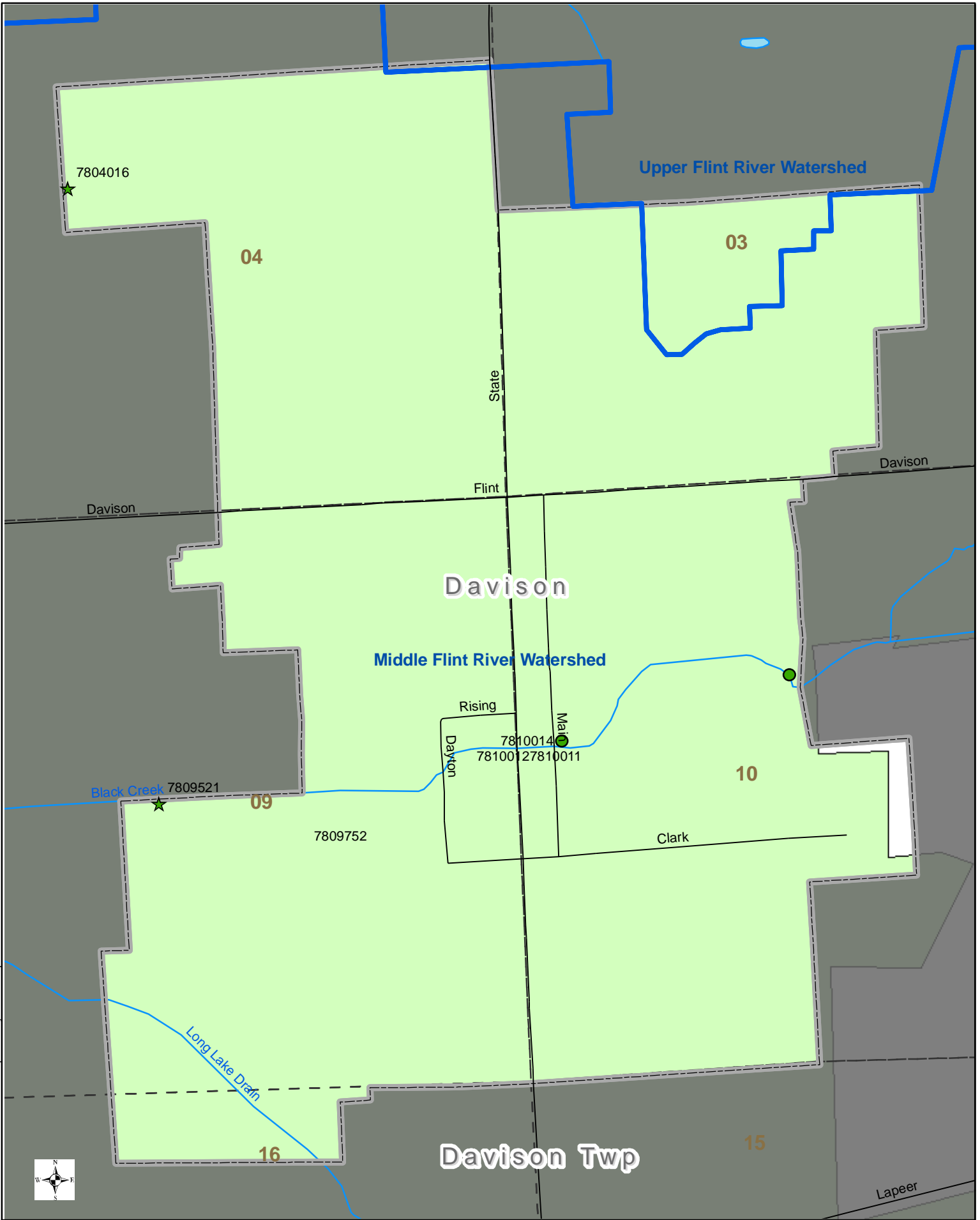
**Genesee County NPDES Phase II
Permit Application
City of Clio
Storm Sewer Discharge Maps**



Genesee County
Known Discharge Points in the City of Clio

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
9615517	43.180142	-83.747086	12	RCP	Pine Run	GC Drain Comm SWM	★
9615513	43.180478	-83.748556	18	RCP	Pine Run	GC Drain Comm SWM	★

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Legend

Known Discharge Points

★ GC Drain Comm

Categorical Discharges Points

● GC Drain Comm

— Roads



Watershed

~ Waters of the State

— Section



Municipal

Urbanized Area

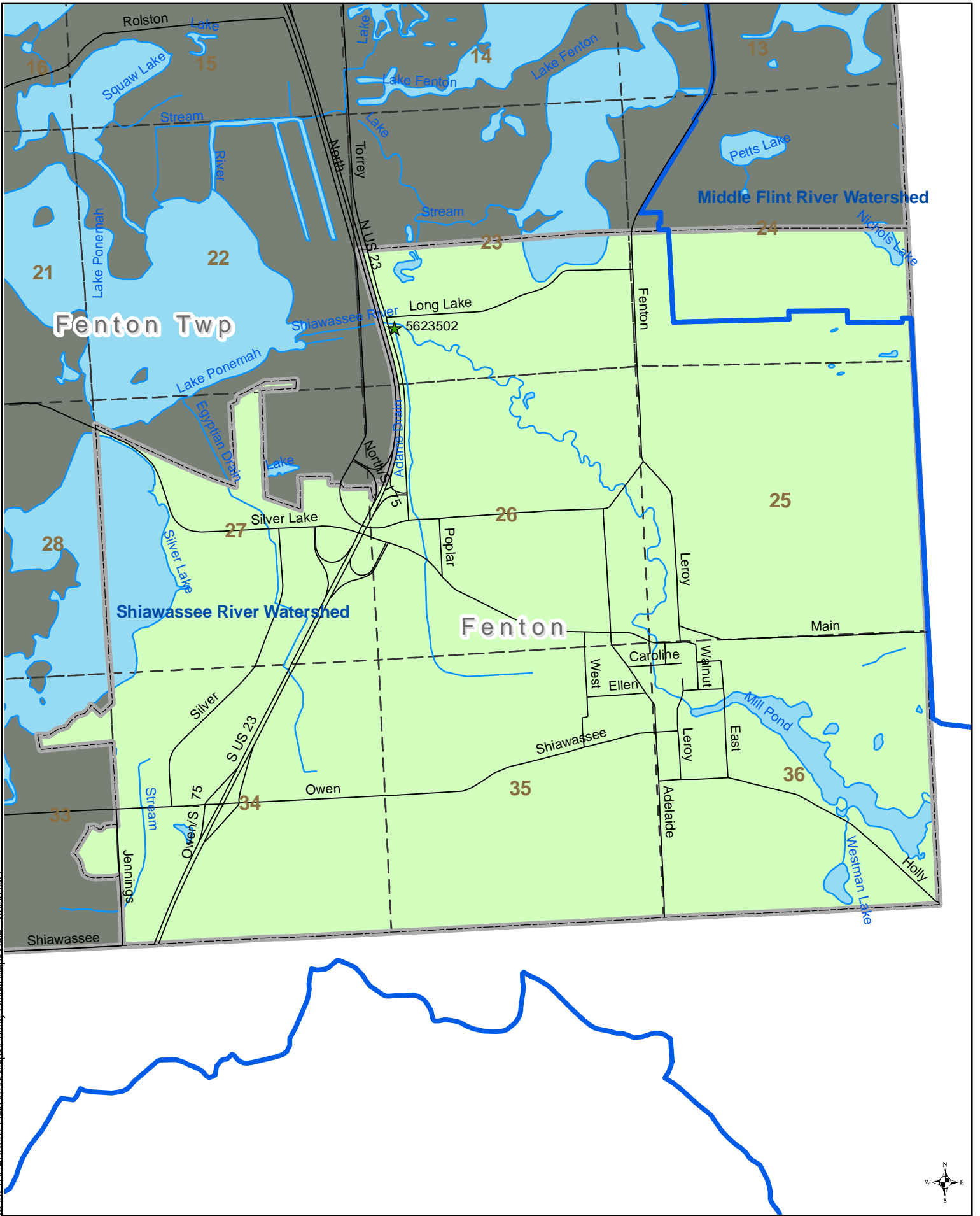
**Genesee County NPDES Phase II
Permit Application
City of Davison
Storm Sewer Discharge Maps**



Genesee County
Known Discharge Points in the City of Davison

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
7804016	43.042778	-83.532778	30	RCP	Brier Drain	GC Drain Comm SWM	★
7809521	43.027222	-83.530278	42	Corrigated Steel Pipe	Black Creek	GC Drain Comm SWM	★

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Legend

Known Discharge Points	Waters of the State	Section
GC Drain Comm	Watershed	Urbanized Area
Roads	Municipal	

**Genesee County NPDES Phase II
Permit Application
City of Fenton**
Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in the City of Fenton

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
5623502	42.815000	-83.725000	0	Open Channel	Shiawassee River	GC Drain Comm SWM	★

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Legend

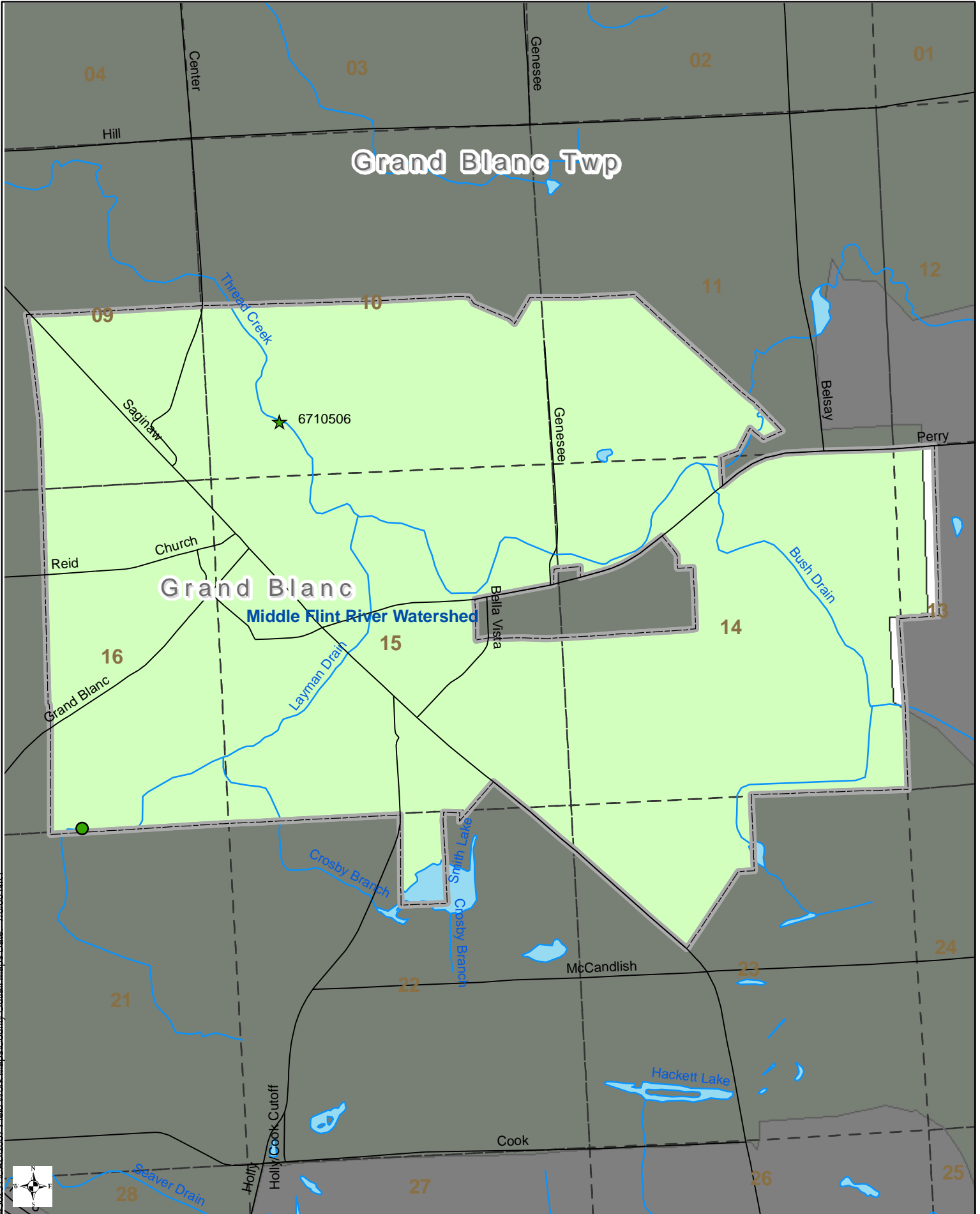
★ IDEP Discharge Points	★ GC Parks & Rec	● Categorical Discharges Points	▭ Municipal Section	▭ Urbanized Area
★ GC Drain Comm	⦿ Waters of the State	● GC Drain Comm	⦿ Watershed	
— Roads		● GC Property		

Genesee County NPDES Phase II Permit Application
City of Flushing
 Storm Sewer Discharge Maps

Genesee County
Known Discharge Points in the City of Flushing

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8526502	43.061389	-83.847222	15	RCP	Flint River	GC Drain Comm SWM	
8527756	43.070833	-83.866111	4	Corrigated Plastic	Flint River	GC Parks & Rec	

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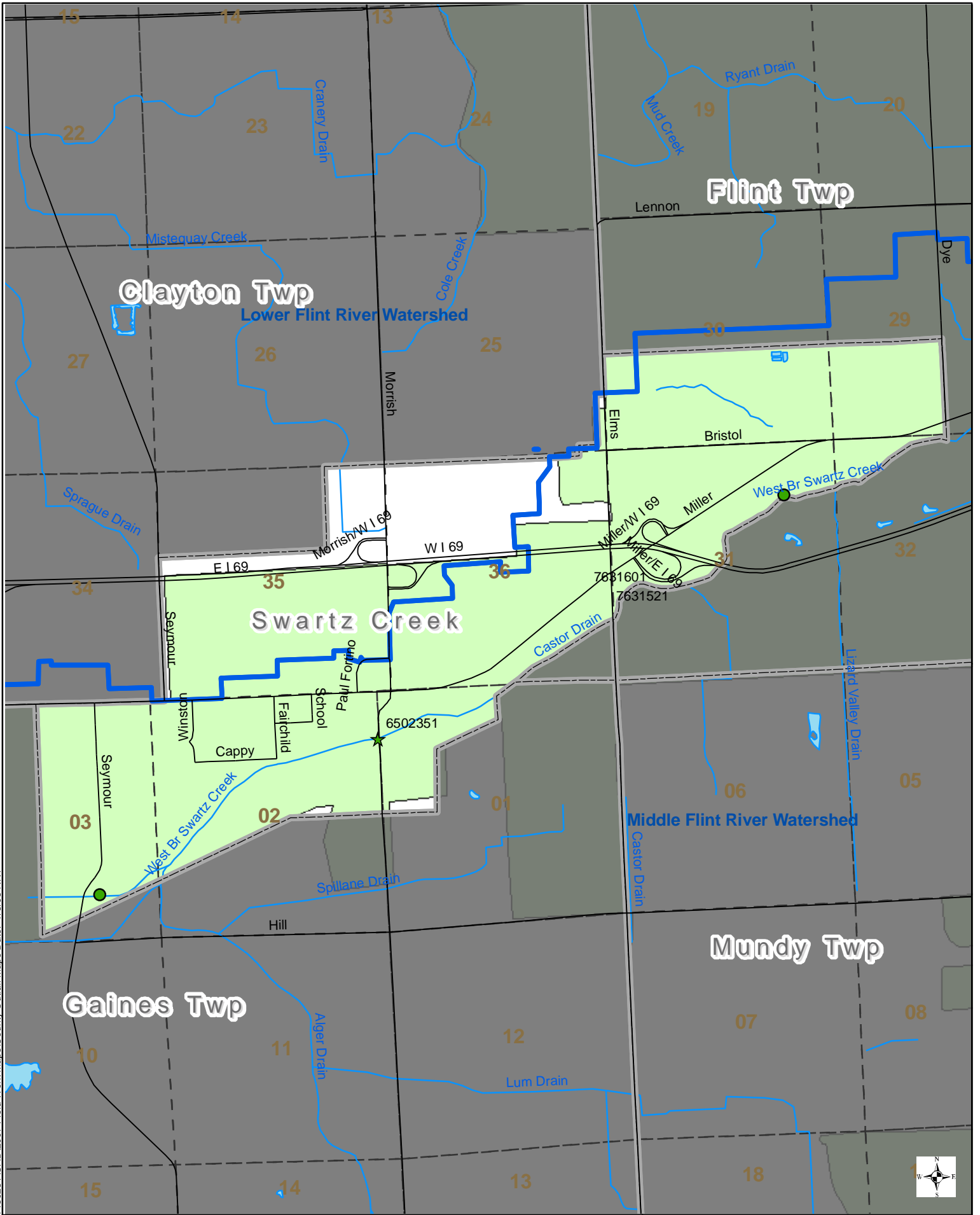
Legend	
Known Discharge Points	Categorical Discharges Points
GC Drain Comm	GC Drain Comm
Roads	Waters of the State
Watershed	Watershed
Municipal	Section
	Urbanized Area

Genesee County NPDES Phase II
Permit Application
City of Grand Blanc
 Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in the City of Grand Blanc

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6710506	42.932890	-83.628090	36	Corrigated Steel Pipe	Thread Creek Drain	GC Drain Comm SWM	★



Legend

- | | | | |
|-------------------------------|-------------------------------------|---------------------|----------------|
| Known Discharge Points | Categorical Discharge Points | — Roads | Municipal |
| ★ GC Drain Comm | ● GC Drain Comm | Waters of the State | - - - Section |
| | | Watershed | Urbanized Area |

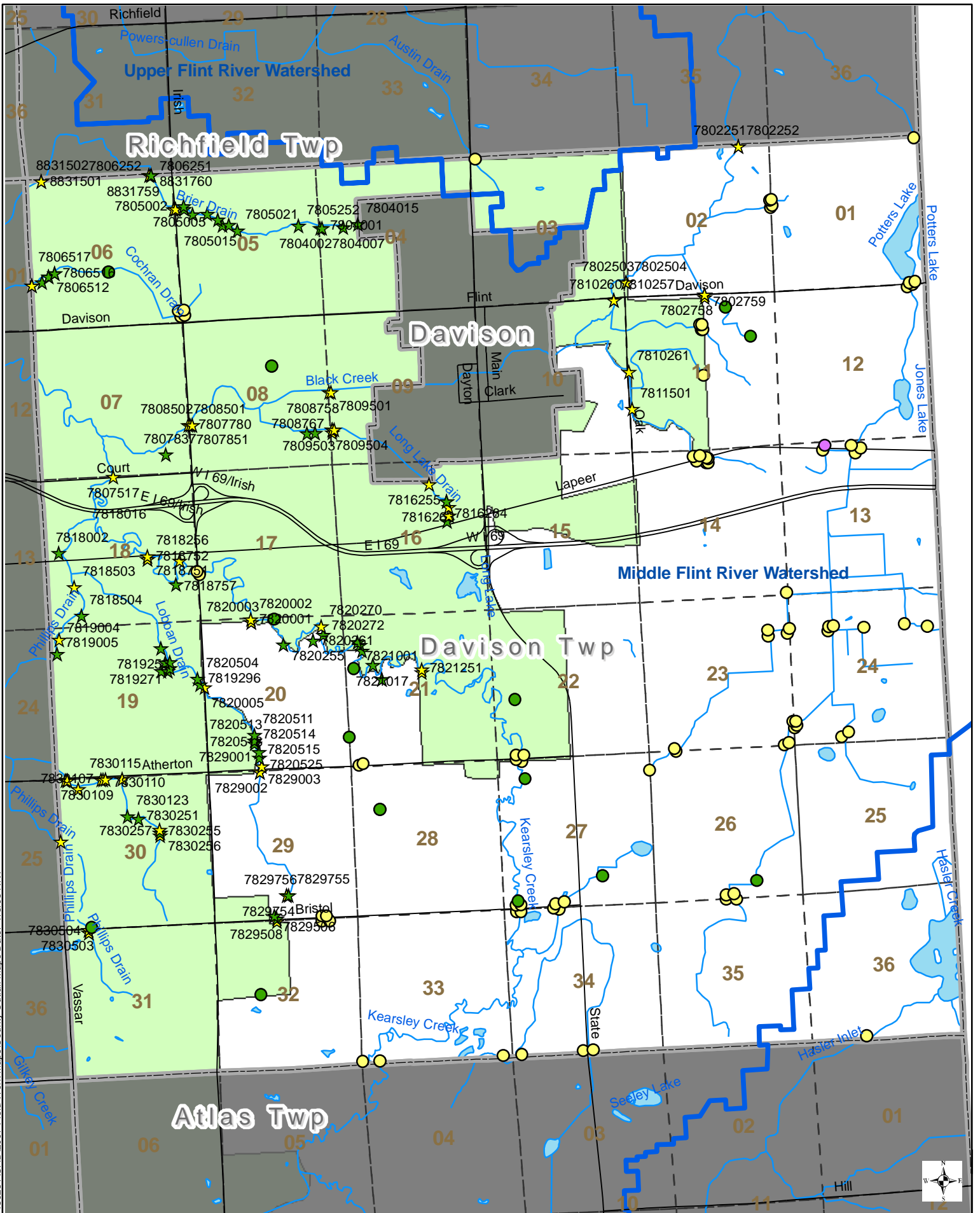
Genesee County NPDES Phase II
Permit Application
City of Swartz Creek
 Storm Sewer Discharge Maps



Genesee County

Known Discharge Points in the City of Swartz Creek

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6502351	42.954167	-83.831944	36	Corrigated Steel Pipe	West Swartz Creek	GC Drain Comm SWM	★



Legend	
● GC Drain Comm	★ GC Drain Comm
● GC Property	★ GC Road Comm
● GC Road Comm	Waters of the State
Watershed	Section
Roads	Urbanized Area
Municipal	

Genesee County NPDES
Phase II Permit Application
Davison Township
 Storm Sewer Discharge Maps

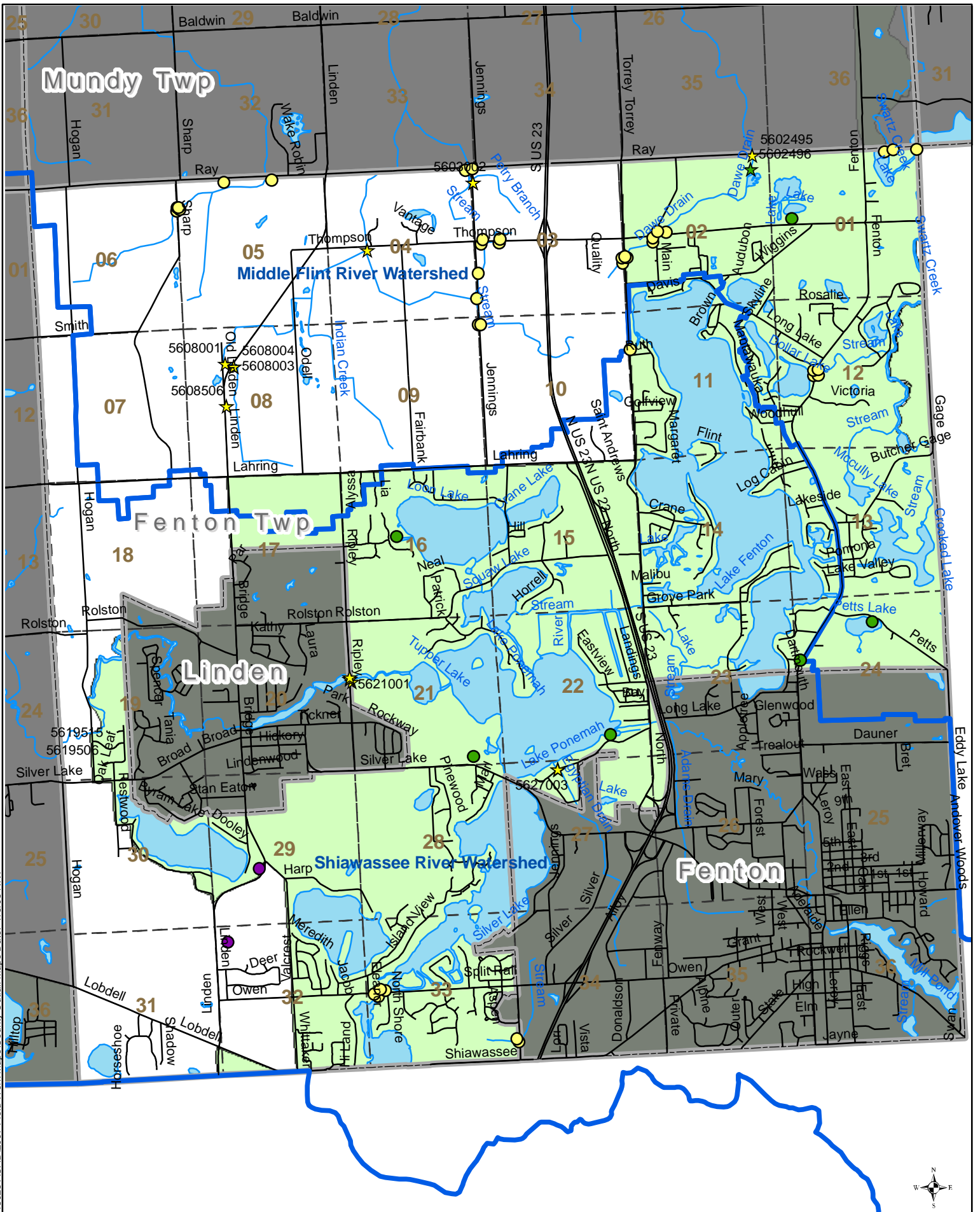


**Genesee County
Known Discharge Points in Davison Township**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
7725263	42.984444	-83.574444	0	Open Channel	Phillips Drain	GC Road Comm	★
7802251	43.049444	-83.482778	0	Open Channel	Black Creek	GC Road Comm	★
7802252	43.049444	-83.482778	0	Open Channel	Black Creek	GC Road Comm	★
7802503	43.036667	-83.498056	24	RCP	Black Creek	GC Road Comm	★
7802504	43.036667	-83.498056	8	Corrigated Plastic	Black Creek	GC Road Comm	★
7802758	43.035278	-83.487778	0	Open Channel	Hathaway Drain	GC Road Comm	★
7802759	43.035278	-83.487778	0	Open Channel	Hathaway Drain	GC Road Comm	★
7804001	43.042778	-83.537778	18	RCP	Brier Drain	GC Drain Comm SWM	★
7804002	43.042778	-83.538056	0	Open Channel	Brier Drain	GC Drain Comm SWM	★
7804007	43.042778	-83.535000	15	RCP	Brier Drain	GC Drain Comm SWM	★
7804015	43.043056	-83.533056	0	Open Channel	Brier Drain	GC Drain Comm SWM	★
7805001	43.045000	-83.556944	0	Open Channel	Brier Drain	GC Road Comm	★
7805002	43.045000	-83.556944	0	Open Channel	Brier Drain	GC Road Comm	★
7805005	43.045278	-83.555833	12	RCP	Brier Drain	GC Drain Comm SWM	★
7805006	43.045000	-83.555833	18	RCP	Brier Drain	GC Drain Comm SWM	★
7805007	43.044444	-83.554722	18	RCP	Brier Drain	GC Drain Comm SWM	★
7805010	43.044444	-83.552778	24	RCP	Brier Drain	GC Drain Comm SWM	★
7805011	43.043889	-83.551389	12	RCP	Brier Drain	GC Drain Comm SWM	★
7805013	43.043333	-83.550833	30	RCP	Brier Drain	GC Drain Comm SWM	★
7805015	43.043333	-83.550000	24	RCP	Brier Drain	GC Drain Comm SWM	★
7805021	43.042778	-83.548889	30	RCP	Brier Drain	GC Drain Comm SWM	★
7805252	43.043056	-83.540833	0	Open Channel	Brier Drain	GC Drain Comm SWM	★
7806251	43.048333	-83.560000	48	Corrigated Steel Pipe	Brier Drain	GC Drain Comm SWM	★
7806252	43.048333	-83.560278	0	Open Channel	Brier Drain	GC Road Comm	★
7806265	43.045000	-83.557222	0	Open Channel	Brier Drain	GC Road Comm	★
7806266	43.045000	-83.557222	0	Open Channel	Brier Drain	GC Road Comm	★
7806501	43.038056	-83.576111	18	RCP	Cochran Drain	GC Road Comm	★
7806502	43.038056	-83.576111	0	Open Channel	Cochran Drain	GC Road Comm	★
7806507	43.038333	-83.574722	8	RCP	Cochran Drain	GC Drain Comm SWM	★
7806511	43.038889	-83.573889	18	RCP	Cochran Drain	GC Drain Comm SWM	★
7806512	43.038889	-83.573889	18	RCP	Cochran Drain	GC Drain Comm SWM	★
7806516	43.039167	-83.573056	18	RCP	Cochran Drain	GC Drain Comm SWM	★
7806517	43.039167	-83.573056	18	Corrigated Steel Pipe	Cochran Drain	GC Drain Comm SWM	★
7807517	43.019397	-83.566111	24	Corrigated Steel Pipe	Kearsley Creek	GC Road Comm	★
7807780	43.024167	-83.555833	30	Poured In Place	Black Creek	GC Road Comm	★
7807837	43.021389	-83.559167	42	RCP	Black Creek	GC Drain Comm SWM	★
7807851	43.024167	-83.556111	24	Poured In Place	Black Creek	GC Road Comm	★
7808501	43.024167	-83.555556	36	RCP	Black Creek	GC Road Comm	★
7808502	43.024167	-83.555556	8	Metal	Black Creek	GC Road Comm	★
7808758	43.026944	-83.537500	12	Corrigated Steel Pipe	Black Creek	GC Road Comm	★
7808761	43.023056	-83.540556	0	Open Channel	Long Lake Drain	GC Drain Comm SWM	★
7808762	43.023056	-83.539444	0	Open Channel	Long Lake Drain	GC Drain Comm SWM	★
7808765	43.023333	-83.537222	0	Open Channel	Long Lake Drain	GC Road Comm	★
7808766	43.023056	-83.537222	18	Corrigated Steel Pipe	Long Lake Drain	GC Road Comm	★
7808767	43.023333	-83.537222	0	Open Channel	Long Lake Drain	GC Road Comm	★
7809501	43.026944	-83.537222	0	Open Channel	Black Creek	GC Road Comm	★
7809503	43.023333	-83.537222	48	Corrigated Steel Pipe	Long Lake Drain	GC Road Comm	★
7809504	43.023333	-83.536944	12	Corrigated Plastic	Long Lake Drain	GC Road Comm	★
7810257	43.035000	-83.499722	32	Corrigated Steel Pipe	Black Creek	GC Road Comm	★
7810260	43.035000	-83.499722	0	Open Channel	Black Creek	GC Road Comm	★
7810261	43.028056	-83.498056	0	Open Channel	Cummings Branch	GC Road Comm	★
7811251	43.035000	-83.487778	0	Open Channel	Hathaway Drain	GC Road Comm	★
7811501	43.024444	-83.497778	0	Open Channel	Cummings Branch	GC Road Comm	★
7816255	43.017778	-83.524722	24	RCP	Long Lake Drain	GC Road Comm	★
7816263	43.016111	-83.522500	24	Corrigated Steel Pipe	Long Lake Drain	GC Road Comm	★
7816264	43.016111	-83.522500	36	Corrigated Steel Pipe	Long Lake Drain	GC Drain Comm SWM	★
7816266	43.015556	-83.522222	12	Corrigated Steel Pipe	Long Lake Drain	GC Road Comm	★
7816267	43.014722	-83.522222	12	Corrigated Steel Pipe	Long Lake Drain	GC Road Comm	★
7816268	43.014167	-83.522500	12	Corrigated Steel Pipe	Long Lake Drain	GC Drain Comm SWM	★
7818002	43.012222	-83.573611	12	RCP	Lobban Drain	GC Drain Comm SWM	★
7818016	43.016389	-83.568889	12	Corrigated Steel Pipe	Kearsley Creek	MDOT Road	★
7818017	43.015556	-83.568889	0	Open Channel	Kearsley Creek	MDOT Road	★
7818018	43.015556	-83.568611	0	Open Channel	Kearsley Creek	MDOT Road	★
7818256	43.011667	-83.561944	18	Corrigated Steel Pipe	Kearsley Creek	GC Road Comm	★
7818503	43.008889	-83.571667	0	Open Channel	Phillips Drain	GC Road Comm	★
7818504	43.006111	-83.570833	42	RCP	Phillips Drain	GC Drain Comm SWM	★
7818751	43.011389	-83.561944	18	Corrigated Steel Pipe	Kearsley Creek	GC Road Comm	★
7818752	43.011389	-83.561944	18	Corrigated Steel Pipe	Kearsley Creek	GC Road Comm	★
7818757	43.008889	-83.558333	28	RCP	Kearsley Creek	GC Drain Comm SWM	★
7818764	43.011133	-83.557778	30	RCP	Kearsley Creek	GC Road Comm	★
7819004	43.003889	-83.573889	12	Metal	Phillips Drain	GC Road Comm	★
7819005	43.002500	-83.574167	48	RCP	Phillips Drain	GC Drain Comm SWM	★
7819253	43.002778	-83.560556	24	RCP	Lobban Drain	GC Drain Comm SWM	★
7819265	43.001389	-83.560000	30	RCP	Lobban Drain	GC Drain Comm SWM	★

Known Discharge Points, Genesee County in Davison Township, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
7819267	43.001389	-83.559444	24	RCP	Lobban Drain	GC Drain Comm SWM	★
7819271	43.000833	-83.559444	33	RCP	Lobban Drain	GC Drain Comm SWM	★
7819273	43.000556	-83.559722	36	RCP	Lobban Drain	GC Drain Comm SWM	★
7819276	43.000556	-83.560556	18	RCP	Lobban Drain	GC Drain Comm SWM	★
7819296	42.999167	-83.555556	18	Corrigated Steel Pipe	Lobban Drain	GC Drain Comm SWM	★
7819348	42.990278	-83.573611	12	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7820001	43.005000	-83.548611	0	Open Channel	Kearsley Creek	GC Road Comm	★
7820002	43.005278	-83.548611	0	Open Channel	Kearsley Creek	GC Road Comm	★
7820003	43.005000	-83.548611	0	Open Channel	Kearsley Creek	GC Road Comm	★
7820005	42.998889	-83.555000	18	Corrigated Steel Pipe	Lobban Drain	GC Road Comm	★
7820255	43.002778	-83.544444	0	Open Channel	Kearsley Creek	GC Drain Comm SWM	★
7820261	43.003056	-83.540556	36	RCP	Kearsley Creek	GC Drain Comm SWM	★
7820270	43.004444	-83.539444	30	RCP	Kearsley Creek	GC Road Comm	★
7820272	43.003611	-83.539167	18	RCP	Kearsley Creek	GC Drain Comm SWM	★
7820504	42.999722	-83.555833	18	Corrigated Steel Pipe	Lobban Drain	GC Drain Comm SWM	★
7820511	42.994167	-83.548611	36	RCP	Lobban Drain	GC Drain Comm SWM	★
7820513	42.993611	-83.548611	12	RCP	Lobban Drain	GC Drain Comm SWM	★
7820514	42.993333	-83.548611	30	RCP	Lobban Drain	GC Drain Comm SWM	★
7820515	42.992500	-83.548056	24	RCP	Lobban Drain	GC Drain Comm SWM	★
7820518	42.991944	-83.548056	21	RCP	Lobban Drain	GC Drain Comm SWM	★
7820525	42.991111	-83.547778	0	Open Channel	Lobban Drain	GC Road Comm	★
7821001	43.002778	-83.534722	36	RCP	Kearsley Creek	GC Drain Comm SWM	★
7821002	43.002500	-83.534444	0	Open Channel	Kearsley Creek	GC Drain Comm SWM	★
7821003	43.001944	-83.534167	0	Open Channel	Kearsley Creek	GC Drain Comm SWM	★
7821017	43.000556	-83.532778	16	Corrigated Steel Pipe	Kearsley Creek	GC Drain Comm SWM	★
7821026	42.999167	-83.531667	12	RCP	Kearsley Creek	GC Drain Comm SWM	★
7821030	42.999167	-83.531667	42	RCP	Kearsley Creek	GC Drain Comm SWM	★
7821251	43.000000	-83.526389	0	Open Channel	Kearsley Creek	GC Road Comm	★
7821252	42.999722	-83.526389	12	Corrigated Steel Pipe	Kearsley Creek	GC Road Comm	★
7829001	42.990556	-83.548056	12	Corrigated Steel Pipe	Lobban Drain	GC Road Comm	★
7829002	42.990556	-83.548056	9	RCP	Lobban Drain	GC Road Comm	★
7829003	42.990556	-83.548056	0	Open Channel	Lobban Drain	GC Road Comm	★
7829506	42.976667	-83.546667	16	Corrigated Plastic	Lobban Drain	GC Drain Comm SWM	★
7829507	42.976111	-83.546389	18	Corrigated Steel Pipe	Lobban Drain	GC Road Comm	★
7829508	42.976389	-83.546389	18	Corrigated Steel Pipe	Lobban Drain	GC Drain Comm SWM	★
7829754	42.978611	-83.545000	12	Corrigated Steel Pipe	Lobban Drain	GC Road Comm	★
7829755	42.978611	-83.544722	18	RCP	Lobban Drain	GC Drain Comm SWM	★
7829756	42.978611	-83.545000	12	Corrigated Steel Pipe	Lobban Drain	GC Road Comm	★
7830095	42.990278	-83.573333	6	PVC	Phillips Drain	GC Road Comm	★
7830096	42.990278	-83.573333	12	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7830099	42.989444	-83.571944	0	Open Channel	Phillips Drain	GC Road Comm	★
7830107	42.990278	-83.568889	8	PVC	Phillips Drain	GC Road Comm	★
7830109	42.990278	-83.568611	12	VCP	Phillips Drain	GC Road Comm	★
7830110	42.990278	-83.568333	12	VCP	Phillips Drain	GC Road Comm	★
7830115	42.990278	-83.566111	0	Open Channel	Phillips Drain	GC Road Comm	★
7830123	42.986667	-83.565556	0	Open Channel	Phillips Drain	GC Drain Comm SWM	★
7830251	42.986389	-83.564167	15	RCP	Phillips Drain	GC Drain Comm SWM	★
7830255	42.985278	-83.561389	18	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7830256	42.985000	-83.561389	48	RCP	Phillips Drain	GC Drain Comm SWM	★
7830257	42.985000	-83.561389	18	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7830258	42.984722	-83.561389	18	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7830503	42.975833	-83.571111	0	Open Channel	Phillips Drain	GC Road Comm	★
7830504	42.975833	-83.571111	12	Corrigated Steel Pipe	Phillips Drain	GC Road Comm	★
7831001	42.975556	-83.571111	0	Open Channel	Phillips Drain	GC Road Comm	★
7831002	42.975556	-83.571111	0	Open Channel	Phillips Drain	GC Road Comm	★
8831501	43.048056	-83.574444	18	Corrigated Steel Pipe	Brier Drain	GC Road Comm	★
8831502	43.048056	-83.574444	18	RCP	Brier Drain	GC Road Comm	★
8831758	43.048333	-83.560278	0	Open Channel	Brier Drain	GC Road Comm	★
8831759	43.048333	-83.560000	15	RCP	Brier Drain	GC Drain Comm SWM	★
8831760	43.048333	-83.560000	12	PVC	Brier Drain	GC Road Comm	★



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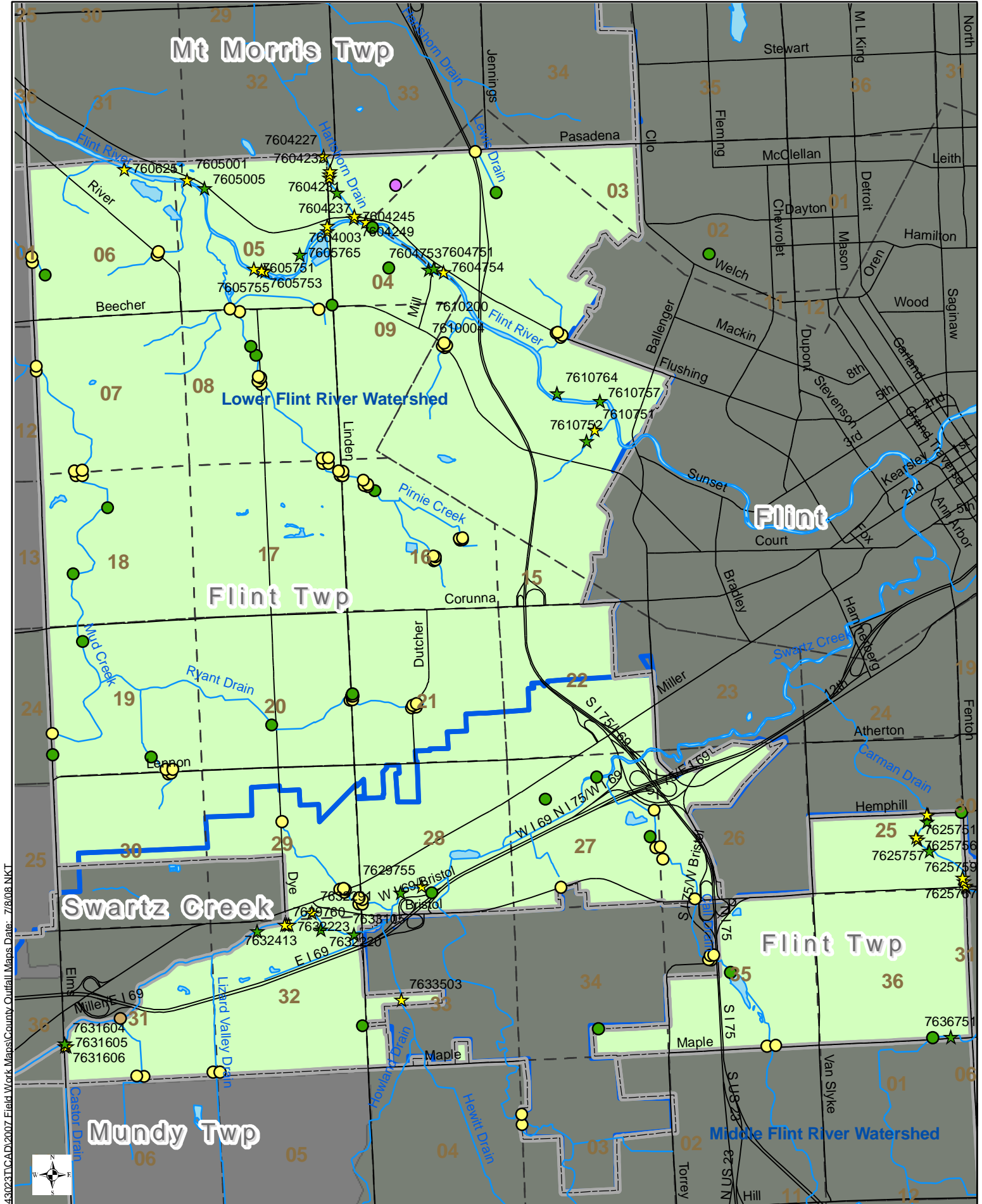
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|------------------------|----------------|---------------------|----------------|
| Known Discharge Points | GC Drain Comm | Waters of the State | Municipal |
| GC Road Comm | GC Parks & Rec | Roads | Section |
| GC Road Comm | GC Road Comm | Watershed | Urbanized Area |

**Genesee County NPDES
Phase II Permit Application
Fenton Township
Storm Sewer Discharge Maps**



Genesee County
Known Discharge Points in Fenton Charter Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
5602495	42.870833	-83.711667	12	RCP	Dawe Drain	GC Road Comm	★
5602496	42.869444	-83.711944	0	Open Channel	Dawe Drain	GC Drain Comm SWM	★
5603001	42.868889	-83.749167	0	Open Channel	Indian Creek	GC Road Comm	★
5603002	42.868889	-83.749167	0	Open Channel	Indian Creek	GC Road Comm	★
5604501	42.862500	-83.763611	0	Open Channel	Indian Creek	GC Road Comm	★
5608001	42.851667	-83.783056	21	RCP	Indian Creek	GC Road Comm	★
5608003	42.851389	-83.781944	12	RCP	Indian Creek	GC Road Comm	★
5608004	42.851389	-83.781944	0	Open Channel	Indian Creek	GC Road Comm	★
5608506	42.847500	-83.783056	0	Open Channel	Indian Creek	GC Road Comm	★
5619506	42.814722	-83.803889	21	RCP	Shiawassee River	GC Drain Comm WWS	★
5619515	42.815000	-83.805000	36	RCP	Shiawassee River	GC Drain Comm WWS	★
5620255	42.820278	-83.767500	0	Open Channel	Shiawassee River	GC Road Comm	★
5620256	42.820278	-83.767500	0	Open Channel	Shiawassee River	GC Road Comm	★
5621001	42.820450	-83.767506	0	Open Channel	Shiawassee River	GC Road Comm	★
5621002	42.820000	-83.767222	24	Corrigated Steel Pipe	Shiawassee River	GC Road Comm	★
5627001	42.810787	-83.739931	0	Open Channel	egyptian drain	GC Road Comm	★
5627003	42.810846	-83.739999	8	Corrigated Steel Pipe	Egyptian Drain	GC Road Comm	★



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Legend

★ Known Discharge Points	★ GC Road Comm	┌ Section	● GC Property	▭ Municipal
★ GC Drain Comm	⬇ Waters of the State	● Categorical Discharge Points	● GC Road Comm	▭ Urbanized Area
— Roads	● GC Drain Comm	● Unknown	▭ Watershed	

**Genesee County NPDES
Phase II Permit Application
Flint Charter Township**
Storm Sewer Discharge Maps

Genesee County
Known Discharge Points in Flint Charter Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
7604003	43.039444	-83.768889	10	Corrigated Steel Pipe	Flint River	GC Road Comm	★
7604227	43.045886	-83.774184	18	VCP	Hartshorn Drain	GC Road Comm	★
7604231	43.044424	-83.773384	48	Poured In Place	Hartshorn Drain	GC Road Comm	★
7604233	43.044114	-83.773492	12	Corrigated Steel Pipe	Hartshorn Drain	GC Road Comm	★
7604235	43.043803	-83.773495	12	Corrigated Steel Pipe	Hartshorn Drain	GC Road Comm	★
7604237	43.042341	-83.772538	30	Corrigated Steel Pipe	Hartshorn Drain	GC Drain Comm SWM	★
7604245	43.040073	-83.770346	12	Corrigated Steel Pipe	Hartshorn Drain	GC Road Comm	★
7604249	43.039829	-83.770468	12	Corrigated Steel Pipe	Hartshorn Drain	GC Road Comm	★
7604751	43.034823	-83.760144	0	Unknown	Flint River	GC Drain Comm SWM	★
7604753	43.034722	-83.760833	48	Corrigated Steel Pipe	Flint River	GC Drain Comm SWM	★
7604754	43.034444	-83.758889	12	RCP	Flint River	GC Road Comm	★
7605001	43.043928	-83.792086	12	Corrigated Steel Pipe	Flint River	GC Road Comm	★
7605005	43.043119	-83.789847	36	RCP	Flint River	GC Drain Comm SWM	★
7605251	43.039170	-83.773932	24	Corrigated Steel Pipe	Flint River	GC Road Comm	★
7605252	43.038654	-83.773958	24	Corrigated Steel Pipe	Flint River	GC Road Comm	★
7605751	43.035228	-83.783668	10	Corrigated Plastic	Flint River	GC Road Comm	★
7605753	43.035068	-83.782696	8	Corrigated Plastic	Flint River	GC Road Comm	★
7605755	43.034963	-83.782269	8	Corrigated Plastic	Flint River	GC Road Comm	★
7605765	43.036465	-83.777624	12	RCP	Flint River	GC Drain Comm SWM	★
7606251	43.045132	-83.800284	24	RCP	Flint River	GC Road Comm	★
7610751	43.018912	-83.739681	16	Metal	Flint River	GC Road Comm	★
7610752	43.017858	-83.740772	72	RCP	Flint River	GC Drain Comm SWM	★
7610757	43.021667	-83.738889	32	RCP	Flint River	GC Drain Comm SWM	★
7610764	43.022500	-83.744444	24	RCP	Flint River	GC Drain Comm SWM	★
7625751	42.981150	-83.697610	36	Corrigated Steel Pipe	Gibson Drain	GC Road Comm	★
7625752	42.981080	-83.697430	99	Open Channel	Gibson Drain	GC Road Comm	★
7625755	42.980430	-83.697650	24	PVC	Gibson Drain	GC Drain Comm SWM	★
7625756	42.978990	-83.699100	12	Corrigated Steel Pipe	Gibson Drain	GC Road Comm	★
7625757	42.978740	-83.698890	18	Corrigated Steel Pipe	Gibson Drain	GC Road Comm	★
7625759	42.977630	-83.697430	12	Unknown	Gibson Drain	GC Drain Comm SWM	★
7625767	42.974970	-83.693160	15	VCP	Gibson Drain	GC Road Comm	★
7625768	42.974600	-83.693040	8	VCP	Gibson Drain	GC Road Comm	★
7628701	42.975000	-83.766667	60	Poured In Place	Swartz Creek	GC Drain Comm SWM	★
7629755	42.975556	-83.763889	12	Corrigated Steel Pipe	Swartz Creek	GC Road Comm	★
7629760	42.972222	-83.781944	20	Corrigated Steel Pipe	Swartz Creek	GC Road Comm	★
7630752	42.974190	-83.692850	50	Unknown	Gibson Drain	GC Road Comm	★
7631604	42.961389	-83.811111	48	Corrigated Steel Pipe	Swartz Creek	GC Drain Comm SWM	★
7631605	42.961111	-83.810833	24	Corrigated Steel Pipe	Swartz Creek	GC Road Comm	★
7631606	42.961111	-83.811111	48	Corrigated Steel Pipe	West Swartz Creek	GC Road Comm	★
7632220	42.971667	-83.777222	36	Corrigated Steel Pipe	West Swartz Creek	GC Drain Comm SWM	★
7632223	42.972222	-83.781389	18	Corrigated Steel Pipe	West Swartz Creek	GC Road Comm	★
7632291	42.973333	-83.778333	24	Corrigated Steel Pipe	West Swartz Creek	GC Road Comm	★
7632413	42.972222	-83.781667	15	Corrigated Steel Pipe	West Swartz Creek	GC Road Comm	★
7632415	42.971667	-83.785556	36	Corrigated Steel Pipe	West Swartz Creek	GC Drain Comm SWM	★
7633105	42.971111	-83.772898	36	Open Channel	West Swartz Creek	GC Drain Comm SWM	★
7633503	42.964722	-83.766944	18	PVC	Hewitt Drain	GC Road Comm	★
7636751	42.959700	-83.695300	36	RCP	Sherwood Drain	GC Drain Comm SWM	★
7730753	42.974080	-83.692790	24	RCP	Gibson Drain	GC Road Comm	★

Montrose Twp

Flushing Twp

Lower Flint River Watershed

Clayton Twp

Flushing

Sheridan

Pierson

Coutant

Main

Terrace

Seymour

River

Pierson

Flushing

Flushing

Flushing

Flushing

Flushing

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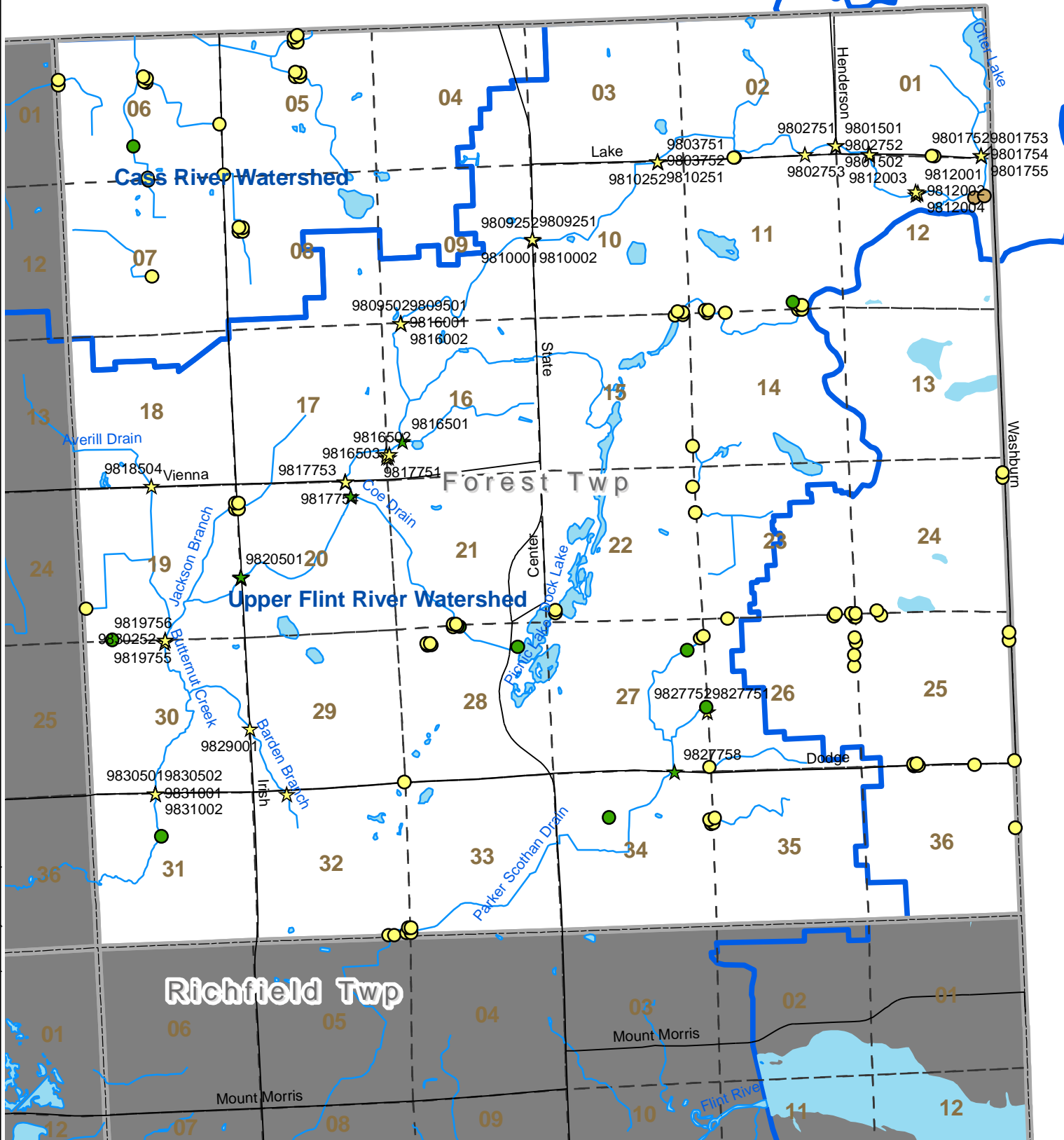
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|---------------|----------------|---------------------|-------------------|
| GC Drain Comm | GC Drain Comm | Roads | Municipal Section |
| GC Road Comm | GC Parks & Rec | Waters of the State | Urbanized Area |
| GC Road Comm | GC Road Comm | Watershed | |

Genesee County NPDES Phase II Permit Application
Flushing Charter Township
 Storm Sewer Discharge Maps



Genesee County
Known Discharge Points in Flushing Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8501101	43.133333	-83.832222	0	Open Channel	Armstrong Drain	GC Road Comm	★
8501201	43.133338	-83.825836	0	Open Channel	Central Drain	GC Road Comm	★
8501203	43.133338	-83.825918	0	Open Channel	Central Drain	GC Road Comm	★
8501753	43.119884	-83.813926	0	Open Channel	Central Drain	GC Road Comm	★
8512239	43.117760	-83.826802	0	Open Channel	Armstrong Drain	GC Road Comm	★
8512780	43.103333	-83.819444	0	Open Channel	Armstrong Drain	GC Road Comm	★
8512947	43.114722	-83.821667	0	Open Channel	Armstrong Drain	GC Drain Comm SWM	★
8513000	43.103260	-83.825286	0	Open Channel	Bowman Drain	GC Road Comm	★
8513001	43.098611	-83.828333	15	Corrigated Steel Pipe	Bowman Drain	GC Drain Comm SWM	★
8513002	43.098333	-83.828611	0	Open Channel	Bowman Drain	GC Drain Comm SWM	★
8513003	43.103244	-83.825007	0	Open Channel	Bowman Drain	GC Road Comm	★
8513497	43.097778	-83.813611	0	Open Channel	Cattail Drain	GC Road Comm	★
8513499	43.097778	-83.813611	0	Open Channel	Cattail Drain	GC Road Comm	★
8513504	43.089444	-83.833333	0	Open Channel	Bowman Drain	GC Road Comm	★
8513505	43.089444	-83.833333	0	Open Channel	Bowman Drain	GC Road Comm	★
8513751	43.089333	-83.820908	0	Open Channel	Flint River	GC Road Comm	★
8513753	43.089333	-83.820908	0	Open Channel	Cornwell Drain	GC Road Comm	★
8513999	43.094231	-83.813765	0	Open Channel	Flint River	GC Road Comm	★
8515754	43.089544	-83.863197	0	Open Channel	Flint River	GC Drain Comm SWM	★
8522504	43.075714	-83.869392	24	Corrigated Steel Pipe	Flint River	GC Road Comm	★
8524001	43.089167	-83.833333	18	Corrigated Steel Pipe	Bowman Drain	GC Road Comm	★
8524002	43.089167	-83.833056	18	Corrigated Steel Pipe	Bowman Drain	GC Road Comm	★
8524501	43.081944	-83.832222	0	Open Channel	Bowman Drain	GC Drain Comm SWM	★
8524504	43.078333	-83.831111	0	Open Channel	Bowman Drain	GC Road Comm	★
8524505	43.078264	-83.831258	0	Open Channel	Bowman Drain	GC Road Comm	★
8524506	43.078056	-83.831111	0	Open Channel	Bowman Drain	GC Road Comm	★
8524516	43.078333	-83.831111	30	Corrigated Plastic	Bowman Drain	GC Road Comm	★
8527254	43.070000	-83.869167	0	Open Channel	Flint River	GC Road Comm	★
8527255	43.072500	-83.871667	24	RCP	Flint River	GC Road Comm	★
8536005	43.057222	-83.824722	24	RCP	Flint River	GC Drain Comm SWM	★
8536251	43.053056	-83.815833	0	Open Channel	Flint River	GC Drain Comm SWM	★
8536252	43.051383	-83.816020	0	Open Channel	Flint River	GC Road Comm	★
8536253	43.051389	-83.814722	0	Open Channel	Flint River	GC Road Comm	★
8515754-07	43.091750	-83.865670	12	Corrigated Steel Pipe	Flint River	GC Drain Comm SWM	★
8522001-11	43.086330	-83.853420	8	VCP	Flint River	GC Road Comm	★
8527254-01	43.069970	-83.870220	0	RCP	Flint River	GC Road Comm	★



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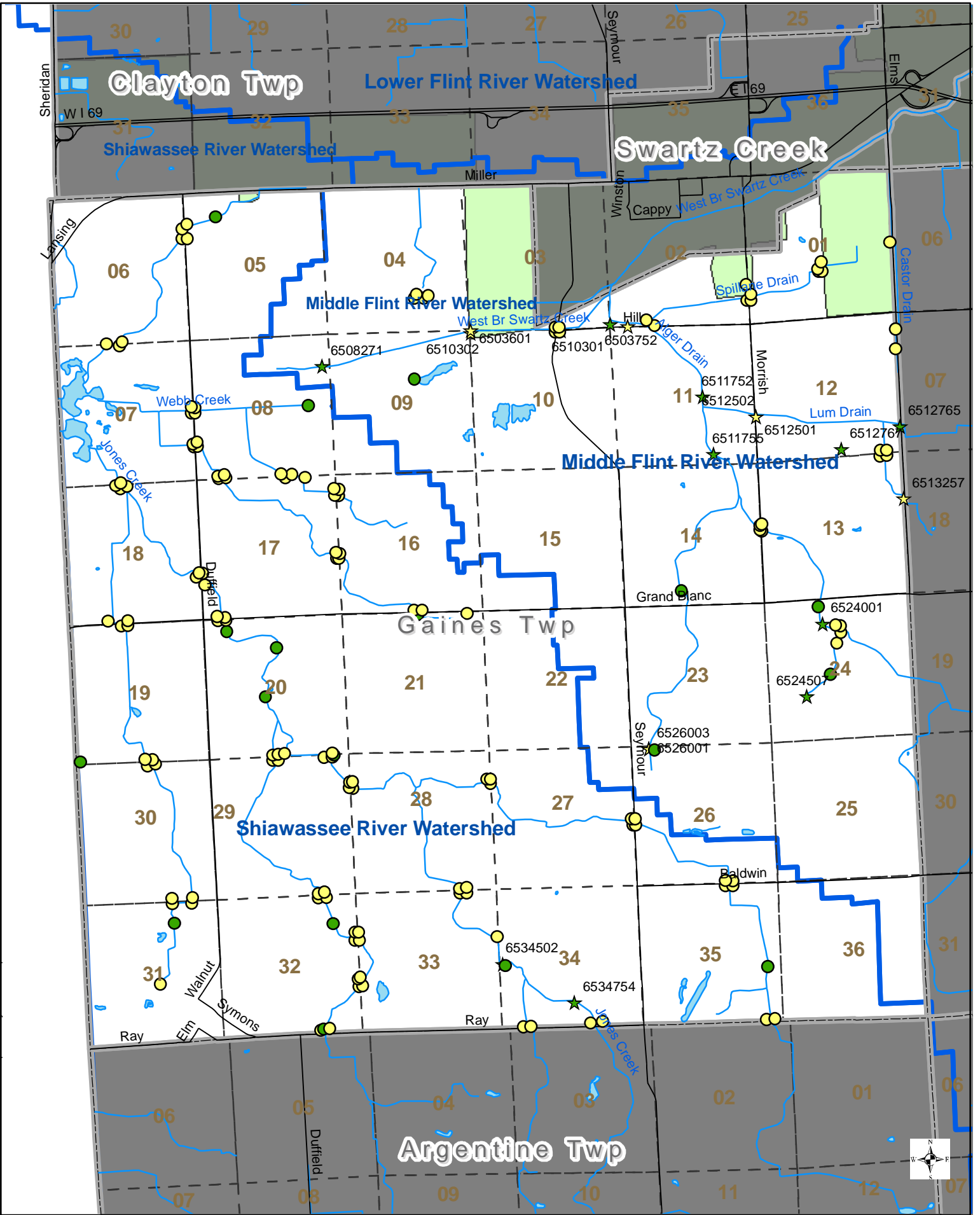
Legend	
★ GC Drain Comm	★ GC Road Comm
● GC Drain Comm	● GC Road Comm
○ Unknown	○ Unknown
— Roads	— Waters of the State
— Municipal	— Watershed
— Section	— Urbanized Area

Genesee County NPDES Phase II Permit Application
Forest Township
 Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in Forest Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
9801501	43.210496	-83.480539	0	Open Channel	Butternut Creek	GC Road Comm	★
9801502	43.210462	-83.480545	0	Open Channel	Butternut Creek	GC Road Comm	★
9801503	43.209551	-83.476261	0	Open Channel	Butternut Creek	GC Road Comm	★
9801504	43.209554	-83.476241	0	Open Channel	Butternut Creek	GC Road Comm	★
9801505	43.209540	-83.476254	0	Open Channel	Butternut Creek	GC Road Comm	★
9801506	43.209541	-83.476239	0	Open Channel	Butternut Creek	GC Road Comm	★
9801752	43.209134	-83.461743	0	Open Channel	Butternut Creek	GC Road Comm	★
9801753	43.209138	-83.461768	0	Open Channel	Butternut Creek	GC Road Comm	★
9801754	43.209133	-83.461733	0	Open Channel	Butternut Creek	GC Road Comm	★
9801755	43.209128	-83.461739	0	Open Channel	Butternut Creek	GC Road Comm	★
9802751	43.210502	-83.480583	0	Open Channel	Butternut Creek	GC Road Comm	★
9802752	43.210470	-83.480580	0	Open Channel	Butternut Creek	GC Road Comm	★
9802753	43.209744	-83.484556	10	RCP	Butternut Creek	GC Road Comm	★
9803751	43.209491	-83.503708	0	Open Channel	Butternut Creek	GC Road Comm	★
9803752	43.209483	-83.503671	0	Open Channel	Butternut Creek	GC Road Comm	★
9809251	43.202500	-83.520200	0	Open Channel	Butternut Creek	GC Road Comm	★
9809252	43.202400	-83.520200	0	Open Channel	Butternut Creek	GC Road Comm	★
9809501	43.194903	-83.537629	0	Unknown	Butternut Creek	GC Road Comm	★
9809502	43.194902	-83.537581	0	Open Channel	Butternut Creek	GC Road Comm	★
9810001	43.202353	-83.520205	0	Unknown	Butternut Creek	GC Road Comm	★
9810002	43.202356	-83.520158	24	Corrugated Steel Pipe	Butternut Creek.	GC Road Comm	★
9810251	43.209459	-83.503722	0	Unknown	Butternut Creek	GC Road Comm	★
9810252	43.209454	-83.503679	0	Unknown	Butternut Creek	GC Road Comm	★
9812001	43.205900	-83.470400	0	Open Channel	Butternut Creek	GC Road Comm	★
9812002	43.205800	-83.470100	0	Open Channel	Butternut Creek	GC Road Comm	★
9812003	43.205600	-83.470400	0	Open Channel	Butternut Creek	GC Road Comm	★
9812004	43.205700	-83.470100	0	Open Channel	Butternut Creek	GC Road Comm	★
9816001	43.194862	-83.537637	0	Unknown	Butternut Creek	GC Road Comm	★
9816002	43.194860	-83.537585	0	Open Channel	Butternut Creek	GC Road Comm	★
9816501	43.183682	-83.537872	0	Open Channel	Butternut Creek	GC Drain Comm SWM	★
9816502	43.182500	-83.539600	0	Open Channel	Butternut Creek	GC Road Comm	★
9816503	43.182200	-83.539700	0	Open Channel	Butternut Creek	GC Road Comm	★
9817751	43.182500	-83.540000	0	Open Channel	Butternut Creek	GC Road Comm	★
9817752	43.182200	-83.540000	0	Open Channel	Butternut Creek	GC Road Comm	★
9817753	43.180049	-83.545455	0	Open Channel	Butternut Creek	GC Road Comm	★
9817754	43.180053	-83.545361	0	Open Channel	Butternut Creek	GC Road Comm	★
9818504	43.180144	-83.570522	2	Unknown	Butternut Creek	GC Road Comm	★
9819751	43.171288	-83.559343	0	Open Channel	Butternut Creek	GC Drain Comm SWM	★
9819752	43.171212	-83.559341	0	Open Channel	Butternut Creek	GC Drain Comm SWM	★
9819755	43.165522	-83.569309	0	Unknown	Butternut Creek	GC Road Comm	★
9819756	43.165522	-83.569309	0	Open Channel	Butternut Creek	GC Road Comm	★
9820251	43.179997	-83.545434	0	Open Channel	Butternut Creek	GC Road Comm	★
9820252	43.180000	-83.545367	0	Open Channel	Butternut Creek	GC Road Comm	★
9820253	43.178610	-83.544730	0	Open Channel	Butternut Creek.	GC Drain Comm SWM	★
9820501	43.171301	-83.559274	0	Open Channel	Butternut Creek	GC Drain Comm SWM	★
9820502	43.171246	-83.559272	0	Open Channel	Butternut Creek.	GC Drain Comm SWM	★
9827751	43.157222	-83.499444	0	Open Channel	Parker-Scothan Drain	GC Road Comm	★
9827752	43.157222	-83.499444	0	Open Channel	Parker-Scothan Drain	GC Road Comm	★
9827758	43.151611	-83.503889	0	Open Channel	Parker-Scothan Drain	GC Drain Comm SWM	★
9829001	43.156894	-83.558675	12	Corrugated Steel Pipe	Barden Branch	GC Road Comm	★
9830251	43.165278	-83.569444	0	Open Channel	Butternut Creek	GC Road Comm	★
9830252	43.165278	-83.569444	0	Open Channel	Butternut Creek.	GC Road Comm	★
9830501	43.150996	-83.571194	0	Open Channel	Butternut Creek	GC Road Comm	★
9830502	43.150996	-83.571174	0	Open Channel	Butternut Creek	GC Road Comm	★
9831001	43.150983	-83.571196	0	Open Channel	Butternut Creek	GC Road Comm	★
9831002	43.150983	-83.571173	0	Open Channel	Butternut Creek	GC Road Comm	★
9832001	43.150572	-83.554172	0	Open Channel	Barden Branch	GC Road Comm	★

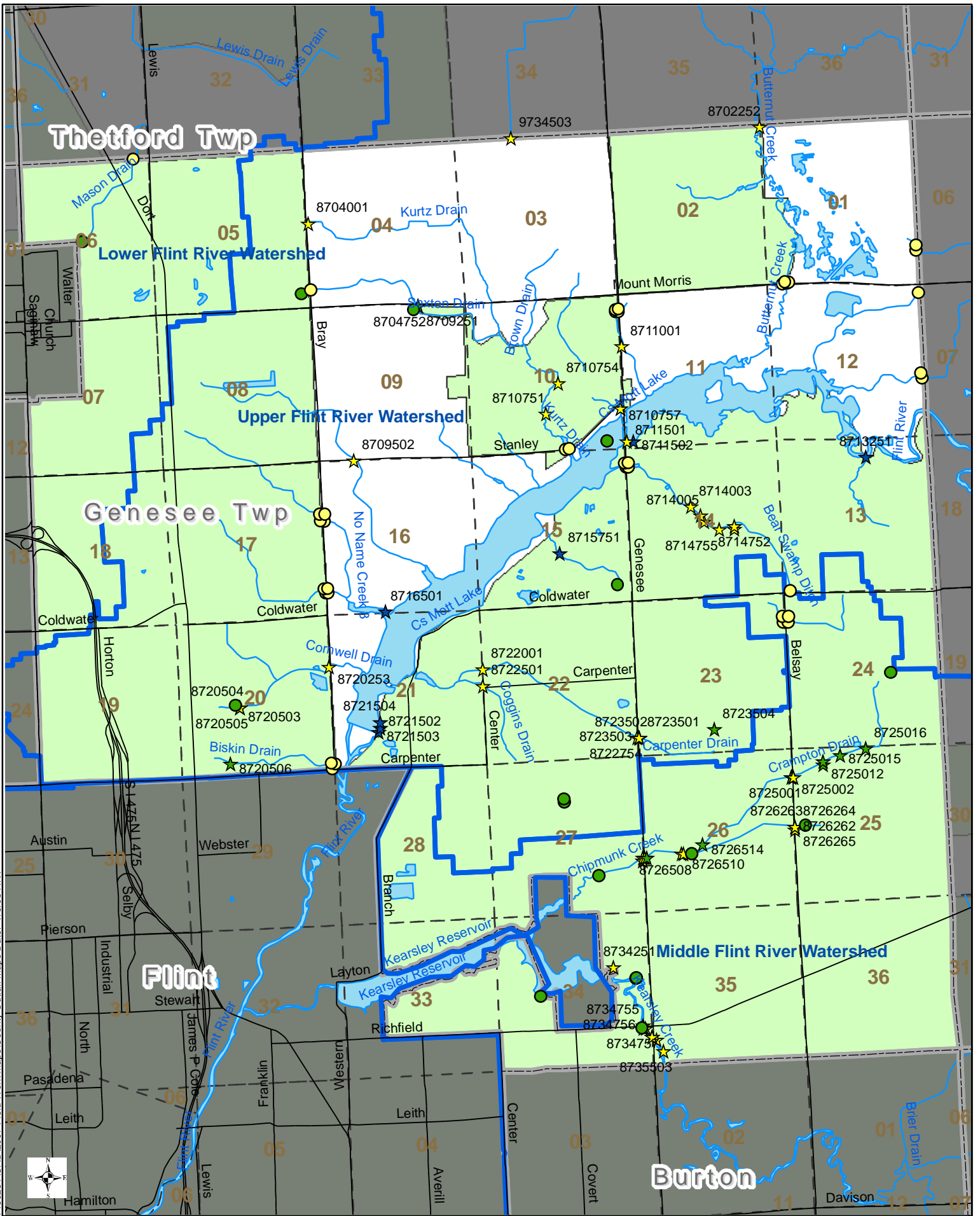


Legend	
★ GC Drain Comm	★ GC Road Comm
● GC Drain Comm	● GC Road Comm
○ Unknown	○ Unknown
— Roads	— Waters of the State
▭ Municipal	▭ Urbanized Area
▭ Section	▭ Watershed

**Genesee County NPDES Phase II
Permit Application
Gaines Township
Storm Sewer Discharge Maps**

Genesee County
Known Discharge Points in Gaines Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6511755	42.928450	-83.837000	18	Corrigated Steel Pipe	Alger Drain	GC Drain Comm SWM	★
6524507	42.903056	-83.824722	18	Corrigated Steel Pipe	Alger Drain	GC Drain Comm SWM	★
6524001	42.910556	-83.822222	0	Open Channel	Alger Drain	GC Drain Comm SWM	★
6511752	42.934444	-83.838333	12	VCP	Alger Drain	GC Drain Comm SWM	★
6502502	42.941944	-83.848611	12	VCP	Alger Drain	GC Road Comm	★
6503752	42.942222	-83.851111	24	RCP	Alger Drain	GC Drain Comm SWM	★
6510302	42.941667	-83.870833	10	VCP	Crapo Drain	GC Road Comm	★
6510301	42.941667	-83.858056	24	Corrigated Steel Pipe	Crapo Drain	GC Road Comm	★
6503601	42.941944	-83.870833	18	Corrigated Steel Pipe	Crapo Drain	GC Road Comm	★
6534754	42.871944	-83.858611	30	RCP	Jones Creek	GC Drain Comm SWM	★
6534502	42.876111	-83.868611	24	Corrigated Steel Pipe	Jones Creek	GC Drain Comm SWM	★
6512765	42.930833	-83.810556	18	Corrigated Steel Pipe	Lum Drain	GC Drain Comm SWM	★
6512501	42.932222	-83.830833	12	Corrigated Steel Pipe	Lum Drain	GC Drain Comm SWM	★
6512502	42.932222	-83.830833	0	Open Channel	Lum Drain	GC Road Comm	★
6513257	42.923333	-83.810278	18	Corrigated Steel Pipe	Lum Drain	GC Road Comm	★
6512767	42.928611	-83.818889	12	Corrigated Steel Pipe	Lum Drain	GC Drain Comm SWM	★
6526003	42.898056	-83.847222	12	PVC	Sloccum	GC Road Comm	★
6526001	42.898056	-83.847222	12	PVC	Sloccum	GC Drain Comm SWM	★
6508271	42.938611	-83.891944	12	VCP	Swartz Creek	GC Drain Comm SWM	★



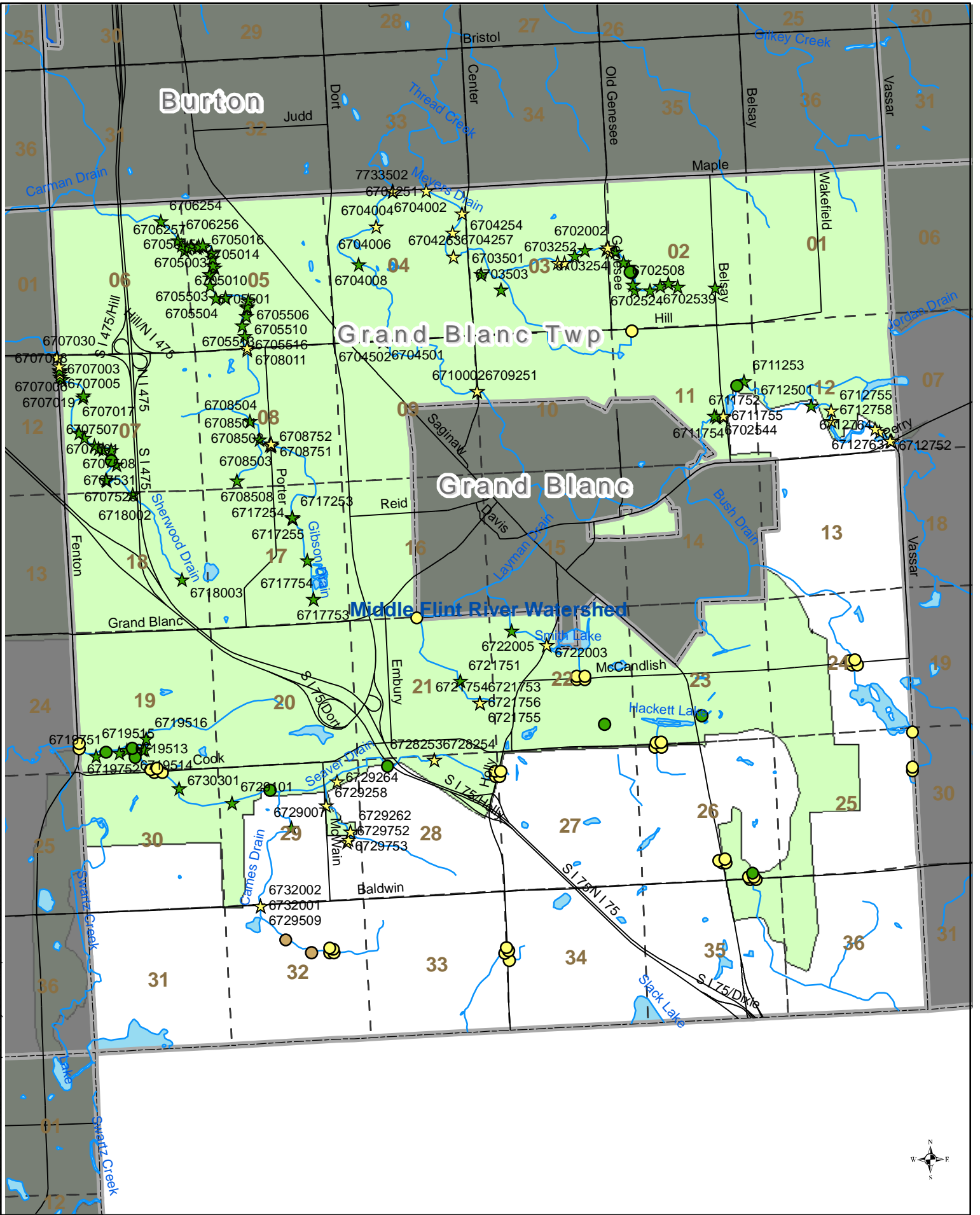
Legend	
● GC Drain Comm	★ Known Discharge Points
● GC Road Comm	★ GC Drain Comm
★ GC Road Comm	★ GC Parks & Rec
★ GC Road Comm	Roads
Watershed	Municipal
Urbanized Area	Section
Waters of the State	

Genesee County NPDES Phase II Permit Application
Genesee Charter Township
 Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in Genesee Charter Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8702252	43.135969	-83.598889	0	Open Channel	Butternut Creek	GC Road Comm	★
8704001	43.128056	-83.657500	0	Open Channel	Kurtz Drain	GC Road Comm	★
8704752	43.120000	-83.643611	36	Corrugated Steel Pipe	Saxton Drain	GC Road Comm	★
8709251	43.120000	-83.643611	15	RCP	Saxton Drain	GC Drain Comm SWM	★
8709502	43.105550	-83.652461	24	PVC	Stanley-Bray Rd Drain	GC Road Comm	★
8710751	43.109444	-83.627500	24	Corrugated Steel Pipe	Kurtz Drain	GC Road Comm	★
8710754	43.112280	-83.625820	24	PVC	Kurtz Drain	GC Road Comm	★
8710757	43.109730	-83.617880	18	RCP	Heath Drain	GC Road Comm	★
8710758	43.109730	-83.617880	36	RCP	Heath Drain	GC Drain Comm SWM	★
8711001	43.115620	-83.617470	12	Corrugated Steel Pipe	Green Arbor Drain	GC Road Comm	★
8711501	43.106610	-83.617150	24	Corrugated Steel Pipe	Mott Lake	GC Road Comm	★
8711502	43.106580	-83.616340	8	RCP	Mott Lake	GC Parks & Rec	★
8713251	43.104494	-83.586405	0	Open Channel	Flint River	GC Parks & Rec	★
8714003	43.100278	-83.609167	10	PVC	Bear Swamp Drain	GC Road Comm	★
8714005	43.099410	-83.607940	15	RCP	Bear Swamp Drain	GC Road Comm	★
8714008	43.098817	-83.607486	15	PVC	Bear Swamp Drain	GC Road Comm	★
8714752	43.098333	-83.603611	15	Corrugated Steel Pipe	Bear Swamp Drain	GC Road Comm	★
8714753	43.098056	-83.603611	36	RCP	Bear Swamp Drain	GC Road Comm	★
8714755	43.098056	-83.605556	30	RCP	Bear Swamp Drain	GC Road Comm	★
8715751	43.096233	-83.626239	0	Open Channel	Hiller drain	GC Parks & Rec	★
8716501	43.091180	-83.648910	8	PVC	No Name Creek	GC Parks & Rec	★
8720253	43.086111	-83.656389	24	Corrugated Steel Pipe	Cornwell Drain	GC Road Comm	★
8720503	43.082500	-83.668050	30	RCP	Cornwell Drain	GC Road Comm	★
8720504	43.082500	-83.668050	12	RCP	Cornwell Drain	GC Road Comm	★
8720505	43.082500	-83.668056	30	RCP	Cornwell Drain	GC Road Comm	★
8720506	43.077222	-83.669444	36	RCP	Biskin Drain	GC Drain Comm SWM	★
8721502	43.080180	-83.650040	6	PVC	Mott Lake	GC Parks & Rec	★
8721503	43.079830	-83.650260	6	PVC	Mott Lake	GC Parks & Rec	★
8721504	43.080750	-83.649980	4	PVC	Mott Lake	GC Parks & Rec	★
8722001	43.085480	-83.636590	0	Open Channel	Carpenter Drain	GC Road Comm	★
8722501	43.083889	-83.636667	15	Corrugated Steel Pipe	Coggins Drain	GC Road Comm	★
8722754	43.078580	-83.616960	10	Corrugated Steel Pipe	Carpenter Drain	GC Road Comm	★
8723501	43.078590	-83.616690	10	Corrugated Steel Pipe	Carpenter Drain	GC Road Comm	★
8723502	43.078590	-83.616690	15	Corrugated Steel Pipe	Carpenter Drain	GC Road Comm	★
8723503	43.078540	-83.616630	24	RCP	Carpenter Drain	GC Road Comm	★
8723504	43.079167	-83.606944	24	RCP	Carpenter Drain	GC Drain Comm SWM	★
8725001	43.074444	-83.596944	0	Open Channel	Crampton Drain	GC Road Comm	★
8725002	43.074444	-83.596944	0	Open Channel	Crampton Drain	GC Road Comm	★
8725011	43.075556	-83.593056	24	Corrugated Plastic	Crampton Drain	GC Drain Comm SWM	★
8725012	43.075833	-83.593056	0	Open Channel	Crampton Drain	GC Drain Comm SWM	★
8725015	43.076389	-83.590833	30	Corrugated Steel Pipe	Crampton Drain	GC Drain Comm SWM	★
8725016	43.076944	-83.587500	0	Open Channel	Crampton Drain	GC Drain Comm SWM	★
8726257	43.074444	-83.597222	24	Corrugated Steel Pipe	Crampton Drain	GC Road Comm	★
8726258	43.074444	-83.597222	12	Corrugated Steel Pipe	Crampton Drain	GC Drain Comm SWM	★
8726262	43.069722	-83.596944	12	Corrugated Steel Pipe	Crampton Drain Ext	GC Road Comm	★
8726263	43.069722	-83.596944	0	Open Channel	Crampton Drain Ext	GC Road Comm	★
8726264	43.069722	-83.596944	32	Poured In Place	Crampton Drain Ext	GC Road Comm	★
8726265	43.069444	-83.596944	12	Poured In Place	Crampton Drain Ext	GC Road Comm	★
8726501	43.067222	-83.616111	18	Corrugated Steel Pipe	Crampton Drain	GC Drain Comm SWM	★
8726503	43.066944	-83.616667	24	RCP	Crampton Drain	GC Road Comm	★
8726508	43.067500	-83.611667	0	Open Channel	Crampton Drain	GC Road Comm	★
8726510	43.067500	-83.611389	12	RCP	Crampton Drain	GC Road Comm	★
8726514	43.068333	-83.608889	0	Open Channel	Crampton Drain	GC Drain Comm SWM	★
8727759	43.067222	-83.616389	42	Corrugated Steel Pipe	Crampton Drain	GC Road Comm	★
8727760	43.067222	-83.616667	12	Corrugated Steel Pipe	Crampton Drain	GC Road Comm	★
8727761	43.066944	-83.616667	18	Corrugated Steel Pipe	Crampton Drain	GC Road Comm	★
8734251	43.056944	-83.620833	0	Open Channel	Kearsley Creek	GC Road Comm	★
8734755	43.051389	-83.617222	24	RCP	Kearsley Creek	GC Road Comm	★
8734756	43.051111	-83.617222	18	Corrugated Steel Pipe	Kearsley Creek	GC Road Comm	★
8734757	43.051111	-83.616944	18	Poured In Place	Kearsley Creek	GC Road Comm	★
8734760	43.050278	-83.616111	24	RCP	Kearsley Creek	GC Road Comm	★
8734761	43.050278	-83.616111	12	Corrugated Steel Pipe	Kearsley Creek	GC Road Comm	★
8735502	43.050000	-83.615556	18	Corrugated Steel Pipe	Kearsley Creek	GC Road Comm	★
8735503	43.048889	-83.614722	12	PVC	Kearsley Creek	GC Road Comm	★
9734503	43.135586	-83.631008	0	Open Channel	Wager Drain	GC Road Comm	★



Legend	
★ GC Drain Comm	★ GC Road Comm
● GC Drain Comm	● Unknown
— Roads	— Waters of the State
— Municipal	— Section
■ Urbanized Area	■ Watershed

Genesee County NPDES Phase II Permit Application
Grand Blanc Township
 Storm Sewer Discharge Maps

Genesee County
Known Discharge Points in Grand Blanc Township

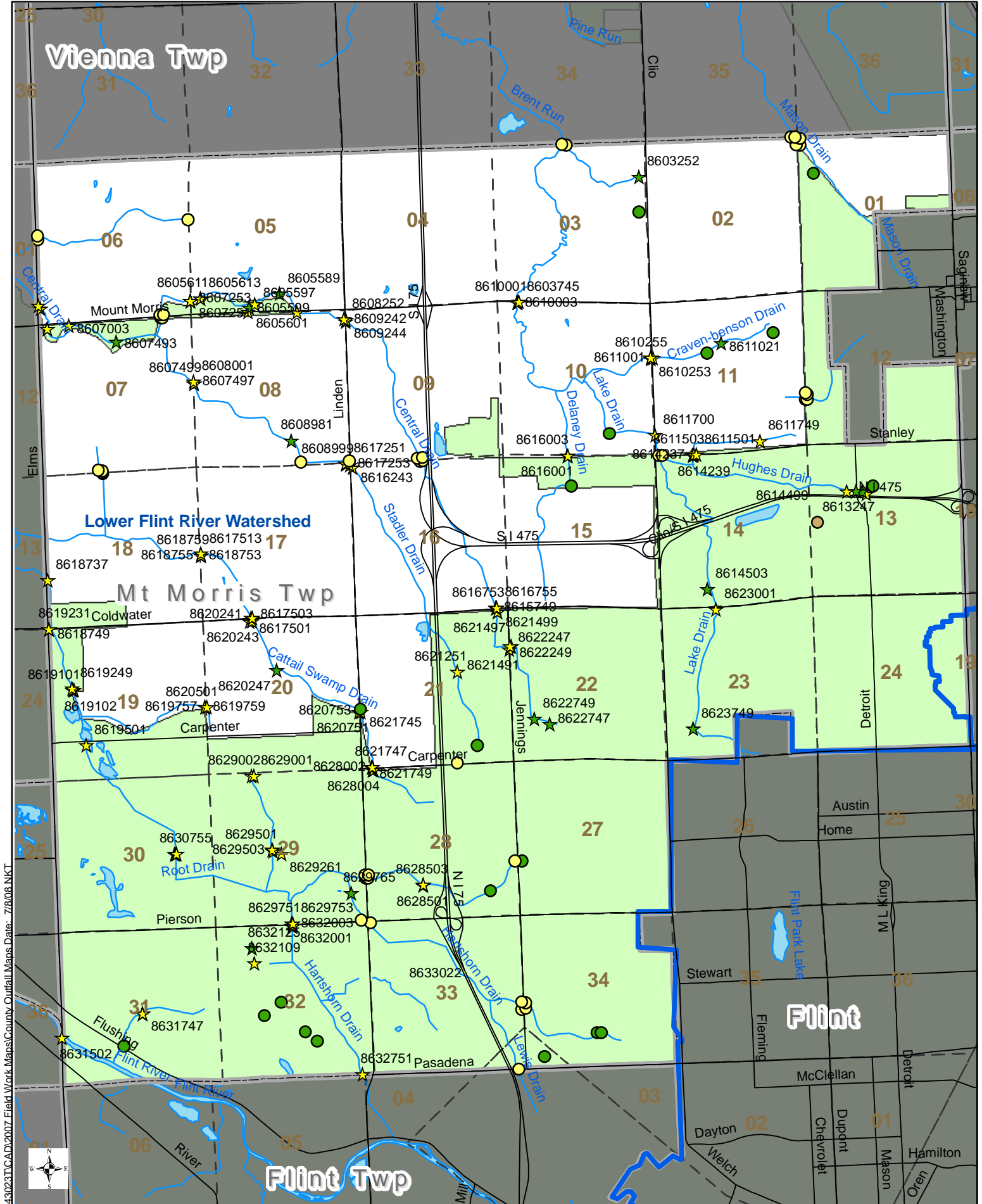
ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6702001	42.953333	-83.613056	0	Open Channel	Meyers Drain	GC Road Comm	★
6702002	42.953831	-83.613319	0	Open Channel	Meyers Drain	GC Road Comm	★
6702503	42.953333	-83.612222	30	RCP	Meyers Drain	GC Drain Comm SWM	★
6702508	42.952214	-83.611086	12	RCP	Meyers Drain	GC Drain Comm SWM	★
6702511	42.951711	-83.610410	40	RCP	Meyers Drain	GC Drain Comm SWM	★
6702524	42.949842	-83.609852	18	RCP	Meyers Drain	GC Drain Comm SWM	★
6702526	42.949245	-83.609680	42	RCP	Meyers Drain	GC Drain Comm SWM	★
6702530	42.949191	-83.607460	30	RCP	Meyers Drain	GC Drain Comm SWM	★
6702535	42.949622	-83.606000	10	RCP	Meyers Drain	GC Drain Comm SWM	★
6702539	42.949900	-83.604800	36	RCP	Meyers Drain	GC Drain Comm SWM	★
6702541	42.949500	-83.603500	0	Open Channel	Meyers Drain	GC Drain Comm SWM	★
6702544	42.935803	-83.598564	30	Corrugated Steel Pipe	Meyers Drain	GC Drain Comm SWM	★
6702546	42.949300	-83.598200	48	RCP	Meyers Drain	GC Drain Comm SWM	★
6703251	42.953053	-83.618014	36	RCP	Meyers Drain	GC Drain Comm SWM	★
6703252	42.953586	-83.616558	18	RCP	Meyers Drain	GC Drain Comm SWM	★
6703254	42.953589	-83.613556	12	Corrugated Steel Pipe	Meyers Drain	GC Road Comm	★
6703501	42.951389	-83.631389	36	RCP	Meyers Drain	GC Drain Comm SWM	★
6703503	42.949722	-83.628611	36	RCP	Tributary of Meyers Drain	GC Drain Comm SWM	★
6703752	42.952361	-83.620500	8	Corrugated Steel Pipe	Meyers Drain	GC Road Comm	★
6703753	42.952344	-83.619464	24	Corrugated Steel Pipe	Meyers Drain	GC Road Comm	★
6704002	42.960308	-83.643653	0	Unknown	Thread Creek Drain	GC Road Comm	★
6704004	42.956667	-83.646111	36	RCP	Thread Creek Drain	GC Road Comm	★
6704008	42.952790	-83.648750	30	RCP	Thread Creek Drain	GC Drain Comm SWM	★
6704251	42.960278	-83.638889	24	Corrugated Steel Pipe	Meyers Drain	GC Road Comm	★
6704254	42.957778	-83.633889	18	RCP	Meyers Drain	GC Road Comm	★
6704257	42.955833	-83.635278	12	RCP	Meyers Drain	GC Road Comm	★
6704263	42.953333	-83.635278	18	Corrugated Steel Pipe	Meyers Drain	GC Road Comm	★
6704501	42.944728	-83.645598	0	Unknown	Thread Creek Drain	GC Road Comm	★
6704502	42.944721	-83.645544	0	Unknown	Thread Creek Drain	GC Road Comm	★
6705003	42.955150	-83.672460	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705004	42.955010	-83.671690	15	RCP	Gibson Drain	GC Drain Comm SWM	★
6705005	42.954410	-83.669630	12	RCP	Gibson Drain	GC Drain Comm SWM	★
6705007	42.953880	-83.669510	28	RCP	Gibson Drain	GC Drain Comm SWM	★
6705010	42.953140	-83.669490	15	RCP	Gibson Drain	GC Drain Comm SWM	★
6705013	42.955000	-83.673080	24	RCP	Gibson Drain	GC Drain Comm SWM	★
6705014	42.955160	-83.671430	15	RCP	Gibson Drain	GC Drain Comm SWM	★
6705015	42.955080	-83.670730	12	RCP	Gibson Drain	GC Drain Comm SWM	★
6705016	42.955260	-83.670830	24	RCP	Gibson Drain	GC Drain Comm SWM	★
6705017	42.952860	-83.669250	12	RCP	Gibson Drain	GC Drain Comm SWM	★
6705018	42.952210	-83.670000	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705019	42.952210	-83.670000	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705501	42.951020	-83.670000	15	RCP	Gibson Drain	GC Drain Comm SWM	★
6705503	42.949670	-83.669190	24	Unknown	Gibson Drain	GC Drain Comm SWM	★
6705504	42.949690	-83.667830	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705506	42.949350	-83.664600	24	RCP	Gibson Drain	GC Drain Comm SWM	★
6705508	42.948730	-83.664800	30	RCP	Gibson Drain	GC Drain Comm SWM	★
6705509	42.948610	-83.664870	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705510	42.947710	-83.664940	15	RCP	Gibson Drain	GC Drain Comm SWM	★
6705513	42.946750	-83.665570	15	Unknown	Gibson Drain	GC Drain Comm SWM	★
6705514	42.945630	-83.665280	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6705516	42.944420	-83.664980	12	RCP	Gibson Drain	GC Road Comm	★
6706254	42.957860	-83.676690	24	RCP	Gibson Drain	GC Drain Comm SWM	★
6706256	42.955820	-83.674380	99	RCP	Gibson Drain	GC Drain Comm SWM	★
6706257	42.955295	-83.673838	27	Unknown	Gibson Drain	GC Drain Comm SWM	★
6706258	42.954730	-83.673490	18	Unknown	Gibson Drain	GC Drain Comm SWM	★
6707003	42.943020	-83.691750	12	Corrugated Steel Pipe	Sherwood Drain	GC Road Comm	★
6707005	42.942630	-83.691740	36	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707006	42.942500	-83.691667	12	Corrugated Steel Pipe	Sherwood Drain	GC Road Comm	★
6707008	42.942222	-83.691667	12	Corrugated Steel Pipe	Sherwood Drain	GC Road Comm	★
6707009	42.941944	-83.691667	30	Corrugated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6707010	42.941667	-83.691389	10	Corrugated Steel Pipe	Sherwood Drain	GC Road Comm	★
6707011	42.941667	-83.691389	15	RCP	Sherwood Drain	GC Drain Comm SWM	★

Known Discharge Points, Genesee County in Grand Blanc Twp, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6707017	42.939890	-83.688390	24	Corrugated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6707019	42.939690	-83.688510	24	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707030	42.944000	-83.692000	36	Metal	Sherwood Drain	GC Road Comm	★
6707501	42.936000	-83.689200	36	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707502	42.935480	-83.688430	12	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707507	42.934670	-83.687040	18	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707508	42.934360	-83.686480	12	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707510	42.934210	-83.685860	12	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707513	42.934120	-83.684670	18	RCP	Sherwood Drain	GC Drain Comm SWM	★
6707527	42.931060	-83.685540	24	Corrugated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6707528	42.930960	-83.685420	12	Corrugated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6707531	42.932600	-83.684000	12	RCP	Sherwood Drain	GC Drain Comm SWM	★
6708011	42.944190	-83.664980	9999	Unknown	Gibson Drain	GC Road Comm	★
6708501	42.934820	-83.663590	99	Open Channel	Gibson Drain	GC Drain Comm SWM	★
6708502	42.934090	-83.661940	12	Corrugated Steel Pipe	Gibson Drain	GC Road Comm	★
6708503	42.934190	-83.662190	12	Corrugated Steel Pipe	Gibson Drain	GC Road Comm	★
6708504	42.936740	-83.664850	36	RCP	Gibson Drain	GC Drain Comm SWM	★
6708508	42.930560	-83.666940	36	RCP	Reid Rd Branch Drain	GC Drain Comm SWM	★
6708751	42.934210	-83.661900	12	Corrugated Steel Pipe	Gibson Drain	GC Road Comm	★
6708752	42.934340	-83.661940	12	Corrugated Steel Pipe	Gibson Drain	GC Road Comm	★
6709002	42.944683	-83.645555	0	Unknown	Thread Creek Drain	GC Road Comm	★
6709251	42.939210	-83.632470	8	PVC	Thread Creek Drain	GC Road Comm	★
6710002	42.939196	-83.632451	0	Unknown	Thread Creek Drain	GC Road Comm	★
6711253	42.939444	-83.594444	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★
6711752	42.935910	-83.598810	18	RCP	Thread Creek Drain	GC Drain Comm SWM	★
6711754	42.935750	-83.597510	8	Corrugated Steel Pipe	Thread Creek Drain	GC Road Comm	★
6711755	42.935870	-83.597560	0	Open Channel	Thread Creek Drain	GC Road Comm	★
6712501	42.936667	-83.585000	0	Open Channel	Thread Creek Drain	GC Drain Comm SWM	★
6712751	42.932733	-83.573903	6	PVC	Thread Creek Drain	GC Road Comm	★
6712752	42.932792	-83.573944	10	RCP	Thread Creek Drain	GC Road Comm	★
6712753	42.932738	-83.573795	0	Unknown	Thread Creek Drain	GC Road Comm	★
6712754	42.932752	-83.573748	0	Unknown	Thread Creek Drain	GC Road Comm	★
6712755	42.936100	-83.582200	18	RCP	Thread Creek Drain	GC Road Comm	★
6712758	42.935000	-83.582222	15	RCP	Thread Creek Drain	GC Road Comm	★
6712763	42.934056	-83.576022	18	RCP	Thread Creek Drain	GC Road Comm	★
6712764	42.933739	-83.575417	12	RCP	Thread Creek Drain	GC Road Comm	★
6717253	42.926590	-83.659220	36	RCP	Gibson Drain	GC Drain Comm SWM	★
6717253-01	42.922027	-83.657225	36	RCP	Gibson Drain	GC Drain Comm SWM	★
6717254	42.926460	-83.659230	99	Open Channel	Gibson Drain	GC Road Comm	★
6717255	42.926460	-83.659140	99	Open Channel	Gibson Drain	GC Road Comm	★
6717753	42.917970	-83.656550	24	RCP	Gibson Drain	GC Drain Comm SWM	★
6717754	42.917970	-83.656550	18	RCP	Gibson Drain	GC Drain Comm SWM	★
6718001	42.929450	-83.681820	15	RCP	Sherwood Drain	GC Drain Comm SWM	★
6718003	42.920400	-83.675130	12	RCP	Sherwood Drain	GC Drain Comm SWM	★
6719513	42.902778	-83.683611	12	Corrugated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6719514	42.902778	-83.681389	12	Corrugated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6719515	42.902778	-83.681111	12	Corrugated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6719516	42.903889	-83.680833	12	RCP	Seaver Drain	GC Drain Comm SWM	★
6719751	42.902222	-83.688056	12	RCP	Seaver Drain	GC Drain Comm SWM	★
6719752	42.902500	-83.684722	18	Corrugated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6721751	42.909000	-83.636000	18	RCP	Thread Creek Drain	GC Drain Comm SWM	★
6721753	42.906667	-83.633300	0	Open Channel	Layman Drain	GC Road Comm	★
6721754	42.906667	-83.633330	0	Open Channel	Layman Drain	GC Road Comm	★
6721755	42.906667	-83.633333	0	Open Channel	Layman Drain	GC Road Comm	★
6721756	42.906667	-83.633333	0	Open Channel	Layman Drain	GC Road Comm	★
6722003	42.912500	-83.623611	30	Corrugated Steel Pipe	Crosby Drain	GC Road Comm	★
6722004	42.912500	-83.623611	24	Corrugated Steel Pipe	Crosby Drain	GC Road Comm	★
6722005	42.914100	-83.628500	30	Corrugated Steel Pipe	Crosby Drain	GC Drain Comm SWM	★
6728253	42.900833	-83.640000	12	Corrugated Steel Pipe	Seaver Drain	GC Road Comm	★
6728254	42.900833	-83.640000	0	Open Channel	Seaver Drain	GC Road Comm	★
6729007	42.894167	-83.660556	36	RCP	Cames Drain	GC Drain Comm SWM	★
6729101	42.896944	-83.668889	24	Corrugated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6729258	42.896389	-83.655556	12	Corrugated Steel Pipe	Seaver Drain	GC Road Comm	★

Known Discharge Points, Genesee County in Grand Blanc Twp, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6729262	42.893611	-83.652222	0	Open Channel	Seaver Drain	GC Road Comm	★
6729264	42.898889	-83.653889	24	Corrigated Steel Pipe	Seaver Drain	GC Road Comm	★
6729509	42.886111	-83.665278	0	Open Channel	Cames Drain	GC Road Comm	★
6729752	42.892778	-83.652500	20	Corrigated Steel Pipe	Seaver Drain	GC Road Comm	★
6729753	42.892500	-83.652778	18	RCP	Seaver Drain	GC Road Comm	★
6730301	42.898611	-83.676389	12	Corrigated Steel Pipe	Seaver Drain	GC Drain Comm SWM	★
6732001	42.886111	-83.665278	0	Open Channel	Cames Drain	GC Road Comm	★
6732002	42.886111	-83.665278	0	Open Channel	Cames Drain	GC Road Comm	★
7733502	42.960345	-83.643645	0	Unknown	Thread Creek Drain	GC Road Comm	★



FILE NAME: P:\0143023\TICAD\2007 Field Work Maps\County Outfall Maps Date: 7/18/08 NKT



Legend	
● GC Drain Comm	★ GC Drain Comm
● GC Road Comm	★ GC Road Comm
● Unknown	★ Unknown
Watershed	Section
Waters of the State	Urbanized Area
Roads	Municipal

**Genesee County NPDES
Phase II Permit Application
Mt. Morris Charter Township**
Storm Sewer Discharge Maps

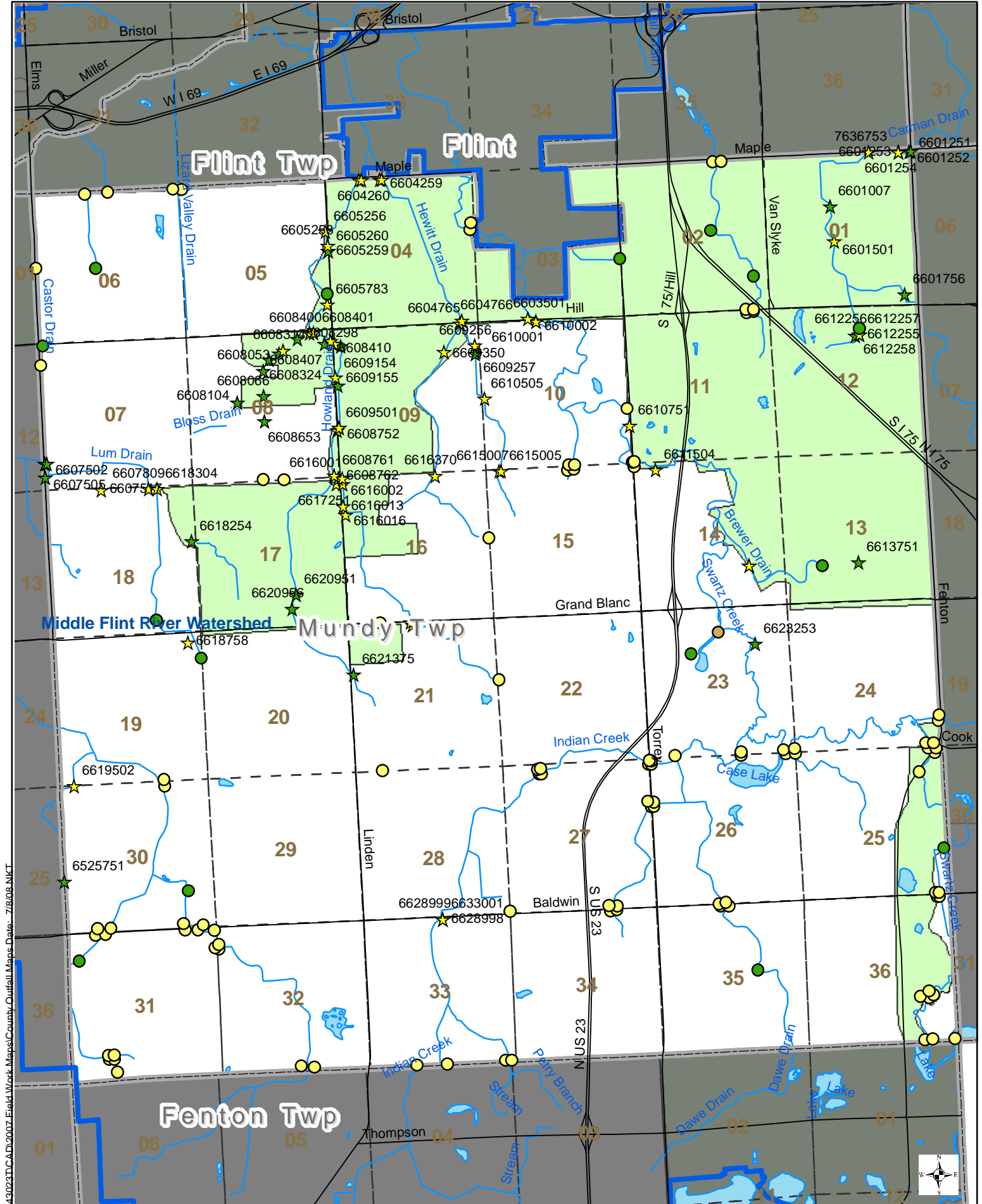
Genesee County

Known Discharge Points in Mt. Morris Charter Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8603252	43.130740	-83.735080	12	RCP	Unnamed Drain	GC Drain Comm SWM	★
8603745	43.119167	-83.751111	0	Open Channel	Brent Run Drain	GC Road Comm	★
8605589	43.120556	-83.782222	12	RCP	Central Drain	GC Drain Comm SWM	★
8605597	43.119609	-83.785445	24	RCP	Central Drain	GC Road Comm	★
8605599	43.119286	-83.786203	18	RCP	Central Drain	GC Drain Comm SWM	★
8605601	43.118889	-83.786389	18	RCP	Central Drain	GC Road Comm	★
8605611	43.120278	-83.792500	0	Open Channel	Central Drain	GC Road Comm	★
8605613	43.120278	-83.792500	0	Open Channel	Central Drain	GC Road Comm	★
8606501	43.120000	-83.813611	0	Open Channel	Central Drain	GC Road Comm	★
8606503	43.119722	-83.813333	0	Open Channel	Central Drain	GC Road Comm	★
8606751	43.120100	-83.793800	0	Open Channel	Central Drain	GC Road Comm	★
8606753	43.120100	-83.793800	0	Open Channel	Central Drain	GC Road Comm	★
8606757	43.120100	-83.793800	18	RCP	Central Drain	GC Road Comm	★
8606761	43.120100	-83.793800	0	Open Channel	Central Drain	GC Road Comm	★
8606763	43.120100	-83.793800	0	Open Channel	Central Drain	GC Road Comm	★
8607001	43.117778	-83.812500	18	Corrigated Steel Pipe	Central Drain	GC Road Comm	★
8607002	43.117778	-83.812500	0	Open Channel	Central Drain	GC Road Comm	★
8607003	43.118056	-83.809722	36	Corrigated Steel Pipe	Central Drain	GC Road Comm	★
8607251	43.120100	-83.793800	0	Open Channel	Central Drain	GC Road Comm	★
8607253	43.120100	-83.793800	24	Open Channel	Central Drain	GC Road Comm	★
8607493	43.116389	-83.803611	0	Open Channel	Central Drain	GC Drain Comm SWM	★
8607497	43.112222	-83.793611	0	Open Channel	Central Drain	GC Road Comm	★
8607499	43.112222	-83.793611	0	Open Channel	Central Drain	GC Road Comm	★
8608001	43.112418	-83.793685	18	Corrigated Steel Pipe	Stadler Drain	GC Road Comm	★
8608251	43.118739	-83.780030	0	Open Channel	Central Drain	GC Road Comm	★
8608252	43.117957	-83.773944	12	Corrigated Steel Pipe	Central Drain	GC Road Comm	★
8608981	43.106532	-83.781190	24	Corrigated Steel Pipe	Sadler Drain	GC Drain Comm SWM	★
8608999	43.104167	-83.774167	0	Open Channel	Stadler Drain	GC Road Comm	★
8609242	43.117873	-83.773688	10	Corrigated Steel Pipe	Central Drain	GC Road Comm	★
8609244	43.117743	-83.773700	10	Corrigated Steel Pipe	Central Drain	GC Road Comm	★
8610001	43.119100	-83.751300	0	Open Channel	Brent Run Drain	GC Road Comm	★
8610003	43.119100	-83.751400	0	Open Channel	Brent Run Drain	GC Road Comm	★
8610253	43.113500	-83.734200	18	RCP	Craven Benson Drain	GC Road Comm	★
8610255	43.113500	-83.734200	15	Corrigated Steel Pipe	Calvin Benson Drain	GC Road Comm	★
8610257	43.113400	-83.734200	18	Corrigated Steel Pipe	Calvin Benson Drain	GC Road Comm	★
8611001	43.113475	-83.733884	36	Corrigated Steel Pipe	Craven Benson Drain	GC Road Comm	★
8611021	43.114704	-83.724999	8	Corrigated Plastic	Craven Benson Drain	GC Drain Comm SWM	★
8611501	43.104167	-83.728611	0	Open Channel	Hughe Drain	GC Road Comm	★
8611503	43.104167	-83.728889	0	Open Channel	Hughe Drain	GC Road Comm	★
8611700	43.106111	-83.733889	18	Corrigated Steel Pipe	Lake Drain	GC Road Comm	★
8611749	43.105278	-83.720278	15	Corrigated Steel Pipe	Hughe Drain	GC Road Comm	★
8613101	43.100277	-83.707956	12	RCP	Hughe Drain	GC Drain Comm SWM	★
8613103	43.100240	-83.707196	15	Corrigated Steel Pipe	Hughe Drain	GC Drain Comm SWM	★
8613247	43.100278	-83.709167	60	RCP	Hughe Drain	GC Road Comm	★
8613399	43.100000	-83.706667	60	RCP	Hughe Drain	GC Road Comm	★
8614237	43.104100	-83.729100	0	Open Channel	Hughe Drain	GC Road Comm	★
8614239	43.104100	-83.729000	0	Open Channel	Hughe Drain	GC Road Comm	★
8614503	43.091330	-83.727660	48	RCP	Lake Drain	GC Drain Comm SWM	★
8615749	43.090082	-83.755189	0	Open Channel	Delaney Drain	GC Road Comm	★
8616001	43.104400	-83.745400	0	Open Channel	Delaney Drain	GC Road Comm	★
8616003	43.104400	-83.745300	0	Open Channel	Delaney Drain	GC Road Comm	★
8616243	43.103810	-83.773360	0	Open Channel	Stadler Drain	GC Road Comm	★
8616753	43.090106	-83.755191	0	Open Channel	Central Drain	GC Road Comm	★
8616755	43.090107	-83.755109	0	Open Channel	Central Drain	GC Road Comm	★
8617251	43.104220	-83.774220	0	Open Channel	Stadler Drain	GC Road Comm	★
8617253	43.104060	-83.773710	0	Open Channel	Stadler Drain	GC Road Comm	★
8617501	43.089768	-83.787039	0	Open Channel	Cattail Drain	GC Road Comm	★
8617503	43.089770	-83.786887	0	Open Channel	Cattail Drain	GC Road Comm	★
8617513	43.096046	-83.793303	0	Open Channel	Cattail Drain	GC Road Comm	★
8618737	43.093889	-83.813333	0	Open Channel	Monroe Branch Drain	GC Road Comm	★
8618747	43.089200	-83.813300	18	Corrigated Steel Pipe	Monroe Branch Drain	GC Road Comm	★
8618749	43.089200	-83.813300	12	Corrigated Steel Pipe	Monroe Branch Drain	GC Road Comm	★
8618751	43.095833	-83.793333	0	Open Channel	Cattail Drain	GC Road Comm	★
8618753	43.095833	-83.793333	0	Open Channel	Cattail Drain	GC Road Comm	★
8618755	43.095833	-83.793333	0	Open Channel	Cattail Drain	GC Road Comm	★
8618759	43.095833	-83.793333	6	VCP	Cattail Drain	GC Road Comm	★
8618760	43.095833	-83.793333	18	Corrigated Steel Pipe	Cattail Drain	GC Road Comm	★
8618761	43.095833	-83.793333	18	Corrigated Steel Pipe	Cattail Drain	GC Road Comm	★
8619101	43.083353	-83.810496	0	Open Channel	Root Drain	GC Road Comm	★
8619102	43.083345	-83.810411	0	Open Channel	Root Drain	GC Road Comm	★
8619231	43.089200	-83.813300	12	Corrigated Steel Pipe	Monroe Branch Drain	GC Road Comm	★

Known Discharge Points, Genesee County in Mt. Morris Township, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8619247	43.083333	-83.810278	0	Open Channel	Monroe Branch Drain	GC Road Comm	★
8619249	43.083519	-83.810526	0	Open Channel	Monroe Branch Drain	GC Road Comm	★
8619501	43.078056	-83.808889	0	Open Channel	Root Drain	GC Road Comm	★
8619757	43.081389	-83.793333	0	Open Channel	Root Drain	GC Road Comm	★
8619759	43.081389	-83.793333	0	Open Channel	Root Drain	GC Road Comm	★
8620241	43.089444	-83.787222	0	Open Channel	Cattail Drain	GC Road Comm	★
8620243	43.089444	-83.786944	0	Open Channel	Cattail Drain	GC Road Comm	★
8620247	43.084722	-83.783889	0	Open Channel	Cattail Drain	GC Drain Comm SWM	★
8620501	43.081389	-83.793056	0	Open Channel	Monroe Branch Drain	GC Road Comm	★
8620751	43.080556	-83.773333	0	Open Channel	Cattail Drain	GC Road Comm	★
8620753	43.080556	-83.773333	18	Corrigated Steel Pipe	Cattail Drain	GC Drain Comm SWM	★
8621251	43.084100	-83.760400	15	RCP	Central Drain	GC Road Comm	★
8621491	43.086111	-83.753611	0	Open Channel	Central Drain	GC Road Comm	★
8621497	43.089722	-83.755000	0	Open Channel	Central Drain	GC Road Comm	★
8621499	43.089722	-83.755000	0	Open Channel	Central Drain	GC Road Comm	★
8621745	43.080556	-83.773056	12	Corrigated Steel Pipe	Cattail Drain	GC Road Comm	★
8621747	43.075267	-83.771817	0	Open Channel	Cattail Drain	GC Road Comm	★
8621749	43.075242	-83.771903	0	Open Channel	Cattail Drain	GC Road Comm	★
8622247	43.086400	-83.753500	0	Open Channel	Central Drain	GC Road Comm	★
8622249	43.086389	-83.753333	0	Open Channel	Central Drain	GC Road Comm	★
8622747	43.078889	-83.748611	15	RCP	Central Drain	GC Drain Comm SWM	★
8622749	43.079444	-83.750556	27	RCP	Central Drain	GC Drain Comm SWM	★
8623001	43.089400	-83.726600	15	Corrigated Steel Pipe	Lake Drain	GC Road Comm	★
8623749	43.078100	-83.730000	36	RCP	Lake Drain	GC Drain Comm SWM	★
8628001	43.075000	-83.771700	0	Open Channel	Cattail Drain	GC Road Comm	★
8628002	43.075000	-83.771667	0	Open Channel	Cattail Drain	GC Road Comm	★
8628003	43.075000	-83.771800	0	Open Channel	Cattail Drain	GC Road Comm	★
8628004	43.075000	-83.771667	0	Open Channel	Cattail Drain	GC Road Comm	★
8628501	43.063864	-83.765637	18	RCP	Hartshorn Drain	GC Road Comm	★
8628503	43.063941	-83.765604	12	Corrigated Steel Pipe	Hartshorn Drain	GC Road Comm	★
8629001	43.074722	-83.787222	0	Open Channel	Root Drain	GC Road Comm	★
8629002	43.074722	-83.787500	0	Open Channel	Root Drain	GC Road Comm	★
8629261	43.067222	-83.783889	0	Open Channel	Root Drain	GC Road Comm	★
8629263	43.067500	-83.785000	0	Open Channel	Root Drain	GC Road Comm	★
8629501	43.067636	-83.785073	0	Open Channel	Root Drain	GC Road Comm	★
8629503	43.067630	-83.785073	0	Open Channel	Root Drain	GC Road Comm	★
8629751	43.060563	-83.782793	48	RCP	Hartshorn Drain	GC Road Comm	★
8629753	43.060572	-83.782666	24	RCP	Hartshorn Drain	GC Road Comm	★
8629765	43.063333	-83.775000	10	Corrigated Steel Pipe	Hartshorn Drain	GC Drain Comm SWM	★
8630751	43.067474	-83.797792	0	Open Channel	Root Drain	GC Road Comm	★
8630753	43.067483	-83.797696	0	Open Channel	Root Drain	GC Road Comm	★
8630755	43.067500	-83.797500	0	Open Channel	Root Drain	GC Road Comm	★
8630757	43.067500	-83.797500	0	Open Channel	Root Drain	GC Road Comm	★
8631502	43.050278	-83.813056	0	Open Channel	Flint River	GC Road Comm	★
8631745	43.052348	-83.802482	0	Open Channel	Luce Drain	GC Road Comm	★
8631747	43.052389	-83.802478	12	Corrigated Steel Pipe	Luce Drain	GC Road Comm	★
8631749	43.052387	-83.802489	36	RCP	Luce Drain	GC Road Comm	★
8632001	43.060326	-83.782769	12	RCP	Hartshorn Drain	GC Road Comm	★
8632003	43.060326	-83.782690	12	RCP	Hartshorn Drain	GC Road Comm	★
8632109	43.056892	-83.787812	24	RCP	Hartshorn Drain	GC Road Comm	★
8632125	43.058333	-83.788056	12	PVC	Hartshorn Drain	GC Drain Comm SWM	★
8632751	43.046054	-83.774126	0	Open Channel	Hartshorn Drain	GC Road Comm	★



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Legend	
● GC Drain Comm	★ Known Discharge Points
● GC Road Comm	— Waters of the State
● Unknown	 Watershed
 Roads	 Municipal Section
	 Urbanized Area

**Genesee County NPDES
Phase II Permit Application
Mundy Charter Township
Storm Sewer Discharge Maps**



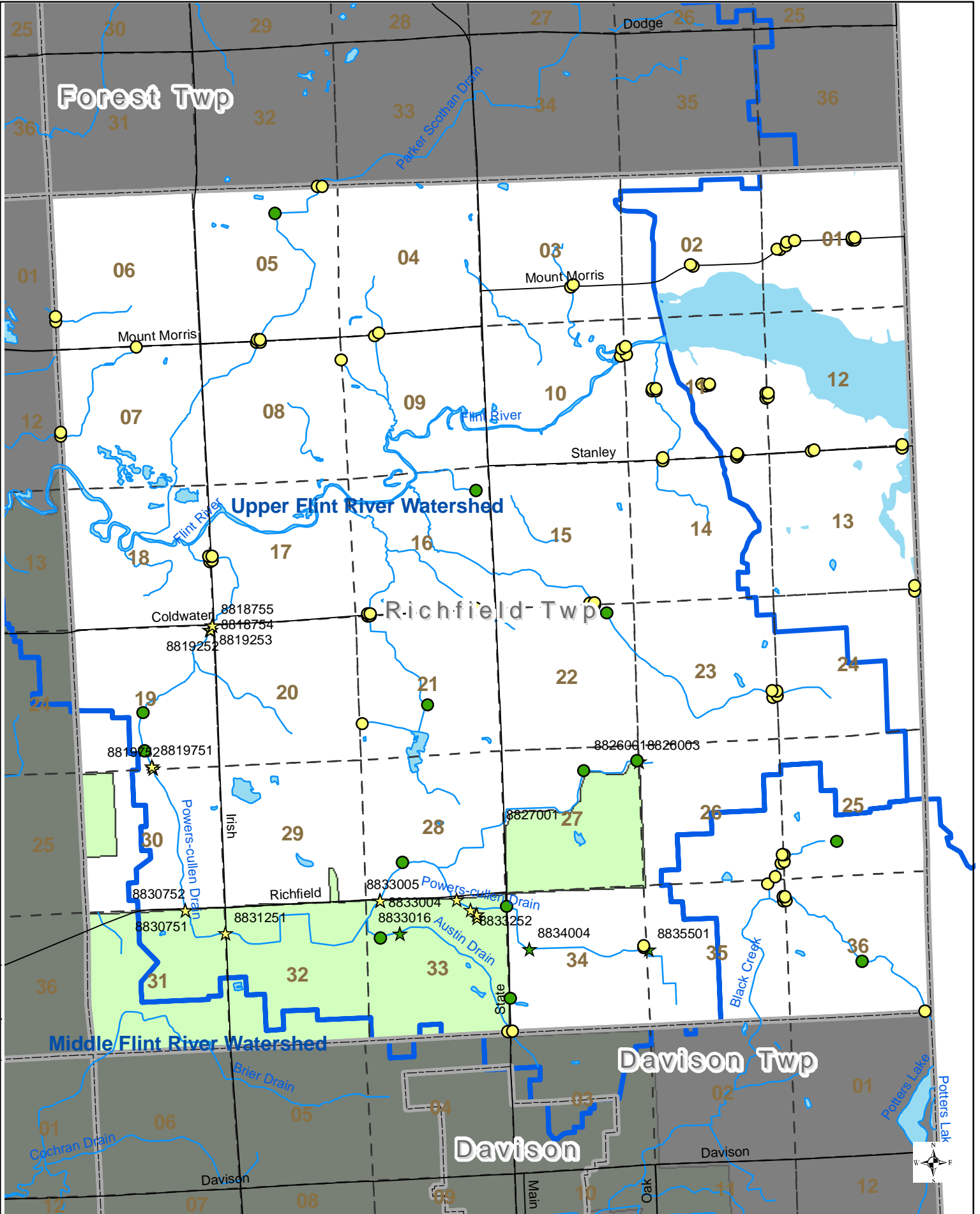
**Genesee County
Known Discharge Points in Mundy Charter Township**

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6512766	42.930833	-83.810278	18	RCP	Lum Drain	GC Drain Comm SWM	★
6525751	42.889444	-83.809167	12	RCP	Alger Drain	GC Drain Comm SWM	★
6601007	42.954167	-83.703611	36	RCP	Sherwood Drain	GC Drain Comm SWM	★
6601251	42.959420	-83.692540	12	Corrigated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6601252	42.959390	-83.692750	36	Corrigated Steel Pipe	Sherwood Drain	GC Drain Comm SWM	★
6601253	42.959380	-83.694160	12	Corrigated Steel Pipe	Sherwood Drain	GC Road Comm	★
6601254	42.959390	-83.694210	15	Corrigated Steel Pipe	Sherwood Drain	GC Road Comm	★
6601501	42.950740	-83.703170	36	RCP	Sherwood Drain	GC Road Comm	★
6601756	42.945278	-83.693889	30	PVC	Sherwood Drain	GC Drain Comm SWM	★
6603501	42.943889	-83.744722	12	Corrigated Steel Pipe	Swartz Creek	GC Road Comm	★
6604259	42.958056	-83.763889	18	Corrigated Steel Pipe	Hewitt Drain	GC Road Comm	★
6604260	42.958056	-83.764167	18	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6604510	42.958056	-83.766944	18	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6604765	42.943611	-83.753889	42	Poured In Place	Hewitt Drain	GC Road Comm	★
6604766	42.943889	-83.753611	30	Poured In Place	Hewitt Drain	GC Road Comm	★
6605256	42.953056	-83.771667	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6605258	42.951667	-83.771389	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6605259	42.951111	-83.771389	24	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6605260	42.951111	-83.771389	15	Corrigated Steel Pipe	Howland Drain	GC Drain Comm SWM	★
6605783	42.945833	-83.771667	30	RCP	Howland Drain	GC Road Comm	★
6607501	42.930833	-83.810278	0	Open Channel	Lum Drain	GC Drain Comm SWM	★
6607502	42.930833	-83.810000	8	PVC	Lum Drain	GC Drain Comm SWM	★
6607505	42.929444	-83.810278	0	Open Channel	Lum Drain	GC Drain Comm SWM	★
6607517	42.928056	-83.802778	42	Corrigated Steel Pipe	Lum Drain	GC Road Comm	★
6607809	42.928056	-83.796389	24	Corrigated Steel Pipe	Lum Drain	GC Road Comm	★
6608053	42.939444	-83.780556	36	RCP	Bloss Drain	GC Drain Comm SWM	★
6608066	42.936944	-83.780556	36	RCP	Bloss Drain	GC Drain Comm SWM	★
6608104	42.936389	-83.784167	48	RCP	Bloss Drain	GC Drain Comm SWM	★
6608298	42.942500	-83.775833	12	RCP	Bloss Drain	GC Drain Comm SWM	★
6608314	42.941389	-83.777778	24	RCP	Bloss Drain	GC Road Comm	★
6608317	42.941111	-83.778333	12	RCP	Bloss Drain	GC Drain Comm SWM	★
6608324	42.940556	-83.779722	18	RCP	Bloss Drain	GC Drain Comm SWM	★
6608400	42.943056	-83.774167	12	RCP	Howland Drain	GC Road Comm	★
6608401	42.943056	-83.773611	18	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6608407	42.941944	-83.772222	30	RCP	Howland Drain	GC Drain Comm SWM	★
6608409	42.941944	-83.771111	30	Poured In Place	Howland Drain	GC Road Comm	★
6608410	42.942222	-83.771389	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6608653	42.934444	-83.780556	36	RCP	Bloss Drain	GC Drain Comm SWM	★
6608751	42.933333	-83.770833	0	Open Channel	Howland Drain	GC Road Comm	★
6608752	42.933611	-83.770556	12	RCP	Howland Drain	GC Road Comm	★
6608761	42.928889	-83.771389	0	Open Channel	Howland Drain	GC Road Comm	★
6608762	42.928611	-83.770833	18	RCP	Howland Drain	GC Road Comm	★
6609150	42.941944	-83.770833	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6609151	42.941944	-83.770833	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
6609153	42.941667	-83.770000	39	RCP	Howland Drain	GC Drain Comm SWM	★
6609154	42.938611	-83.770833	18	VCP	Howland Drain	GC Road Comm	★
6609155	42.937778	-83.770556	36	RCP	Howland Drain	GC Drain Comm SWM	★
6609256	42.941389	-83.751944	12	Corrigated Steel Pipe	Hewitt Drain	GC Road Comm	★
6609257	42.940556	-83.751944	36	RCP	Hewitt Drain	GC Drain Comm SWM	★
6609350	42.940833	-83.756111	36	Corrigated Steel Pipe	McCullough Drain	GC Road Comm	★
6609501	42.933611	-83.770556	12	RCP	Howland Drain	GC Road Comm	★
6610001	42.943611	-83.743611	24	Corrigated Steel Pipe	Swartz Creek	GC Road Comm	★
6610002	42.943611	-83.743611	24	RCP	Swartz Creek	GC Road Comm	★
6610505	42.936111	-83.750833	6	PVC	Hewitt Drain	GC Road Comm	★
6610751	42.933056	-83.731389	36	RCP	Swartz Creek	GC Road Comm	★
6611504	42.928611	-83.728056	0	Open Channel	Swartz Creek	GC Road Comm	★
6612255	42.941420	-83.700150	15	RCP	Branch of Sherwood	GC Road Comm	★
6612256	42.941420	-83.700150	0	Open Channel	Branch of Sherwood	GC Road Comm	★
6612257	42.941420	-83.700150	0	Open Channel	Branch of Sherwood	GC Road Comm	★
6612258	42.941310	-83.700710	15	RCP	Branch of Sherwood	GC Drain Comm SWM	★
6613751	42.918889	-83.701111	30	RCP	Brewer Drain	GC Drain Comm SWM	★
6614752	42.918889	-83.715833	0	Open Channel	Brewer Drain	GC Road Comm	★
6614753	42.918889	-83.715833	0	Open Channel	Brewer Drain	GC Road Comm	★
6615005	42.928889	-83.748889	4	PVC	Hewitt Drain	GC Road Comm	★
6615007	42.928889	-83.749167	12	Corrigated Steel Pipe	Hewitt Drain	GC Road Comm	★
6616001	42.928611	-83.770278	18	Unknown	Howland Drain	GC Road Comm	★
6616002	42.928056	-83.770278	12	RCP	Howland Drain	GC Road Comm	★
6616013	42.925833	-83.770278	12	Poured In Place	Howland Drain	GC Road Comm	★
6616016	42.925000	-83.770000	0	Open Channel	Howland Drain	GC Road Comm	★
6616370	42.928611	-83.757778	12	Corrigated Steel Pipe	McCullough Drain	GC Road Comm	★
6616529	42.914167	-83.761667	12	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★

Known Discharge Points, Genesee County in Mundy Charter Twp, continued

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
6616530	42.913889	-83.761389	0	Open Channel	Howland Drain	GC Road Comm	★
6617251	42.928056	-83.771111	12	RCP	Howland Drain	GC Road Comm	★
6618254	42.922778	-83.790833	12	Poured In Place	Lum Drain	GC Drain Comm SWM	★
6618304	42.928056	-83.795278	0	Open Channel	Lum Drain	GC Road Comm	★
6618758	42.912778	-83.791667	0	Open Channel	Lum Drain	GC Road Comm	★
6619502	42.898889	-83.807500	0	Open Channel	Wendt Drain	GC Road Comm	★
6620951	42.917222	-83.776944	24	RCP	Linden Cook	GC Drain Comm SWM	★
6620956	42.915833	-83.777500	8	PVC	Linden-Cook	GC Drain Comm SWM	★
6621375	42.909167	-83.769444	18	VCP	Linden Cook	GC Drain Comm SWM	★
6623253	42.911111	-83.715278	36	RCP	Swartz Creek	GC Drain Comm SWM	★
6628998	42.884722	-83.758333	0	Open Channel	Indian Creek	GC Road Comm	★
6628999	42.884722	-83.758333	18	Corrigated Steel Pipe	Indian Creek	GC Road Comm	★
6633001	42.884722	-83.758333	0	Open Channel	Indian Creek	GC Road Comm	★
7633509	42.958056	-83.766667	18	Corrigated Steel Pipe	Howland Drain	GC Road Comm	★
7636753	42.959460	-83.698200	15	Open Channel	Sherwood Drain	GC Road Comm	★

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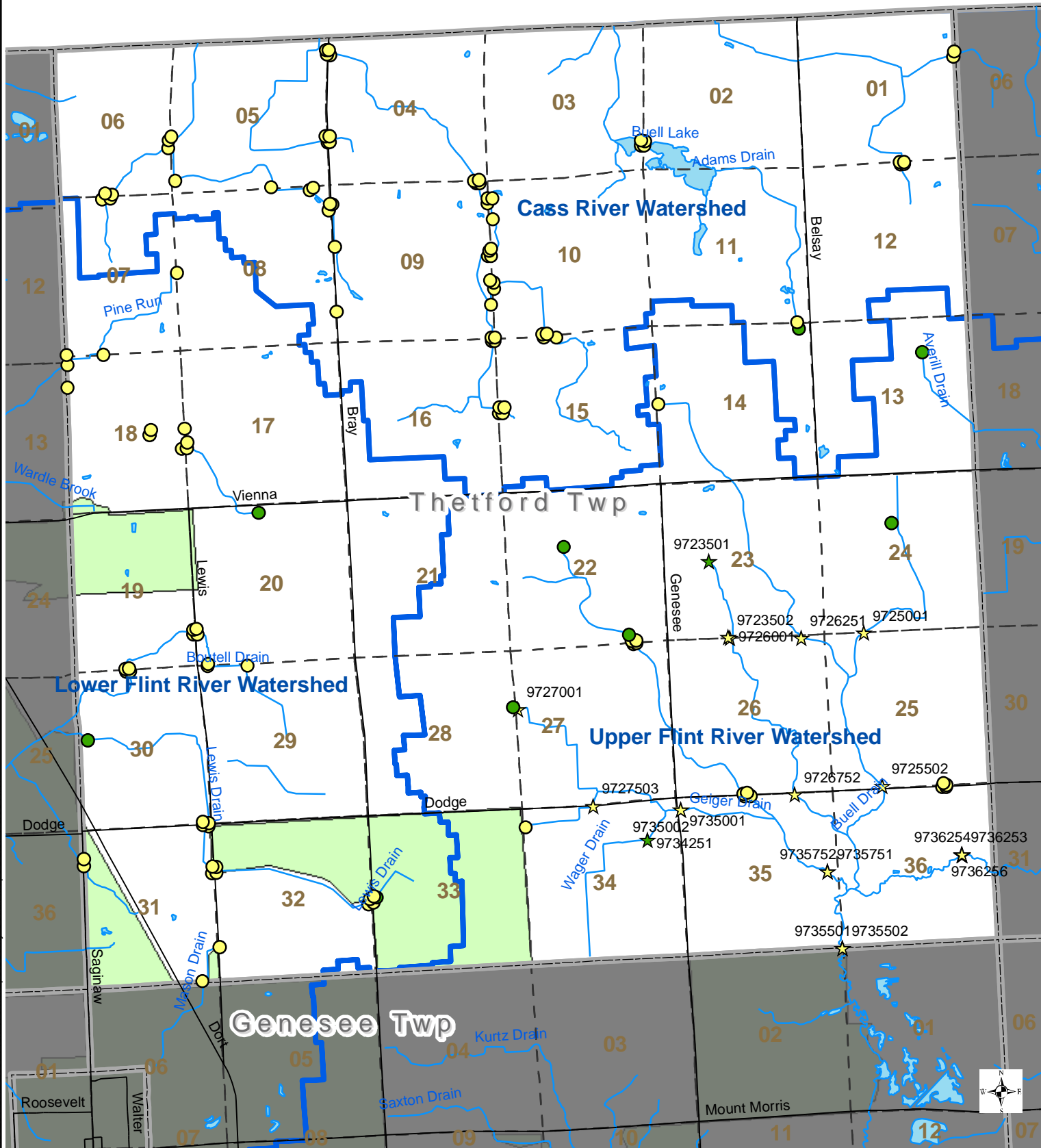


<p>Known Discharge Points</p> <ul style="list-style-type: none"> ★ GC Drain Comm ★ GC Road Comm <p>Categorical Discharges Points</p> <ul style="list-style-type: none"> ● GC Drain Comm 	<p>Legend</p> <ul style="list-style-type: none"> ● GC Road Comm ● Unknown — Roads — Waters of the State — Municipal — Section ■ Urbanized Area ■ Watershed
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**Genesee County NPDES Phase II
Permit Application
Richfield Township
Storm Sewer Discharge Maps**

Genesee County
Known Discharge Points in Richfield Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
8833753	43.052578	-83.519647	0	Open Channel	Austin Drain	MDOT Road	★
8833016	43.059722	-83.533056	30	RCP	Austin Drain	GC Drain Comm SWM	★
8818754	43.091944	-83.558056	15	PVC	Powers Cullen Drain	GC Road Comm	★
8818755	43.091944	-83.558056	0	RCP	Powers Cullen Drain	GC Road Comm	★
8819252	43.091461	-83.558497	0	Open Channel	Powers Cullen Drain	GC Road Comm	★
8819253	43.091461	-83.558300	18	Corrigated Steel Pipe	Powers Cullen Drain	GC Road Comm	★
8819751	43.077647	-83.567111	8	PVC	Powers Cullen Drain	GC Road Comm	★
8819752	43.077444	-83.566983	24	RCP	Powers Cullen Drain	GC Road Comm	★
8826001	43.076667	-83.498889	12	RCP	Powers Cullen Drain	GC Road Comm	★
8826003	43.076667	-83.498889	0	Open Channel	Powers Cullen Drain	GC Road Comm	★
8830751	43.062778	-83.563056	24	Corrigated Steel Pipe	Powers Cullen Drain	GC Road Comm	★
8830752	43.062778	-83.563056	18	Corrigated Steel Pipe	Powers Cullen Drain	GC Road Comm	★
8831251	43.060278	-83.557500	0	Open Channel	Powers Cullen Drain	GC Road Comm	★
8833004	43.063189	-83.535736	12	Corrigated Steel Pipe	Powers Cullen Drain	GC Road Comm	★
8833005	43.063189	-83.535697	18	RCP	Powers Cullen Drain	GC Road Comm	★
8833251	43.063056	-83.525000	24	Corrigated Steel Pipe	Powers Cullen Drain	GC Road Comm	★
8833252	43.061944	-83.523056	12	PVC	Powers Cullen Drain	GC Road Comm	★
8833253	43.061444	-83.522222	12	RCP	Powers Cullen Drain	GC Road Comm	★
8833255	43.061111	-83.522222	30	RCP	Powers Cullen Drain	GC Road Comm	★
8833256	43.061444	-83.522222	12	RCP	Powers Cullen Drain	GC Road Comm	★
8834004	43.057722	-83.515000	36	RCP	Powers Cullen Drain	GC Drain Comm SWM	★
8835501	43.057319	-83.498286	12	VCP	Powers Cullen Drain	GC Drain Comm SWM	★



Legend	
Known Discharge Points	★ GC Road Comm
★ GC Drain Comm	○ GC Road Comm
○ GC Drain Comm	○ Unknown
Categorical Discharge Points	— Roads
● GC Drain Comm	— Waters of the State
	— Municipal
	— Section
	■ Urbanized Area
	■ Watershed

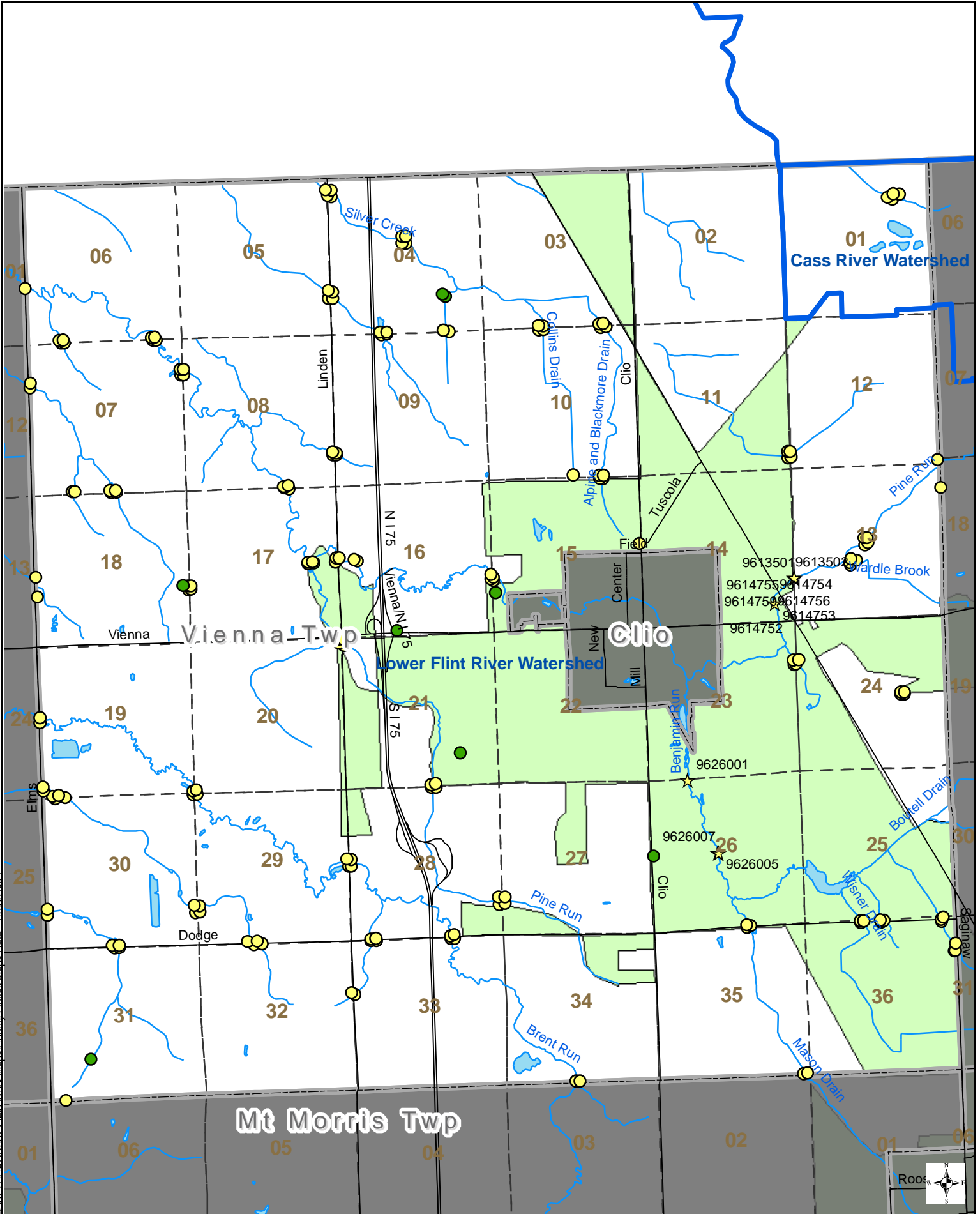
Genesee County NPDES Phase II Permit Application
Thetford Township
 Storm Sewer Discharge Maps

Genesee County

Known Discharge Points in Thetford Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
9723501	43.172356	-83.614464	8	RCP	Drudge Drain	GC Drain Comm SWM	★
9723502	43.165294	-83.612308	0	Open Channel	Drudge Drain	GC Road Comm	★
9725001	43.165319	-83.595136	0	Open Channel	Buell Drain	GC Road Comm	★
9725502	43.151106	-83.593325	0	Open Channel	Buell Drain	GC Road Comm	★
9726001	43.165206	-83.612083	0	Open Channel	Drudge Drain	GC Road Comm	★
9726251	43.165000	-83.603056	0	Open Channel	Buell Drain	GC Road Comm	★
9726752	43.150556	-83.604444	0	Open Channel	Drudge Drain	GC Road Comm	★
9727001	43.159167	-83.639167	0	Open Channel	Geiger Drain	GC Road Comm	★
9727503	43.150000	-83.630000	0	Open Channel	Geiger Drain	GC Road Comm	★
9734251	43.146717	-83.623239	48	Corrigated Steel Pipe	Wager Drain	GC Drain Comm SWM	★
9735001	43.149442	-83.618936	0	Open Channel	Geiger Drain	GC Road Comm	★
9735002	43.149442	-83.618936	0	Open Channel	Geiger Drain	GC Road Comm	★
9735501	43.136192	-83.599002	0	Unknown	Butternut Creek	GC Road Comm	★
9735502	43.136194	-83.598969	0	Unknown	Butternut Creek	GC Road Comm	★
9735751	43.143333	-83.600556	0	Open Channel	Wilbur Drain	GC Road Comm	★
9735752	43.143330	-83.600556	0	Open Channel	Wilbur Drain	GC Road Comm	★
9736251	43.144503	-83.583567	0	Unknown	Butternut Creek	GC Road Comm	★
9736252	43.144476	-83.583535	0	Unknown	Butternut Creek	GC Road Comm	★
9736253	43.144556	-83.583522	2	PVC	Butternut Creek.	GC Road Comm	★
9736254	43.144556	-83.583522	0	Open Channel	Butternut Creek.	GC Road Comm	★
9736256	43.144522	-83.583497	4	Metal	Butternut Creek.	GC Road Comm	★

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Legend	
GC Drain Comm	GC Road Comm
GC Road Comm	Waters of the State
Roads	Watershed
Municipal Section	Urbanized Area

Genesee County NPDES Phase II Permit Application
Vienna Township
 Storm Sewer Discharge Maps

Genesee County

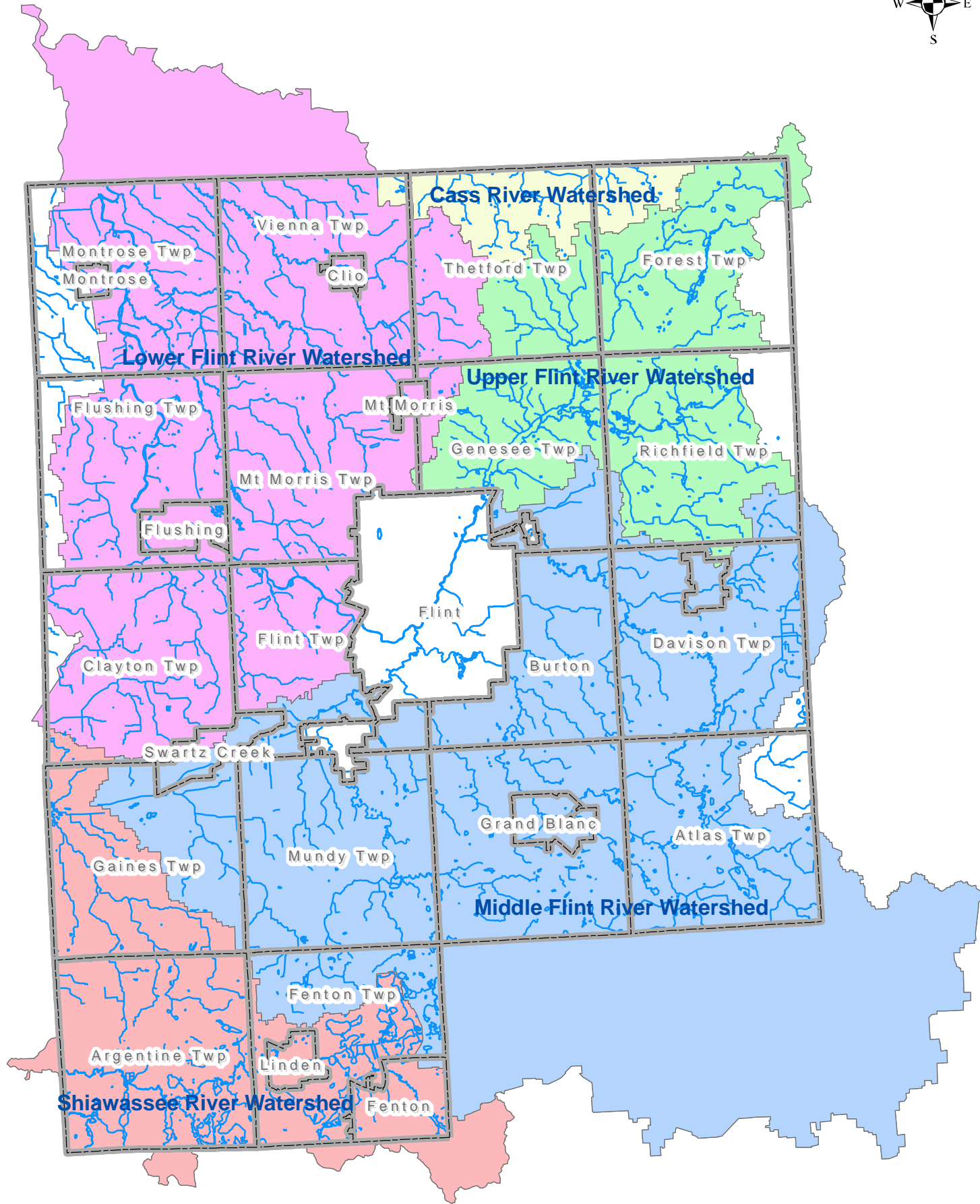
Known Discharge Points in Vienna Charter Township

ID	Latitude	Longitude	Diameter	Pipe Material	Receiving Waterbody	Owner Name	Stars
9613501	43.181800	-83.714697	0	Open Channel	Pine Run	GC Road Comm	★
9613502	43.181864	-83.714681	0	Open Channel	Pine Run	GC Road Comm	★
9614753	43.179450	-83.717361	12	Corrigated Steel Pipe	Pine Run	GC Road Comm	★
9626001	43.162750	-83.729367	0	Open Channel	Benjamin Run	GC Road Comm	★
9626005	43.155704	-83.725693	0	Poured In Place	Benjamin Run	GC Road Comm	★
9626007	43.155708	-83.725555	0	Open Channel	Benjamin Run	GC Road Comm	★

County Categorical Discharge Points

Municipal	Comm. No	GCDC	GC Property	GC P&R	GCRC	Unknown	Total
Argentine Township	3	13	0	0	107	0	123
City of Burton	7	20	1	0	5	2	35
City of Clio*	2	1	0	0	0	0	3
City of Davison	2	2	0	0	0	0	4
City of Fenton	6	0	0	0	0	0	6
City of Flushing	8	2	1	0	0	0	11
City of Grand Blanc	6	1	0	0	0	0	7
City of Linden	4	0	0	0	0	0	4
City of Mt. Morris	4	1	0	0	0	0	5
City of Swartz Creek	4	2	0	0	0	0	6
Clayton Township	2	22	0	0	149	0	173
Davison Township	0	15	1	0	83	0	99
Fenton Charter Township	0	6	0	2	38	0	46
Flint Charter Township	1	27	1	0	86	1	116
Flushing Township	1	7	0	1	137	0	146
Genesee Charter Township	1	16	0	0	37	0	54
Mt. Morris Charter Township	0	19	0	0	43	1	63
Mundy Charter Township	3	15	0	0	100	1	119
Vienna Charter Township	3	9	0	0	177	0	189
Atlas Township	0	18	0	0	118	0	136
Forest Township	0	9	0	0	95	2	106
Gaines Township	0	18	0	0	141	0	159
Grand Blanc Township	0	12	0	0	43	2	57
Montrose Township	0	12	0	0	191	0	203
Richfield Township	0	15	0	0	87	0	102
Thetford Township	0	9	0	0	115	0	124
Total	57	271	4	3	1752	9	2096

*There are two discharge points for the City of Clio located in Vienna Township and these points are the Clio Fire Station and Cemetery.



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Legend		
	Township	
	Waters of the State	
	Cass River Watershed	
	Lower Flint River Watershed	
	Upper Flint River Watershed	

**Genesee County NPDES Phase II
Permit Application**
Political/Territorial Boundaries
Storm Sewer Discharge Maps

11. STORM WATER POLLUTION PREVENTION INITIATIVE (SWPPI) - ACTION PLAN

Storm Water Pollution Prevention Initiatives (SWPPIs) for communities within Genesee County to comply with the Phase II Storm Water NPDES general permit requirements are being led by the GCDC's Office of Surface Water Management (SWM). Table 11-1 provides a draft of the SWPPI goals, objectives, and actions for each watershed. Terms used in the table are defined below.

SWPPIs were approved during this reporting cycle, and information on the activities of individual permittees will be compiled in the next year. Table 11-1 demonstrates where the County is making progress.

In addition to the SWPPI actions listed in Table 11-1, there has been ongoing maintenance activities within the county drains and river cleanup events were held at various sites tributary to the Flint River. Details are provided below.

Schedule Definition of Terms

C	Complete
L	Long Term
N/A	Not applicable
O	Ongoing
S	Short Term (before May 2009)
W	Wish List

Other Definitions

E342C	Contract for Services between Communities and Drain Office
Ad hoc	The Ad hoc Committees are formed to work on a specific objective until complete
BMP	Best Management Practice
FRWC	Flint River Watershed Coalition
HHW	Household hazardous waste
M&M	Monitoring and Mapping
NRCS	Natural Resources Conservation Services
PEP	Public Education Plan
PPP	Public Participation Plan
SWM	Surface Water Management
TBD	To be determined
WWS	Water and Waste Services

Included is a revised copy of the SWPPI template given to the communities. Each community will have a customized SWPPI with individual commitments.

Community SWPPI's were not approved until Summer 2008. At this time there are few requirements due before November 1, 2008. Table 11-2 outlines what work was done for those objectives that required action during this reporting cycle.

A self checklist was sent to each phase II community that was to continue with the 342 contract. See Appendix I.

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism	
			P&M Committee	M&M Committee	BMP Committee	Phase II Permittee						
1. Protect public health	a. Ordinance to have septic systems inspected at "time of sale"	<ol style="list-style-type: none"> Draft an ordinance requiring inspection of septic systems at time of property sale. (County Wide) Develop fee structure options for septic ordinance. Responsible Permittees will adopt new ordinance for septic inspection. Non Responsible Permittees will support the ordinance. Responsible Permittees will make appropriate staff available to be trained on enforcement. Enforcement of the new septic ordinance Develop & implement septic system tracking program for evaluation purposes. 	Y		Y	S	E342C	80-100 hours	\$5,000 - \$10,000	Draft ordinance is produced and adopted by Committee		
				Y			S	E342C	80-200 hours	\$5,000 - \$10,000	Document that outlines fee options and evaluates the practicality of each of them. Adoption of a funding option)	
						Y		S	E342C	20-100 hours	Legal fees per community	Resolution to support county or local ordinance is adopted by council
						Y		S	E342C	100-400 hours	\$300-\$2000	Municipal staff to attend training.
								L		TBD	TBD	No. of Inspections. Long Term Failure Rate Trend. Improvement in water quality, especially in rural areas.
								L		TBD	TBD	No. of Inspections. Long Term Failure Rate Trend
2. Establish a watershed stewardship ethic among the public	b. Develop Educational Materials For Homeowners With Septic Systems to be Given at "Time of Sale". Main Topic: Septic System Maintenance, Other Topics: Include Lawn Maintenance, Auto Care, Well Water, Household Hazardous Waste Disposal, and well protection.	<ol style="list-style-type: none"> Explore funding options. Potentially use advertising to fund costs. Develop partnership with local organizations, such as real estate agents, to promote and distribute information on septic systems. Implement distribution of booklet for new homeowners with septic systems. Develop tracking mechanism for evaluation purposes. 	Y			S		40-200 hours of prioritizing and finding funding	\$8,000+	Memo on options Presentations to appropriate authorities Adoption of a funding option		
				Y			S		50-100 hours	\$1-\$3 ea 500 - 1000 packets \$500 - \$3000 Total	Distribution channels are established and maintained. No. of packets distributed by partners.	
						Y		S		20-50 hours to distribute	TBD, dependent on distribution method	Count # packets distributed by Permittee to new home owners.
								S		120 hours of organizing mailing	Brochures \$2000-\$10,000	No. of packets printed and distributed by Permittees and organization. Social Survey
						Y		O	E342C	80-200 hours/year	Part of Education Media Campaign budget	No. of hits on website and downloads. List of information kept on website.
								S		Varies	Varies	Counters recording number of hits on Permittees websites
			Y		C	E342C	60 hours	\$2,000-\$5,000	Print material developed			

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee					
		4. Distribute media through municipalities.	Y		Y	O	E342C	20 hours/year	Public education budget \$3,000+	No. of ad's, print material and units distributed (etc.) by each Permittee	
		5. Develop evaluation method to track effectiveness of media.	Y			S		200+hours	\$3,000+	No. of ad's, print material and units distributed (etc.) by each Permittee Social survey	
	b. Direct Mailing to Riparian Land owners (Rivers/Lakes)	1. Design riparian landowner educational materials emphasizing protecting and managing the riparian corridor.	Y			S		80+ hours	Brochures part of Education Media Campaign budget \$2,000-\$10,000	Creation of riparian landowner brochure.	
		2. Develop & maintain a list of riparian landowners.	Y			S		20 hours per community	Develop cost analysis	List developed with regularly scheduled updates (5 yrs)	
		3. Implement direct mailings to land owners and updating public education materials.	Y			S		30+ hours	\$4,000-\$8,000	No. of information packets distributed No. of hits on web site. Returned postcard from newsletter	
		4. Develop evaluation method to track effectiveness of program.	Y			S		200+hours	\$3,000+	No. of information packets distributed No. of hits on web site. Specific Survey.	
	d. Enhance Existing Benthic Monitoring Program	1. Meet with Flint River Watershed Coalition (FRWC) to identified opportunities to develop partnership(s).	Y	Y		C		5 hours	Negligible	The 16 sites in Genesee county are tested consistently twice a year	
		2. Identify additional stream segments that would be desirable to gather macroinvertebrate sampling data on.	Y	Y		C		10-20 hours	Negligible	Additional sites are identified.	
		3. Determine what additional resources are needed to expand the monitoring program.	Y	Y		O		20 hours to meet to negotiate contract with FRWC	Negligible	Report of estimated additional resources needed.	
		4. Implement a yearly schedule and set up dead lines displaying when stream sections will be inventory yearly.	Y	Y		O	E342C contract done by FRWC	10-20 hours	Part of below contract with FRWC	Schedule set	
		5. Sign contract with FRWC to provide Benthic Monitoring	Y	Y		C		Negligible	\$5,150/year	Sign Contract	
		6. Review Results from past seasons. Current results will be reviewed each year	Y	Y		S	E342C	40-80 hours/year	Negligible	Trend data is entered and analyzed. All monitoring activities should be related	
		7. Conduct monitoring				O	Done by FRWC	Part of below contract with FRWC	Part of below contract with FRWC	Track WQ improvements over the permit cycle	
	e. Enhance Existing Project GREEN Program	1. Sign Contract with FRWC to administer program	Y	Y		C		Negligible	\$7,500/year	Contract Signed	
		2. Identify local schools to participate. Meet with school district representatives	Y	Y		O	E342C	40-80 hours/year	Done by contract with FRWC	Organizations that participate are identified. No. of classes participating in project Green.	

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee					
		3. Increase number of classes involved with program	Y				Done by FRWC	Done by contract with FRWC	Done by contract with FRWC	Number of classes participating increase	
		4. Conduct monitoring	Y				Done by FRWC	Done by contract with FRWC	Done by contract with FRWC	Samples of DO, Ammonia, Nitrate, PH Phosphate, and temperature are collected regularly. Monitoring is completed and results are compiled	
		5. Review Results	Y				E342C	20 hours/month	Up to \$5,000	Results provided for all sites. Trend data is entered and analyzed	
	f. Stream Crossing Watershed Survey with Photography.	1. Develop road stream inspection program. (Identify road/stream crossings, information collected)	Y				E342C	20 hours	Total additional cost \$500-\$2,000	Documentation of water and stream characteristics, plant life, foam, trash, etc.	
		2. Determine implementation options and responsibilities.	Y				E342C	20 hours	Negligible	Memo on options. Presentations to appropriate authorities	
		3. Provide training to personnel responsible for completing survey	Y				E342C	20 hours	\$8,000/year	No. of people trained. Program sustained over time.	
		4. Conduct survey based on a schedule developed	Y				E342C	200+ hours per year	varies per year	Schedule is created and implemented. Photos are taken, reports are written	
		5. Review results	Y				E342C	20 hours	Negligible	Data entered and analysis performed.	
	g. Hot Spot Water Quality Monitoring for MS4's as needed	1. Identify initial list of target sites, chemical tests, parameters and collection method.	Y				E342C	Will vary	Costs are as needed. Comes out of E342C	Documentation of water quality associated with hot spots.	
		2. Determine testing needed for each site.	Y				E342C	Will vary	Will vary	Plan and needs assessment created. Advanced sample collection needs to be done by professionals	
		3. Create a protocol manual for fieldwork crews (lab results parameters and collection methods).	Y				E342C	10 hours	Costs are as needed. Comes out of E342C	Sites and protocols established	
		4. Schedule and conduct field work done by professionals (Consultants)	Y				E342C	80+ hours per year	\$1,000-\$1,500 per site	Schedule established, WQ samples collected	
		5. Review Results	Y				E342C	20 hours	Database costs are part of contract with Tetra Tech	Trend data is entered and analyzed. All monitoring activities should be related together (e.g. road/stream, WQ)	
3. Reduce impact from peak flows	a. Storm Water Ordinance	1. Create a storm water design standards/site plan manual.		Y			E342C	200-2,000 hours		Creation of a design manual	
		2. Develop table that will show how much the installed BMPs will reduce or prevent post-construction impacts on water quality		Y				Will vary for each Permittee	Will vary for each Permittee	Mechanism developed to track quantity and types of pollutants removed by various BMPs	
		3. Draft a stormwater ordinance that refers to the design/site plan manual that considers quantity and quality BMPs.		Y			E342C	40-200 hours per committee members	TBD	Draft ordinance is produced	

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			P&P Committee	M&M Committee	BMP Committee	Phase II Permittee					
		4. Develop new County site plan review process with the following steps: Step 1: Pre-Development Step 2: Prepare site plan Step 3: Coordinated County Review Step 4: Municipal Review Step 5: Site Plan Step 6: Approval			Y		E342C	200+	\$5,000	Process is adopted and followed by county and communities. New development begins to take different form.	
		5. Develop permit fee structure to cover the cost of processing and enforcement with provision for future adjustments.			Y		E342C	20-100 hours	\$2,500-\$3,000	Document that outlines fee options and evaluates the practicality of each of them. Adoption of a funding option(s)	
		6. Facilitate community acceptance through public forms and information packets.			Y			40-200 hours per community		Facilitate local information sessions. No. of information packets distributed by Permittees.	
		7. Communities to approve/adopt ordinance. The County will support the communities through the GCDC, who will update their water quantity design requirements to comply with the template ordinance-design/BMP manual within the limits of the law.			Y			Will vary	Will vary	Resolution to support county or local ordinance is adopted by council	
		8. Responsible Permittees will make appropriate staff available to be trained on the storm water ordinance, process and design manual.			Y			10 hours	\$500	Municipality Staff will participate in training	
		9. SWM Permittees to enforce new storm water ordinance.			Y			TBD	3-4 staff \$120-160K/year	No. of citations issued by Permittee No. of developments going thru the process.	
4. Create, restore, & Enhance Recreational Use	a. Educate Public about recreational opportunities near/ on the water	1. Promote recreational programs (website, brochures, and community news.)			Y			10-20 Hours	\$5,000	# of hits on Permittee's Parks and Recreation page (if applicable) Website. # of flyers distributed by Permittee.	
		2. Distribute materials on recreational programs through municipalities			Y			60-80 Hours	Nominal	# of hits on Permittee's Parks and Recreation page (if applicable) Website. # of flyers distributed by Permittee.	
5. Restore and protect aquatic life, wildlife and habitat	a. Establish vegetative buffer areas adjacent to sensitive areas	1. Draft Buffer Strip Ordinance			Y		E342C	100-500 hours	\$5,000-\$15,000	Draft ordinance is produced	
		2. Develop fee structure options for buffer strip ordinance.			Y		E342C	100-500 hours	\$5,000	Document that outlines fee options and evaluates the practicality of each of them. Adoption of a funding option(s)	
		3. Permittees adopt new ordinance.			Y			20-100 hours	Legal fees vary by community	Resolution to support local ordinance is adopted by council	
		4. Responsible Permittees will make appropriate staff available to be trained about the new buffer ordinance.			Y			10 hours per community	Staff costs vary by community	Municipal Staff to attend training	

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee					
		5. Permittees to enforce new stream buffer strip ordinance.			Y	L		will vary by year	Enforcement costs will vary by community	No. of miles of buffer strips implemented.	
		6. Develop tracking method for enforcement			Y	L		TBD	TBD	No. of developments subject to new ordinance.	
6. MDEQ requirement - good housekeeping activities	a. Ensure Maintenance activities, schedules, and inspection procedures for storm water structural controls (SWSC) as appropriate.	1. Develop or adopt a BMP manual to provide Permittees with maintenance procedures to be implemented for Good Housekeeping Activities			Y	S		20+ hours	nominal	BMP manual developed or adopted	
		2. Develop schedule for inspection & maintenance procedures of SWSC owned by Permittee			Y	S		60+ hours	nominal	Structural controls identified. Maintenance and inspection schedule developed	
		3. Permittees will make appropriate staff available to be trained			Y	S		16+ hours per person	nominal	Appropriate municipal staff trained	
		4. Inspect all SWSC owned by Permittee according to schedule			Y	S		based on schedule developed	based on schedule developed	Inspections done according to schedule	
		5. Perform maintenance / repair to SWSC owned by Permittee (including but not limited to) Pipes / culverts Ditches Catch Basins Oil-Grit Separators Detention (wet/dry) Vaults or tanks Infiltration Basin Rain Gardens Porous Pavement Vegetated Swales Constructed wetlands Filter Strips			Y	S		based on inspection made	based on inspection made	Maintenance of structural controls owned or operated by Permittee as needed according to inspection	
							Per procedure	Vary by inspection	Vary by inspection	Pipes / culverts	
							Per procedure	Vary by inspection	Vary by inspection	Ditches	
							Per procedure	Vary by inspection	Vary by inspection	Catch Basins	
							Per procedure	Vary by inspection	Vary by inspection	Oil-Grit Separators	
							Per procedure	Vary by inspection	Vary by inspection	Detention (wet/dry)	
							Per procedure	Vary by inspection	Vary by inspection	Vaults or tanks	
							Per procedure	Vary by inspection	Vary by inspection	Infiltration Basin	
							Per procedure	Vary by inspection	Vary by inspection	Rain Gardens	
							Per procedure	Vary by inspection	Vary by inspection	Porous Pavement	
							Per procedure	Vary by inspection	Vary by inspection	Vegetated Swales	
							Per procedure	Vary by inspection	Vary by inspection	Constructed wetlands	
							Per procedure	Vary by inspection	Vary by inspection	Filter Strips	
		6. Track inspection and maintenance			Y	S		200+ hours	nominal	Inspection findings recorded, maintenance performed Track quantity of pollutants removed or reduced.	

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee					
	b. Implement Controls for reducing or eliminating the discharges of pollutants from streets, roads, highways, parking lots, and storage yards	1. Develop schedule & procedures for the following controls on pavement that is owned or operated by Permittee				Y	S	60+ hours	nominal	Schedule and O & M procedures developed	
		Street Sweeping						Vary by inspection	Vary by inspection	Street Sweeping	
		Road Salt Application & Storage						Vary by inspection	Vary by inspection	Road Salt Application & Storage	
		Dust Control						Vary by inspection	Vary by inspection	Dust Control	
		Snow Removal						Vary by inspection	Vary by inspection	Snow Removal	
		Maintenance Garage / Storage Yards						Vary by inspection	Vary by inspection	Maintenance Garage / Storage Yards	
		Road & Bridge Maintenance						Vary by inspection	Vary by inspection	Road & Bridge Maintenance	
		Gravel Road Maintenance						Vary by inspection	Vary by inspection	Gravel Road Maintenance	
		Roadside Vegetation						Vary by inspection	Vary by inspection	Roadside Vegetation	
		2. Track inspection and maintenance of Controls				Y	S	200+ hours	nominal	Inspection findings recorded, maintenance performed. Track quantity of pollutants removed or reduced.	
	c. Institute Procedures for the proper disposal of operation and maintenance waste from the separate storm water drainage system (from street sweeping, catch basin clean out, etc)	1. Develop procedure for proper disposal of the following waste collected from maintenance of the storm system owned or operated by Permittees				Y	S	60+ hours	nominal	Procedure developed and implemented	
		Spoils / sediments						Vary by year	Vary by year	Spoils / sediments	
		Floatables / oil						Vary by year	Vary by year	Floatables / oil	
		Other Debris / Pollutants						Vary by year	Vary by year	Other Debris / Pollutants	
		2. Document disposal method for operation and maintenance waste				Y	S	60+ hours	nominal	Track quantity of pollutants removed or reduced	
	d. Ensure that flood management projects assess the impacts on the water quality of the receiving waters.	1. Evaluate current or create new procedures to place water quality measures on flood management projects owned by Permittee.				Y	L	200+ hours	nominal	Procedures for determining water quality measures has been evaluated / developed	
		2. Implement procedures on Permittee owned facilities				Y	L	will vary based on procedures	no more than \$2,000/year starting 2010	Identified procedures implemented	

Goal	Objective	Action	Responsible Parties				Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee				
		3. Install BMPs where appropriate on Permittee owned facilities pursuant BMP manual						no more than \$2,000/year starting 2010	Identified BMPs Installed	
		4. Assess new projects owned by Permittee for water quality impact.						Negligible	Assessment done on site plan. Appropriate BMPs shown in design.	
	e. Reduce the discharge of pollutants related to application of pesticides, herbicides, and fertilizers applied in the Permittees regulated area.	1. If fertilizers are used, Permittee will have soil testing performed, prior to application, and fertilizer application will be based on soil testing results.						Will vary for each Permittee	Fertilizer use policy changed if necessary	
		2. If fertilizers are used, Permittee will have fertilizer applied by a licensed individual						Will vary for each Permittee	Measure reduction or elimination of phosphorous and or fertilizer due to Permittee's change in procedure.	
		3. If herbicides are used, Permittee will have herbicides applied by a licensed individual and the herbicides applied should be appropriate for use.						Will vary for each Permittee	Herbicide use policy changed if necessary. Reduce use of herbicide by Permittees	
		4. If pesticides are used outside, Permittee will apply sparingly by a licensed individual						Will vary for each Permittee	Pesticide use policy changed if necessary. Reduce use of pesticides by Permittees	
		5. Pesticides, herbicides and fertilizers kept on site will be stored appropriately in dry, self contained areas that are not connected to the storm water drainage system.						Will vary for each Permittee	Procedures reviewed and adjusted if necessary. Material handling SOP adjusted	
7. MDEQ requirement - post construction controls	a. Evaluate and implement site appropriate, cost-effective structural and nonstructural best management practices (BMPs) that prevent or minimize post construction impacts on water quality.	1. County to support Communities adoption of BMPs manual from <u>Objective 3a</u> or develop and adopt a BMP manual to protect water quality in both new development and significant redevelopment						Will vary for each Permittee	Assessment is completed. BMP Manual created and adopted by Permittees. No. of people that use the manual. SOP are adjusted	
		2. Adopt the <u>Objective 3a</u> Stormwater ordinance to enforce BMP manual or develop and adopt individual Stormwater ordinance.						Will vary for each Permittee	Necessary ordinances developed and adopted by Permittee	
		3. Responsible Permittees will make appropriate staff available to be trained on enforcement						Will vary for each Permittee	Appropriate municipal staff trained	
		4. Develop tracking system						Will vary for each Permittee	Mechanism developed to track number of sites, types of BMPs quantity of pollutants removed reduced	
		5 County to adopt BMP manual.						3-4 staff \$120-160K/year	No. of citations issued by Permittee No. of developments going thru the process.	
	b. Establish long-term operation and maintenance practices for storm water BMPs for new development and significant redevelopment on private property.	1. Review existing O&M practices as it relates to the adopted BMP manual.						nominal	Completion of review. Ability to determine needed O&M procedures	

Goal	Objective	Action	Responsible Parties				WMP Schedule	Labor	Hours	Cost	Evaluation Mechanism
			PEP Committee	M&M Committee	BMP Committee	Phase II Permittee					
		2. Develop a procedure to enforce new O & M practices on private storm water systems.				Y		200+ hours	nominal	O&M procedures developed and supported by Permittee.	
		3. Adopt necessary ordinances to enforce new O & M practices on private storm water systems.				Y		20+ hours	Up to \$500	Necessary ordinances developed and adopted by Permittee. O&M manual/ procedures reflect new requirements	
		4. Responsible Permittees will make appropriate staff available to be trained on enforcement				Y		10 hours per person	nominal	appropriate municipal staff trained.	
		5. Develop & maintain tracking system				Y		will vary by year	will vary by year	Mechanism developed to track number of sites, types of BMPs quantity of pollutants removed reduced	
		6. GDC-SWM to ensure O&M on post construction controls through the existing state statutes.				Y		TBD	3-4 staff \$120-160K/year	No. of citations issued by Permittee No. of developments going thru the process.	
8. Opportunities for sustainability	a. Secure funding options available for implementation	1. Sign E342C contract (through May 1, 2008)				Y				Permittee sign contract- see application	
		2. Review E342C contract for renewal				Y		30+ hours	\$500	Contract has been reviewed by Permittee	
		3. Sign new contract or develop funding mechanism to support independent program				Y		nominal	nominal	Permittee either signs new contract based on new permit cycle or Permittee pursue implementation of permit with independent funding.	
	b. Institutionalize the committee structure.	1. Phase II Permittee representative to sit on PE Committee.				Y		150+ hours per year	nominal	Attendance & Meeting Minutes. Action plan items are implemented.	
		2. Phase II Permittee representative to sit on BMP Committee.				Y		150+ hours per year	nominal	Attendance & Meeting Minutes. Action plan items are implemented.	
		3. Phase II Permittee representative to sit on MM Committee.				Y		150+ hours per year	nominal	Attendance & Meeting Minutes. Action plan items are implemented.	
		4. Phase II Permittee representative to sit on an Ad hoc Committee.				Y		TBD	TBD	Attendance & Meeting Minutes. Action plan items are implemented.	

Table 11-2

Objective Action Taken

2a	Existing website: results reported in section 2 Print Media: total given out since 2006 4,500 Develop short survey on watershed knowledge and Public Ed Programs
2b	Brochure in development stage Distribution to occur Spring 2009
2d	See section 8 for status
2e	See section 7 for status
2f	See section 5 for results
2g	See section 9 for IDEP. Currently there is only 1 hotspot monitoring needed.
3a	Stormwater Ordinance developed Accompaniment BMP manual in development. We stopped to review the new LID manual before finishing ours.
4a	Contracted Nature walks along creeks and 2 canoe trips. GCP&R has a calendar of events at the parks that promotes use of the parks (next to the water)
6a, 7a	BMP manual is developed but not adopted. As stated above we wanted to review the new LID manual that just came out.
6e	Any contracts for fertilizer, herbicide, or pesticide application in 2008 were made prior to a SWPPI approval. Training for municipalities and/ or contractors will take place in next permit cycle.
8a	Communities were asked to commit to the 342 contract in writing in March 2008. Advisory Committee approved the amendment to the contract for 2008-2013 Contracts were sent to communities that indicated that they wished to continue with the County. Most communities have passed resolutions to sign contract.
8b	The committees have met this reporting period as stated in section 2, 3 & 4

Appendix A
Our Water Newsletter



NPDES Phase II Update

Protecting and Improving the watersheds within and around Genesee County

Visit us on the Web at www.ClearGeneseeWater.org

February 2007

I hope 2006 was good to you. We had many things happen last year and we want to update our communities on the National Pollutant Discharge Elimination System (NPDES) Phase II program for Genesee County. In an attempt to keep all the communities informed, we have developed this newsletter that will summarize where we are at in this process. So if you are new to this and have never heard of NPDES before or you have been involved from the beginning it is our goal that this update and future updates will be informative. Past updates will also be available on our website.

*Susanne Kubic, Drain Engineer
Genesee County Drain Commissioner's Office*

Why are we doing this?

The initial emphasis of the National Pollutant Discharge Elimination System (NPDES) under the Federal Clean Water Act of 1972 was to control discharges from industrial and large municipal wastewater treatment plants. Once these discharges were substantially under control, it became apparent that the combined impact of various smaller widespread (non-point) pollution sources was preventing many streams and receiving waters from meeting State & Federal water quality standards. These diffuse sources include failing septic systems, storm water runoff from residential lawns, agricultural fields, parking lots, roadways and construction sites, illegal dumping, and airborne deposition. Adequate control of all these point and non-point sources is necessary to restore and maintain the use of the nation's water resources.

Within Michigan, the Michigan Department of Environmental Quality (MDEQ), under EPA (Environmental Protection Agency) supervision, manages this program. The MDEQ is allowing local units of government to establish goals to improve water quality through development and implementation of a watershed management plan. In 2001, the communities were faced with meeting this unfunded mandate and expressed their preference for the County to take the lead. Genesee County designated the Drain Commissioner's Office as the county agency responsible to engage in watershed management activities and establish a system of stormwater management services under Act 342, Public Acts of Michigan, 1939, as amended ("Act 342"). Although not all of the communities located within Genesee County are regulated under the NPDES Phase II program, all the communities have signed a contract under Act 342 with the Genesee County Drain Commissioner's Office to provide stormwater management services.

Committee Structure

The **Advisory Committee** is the decision making body made up of those communities that have signed a contract. Each community has a representative, that should have been elected by their board that can vote on their communities behalf. This person also serves on one of the three subcommittees. The **Public Education and Participation Sub-committee** is responsible for the development of the Public Education Plan. The **Construction Standards and Practices Sub-committee** is responsible for establishing a unified review process and adopting a standard for best management practices. The **Monitoring and Mapping Sub-committee** is responsible for the methods that are going to be used to monitor the water for improvement or degradation. Each of the Sub-committee's have a work group where their representatives can work with stakeholders and the public to perform the necessary work that the Subcommittee Community members will then vote on. The decisions of the Sub-committees are reported back to the Advisory committee. If you are unclear which subcommittee your community serves on, see the following list.

Sub-Committee Members

Monitoring and Mapping

City of Fenton - Leslie Bland
City of Montrose - Frank Crosby
City of Mt. Morris - Jake LaFurgey
City of Swartz Creek - Tom Svrcek
Argentine Township - Bob Cole
Davison Township - Kurt Soper
Flushing Township - Andrew Trogotog
Gaines Township - Paul Fortino
Mt. Morris Township - Phyllis Moo
Village of Gaines - Diane Nowak
Village of Lennon - Barbara Baker Omerod

New Construction Standards

City of Flushing - Dennis Bow
City of Grand Blanc - Randy Byrne
City of Linden - Dale Martin
Atlas Township - Paul Amman
Fenton Township - Bonnie Mathis
Genesee Township - Scott Streeter
Grand Blanc Township - Jeff Zittel
Montrose Twp - Mark Emmendorfer
Richfield Township - James Jacques
Village of Goodrich - Jakki Sidje

Public Education

City of Burton - Charles Smiley
City of Clio - William Kovl
City of Davison - Pete Auger
Clayton Township - Rod Shumaker
Flint Township - Sandra Wright
Forest Township - Valerie Pace
Mundy Township - Karen Bond
Thetford Township - Shelly Ayotte
Vienna Township - Bob Palmer
Village of Otisville - David Tatrow
Brandon Township - Lois Robbins

Above are the designated representatives for each Community. If the representative listed above is incorrect or if your community has to appoint a new representative to this committee, the Drain Office will need a written notice that your Board has changed their representative, with the attached minutes or resolution. Remember the person your Community has on the Surface Water Advisory Committee and the Subcommittee needs to be someone that can make decisions and vote on behalf of your Community.

Participation on a sub-committee is a **requirement** for each municipality, the individual(s) and the voting member has to be the same person that sits on the Surface Water Advisory Committee. It is understood that many municipal officials are spread very thin as far as their time commitments go, and there is an opportunity for either a resident or another elected or appointed official to be involved in the process on the workgroup. There are a number of municipalities that have delegated this responsibility to a resident who has a strong interest in the quality of our waterways, who then reports back to the governing body.

The **watershed workgroups** are made up of those communities that are physically located within that watershed. Since watersheds do not follow municipal lines many communities are located within more than 1 watershed. The Municipal officials may assign a staff member or a resident to represent their community. At this time all the watershed master plans except the Cass River have been submitted to the State. The Cass River is only 18.5 Mi² within Genesee County is made up of Headwaters. The requirements, such as a watershed plan for the Cass Watershed within the State permit are deferred at this time. Because of its size and limited watercourses it is expected that this area will be included in the Saginaw County watershed planning area.

Watershed plans are evolving documents that require periodic updates. The State permits have the watershed plans scheduled to be reviewed and updated every 2-years. During this revision period it will be necessary for the watershed workgroups to meet in regards to the revisions.

If you aren't sure which watershed(s) your municipality is located in, they are as follows:

Middle Flint River

City of Burton
 City of Grand Blanc
 Brandon Township
 Elba Township
 Gaines Township
 Groveland Township
 Independence Township
 Richfield Township
 Village of Ortonville
 Oakland County

City of Davison
 City of Swartz Creek
 Clayton Township
 Fenton Township
 Genesee Township
 Hadley Township
 Mundy Township
 Springfield Township
 Genesee County

City of Fenton
 Atlas Township
 Davison Township
 Flint Township
 Grand Blanc Township
 Holly Township
 Oregon Township
 Village of Goodrich
 Lapeer County

Lower Flint River

City of Clio
 City of Mt. Morris
 Flint Township
 Montrose Township
 Vienna Township

City of Flushing
 City of Swartz Creek
 Flushing Township
 Mt. Morris Township
 Village of Lennon

City of Montrose
 Clayton Township
 Genesee Township
 Thetford Township
 Genesee County

Upper Flint River

City of Davison
 Forest Township
 Millington Township
 Thetford Township
 Watertown Township
 Tuscola County

City of Mt. Morris
 Genesee Township
 Mt. Morris Township
 Village of Otter Lake
 Genesee County

Davison Township
 Marathon Township
 Richfield Township
 Village of Otisville
 Lapeer County

Shiawassee River

City of Fenton
 Burns Township
 Fenton Township
 Rose Township
 Village of Gaines
 Oakland County

City of Linden
 Clayton Township
 Gaines Township
 Tyrone Township
 Genesee County
 Shiawassee County

Argentine Township
 Deerfield township
 Holly Township
 Village of Byron
 Livingston County

Public Education Update

You may hear NPDES Phase II referred to as the “Our water Campaign”. One of the many things the Public Education workgroup has done this year. The logo was chosen and will be incorporated into correspondence or education on this program such as in the cover of this update. The groundwork was laid for implementation of the education program in 2006 with the help of the University of Michigan (U of M) Flint Center for Applied Environmental Research (CAER). The Public Education Program has a contract with CAER to help coordinate and develop the actions identified in the watershed plans and the public education plan.



The first step to a public education campaign was to brand our message with a logo.

Once the logo was approved to place on our product/information there were several things needed to lay the groundwork, such as:

- “Our Water” campaign *web-page*: www.ClearGeneseeWater.org please take a moment and visit.
- A *brochure* featuring the seven elements of storm water education. These have been printed and sent to each community to distribute as you see best.
- A *display booth* and education activities for public events. The booth was ready and used at this year’s Genesee County Fair to distribute education information. See Below for more information on the Fair.
- Write *articles* on the seven elements of storm water education and other identified subjects. 20 articles have been written and are being provided to each municipality with this update on a CD. If your municipality has a website or newsletter please use the provided articles.
- An educational *Microsoft PowerPoint presentation* that contains the appropriate branding for the “Our Water” campaign. This 60-slide presentation contains several modules that address various target audiences and topic areas. Audiences are generally separated into government and non-government. The slideshow is modular so it can be customized for time and interest of its audience.

Genesee County Fair

The Genesee County Fair was held in August of 2006 and lasted for 7 days. The PEP Committee set up a booth at the fair. The booth included a table and a freestanding banner outlining the seven simple steps to clean water.

The fair booth was staffed by municipal officials and staff from governments participating in the PEP program. 14 shifts of 2-3 volunteers from local governments talked to the public about keeping our water clean.

Giveaways included rain gages, tote bags, and water bottles were available as prizes for people who could answer a question on water quality correctly.

At the fair, staff interacted with 1,325 individuals. Each of these individuals received a copy of the information brochure, and a prize for participating in the event.

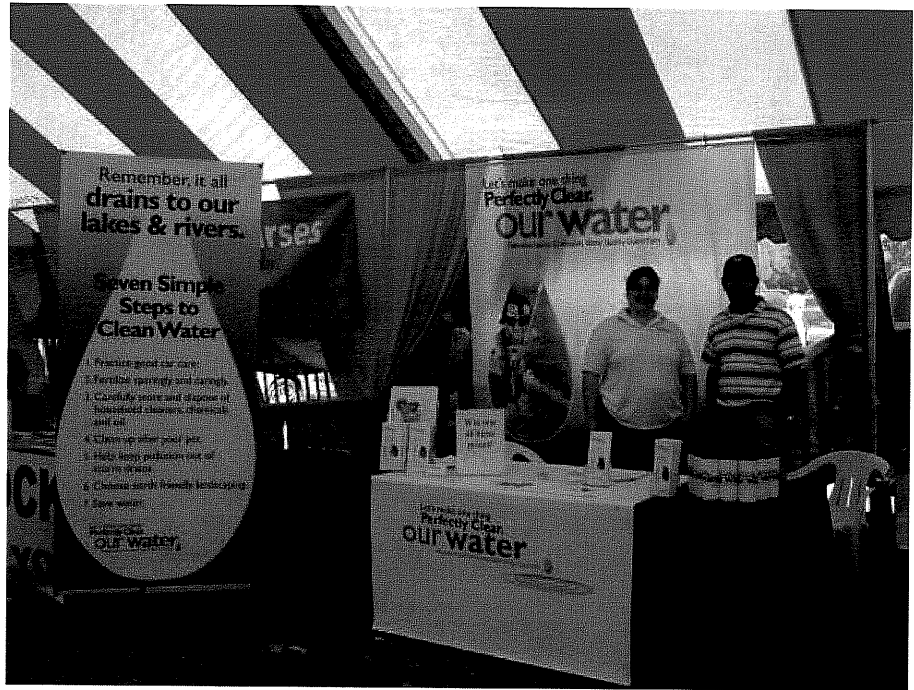


Photo: Display Booth 2006 Fair

Thank your to all the volunteers that made this possible

Contracts

When this program began it was expressed that whenever possible, we would partner with organizations or support existing programs that are already doing water quality and environmental education. With that in mind the Public Education Workgroup has contracted with non-profit groups to provide education services.

- The Public Education Committee has contracted with the Genesee Conservation District to support an existing program already in place, which is administered by a retired schoolteacher in school classrooms. The three-hour program meets Michigan Educational Assessment Program (MEAP) standards, and with little changes, would fulfill the NPDES Phase II requirements. Last year alone, the program reached 5,500 school-aged children in Genesee County.
- The Flint River Watershed Coalition is contracted to promote and provide presentations with the Microsoft PowerPoint "Our Water" campaign.
- The Public Education Committee has also contracted The Flint River Watershed Coalition to support their existing Project GREEN program. Although this program has educational elements for school age children, this program is being supported through the Monitoring and Mapping Subcommittee.
 - Global Rivers Environmental Education Network (GREEN) is a curriculum based, mentored program designed to propose solutions to local environmental problems using water quality testing. Monitoring and Mapping has supported this project because it would provide us water quality testing data that will be used in the monitoring.

Keep an eye out for our upcoming programs

Plans for 2007

Watershed Signs

Genesee County is in the planning stages to put up 24-inch by 30-inch watershed road signs at the break between the Shiawassee River and the Flint River Watersheds. The County is also planning to install stream / river identification signs to increase public awareness of the various rivers and their paths.

Catch Basin Stencils

The GCDC is planning to stencil catch basins while doing normal maintenance and repairs. The stencils will say "Dump no Waste - Drains to River". A volunteer program is developed to encourage volunteer groups to participate by placing stencils. Volunteers will distribute doorknob hangers that explain to residents why we are stenciling.

Local Watershed Maps

24-inch by 36-inch local watershed maps with Stormwater education will be offered to schools through Genesee Intermediate School District (GISD) to teachers who want them.

Monitoring and Mapping Update

In 2005 the Monitoring and Mapping Subcommittee had determined the methods that were going to be used to monitor the water quality. Because it is very hard to have accurate water quality monitoring, the committee decided on the following four ways to track water quality.

Benthic Monitoring

The Monitoring and Mapping Committee has also contracted The Flint River Watershed Coalition to perform Benthic Monitoring on 16 of their 32 sites. The FRWC has been monitoring the Flint River and its Tributaries for more than 5-years now. It is planned within the next year to expand the program with 2 new sites within the Shiawassee Watershed.

Basin Water Quality Monitoring

The Monitoring and Mapping Committee has also contracted The Flint River Watershed Coalition to support their existing Project GREEN program. Although this program has educational elements for school age children, this program is being supported through the Monitoring and Mapping Subcommittee.

Hot Spot Chemical Testing

Once an area is identified to have high pollution, professionals will go in to do more indepth chemical testing to track and ultimately remove/ reduce the pollutants from entering the watercourse.

Photo history of Stream Crossing

Using Drain office staff or combining with the Road Commission bridge photo program, it is the intent to photo at least 50% of stream crossings every 3 years. As a database of photos and reports are accumulated it can show if or how the watercourse changes over time.

Best Management Practices Update

The Best Management Practices Committee will be over the next couple of years responsible for developing several ordinances and templates to meet our watershed action plans and ultimately the SWPPIs. The first ordinance the committee will be working on is a countywide ordinance that will be developed to specify the general guidelines for Stormwater management in new developments. This ordinance will include a BMP manual and guidelines for long term maintenance of private storm systems.

Appendix B
Conservation District Newsletter

GENESEE CONSERVATION DISTRICT NEWSLETTER

VOLUME 8, ISSUE 2

FALL 2008

FALL 2008 TREE SALE

The District's fall tree sale is in full swing. You should have received your catalog in the mail in the first week of August. If for some reason you have misplaced it or just need another one, you can call us and we will mail one to you. Or, you can go to our web site where you will find the items you can purchase with their description and in many instances a picture. You can print off our order form from that location, also.

Special orders can be arranged by calling our office

Please contact us at **810-230-8766 ext. 3** or find us on the web at www.geneseeconseruation.org.



Fall Tree Planting and Care

I know that most of us don't want to think about the leaves turning and the temperatures dropping, but it is inevitable. Fall is coming! For your trees and shrubs this is a good thing, after the heat of the summer and the days and weeks without rain, your trees and shrubs are looking forward to a break. However, just because your trees and shrubs are going dormant does not mean you can forget about them. Fall is a great time to plant a new tree or shrub or to take care of some pruning issues.

Contrary to popular belief, fall may be the best time to plant that new tree. Plant roots grow anytime the soil temperature is 40 degrees or higher, which may be up to Thanksgiving or later. During these months, the root systems of the fall-planted trees continue to develop and become established. When spring arrives, this expanded root system can support and take advantage of the benefits of spring. I especially recommend that you plant your "Balled and Burlapped" (B & B) trees in the fall, this gives them ample time to recover from transplanting shock and the chance to grow some new roots before spring.

Fall is also one of the best times to do some maintenance on branching problems. Fall is great because the leaves are gone which allows you to see branching structures and spot possible problems. Some possible pruning opportunities to look for are branches that are rubbing on each other, branches that overhang buildings or other outdoor structures, branches that form narrow V-shaped crotches, and branches that are dead or dying that might pose a possible hazard. Also, during the dormant season insects and diseases are less likely to invade open pruning wounds.

Overgrown shrubs can also benefit from a pruning in the fall, however they should be thinned rather than sheared at the top. This is very important when pruning flowering shrubs whose next years flowers are encased in the bud near the end of the shrubs branches. Hacking off the top of these shrubs will reduce if not completely destroy next year's bloom. When trimming your shrubs keep in mind the simple rule of 1/3, no more than 1/3 of your branches should be removed.

One other important thing you can do to help your trees is to simply add some fresh mulch to the base of your tree, but not touching the trunk of the tree. Fall tree care is important and vital for the health of your plants. However, please...**KEEP SAFETY IN MIND!** Any trimming that can't be easily reached from the ground should be left up to the professionals. *"Good Luck and Keep Planting!"*

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NATIVE PLANTING DEMONSTRATION SITE



The Genesee Conservation District and Natural Resources Conservation Service have been volunteering their assistance with the development of a native planting site. The plans here are to install a low maintenance prairie, rain garden and wooded path using hardy plants that are native to Michigan and well suited to our climate. As the work on this site progresses we will include updates in our news letter.

Last summer we removed trash and debris from the site in preparation to work the ground for planting. With help from the local residence we were able to remove years of accumulated trash and overgrown vegetation as well as deter additional dumping on the site. Just before fall a group of

workers joined together to install the mulch path that runs from Newel St. to White St. through the garden.

This spring with the help of the IMA staff and their equipment the soil was worked for planting and 50 yards of compost was added to improve the soil condition. We are very thankful for the assistance of the IMA staff, without which we would have been lugging wheel barrels of compost for days and breaking our shovels in the heavily compacted soil. If anyone has ever tried to dig in heavy clay you probably know how much we appreciate their work!

In late July the plants for the native prairie arrived. With 1,000 plus plants to get in the ground as soon as possible, the volunteer assistance through the Mr. Rogers "Say No!" Program was priceless. The Mr. Rogers Program provides paying jobs for youth in the Flint area as well as providing work experience, work ethnics and social skills. The program is offered by the Catholic Charities of Genesee & Shiawassee Counties. Many thanks to Mr. Gaines and his 12 volunteers who

worked so hard to plant and mulch 1,000 plants that week.

So what is next? With some timely rains and a lot of help from our watering volunteers, these plants should be well established by late fall. Next spring we expect to see these plants pop back up and put on a show for us. Visit our blog for further information, pictures and updates at <http://hamiltondip.blogspot.com/>.



2008 FARM BILL CONSERVATION PROGRAM UPDATE

The conservation provisions in the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) will provide conservation opportunities for farmers and ranchers for years to come. The new provisions build on the conservation gains made by farmers and ranchers through the 1985, 1996 and 2002 Farm bills. They simplify existing programs and create new programs to address high priority environmental goals.

The 2008 Farm Bill continues funding for the Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP), Farmland Protection Program (FPP), Grassland Reserve Program (GRP) and the Wetlands Reserve Program (WRP). The Wildlife Habitat Incentives Program (WHIP) has also been refunded, how-

ever the program is now limited to private agricultural land, non-industrial private forest land and Tribal land. The Conservation Security Program (CSP) has been revamped and renamed the Conservation Stewardship Program (CSP) and will no longer be restricted to selected watersheds. Nation wide selections for the Conservation Stewardship Program will begin in FY2009.



NRCS provides information on these programs and other programs on our website <http://www.mi.nrcs.usda.gov/programs/>. The Program Fact Sheets listed here have not yet been updated with the 2008 Farm Bill changes. However, the main aspects of these programs have remained the same and can provide a good understanding of what these programs offer. For further information regarding conservation programs and their changes please contact Christina Nickola at 810-230-8766 extension 3.

Round Em' Up!

Well it's almost that time again...the end of summer and the beginning of a new school year. This also kicks off the busy time for the Educational Program, administered by the Conservation District. I am so excited to get back into the schools and start reaching kids and turning on that little light bulb up there.

But, before we start thinking about that, let me recap the past year's festivities. Some of the most requested activities were, Freddy the Fish, Enviroscape Model, Career Day presentations and the new favorite The Water Cycle Game. The Water Cycle Game is played by individual water droplets, the students, who travel through the water cycle. This game gives me the chance to show kids that the water cycle is more than just a circle of clouds, rain, water, vapor over and over again. They get the chance to see that water droplets can get stuck in glaciers for a very long time, but then melt and move to the ocean and then evaporate and form clouds. While their classmates are also going on their own individual water journey, which may include being stuck in an animal until they are "released" (Use your imagination for that one). The water journey is marked with different color beads at each station, nine stations in

all, that the kids pick up to put on their water cycle bracelet. At the end of the game their bracelet serves as a reminder of their journey and it helps to show them the many different ways in which a water droplet can move thru the water cycle. These bracelets are their "take home" to share with their loved ones at home.

Also last year, the Conservation District sponsored an Envirothon team, thru the Genesee Area Skill Center (GASC) Environmental Science Class. The team was called the "Green Team" and was comprised of five Junior and Senior students from across Genesee County. As part of the competition the students had to come up with a Community Project, deliver, implement and evaluate that program. The "Green Team" decided to work with the Conservation District and the Genesee County Land Bank on a Tree Planting Program for local Flint residents. The tree planting program was a major success and the GASC team ended up placing 20th out of 25 at the State Competition in Sault Ste. Marie, MI. Congratulations!

This year the Educational Program hopes to reach over 8000

participants, with special events like the Fall Festival at Ligon Outdoor Education Center on October 3rd, the National Association of Conservation Districts (NACD) poster contest, this year's theme will be "Dig It! The Secrets of Soil". As well as our regular Educational Programs, Boy Scout and Girl Scout programs and Career Fairs that are held at various Genesee County Schools. Also, this year the Educational Program is looking to hit a new target audience which is the "Mature Adult Audience" thru programming at local area Senior Citizen Centers and Senior Housing sites. Special Events will be posted on the Education portion of our website, www.geneseeconservation.org, please stop by and check out the new advancements with the program. If you or someone you know are interested in having the Conservation District present an Educational Program please do not hesitate to call to set up a meeting.



Searching for the Conservation District's next Envirothon Team

DIG IT!
The Secrets of Soil

POSTER CONTEST 2009

The theme for the 2009 Poster Contest has been released. Get your markers, crayons, or paints ready, and create for us your masterpiece. We will be collecting posters from all grade levels until April 30, 2009. We have a brochure available that highlights the rules and has the official entry form attached. Just contact our office at (810) 230-8766 ext. 3 and we can provide you with the needed information and rules.



The Envirothon is a program for high school students designed to cultivate a desire to learn more about our natural resources and environmental issues through competitive events. If you or someone you know would be interested in becoming the Conservation District's next Envirothon team, please contact Sarah Kilgore at (810) 230-8766 ext. 3.

What's your fish and wildlife habitat IQ?

Do you have a good basic understanding of what fish and wildlife need to survive? You probably do if you can answer the questions below correctly.

Choose only one answer for each.

1. Everything you do on your land affects wildlife.
 - a. True
 - b. False
2. What are the basic needs of wildlife? (choose best answer)
 - a. Food, water, cover and space
 - b. Food, water, and shelter
 - c. Food, water, and a place to raise young
 - d. Food, water, and winter cover
3. Which habitat statement below is most nearly correct?
 - a. What is good for one species of wildlife is good for all others as well.
 - b. Individual species have specific habitat needs.
 - c. Habitat you create for one species will be wrong for all others.
 - d. A soft, gradual transition from crop field to other habitat is better for more species than an abrupt change.
4. A soft, gradual transition from crop field to other habitat is better for more species than an abrupt change.
 - a. True
 - b. False
5. Rotational grazing helps birds as well as cows.
 - a. True
 - b. False
6. The best conservation practices for fish and wildlife habitat include:
 - a. restored wetlands, streamside buffers and ponds
 - b. windbreaks, diverse grass plantings, and clean water
 - c. connecting corridors, and managed timber and grassland
 - d. All of the above
7. Which is not a good general rule for habitat plantings?
 - a. Prefer natives over exotics
 - b. Use a variety of plants
 - c. Create habitat away from water
 - d. Use plants that offer food and cover for wildlife

life

8. You may benefit grassland birds by discing old grass.

- a. True
- b. False

For more information on wildlife habitat, check the web at

<http://www.whmi.nrcs.usda.gov/animals.html>

[animals.html](#)

District Conservationist, Natural

Resources Conservation

Service, Genesee County.

Wildlife Ways

Did you know....



The original name for the butterfly was "flutterby"... many spiders have eight eyes... pigeons eyes are located laterally on their heads, so they can view 340 degrees... a falcon can see a 4" object from nearly a mile away.

Answers: 1.a; 2.a; 3.b; 4.a; 5.a; 6.d; 7.c; 8.a

SERVICES FOR YOU!

ASSISTANCE FOR US!

The Genesee Conservation District is a local unit of the state government geared to educating the public about our environment, as we think about our future on our land in Michigan and our impact upon it. We provide information to landowners as we all strive to protect our soil and water.

We enable land owners to exercise conservation practices by offering information, direction and our expertise as we educate them in conservation practices. To that end, we offer supplies for purchase through our semi-annual Tree Sale, and our office is staffed by knowledgeable people who can assist you. We have access to older soil survey maps and can get or guide you through the process to access the updated maps found on the internet at <http://websoilsurvey.nrcs.usda.gov>. We also

have available historical aerial land photos from 1962 and 1974.

We take our information to your children. We provide school programs, participate in local outreach activities and spearhead programs to enhance even the smallest urban setting.

The District holds our Annual meeting in the latter part of January. At this meeting we highlight all of the programs we have participated in throughout the year. We also recognize the conservation efforts of our county residents when we present our annual conservationist awards.

We are always looking for local businesses and agencies or individuals who are willing to buy advertising space, sponsor or donate to our annual meeting. This helps us off-set our expenses.

We also offer advertising space in our tree catalogs and newsletters at reasonable rates. All proceeds go to further conservation efforts in Genesee County.

Our education program is run on local grants and through generous donations by patrons who order our trees. (You know who you are—and we thank you). Please stop by to see us the next time you are in the area.

MISSION STATEMENT:

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

Farm*A*Syst: The First Step for MAEAP Verification

The Farmstead Assessment System (Farm*A*Syst) is a series of risk questions that will help you assess how effectively your farmstead structures, management practices and site conditions protect your water resources. The Farm*A*Syst has been updated several times since its introduction to Michigan producers in 1994. The current version is designed to coordinate the **Michigan Groundwater Stewardship Program (MGSP)**, the **Michigan Right-to-Farm Act** and the **Michigan Agriculture Environmental Assurance Program (MAEAP)**.

The Farm*A*Syst is a voluntary and confidential assessment tool which helps farmers identify risks to groundwater associated with their farmstead practices. Some agricultural practices at the farmstead can result in high risk to surface and/or groundwater, including your drinking water supplies, while others present low risk or virtually no risk at all. The Farm*A*Syst will provide information on ways to reduce these risks.

The **Michigan Agriculture Environmental Assurance Program (MAEAP)** is a comprehensive,

proactive and voluntary agricultural pollution prevention program. Completing a Farm*A*Syst with your local Groundwater Technician is the first step in Farmstead Verification through the Michigan Agricultural Environmental Assurance Program. Producers who complete the Farm*A*Syst assessment will be able to determine what management, structural or equipment changes will be needed for the farmstead to be environmentally assured through MAEAP.

The **Michigan Right-to-Farm Act**, P.A. 93, was enacted in 1981 to provide farmers with protection from nuisance lawsuits. The Farm*A*Syst includes the relevant Michigan Right-to-Farm generally accepted agricultural and management practices (GAAMPs). These voluntary practices are based on available technology and scientific research to promote sound environmental stewardship and help maintain a farmer's right to farm.

After completion of the Farm*A*Syst, you decide what to do with the results of your assessment. The key to Farm*A*Syst is that, once you have identified the risks to surface and groundwater, you implement a plan to reduce the risks. Some of the stewardship practices that will

reduce risks may cost very little and take very little time to implement. Other practices or structures may involve additional cost and may not be implemented for a few years. **EQIP** (Environmental Quality Incentives Program) funds through NRCS (Natural Resources Conservation Service) may be available to help make the necessary changes needed for MAEAP verification.

It is important, however, to have a plan to follow. The results of your Farm*A*Syst will not be reported, they are for your on-farm use only, the information is deemed confidential.

Private Certified Pesticide Applicators can earn 4 recertification credits for completion of a Farm*A*Syst evaluation, on-site, with a trained technician.

For more information on how you can receive assistance with completing a Farmstead Assessment free of charge from the Michigan Groundwater Stewardship Program, contact Tom Wert, Groundwater Technician, at the Shiawassee Conservation District 989-723-8263 ext. 3, or the Genesee Conservation District 810-230-8766 ext. 3.

Get a FREE Lake*A*Syst from the Michigan Groundwater Stewardship Program!

Do you live next to a lake, pond, river, or stream? If so, then take advantage of Lake*A*Syst, which is a FREE and CONFIDENTIAL self-assessment exercise offered through the Michigan Groundwater Stewardship Program (MGSP). Through this self-assessment exercise, residents evaluate the risk potential that daily home and garden practices may pose on the quality of nearby surface water and groundwater (nearly half of Michigan's residents depend on groundwater as their source for drinking water).

So how does Lake*A*Syst work? This self-assessment exercise simply involves a consultation with an AmeriCorps Environmental Educator, who would come to your home, ask you a few questions, and help you determine if your house-

hold and lawn-care practices pose a risk to water quality. More specifically, you would analyze each of your household/lawn-care practices and assign a risk level as it pertains to surface water and groundwater quality. For those practices that are ranked "medium risk" or "high risk", you would develop an action plan to help reduce these risks. To complement this exercise, you receive pamphlets and handouts that contain information pertaining to common home and lawn-care practices, water contamination issues, local topography, water drainage patterns, and soil physical properties.

Less than 1% of the planet's water is liquid freshwater and approximately 20% of this is found right here in the Great Lakes Region. Because Michigan is at the heart of the Great Lakes Region, residents here play an

especially important role in protecting these waters. Some of the most beneficial actions can be implemented in and around the home so by having a Lake*A*Syst, you are taking an important step in protecting a natural resource that so many people depend on worldwide. Remember, water is a shared resource so your home practices not only impact the quality of your water but also that of your neighbors and surrounding communities.

If you are interested in a FREE and CONFIDENTIAL Lake*A*Syst and you live in Genesee, Lapeer, or Shiawassee Counties, please contact me, Josh Shields, AmeriCorps Environmental Educator, at the Shiawassee Conservation District via phone (989.723.8263 ext. 3) or email (shieldsj2@michigan.gov).

Board of Directors:

- Nancy Szikszay, Chairperson
- Patrick Parrott, Vice-chairman
- Brent Nickola, Treasurer
- Erin Caudell, Director
- Janice Stiles, Director

District Staff:

- Kathy Farney, Program Assistant
- Sarah Kilgore, Educational Director
- Bruce Washburn, Environmental Engineer
- Brandon Whittaker, Environmental Engineer

NRCS-District Conservationist, Christina Nickola

Conservation District Technicians:

- Tom Wert, Groundwater Technician
- Josh Shields, AmeriCorps Groundwater Educator
- Bill Kuechenmeister, CREP Technician
- Donna Flagg, CREP Technician

GENESEE CONSERVATION DISTRICT

Your Natural Resource, Resource

VOLUNTEERS NEEDED: Tree Packaging & Sales, Newsletters, Annual Meeting, etc. Give us a call! 810-230-8766 ext. 3

CALENDER OF EVENTS

- On going — Fall Tree Sale
- September 92 — Board Meeting, 4:00pm
Public hearing for 2009 FY Budget
- October 3 — Fall Festival @ Ligon Center
- October 15 - 16th — Fall Tree Sale Pick-up at the District Office

All NRCS & District programs and services are offered on a non-discriminatory basis with regard to race, color, religion, sex, national origin, age, sexual orientation, or handicap.

IF YOU NO LONGER WISH TO RECEIVE OUR MAILINGS, OR IF THEY ARE MIS-DIRECTED PLEASE CONTACT OUR OFFICE SO WE CAN CORRECT OUR MAILING LIST.

WWW.GENESEECONSERVATION.ORG

WE'RE ON THE WEB!



www.geneseeconservation.org
Phone: 810-230-8766 ext. 3
Fax: 810-230-2404

1525 N. Eims Rd.
Flint, MI 48532

GENESEE CONSERVATION DISTRICT

Sue Kubic
or Current Resident
4608 Beecher Rd
Flint, MI 48532

SEP 25 2008

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Appendix C
News feature on Project GREEN

Bentley students participate in Global Rivers Environmental Education Network project with help of engineers, scientists

by Elizabeth Lowe | The Burton News

Thursday April 24, 2008, 11:15 AM

RICHFIELD TOWNSHIP, Michigan -- The burbling flow of the Flint River erupted with classroom noises Tuesday, when Richfield Park became a makeshift Earth Day lab for more than two dozen Bentley students.

Sitting on a garbage bag beneath the park's stone-girded bridge, Jasmine Hoganson and Tyler Rix shook up chemicals in a water sample they'd dipped along the river's mossy banks.

"It turns purple and blue," explained Jasmine, a Bentley junior, picking a skinny bottle out of a portable box of chemicals. "Then you add thiosulfate until the color disappears."

The test measures how much oxygen is dissolved in the river's water, which gives a good idea of how many species can live there.

Cheryl Hobson's environmental science class at Bentley is one of more than a dozen countywide that conduct Flint River water tests through the Global Rivers Environmental Education Network (GREEN), getting students involved in water quality issues while rubbing elbows with scientists and environmental engineers.

Juniors and seniors in Hobson's class have been perfecting nine water tests in the courtyard outside the classroom. They're graded on the classroom tests, as well as the field tests.

But field tests count on a bigger scale.

Because GREEN aims for healthy water, local tests measure whether levels of pollutants in the Flint River measure up to federal and state standards.

"You're not just going out and dipping some water, what you're doing is pretty valuable stuff," said Eric Hakel, an environmental scientist with Tetra Tech of Ann Arbor who worked with Bentley students.

At multiple points along the river's tributaries, students from more than a dozen area schools this week examined whether too many nitrates and phosphorous from fertilizers have leached into the river, tested for sewage contamination, measured pH, solids in the water and temperature. On May 16, they'll meet at a water summit to present findings to professionals and fellow students.

The findings also include a sampling of creatures.

While some students donned waders to splash through the water with



Staff photo | Ryan Garza

Bentley High School student Brittany Pilarski holds a vial while collecting a sample of water to check the pH balance from the Flint River while performing chemical tests with classmates from the schools' environmental science course at a tributary in Richfield Park on Earth Day.

nets, Hobson pointed out a shallow area of the river to scoop up bugs, minnows and a 7-inch-long greenish-orange crayfish. The creature clung to the net by its pincers before being released back into the river.

"Can we put him on the grill?" joked senior D.J. Andritsis. "We'll have Joe's Crabshack."

John Moldovan, a General Motors environmental engineer, has been involved with GREEN the past 14 years. GM has been a primary sponsor of the project, giving students real-world experience while shaping environmental attitudes.

The project has also changed opinions of the Flint River, said Moldovan, who spent Wednesday at Kearsley Creek, helping Flint's Whittier Middle School students measure the water there.

"The data overall has shown the water and its tributaries are in fairly good shape, fairly clean," Moldovan said.

"Everybody always thinks the Flint River is so gross," said Junior Brittany Pilarski, siphoning up water for a fecal coliform sample. "Actually it's really clean."

Giving students field experience sometimes inspires them to pursue an environmental career.

"The most exciting thing I see happening out of this is seeing kids who are dragging their feet about college start realizing they can do this sort of work," said Hekel.

"Kids sometimes think, 'All these guys do is sit in an office'. They don't realize they can actually get a job where they can be out in the field."

Appendix D
FRWC Newsletters

Watershed Reporter

Partnering to protect our
natural resources

Spring 2008

Chairman's Update: Jack Minore

I am delighted to have been elected to chair the Board of the Flint River Watershed Coalition, and I thank the Board members for demonstrating their confidence in me. I will do my best to lead this organization for the next year.

I am in a fortunate position: I have inherited a strong organization and credit for that goes to the long-serving chair who preceded me, Olof Karlstrom. He deserves our thanks - and much credit - for his leadership over the past several years. Steve Montle, the Executive Director for the past two years also merits our thanks and appreciation for his work and his leadership. He has taken another job in the environmental area and is already making waves on policy issues in Lansing.

But not to worry. Much as they have contributed, their final efforts may be the most valuable of all. They hired an outstanding new Executive Director in the person of Rebecca Fedewa, and they and Rebecca added a new position and hired an enthusiastic person with an already established reputation as an environmental leader in the person of Sue Lossing.

I suspect that I could just sit back, chair the Board meetings, and the organization would thrive with little or no effort from me.

BUT, I have other plans. For one thing, we need to expand our membership substantially in order to ensure the long-term viability of the Watershed Coalition. If you are reading this newsletter, but are not yet a member, please consider joining officially. Your assistance is needed. And if you are already a member, can you solicit one more person to join us and help assure a strong future for the FRWC?

I also believe that we need to add more full membership activities that promote our mission of education and of recreation in and along the river. I hope that we can join with the Paddlers and the Peddlers on their activities - and that we can have at least one yearly educational presentation in the community. I envision more of our members assisting with the Lapeer river clearing, the Ortonville Creek Fest, water monitoring and other events. You're all invited! Check out the great calendar that the staff has developed, and join in!

Whether we are promoting better land use, water conservation, recreation or education; together we can make the Flint River Watershed Coalition a stronger and more effective "voice for the river".

Woofenden named Volunteer of the Year by Watershed Coalition

The Flint River Watershed Coalition hosted its Annual Meeting and Silent Auction at the Davison Country Club on January 31, 2008. With over 65 members and guests in attendance, the event provided a very enjoyable evening to all. Olof Karlstrom and Steve Montle co-hosted the ceremonies, and between the two of them, had us on our way home by 9:00!

The program began with the annual awards ceremony. Dave Woofenden won the 5th Annual 'Dr. Gary Pace Volunteer of the Year Award'. Dave was the driving force behind the finishing stages of the Lapeer Canoe Passage. He also helped form the partnership with the Lapeer Rotary Club that earned us the prestigious DNR 'Partners in Conservation' Award in 2007. Dave has taken on the lead role in mapping the entire branch of the river from Lapeer to Saginaw County for canoe access.

Lois Robbins received the 'Joe Leonardi Leadership Award'. Initiated in 2006, this award recognized Lois for organizing a citizens group of several dozen residents to work for land use changes in the southern portion of the watershed, specifically Brandon Township. Additionally, serving in a volunteer capacity, Lois is her township's Phase II stormwater coordinator, and is a key organizer for Ortonville's Creekfest Celebration.

Our own Roxy Moreno received the first 'Special Service Award' for the several years of dedicated volunteer service that she has provided to

us by editing and publishing the 'Watershed Reporter'.

After the awards, our keynote speaker was Mr. Andy Buchsbaum, Regional Executive Director of the Great Lakes Office of the National Wildlife Federation. Mr. Buchsbaum leads many important environmental projects, and spoke to our group on the critical issues facing the Great Lakes eco-system and what citizens and citizen groups can do to protect our waters from the many threats they face.

The evening concluded on a very high note with the closing of the Silent Auction. We were able to raise over \$900.00, providing funds to conduct our educational, cleanup, and recreational activities on the river. We want to thank the following individuals and businesses who donated items for the Silent Auction: Bob Carlyon, Fandangles', Flint River Watershed Coalition, Flushing Township Nature Park, Eric Hall, IMA Brookwood, S. Olof Karlstrom and Olivia Maynard, Amanda Kurzman, Steve Lehto, Marian Listwak, Sara McDonnell, Jack Minore, John Mrozik, Brent Nickola, and Gabe Zawadzski. We extend our sincere appreciation to all of our donors and to the generous individuals who bid on the wonderful items.

Please watch our fall newsletter for advance notice of our Annual Meeting and Silent Auction in January 2009. You will really be glad you set aside an evening to participate in this fun evening with the Flint River Watershed Coalition.



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

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FRWC Board meetings are the third Friday of the month, January through June, at Mott Community College in the Genesee Room of the Prahl Conference Center.

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Spool up those reels, it's time to go fishing!

Oh, and don't forget to bring a brick?

by Brent Nickola

That's right it's time to spool your reels, charge up the boat and fix those leaking waders. After a long and snowy winter we are less than a month from the opening of



Dave Ostrander, FRWC business member, holds up a 17 inch smallmouth. Location: Top Secret!

fishing season. Most of the preseason action is taking place at local bait shops where anglers are trolling for new gear. With all the excitement just around the corner, I thought I would share a few fishing opportunities and tips. It doesn't matter if you fish for meat, or just for fun, there are plenty of species and places to go in the watershed.

Holloway Reservoir: The Holloway Reservoir is a tremendous fishing spot in the watershed. This 2000 acre reservoir is historically home to one of the finest walleye populations in the state. Try trolling the flats with planer boards at night for these tasty walleyes. Another good spot for walleye is in the "narrows" near the Mt. Morris Rd. Bridge. Everywhere else you may want to try vertical jigging in the old river channel.

Flint River Main Branch (Flint to Montrose): The Main Branch from the City of Flint to north of Montrose is one of the most diverse fisheries in the watershed. The geology of this area has made it the ideal for smallmouth bass, rock bass, walleye and northern pike. The pike fishing in the spring is usually good in the shallows. If you get out early in the season you might tie into a lingering walleye from the spring run. Smallmouth fishing heats up a bit later in the summer reaching its peak in July and August. Try some minnow baits, inline spinners and tube jigs for these bronze backs. Crayfish patters work well later in the season. Catch and release is much the norm in this section.

Flint River Main Branch (Montrose to

Saginaw River): If you are out for the best fighting fish in the watershed this is the spot for you. You can find big carp and catfish in this part of the watershed. Try chumming for carp using corn but be ready for the hook up. Crawlers and cut bait work for the catfish. Last year we landed an 18 pound carp in this section on a five and a half foot light spinning rod. For those of you who have never experienced battling a carp that big, on a rod that small, you can duplicate it at home with these simple steps.

1. Take a spool of 3/8 nylon rope and tie it to the nearest Chevy Caprice. If you can find one with a hitch, that works best.
2. Tie the other end to a branch taken from a nearby tree or shrub.
3. Have friend put the car in drive and place a brick on gas pedal.
4. Hold on! Just like those Caprices, these fish may not be the prettiest things out there but they pack some power under the hood.

Local ponds/private ponds: One of my favorite places to fish in our watershed is a pond. These little gems produce some of the best fishing anywhere in the area. Deep cold ponds in some sections of the watershed will hold nice populations of rainbow trout. If managed well, most of the other ponds in the area will produce healthy large-mouth bass and "bread plate" size pan fish. Try ultra-light tackle or fly rods. Fly fishing for the first time on a private pond is good for the ego. You will not embarrass yourself in front of a bunch of seasoned river anglers and you will easily hook some bluegills. If your casting looks anything like our former executive director Steve Montle's you will want to continue to fly-fish in private for another year or two. By the way Steve, did you ever get that hook removed?

All kidding aside, fishing season is a great time in the watershed. Anglers from all over the region spend a few bucks with our local bait shops, head out on the river and then get together and tell lies to one another. The economic benefit of fishing and the social interactions that go with it make it one of the best times you will have on the river. In the next newsletter I will talk about a few things we can all do to improve the quality of our fishery. I might even have story or two about opening day.

Tight lines and see you on the river.



by Eric M. Hall

The "Flint River Paddlers" is a new chapter of the Flint River Watershed Coalition (FRWC). We are a group of paddle sport enthusiasts from the Flint, Michigan area who share a common goal of paddling and conservation on the Flint River Watershed. We invite all ages and all paddle sport interests and abilities to join our group; canoeists and kayakers alike are welcome to join us, and both interests are present in our current membership. The group will paddle everything from kayaks, canoes, and rafts on everything from our "home river" (the Flint River) to more technical whitewater runs throughout Michigan and other parts of the country.

The group had its first weekly paddle on Sunday the 16th of March, and although it was a rather cold endeavor, we did have four members who braved the elements. With warmer weather I am sure that the number of paddlers will increase dramatically as we already have over 50 people on our group's mailing list. The weekly paddles will most likely continue to be every Sunday at 1:00 PM. All of the relevant information such as put-in location and take-out location can be found on the club's website at www.flintriverpaddlers.org on the Calendar of Events page.

As you are reading this, the Paddlers are traveling to West Virginia to

whitewater raft the Lower New River. We always have room for more, and welcome anyone who is interested to join us for our October 11th trip on the Upper Gauley River, which contains

five Class V rapids, and requires prior whitewater paddling experience.

As a part of our conservation efforts, the Paddlers also will organize and lead a "Paddle Pick-Up" event both in the spring and in the fall of each year. The first "Paddle Pick-Up" will be May 10th, 2008 in conjunction with the FRWC's pick-up. We will be paddling from Mitsen Landing (south of Flushing Road and west of Ballenger Hwy) to Downtown Flushing picking up any and all trash that we find both in the river and along its banks. If you would like to help with this event, or learn more about it, we will be having a pre-planning meeting on May 1st, 2008 at Gander Mountain on Miller Road at 7:00 PM.

It is my belief that this year, the first year for the Flint River Paddlers, promises to be a very exciting one indeed. Through the generous sponsorship of the FRWC, not only will we be able to have fun paddling together and expanding the recreational user base on the Flint River Watershed, but we will also be able to work to improve the resources that we use for our sport. I sincerely look forward to seeing each of you on the river sometime soon. So get out there and get your paddles wet.

Eric M. Hall is the founder of the Flint River Paddlers.

erichall@flintriverpaddlers.org

From the Executive Director Rebecca Fedewa

The warmer temperatures that tease us this time of year brought me for the first time since last October onto the Flint River Trail. Since moving to downtown Flint six years ago, I've become a frequent user of the trail. It started with leisurely walks with my husband and our two dogs, thinking "hey, let's see how far this goes!" We turned around just past Vietnam Veteran's park, assuming it couldn't be much further. As we became more acquainted with our new home, we began to utilize the trail more and more. And as I became more interested in and involved with issues pertaining to the river, I learned just how extensive the trail was. Fourteen miles round trip, I never thought I would see the whole thing!

Well, as they say, never say never. Last year, partly to get into shape and partly as the result of some friendly competition, I signed up to run the Detroit marathon (my best friend ran a marathon, and I suddenly felt the need to match her accomplishment). Every weekend from June to October, I got to know the trail. The first time I got past the water plant, I discovered what every Friend of the Flint River Trail already knew: how beautiful a natural amenity we had right here in downtown Flint. The day I got all the way to Bluebell Beach I knew first hand the benefits that trails offer in allowing us to traverse the city in such a safe and picturesque way. Then we ran out of trail and had to start adding on to our runs through the city streets. Comparing the peaceful trail with even the quiet streets of Flint on a Sunday morning made me aware of how lucky we are to have this amenity, and how important it is that we continue to maintain and expand our trails.

Running along the river has been a joyful experience for me. And getting back out there again after too many LONG months hiding from the cold weather on a treadmill made me realize all over again how important our work is to improve and protect the Flint River. In the past, I was simply a user of the river and its trail. In my new role as Executive Director of the Watershed Coalition, I've taken on the

JK4K2K8 Run benefits Watershed Coalition

On an annual basis, John Kruecher, one of the long term members of the FRWC, has organized a New Year's Eve Run on the Flint River. The event usually starts at Richfield Park, and includes a run across the suspension bridge over the river. Called the JK4K2K8 Race Group, this year's participants included 27 hardy runners and walkers, and 2 dogs. Each year the club raises money through donations, and designates a non-profit group to receive the proceeds. With John's leadership and influence, the group chose to donate the \$200 raised to the Flint River Watershed Coalition.

It is with the generous help of individuals like John that we are able to expose more community members to the Flint River as a resource to be valued and maintained, and as a pleasant, safe place for recreational activities. Thank you to John Kreucher and friends!



[See Fedewa, page 4](#)

Private land conservation protecting our water

Fedewa, from page 3

by Christina Nickola

The number one pollutant in our waterways today is sediment. In response to this issue agencies under the United States Department of Agriculture, Michigan's Department of Agriculture and county Conservation Districts developed Michigan's Conservation Reserve Enhancement Program (CREP). CREP was created to help protect our waterways, decrease soil erosion and restore wildlife habitat on private agricultural land throughout critical watersheds in the state. The watersheds selected for CREP in Michigan include Lake Macatawa, River Raisin and the Saginaw Bay.



plantings also provide food and cover for wildlife as well as acting as a travel paths for larger animals.

Wetland restorations act as a sink that traps sediment and contaminants before the water is slowly released into rivers and streams or infiltrates to replenish groundwater. These restorations provide shallow water wetlands used by migratory water fowl such as ducks, geese, swans, herons and cranes. The water bodies will also support

amphibian and reptile populations while the surrounding areas are planted to grasses, trees and shrubs for upland wildlife species.

In 2000, Michigan set a goal of enrolling 80,000 acres in to CREP. To date 67,000 acres have been enrolled in the program improving our water quality and wildlife habitat. If you or someone you know has agricultural land and would be interested in improving that property for wildlife and/or water quality contact your local USDA Service Center. USDA Service Centers can be located on the web at www.mi.nrcs.usda.gov or you can contact the Flint NRCS Field office for assistance at (810) 230-8766 extension 3.

responsibility of stewardship of the Flint River, and I couldn't be more excited to be here.

We have lots of great things happening at the Watershed Coalition this year, with the addition of two new chapters, two new staff, a new strategic plan, and a new board chair. You'll hear more about all this AND our great programs in the pages that follow. And I should note that we couldn't have made it to this point without the leadership and dedication of our past board chair Olof Karlstrom and former Executive Director Steve Montle. Their contributions to the Coalition are more than we can count, and I thank them for all they have done and continue to do for our organization.

I also wanted to say thanks to everyone for the very warm welcome. I've become very familiar with Flint's portion of the Flint River, and I can't wait to experience first hand all the other gems of our watershed. In the coming months, I hope to get out and meet all of our enthusiasts who care for their favorite part of the watershed. So if I don't see you at a local chapter meeting, or at our various events this spring, maybe I'll see you on the water as I learn to use my new fishing pole or, if our new paddlers have their way, learning to kayak. And I'll see some of you on the Trail, because that same friend ran Detroit with me, and now I'm behind two marathons to one... which means it's on to Chicago in October!

Lapeer Happenings

by Dave Woolfenden

Today I went for a short trip on the river from Millville Landing to Stanley Rd. This is the section Rotary will be monitoring so I wanted to see what we have ahead of us this Spring. Only three jams that need immediate attention. The first one is just downstream from Millville and it will take a lot of work to clear. The other two aren't too bad. We'll get on it as soon as the water level drops a little more and the temperatures warm up some.

The mapping project keeps expanding

and now will include the entire City of Flint. We'll be finishing up the work to assess all the access sites along the

main stem of the River - from Lapeer, Genesee and into Saginaw County. The map will include public lands, photos, information about the FRWC, and reminders about boating etiquette and safety. The CAD class at Lapeer Ed Tech has set up a preliminary map which I have

been revising and will produce the final version once we have all the information compiled.



Millville Landing is the site that Lapeer Rotary will monitor

Get your waders on for annual river clean-up

Free food, fabulous t-shirt, and fun in the sun - sign-up today!

by Sue Kubic

Spring is in the air despite the weird weather we have been having. The days are getting longer, the birds are singing and soon we will throw off our hibernation and look to spend some time outside. On Saturday, May 10th the FRWC is having



their annual River Cleanup from 9am until 1pm at various sites along the Flint River and its tributaries. Volunteers are encouraged to come out and spend some time along the river... picking up trash. Garbage bags and gloves will be provided so all you need to bring is yourself. Lunch and t-shirts will also be provided to all volunteers. For directions or more information you can contact the FRWC at 810-767-6490 or check online at www.FlintRiver.org.

Sites in Genesee County

Vietnam Veterans Park:

off James P. Cole Blvd between Hamilton Ave. & Robert T. Longway Blvd.

Holloway Dam Canoe Access:

Carr Road at the dam

Flushing Riverview Park:

Cherry Street, Downtown Flushing

UM-Flint Campus:

Near Harrison Street at the River
Hamilton Ave. and Robert T. Longway Blvd.

Gilkey Creek: Pierce School
Flushing Road at Mill Street

Sites in Lapeer County

Cramton Park

Hunters Creek and Saginaw Street

Home Depot

Restaurant Row

Rotary Park

East Annrock and Linear Path

Extension

Defending Our Natural Treasures

by Lois Robbins

The Flint River Watershed Coalition is very excited to bring Defending our Natural Treasures (D.O.N.T) on as a chapter of the organization.

Operating out of Northern Oakland County, D.O.N.T. will bring a grassroots presence to the Watershed Coalition focused on the headwaters of the South Branch of the Flint River and the headwaters of Kearsley Creek. D.O.N.T. has an active and dedicated membership working to educate their community on the best available land development practices that will protect and preserve the area's natural resources.

We couldn't be more pleased with the addition of D.O.N.T. as a chapter of the Watershed Coalition, as their passion and commitment to the river brings a new energy to our organization and helps the Coalition build a presence in the very important and fragile headwaters of our watershed. We look forward to working together to protect, preserve, and improve the watershed.

For details on D.O.N.T activities, contact Lois Robbins lois@robbinsmail.com

Genesee GREEN

by Darren Bagley

Every spring, hundreds of middle and high school students in the Flint River Watershed scatter out to creeks to conduct testing that measures the health of the Flint River and its tributaries. This stream monitoring started in Flint Schools over 20 years ago with science teacher Gary McDaniel and has now expanded to 23 schools across the watershed. Project GREEN (Global Rivers Environmental Education Network) is a program going on all over the country, coordinated nationally by Earthforce (www.earthforce.org). Locally, the program is sponsored by General Motors and the Genesee County Drain Commissioner's Office. In addition to provide support financially, GM and the Drain Commissioner's Office provide mentors who work with the students to help them understand the results of their sampling and discuss environmental careers.

On May 16th, from 8am to 1pm at

Mott Community College, many of the students who participated in the project will come together for a GREEN Student Summit. Students will share their findings and attend breakout sessions developed by local environmental professionals. Programs include information on how the City of Flint treats its water and wastewater, recreational



opportunities, and environmental health issues. This program is open to members of the public free of charge.

Bike rides back in season (at last) - May thru October

With Spring upon us (hopefully for more than a day or two) the Friends of the Flint River Trail (FFRT) will resume their regular rides in May. The Friends host regular rides every Sunday, May through October, leaving the Flint Farmers' Market at 2:00 PM. There are two rides: the "Family Fun Ride" is a short, slow-paced ride designed for families with young children or for those "over 39" and just getting back into riding.

The "Regular" ride goes from the Market to either Stepping Stone Falls or Bluebell Beach - a round trip of about 13 miles. It too is a family friendly ride, at a pace of about 10 miles per hour. There is no fee, no pre-registration, and no required membership: just "show up and ride." Helmets are strongly encouraged! We ride rain or shine - unless lightening is

involved. Riders are expected to be ready to go by 2:00 o'clock. We have "sweeps" who ride at the end to make sure everyone is OK and to assist with minor problems (flats, etc) en route.

In addition, beginning in June, there will be regular - but harder and faster rides leaving the market at 6:00 PM on Thursdays; and sponsored rides to various other mid-Michigan trails on the second Saturday of each month. The first of the "Saturday Rides" is set for May 10th on the Saginaw - St. Charles Trail.

To prepare for the ride season, the FFRT will host a trail clean-up on Saturday, April 26th beginning at 10:00 AM at the Viet Nam Veterans Memorial Park on the west side of the river between Longway Blvd and Hamilton Ave.

For up-to-date information, you can

visit the web-site by way of the Watershed web site: flintriver.org - going to "links" and then find the Friends of the Flint River Trail under the recreation sub-heading. OR, you can check with the



Friends of the Flint River Trail take a break on the trail.

Friends chair, Bruce Nieuwehuis at bnbaton@gmail.com or with me at jacksonmin@aol.com or by phone at (810) 235-1490.

Calendar of Events

APRIL		MAY		JUNE	
15	7:00 pm Lapeer Co. of the FRWC board meeting. FRWC/L	4	2:00 pm First ride of the year for Friends of the Flint River Trail. FFRT	2	7:00 pm D.O.N.T. Meeting - Defending Our Natural Treasures. FRWC
18	8:30 am FRWC/G board meeting.	10	10:00 am-1:00 pm Annual River Clean-Up. Help is needed. FRWC	7	8:00 am Ortonville CreekFest. Volunteers Wanted. FRWC
18/19	8:00 am Flint River Paddlers white water kayaking trip on the Upper New River in West Virginia. FRP	10	8:00 am First of the monthly Saturday rides on bike trails around mid-Michigan. FFRT	8	2:00 pm Ice Cream Ride. FFRT
19	9 am/2:30 pm Annual Earth Day and Garden Celebration. See www.earthday.mcc.edu Help is needed. FRWC	11	1:00 pm Bike repair training. FFTR	14	10:00 am Lansing River Trail (Bike). FFRT
19	8:00 am Water Quality Monitoring in Lapeer County - Help is needed. FRWC/L	11	2:00 pm Ice Cream Ride FFTR	15	2:00 pm Sloan Museum Ride. FFRT
20	1:00 pm Weekly Paddler /Flint River Paddlers. FRP	16	8:30 am-1:30 pm Genesee Green Student Summit. FRWC	17	7:00 pm Lapeer County Committee of the FRWC board of directors meeting. FRWC/L
26	9:00 am/10:00 am Training for Water Quality Monitoring. FRWC/L	16	8:30 am Flint River Watershed Coalition board of directors. FRWC	20	8:30 am Flint River Watershed Coalition board of directors meeting. FRWC
26	10:00 am/4:00 pm Water Quality Monitoring (Genesee). Help is needed. FRWC/G	17	10:00 am-2:00 pm Household Hazardous Waste Collection Day. FRWC	30	7:00 pm D.O.N.T. Meeting - Defending Our Natural Treasures. FRWC
26	10:00 am-4:00 pm Wild Lapeer Earth Day Celebration. Downtown Lapeer, see: www.wildlapeer.com for more information.-Help is needed. FRWC	18	2:00 pm "Let's Explore Downtown" ride. FFRT	For more information contact:	
26	9:00 am Flint River Trail Clean Up/ Veteran's Park Clean-Up. FFRT	18	4:30 pm "If the River Could Talk" performance, Kearsley Park Pavilion	D.O.N.T.	248-969-2518, Lois Robbins
27	1:00 pm Weekly Paddler /Flint River Paddlers. FRP	20	7:00 pm Lapeer County Committee of the FRWC board of directors meeting. FRWC/L	FRP:	www.flintriverpaddlers.org or Eric Hall 810-423-4774.
28	7:00 pm D.O.N.T. Meeting - Defending Our Natural Treasures. FRWC			FRWC:	810-767-6490
30	12:00 pm-6:00 pm Water Quality Monitoring - Help is needed. FRWC/G			FRWC/L:	810-676-6490 or Diane Peplinski, 810-688-3347, dianeskiMAY@yahoo.com
				FRWC/G:	(Monitoring) 810-767-6490 or Dennis Zicha @ 810-953-4954
				FFRT:	Jack Minore (810) 235-1490 or jacksonmin@aol.com or Bruce Nieuwenhuis at bnbaton@gmail.com

Thank you, Members!

As of the printing of this newsletter, there are 251 members of the Flint River Watershed Coalition. And Counting!

This is our highest number of members ever, and we are very proud of our growth. Membership in the Flint River Watershed Coalition continues to be a very important factor in the success of our organization.

Each watershed member is equally important to us - whether it is a student who can afford \$10.00 to show his or her commitment to the work that we do, or it is a Watershed Patron who feels

inspired to contribute \$1000.00 to help us to be a 'Voice of the River'.

During the winter and spring, we have increased our new membership significantly, and have continued to enjoy sustained support from our renewing members. We sincerely appreciate each and every membership. Please see the list of new and renewing members below, and thank them for their support when you see them on the river at our activities this spring!



New members of the Flint River Watershed Coalition

Renewing members of the Flint River Watershed Coalition

- | | |
|---------------------------------|------------------------------|
| James and Susan Adams | Jose Martinez |
| Carol Clemons | John and Ann Moliassa |
| James and Anne Cummins | Chris Morden |
| Diane DeClerck | Eldon and Kathleen Murphy |
| Lisa Easterwood | Melanie Myjak |
| Flint River Valley Steelheaders | David and Rebecca Pettengill |
| Cheryl Gault | Chris Poulos |
| Josh and Rebecca Gonzalez | Michael and Julianne Riha |
| Eric Hall | Leyla Sanker |
| JK4K2K8 Race Group | Shawn Smith and Family |
| Joseph Juno | Marty Spees |
| Richard and Ann Kraft | Lyle and Nancy Walker |
| Ken Lombard | Karen Wildmo |
| Karen Lossing | Gabriella Young |
| Victor Lukasavitz | |

- | | |
|---------------------------------------|---------------------------------|
| American Speedy Printing Centers | Peggy Johnson |
| James Ashmore | Raymond and Kathleen Kelly |
| William Baker | Melville Kennedy |
| Kirk Braun | Kettering University |
| Mike Brown | Ray Lum |
| Nancy Byder | Robin Mallor |
| Herman and Donna Caldwell | Anthony and Muriel Mansour |
| John Cliber | Peter and Beth McCreedy |
| Community Foundation of Greater Flint | Sara McDonnell |
| Lewis Driskell | Jack Minore |
| Ryan Eashoo | John Moldovan |
| Daniel Emerton | Stephen and Laura Montle |
| John Freeman | Brent and Christina Nickola |
| Keith Garman | Walter and Edythe Peake |
| Gregory Gibbard | Jeanne Pepper and Thomas Herman |
| Harold and Debra Golden | Rowe, Inc. |
| Steinman | Paul Rozycki |
| Lee Gonzalez | Joni Scramlin |
| Henry Hickman | Maureen Shoemaker and family |
| Holloway Lake Association, Inc. | Terry Skoglund |
| Arthur and Bess Hurand | Wendy Ulin |
| Jack and Felicia Jackowski | Wade Trim, Inc. |
| Tyler Jamison | Bill Welch |
| Rob Jewell | Carrie Wenta |



Ten questions with...Sue Lossing, FRWC Outreach and Education Coordinator

1. Why are you a member of/work for /volunteer for the FRWC? *Because I really care about the environment and people, and water quality is essential to both. I feel very fortunate to finally have the opportunity to be involved and help make a difference*

2. What FRWC programs do you participate in? *I want to be involved in them all. In the past, my time for environmental activities was limited and I tried to find avenues where I could make a difference. I have always enjoyed participating in the clean-ups and have felt grateful for the efforts of those who coordinated the efforts. Occasionally, I was able to attend a few board meetings and my input was always welcomed. I was able to help spread the word about the FRWC through many opportunities such as the MCC Environmental Club website, Sierra Club, and the Annual Earth Day & Garden Celebration.*

3. When did you first get involved in the FRWC? *I believe it was in 1996, when my friend Pat Lewis asked me to help her with a project for Professor Hill-Rowley. I helped her form committees, develop boards, etc. and invite others to participate in the FRWC. It is nice to see our initial efforts as students grow into such a wonderful, essential organization*

that was able to survive so many transitions over the years.

4. What's your favorite part of the watershed? *I should say "Water of course!", but I have to confess it is the people who care and are energetic about making a difference.*

Besides, I'm not too crazy about getting cold and wet-but if it will make a difference, I'm there.

5. What is the most interesting thing you have seen in the watershed (wildlife, garbage, someone doing something unexpected, etc.) *At one clean-up I was pulling styrofoam -lots of styrofoam, (so much that I'd like it banned) and this one large piece actually had plants growing-the styrofoam was a layer-roots on top and plant above. It was interesting and so I found a bag and took it home to put in my garden. Unfortunately, it did not survive-I'm thinking it was not wet enough-or that my husband sabotaged it (it was not appealing to look at-very slimy).*

6. What's your favorite river memory? *My Dad carrying his canoe on his shoulders to the water. He would like to canoe the river and do what I would call "wheelies" by raising one end of the canoe and letting it slap down, splashing the water like a big whale.*

7. What worries you most about the watershed? *I wish people were more aware of its value. If they were, it would be the first step toward effective watershed practices and would help counter misconceptions people have about the river.*

8. What gives you the most hope?

The people that care.

9. If you could change one thing to help improve the watershed, what would it be? *Involve people. Striving for diversity when doing so.*

10. Who is your river/watershed/environmental/conservation hero? *I admire people who are humble and try to make a difference. Those who are able to work well with others and be effective are the great leaders we do not necessarily recognize. They are hard to identify. They are my heroes because without their efforts would it have happened? Reflecting on this thought brings sadness because I really respected Robert F. Kennedy's efforts and can only imagine what if... Heroes are often identified well after the fact. Those who start the ripple either are the heroes, or enable us to be.*



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The Watershed Reporter

From The Executive Director

Rebecca Fedewa

The Green Arts Project of the Center for Applied Environmental Research recently hosted an invigorating two day event featuring Peter Forbes from the Center for Whole Communities. Mr. Forbes spoke



Rebecca Fedewa

to us about reconnecting people and the land, about working together across issues to ensure long term conservation of our watershed, and about using the power of story to convey not just what we are about, but who we are for.

These are all very powerful notions and a great challenge to the FRWC as we move into the next ten years of operation. If you are getting this newsletter, you likely already have a story about your connection to the river and why you care about partnering to protect, preserve, and improve the watershed. We want to hear that story, as well as provide opportunities to introduce the river to new friends, and help them create their story.

As for the FRWC board and staff, we like to

say that the FRWC is serving as the Voice of the river. For me, that notion has meant that we speak out for a resource that can not speak for itself. After listening to Mr. Forbes, I realize this Voice can be even more. We can be a community voice speaking to the joy we find in, on, and around the river. We can be the voice that tells our friends, neighbors, and decision makers why we should protect our river. And we can be a

collective voice that pulls all of our stories together to define why we care so much about the Flint River Watershed, who we are working so hard to protect it for, and how we're going to accomplish our goals.

To have that kind of voice, we need all kinds of members. We have steadily built the membership base of the FRWC over the years. But this year is especially exciting because we have a challenge from our funders to reach 400 members by December 31st. We're making great progress on that goal, but we could definitely use your help. When you are done with this newsletter, I hope you can take it to your friend or neighbor and tell them YOUR story of the watershed and why this organization is important to you. And as I mentioned above, we would love to hear your story, too.

Tell us what the Flint River or one of its tributaries means to you and why you feel it should be protected for future generations. We'll be collecting your stories to inspire us in our work, and if you let us, publishing some in future newsletters to inspire the rest of the FRWC community.

Finally, I wanted to add an additional thought about what we can accomplish when we work as a community. Inside this newsletter, you'll find an update on the passage of the Great Lakes Compact. This is a momentous achievement for the conservation community not just in Michigan, but across the Great Lakes basin. Several years of hard work went into this effort, and it will be some time more before we see the Compact fully implemented at the federal level. But we likely never would have gotten this far or had the promise

We can be the voice that tells our friends, neighbors, and decision makers why we should protect our river.

River Clean-up Thank you!

Susanne Kubic

I'm very thankful this year on how the river cleanup went. I want to thank our great sponsors who donated cash and services and our wonderful volunteers who gave up a Saturday morning to come out and pick up trash. I am also thankful that we could not have had better weather if we planned it.

A challenge was issued to our new Outreach & Education Coordinator, Sue Lossing, that if she got us more volunteers, I would get us the sites for those people. Sue rose to the challenge and we added 3 more sites this year.

Also, the FRWC partnered to hold simultaneous clean ups off the river. Often trash on the ground ends up in the river either from wind



or rain, so the trash picked up at the community cleanups is trash that won't end up in the river. I'm happy to report that 270 volunteers from Genesee and Lapeer Counties removed the equivalent of 246 bags of garbage equaling over 1,700 cubic feet of trash. In addition, we removed several bikes, shopping carts, and TVs, 22 tires, a freezer, and a rusted out bed frame from the river.

I want to thank again all the people that took the time to help. I can't help but get excited for next year, because there are over a half a million potential volunteers in the Flint River Watershed and Sue will have almost a year to prepare...I think I need to start scouting for new sites now. *Have a wonderful summer!*

of such an exciting outcome if we hadn't pulled together as a community to speak for our freshwater natural resources.

So congratulations to all of us, and keep up the good work!!



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

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FRWC Board meetings are held the third Friday of the month at Mott Community College in the Genesee Room of the the Prael Conference Center.

Genesee GREEN Completes 20th Year

Bill Welch

Genesee GREEN, the student water monitoring program, has just completed the 2008 season. This completes the 20th year that Flint River Watershed students have participated, and the 4th year under the leadership of FRWC. GREEN in Genesee County is funded by General Motors and the Genesee County Drain office.

GREEN, *Global Rivers Environmental Education Network*, was designed for schools to learn about watersheds and water monitoring. The mission for students is to determine water quality in their watershed. Schools in Genesee County have volunteered to participate and have added their data to a Global Rivers database. School participation has increased yearly, and for 2008 there were 893 students



Senator John Gleason works with students at Whittier Middle School

in the field sampling the Flint River and its tributaries. Quality of the Flint River water has been found generally to be good or very good. Current and past data can be found on the Genesee GREEN website at www.geneseegreen.org.

The FRWC goal for GREEN is to introduce and support watershed education in every school district in the Watershed. Currently 81% of school districts in Genesee County participate. Future plans are being discussed to include school districts outside of Genesee County that are part of the Flint River Watershed.

On May 16, FRWC held a GREEN/Watershed celebration at Mott Community College. At the celebration, called the Student Water Summit, student teams presented their water quality data and listened to environmental professionals discuss various aspects of watersheds. The student presentations were impressive and showed a thoughtful understanding of watersheds and the necessary part they play in our environment.

The Flint River Watershed Coalition would like to thank all the student participants for 2008. Our appreciation also goes out to all of the teachers that participated as well as General Motors and the Genesee County Drain office for their financial contributions. Other sponsors we would like to thank are Mott Community College and Genesee Intermediate School District. We would also like to thank our many environmental professionals that volunteer their time to mentor in classrooms.

The 21st year for Genesee GREEN will begin next fall. Teachers and mentors will be trained to lead their students in the assessment of water quality. In the spring, look for hundreds of students 'getting wet' in our watershed streams.

Land use, planning & zoning, and the high cost of gasoline...

Chairman's Update: *Jack Minore*

What, one might ask, connects those three items? Perhaps a walk through recent history will help. When I was a kid, growing up on the near north side of Flint, the neighborhood was comprehensive and self-contained.



Jack Minore

In a 6-7 block walk from my house, I had my choice of three grocery stores, three locally owned pharmacies, two bars, one restaurant, two barbershops, dentist and physician offices, two drycleaners and a half dozen other commercial businesses. We could – and did – walk to fill virtually all of our service needs. My Dad rode the bus to work at “Chevy in the Hole” and many of our neighbors walked the mile+ to the Buick Factory. We rarely used the one car in the family – except on weekends. The houses were modest and mostly sat on 50 foot lots. Growing up in the forties and fifties, my life was pretty typical of other city dwellers. We didn't use much gasoline!

In the sixties, however, land use changed (along with a lot of other things!). People began to move out to the suburbs, build larger homes, and drive everywhere. Soon, families began to “need” two or more cars. And kids could no longer walk to school. Gasoline consumption doubled and tripled, at least.

Later the houses got bigger, the suburbs further from the cities, box

stores replaced the neighborhood stores, schools got built on large plots ever further from the student homes – and gasoline consumption continued to rise.

Later still, the 3,200 square foot house with the attached and heated three car garage became the “norm” – in contrast to the 900 square foot home in which my parents and three siblings were comfortable. Every step, our own land use policies have made us more dependent on oil – and has required so much more of it on a daily basis – in spite of substantially increased fuel efficiency.

Of course there is a much greater concern for water resources in this history. As we paved more and more miles of pavement, drive ways, and parking lots – and as we built ever bigger roofs over those new houses and big stores – we eliminated hundreds of thousands of acres of permeable land, creating huge run-off problems for every creek and drain within our developed lands, and we've destroyed natural wetlands in the process. Development accounts for much of the increased problem with run-off pollution in our streams and lakes.

The moral of this history, of course, is to stress my firm belief that land use and issues of planning and zoning influence far more than just the new development site and its neighbors. Land use affects us all! I encourage you to consider how you can help influence better land use planning in your community.

Brandon Township

Holds Planning Fair

Lois B. Robbins

Embarking on revisions to its master plan a year before they are required to do so, the Brandon Township Planning Commission is to be commended for its decision to seek as much public participation in the process as possible. As a result, a Planning Fair was held on June 10. Around 25 people attended, including several Middle School students brought by Science teacher, Dave Green. Most of the people in attendance are members of Defending Our Natural Treasures, a chapter of the Flint River Watershed Coalition.

Doug Lewan, the township's Planning Consultant with Carlisle Wortman Associates, gave a brief PowerPoint presentation, explaining the purpose and limitations of a master plan as a guide for future zoning adjustments and ordinances. He then invited residents to visit any or all of the following topic stations to let their desires be known to the planning commissioner staffing each of the following stations: Residential Development, Commercial Development, Transportation, Natural Areas, Community Services, and others. At each station, a Planning Commissioner listened to residents' concerns and noted them on a chart pad. Comments from each station were then summarized in a plenary session to conclude the event.

At the Planning Commission's follow-up meeting on June 24, the Commissioners reviewed the results of the June 10 event. By far the Natural Areas was the most active station, with special concern for Kearsley Creek, a headwaters to the Flint River. Commissioners decided to schedule a second Planning Fair with better publicity, hoping for expanded citizen input. The Commission's goal is to have a draft of the Master Plan revisions by Christmas of this year.

It's clear that the Brandon Township Planning Commission desires to create a document that will honor the desires of Brandon residents to protect our cool jewel, Kearsley Creek, and the wetlands, woodlands and open spaces that give our township the rural character we love.

What if the FRWC had a penny for every time you searched the Internet?



Here's a new easy way to raise money for the Flint River Watershed Coalition. Just start using GoodSearch.com as your search engine and online shopping mall. Every time you search the Internet or make an online purchase at one of their partner merchants, GoodSearch makes a donation to the FRWC and it's powered by Yahoo! so you get great search results!

Vegetation Flourishing at Gilkey Creek Rehabilitation Project

Brad Hill

Now that summer has arrived, newly established vegetation is flourishing in the Gilkey Creek streambed and floodplain constructed last year at the Mott Applewood Estate, near the Flint Cultural Center. The roots of the vegetation will hold soil in place when it rains or when the flow of water in the creek is fast to prevent water pollution caused by soil erosion.

Gilkey Creek starts in Grand Blanc Township and flows through Burton and Flint into the Flint River in northeastern Flint (near Hamilton Avenue). Almost all of the land that drains into the creek (its watershed) is urbanized. Because of this, the creek receives rainfall runoff (stormwater) that flows into it from roofs, driveways, roads, parking lots and other paved areas through storm sewers. This runoff carries pollution washed from these surfaces, such as dirt, animal droppings, yard wastes, lawn fertilizer and pesticides, automobile fluid leakage, and litter.

Flooding was exacerbated at Applewood by recent upstream commercial and residential development, mostly in Burton, which increased the area of upstream impervious surfaces (roofs, roads, parking lots, etc.) and volume of stormwater captured by them. Upstream stormwater is rapidly directed to Gilkey Creek through enclosed storm sewers and open drains. New upstream development now includes the use of retention basins to lower stormwater flow to prevent flooding.

During the summer and fall of 2007, a project to protect Applewood from flooding as well as enhance water quality and wildlife habitat in Gilkey Creek was carried out in the reach encompassed by the estate. This stream rehabilitation project involved excavating a new stream bed and contouring stream banks and the flood plain to correct hydrological problems caused by channelization. A stormwater detention pond and wetland were constructed next to the creek, and rapids, dams, pools and other types of aquatic habitat were created in the new

Lapeer Chapter Receives Award

The Lapeer Chapter of the FRWC has won the Clean Waters Award from the Michigan Outdoor Writers Association, a professional organization of more than 200 outdoor writers and photographers. The Lapeer County Chapter's hard work and dedication was recognized during the association's summer conference on Beaver Island. Diane Peplinski had the arduous task of traveling to the island to accept the award on the Chapter's behalf.

We are so proud of all the great work of the Lapeer Chapter, and couldn't be more pleased that they are receiving this type of broader recognition from the public. The Chapter was nominated for the award by Mark Sak, a professional tournament angler and outdoor writer.

Congratulations to every volunteer in the Lapeer Chapter!!



Diane Peplinski receives MOWA award from Carol Swienhart

channel. An in-stream sedimentation basin was also created for intercepting suspended solids. Soil erosion and sedimentation control measures were carefully employed throughout construction to prevent water pollution in the creek.

The Flint River Watershed Coalition studied the impact of the stream rehabilitation project on water quality while it was under construction. Samples were collected from the creek upstream and downstream of the project, and water quality index scores were calculated from sample test results.

This was done during periods of dry and wet weather to evaluate the impact of stormwater runoff and stream bank erosion during high flows on water quality. A biological survey was also done upstream and downstream of the project for assessing longer term water quality.

No substantial degradation in water quality was observed downstream of the project, and no correlation between rainfall amount and water quality was found.

The upstream and downstream water quality was good, as measured by chemical and physical testing, and fair, as measured by biological analysis.

*For more detailed information on the testing results, see **Good Water Quality** on page 5.*

FRWC on the Web

In the next month or so, you will be seeing a major overhaul to the FRWC website www.FlintRiver.org. We'll have a new look, but don't worry, we'll still have all the features you've come to love on our current site. Plus, we'll be adding new features, such as an interactive map of our monitoring sites, individual pages for each of our four chapters, online donation and activity signup, and more! Come check us out. In addition to our new site, the FRWC has become active on two social networking sites. We now will be housing our photos at www.flickr.com/photos/frwc. Come browse the sights and activities of the watershed. We'll slowly be adding photos over the summer, and if you have pictures you would like to add, please email them to me at rfedewa@flinriver.org. And if you have a page on FaceBook, please consider adding the Flint River Watershed Coalition as a "group" in your profile. And tell all your friends!!

Governor Signs Great Lakes Water Compact

--from the National Wildlife Federation

The Great Lakes states took an historic step toward protecting the lakes from water diversions on July 9, 2008, when Michigan Gov. Jennifer Granholm signed the Great Lakes-St. Lawrence River Basin Water Resources Compact.

With Granholm's signature, all eight Great Lakes states— Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin— have now passed the Great Lakes Compact, a regional water management agreement to protect the lakes from water diversions outside the region and to promote water conservation within the region.

The Compact now heads to the U.S. Congress. For it to become law, Congress must consent to the water agreement.

"There were times that I thought this day would never come," said Andy Buchsbaum, regional executive director of the National Wildlife Federation's Great Lakes office and veteran of many Great Lakes Compact workgroups. "To think that all eight Great Lakes states have passed the exact same law to protect the lakes... and that the law they passed is so visionary and effective. It's taken almost ten years from beginning to end, but the results are worth it. This is a remarkable, once in a lifetime achievement. And it's due to the hard work, dedication and vision of Great Lakes state leaders like Michigan's Governor Granholm, Senator



Michigan's Governor Granholm, Senator Patty Birkholz (left), and Representative Rebekah Warren

Patty Birkholz, and Representative Rebekah Warren."

Buchsbaum cautioned, "But we're not done. Now it's Congress's turn. To complete the process, Congress needs to approve what the Great Lakes states have created. Our state leaders have showed their mettle; now we look forward to our Congressional leaders stepping up. Our U.S. Representatives and Senators need to act with the same urgency that united the region to protect this national treasure from water diversion so that people, businesses and communities can depend on Great Lakes water now and generations to come."

The Great Lakes Compact is the culmination of a multi-year process of negotiations among the eight Great Lakes States.

The Great Lakes contain 95 percent of the fresh surface water of the United States. Although seemingly abundant, less than 1 percent of the Great Lakes water is renewed each year, leaving the lakes vulnerable to degradation and depletion.

The Compact will ensure that clean and plentiful water remains available to provide critical drinking water for citizens, power for the economy, affordable and efficient transportation for commerce, and numerous recreational opportunities for the region's residents and tourists alike.

Good Water Quality in Gilkey Creek

Brad Hill

Water quality in Gilkey Creek is generally good. The Flint River Watershed Coalition started monitoring water quality in Gilkey Creek near its mouth at Flint Kearsley Park last July (see "Vegetation Flourishing in Gilkey Creek Rehabilitation Project").

Gilkey Creek starts in Grand Blanc Township and flows through Burton and Flint into the Flint River in northeastern Flint (near Hamilton Avenue). Almost all of the land that drains into the creek (its watershed) is urbanized. Because of this, the creek receives rainfall runoff (stormwater) that flows into it from roofs, driveways, roads, parking lots and other paved areas through storm sewers. This

runoff carries pollution washed from these surfaces, such as dirt, animal droppings, yard wastes, lawn fertilizer and pesticides, automobile fluid leakage, and litter. Because of the polluted runoff, the suspended solids concentration in the creek was as high as 308 parts per million in Kearsley Park after heavy rainfall last month (the average concentration for the last 12 months is 25 parts per million).

Monitoring is being done for the Ruth Mott Foundation to assess the impact on water quality in the creek resulting from a project at the Mott Applewood Estate, near the Flint Cultural Center, to prevent flooding and enhance water quality and wildlife habitat in it. Water quality scores are being calculated based on the numbers of biological indicator organisms collected in the creek and also on water sample test results for dissolved

oxygen, pH, total solids, turbidity, phosphates, nitrate, and temperature.

The water quality score determined by biological analysis (bio-monitoring) was 27 last fall and 39 this spring. A bio-monitoring based water quality score of 19 – 33.9 represents fair water quality score determined by biological analysis (bio-monitoring) was 27 last fall and 39 this spring. A bio-monitoring based water quality score of 19 – 33.9 represents fair water quality and a score of 34 – 48 represents good water quality. The average water quality score determined by water testing was in 77 in 2007 and 78 this spring. A testing based score of 70 to 90 represents good water quality. These findings indicate that the water quality was generally good, despite the impact of stormwater pollution.

Tip #7: Choose Earth Friendly Landscaping



There are many simple and easy things you can do today that will help the FRWC in our mission to protect, preserve, and improve the Flint River Watershed. The Genesee County Community Water Quality Consortium has consolidated these ideas into seven tips that focus on simple changes that can make a big difference! Today, we've focused on tip #7: Choose Earth Friendly Landscaping

Mow high Make your lawn cheaper and easier to maintain by mowing high (three inches is recommended). Taller grass requires less water, promotes root growth, and shades out weeds. And fewer mowings require less of that ever more expensive gasoline!!

Use mulch Place a thick layer of mulch (e.g., four inches) around trees and plants. This helps retain water, reduce weeds, and minimize the need for pesticides.

Go native Select plants native to Michigan. Native plants are better equipped to tolerate Michigan's climate, require less fertilizing, and are more disease resistant. A good resource for native plants is www.epa.gov/glnpo/greenacres/ or just type "Michigan Native Plants" into GoodSearch or your favorite web search engine.

Variety is the spice of life Using a wide variety of plants helps control pests and minimizes the need for pesticides

Water wisely Generally, your lawn needs about an inch of water a week. Over-watering lawns results in shallow-rooted plants that are less tolerant of heat and drought, and more prone to disease. Avoid over-watering by using a rain gauge and watering only when necessary, instead of on a fixed schedule.

Use less for pests Pesticides and herbicides can be harmful to our kids, pets, and the environment. So, use pesticides and herbicides sparingly. Limit applications to problem areas instead of applying to the entire area (e.g., weed and feed).

Rake it or leave it Follow the guidelines in your community for leaf pick-up. Never rake leaves into or near storm drains, ditches, or streams. Decaying leaves use up the water's oxygen, harming fish and the aquatic insects that fish depend on to survive. Better yet, mow leaves into your lawn. Leaves and grass clippings are good fertilizers for your lawn.

Buffer Create buffers of plants between waterways and hard surface areas to help filter out pollutants.

For more information on all seven tips, please visit the Genesee County Community Water Quality Consortium at www.ClearGeneseeWater.org

MEMBERSHIP

The programs and membership activities sponsored by the Flint River Watershed Coalition this spring proved successful and rewarding. We continued to grow our membership, and to retain past supporters and volunteers. As always, we want to acknowledge those who became new members, or renewed their affiliation with our organization.

New members of the Flint River Watershed Coalition are:

Shane Connors
Patrick Erwin
David and Suzanne Lossing
Brittany Pilarski
Michael Stemm

Renewing members are:

Linda Johnson Barnes
Bob and Chris Carlyon
Leo and Genevieve Dorr
Wanda Dowdall
Kenneth and Amy Elwert
Susanne Kubic
Lois Robbins
Paul Roetter
Michael and Peggy Supernault
Dayne and Carrie Walling
Paul Wenstrom

10 Questions With...Brent Nickola, FRWC board member

1) Why are you a member of/work for/volunteer for the FRWC?

- To stay informed and provide input on one of the greatest assets in our community.

2) What FRWC programs do you participate in?
- I have coordinated several cleanup sites and chaired the strategic planning committee.

3) When did you first get involved in the FRWC?

- 2002

4) What's your favorite part of the watershed?

- That one fishing hole that always produces! Sorry, I can't be any more specific.

5) What is the most interesting thing you have seen in the watershed (wildlife, garbage, someone doing something unexpected, etc.)

- The changing attitude of our community towards our river.

6) What's your favorite river (any river) memory?

- As a kid, building little dams and knocking them down on the small creek behind my house.

7) What worries you most about the watershed?

- That people drive over small creeks near their home and don't know that they are part of the Flint River.

8) What gives you the most hope?

- Rivers ability to inspire people.

9) If you could change one thing to help improve the watershed, what would it be?

- Take everyone out in a canoe and show them all the life in the river.

10) Who is your river/watershed/environmental/conservation hero?

- Former Poet Laureat, Robert Hass. He once took a classroom of underprivileged children into the United States Senate to do a presentation on the combined sewers that service Capitol Hill. The children showed everyone how the senator's crap literally ended up in the children's neighborhood.

Lapeer Happenings *Dave Wolfenden*

Wed, 6/11, I took a kayak ride from Millville Landing to Norway Lake Rd. in the early evening. It was a very comfortable evening with a slight breeze and no rain. The water level was very high, so I decided to see how much damage the high water and wind had done.

As I got in my kayak at Millville, I was joined by a small frog. I didn't want didn't want to share my beer with him so I left him at the bridge. The DNR cleared a very large tree from the property just downstream from Millville a few weeks ago so the river is clear up to the area that Rotary is still working on off Stonegate Rd. We cut out a pathway on the left side of the big

jam and it was no problem getting through with the high water, but we need to do more work on it and another obstruction just downstream.

For now, there is an adequate opening at the left side and I got through easily, but the strong current took my kayak into a leaning tree just beyond the blockage. That tree has to go. Continuing on to Flint River Rd. I noticed many trees leaning into the water which weren't there a month ago, but none of them pose a navigation problem at this time, and for now, they provide habitat.

It was such a beautiful evening I continued past Flint River Road into the State Game Area. There is a very large blockage at the Bush property near the

oxbow which has been forming for several years. I was able to fight my way through it from the water, but it would have been easier and faster to have gotten out and gone around it and I wouldn't have had a boat full of spiders. Further downstream I encountered two more blockages and I did have to get out and go around one of them.

Late afternoon/early evening is a very good time to observe wildlife all along the river. I was able to get close to deer, musk rats, several great blue herons, a few kingfishers and lots of ducks. When the river is high like it is this week, the time from Millville to Norway Lake Rd. is only about two hours.

CALENDAR OF EVENTS

JULY		AUGUST		SEPTEMBER	
July	No Flint River Watershed Coalition board of directors, Lapeer Chapter, or DONT meetings in July.	August TBA	FRWC Canoe Trip, Flint River Trail from Mitsen Landing to Downtown Flushing. Contact: FRWC	September TBA	FRWC River Walk: Montrose Barber Memorial Park. Contact FRWC
July 12	Bike Ride: Rochester Area, Contact FFRT for more information.	August TBA	FRWC Canoe Rally, Flint River from Downtown Flushing to Montrose. Contact: FRWC	September TBA	FRWC River Walk: Richfield Park. Contact FRWC
July 13	Ice Cream Ride. Meet at Flint's Farmers Market at 2:00pm. Contact FFRT.	August 9	Bike Ride: Bay City (including State Park). Contact FFRT	September 16	Lapeer Chapter Meeting of the Flint River Watershed Coalition. 7 PM.
July 31	FRWC River Walk: Flushing River Trail. Meet at Bueche's parking lot for an interpretive walk from the Flushing City Park to Flushing County Park. Contact: FRWC	August 10	Ice Cream Ride. Meet at Flint's Farmers Market at 2:00 pm. Contact FFRT	September 19	Flint River Watershed Coalition board of directors meeting, Genesee Room of the Prah Center. 8:30 AM.
July TBA	FRWC River Walk: Holloway Reservoir. Contact FRWC	August 15	Flint River Watershed Coalition board of directors meeting, Genesee Room of the Prah Center. 8:30 AM.		
July TBA	FRWC River Walk: Stepping Stone Falls. Contact FRWC	August 19	Lapeer Chapter Meeting of the Flint River Watershed Coalition. 7 PM.		
		August TBA	FRWC River Walk: Clio Park. Contact FRWC		
		August TBA	FRWC River Walk: George Atkins, Jr. Recreational Trail. Contact FRWC		

CONTACT INFORMATION:
 FFRT=Friends of the Flint River Trail,
 Jack Minore @ (810) 235-1490;
 Bruce Nieuwenhuis @ bnbaton@gmail.com
 FRWC: Flint River Watershed Coalition, (810) 767-6490.

SPRING STREAM MONITORING

Dennis I. Zicha: Monitoring Committee Chairman



We sampled 22 of our 30 total sites (73%), 15 of 16 in Genesee County and 7 of 10 in Lapeer County. A total of 43 volunteers participated with 5 people participating for the first time. Six teams went out on Saturday and ten teams on Wednesday.

The overall stream quality rating (Poor, Fair, Good, Excellent) for sites sampled this spring improved at four locations (all in Genesee County) and declined for five streams (four of the five were in Lapeer County). Thirteen

locations remained the same as last spring.

Rebecca and Sue deserve special thanks as they monitored three sites together and two others locations with different partners. Sara McDonnell and Carol Clemons also monitored two sites,

both on the same day! Brad Hill and his partners at the Flint Water Pollution Control Department also did their usual two sites on Butternut Creek.

Fall monitoring will be scheduled sometime in the last week of September and first week of October. We are also planning a training session for early September. Please note these dates on your calendars and plan to participate. You will be hearing more about the fall session as we get closer to September.

Special thanks, especially for all our volunteers, whose participation makes this critical activity possible. Please spread the word about this program to your friends and family so we may expand our roster of volunteers. Thanks once again for helping to make a difference. I hope to see you in the fall.

Once again this spring our semi-annual stream-monitoring project was a success. Monitoring was conducted on Saturday, April 26 and the following Wednesday, April 30. Volunteers at some Lapeer County sites participated on other days due to scheduling conflicts.



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The Watershed Reporter

From The Executive Director

Rebecca Fedewa

It is hard to believe it's already September. This has been a fun and busy summer for all of us here at the Flint River Watershed Coalition. And while we have lots to look forward to this fall – football games, fall color, apple season, our fall programs – it's hard to let



Rebecca Fedewa

go of a beautiful Michigan summer. This will be a memorable summer for me for many reasons, but I'll mostly look back on this as "the summer I learned to fish."

For those of you who were able to attend the FRWC annual meeting last January, you might remember a very nice gift given to me by the board and outgoing Executive Director Steve Montle – a fishing pole. I mentioned then that I really wasn't much of a fisherwoman. In fact, the last time I had ever been fishing was probably 25 years ago with my dad, two brothers, a Zebco reel, and the proverbial coffee can of worms dug out of our leaf pile out back. We probably caught a few small fish, but I mostly remember being hot and bored, and wanting to jump in the lake myself rather than continue to drown worms in it.

So, the fact that it has taken 25 years to try again isn't so surprising. What was surprising is how much I absolutely LOVED being out in the Flint River, catching fish that probably aren't a whole lot bigger than those I caught way back when. My first trip out with my new reel, I caught three fish (and only needed help getting the first one off the line). To use a bad pun, I was hooked, and immediately came home and ordered my own set of waders. Later this summer, I had the opportunity to try

my hand at some fly-fishing. I was dubious of even trying to fly fish – my impression was it's very difficult to learn and until you were good at it, good luck catching anything. Again, much to my surprise, it was actually easy to learn (I had a good instructor!) and I caught several fish on my first outing.

My point is that even as a river and watershed enthusiast, I have certain "watershed" notions that aren't always correct. Fishing is in fact a lot of fun! Fishing (and wading) the Flint River is an amazing experience. There are large numbers of "keepers" out there to catch.

As the Voice of the Flint River, the Flint River Watershed Coalition is focused on helping people create their own story about the watershed, and working to dispel notions about the river that may not be correct. How many of us have heard some version of "if you fall in the river, you'll come out glowing/with three eyes/sick and diseased." Its true that the Flint River has its stresses, but an overwhelming majority of our watershed is a beautiful natural wonder that offers numerous recreation opportunities, serves as a water supply, provides habitat to a diverse array of wildlife, and adds beauty and character to our communities.

We still have some work to do to get our WHOLE watershed healthy; but in the meantime, we all can work to dispel incorrect notions about our watershed. So whether you hear "there is no good fishing on the Flint River" or "the river turns your hair blue" take a second and kindly correct your friend or neighbor. Point them to the FRWC's photo website www.flickr.com/frwc where you can see first hand just how beautiful a place we have, right here in our own back yard. Better yet, offer to take them for a walk, bike ride, canoe float, or fish in the river. I bet they'll be hooked, too!

FRWC Outreach and Education Programs

Through support from the Genesee County Community Water Quality Consortium, the FRWC is sponsoring a number of activities to show YOU all the wonders of our watershed. See our calendar of events for dates and times, and contact the FRWC for more information or if you would like to participate in any of these programs.

Public Education Storm Drain Stenciling.

Help us spread the message that storm drains run directly into our river. The FRWC is seeking community groups and neighborhood associations throughout Genesee County who are looking for opportunities to make a difference in their community. We provide all training and supplies.

River Walks. Free and open to people of all ages and abilities. Many of the walks are on groomed trails and show the diversity of our watershed. The walks focus on the value of our watershed, how you can take simple steps to help protect our rivers and streams, and many of the recreational possibilities on the Flint River.

Canoe Trips. The FRWC hosted two trips – a canoe rally in early August and an Environmental Education canoe trip in early September. These programs focused on fun, and getting people out on the river. Both trips were a great success, and we want to hear from you if you would like additional opportunities such as these in the future.

Public Education Presentations. The FRWC has a speakers bureau program that we can bring to your group. Our presentations focus on YOUR watershed, and simple steps you can take to help protect, preserve, and improve it. Presentations can be tailored to suit the time and topical needs of your group.



432 N. Saginaw St. Ste. 238
 Flint MI 48502
 810-767-6490
www.flintriver.org

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

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FRWC Board meetings are held the third Friday of the month at Mott Community College in the Genesee Room of the the Prael Conference Center.

Printed locally at a Union Shop
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C'mon in, The Water is Fine!

Supporting the FRWC

The FRWC is in the midst of our membership drive. We are working to build our membership to 400 people, and while we are making great progress, we can use your help. If you are not yet a member, please consider joining today. You will find a membership application on page 5 of this newsletter. If you are already a member, thanks so much! For all those joining or renewing at the \$100 level or above, we've got a great gift for you.

We also have some fun events for you this fall that will help you get more involved in the Watershed Coalition. Later in October, we'll be hosting a Fall Forum on the impacts our watershed can have on the Great Lakes. U.S. Senator Dale Kildee has been invited to speak. I hope to see you there! We'll be sending out more details as we firm up planning for this event.

Also, we have launched our first annual Run/Walk/Bike/Paddle/Fish for the Watershed. Anyone can participate in our first foray into online donations. Please visit our fundraising page on www.FirstGiving.org/FRWC. If you want to participate, making your own page takes only 5 minutes, and making a pledge is even faster! We'll have friendly competition among sub-watersheds (hey Gilkey Creek, Swartz Creek said they could raise more money in a day than you could in a week!!!) and FRWC Chapters (Peddlers, the Paddlers think you can't raise 10% of what they can raise). I'll be running the Chicago Marathon and collecting pledges for every mile. You can do anything – run the river trail, paddle the river, catch a dozen fish – whatever suits you best!

-Rebecca

10 Questions With...Diane Peplinski

Board Vice-Chair, Lapeer Chapter Chair

1. *Why are you a member of/work for /volunteer for the FRWC?* I became active in the FRWC because of my feeling of obligation, to do what I can, to protect the health of our environment.
2. *What FRWC programs do you participate in?* Benthic Monitoring, River cleanup, Habitat restoration/obstruction removal, education.
3. *When did you first get involved in the FRWC?* I believe it was in 2002 that I first was involved.
4. *What's your favorite part of the watershed?* My own back yard, and beyond.
5. *What is the most interesting thing you have seen in the watershed? (wildlife, garbage, someone doing something unexpected, etc.)* I think the most fascinating things are the macroinvertebrate that live in the creeks, streams and rivers, and how their numbers indicate the health of the water.
6. *What's your favorite river (any river) memory?* Having someone take you on a raft on the Martha Brae in Jamaica or in a canoe on the Flint River is so romantic, don't you think???
7. *What worries you most about the watershed?* I worry most about lack of concern for the health of the water and the denial (of many) that what they do could possibly cause harm.
8. *What gives you the most hope?* Talented and smart people who are knowledgeable about environmental concerns and (those person's) ability to share that information in a way that will be well received, gives me hope.
9. *If you could change one thing to help improve the watershed, what would it be?* Less toxins and sediment entering the water.
10. *Who is your river/watershed/environmental/conservation hero?* Rachel Carson

Politics and the Watershed

Chairman's Update: Jack Minore

Some of you may have noticed that there is an election this fall! (Of course this campaign has gone on for so long, that many of you may have tuned it out altogether.) And, some of you may think that since we are a 501c3 organization, we should ignore the



Jack Minore

campaigns, right? WRONG! I'm not talking about the national campaign or even those for state office: but your local officials have an enormous impact on the conditions of our streams and rivers across the entire watershed now and far into the future. It is your local County, City, Township or Village official that makes critical decisions that affect water quality in the watershed. We should seek to influence and educate them about the issues that have an impact on the Flint River and its tributaries.

Those local officials will make dozens of decisions in the next two or four years on land use, on zoning, on water and sewage treatment, on wetlands, on run-off and on many other things. Many of them will have the opportunity to affect local regulations about buffer zones or wetland restoration, for example. And many of the candidates for those offices have given little or no thought to topics that affect "our" issues.

I'm not talking, of course, about endorsements or contributions: but

each of us has an opportunity to affect – not the election, so much – as the impact of the election on future action. Here are a few things you (yes, each of you!) can do in the coming weeks between the time you read this and Election Day.

When a candidate knocks on your door to ask for your vote, quiz them just a minute or two about water quality. Have they given any thought to the issue? Are they familiar with the Watershed Coalition? Will they take water quality in consideration when they make site plan or zoning decisions? Have they thought about the fact that what happens in their township or city has an impact on the quality of the Great Lakes?

And when there are candidate forums in your area, you can (and I hope, will) attend the forum and ask some of the same questions.

You can also give a candidate a copy of this newsletter (we will gladly mail you another one!) and ask them to at least skim through it – or, better yet, become a member. And you can point out that our staff and Board are always willing to answer any questions they may have – now, as a candidate – or next year, when they are in office.

I'm a firm believer that the very best time to get a candidate's attention to our watershed concerns is NOW – when they are seeking your attention and your vote! (Please let us/me know of any candidate encounters you have – and your impression of the candidate's interest in issues related to the Flint River Watershed Coalition.)

Wildlife Sightings

-Sue Lossing

FRWC Outreach and Education Director



Image courtesy of NWF

In early July, I was canoeing in the Flint River along the Flushing to Montrose stretch. I was busy noticing what was in the water when my paddling partners sited an immature bald eagle flying across the river. The eagle was quick and unfortunately, I missed it! But I'm confident I'll get a second chance, because in the days and weeks since, I've learned about several sightings of mature bald eagles around this same area and others.

Although we've not yet spotted an eagle's nest in the Flushing to Montrose area, a large nest has been recorded near Mott Lake, which means the eagle(s) may be traveling around our watershed. The sightings of the immature and adult eagles show promise, not only for a species just recently removed from the endangered list (June 28, 2007), but also for the continuing improvement in the health of our watershed.

Our hats are off to all the volunteers and residents whose stewardship along the river and participation in our annual River Clean Up has made this an area of choice for the eagles. And as it seems they are sticking around, we all have the opportunity to catch a glimpse of our national symbol.

For more information on bald eagles in Michigan, see:
<http://www.michigan.gov/dnr/0,1607,7-153-10319-32581--,00.html>

What if the FRWC had a penny for every time you searched the Internet?



Here's a new easy way to raise money for the Flint River Watershed Coalition. Just start using GoodSearch.com as your search engine and online shopping mall. Every time you search the Internet or make an online purchase at one of their partner merchants, GoodSearch makes a donation to the FRWC and it's powered by Yahoo! so you get great search results!

Doing Well by Doing Good

Businesses in the Watershed

We are launching a new column here in the Watershed Reporter, highlighting local businesses that seek to lessen their impact on our watershed. If you know of or own a business that is taking measures to reduce its impact on our watershed, please let us know! This issue, we feature The Good Beans Café.



Ken VanWagoner and his rain garden

The Good Beans Café is located in downtown Flint at 328 North Grand Traverse, just two blocks from the Flint River. Two years ago, with assistance from the Ruth Mott Foundation, Good Beans' owner Ken VanWagoner installed a rain garden in between his building and a newly built patio. This garden catches 100% of the "first flush" of rain from his roof and driveways. Capturing this first flush also means capturing the sediment and other pollutants that would otherwise wash directly into the nearby storm drain. The garden does have a limited capacity, however, which means prolonged rain showers eventually result in some water entering the storm drain. Not to be deterred, Ken is building a second garden to capture this additional stormwater. Not only are the gardens doing their part to turn stormwater back into rainwater, they provide a beautiful addition to the landscaping at the Good Beans Café. If you would like additional information on rain gardens, Ken recommends visiting the Rain Gardens of West Michigan at www.raingardens.org.

Lapeer Happenings

Dave Wolfenden

The South Branch of the Flint River between Rotary Park in Lapeer to Saginaw St. has several major blockages from large trees that have fallen recently. Peter McCree's crew has been working on clearing these trees, but there is still a lot more work needed. Due to shorter evenings, this time of year a Saturday workday will probably be required. As always, volunteers are needed.

There are still blockages between Mayfield Rd. and Millville Landing in the areas where the property owners have not given us permission to work. When going around these blockages, please remember that this is private property.

The Rotary Club along with Carl Haas has been able to keep the section from Millville Landing to Flint River Road fairly clear this year. We have had to use the winch several times to move large trees and have done a lot of trimming on overhanging branches. This is a scenic stretch of the river and very easy to navigate.

The DNR along with Carl have opened the river from Flint River Rd. through the State Game Area to the landing at Norway Lake Rd. This is a beautiful area and if you

are quiet, it is possible to see a wide variety of wildlife throughout the entire stretch.

From Norway Lake Road to Holloway Reservoir, the river is navigable but requires going around and under a number of trees. There were a large number of carp just past Columbiaville Rd. in the shallow water. Looks like a good place to catch them. The water level is low and there are a number of shallow places where I had to get out of my kayak and walk it across the sand and gravel bars. As you approach Holloway Reservoir and the north branch of the river there are many canals and islands. There is no noticeable current in this area and it is easy to get mixed up and paddle up a dead end canal or go around an island a few times. Rotary "River Rat" Earl has marked the most direct passage through this area with fluorescent markers making it much easier to navigate. To see just how easy it is to get turned around, look up the satellite photo of the north end Holloway Reservoir on Google Earth. This part of the river is most fun in the Spring and soon after a heavy rain, when the water level is up.

Flint River Trail Rides

Fall, with its cooler weather and great scenery, is an ideal time to join the Friends of the Flint River Trail (FFRT) on one of their rides. The FFRT Sunday rides continue every Sunday through October, leaving promptly at 2:00 PM from the Flint Farmers' Market. The "regular" rides are about 13 miles in total, and are at an easy pace with plenty of rest stops for those who need them. Regular rides are usually to either Blue Bell Beach or to Stepping Stone Falls – both in the Genesee County Park System – and both wonderfully scenic in the fall. The second Sunday of each month we take a slightly longer ride to the village of Genesee – with an ice cream shop destination being the real reason we ride on those days.

On the second Saturday of each month, we explore another trail in the mid-Michigan area. October 11th, we'll be riding the Polly Ann Trail in Oakland County. For additional information or for questions, contact either Jack Minore (jacksonmin@aol.com) or Bruce Nieuwenhuis (bnbaton@gmail.com).

A New Bike Trail in the Area

The New Southern Links Trail is now open for jogging, walking or cycling and the Ribbon Cutting for the newly paved trail is in early September. The trail is about five miles in length and follows an old rail line between Otter Lake and Columbiaville. The trailhead in Columbiaville has great parking, and you start off with great views of the upper Flint River and the Holloway Reservoir. It's a nice shady flat trail, easy to ride and quite scenic. It is expected that another five mile extension will be paved next year. You can learn more about it at southernlinkstrailway.com

The Flint River Paddlers *Eric Hall*

For me personally, this summer has unfortunately been a rough one as far as paddling and being as involved in the watershed as I would like to be. On the positive side however, I am now back to work and able to start getting my paddle wet once again after basically five months of no activity due to my back surgery. I know most of you have been enjoying your summers and hopefully spending a good share of your time on the water. If you, like myself, have not been able to do as much paddling as you would have liked so far this summer, do not worry there are still plenty of opportunities to do so throughout the rest of the year.

With a new start due to my return, also comes a new level of ambition and commitment to increase awareness of the recreation possibilities within the Flint River Watershed. Through using the watershed for recreation, kayaking and canoeing, I am hopeful that we as an organization can be a part of the spearhead that is changing public opinion about the Flint River and our local resources within the watershed in general.

Also, the Paddlers, as a sponsored chapter of the FRWC, are committed to the

goals and work of our parent organization and therefore need to be as supportive of these as possible.

On that note, the FRP is dedicated to increasing the number of members within the FRWC. At our business meeting on September 11th @ 7:00 PM at Gander Mountain on Miller Road (all are invited to attend), membership in the FRWC will be a hot topic. Membership in the FRWC may be used as a separate level of membership within the paddlers, allowing those members who are members of the FRWC to take advantage of club equipment and other perks not available to FRP members who do not have a membership within the FRWC. That being said, everyone reading this article whom has a current FRWC membership is invited to come join the Flint River Paddlers, free of charge with no dues.

Even though summer is rapidly leaving us, fall is a very exciting time for paddle sports in Michigan and the rest of the country as well. Upcoming events include; Thursday September 4th 7:00 PM at Barber Park in Montrose, the Flint River Paddlers will have a club booth as well as

potentially a kayaking demonstration and Q&A session in the river, September 5th – 7th the Flint River Paddlers will have a club booth at the 2008 Sport and Fitness Expo at the Birch Run Expo Center, Tuesday September 9th it's the FRWC canoe trip from Flushing Township Nature Park to Barber Park (more details for this event available soon), Business Meeting at the Gander Mountain Lodge on Miller Road Thursday September 11th at 7:00 PM (besides club requirements and membership issues. We will also be discussing the fall Paddle Pick-Up, and the October trip to West Virginia to whitewater raft the world famous Upper Gauley River), Sunday September 21st, 1:00 PM weekly paddle (please check the FRP website at www.flintriverpaddlers.org the Thursday before the paddle for finalized trip plans), Sunday September 28th, 1:00 PM weekly paddle, Sunday October 5th, 1:00 PM weekly paddle. Last but definitely not least, the October 11th Flint River Paddlers and Friends trip to West Virginia to whitewater raft the world famous Upper Gauley River.

I hope to see each and every one of you on the river some time soon.

Keep your paddles wet!



Flint River Watershed Coalition Membership Application

I am pleased to become a member of the Flint River Watershed Coalition:

Name _____
 Address _____
 Organization _____
 City, State, Zip _____
 Telephone (h) _____ (w) _____
 Email _____

Enclosed are membership dues for:

- | | | | |
|----------------------------------------|--------|----------------------------------------------|---------|
| <input type="checkbox"/> Student | \$ 10 | <input type="checkbox"/> River Patron | \$ 250 |
| <input type="checkbox"/> Individual | \$ 25 | <input type="checkbox"/> Watershed Protector | \$ 500 |
| <input type="checkbox"/> Family/Group | \$ 40 | <input type="checkbox"/> Watershed Guarantor | \$ 1000 |
| <input type="checkbox"/> River Sponsor | \$ 100 | | |

I have enclosed an additional gift of \$_____.

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 tax deductible. Please make checks payable to:

Flint River Watershed Coalition or FRWC
 432 N. Saginaw Street, Suite 238
 Flint, MI 48502



Tip #8: Be A Responsible Waterfront Owner

A riparian area is the green area immediately adjacent to streams, rivers, and lakes. Riparian areas are identified by the presence of vegetation that requires large amounts of water and soils that are subject to intermittent flooding or fluctuating water tables that may reach the surface.

The duration of soil wetness depends on the water levels of the adjacent water body. This makes a big difference to riparian plants and determines where plants can grow.

Riparian areas are important to our watershed, because these areas can:

1. Recharge ground water
2. Reduce downstream flooding
3. Increase stream flows in dry weather
4. Trap sediment and pollutants
5. Cycle nutrients
6. Provide shade to keep water cool
7. Increase stream and bank stability
8. Provide habitat for fish and other wildlife

How can we better protect the land

around our lakes, rivers, and streams?

Adopt River Friendly Lawn Care (see our summer newsletter for more information on this topic).

Identify the problem A sickly lawn is not necessarily lacking nutrients. The Genesee County Extension office (810-244-8547) can help you test your soil for nutrients, soil compaction, excess thatch, pH, and other parameters. Planting native species also helps promote a stronger, more drought/heat tolerant yard.

Maintain or Install a Buffer of Vegetation Along Shore Lines

Buffers help filter sediments, absorb chemicals, provide critical habitat linkages, and protect against flooding and erosion.

Stabilize Stream Banks Vegetated buffers help prevent stream bank erosion. In areas where there is no vegetation, or other issues are causing erosion, there are many new techniques to stabilize your stream bank, such as using live fascines, live stakes, and brush mattresses.

Manage Woody Debris In-Stream woody debris creates and maintains important habitat for fish and other aquatic creatures. When managing your shoreline, remove only what is necessary, and if possible try to only partially remove and replace woody debris

Adopt Better River and Drain Maintenance Policies

Encourage your local officials to adopt drain policies that match the suggestions above.

For more information on the simple steps you can take to promote clear water, go to www.cleargeneseeewater.org.

Fall Stream Monitoring

Fall is here once again, and that means it is time for our Fall Stream Monitoring. Dates for the FRWC fall 2008 stream monitoring project have been set. Please sign up for your site soon!!

Monitoring dates will be Saturday, 27 September and again on the following Thursday, 2 October.

To sign up, please contact Dennis Zicha at 810-953-4954 or dzicha@comcast.net. For those who wish to monitor sites in Lapeer County, please contact Diane Peplinski at 810-688-3347 or dianeskimay@yahoo.com.

Lab hours at UM Flint, 261 Murchie Science Bldg, will be 10 AM until 4 PM on Saturday, 27 Sep and 12 Noon until 6 PM on Thursday, 2 Oct. Please ensure you arrive at the lab with your samples at least one hour before the ending times noted so you will have sufficient time to sort your critters. Pizza and soda will be available for you at the lab.

If you have never monitored before (or if you just want to brush up on your monitoring skills) we are also planning a TRAINING SESSION on Thursday, 18 September in Davison. Details have not yet been finalized for this, so watch your e-mail for confirmation in the next few days.

Please come join us in the waning fall sunshine. We need your help to make this important activity a success. See you there!

Special Membership Offer

We have a fun and interesting offer for our new and renewing members of the Flint River Watershed Coalition. Great khaki sports hats with the FRWC logo are now for sale. (see page 7) But, if you join the FRWC or renew your existing membership at the River Sponsor or higher level, we will ship you a complimentary hat as a means of showing our appreciation for your support, and as a way for you to proudly display that you have made a commitment to protect, preserve, and improve the watershed. And, even if you join at a level that qualifies you for a hat, feel free to fill out the order form in this newsletter to purchase additional hats at \$15.00 each! (\$12.00 for the hat, and \$3.00 for shipping.)

As always, we want to recognize our new and renewing members.

During the course of the summer, *Herman and Donna Caldwell, Cathy Lancaster, Carolyn Heidemann and Carl Haas* all renewed their membership in the Flint River Watershed Coalition. We really appreciate their support, and look forward to continuing our affiliation with them and all of the members of the FRWC.

Now Available!



FRWC Hats

Show your love for the river!

Hats are only \$12.00 each and shipping is just \$3.00 no matter how many hats you buy!

Send check or money order to:

Flint River Watershed Coalition
432 N. Saginaw St. Ste 238
Flint MI 48502

Order Form

Name _____
Address _____
City/State _____ Zip _____
Phone _____ E-mail _____

I have enclosed a ___ check or ___ money order for:
NUMBER OF HATS _____ x \$12.00 Subtotal _____
Plus shipping \$3.00
Total _____

CALENDAR OF EVENTS

SEPTEMBER	SEPTEMBER	OCTOBER
<p>Sept 4 River Walk, Barber Memorial Park, Montrose 7:00pm</p> <p>Sept 4 Paddling & Fly Fishing techniques, Barber Memorial Park. 7:00pm</p> <p>Sept 8 River Walk, Richfield Park, Pavillion #4 (Bring a sack lunch!) 12:00 noon</p> <p>Sept 9 Canoe Event, Flushing. Contact FRWC for canoe reservations 5:30pm</p> <p>Sept 11 Flint River Paddlers meeting at Gander Mountain 7:00pm</p> <p>Sept 13 Southern Links Trailways in Columbiaville 9:00am</p> <p>Sept 14 River Walk, Hogbacks 5:00pm</p> <p>Sept 15 Clio's George Atkin Jr. Recreation Trail 6:00pm</p>	<p>Sept 16 Lapeer FRWC Meeting Courthouse, downtown Lapeer 7:00pm</p> <p>Sept 18 Benthic Training, Jack Abernathy Park in Davison 5:30pm</p> <p>Sept 19 FRWC Board Meeting Genesee Room MCC 8:30am</p> <p>Sept 24 Flushing Special Dinner Night. Contact FRWC for more info</p> <p>Sept 24 River Walk, Flushing Riverview Park Pavillion 8:00 pm</p> <p>Sept 27 Benthic Monitoring and U of M Lab Hours 10:00am to 4:00pm</p>	<p>Oct 2 Benthic Monitoring and U of M Lab Hours 12:00 noon to 6:00pm</p> <p>Oct 10-11 Weekend Trip To Upper Gauley River in West Virginia. Deposit Due 9/15/08 Contact FRP/Eric Hall for more information erichall@flinriverpaddlers.org</p> <p>Oct 11 Household Hazardous Waste Collection: Water Service Center and Flint Metal Fab. 10:00am to 2:00pm</p> <p>CONTACT INFORMATION: FFRT=Friends of the Flint River Trail, Jack Minore @ (810) 235-1490; Bruce Nieuwenhuis @ bnbaton@gmail.com FRWC: Flint River Watershed Coalition, (810) 767-6490.</p>

River Views

The Flint River Watershed Coalition is introducing a new column in the Watershed Reporter called 'River Views'. In periodic editions of our newsletter we would like to showcase different sites along the river that you might find interesting, or might feel inspired to visit. We hope in the future to include views from every stretch of the river and from the far reaches of the watershed. The more that you know of positive sites along the river, the more you'll recognize the value our resource. Please feel free to pass your suggestions about 'River Views' that should be featured in our newsletter to info@flinriver.org, or call us at 810-767-6490.

Vietnam Veteran's Park

1700 James P. Cole Boulevard, Flint, MI

Vietnam Veteran's Park was officially dedicated on Armed Forces Day on May 18, 1991, during the Desert Shield/Desert Storm Conflict. The marker that you see in the picture above was installed by the Vietnam Veterans of America, and the poem was written by Dan McIntosh in honor of Tom Cussans, a local veteran who was a member of V.V.A. The boat landing nearby was also named after Tom Cussans and dedicated at the same time the park was. Tommy Cussans was a valuable member of the Genesee County Chapter of the V.V.A. He died of cancer, believed to be caused by his exposure to Agent Orange, while serving his country in Vietnam.



Vietnam Veteran's Park

The park is decorated with flowers by members of the Vietnam Veterans of America, Chapter #175, Genesee County. Each year, the V.V.A. sponsors a spring cleanup in the park. In addition, this park is one of the numerous cleanup sites in the Annual Flint River Cleanup organized by the FRWC. The members and families of the V.V.A., Chapter #175 are very visible at the Cleanup, providing a great source of labor, materials, and lunch!

According to the local Fisheries and Biology Manager of the Department of Natural Resources, the stretch of river in this park is one of the two best sites on the entire Flint River for bass fishing.

'Shed No Tears'

by Daniel McIntosh

*Shed no tears I heard him say,
what's done was meant to be.
Let's look toward a brighter day,
together you and me.
Courage is your middle name,
a fighter through and through.
Learn early how to play the game,
your heart is pure and true.
Shed no tears and let's go on,
we've mountains yet to climb.
Life's too short, it's here and gone,
we've all so little time.
Enjoy now, the time we share,
and let's be on our way.
Let's make our mark, let's show we care,
together, day by day.
The road is long, the task is great,
but onward we must go.
To dare to tempt the lands of fate,
to conquer every foe.
For all too soon the light of day,
runs out on one and all.
That final debt we all must pay,
when we hear that final call.
And when that call goes out for me,
and I must go my way.
A brighter day I soon shall see,
that's all I have to say.
So shed no tears, when time has come.
For I have run the race, and won.*



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Appendix E
Flushing Township Freshwater Day Flyer
News Article

FRESH WATER FOREVER



SATURDAY, AUGUST 2nd

AT

Let's make one thing
Perfectly Clear.
our water
Okemos County Community Water Quality Connection



FLUSHING TOWNSHIP NATURE PARK

Flushing - Your Ride

8301 N. MCKINLEY ROAD



FLINT RIVER
WATERSHED COALITION

Staley's Plumbing

810-639-6161

**LEARN AND HAVE FUN WITH WATER RELATED ACTIVITIES
AND PRESENTATIONS FOR THE WHOLE FAMILY.**

Activities Planned:

9:00 - 11:00 a.m.

Canoe / Kayak Rally

Start at Flushing Riverview Park downtown Flushing, end at Flushing Twp. Nature Park. Bring and leave canoes and kayaks at Riverview Park parking lot (we have a watcher) and carry canoe to landing behind Tucker Pool, then drive vehicle to Flushing Twp. Nature Park (FTNP) and get a shuttle ride back to canoes. After float down river, canoes and kayaks will be transported back up to your vehicle at FTNP. Call for details at 810-767-6490 ext. 2 or 810-639-6161.

10:00 a.m.- 3:00 p.m.

* Water Games and Crafts

Water Cannon, Raingutter Regatta, Bubble Blaster, Toilet Flush, Ducky pick-up, Water Painting,

* Food from the Lion's Club

* Local Environmental Vendors

* Water Bugs

* Ground Water Display

* **Lead Fishing Tackle Exchange** - bring your lead tackle in to exchange for non-toxic tackle. Person with most tackle exchanged wins a prize.

Presentations:

11:30 a.m.

Rain Barrel and Rain Garden

Demonstrations

Learn how to conserve water at your home by creating a rain barrel or rain garden.

12:30 p.m.

The Great Lakes Restoration Project

Learn about all of the negative impacts on the Great Lakes, pollution, invasive species, and find out what the plan is to restore this precious resource.

1:30 p.m.

Act Locally Through the FRWC

Learn what the Flint River Watershed Coalition is doing to help protect our local water and how we can all get involved to make a difference.

2:00 p.m.

Live Aquatic Animal Program

Come see and learn about many of the aquatic amphibians and reptiles that live in Michigan's fresh water habitats.



Printed on 100% recycled paper

Water works

► Andy Juno, 5, of Flushing Township plays with the EnviroScape at Fresh Water Forever Day on Aug. 2 at the Flushing Township Nature Park. Andy squirted water on the cinnamon (symbolizing dirt) and cookie sprinkles (symbolizing fertilizer) he had poured on the plastic village, then watched the "pollutants" flow into a little pond, showing how pollutants get into the water supply. Fresh Water Forever Day is one of many free events that Flushing Township Nature Park presents for the community.



Staff photos • Nikki Brand

Appendix F
Fair Survey Results

Water Quality Survey

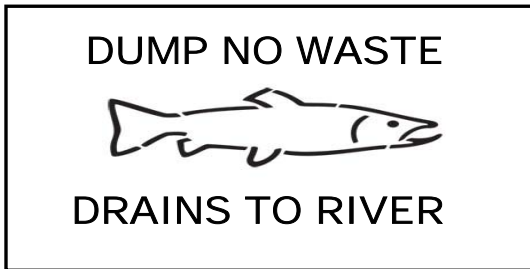
Have you been to the Genesee County Fair before? **87** Yes **13** No

Have you seen our booth at the Fair in past years? (Not this year) **33** Yes **67** No

Have you seen the Creek Crossing signs along side the road? **69** Yes **29** No
 (Like the ones shown below)



Have you seen catch basin stencils on the street? **31** Yes **58** No
 (Like the ones shown below)



Have you ever gone to our website www.ClearGeneseeWater.org **31** Yes **58** No

Has your household ever participated in the Household Hazardous Waste collection day? **7** Yes **89** No

Have you or someone you know ever participated in The Spring River Cleanups located throughout Genesee County **42** Yes **58** No

Which of the following is the best approach to keep you informed regarding water quality issues?

- | | | | |
|-----------|---------------------------|-----------|------------------------------|
| <u>11</u> | Public meetings/workshops | <u>29</u> | Direct mailings to your home |
| <u>45</u> | Newspaper articles | <u>27</u> | Community newsletters |
| <u>48</u> | Cable TV | <u>2</u> | Other (specify) radio, email |
| <u>20</u> | Web page | | |

What two bodies of water are located closest to your home? And Approximately how far away is each of these from your home?

Appendix G
Household Hazardous Waste Promotion

HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY!

Saturday, October 11, 2008



For information, call:

• MSU Extension at (810) 244-8524.

• Genesee County Health Department at (810) 257-3603.

** **ACCEPTABLE MATERIALS** include: Old household pesticides, herbicides, solvents, paint thinners, aerosol cans, oil-based paint, motor oil, mercury, batteries, corrosives, old prescriptions. They will be accepting seven (7) tires OFF the rims.

** **MATERIALS NOT ACCEPTED** include: Explosive and radioactive materials, medical waste, commercial and industrial wastes and **latex paint**.

TWO LOCATIONS:

1. Flint East - Water Service Center - 3310 E. Court Street; Opposite Consumer's Energy between Center and Dort. Take I-69 to either Center or Dort exit, go North to Court Street.

2. Flint Metal Fab, - Bristol Rd., Flint. East of I-75 at Bristol Rd. exit

All sites will be between the hours of 10:00 am – 2:00 pm.

DISPOSAL OF OTHER ITEMS

LATEX PAINT – put either kitty litter or sand in equal portions to the paint, leave the top off and let dry completely. Once paint is completely dried out, you can place cans in your regular garbage. **THE TOP MUST BE LEFT OFF.**

If you have quite a bit of latex paint left, you can try calling one of the theater groups downtown to see if they can use it.

MOTOR OIL – during other periods of the year, you can take motor oil to Valvoline. Different branches have different requirements regarding fees and amount, so contact them first.

ELECTRONICS – For a fee of \$5.00, CBC Recycling, 115 14th St., Flint, will take electronics, such as television sets (no consoles), computers, printers, fax machines, copies, stereo equipment, video cameras, video game consoles, dvd players, video cassette recorders (VCR). Their hours are M-F 9 am – 3 pm; Saturday, first 2 of the month from 9 am – 1 pm; or by appointment at (810) 239-5040.

BATTERIES – Throughout the year; batteries can be taken to any VG's store. There is a \$.10 charge and they must be taken to the service desk.

Appendix H
Non Phase II Events That
Communities Participated In

RIVER CLEANUP

The Flint River Watershed Coalition (FRWC) does annual cleanups throughout Genesee and Lapeer Counties. The County and several municipalities participate by either providing staff, money or in kind services.

The GDCD Office participated by allowing their staff to co-chair and organize multiple cleanups within the Flint River Watershed.

Municipalities were contacted for cleanup and support. Flyers were mailed to township and municipal offices in the watershed, including cities and counties, and schools. Promotion letters were mailed to civic groups, recreational businesses, fishing businesses, marinas, etc. The two events were advertised on the FRWC website and promoted in the FRWC newsletter. A press release also sent to the Flint Journal.



- U of M campus – Flint
- Vietnam Veterans Park – Flint
- Gilkey Creek
- Holloway Reservoir – Richfield Township
- M-15 at the Flint River – Richfield Township
- Flushing Road and Mill Street
- Riverside Park – Flushing

City of Flint Trash Removal
City of Flint Trash Removal
City of Flint Trash Removal
County Parks & Rec Trash Removal
County Parks & Rec Trash Removal
Drain Commissioner Trash Removal
City of Flushing Trash Removal

Other cleanups happened throughout the summer by many volunteer and civic Groups that were also supported by the Communities

Shiawasse River
Shiawasse River
Shiawasse River
Shiawasse River

City of Linden
Argentine
City of Fenton
Fenton Township

COUNTY DRAIN MAINTENANCE ACTIVITIES

Maintenance done to county drains during this reporting period include:

- 130 washouts were repaired where the storm pipe had failed
- 25 log jams/culvert plugs were removed
- 72,600 feet of storm line was jetted and vacuumed to remove debris
- 400+ catch basins/manholes were vacuumed to remove debris
 - 2000+ tons of waste removed
- 68,734 feet of open ditch cleaning was performed
- Rebuild 600 feet of ditch bank that failed

Genesee County Parks & Recreation Commission

4th Annual Kids' Fishing Derby



Celebrate **FREE Fishing Weekend** in Michigan!
Kids, bring a pole, if you have one. If you don't, we'll have some available! We're serving lunch and we'll even supply the bait!

Saturday, June 7, 2008

9 a.m.-2 p.m.

**Bluegill Boat Launch
4045 Coldwater Road
Flint, MI 48506**

Call for more information:

810.249.3816

GeneseeCountyParks.org

Co-Sponsors:



flintsteelheaders.com

Chapman's

Sports Center, Inc. Lapeer, Michigan

chapmanssports.com



freeway-sports.com



stores.ebay.com/Fishing-Tackle-Grab-Bag

Pre-registration is not required.

Kids must be accompanied by an adult. No fishing license needed for this event. Fishing will take place from shore, docks, and boats (on a first come, first served basis). The purchase of a permit for entrance into the facility is required.



Facility Permit Prices

Daily Vehicle	\$7
Daily Vehicle w/Trailer	\$10
Sr. Daily Vehicle	\$6
Sr. Daily Vehicle w/Trailer	\$8
Resident Annual	\$34
Resident Sr. Annual	\$25
Non-Resident Annual	\$50
Non-Resident Sr. Annual	\$40



Genesee County Parks & Recreation Commission
Administrative Office
5045 Stanley Road, Flint, 48506
810.736.7100 • 800.648.7275
GeneseeCountyParks.org



Genesee
County
Parks and
Recreation
Commission



To learn more about upcoming programs, request a free copy of **Genesee County Parks & Recreation Commission's Family Fun Guide**, which covers all Park programs. To request a Family Fun Guide:

- Email your request to : parkswbteam@gcparks.org
- Download a copy at GeneseeCountyParks.org
- Call: 810.736.7100 or 800.648.PARK. After 5:00 pm or weekends press 826 and leave your request on the Parks' brochure request line.

The Genesee County Parks & Recreation Commission and

The Genesee Area Landscape and Nursery Association

Presents

Homeowner's Landscape and Gardening Workshop

Saturday, April 12, 2008

8:00 am - 4:00 pm

\$75.00 per person

Lunch and refreshments included

This day long workshop offers a variety of topics for landscape enthusiasts.



For-Mar Nature
Preserve & Arboretum
2142 N. Genesee Rd
Burton, MI

Visitor's Center is open
Wed. - Sun.: 8:00 am to 5:00 pm

Grounds are open
Wed. - Sun.: 8:00 am to Sunset

Call or register online:
810.736.7100, ext. 6
GeneseeCountyParks.org

Genesee County Parks'
Reservation Office Hours:
M-F, 8:00 am to 4:30 pm
We accept Visa, Master, Discover
and American Express.

Presentations include:

Conifers for Connoisseurs

Dr. Bert Craig ~ MSU Professor of Horticulture and Forestry

Shrubs for the Contemporary Yard

Doug Chapman ~ Former Director of Dow Gardens

Installing a Vanishing Waterfall

Genesee Area Landscape and Nursery Association

Proper Planting and Post Planting Care

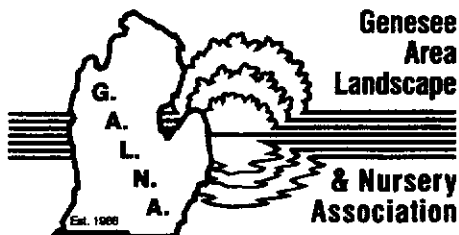
Tom Morgan ~ Forester/ISA Certified Arborist/Owen Tree Service

Reservations: 810.736.7100, ext. 6

Pre-registration required by

April 9, 2008

Details: 810.789.8568



Genesee County Parks & Recreation Commission
Administrative Office
5045 Stanley Road, Flint, 48506
810.736.7100 • 800.648.PARK
GeneseeCountyParks.org



To learn more about upcoming For-Mar Nature Preserve and Arboretum programs, request a free copy of **Genesee County Parks & Recreation Commission's Family Fun Guide**, which covers all Park programs. To request a Family Fun Guide:

- Email your request to : parkswebteam@gcparks.org
- Download a copy at GeneseeCountyParks.org
- Call: 810.736.7100 or 800.648.PARK. After 5:00 pm or weekends press 826 and leave your request on the Parks' brochure request line.

Pre-registration not required.

Tuesday, July 22

Nutrition & Activity Series
Flushing County Park, Pavilion 1

Transformers: Smart Kids Defeating Unhealthy Choices.

Ages 4-7 Time: 1-2:30 p.m.

Eat Smart, Play Hard / ReCharge!

Ages 8-11 Time: 1-2:30 p.m.

Media Smart Youth: Eat, Think, and Be Active

Ages 12-17 Time: 3-4:30 p.m.

Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Tuesday, July 22

Belly Dance Lesson

Flushing County Park, Pavilion 1

Learn to move "like that" with Brenda Bennett.

Time: 7 p.m. - 8 p.m. Cost: FREE!

Pre-registration not required.

Wednesday, July 23

Sunday, July 27

Junior Naturalist Day Camp

For Mar

This field studies day camp is designed for children who have a genuine interest in nature. Campers will participate in fun, interactive, and hands-on programs with topics including: geology, weather, astronomy, zoology, trees, flowers, ponds, and the great outdoors. There are four days of camp including a Saturday night stay on the Preserve. A maximum of 20 students are accepted, so don't wait to register.

Time: Wednesday, July 23 to Friday, July 25 from 9 a.m. to 3 p.m., Saturday, July 26 from 3 p.m. (overnight) to Sunday, July 27, 10 a.m. Cost: \$80.00 per child. Ages: 9-12 years.

Pre-registration required by 07/12/08.

Media Smart Youth: Eat, Think, and Be Active, Eat Smart, Play Hard, / ReCharge, and Transformers: Smart Kids Defeating Unhealthy Choices are PE-Nut Foundations programs federally funded from the USDA's Food Stamp program by way of the Michigan Nutrition Network in a grant to Genesee Intermediate School District.

How the Great Lakes were formed and other interesting facts

Put on Your Waders (ages 11-13)

What makes up swamps, bogs, marshes, and other wetlands?

Time: 11 a.m. - noon. Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Friday, July 25

For-Mar on the Road

Bluebell Beach, Pavilion 1

H2O (ages 4-6)

Water: why it's so important and all the places it's found.

Lakes are Great! (ages 7-10)

How the Great Lakes were formed and other interesting facts

Put on Your Waders (ages 11-13)

What makes up swamps, bogs, marshes, and other wetlands?

Time: 2 p.m. - 3 p.m. Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Saturday, July 26

Balloon Twisting Workshop

Bluebell Beach, Pavilion 3

Balloons are not just for filling with water!

Time: 10 a.m. - 11 a.m. Cost: FREE!

Pre-registration not required.

Saturday, July 26

F.A.M.s (Family Adventures in Nature): Outdoor Cooking

For Mar

Food tastes extra special when cooked in the out-of-doors! Join our naturalist for lunch by helping prepare and sample tasty dishes using various outdoor cooking methods.

Time: 11 a.m. - 12:30 p.m.

Cost: \$4.00 per person.

Pre-registration required by 07/24/08.

Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Tuesday, July 29

Belly Dance Lesson

Flushing County Park, Pavilion 1

Hear your friends giggle when you tell them what you're doing to get in shape!

Time: 7 p.m. - 8 p.m. Cost: FREE!

Pre-registration not required.

Wednesday, July 30

For-Mar on the Road

For Mar

Michigan Symbols (ages 4-6)

We have a state fossil, stone and reptile. Make a Michigan symbols passport.

Can We Help Them? (ages 7-10)

Protected, threatened and endangered species.

We're Being Invaded! (ages 11-13)

Learn which plants and animals don't belong in Michigan.

Time: 11 a.m. - noon. Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Wednesday, July 30

For-Mar on the Road

Linden County Park, Clover Beach Pavilion

Michigan Symbols (ages 4-6)

We have a state fossil, stone and reptile. Make a Michigan symbols passport.

Can We Help Them? (ages 7-10)

Protected, threatened and endangered species.

We're Being Invaded! (ages 11-13)

Learn which plants and animals don't belong in Michigan.

Time: 2 p.m. - 3 p.m.

repeated from 6:30 p.m. - 7:30 p.m. Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

For-Mar on the Road

Flushing County Park, Pavilion 1

Michigan Symbols (ages 4-6)

We have a state fossil, stone and reptile. Make a Michigan symbols passport.

Can We Help Them? (ages 7-10)

Protected, threatened and endangered species.

We're Being Invaded! (ages 11-13)

Learn which plants and animals don't belong in Michigan.

Time: 2 p.m. - 3 p.m.

repeated from 6:30 p.m. - 7:30 p.m. Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Thursday, July 31

Nutrition & Activity Series - Fun, food, and fitness forever!

Bluebell Beach, Beachhouse

Transformers: Smart Kids Defeating Unhealthy Choices

Ages 4-7 Time: 3-4:30 p.m.

Eat Smart, Play Hard / ReCharge!

Ages 8-11 Time: 3-4:30 p.m.

Media Smart Youth: Eat, Think, and Be Active

Ages 12-17 Time: 3-4:30 p.m.

Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

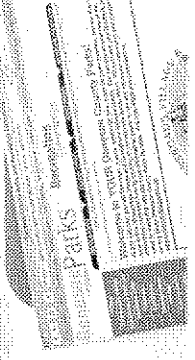
Thursday, July 31

Yoga for Beginners

Richfield County Park, Pavilion 1

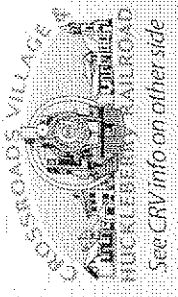
Less stress, more flexibility, and beautiful scenery. Please bring a yoga or exercise mat.

Time: 7 p.m. - 8 p.m. Cost: FREE! Pre-registration not required. Limited to the first 25 families.



To Make Reservations: 810.736.7100, ext. 6 or 800.648.PARK ext. 6
For more program information, registration, maps and much more visit our website:

geneseecountyparks.org



Swing Dance Lesson

Davison Roadside Park Pavilion
Two left feet? Not anymore! Terri Sweet-Herrick can help you change that.
Time: 7 p.m.-8 p.m. Cost: FREE
Pre-registration not required.

Thursday, July 3

Knee-High Naturalist Story Hour: Turtles

For-Mar
Study the live turtles at For-Mar. Make a turtle take home craft.
Time: 10:30 a.m.-11:30 a.m.
Cost: \$3.00 per child.
Pre-registration required by 07/01/08.

For-Mar on the Road

Richfield County Park Pavilion 1
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.

Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.

The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.

Time: 11 a.m.-noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Time: 2 p.m.-3:30 p.m. Cost: \$3.00 per person.

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

Monday-Thursday,

July 7-10 and

Monday-Thursday,

July 14-17

(8 sessions)

Swim Lessons for Kids-CPR/Water Safety for Adults

Bluebell Beach
Keep your family safe near and in the water, get certified in CPR while your child learns to swim.

Time: 11 a.m.-11:30 a.m. Cost: FREE!

Pre-registration required by 07/03/08.

Monday-Thursday,

July 7-10 and

Monday-Thursday,

July 14-17

(8 sessions)

Swim Lessons for Kids-CPR/Water Safety for Adults

Bluebell Beach
Keep your family safe near and in the water, get certified in CPR while your child learns to swim.

Time: 11 a.m.-11:30 a.m. Cost: FREE!

Pre-registration required by 07/03/08.

Monday, July 7

Belly Dance Lesson

Linden County Park, Clover Beach Pavilion

What do belly dancers do on their nights off? Go dancing steak to shake of course!

Time: 7 p.m.-8 p.m. Cost: FREE!

Pre-registration not required.

For-Mar on the Road

Linden County Park, Clover Beach Pavilion
Nature's Believe It or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.

The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to

enjoy the great outdoors! Learn how to enjoy nature while "Leaving no Trace."

Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.

Time: 2 p.m.-3 p.m., repeated from 6:30 p.m.-7:30 p.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Wednesday, July 9

Nutrition & Activity Series - Fun, food, and fitness forever!

Davison Roadside Park Pavilion
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 Time: 1-2:30 p.m.
Eat Smart, Play Hard / Re-Charge!
Ages 8-11 Time: 1-2:30 p.m.
Media Smart Youth: Eat, Think, and Be Active
Ages 12-17 Time: 3-4:30 p.m.
Cost: FREE!

Pre-registration suggested, but walk-ins welcome.

Thursday, July 10

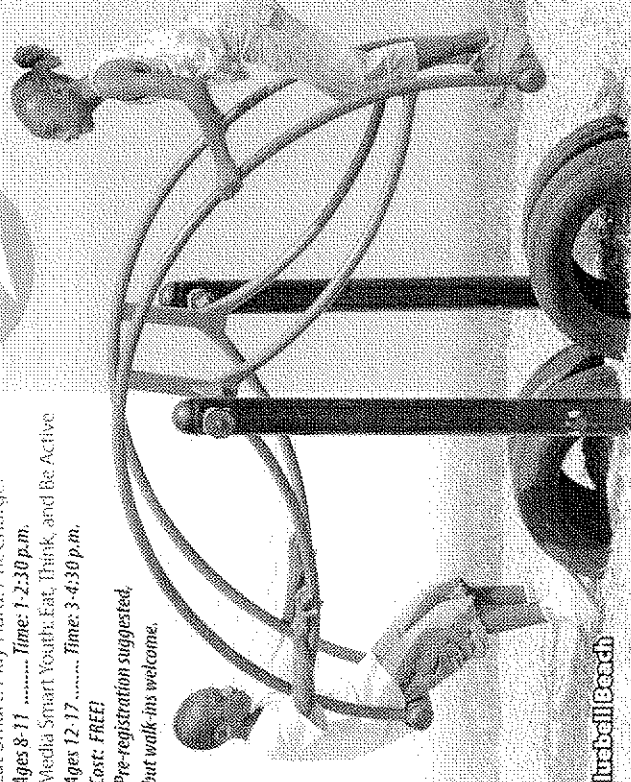
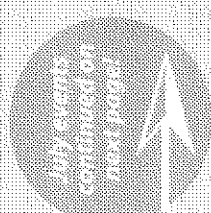
For-Mar on the Road
Flushing County Park, Pavilion 1
Nature's Believe It or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.

The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to

enjoy nature while "Leaving no Trace."

Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.

Time: 2 p.m.-3 p.m., repeated from 6:30 p.m.-7:30 p.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.



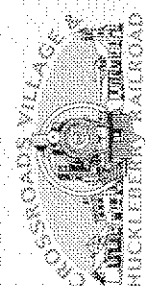
Bluebell Beach

Media Smart Youth, Eat, Think, and Be Active, and Be Active, Eat Smart, Play Hard, / Re-Charge, and Transformers: Smart Kids Defeating Unhealthy Choices are PE-Net Foundations programs federally funded from the USDA's Food Stamp program by way of the Michigan Nutrition Network in a grant to Genesee Intermediate School District.

To Make Reservations: 810.736.7100 ext. 6 or 800.648.PARK ext. 6

For more program information, registration, maps and much more visit our website:

geneseecountyparks.org



See CRV info on other side

Pavilion Rentals



Mounds ORV Park



Wildvine Campground



To learn more about your Genesee County Parks, visit our web site.



and stargazing! Dress for the weather. Time: 8:30 p.m. - 10 p.m. Cost: \$3.00 per person. Pre-registration not required, but organized groups are asked to call ahead.

Saturday, May 3 Natural Horsemanship Riding Clinic with Nathan Coffman, Certified John Lyons Trainer

E.A. Cummings Center, 4-H Barn
Natural horsemanship, the philosophy of working with the horse's nature, using an understanding of how horses think and communicate to train them, to accept humans and work confidently and responsively with them. Time: 9 a.m. - 5 p.m. Cost: \$200/per rider and horse. Pre-registration required by 05/01/08. Limited to 5 participants.

Sunday, May 4 4-H Youth Clinic: Natural Horsemanship Riding Clinic with Nathan Coffman, Certified John Lyons Trainer

E.A. Cummings Center, 4-H Barn
Natural horsemanship, the philosophy of working with the horse's nature, using an understanding of how horses think and communicate to train them, to accept humans and work confidently and responsively with them. Session I - 9 a.m. - 1 p.m. Session II - 2 p.m. - 6 p.m. For 4-H Youth only. Cost: \$20 per rider and horse. Pre-registration required by 05/01/08. Each session is limited to 10 participants.

Wednesday, May 7 Knee-High Naturalist: Animals Can You?

For-Mar
Learn about animals' special adaptations and participate in the Animals Can Olympics. Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/05/08.

Bring that special woman in your life and your family for a leisurely stroll through a variety of habitats to view the various wildflowers in bloom. Time: 1:30 - 3 p.m. Cost: Mothers are FREE, all others, \$3.00 per person. Pre-registration not required, but organized groups are asked to call ahead.

Wednesday, May 14 Knee-High Naturalist: Who's Hatching?

For-Mar
Eggs aren't just for birds. Enjoy activities to learn about all kinds of eggs. Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/12/08.

Thursday, May 15 Knee-High Naturalist: Who's Hatching?

For-Mar
Eggs aren't just for birds. Enjoy activities to learn about all kinds of eggs. Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/13/08.

Thursday, May 15 Home School Students: Spring Splendors

For-Mar
Go on a bike to learn how to identify some Michigan wildflowers; learn why they grow when they do, and plant a flower to take home. Time: 1:30 - 3 p.m. Cost: \$4.00 per student. Pre-registration required by 05/13/08.

Saturday, May 17 Using Native Plants in Your Yard for Wildlife

For-Mar
Take a walk on the Native side and learn how to use Michigan Native plants in your landscape to attract a variety of wildlife. Presented by Vern Stephens, owner of Designs by Nature. Time: 10 a.m. - noon. Cost: \$7.00 per person. Pre-registration not required, but organized groups are asked to call ahead.

Knee-High Naturalist: Caring for Pets

For-Mar
Learn about the needs of animals and why most wild animals should stay in the wild. Adopt a stuffed animal pet to care for. Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/19/08.

Thursday, May 22 Knee-High Naturalist: Caring for Pets

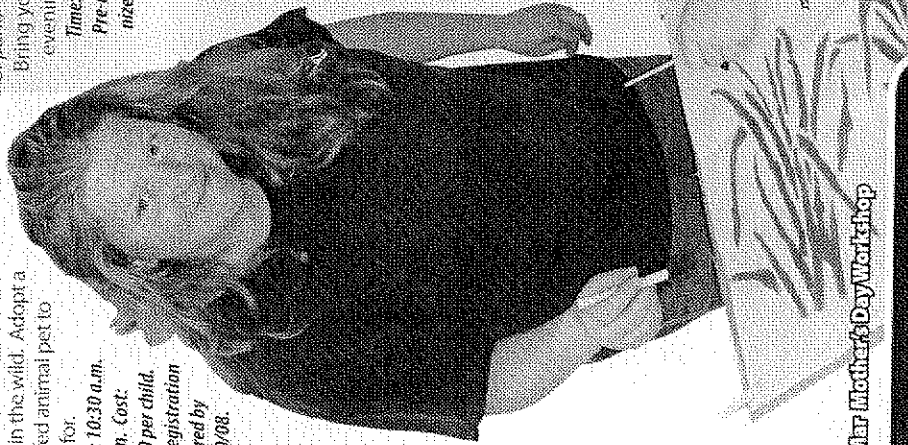
For-Mar
Learn about the needs of animals and why most wild animals should stay in the wild. Adopt a stuffed animal pet to care for. Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/20/08.

Mounds ORV Park

Test your off-road driving skills. Hosted by the "Dirty" Minds Jeep Club. Time: noon - 5 p.m. Pre-registration not required. Cost: All vehicles must have a State of MI ORV sticker and purchase a facility permit. Resident Daily \$7
Non-Resident Daily \$10
Resident Annual \$30
Non-Resident Annual \$60

Saturday, May 31 F.A.N.s (Family Adventures in Nature) Program: Starry, Starry Night

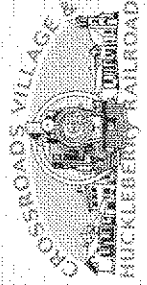
Bueff Lake County Park, ball field at back of park
Bring your family out for an evening celebration of the stars. Time: 9:30 - 11 p.m. Cost: \$3.00 per person. Pre-registration not required, but organized groups are asked to call ahead.



For-Mar Mother's Day Workshop

To Make Reservations: 810.736.7100, ext. 6 or 800.648.PARK, ext. 6
For more program information, registration, maps and much more visit our website:

geneseecountyparks.org

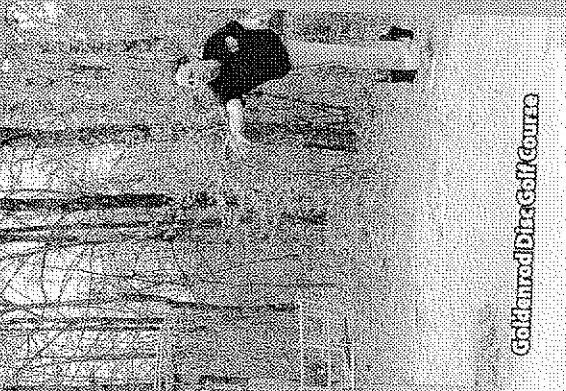


See CRV info on other side

MAY

GENESEE COUNTY PARKS Get away. Right away.

SCHEDULE OF EVENTS



Golf Handicap Golf Course



Mott Lake

Thursday, May 1
Knee-High Naturalist: More About Dinosaurs
For-Mar
Much more about dinosaurs than ever before! **Time: 10:30 a.m. - noon.** **Cost: \$3.00 per child. Pre-registration required by 04/29/08.**

Friday, May 2
Spring's Signs of the Season: a Program for Individuals with Cognitive Disabilities
For-Mar
Enjoy the wonder and beauty of spring with interactive games. Plant spring flowers to take home. **Time: 10:30 a.m. - noon. Cost: \$2.00 per participant. Funded in part by the Frederick and Stella Loeb Charitable Trust. Pre-registration required by 04/30/08.**

Saturday, May 3
Herbs are Fun, Healthy and Easy
For-Mar
Herbs are the backbone of the gardening world. They are easy to grow and can be used in an assortment of culinary dishes and in creating your own tantalizing teas. Presented by Master Gardener Joanie Snyder. **Time: 10 a.m. - noon. Cost: \$7.00 per person. Pre-registration required by 04/30/08.**

Saturday, May 3
F.A.N.s (Family Adventures in Nature): Campfire
For-Mar
Join a Master Gardener...

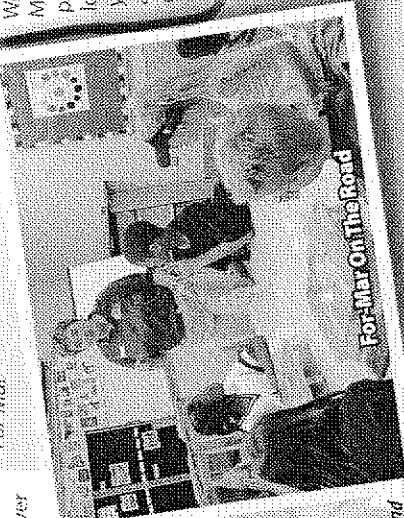
- AGE GROUP COLOR KEY**
- Children, ages 3-6
 - Youth, ages 7-12
 - Adults, ages 16 and older
 - Families, all ages
 - Special Needs Audiences
children and adults with cognitive & physical disabilities
 - Home School Students
- Adults must accompany children.*

Linden County Park

FANTASTIC FAMILY FRIENDLY FUN!

Saturday, May 17
Native Plant Sale
For-Mar
We're hosting a plant sale featuring Michigan Native plants. These plants are naturally hardy for our local landscapes and will offer years of maintenance-free color and charisma. Species and quantities will be limited. **Time: 10 a.m. - 2 p.m.**

Thursday, May 8
Knee-High Naturalist: Animals Can You?
For-Mar



For-Mar On The Road

Learn about animals special adaptations and participate in the Animals Can Olympics. **Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/06/08.**

Monday, May 10
Mother's Day Workshop
For-Mar
Join us in the For-Mar workshop and design a unique garden accent for that special woman in your life. Dress for mess. **Time: 10 a.m. - noon. Cost: \$10.00 per person. Pre-registration required by 05/7/08.**

Sunday, May 11
F.A.N.s (Family Adventures in Nature): Program: Mother's Day

Saturday, May 17
Native Plant Sale
For-Mar
We're hosting a plant sale featuring Michigan Native plants. These plants are naturally hardy for our local landscapes and will offer years of maintenance-free color and charisma. Species and quantities will be limited. **Time: 10 a.m. - 2 p.m.**

Saturday, May 17
Outdoor Explorers: Tall, Tall Trees
For-Mar
Come learn about trees from the deepest roots to the tallest branches. Bring a plain colored t-shirt to decorate and create your own tree shirt. **Time: 2 - 3:30 p.m. Cost: \$3.00 per child. Pre-registration required by 05/15/08.**

Sunday, May 18
F.A.N.s (Family Adventures in Nature) Program: Slimy Salamanders
Hogbacks Area, Davison. Meet at the Fishing Parking Lot on Stanley Road between Henderson Road and Earlman Road, near the Stanley Road Tables.
Join us on a hunt for salamanders! Learn about the lives of these secretive creatures. Discover where and when to find them and hunt for live creatures. Dress to hike and get muddy! **Time: 2 - 3:30 p.m. Cost: \$3.00 per person. Pre-registration not required, but organized groups are asked to call ahead.**

Sunday, May 18
F.A.N.s (Family Adventures in Nature) Program: Skunks and Other Insect Eaters
For-Mar
Learn about these fascinating animals with games, songs and a craft. **Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/26/08.**

Saturday, May 24
F.A.N.s (Family Adventures in Nature) Program: Dinosaurs
For-Mar
Creatures of the past: find out all about dinosaurs from the smallest to the largest. **Time: 1:30 - 3 p.m. Cost: \$3.00 per person. Pre-registration not required, but organized groups are asked to call ahead.**

Sunday, May 25
2008 Summer Kick-off Celebration! Blue Ball Beach
Music, bounce houses, face painting, and fireworks make it the perfect time to start your summer of FAMILY FRIENDLY FUN! **Time: 4:10-10 p.m. Cost: FREE! Pre-registration not required.**

Wednesday, May 28
Knee-High Naturalist: Skunks and Other Insect Eaters
For-Mar
Learn about these fascinating animals with games, songs and a craft. **Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/26/08.**

Thursday, May 29
Knee-High Naturalist: Skunks and Other Insect Eaters
For-Mar
Learn about these fascinating animals with games, songs and a craft. **Time: 10:30 a.m. - noon. Cost: \$3.00 per child. Pre-registration required by 05/27/08.**

JULY

GENESEE COUNTY PARKS

Get away. Right away.

SCHEDULE OF EVENTS

Tuesday, July 1

Dr. Slime
Flushing County Park, Pavilion 1
Calling all Mad Scientists and Slimeologists! Come to our outdoor lab and see cool demonstrations.
Time: 7 p.m.-8 p.m. Cost: FREE
Pre-registration not required.

Wednesday, July 2

For-Mar on the Road
For-Mar
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.
Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.
The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.
Time: 11 a.m. - noon. Cost: FREE
Pre-registration suggested, but walk-ins welcome.

Wednesday, July 2

For-Mar on the Road
Linden County Park, Clover Beach Pavilion
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.
Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.
The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.
Time: 2 p.m. - 3 p.m., repeated from 6:30 p.m. - 7:30 p.m. Cost: FREE
Pre-registration suggested, but walk-ins welcome.

Thursday, July 3

For-Mar on the Road
Bluebell County Park, Pavilion 1
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.
Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.
The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.
Time: 11 a.m. - noon. Cost: FREE
Pre-registration suggested, but walk-ins welcome.

Thursday, July 3

For-Mar on the Road
Flushing County Park, Pavilion 1
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.
Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.
The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.
Time: 2 p.m. - 3 p.m., repeated from 6:30 p.m. - 7:30 p.m. Cost: FREE
Pre-registration suggested, but walk-ins welcome.

Thursday, July 3

Nature Hike
Richfield County Park, Pavilion 1
34.5 acres of beautiful land just waiting for curious explorers. Join a For-Mar Naturalist on a discovery hike.
Time: 7 p.m.-8 p.m. Cost: FREE
Pre-registration not required.

Friday, July 4

For-Mar on the Road
Bluebell Beach, Pavilion 1
Underfoot! (ages 4-6)
Search through leaf litter and soil to discover life under our feet.
Creatures of the Earth (ages 7-10)
Study ants, worms, moles and other creatures of the earth.
The Buried Past (ages 11-13)
Look beneath the earth for clues about the past.
Time: 2 p.m. - 3 p.m. Cost: FREE
Pre-registration suggested, but walk-ins welcome.

Saturday, July 5

Yoga for individuals with Special Needs
Bluebell County Park, Pavilion 3
Lonna Beardstein teaches a new way to exercise and reduce stress.
Time: 10 a.m.-11 a.m. Cost: FREE
For ages 6-18 years.
Pre-registration required by 07/03/08.

Saturday, July 5

Bid Whist Tournament
Bluebell Beach, Bathhouse
Who will be crowned champion and take home the first ever Bid Whist Championship trophy?
Time: 7 p.m.-4 p.m. Cost: FREE!
Pre-registration not required.

Sunday, July 6

F.A.N.s (Family Adventures in Nature): Animal Homes, Food and Signs
For-Mar

AGE GROUP COLOR KEY

- Children, ages 2-4
- Children, ages 3-6
- Youth, ages 7-12
- Adults, ages 16 and older
- Families, all ages
- Special Needs Audiences, children and adults with cognitive & physical disabilities

Adults must accompany children.

FANTASTIC FAMILY FRIENDLY FUN!

Tuesday, July 8

Nutrition & Activity Series - Fun, food, and fitness forever!
Flushing County Park, Pavilion 1
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 Time: 1-2:30 p.m.
Eat Smart, Play Hard, / ReCharge!
Ages 8-11 Time: 1-2:30 p.m.
Media Smart Youth: Eat, Think, and Be Active
Ages 12-17 Time: 3-4:30 p.m.
Pre-registration suggested, but walk-ins welcome.
Cost: FREE!

Tuesday, July 8

Lego® Engineering
Flushing County Park, Pavilion 1
Use gears, levers, pulleys, axles, wheels, and all kinds of amazing Lego® elements to create fun projects.
Ages 5-7 Time: 7 p.m.-8:30 p.m.
Ages 8-12 Time: 7 p.m.-8:30 p.m.
Cost: FREE! Pre-registration not required. Limited to the first 25 participants in each age group.

Wednesday, July 9

For-Mar on the Road
For-Mar
Nature's Believe It or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to enjoy nature while leaving no trace.
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Wednesday, July 9, 16, 23, 30

Beginning Tennis for Individuals with Special Needs, Session 1
Flushing County Park, Tennis courts
Ages 14-17 Time: 6 p.m.-7 p.m.
Bring your own racquet, we'll provide the tennis balls. Cost: FREE!
Pre-registration required by 07/08/08.

Wednesday, July 9

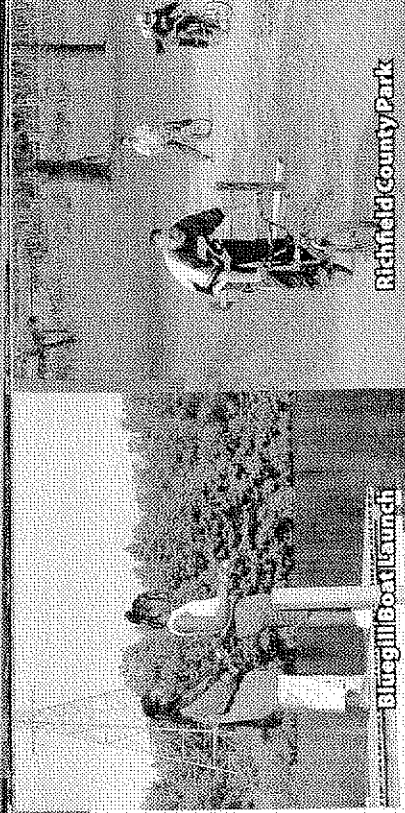
Swing Dance Lesson
Davison Roadside Park Pavilion
Terri Sweet-Herrick teaches you all the moves.
Time: 7 p.m.-8 p.m. Cost: FREE!
Pre-registration not required.

Thursday, July 10

Knee-High Naturalist Story Hour: Hug a Tree
For-Mar
Activities include a tree scavenger hunt and planting tree seeds.
Time: 10:30 a.m. - 11:30 a.m. Cost: \$3.00 per child. Pre-registration required by 07/08/08.

Thursday, July 10

For-Mar on the Road
Bluebell County Park, Pavilion 1
Nature's Believe It or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to enjoy nature while leaving no trace.
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.



Bluffmill Boat Launch

Richfield County Park

Friday, July 11
Monders of Water for Individuals with Cognitive Disabilities
Participants will enjoy a hike and water activities carnival. Bring a sack lunch or a picnic. **Time: 10:30 a.m. - 1 p.m.**
Cost: \$2.00 per participant. Funded in part by the Frederick and Stella Leeb Charitable Trust.
Pre-registration required by 07/09/08.

Friday, July 11
For-Mar on the Road
Richfield County Park, Pavilion 1
Nature's Believe it or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to identify plants while "Leaving No Trace".
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 11
For-Mar on the Road
Hazelbelle Beach, Pavilion 1
Nature's Believe it or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to identify plants while "Leaving No Trace".
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 11
For-Mar on the Road
Hazelbelle Beach, Pavilion 1
Nature's Believe it or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to identify plants while "Leaving No Trace".
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.
Time: 2 p.m. - 3 p.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 11
For-Mar on the Road
Hazelbelle Beach, Pavilion 1
Nature's Believe it or Not? (ages 4-6)
Nature is an awesome place! We'll learn how to help protect it.
The Great Outdoors (ages 7-10)
Enjoy the great outdoors! Learn how to identify plants while "Leaving No Trace".
Greening Your Home (ages 11-13)
Help the environment, learn some simple tips to green your home.
Time: 2 p.m. - 3 p.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Storms, Sirens, & Safety
Linden County Park, Clover Beach Pavilion
Join Chris Edwards, the weather Whysguy, to find out what causes severe weather and how to stay safe.
Time: 7 p.m. - 8 p.m.
Cost: FREE! **Pre-registration not required.**

Tuesday, July 15
Nutrition & Activity Series - Fun, food, and fitness forever!
Flashing County Park, Pavilion 1
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 **Time: 1p.m.-2:30 p.m.**
Eat Smart, Play Hard, 7 ReCharge!
Ages 8-11 **Time: 1p.m.-2:30 p.m.**
Media Smart Youth: Eat, Think, and Be Active
Ages 12-17 **Time: 3p.m.-4:30 p.m.**
Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Tuesday, July 15
Belly Dance Lesson
Flashing County Park, Pavilion 1
Laugh, make new friends, and have a ton of fun all while exercising.
Time: 7 p.m.-8 p.m. Cost: FREE!
Pre-registration not required.

Wednesday, July 16
For-Mar on the Road
For-Mar
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Wednesday, July 16
For-Mar on the Road
For-Mar
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

successfully complete the class and pass the test will receive a certificate from the American Kennel Club.
Time: 7 p.m. - 8 p.m. Cost: FREE! **Pre-registration required by 07/15/08.** **Class is open to pure and mixed breed dogs who are one year of age or older.** **Shots must be current and a copy of shot record must be presented at first class.** **Dogs who exhibit aggressive behavior toward people or other animals will not be tolerated.** **Limited to the first 20 registrants.**

Thursday, July 17
Knee-High Naturalist Story Hour: Hive Jive
For-Mar
Discover how bees are our helpers with activities, a story, and craft.
Time: 10:30 a.m. - 11:30 a.m. Cost: \$3.00 per child. **Pre-registration required by 07/15/08.**

Thursday, July 17
For-Mar on the Road
Buell Lake County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Thursday, July 17
For-Mar on the Road
Buell Lake County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Thursday, July 17
For-Mar on the Road
Buell Lake County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Bats of the World
Richfield County Park, Pavilion 1
See live bats up close and personal, brought to you by the staff from the Organization of Bat Conservation
Time: 7 p.m. - 8 p.m. Cost: FREE!
Pre-registration not required.

Friday, July 18
Nutrition & Activity Series - Fun, food, and fitness forever!
For-Mar
Snacking Smart, Getting Strong, Staying Healthy - For Individuals with Special Needs.
Time: 9 a.m.-10:15 a.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 18
For-Mar on the Road
Richfield County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 18
For-Mar on the Road
Richfield County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, July 18
For-Mar on the Road
Richfield County Park, Pavilion 1
Out of this World (ages 4-6)
Learn about the stars, planets and outer space travel. Build a foam rocket!
Solar System Discovery (ages 7-10)
Planets, stars and our neighboring galaxies. Make a model solar system!
Look to the Sky (ages 11-13)
Everything in the sky: the weather, the clouds, the sun, the moon, and the stars!
Time: 11 a.m. - noon. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

most commonly used in fishing. Get a crash course in some common casting techniques and try them out!
Time: 2 p.m. - 3:30 p.m. Cost: \$3.00 per child.
Pre-registration required by 07/17/08.

Saturday, July 19
Canoe Trip
Richfield County Park Entrance, Fish Road
Join the staff from Heaven's Canoe Rental for a two-hour trip down a section of the Flint River. Be on the lookout for wildlife as you meander past beautiful scenery. Canoes, personal flotation devices, and a lesson will be provided.
Time: 6:30 p.m. - 8:30 p.m. Cost: \$25.00 per person.
Pre-registration required by 07/18/08.
Limited to 20 participants.

Sunday, July 20
F.A.N.s (Family Adventures in Nature) Program: Turtle Tromp
For-Mar
Learn about the turtles we have in Michigan and get an up-close look at some turtles both indoors and outdoors!
Time: 2 p.m. - 3:30 p.m. Cost: \$3.00 per person.
Pre-registration not required, but organized groups are asked to call ahead.

Sunday, July 20
F.A.N.s (Family Adventures in Nature) Program: Turtle Tromp
For-Mar
Learn about the turtles we have in Michigan and get an up-close look at some turtles both indoors and outdoors!
Time: 2 p.m. - 3:30 p.m. Cost: \$3.00 per person.
Pre-registration not required, but organized groups are asked to call ahead.

Sunday, July 20
F.A.N.s (Family Adventures in Nature) Program: Turtle Tromp
For-Mar
Learn about the turtles we have in Michigan and get an up-close look at some turtles both indoors and outdoors!
Time: 2 p.m. - 3:30 p.m. Cost: \$3.00 per person.
Pre-registration not required, but organized groups are asked to call ahead.

Glver Beach, Linden County Park

Glver Beach, Linden County Park

To Make Reservations: 810.736.7100, ext. 6 or 800.648.PARK, ext. 6
For more program information, registration, maps and much more, visit our website:

geneseecountyparks.org



See CRV info on other side

AUGUST

JENESSEE COUNTY PARKS
Get away. Right away.

AGE GROUP COLOR KEY

- Children, ages 2-4
- Children, ages 3-6
- Youth, ages 7-12
- Adults, ages 16 and older
- Families, all ages
- Special Needs Audiences: children and adults with cognitive & physical disabilities
- Home School Students

Adults must accompany children.

FANTASTIC FAMILY FRIENDLY FUN!



Clover Beach

Flushing County Park

Monday, August 11

Odor Eaters - Rotten Sneaker Contest

Enden County Park, Clover Beach Pavilion
Celebrating its 33rd year, the National Odor Eaters' Rotten Sneaker contest is the ultimate test of just how often your sneaker can get when they're not taken care of properly. Sneakers are judged on the conditions of the sole (tongue, heel, toe, laces or Velcro), eyelets/grommets, overall condition, and most important, ODOR! To enter the regional contest and win a chance to go to the Nationals, children must be between the ages of 5 and 15 years and they must wear their naturally worn and torn sneakers. The winner will receive \$200 in cash, the golden sneaker award, a certificate and a basket of Odor Eaters' products, plus the winner and one parent will be flown all expenses paid to Montpelier, VT to compete for the National Title.
Registration: 6 p.m. Contest begins promptly at 7 p.m. Cost: FREE! Pre-registration not required. Limited to the first 35 kids, ages 5-15 yrs.

Tuesday, August 12

Nutrition & Activity Series - Fun, food, and fitness forever!

Flushing County Park, Pavilion 1
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 Time: 1-2:30 p.m.
Eat Smart: Play Hard / ReCharge!
Ages 8-11 Time: 1-2:30 p.m.

Wednesday, August 13

For-Mar on the Road

Linden County Park, Clover Beach Pavilion
Rocks and Rock Collecting (ages 4-6)
Different kinds of rocks and how they're made; start your own collection!

Geologic Forces

(ages 7-10)
Volcanoes, earthquakes and plate tectonics; participate in hands-on demonstrations!

Geology of Michigan

(ages 11-13)
Glaciers created unique Michigan landscapes. Read a topographic map!
Times: 2 p.m. - 3 p.m.,
repeated from 6:30 p.m. - 7:30 p.m. Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Thursday, August 14

Knee-High Naturalist Story Hour: Insects

For-Mar
We will take a close look at insects with nets and magnifying glasses. Make an insect craft.
Time: 10:30 a.m. - 11:30 a.m.
Cost: \$3.00 per child.
Pre-registration required by 08/12/08.

Thursday, August 14

Home School Students: Birding 101

For-Mar
Learn some key ways to identify birds in your backyard. Students will go on a hike and look for birds on their way to study the Foote Bird Museum in our Dewaters Education Center.
Time: 1:30 p.m. - 3 p.m. Cost: \$4.00 per student.
Pre-registration required by 08/12/08.

Thursday, August 14

Beading Workshop

Richfield County Park, Pavilion 1
Monica Winger, owner of "Beadin' Mon" helps you create a beadwork masterpiece.
Time: 7 p.m. - 8 p.m. Cost: FREE! Pre-registration not required. Limited to the first 25 participants.

Friday, August 15

Nutrition & Activity Series - Fun, food, and fitness forever!

For-Mar
Snacking Smart, Getting Strong, Staying Healthy - For individuals with Special Needs
Time: 9 a.m. - 10:15 a.m.
Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Friday, August 15

For-Mar on the Road

Richfield County Park, Pavilion 1
Rocks and Rock Collecting (ages 4-6)

Different kinds of rocks and how they're made; start your own collection!

Geologic Forces

(ages 7-10)
Volcanoes, earthquakes and plate tectonics; participate in hands-on demonstrations!
Geology of Michigan (ages 11-13)

Saturday, August 16

Uniquely U

Bluebell Beach Bathhouse
Be Smart! Be Social! Be Savvy! You'll learn easy ways to introduce yourself, ways to fit in and avoid embarrassment, the power of posture, table manners and loads of other social skills. Music and crazy activities like "Is the Bad Head Dead" leave you equipped with skills to prepare you for a lifetime! Taught by Pamela Barr, Certified Etiquette Instructor.
Ages 10-14 Time: 3 p.m. - 4:30 p.m.
Cost: FREE! Pre-registration not required.



Montpelier

Tuesday, August 19

Nutrition & Activity Series - Fun, food, and fitness forever!

Flushing County Park, Pavilion 1
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 Time: 1-2:30 p.m.
Eat Smart: Play Hard / ReCharge!
Ages 8-11 Time: 1-2:30 p.m.
Media Smart: Youth Eat, Think, and Be Active
Ages 12-17 Time: 3-4:30 p.m.
Cost: FREE!
Pre-registration suggested, but walk-ins welcome.

Tuesday, August 19

Manners Matter

Flushing County Park, Pavilion 1
William of Wykeham says, "Manners maketh [the family]." Emily Post says that, "Manners are a sensitive awareness of the feelings of others. If you have that awareness, you have good manners, no matter what fork you use." Does your family have good manners? Join Pamela Barr, Certified Etiquette Instructor from Etiquettes Edge, to find out.
Time: 7 p.m. - 8 p.m. Cost: FREE!
Pre-registration not required.

Tuesday, August 19

Nutrition & Activity Series - Fun, food, and fitness forever!

Flushing County Park, Pavilion 1
Transformers: Smart Kids Defeating Unhealthy Choices
Ages 4-7 Time: 1-2:30 p.m.
Eat Smart: Play Hard / ReCharge!
Ages 8-11 Time: 1-2:30 p.m.

Montpelier

Wednesday, August 20

For-Mar on the Road

For-Mar
Animal Tracks and Signs (ages 4-6)
Hike to discover animal tracks and signs. Make an animal track!
The Scoop On Poop (ages 7-11)
Learn about different animal scat and find out what it tells you about the animal.

Saturday, August 16

Outdoor Explorers: Nature Detectives

For-Mar
Come help the For-Mar Naturalists track another cold case file. Learn about nature and how to help solve the case.

Appendix I
SWPPI Commitments for each
Individual Community

**Genesee County
Phase II Storm Water Permittee's
Self-Audit Checklist**

Municipality Information	
Municipality Name: <u>City of Burton</u>	Municipality Representative: <u>Charles Smiley</u>
Address: <u>4303 S. Center Rd.</u>	Title: <u>MAYOR</u>
City, State, Zip: <u>BURTON, MI 48519</u>	Telephone: <u>(810) 743-1500</u>
Type of Municipality:	Fax: <u>(810) 743-5060</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
Does your municipality generate or store hazardous waste and or Waste oil? (IF NO skip this section)		
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No: <u>MI6000012008</u>		
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? <u>None - underground storage tank at DPA</u>		
How is the hazardous waste disposed of? <u>Independent Contractor</u>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		

YES	NO	
<input checked="" type="checkbox"/>		Does your community own vehicles? How many? <u>Approx. 100</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>		Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input checked="" type="checkbox"/>		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>		Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	
		Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input checked="" type="checkbox"/>		Are vehicles washed indoors?
<input checked="" type="checkbox"/>		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
		Are vehicles washed offsite?
		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>		
		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
		Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
		Is each tank clearly labeled with the name of its contents?
		Does each tank appear to be in good condition, free from leaks and corrosion?
		Does the municipality conduct weekly visual inspections of each AST?
		Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>		Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <u>Sanitary Sewer</u>

POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Did the municipality conduct any soil test on its property?		
	<input checked="" type="checkbox"/>	
Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>		
		<input checked="" type="checkbox"/>
Was fertilizer applied as per manufacturer recommendation?		
	<input checked="" type="checkbox"/>	
Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>		
		<input checked="" type="checkbox"/>
Were herbicides applied by a licensed individual?		
<input checked="" type="checkbox"/>		
Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>		
<input checked="" type="checkbox"/>		
Were pesticides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>		
		<input checked="" type="checkbox"/>
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? <i>Every other month during summer</i>		
Approximately how many miles of streets were swept? <i>Approx. 46 miles</i>		
How many tons of sediment were removed from the streets? <i>2520 tons</i>		
How many tons of sediment were removed from catch basins? <i>25 tons</i>		
Where is the sediment deposited? <i>DPW YARD</i>		
Who applies salt/salt alternative to your roads and parking lots (please circle one)		Contactor <input type="checkbox"/> Employee <input checked="" type="checkbox"/>
YES	NO	N/A
<input checked="" type="checkbox"/>		
Do you use salt on municipal roadways/parking lots?		
<input checked="" type="checkbox"/>		
Do you regularly calibrate your salt dispensing machinery?		
	<input checked="" type="checkbox"/>	
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>		
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
X	X	Pipes/Culverts	Jetted as needed. Replaced as areas are re-ditched.
X	X	Ditches	Ditching priority list is in place and progressing.
X	X	Catch Basins	Inspected and vector'd as needed.
		Oil-Grit Separators	N/A
		Detention (wet/dry)	N/A
		Vaults or tanks	N/A
		Infiltration Basin	N/A
		Rain Gardens	N/A
		Porous Pavement	N/A
		Vegetated Swales	N/A
		Constructed Wetlands	N/A
		Filter strips	N/A

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	X		In the last year did the municipality have any of their employees attends any of the following:
	X		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	X		State licensing for individuals to apply either herbicide/pesticide.
	X		MDEQ, Stormwater operator
	X		Other _____
X			Are all Spill prevention and hazardous waste plans/documentation up to date?

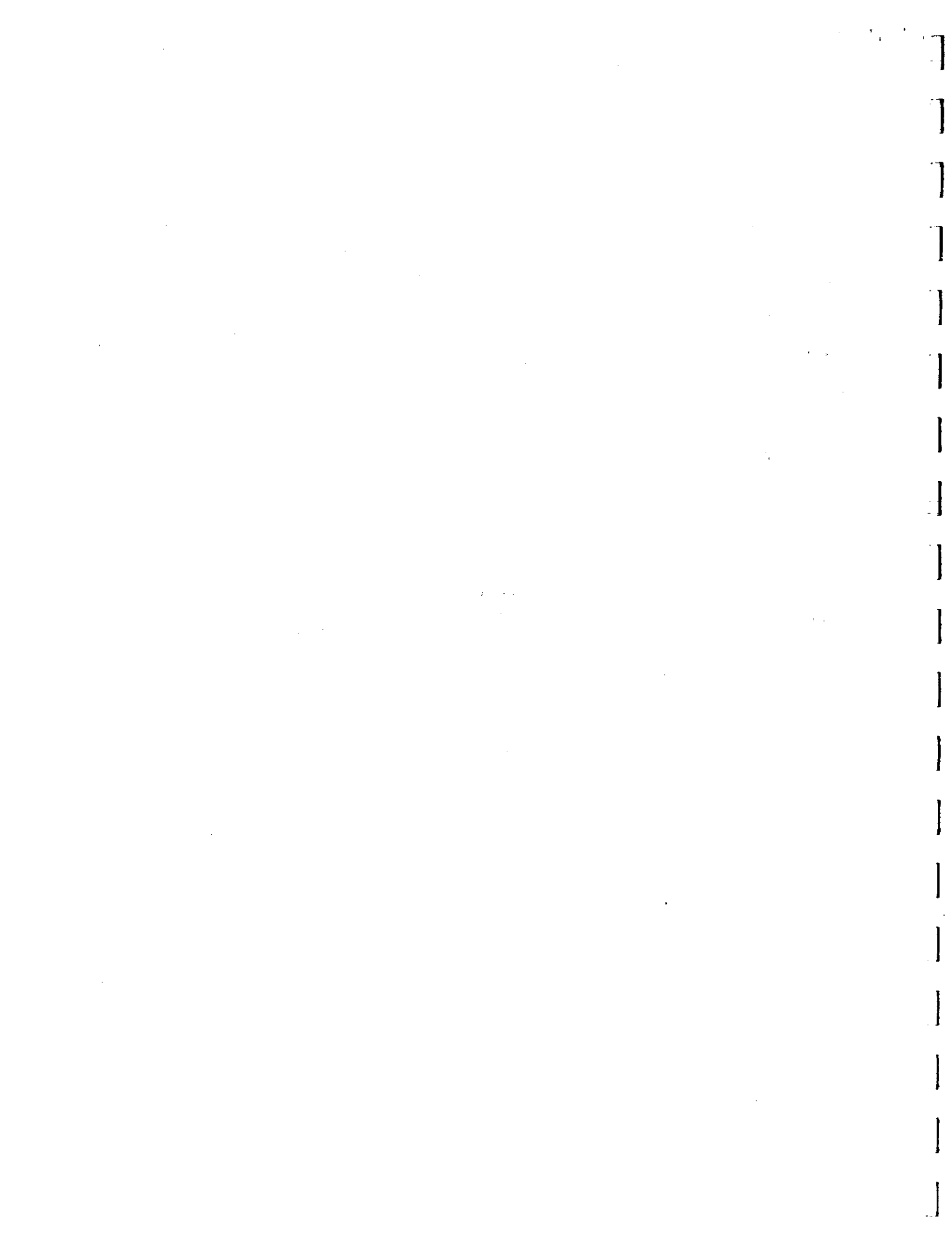
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation			
YES	NO	N/A	
X			Does your community have a website? (if "yes" answer next question)
	X		Did you link your local municipal web site to the ClearGeneseeWater.org site
X			Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:			
	X		Any River Clean-up: If so, where:
	X		Public education at the County Fair (Some one else from your community other than PEP committee members)
	X		Water festival(s) (for children or otherwise) Please specify:
	X		Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community?			NONE
Method of distribution of "Simple Steps" tip cards (describe)			N/A
Other municipal activities related to storm water in which the public was invited to participate?			NONE

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <u>City of Clio</u>	Municipality Representative: <u>Jack D. Abernathy</u>
Address: <u>505 W. Vienna</u>	Title: <u>City Administrator</u>
City, State, Zip: <u>Clio, Mi 48420</u>	Telephone: <u>(810) 686-5850 ext. 216</u>
Type of Municipality: <u>City</u>	Fax: <u>(810) 686-0627</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)			
YES	NO	N/A	
	X	X	Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
		X	Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
X			Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? <u>1</u>			
How is the hazardous waste disposed of?			
X			Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
X			Are all hazardous waste containers closed?
X			Are all hazardous waste containers labeled?
X			Do the labels include the name of the waste (waste oil, waste paint, etc.)?
X			Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
		X	If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
X			Is the accumulation time within regulatory limits? <u>used oil</u>
			Are containers of hazardous waste stored in the designated accumulation area? <u>used oil</u>

YES	NO	
<input checked="" type="checkbox"/>		Does your community own vehicles? How many? <u>7</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>		Does your community conduct Oil Changes on site? If Yes, answer next question.
		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? If Yes, answer next question.
	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? If Yes, answer following question2.
<input checked="" type="checkbox"/>		Are vehicles washed indoors?
<input checked="" type="checkbox"/>		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
		Are vehicles washed offsite?
		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Is each tank clearly labeled with the name of its contents?
<input checked="" type="checkbox"/>		Does each tank appear to be in good condition, free from leaks and corrosion?
<input checked="" type="checkbox"/>		Does the municipality conduct weekly visual inspections of each AST?
		<input checked="" type="checkbox"/> Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
	<input checked="" type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>		Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	X		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	X		Did the municipality conduct any soil test on its property?
	X		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Was fertilizer applied as per manufacturer recommendation?
	X		Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Were herbicides applied by a licensed individual?
	X		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Were pesticides applied by a licensed individual?
	X		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
	X		Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>Major st. Twice, 1 month, local st once/month.</i>			
Approximately how many miles of streets were swept? <i>9.51 9.51</i>			
How many tons of sediment were removed from the streets? <i>?</i>			
How many tons of sediment were removed from catch basins? <i>?</i>			
Where is the sediment deposited? <i>GCS TP Mont Rose</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>			
YES	NO	N/A	
X			Do you use salt on municipal roadways/parking lots?
X			Do you regularly calibrate your salt dispensing machinery?
	X		Do you use a salt alternative to treat your roads for ice?
X			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	
		Ditches	
X	X	Catch Basins	Vac and disposed at GCSTP Montrose
		Oil-Grit Separators	
X	X	Detention (wet/dry)	Vac and disposed at MSFP
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
X	X	Porous Pavement	Resurfaced New St.
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	X		In the last year did the municipality have any of their employees attends any of the following:
	X		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	X		State licensing for individuals to apply either herbicide/pesticide.
	X		MDEQ, Stormwater operator
	X		Other _____
X			Are all Spill prevention and hazardous waste plans documentation up to date?

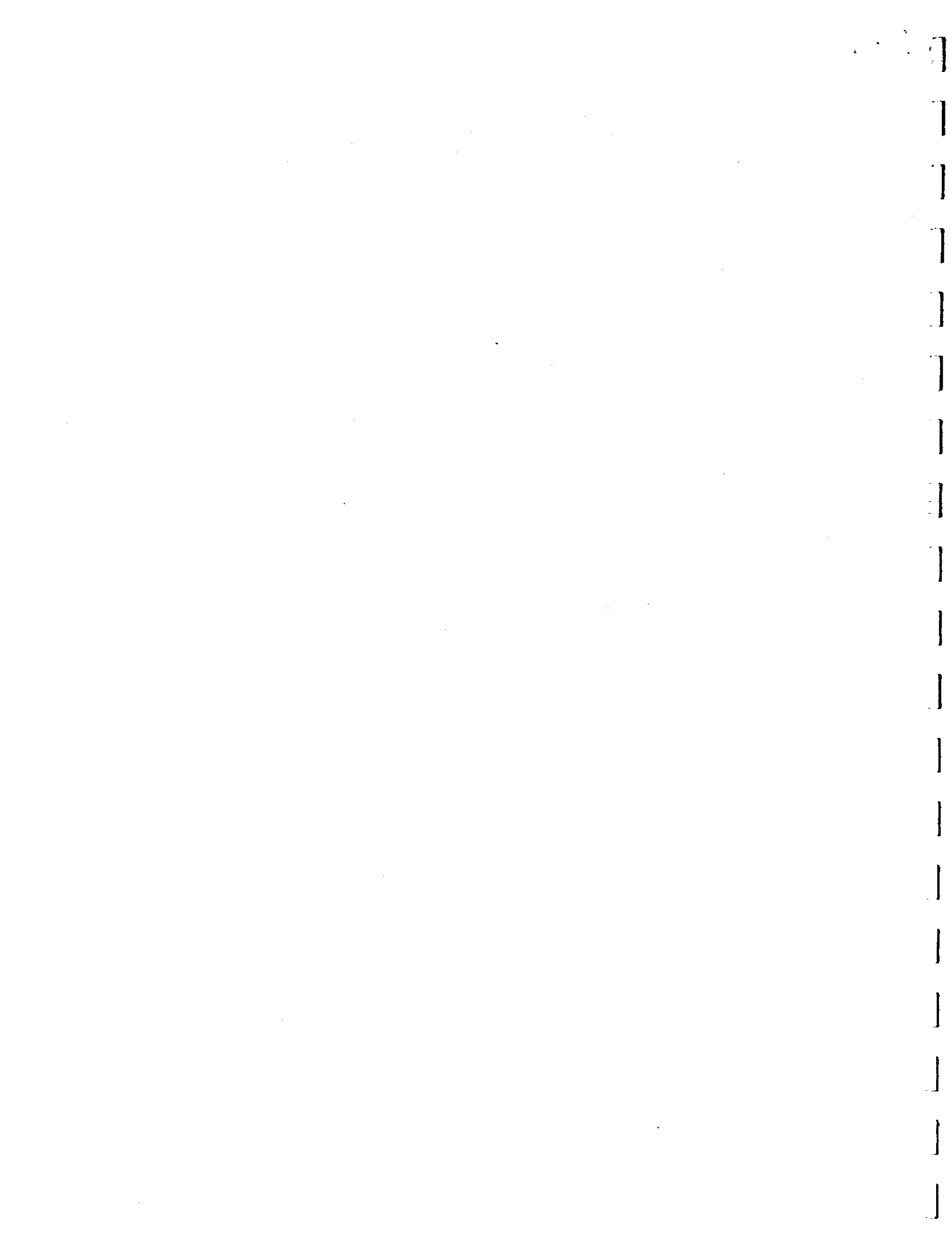
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
✓		
✓		
	✓	
Did your community participate in any of the following events:		
	✓	
	✓	
	✓	
	✓	
Number of "Simple Steps" tip cards distributed in your community? 0		
Method of distribution of "Simple Steps" tip cards (describe)		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



**Genesee County
Phase II Storm Water Permittee's
Self-Audit Checklist**

Municipality Information	
Municipality Name: <u>City of Davison</u>	Municipality Representative: <u>BRIAN KLASSON, DPW Director</u>
Address: <u>200 E. FLINT Suite 200</u>	Title: <u>DPW Director</u>
City, State, Zip: <u>Davison MI 48423</u>	Telephone: <u>810 653 6452</u>
Type of Municipality: <u>City</u>	Fax: <u>810 653 3091</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	X	
		Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
		Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
		Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
		Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
		Are all hazardous waste containers closed?
		Are all hazardous waste containers labeled?
		Do the labels include the name of the waste (waste oil, waste paint, etc.)?
		Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
		If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
		Is the accumulation time within regulatory limits?
		Are containers of hazardous waste stored in the designated accumulation area?



POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? <u>4 times yearly</u>		
Approximately how many miles of streets were swept? <u>18.5 miles</u>		
How many tons of sediment were removed from the streets? <u>10</u>		
How many tons of sediment were removed from catch basins? <u>10</u>		
Where is the sediment deposited? <u>DPW yard Dumpster</u>		
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	



Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
X		Pipes/Culverts	W CAMERA
		Ditches	N/A
X	X	Catch Basins	REPAIRS DONE TO THOSE FAILING,
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	N/A
		Infiltration Basin	N/A
		Rain Gardens	N/A
		Porous Pavement	N/A
		Vegetated Swales	N/A
		Constructed Wetlands	N/A
		Filter strips	N/A

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
X			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

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CITY OF DAVISON

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES		N/A
X		
X		
Did your community participate in any of the following events:		
X		
Number of "Simple Steps" tip cards distributed in your community? <i>yes</i>		
Method of distribution of "Simple Steps" tip cards (describe) <i>Front counter @ City Hall</i>		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <i>City of Fenton</i>	Municipality Representative: <i>Leslie Bland</i>
Address: <i>301 S. Leroy St</i>	Title: <i>Director Public Works</i>
City, State, Zip: <i>Fenton, MI: 48430</i>	Telephone: <i>810-629-2261</i>
Type of Municipality: <i>City</i>	Fax: <i>810-629-2004</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
	<input checked="" type="checkbox"/>	
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
<input checked="" type="checkbox"/>		
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers closed?		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers labeled?		
<input checked="" type="checkbox"/>		
Do the labels include the name of the waste (waste oil, waste paint, etc.)?		
<input checked="" type="checkbox"/>		
Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?		
<input checked="" type="checkbox"/>		
If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?		
<input checked="" type="checkbox"/>		
Is the accumulation time within regulatory limits?		
<input checked="" type="checkbox"/>		
Are containers of hazardous waste stored in the designated accumulation area?		

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>40</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed indoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed offsite?
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Spill Prevention
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <u>POTW</u>

POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Did the municipality conduct any soil test on its property?		
	<input checked="" type="checkbox"/>	
Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Was fertilizer applied as per manufacturer recommendation?		
<input checked="" type="checkbox"/>		
Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>		
<input checked="" type="checkbox"/>		
Were herbicides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were pesticides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? <i>Every three weeks</i>		
Approximately how many miles of streets were swept? <i>32</i>		
How many tons of sediment were removed from the streets? <i>108 yards (do not know tons)</i>		
How many tons of sediment were removed from catch basins? <i>15</i>		
Where is the sediment deposited? <i>landfill at Grand Blanc Road</i>		
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>		
YES	NO	N/A
<input checked="" type="checkbox"/>		
Do you use salt on municipal roadways/parking lots?		
<input checked="" type="checkbox"/>		
Do you regularly calibrate your salt dispensing machinery?		
	<input checked="" type="checkbox"/>	
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>		
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. Starting in 2009, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
yes	yes	Pipes/Culverts	Cleaned with Ureter-Jet
yes	yes	Ditches	Re-ditched them
yes	yes	Catch Basins	Cleaned with Ureter-Jet
no	no	Oil-Grit Separators	NA
no	no	Detention (wet/dry)	NA
no	no	Vaults or tanks	NA
no	no	Infiltration Basin	NA
no	no	Rain Gardens	NA
no	no	Porous Pavement	NA
no	no	Vegetated Swales	NA
yes	no	Constructed Wetlands	
no	no	Filter strips	NA

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. Starting in 2009

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
✓			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did your community participate in any of the following events:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Number of "Simple Steps" tip cards distributed in your community? <i>0</i>		
Method of distribution of "Simple Steps" tip cards (describe)		
Other municipal activities related to storm water in which the public was invited to participate? <i>None</i>		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: City of Flushing	Municipality Representative: Dennis J. Bow
Address: 725 E. Main Street	Title: City Manager
City, State, Zip: Flushing, Michigan 48433	Telephone: (810) 659-3130
Type of Municipality: City	Fax: (810) 659-0569

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
<input checked="" type="checkbox"/>		
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No: MD985611995		
	<input checked="" type="checkbox"/>	
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? 1 - 250 gallon container		
How is the hazardous waste disposed of? Licensed special waste hauler		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers closed?		
<input checked="" type="checkbox"/>		
Are all hazardous waste containers labeled?		
<input checked="" type="checkbox"/>		
Do the labels include the name of the waste (waste oil, waste paint, etc.)?		
Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?		
If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?		
Is the accumulation time within regulatory limits?		
<input checked="" type="checkbox"/>		
Are containers of hazardous waste stored in the designated accumulation area?		

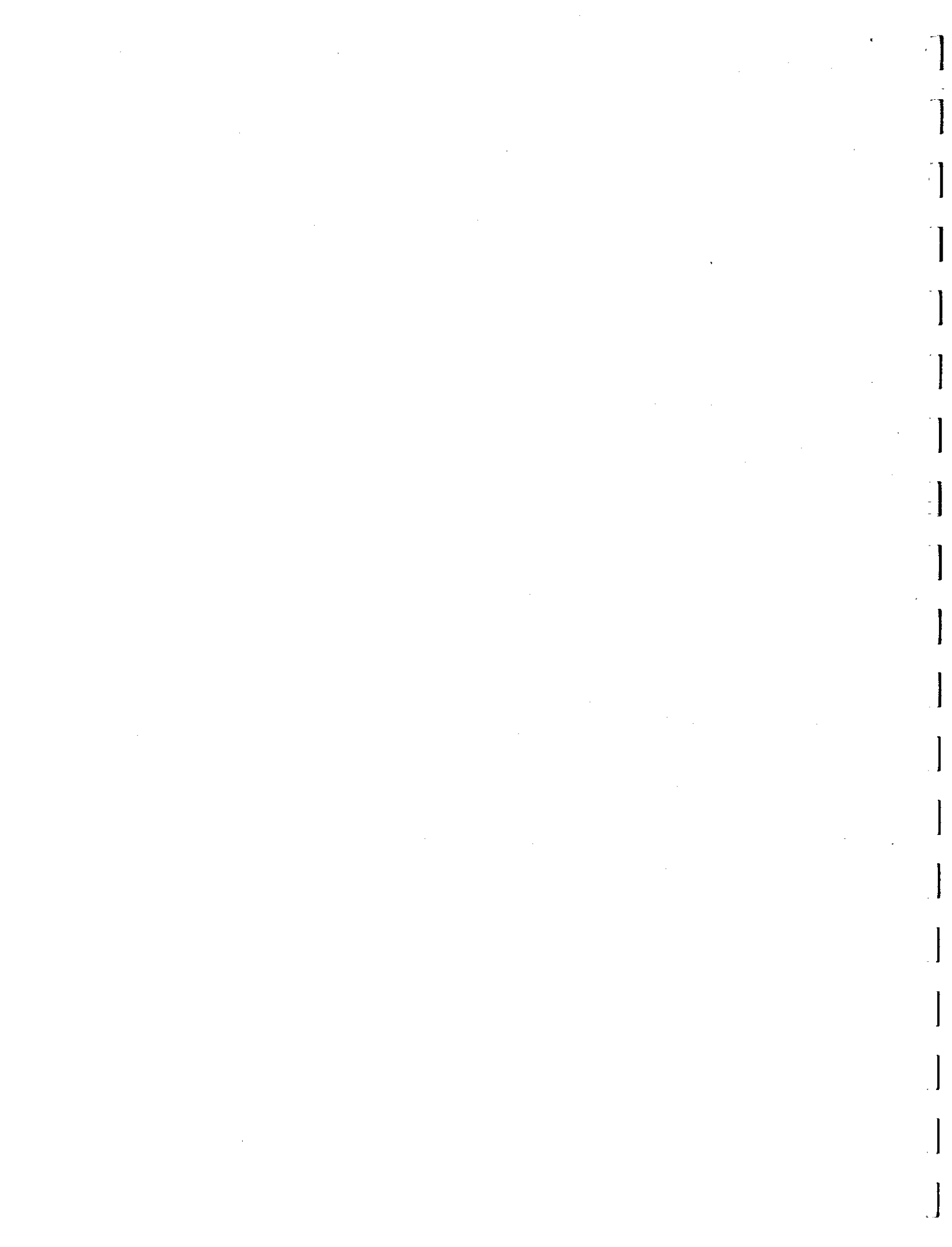
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YES	NO	
		Does your community own vehicles? How many? <u>29</u> (If "NO" Skip this section)
		Does your community conduct Vehicle Maintenance on site?
		Does your community conduct Oil Changes on site? If Yes, answer next question.
X		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
		Does your community own and Pump Gas on site? If Yes, answer next question.
	X	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? If Yes, answer following question2.
		Are vehicles washed indoors?
		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or is the municipality equipped with an approved holding tank?
		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
X		Are vehicles washed offsite?
		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
X		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
X		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
	X	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
		Is each tank clearly labeled with the name of its contents?
		Does each tank appear to be in good condition, free from leaks and corrosion?
		Does the municipality conduct weekly visual inspections of each AST?
		Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
		Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:



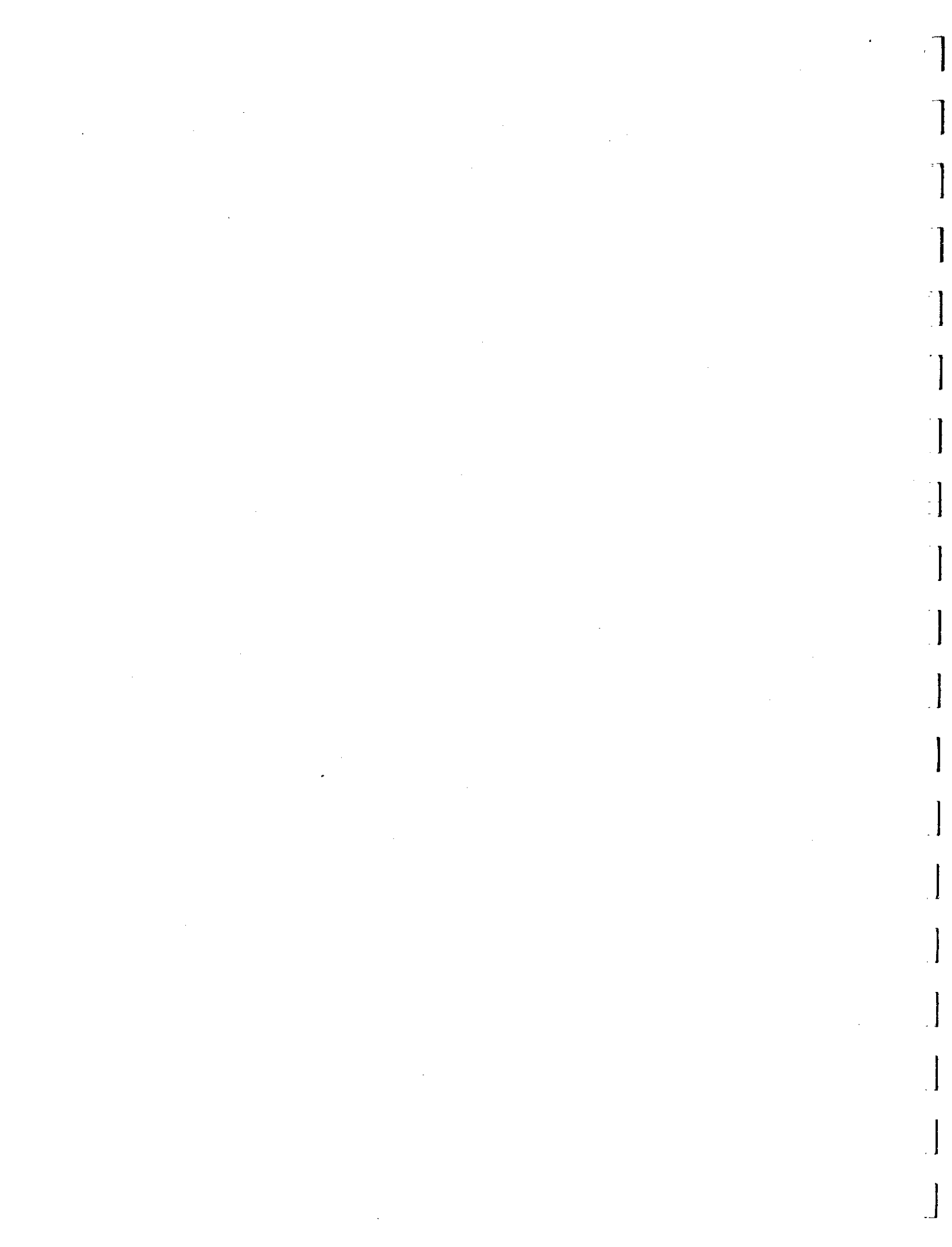
POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Did the municipality conduct any soil test on its property?		
	<input checked="" type="checkbox"/>	
Was fertilizer applied on any municipal property? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Was fertilizer applied as per manufacturer recommendation?		
	<input checked="" type="checkbox"/>	
Were herbicides applied on any municipal property? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were herbicides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were pesticides applied on any municipal property? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were pesticides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in on any municipal site? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? Once per week		
Approximately how many miles of streets were swept? 39		
How many tons of sediment were removed from the streets? Approximately 20 yds/week		
How many tons of sediment were removed from catch basins? Approximately 20 yds/year		
Where is the sediment deposited? Landfill		
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contractor <u>Employee</u>		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Do you use salt on municipal roadways/parking lots?		
	<input checked="" type="checkbox"/>	
Do you regularly calibrate your salt dispensing machinery?		
	<input checked="" type="checkbox"/>	
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		



Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
X	X	Pipes/Culverts	
X	X	Ditches	
X	X	Catch Basins	
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
X			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
X			Are all Spill prevention and hazardous waste plans documentation up to date?

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Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

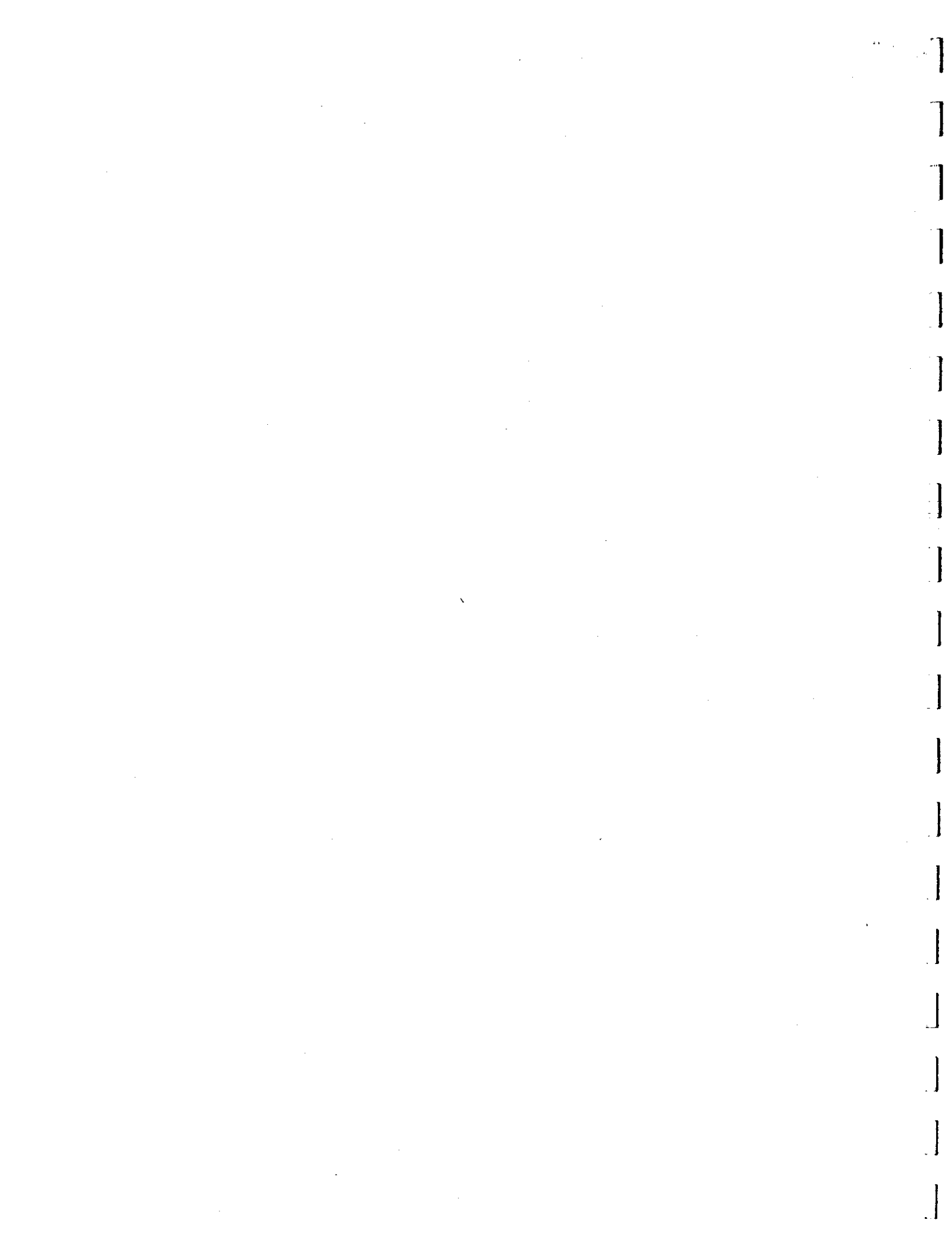
Public Education and Participation	
YES	N/A
X	Does your community have a website? (if "yes" answer next question)
	Did you link your local municipal web site to the ClearGeneseeWater.org site
X	Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:	
X	Any River Clean-up; If so, where: Flint River in Flushing
	X Public education at the County Fair (Some one else from your community other than PEP committee members)
	X Water festival(s) (for children or otherwise) Please specify:
X	Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community? Unknown	
Method of distribution of "Simple Steps" tip cards (describe) City Hall main counter	
Other municipal activities related to storm water in which the public was invited to participate? None	

Additional Notes/Comments/Observations:

Please return to

**GCDC-SWM
4608 Beecher Road
Flint MI 48532**

Return by 10/24/08



**Genesee County
Phase II Storm Water Permittee's
Self-Audit Checklist**

Municipality Information	
Municipality Name: <i>City of Grand Blanc</i>	Municipality Representative: <i>Matt Wurtz</i>
Address: <i>203 E Grand Blanc Rd</i>	Title: <i>DPW Director</i>
City, State, Zip: <i>Grand Blanc, MI 48439</i>	Telephone: <i>810 694 5420</i>
Type of Municipality: <i>City</i>	Fax: <i>810 695 9518</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? <i>Less than one</i>		
How is the hazardous waste disposed of? <i>Taken to GB Schools bus maintenance facility.</i>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
		<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>

YES	NO	
<input checked="" type="checkbox"/>		Does your community own vehicles? How many? <u>14</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>		Does your community conduct Oil Changes on site? If Yes, answer next question.
<input checked="" type="checkbox"/>		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>		Does your community own and Pump Gas on site? If Yes, answer next question.
	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	NO	Does the municipality its wash vehicles? If Yes, answer following question2.
	<input checked="" type="checkbox"/>	Are vehicles washed indoors?
	<input checked="" type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
	<input checked="" type="checkbox"/>	Are vehicles washed offsite?
<input checked="" type="checkbox"/>		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
		Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>		Is each tank clearly labeled with the name of its contents?
<input checked="" type="checkbox"/>		Does each tank appear to be in good condition, free from leaks and corrosion?
<input checked="" type="checkbox"/>		Does the municipality conduct weekly visual inspections of each AST?
		Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
	<input checked="" type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>		Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:
		<u>Ground.</u>

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	X		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	X		Did the municipality conduct any soil test on its property?
	X		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
		X	Was fertilizer applied as per manufacturer recommendation?
	X		Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
		X	Were herbicides applied by a licensed individual?
	X		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
		X	Were pesticides applied by a licensed individual?
	X		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
		X	Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>Once every 4-6 weeks</i>			
Approximately how many miles of streets were swept? <i>32</i>			
How many tons of sediment were removed from the streets? <i>≈ 45</i>			
How many tons of sediment were removed from catch basins? <i>∅</i>			
Where is the sediment deposited? <i>Dumpsters provided by Waste Mgt. and landfilled.</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>			
YES	NO	N/A	
X			Do you use salt on municipal roadways/parking lots?
X			Do you regularly calibrate your salt dispensing machinery?
	X		Do you use a salt alternative to treat your roads for ice?
		X	If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance <i>None in 2008.</i>			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	
		Ditches	
		Catch Basins	
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
	X		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	X		State licensing for individuals to apply either herbicide/pesticide.
	X		MDEQ, Stormwater operator
			Other _____
		X	Are all Spill prevention and hazardous waste plans documentation up to date?

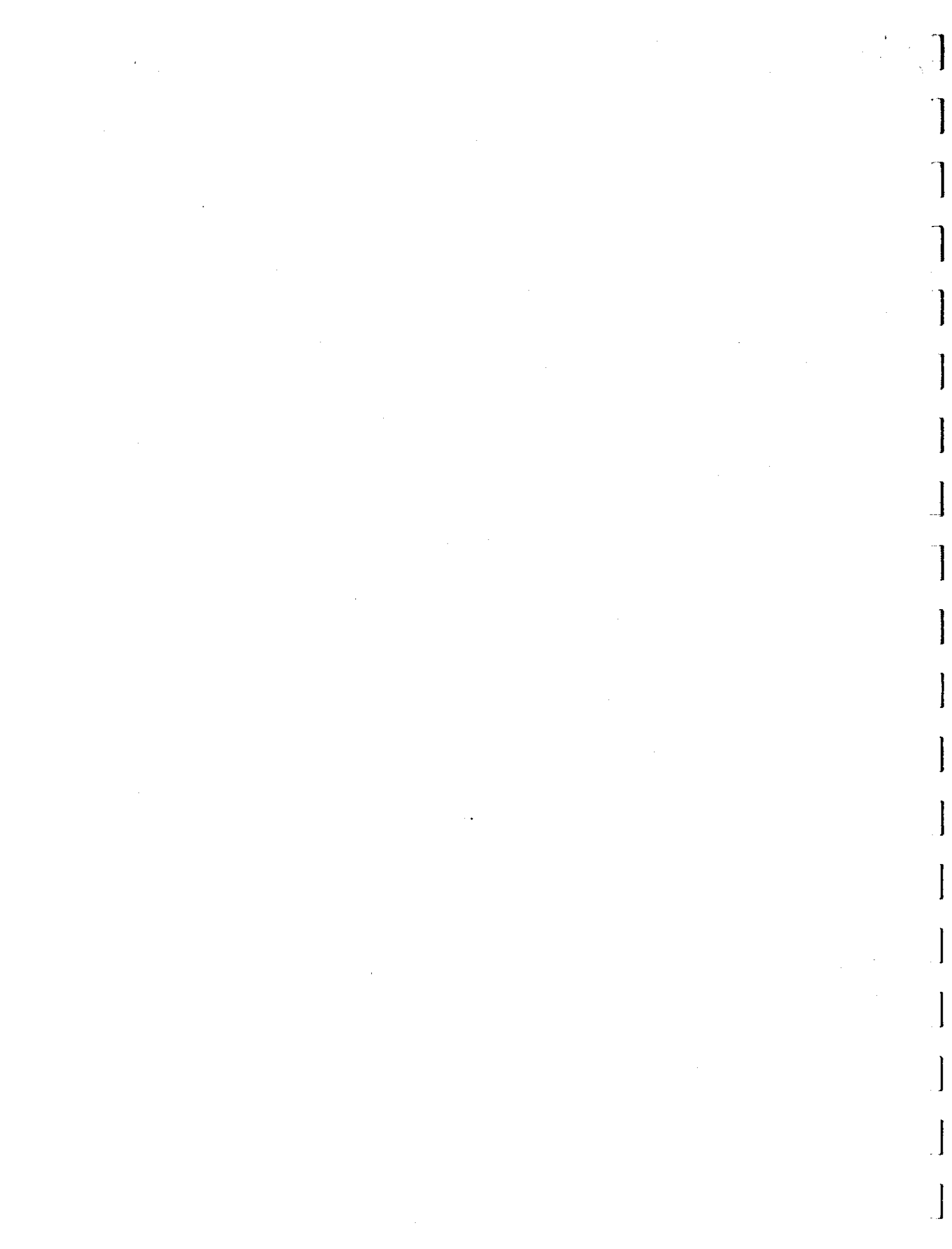
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
X		
X		
X		
Did your community participate in any of the following events:		
	X	
	X	
	X	
	X	
Number of "Simple Steps" tip cards distributed in your community? <i>Unknown</i>		
Method of distribution of "Simple Steps" tip cards (describe) <i>Placed @ front desk of City Hall.</i>		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <u>CITY OF LINDEN</u>	Municipality Representative: <u>JAMES LETTS</u>
Address: <u>132 E. BROAD ST.</u>	Title: <u>DIRECTOR OF PUBLIC WORKS</u>
City, State, Zip: <u>LINDEN MI. 48451</u>	Telephone: <u>810-735-7980</u>
Type of Municipality:	Fax: <u>810-735-4793</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>		
	<input checked="" type="checkbox"/>	
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? <u>1</u>		
How is the hazardous waste disposed of?		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>		



POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	X		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	X		Did the municipality conduct any soil test on its property?
	X		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Was fertilizer applied as per manufacturer recommendation?
	X		Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Were herbicides applied by a licensed individual?
	X		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Were pesticides applied by a licensed individual?
	X		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
	X		Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? 2 TIMES MONTH			
Approximately how many miles of streets were swept? 21			
How many tons of sediment were removed from the streets? > 1 TON			
How many tons of sediment were removed from catch basins? > 1 TON			
Where is the sediment deposited? HAULED AWAY 12" WASTE MANAGEMENT			
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>			
YES	NO	N/A	
			Do you use salt on municipal roadways/parking lots?
X			Do you regularly calibrate your salt dispensing machinery?
			Do you use a salt alternative to treat your roads for ice?
X			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)



Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES		N/A
X		Does your community have a website? (if "yes" answer next question)
		Did you link your local municipal web site to the ClearGeneseeWater.org site
X		Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:		
X		Any River Clean-up: If so, where: <u>LINDEN - ARBENTIA</u>
		Public education at the County Fair (Some one else from your community other than PEP committee members)
		Water festival(s) (for children or otherwise) Please specify:
		Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community? 0		
Method of distribution of "Simple Steps" tip cards (describe) 0		
Other municipal activities related to storm water in which the public was invited to participate? 0		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08

Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <u>City - Mt. Morris</u>	Municipality Representative: <u>A.J. (JAKE) LAFURGEY</u>
Address: <u>11649 N. SAGEBROOK ST.</u>	Title: <u>CITY MANAGER</u>
City, State, Zip: <u>Mt Morris - Mich</u>	Telephone: <u>810-686-2160</u>
Type of Municipality:	Fax: <u>810-686-7330</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>			Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
<input checked="" type="checkbox"/>			Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No: <u>MIG-000026812</u>
	<input checked="" type="checkbox"/>		Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility? <u>NO DRUMS</u> <u>1-150 TOTAL</u>			
How is the hazardous waste disposed of? <u>WASTE CONTRACTOR</u>			
<input checked="" type="checkbox"/>			Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
<input checked="" type="checkbox"/>			Are all hazardous waste containers closed?
<input checked="" type="checkbox"/>			Are all hazardous waste containers labeled?
<input checked="" type="checkbox"/>			Do the labels include the name of the waste (waste oil, waste paint, etc.)?
<input checked="" type="checkbox"/>			Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
<input checked="" type="checkbox"/>			If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
<input checked="" type="checkbox"/>			Is the accumulation time within regulatory limits?
<input checked="" type="checkbox"/>			Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>19</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community conduct Oil Changes on site? If Yes, answer next question.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own and Pump Gas on site? If Yes, answer next question.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality its wash vehicles? If Yes, answer following question2.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed indoors?
<input type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank? <u>sewer</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed offsite?
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
<input type="checkbox"/>	<input type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <u>SURFACE WATER</u>

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	<input checked="" type="checkbox"/>		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	<input checked="" type="checkbox"/>		Did the municipality conduct any soil test on its property?
	<input checked="" type="checkbox"/>		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
	<input checked="" type="checkbox"/>		Was fertilizer applied as per manufacturer recommendation?
	<input checked="" type="checkbox"/>		Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
	<input checked="" type="checkbox"/>		Were herbicides applied by a licensed individual?
	<input checked="" type="checkbox"/>		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
	<input checked="" type="checkbox"/>		Were pesticides applied by a licensed individual?
	<input checked="" type="checkbox"/>		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
	<input checked="" type="checkbox"/>		Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>MAJOR EVERY TWO WEEKS LOCALS EVERY 6 WEEKS</i>			
Approximately how many miles of streets were swept? <i>MAJOR STREETS 5.53 Local streets 8.10</i>			
How many tons of sediment were removed from the streets? <i>72 TONS</i>			
How many tons of sediment were removed from catch basins? <i>0 IN 2008</i>			
Where is the sediment deposited? <i>LANDFILL</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one)		Contactor <input type="radio"/> Employee <input checked="" type="radio"/>	
YES	NO	N/A	
<input checked="" type="checkbox"/>			Do you use salt on municipal roadways/parking lots?
<input checked="" type="checkbox"/>			Do you regularly calibrate your salt dispensing machinery?
<input checked="" type="checkbox"/>			Do you use a salt alternative to treat your roads for ice?
<input checked="" type="checkbox"/>			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	
		Ditches	
✓	✓	Catch Basins	Repaired if needed
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
		Does your community have a website? (if "yes" answer next question)
		Did you link your local municipal web site to the ClearGeneseeWater.org site
✓		Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:		
		Any River Clean-up: If so, where:
		Public education at the County Fair (Some one else from your community other than PEP committee members)
		Water festival(s) (for children or otherwise) Please specify:
		Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community?		
Method of distribution of "Simple Steps" tip cards (describe)		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <i>CITY OF SWARTZ CREEK</i>	Municipality Representative: <i>Thomas R SVELEK</i>
Address: <i>8083 Civic DR</i>	Title: <i>Dir of Public Works</i>
City, State, Zip: <i>S. WARTZ CREEK MI</i>	Telephone: <i>810-635-4464</i>
Type of Municipality: <i>CITY</i>	Fax: <i>810 635 2887</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)			
YES	NO	N/A	
	✓		Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
			Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
			Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?			
How is the hazardous waste disposed of?			
			Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
			Are all hazardous waste containers closed?
			Are all hazardous waste containers labeled?
			Do the labels include the name of the waste (waste oil, waste paint, etc.)?
			Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
			If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
			Is the accumulation time within regulatory limits?
			Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>20</u> (If "NO" Skip this section)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles washed indoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
If municipality is NOT a Designated Vehicle Washing Municipality:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed offsite?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
Spill Prevention			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <i>Public owned treatment</i>

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	<input checked="" type="checkbox"/>		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	<input checked="" type="checkbox"/>		Did the municipality conduct any soil test on its property?
	<input checked="" type="checkbox"/>		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
			Was fertilizer applied as per manufacturer recommendation?
			Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
		<input checked="" type="checkbox"/>	Were herbicides applied by a licensed individual?
	<input checked="" type="checkbox"/>		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were pesticides applied by a licensed individual?
	<input checked="" type="checkbox"/>		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
		<input checked="" type="checkbox"/>	Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>once weekly</i>			
Approximately how many miles of streets were swept? <i>20 miles</i>			
How many tons of sediment were removed from the streets?			
How many tons of sediment were removed from catch basins?			
Where is the sediment deposited? <i>Republic Waste Company</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one) Contactor <u>Employee</u>			
YES	NO	N/A	
<input checked="" type="checkbox"/>			Do you use salt on municipal roadways/parking lots?
	<input checked="" type="checkbox"/>		Do you regularly calibrate your salt dispensing machinery?
	<input checked="" type="checkbox"/>		Do you use a salt alternative to treat your roads for ice?
<input checked="" type="checkbox"/>			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
✓	✓	Pipes/Culverts	Clear
	✓	Ditches	Clear out of brush
✓	✓	Catch Basins	Clear out Clear Tops
		Oil-Grit Separators	NA
		Detention (wet/dry)	NA
		Vaults or tanks	NA
		Infiltration Basin	NA
		Rain Gardens	NA
		Porous Pavement	NA
		Vegetated Swales	NA
		Constructed Wetlands	NA
		Filter strips	NA

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
	X		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	X		State licensing for individuals to apply either herbicide/pesticide.
	X		MDEQ, Stormwater operator
			Other _____
X			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation			
YES	NO	N/A	
X			Does your community have a website? (if "yes" answer next question)
			Did you link your local municipal web site to the ClearGeneseeWater.org site
X			Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:			
	X		Any River Clean-up: If so, where:
	X		Public education at the County Fair (Some one else from your community other than PEP committee members)
	X		Water festival(s) (for children or otherwise) Please specify:
	X		Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community?			
Method of distribution of "Simple Steps" tip cards (describe)			
Other municipal activities related to storm water in which the public was invited to participate? <i>PART OF GENESSEE COUNTY DRAIN OFFICE.</i>			

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08

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Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: ARGENTINE TOWNSHIP	Municipality Representative: ROBERT W. COLE, JR.
Address: 9048 SILVER LAKE RD	Title: TOWNSHIP SUPERVISOR
City, State, Zip: LINDEN, MI. 48451	Telephone: (810) 735-5050
Type of Municipality: GOVERNMENTAL	Fax: 810-735-9514

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all hazardous waste containers closed?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all hazardous waste containers labeled?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the labels include the name of the waste (waste oil, waste paint, etc.)?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the accumulation time within regulatory limits?		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are containers of hazardous waste stored in the designated accumulation area?		

YES	NO	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own vehicles? How many? <u>15</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? If Yes, answer next question.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? If Yes, answer next question.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? If Yes, answer following question2.
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed indoors?
<input type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
<input type="checkbox"/>	<input type="checkbox"/>	If municipality is NOT a Designated Vehicle Washing Municipality:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles washed offsite?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)? <u>FIRE DEPT</u>

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
Spill Prevention			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:

POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Did the municipality conduct any soil test on its property?		
	<input checked="" type="checkbox"/>	
Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Was fertilizer applied as per manufacturer recommendation?		
	<input checked="" type="checkbox"/>	
Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were herbicides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were pesticides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average?		
Approximately how many miles of streets were swept?		
How many tons of sediment were removed from the streets?		
How many tons of sediment were removed from catch basins?		
Where is the sediment deposited?		
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contactor</u> Employee		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Do you use salt on municipal roadways/parking lots?		
	<input checked="" type="checkbox"/>	
Do you regularly calibrate your salt dispensing machinery?		
	<input checked="" type="checkbox"/>	
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	
		Ditches	
		Catch Basins	N/A
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	✓		In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
✓			Are all Spill prevention and hazardous waste plans documentation up to date?

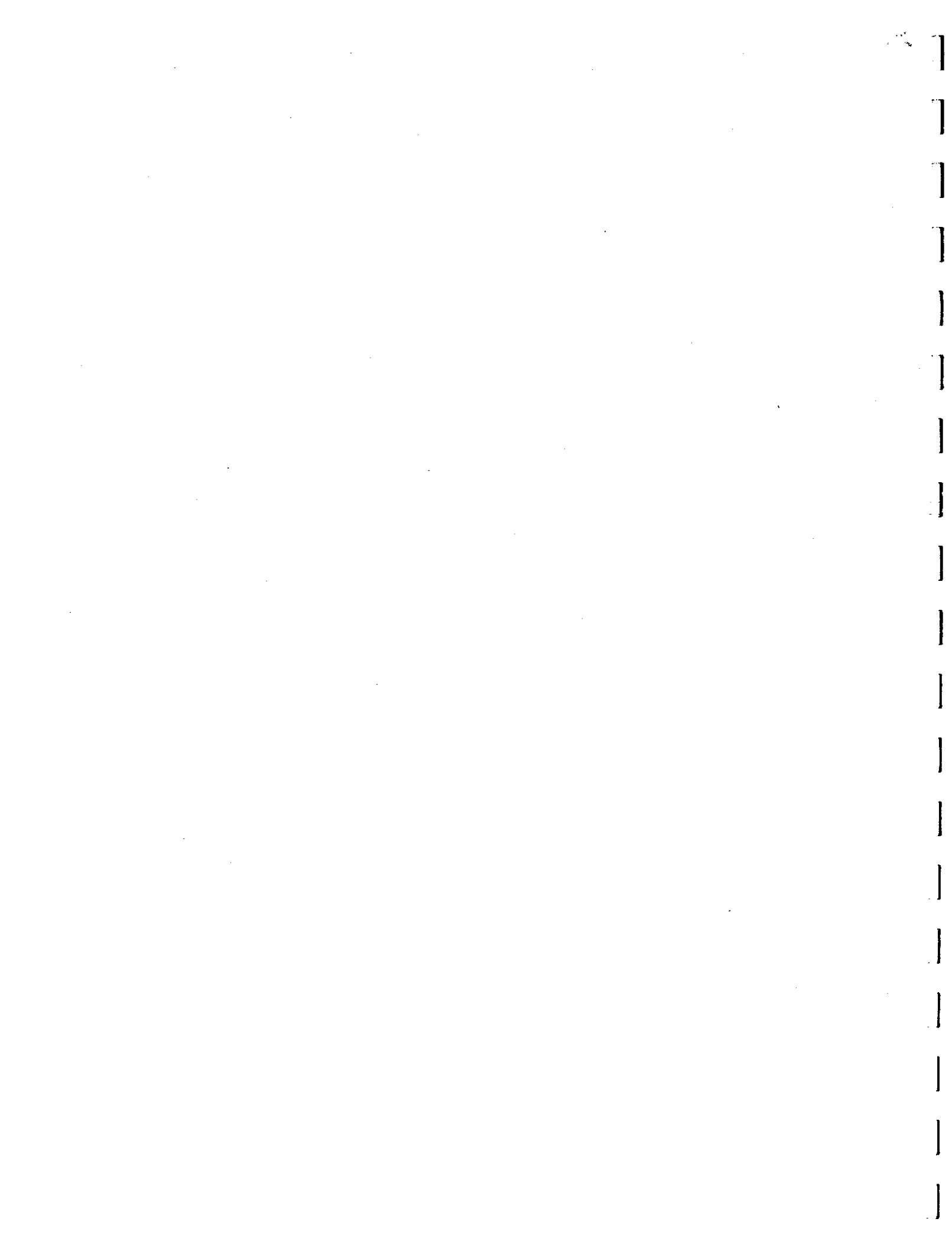
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did your community participate in any of the following events:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of "Simple Steps" tip cards distributed in your community?		
Method of distribution of "Simple Steps" tip cards (describe)		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <i>DAVISON TOWNSHIP</i>	Municipality Representative: <i>KURT SOFER</i>
Address: <i>1280 N. IRISH RD.</i>	Title: <i>DAVISON TWP. SUPERVISOR</i>
City, State, Zip: <i>DAVISON MI 48423</i>	Telephone: <i>810 653 4156</i>
Type of Municipality: <i>TOWNSHIP</i>	Fax: <i>810 653 3435</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)			
YES	NO	N/A	
	✓		Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
	✓		Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
	✓		Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?			<i>NONE</i>
How is the hazardous waste disposed of?			
	✓		Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
	✓		Are all hazardous waste containers closed?
	✓		Are all hazardous waste containers labeled?
	✓		Do the labels include the name of the waste (waste oil, waste paint, etc.)?
	✓		Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
	✓		If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
	✓		Is the accumulation time within regulatory limits?
	✓		Are containers of hazardous waste stored in the designated accumulation area?

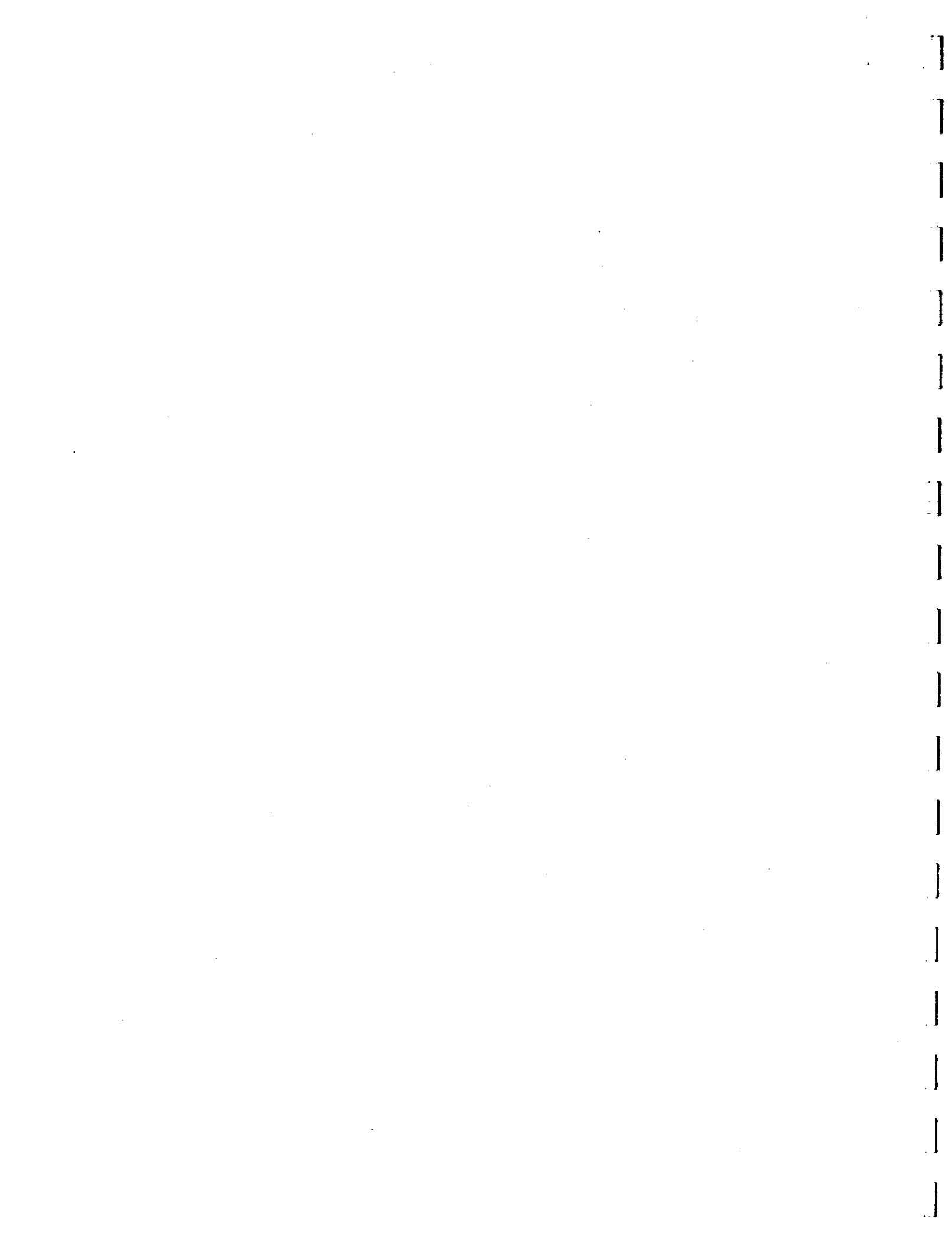
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YES	NO	
		Does your community own vehicles? How many? <u>17</u> (If "NO" Skip this section)
	✓	Does your community conduct Vehicle Maintenance on site?
	✓	Does your community conduct Oil Changes on site? If Yes, answer next question.
		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
	✓	Does your community own and Pump Gas on site? If Yes, answer next question.
		Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? If Yes, answer following question2.
		Are vehicles washed indoors?
		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
✓		Are vehicles washed offsite?
✓		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
✓		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
✓		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
	✓	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
		Is each tank clearly labeled with the name of its contents?
		Does each tank appear to be in good condition, free from leaks and corrosion?
		Does the municipality conduct weekly visual inspections of each AST?
		Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
		Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <u>PUBLIC OWNED TREATMENT WORKS</u>



POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		

Fertilizers, Pesticides and Herbicides (SWPPI 6.a.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? <i>ONCE</i>		
Approximately how many miles of streets were swept? <i>N/A</i>		
How many tons of sediment were removed from the streets? <i>N/A</i>		
How many tons of sediment were removed from catch basins? <i>N/A</i>		
Where is the sediment deposited? <i>N/A</i>		
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contact</u> Employee		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

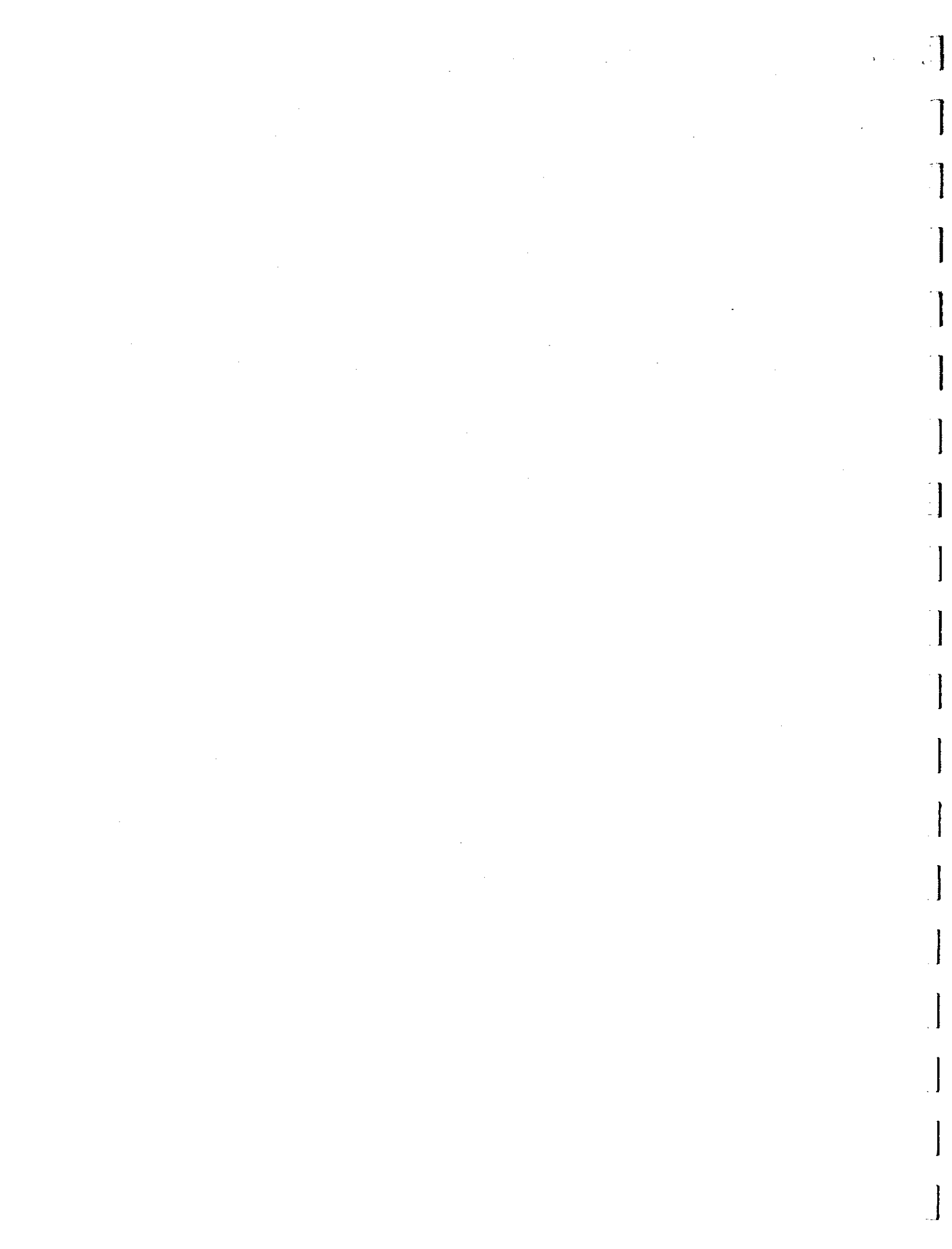
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Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. Starting in 2009, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
✓		Pipes/Culverts	CHECKED
✓		Ditches	CHECKED
✓		Catch Basins	CLEANED, INSPECTED, REBUILT SURROUNDING AREA
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. Starting in 2009

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	✓		In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
		✓	State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?



**Genesee County
Phase II Storm Water Permittee's
Self-Audit Checklist**

Municipality Information	
Municipality Name: <i>Charter township of Fenton</i>	Municipality Representative: <i>Tom Broecker</i>
Address: <i>12060 Mantawanka Dr.</i>	Title: <i>Operations Manager</i>
City, State, Zip: <i>Fenton, MI, 48430</i>	Telephone: <i>629-1937</i>
Type of Municipality:	Fax: <i>629-9736</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)			
YES	NO	N/A	
	✓		Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)
			Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
			Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?			
How is the hazardous waste disposed of?			
			Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
			Are all hazardous waste containers closed?
			Are all hazardous waste containers labeled?
			Do the labels include the name of the waste (waste oil, waste paint, etc.)?
			Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
			If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
			Is the accumulation time within regulatory limits?
			Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>11</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed indoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
<input type="checkbox"/>	<input type="checkbox"/>	If municipality is NOT a Designated Vehicle Washing Municipality:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed offsite?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
Spill Prevention			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: -----

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	X		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	X		Did the municipality conduct any soil test on its property?
X			Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
X			Was fertilizer applied as per manufacturer recommendation?
X			Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
X			Were herbicides applied by a licensed individual?
X			Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
X			Were pesticides applied by a licensed individual?
	X		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
	X		Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average?			
Approximately how many miles of streets were swept? N/A			
How many tons of sediment were removed from the streets? N/A			
How many tons of sediment were removed from catch basins? N/A			
Where is the sediment deposited? N/A			
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contactors</u> Employee			
YES	NO	N/A	
X			Do you use salt on municipal roadways/parking lots?
		X	Do you regularly calibrate your salt dispensing machinery?
		X	Do you use a salt alternative to treat your roads for ice?
X			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
✓		Pipes/Culverts	
		Ditches	
✓		Catch Basins	
		Oil-Grit Separators	
✓		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
	✓		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	✓	✓	State licensing for individuals to apply either herbicide/pesticide.
	✓		MDEQ, Stormwater operator
	✓	✓	Other _____
✓			Are all Spill prevention and hazardous waste plans documentation up to date?

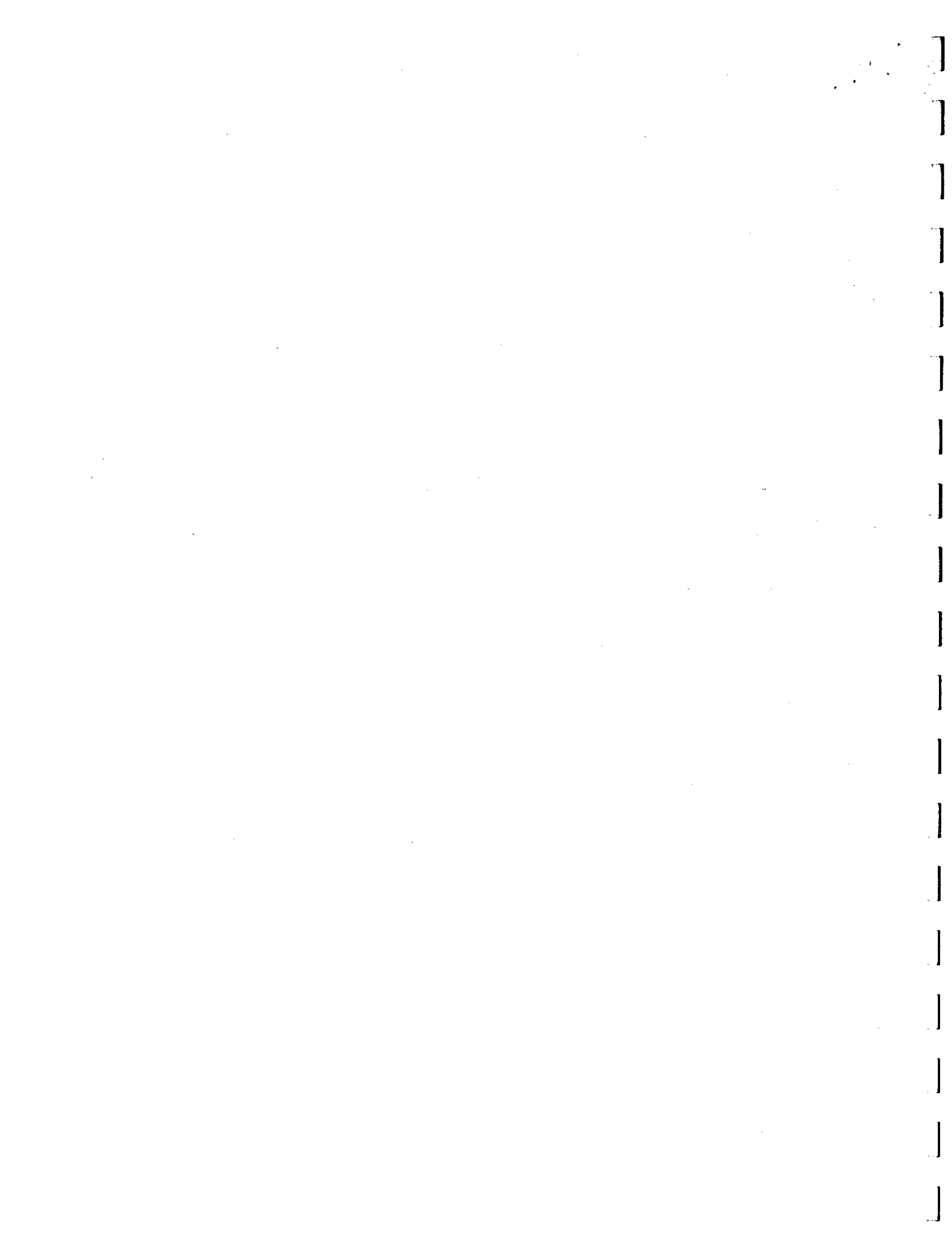
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
✓		
✓		
Did your community participate in any of the following events:		
	✓	
	✓	
	✓	
	✓	
Number of "Simple Steps" tip cards distributed in your community? <i>N/A</i>		
Method of distribution of "Simple Steps" tip cards (describe)		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



**Genesee County
Phase II Storm Water Permittee's
Self-Audit Checklist**

Municipality Information	
Municipality Name: <i>Charter Twp of Flint</i>	Municipality Representative:
Address: <i>1490 S Dye Rd</i>	Title:
City, State, Zip: <i>Flint, MI 48532</i>	Telephone:
Type of Municipality: <i>Township</i>	Fax:

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	X	
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
		Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
		Are all hazardous waste containers closed?
		Are all hazardous waste containers labeled?
		Do the labels include the name of the waste (waste oil, waste paint, etc.)?
		Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
		If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
		Is the accumulation time within regulatory limits?
		Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>59</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles washed indoors?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If municipality is NOT a Designated Vehicle Washing Municipality:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles washed offsite?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Fire Trucks
Only

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
Spill Prevention			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground <u>Other</u> , describe:

POLLUTION PREVENTION		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS		
X		

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Did the municipality conduct any soil test on its property?		
	<input checked="" type="checkbox"/>	
Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Was fertilizer applied as per manufacturer recommendation?		
	<input checked="" type="checkbox"/>	
Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were herbicides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were pesticides applied by a licensed individual?		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>		
	<input checked="" type="checkbox"/>	
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? <i>N/A</i>		
Approximately how many miles of streets were swept? <i>N/A</i>		
How many tons of sediment were removed from the streets? <i>N/A</i>		
How many tons of sediment were removed from catch basins? <i>N/A</i>		
Where is the sediment deposited? <i>N/A</i>		
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contactor</u> Employee		
YES	NO	N/A
<input checked="" type="checkbox"/>		
Do you use salt on municipal roadways/parking lots?		
	<input checked="" type="checkbox"/>	
Do you regularly calibrate your salt dispensing machinery?		
	<input checked="" type="checkbox"/>	
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>		
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
09		Pipes/Culverts	N/A
08	08	Ditches	Severed Mowing only, ditches are draining properly.
08	08	Catch Basins	4 catch Basins repaired
		Oil-Grit Separators	N/A
		Detention (wet/dry)	N/A
08		Vaults or tanks	improvements to system in 07/08
		Infiltration Basin	N/A
		Rain Gardens	N/A
		Porous Pavement	N/A
		Vegetated Swales	N/A
		Constructed Wetlands	N/A
		Filter strips	N/A

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

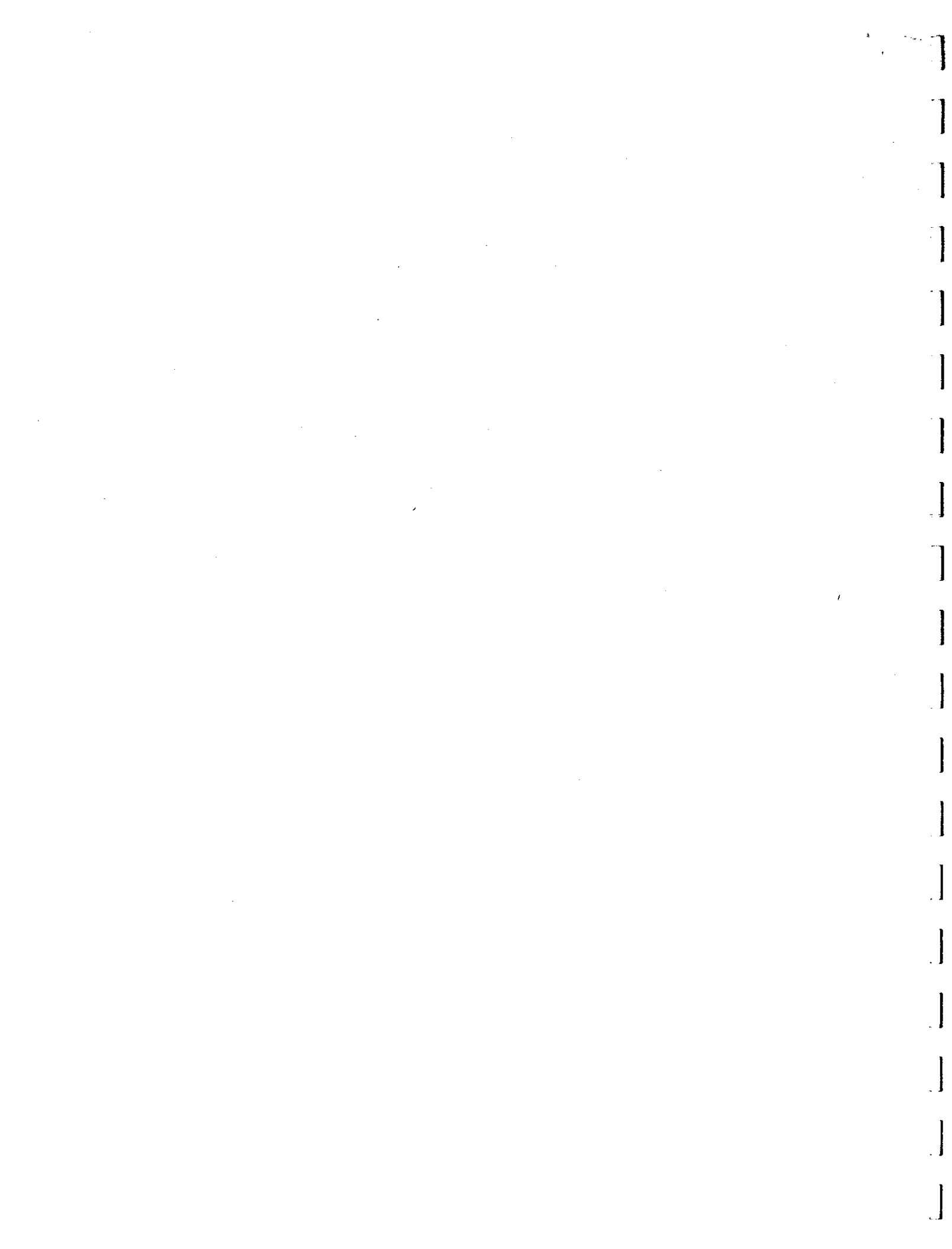
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation			
YES	NO	N/A	
X			Does your community have a website? (if "yes" answer next question)
X			Did you link your local municipal web site to the ClearGeneseeWater.org site
			Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:			
X			Any River Clean-up: If so, where: <i>Flint River Canoe landing area</i>
		X	Public education at the County Fair (Some one else from your community other than PEP committee members)
		X	Water festival(s) (for children or otherwise) Please specify:
		X	Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community?			
Method of distribution of "Simple Steps" tip cards (describe)			
Other municipal activities related to storm water in which the public was invited to participate?			

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <u>FLUSHING CUMBER TOWNSHIP</u>	Municipality Representative: <u>Andrew Trostogot</u>
Address: <u>654 N Seymour Road</u>	Title: <u>SUPERVISOR</u>
City, State, Zip: <u>FLUSHING, MICH 48433</u>	Telephone: <u>810 659-0800</u>
Type of Municipality:	Fax: <u>810 659-4212</u>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
<input type="checkbox"/>	<input type="checkbox"/>	
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
<input type="checkbox"/>	<input type="checkbox"/>	
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
<input type="checkbox"/>	<input type="checkbox"/>	
Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)		
<input type="checkbox"/>	<input type="checkbox"/>	
Are all hazardous waste containers closed?		
<input type="checkbox"/>	<input type="checkbox"/>	
Are all hazardous waste containers labeled?		
<input type="checkbox"/>	<input type="checkbox"/>	
Do the labels include the name of the waste (waste oil, waste paint, etc.)?		
<input type="checkbox"/>	<input type="checkbox"/>	
Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?		
<input type="checkbox"/>	<input type="checkbox"/>	
If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?		
<input type="checkbox"/>	<input type="checkbox"/>	
Is the accumulation time within regulatory limits?		
<input type="checkbox"/>	<input type="checkbox"/>	
Are containers of hazardous waste stored in the designated accumulation area?		

YES	NO	
		Does your community own vehicles? How many? _____ <i>(If "NO" Skip this section)</i>
		Does your community conduct Vehicle Maintenance on site?
		Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
		Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
		Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
		Are vehicles washed indoors?
		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or is the municipality equipped with an approved holding tank?
		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
		Are vehicles washed offsite?
		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
			Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
			Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
			Do you have any Aboveground Storage Tanks (AST)? <i>(If "NO" Skip this section)</i>
			Is each tank clearly labeled with the name of its contents?
			Does each tank appear to be in good condition, free from leaks and corrosion?
			Does the municipality conduct weekly visual inspections of each AST?
			Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
			Spill Prevention
			Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
			If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
		Do you have a floor Drain in any of you building(s)? <i>(If "NO" Skip this section)</i>
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
			Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
			Did the municipality conduct any soil test on its property?
			Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
			Was fertilizer applied as per manufacturer recommendation?
			Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were herbicides applied by a licensed individual?
			Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were pesticides applied by a licensed individual?
			Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
			Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>once a year</i>			
Approximately how many miles of streets were swept? <i>20 miles</i>			
How many tons of sediment were removed from the streets? <i>N/A GEN. County does it</i>			
How many tons of sediment were removed from catch basins? <i>''</i>			
Where is the sediment deposited? <i>''</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contactor</u> Employee			
YES	NO	N/A	
			Do you use salt on municipal roadways/parking lots?
			Do you regularly calibrate your salt dispensing machinery?
			Do you use a salt alternative to treat your roads for ice?
			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	<i>This is done by DeWesse County Road Comm.</i>
		Ditches	
		Catch Basins	
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	X		In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
		Does your community have a website? (if "yes" answer next question)
		Did you link your local municipal web site to the ClearGeneseeWater.org site
		Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:		
		Any River Clean-up: If so, where:
		Public education at the County Fair (Some one else from your community other than PEP committee members)
		Water festival(s) (for children or otherwise) Please specify:
		Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community? <i>30</i>		
Method of distribution of "Simple Steps" tip cards (describe) <i>Placed on counter for residents to take</i>		
Other municipal activities related to storm water in which the public was invited to participate? <i>River Clean up & inspections</i>		

Additional Notes/Comments/Observations:

Please return to

GCDC-SWM
4608 Beecher Road
Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: <i>GENESEE TWP</i>	Municipality Representative: <i>SCOTT STREETER</i>
Address: <i>7244 N. GENESEE Rd</i>	Title: <i>TWP SUPERVISOR</i>
City, State, Zip: <i>GENESEE MI 48437</i>	Telephone: <i>(810) 640-2000</i>
Type of Municipality: <i>TOWNSHIP</i>	Fax: <i>(810) 640-1150</i>

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)		
Are all hazardous waste containers closed?		
Are all hazardous waste containers labeled?		
Do the labels include the name of the waste (waste oil, waste paint, etc.)?		
Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?		
If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?		
Is the accumulation time within regulatory limits?		
Are containers of hazardous waste stored in the designated accumulation area?		

YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does your community own vehicles? How many? <u>36</u> (If "NO" Skip this section)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed indoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles washed offsite?
<input type="checkbox"/>	<input type="checkbox"/>	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)		
YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
		Is each tank clearly labeled with the name of its contents?
		Does each tank appear to be in good condition, free from leaks and corrosion?
		Does the municipality conduct weekly visual inspections of each AST?
		Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
		Spill Prevention
		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
<input type="checkbox"/>	<input type="checkbox"/>	Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe: <u>POTW</u>

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	<input checked="" type="checkbox"/>		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	<input checked="" type="checkbox"/>		Did the municipality conduct any soil test on its property?
			Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
			Was fertilizer applied as per manufacturer recommendation?
			Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were herbicides applied by a licensed individual?
			Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were pesticides applied by a licensed individual?
			Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
			Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average? <i>2x annually</i>			
Approximately how many miles of streets were swept? <i>N/A</i>			
How many tons of sediment were removed from the streets? <i>N/A</i>			
How many tons of sediment were removed from catch basins? <i>N/A</i>			
Where is the sediment deposited? <i>N/A</i>			
Who applies salt/salt alternative to your roads and parking lots (please circle one)		Contactor <input type="checkbox"/> Employee <input checked="" type="checkbox"/>	
YES	NO	N/A	
<input checked="" type="checkbox"/>			Do you use salt on municipal roadways/parking lots?
<input checked="" type="checkbox"/>			Do you regularly calibrate your salt dispensing machinery?
		<input checked="" type="checkbox"/>	Do you use a salt alternative to treat your roads for ice?
<input checked="" type="checkbox"/>			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
✓		Pipes/Culverts	
✓	✓	Ditches	
✓		Catch Basins	
✓		Oil-Grit Separators	
✓	✓	Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
	✓		SEMCOG's Phase II Stormwater Regulations - June 19, 2008
	✓		State licensing for individuals to apply either herbicide/pesticide.
	✓		MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

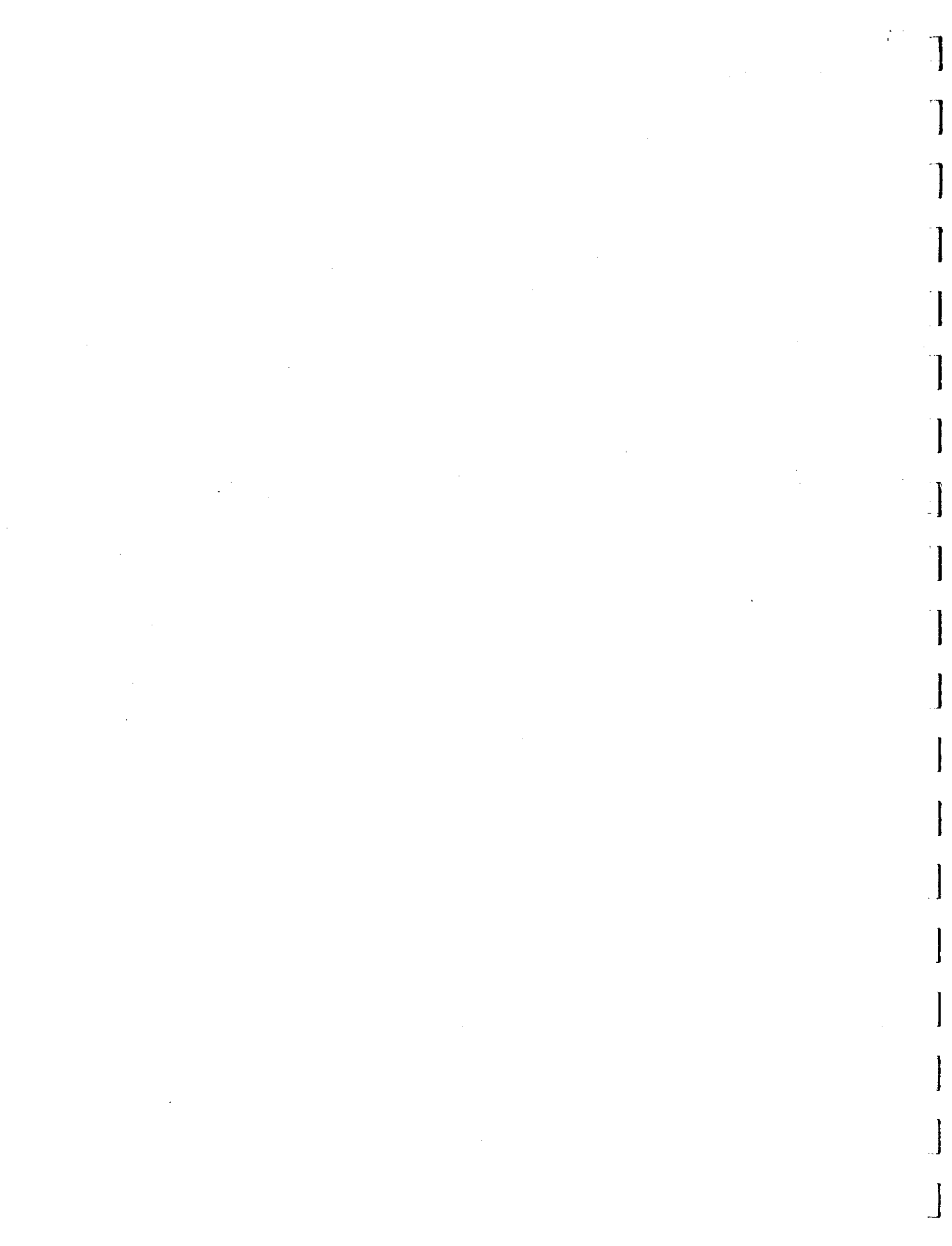
Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local perimees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
✓		
✓		
✓		
Did your community participate in any of the following events:		
✓		
Number of "Simple Steps" tip cards distributed in your community? <i>Approximately 500</i>		
Method of distribution of "Simple Steps" tip cards (describe) <i>Passed out when people pd sewer bills</i>		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08



Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: Mt. Morris Township	Municipality Representative: Paul Long
Address: G-5447 Bicentennial Dr.	Title: Supervisor
City, State, Zip: Mt. Morris, MI 48458	Telephone: (810) 785-9138
Type of Municipality: Charter Township/Government	Fax: (810) 785-2545

The following is a series of compliance check lists of regulatory items. If a check mark is placed in a shaded box, a corrective action should be considered if not already implemented.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	X	
		Does Your Municipality generate or store hazardous waste and or waste oil? (if No skip this section)
		Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:
		Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
		Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
		Are all hazardous waste containers closed?
		Are all hazardous waste containers labeled?
		Do the labels include the name of the waste (waste oil, waste paint, etc.)?
		Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
		If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
		Is the accumulation time within regulatory limits?
		Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
X		Does your community own vehicles? How many? <u>43</u> (If "NO" Skip this section)
	X	Does your community conduct Vehicle Maintenance on site?
	X	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
X		Does your community conduct Pump Gas on site? <i>If Yes, answer next question.</i>
	X	Does the municipality mix gasoline filter drainage with its waste oil?
	NO	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
	X	Are vehicles washed indoors?
	X	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
X		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
		Are vehicles washed offsite?
X		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)

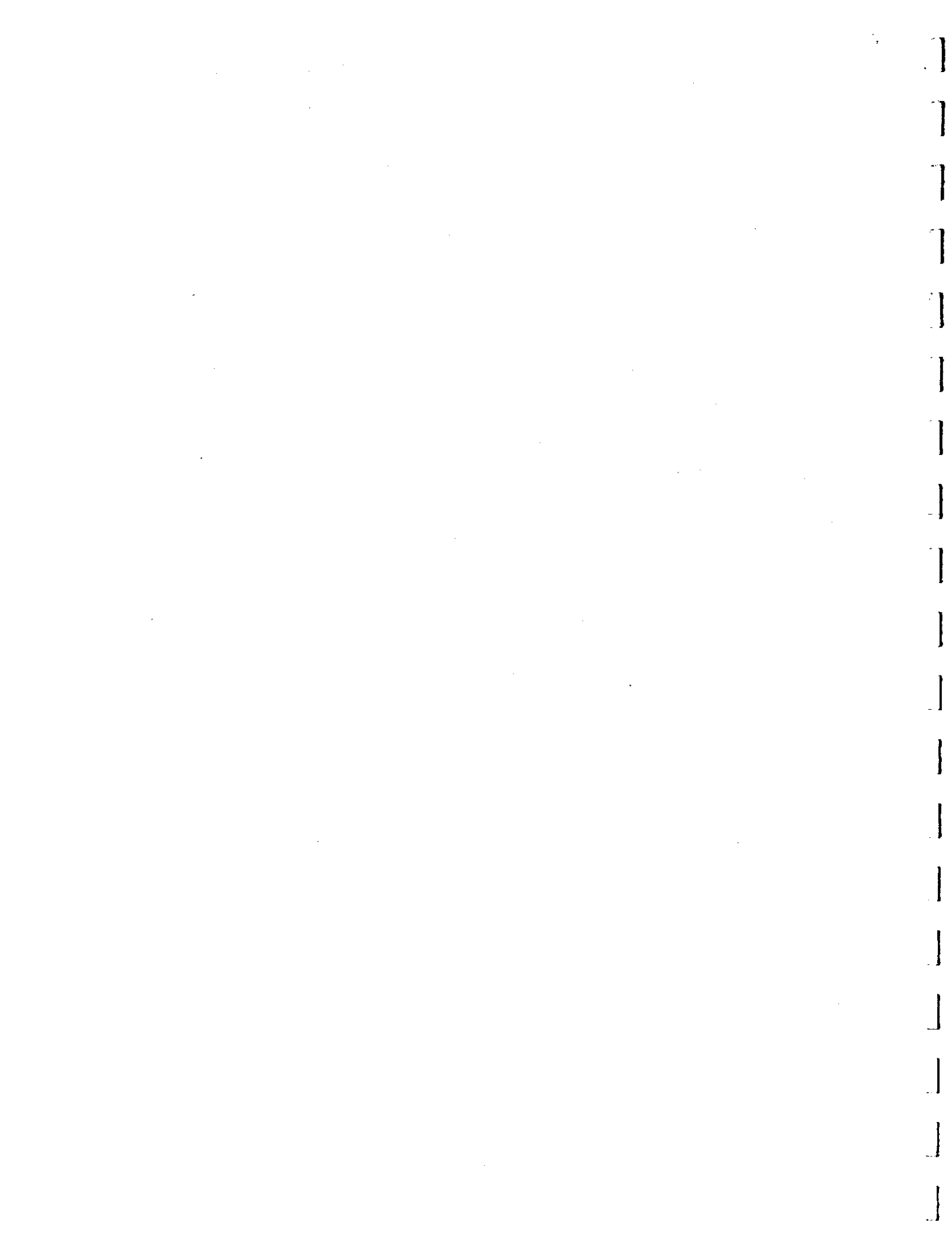
YES	NO	N/A	
X			Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
X			Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)

YES	NO	N/A	
X			Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
X			Is each tank clearly labeled with the name of its contents?
X			Does each tank appear to be in good condition, free from leaks and corrosion?
X			Does the municipality conduct weekly visual inspections of each AST?
		X	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
			Spill Prevention
		X	Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
			If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)

YES	NO	
X		Do you have a floor Drain I any of you building? (If "NO" Skip this section)
X		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:



POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	X		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
	X		Did the municipality conduct any soil test on its property?
	X		Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
	X		Was fertilizer applied as per manufacturer recommendation?
	X		Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were herbicides applied by a licensed individual?
	X		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
			Were pesticides applied by a licensed individual?
	X		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
			Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and parking lots swept on average?			
Approximately how many miles of streets were swept?			
How many tons of sediment were removed from the streets?			
How many tons of sediment were removed from catch basins?			
Where is the sediment deposited?			
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contactor</u> Employee			
YES	NO	N/A	
X			Do you use salt on municipal roadways/parking lots?
		X	Do you regularly calibrate your salt dispensing machinery?
		X	Do you use a salt alternative to treat your roads for ice?
X			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

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Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
		Pipes/Culverts	
		Ditches	
		Catch Basins	
		Oil-Grit Separators	
		Detention (wet/dry)	
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation			
YES	NO	N/A	
X			Does your community have a website? (if Yes, answer next question)
	X		Did you link your local municipal web site to the ClearGeneseeWater.org site
			Did you representative attend the sub-committee (PEP, BMP and M&M) meetings that your community was assigned to?
Did your community participate in any of the following events:			
			A River Clean-up: If so, where:
X			Public education at the County Fair (Some one else from your community other than PEP committee members)
			Water festival(s) (for children or otherwise) Please specify:
			Invite the Conservation District or FRWC speakers bureau to present in you community (Please indicate which one)
Number of "Simple Steps" tip cards distributed in your community?			
Method of distribution of "Simple Steps" tip cards (describe)			
Other municipal activities related to storm water in which the public was invited to participate?			

Additional Notes/Comments/Observations:

Please Return to: GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return By 10/24/08





YES	NO	
		+ 9 FIRE DEPT
<input checked="" type="checkbox"/>		Does your community own vehicles? How many? 17 TWP/POI (If "NO" Skip this section) = 26
	<input checked="" type="checkbox"/>	Does your community conduct Vehicle Maintenance on site?
	<input checked="" type="checkbox"/>	Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
	<input checked="" type="checkbox"/>	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
<input type="checkbox"/>	<input type="checkbox"/>	Does the municipality mix gasoline filter drainage with its waste oil?
<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 17	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i> FIRE DEPT WASHES
<input checked="" type="checkbox"/>		Are vehicles washed indoors? IN WINTER OUTSIDE - REST OF YEAR
<input checked="" type="checkbox"/>		Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or is the municipality equipped with an approved holding tank? PIT WITH FILTER
<input checked="" type="checkbox"/>		Are contractors forbidden to wash vehicles at the municipality? BMP
		If municipality is NOT a Designated Vehicle Washing Municipality:
<input checked="" type="checkbox"/> 17		Are vehicles washed offsite?
		Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)

YES	NO	N/A	
	<input checked="" type="checkbox"/>		Do you have any Aboveground Storage Tanks (AST)? <i>(If "NO" Skip this section)</i>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is each tank clearly labeled with the name of its contents?
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does each tank appear to be in good condition, free from leaks and corrosion?
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the municipality conduct weekly visual inspections of each AST?
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
			Spill Prevention
	<input checked="" type="checkbox"/>		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
		<input checked="" type="checkbox"/>	If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)

YES	NO	
<input checked="" type="checkbox"/>		Do you have a floor Drain in any of you building(s)? <i>(If "NO" Skip this section)</i>
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other. describe: LINDEN RD - FD DITCH HILL RD - FD HAS PIT WITH FILTER

POLLUTION PREVENTION		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)		
Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?		
If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS UNDERGROUND FUEL TANKS REMOVED FROM LINDEN RD. FIRE STATION. SURROUNDING SOIL TESTED. DOCUMENTS ATTACHED. TOWNSHIP VEHICLES FUELED OFF SITE.		

Fertilizers, Pesticides and Herbicides (SWPPI 6.a.1-5)		
YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did the municipality conduct any soil test on its property?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was fertilizer applied on any municipal property? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was fertilizer applied as per manufacturer recommendation? SUBCONTRACTED		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were herbicides applied on any municipal property? If "YES", answer next question?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were herbicides applied by a licensed individual?		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were pesticides applied on any municipal property? If "YES", answer next question?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were pesticides applied by a licensed individual?		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were herbicides, pesticides, and fertilizers stored in on any municipal site? If "YES", answer next question?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?		

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)		
How often were municipal streets and parking lots swept on average? NEVER		
Approximately how many miles of streets were swept? N/A		
How many tons of sediment were removed from the streets? N/A		
How many tons of sediment were removed from catch basins? N/A		
Where is the sediment deposited? N/A		
Who applies salt/salt alternative to your roads and parking lots (please circle one) <u>Contractor</u> Employee		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you use salt on municipal roadways/parking lots?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you regularly calibrate your salt dispensing machinery? 800 LBS./ACRE		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Do you use a salt alternative to treat your roads for ice?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)		

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. Starting in 2009, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
NO		Pipes/Culverts	NONE
NO		Ditches	NONE
NO		Catch Basins	NONE
		Oil-Grit Separators	N/A
NO		Detention (wet/dry)	NONE
		Vaults or tanks	N/A
		Infiltration Basin	N/A
		Rain Gardens	N/A
		Porous Pavement	N/A
		Vegetated Swales	N/A
		Constructed Wetlands	N/A
		Filter strips	N/A

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. Starting in 2009

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
			In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
		✓	State licensing for individuals to apply either herbicide/pesticide. CONTRACTED
		✓	MDEQ, Stormwater operator
✓			Other GREASE INTERCEPTOR TRAINING
✓			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did your community participate in any of the following events:		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Number of "Simple Steps" tip cards distributed in your community? IN 2008 96 PAMPHLETS DISTRIBUTED		
Method of distribution of "Simple Steps" tip cards (describe) DISPLAYED AT PUBLIC COUNTERS, 4 LOCATIONS		
Other municipal activities related to storm water in which the public was invited to participate? NONE		

Additional Notes/Comments/Observations:

Please return to

GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08

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JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING DISTRICT OFFICE

RECEIVED SEP 05 2008 MUNDY TWP



STEVEN E. CHESTER
DIRECTOR

September 3, 2008

Mr. Rick Frost
Charter Township of Mundy
3478 Mundy Avenue
Swartz Creek, Michigan 48473

Dear Mr. Frost:

SUBJECT: Closure Report Receipt Date: August 19, 2008
Confirmed Release Date: June 23, 2008 (C-0130-08)
Location of Tank(s): Mundy Township Fire Hall, 8017 South Linden Road,
Swartz Creek, Genesee County, Michigan
Facility ID: 0-0011530

In accordance with Section 21312a(2) of Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD), acknowledges receipt of your closure report. This closure report was submitted on your behalf by Global Environmental Engineering Inc., Qualified Underground Storage Tank Consultant (QC), and certified by Mr. Chris S. Byle, Certified Underground Storage Tank Professional.

The closure report submitted by the QC concludes that corrective actions at the site have been completed in accordance with Part 213, and that corrective actions at the site have resulted in unrestricted residential use of the site based on a Tier 1 evaluation.

Please note the following conditions:

When contaminated soil and/or groundwater, as a result of a release of a regulated substance, remains on site consistent with site closure requirements, the owner or operator shall not remove or allow this soil and/or groundwater to be removed from the site to an off-site location without properly characterizing the soils and/or groundwater to determine that they can be lawfully relocated without posing a threat to the public health, safety and welfare, or the environment. The determination shall consider whether the soils and/or groundwater are subject to regulations under Part 111, Hazardous Waste Management, of Act 451, and/or Part 115, Solid Waste Management, of Act 451.

If the site closure is based on a determination by the QC that eliminated any groundwater pathway consistent with site closure requirements, groundwater contamination may still be present in the shallow groundwater above Tier 1 Drinking Water Risk-Based Screening Levels.

Mr. Rick Frost

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September 3, 2008

Therefore, the owner or operator shall not engage in any activities that would alter the conditions of site closure, which may include but not limited to, the potential for cross-contaminating deeper aquifers by drilling water supply wells through the shallow groundwater contamination. In addition, the owner or operator shall provide disclosure to potential purchasers or users of the property regarding the conditions of site closure.

If there is contaminated groundwater present at a depth of less than three (3) meters below the ground surface, the generic groundwater volatilization to indoor air criteria is not applicable and a site specific evaluation is required. Prior to construction of any below grade structures (e.g., basements, crawl spaces, etc.) on the property, further evaluation of the potential for hazardous substances in the groundwater to volatilize into indoor air should be undertaken to assure the protection of persons who may be present in the structures.

Under Section 21315(1) of Act 451, the RRD may initiate an audit of the results of the investigation and corrective actions undertaken to confirm the results and conclusions indicated by the QC within six months of receipt of the closure report. If an audit is initiated within this time frame, and the audit confirms that corrective action has been conducted in compliance with Part 213, and that the cleanup criteria have been met, you will be provided with a letter describing the audit and its results, as described in Section 21315(3) of Act 451. The RRD audit would consist of a review of file documents and may include the collection of soil and/or groundwater samples from the facility to verify that the levels of remaining contaminants certified by your QC are accurate.

All groundwater monitoring wells and other similar devices installed as part of the corrective action activities at the site must be properly abandoned when they are no longer needed for their original purpose or modified purpose. Abandonment should be completed in accordance with the American Society of Testing Materials Standard D 5299-92, "Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities." Proper abandonment of groundwater monitoring wells and other potential conduits for contamination should be performed within 60 days after use has been discontinued.

If the RRD conducts an audit which does not confirm that corrective action is complete, additional information and/or corrective action may be required as set forth in Section 21315(3) of Act 451. Therefore, it is recommended that monitoring well abandonment not be performed until either the DEQ provides a letter indicating that the closure report has been audited, and we concur with the conclusions that corrective action activities have been completed; or until the six month time frame for the Department to conduct a closure audit expires.

The DEQ expresses no opinion as to contamination beyond that identified in the closure report and associated with the confirmed release date(s) identified above. The DEQ also makes no warranty as to the fitness of this site for any general or specific use.

MUNDY TWP

Mr. Rick Frost

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September 3, 2008

Prospective purchasers or users are advised to use due diligence prior to acquiring or using this site to determine if their proposed land use might alter the conditions of the site closure and result in unacceptable risks to public health, safety and welfare, or the environment.

If you have any questions, please contact me.

Sincerely,



Dwight Cummings
Environmental Quality Analyst
Remediation and Redevelopment Division
517-335-6242

dc/cah

cc: Mr. Chris S. Byle, Global Environmental Engineering, Inc.
Mr. Ben Hall, DEQ

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - REMEDIATION & REDEVELOPMENT DIVISION
PO BOX 30426, LANSING, MI 48909-7926, Phone 517-373-9837, Fax 517-373-2637, E-mail DEQ-STD-TANKS@michigan.gov

LEAKING UNDERGROUND STORAGE TANK CLOSURE REPORT

INSTRUCTIONS: COMPLETION OF THIS REPORT WITH ALL APPLICABLE INFORMATION IS MANDATORY. The Certified Underground Storage Tank Professional (CP) MUST sign below. Failure to submit this report within the stated time period may result in administrative penalties as provided for in Part 213, Section 21313a of 1994 PA 451, as amended. PLEASE RETURN THIS COMPLETED REPORT AND ASSOCIATED ATTACHMENTS TO THE APPROPRIATE RRD DISTRICT OFFICE. See form eqp4410 for a complete list of RRD district offices.

FACILITY NAME: **Mundy Township Fire Hall** FACILITY ID NUMBER: **0-0011530**

STREET ADDRESS: **8017 S. Linden Road**

CITY: **Swartz Creek** ZIP: **48473** COUNTY: **Genesee**

DATE(S) RELEASE DISCOVERED: **June 23, 2008** CONFIRMED RELEASE NUMBER(S): **C-130-08**

O/O NAME: **Charter Township of Mundy**

O/O STREET ADDRESS: **3478 Mundy Avenue, Swartz Creek** STATE: **MI** ZIP: **48473**

CONTACT PERSON: **Rick Frost** PHONE NUMBER: **810-655-4631**

ANSWER ALL QUESTIONS (DO NOT LEAVE BLANKS):

- a. Has the UST been emptied? YES NO (If no, explain why):
b. Has the UST system been properly closed? YES NO (If no, explain why):
- Free product present: a. Currently? YES NO If YES, total gallons recovered since last report:
b. Previously? YES NO If YES, total gallons recovered to date:
- Have vapors been identified in any confined spaces (basement, sewers, etc.)? YES NO
- State the number of homes where drinking water is or was affected as a result of a release from this facility: **0**
- Estimated distance and direction from point of release to nearest:
a. Private well: **≈300 feet North** b. Municipal well: **> 1 Mile** c. Surface water/wetland: **≈3/8 Mile SW**
- Since last report: a. cubic yards of soil remediated: **0** b. gallons of groundwater remediated: **0**
- Totals to date: a. cubic yards of soil remediated: **0** b. gallons of groundwater remediated: **0**
- Michigan RBCA Site Classification (1-4): **4** Previous RBCA Site Classification (1-4): **Not Applicable**
- Has contamination migrated off-site above Tier 1 Residential RBSLs YES NO
If YES, have off-site impacted parties been notified (per Section 21309a(3) of Part 213) YES NO
- Is an institutional control required for contamination that has migrated or will migrate off-site? YES NO
- MTBE Has MTBE been detected in any groundwater sample? YES NO
Maximum concentration of MTBE found in ground water _____ ppb.

CERTIFICATION OF REPORT COMPLETION

I, the undersigned CP, hereby attest to the best of my knowledge and belief that the statements in this document and all attachments are true, accurate, and complete. I certify that the report was submitted to the Remediation & Redevelopment Division (RRD) on 8-15-08 (Date submitted REQUIRED)

Chris S. Byle
CP Original Signature - (REQUIRED) Date 8-14-08

Gary Lawson
PRINT QC PROJECT MANAGER'S NAME

Chris S. Byle
PRINT CP's Name

Global Environmental Engineering, Inc.
NAME OF CONSULTING FIRM

CP ID 443

QC ID: Z0087

ADDRESS 5467 Hill 23 Drive Suite B, Flint, MI 48507

PHONE: 810-238-9190 FAX: 810-238-9195

CERTIFICATION OF CLOSURE

- Type of RBCA Evaluation: Tier 1 Tier 2 Tier 3
- Closure report based on which type of land use?: Residential Commercial III Commercial IV Industrial
- Institutional Controls: None Notice of Corrective Action Restrictive Covenant Other

I certify under penalty of law that corrective actions associated with the above referenced release at this facility were completed in accordance with Part 213, 1994 PA 451, as amended, and current departmental guidance and procedures available at the time the work was completed. I further certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

CP Signature - (REQUIRED) Chris S. Byle Date 8-14-08

Instructions - Utilize the following checklist to ensure that all required information is provided in the Closure Report. Include this

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Drain Information in Mundy Township



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Drain Information in Mundy Township

For all information related to our water in Genesee County such as: upcoming events, maps of the area, info about the Phase II program, tips for keeping *your* water clean, and much more... visit this [link](#).

Remember, ALL Surface water on your Street Drains to our Lakes and Rivers

Storm drains and roadside ditches lead to our lakes and rivers. So, any oil, pet waste, leaves or dirty water from washing your car that enters a storm drain gets into our lakes and rivers without being treated. With all the people that live in the Swartz Creek Watershed, we all need to be aware of what goes into our storm drains. How can you help? Simple.

- **Sweep it.** Do you have extra fertilizer, grass clippings, or dirt on your driveway or sidewalk? Sweep it back onto your lawn. Hosing your driveway sends these pollutants into storm drains that lead directly to our lakes and rivers.
- **Keep it clean.** Whether in the street or in your yard, remember to keep leaves, grass clippings, trash, and fertilizers away from storm drains.
- **Only rain in the drain.** Never dump motor oil, chemicals, pet waste, dirty or soapy water, or anything else down the storm drain. All of these materials pollute our lakes and rivers!
- **Label it.** Volunteer to label or adopt storm drains in your neighborhood to inform residents that storm drains flow directly to our lakes and rivers. Call your local Drain Commission, Surface Water Division, for more information on storm drain stenciling programs, (810) 732-1590.
- For adopt a storm drain information, call the Township Supervisor (810) 655-4631, ext. 229.

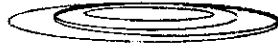
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JULY 2008

This page last updated on 7/15/2008.

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



Seven simple steps
 to **clean water**

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



**Remember, storm drains
 lead to our lakes
 and rivers!**

10/24/08

96
 96 out of 100
 pamphlets
 given out AT
 Mundy Twp. Hall
 (only 4 remain)

Genesee County Phase II Storm Water Permittee's Self-Audit Checklist

Municipality Information	
Municipality Name: Charter Twp of Vienna	Municipality Representative: Robert Palmer
Address: 3400 W Vienna Road	Title: Superintendent
City, State, Zip: Clio, MI 48420	Telephone: 810-686-7676
Type of Municipality: Government - local	Fax: 810-686-8856

The following is a series of compliance check lists of regulatory items. Please fill out the form and return before October 24, 2008 so this may be added to the annual report to the state.

Waste Generation and Storage from Municipal Facilities

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and **storage yards**. Section 6.c.1 of your SWPPI refers to implementing controls to properly dispose of operation and maintenance waste from MS4 infrastructure.

HAZARDOUS WASTE (SWPPI 6.c.1)		
YES	NO	N/A
	<input checked="" type="checkbox"/>	
Does your municipality generate or store hazardous waste and or Waste oil? (If NO skip this section)		
Is the municipality registered as a Generator of Hazardous Waste and/or Waste Oil? Generator ID No:		
Is hazardous waste stored at the municipality for less than 180 days from the accumulation start date?		
How many 55-gallon drums of hazardous waste/waste oil are stored on any municipal facility?		
How is the hazardous waste disposed of?		
		Are all hazardous waste containers in good condition? (Note any dents, rust, or damage)
		Are all hazardous waste containers closed?
		Are all hazardous waste containers labeled?
		Do the labels include the name of the waste (waste oil, waste paint, etc.)?
		Is the waste Hazard Type (toxic, ignitable, corrosive, and/or reactive) included on each label?
		If the municipality is a Small Quantity Generator, is the date when accumulation began clearly included on the label?
		Is the accumulation time within regulatory limits?
		Are containers of hazardous waste stored in the designated accumulation area?

YES	NO	
		Does your community own vehicles? How many? <u>4</u> (If "NO" Skip this section)
	✓	Does your community conduct Vehicle Maintenance on site?
✓		Does your community conduct Oil Changes on site? <i>If Yes, answer next question.</i>
✓		Are oil/gasoline filters punctured and hot drained for 12 hours before disposal as a scrap metal or non hazardous waste?
	✓	Does your community own and Pump Gas on site? <i>If Yes, answer next question.</i>
	✓	Does the municipality mix gasoline filter drainage with its waste oil?
YES	NO	Does the municipality its wash vehicles? <i>If Yes, answer following question2.</i>
✓		Are vehicles washed indoors?
	✓	Is the municipality equipped with floor drains connected to either the municipal sewer or wash water recycling system, or Is the municipality equipped with an approved holding tank?
✓		Are contractors forbidden to wash vehicles at the municipality? BMP
✓		If municipality is NOT a Designated Vehicle Washing Municipality:
✓		Are vehicles washed offsite?
	✓	Are vehicles only rinsed onsite (no detergents or heated water/steam)?

Regular Solid Waste Management (SWPPI 6.c.1)			
YES	NO	N/A	
✓			Are solid wastes properly stored/containerized for offsite disposal? (trash stored in a covered dumpster)
✓			Are empty containers protected from the elements?

Storage Tank Management (SWPPI 6.c.1)			
YES	NO	N/A	
	✓		Do you have any Aboveground Storage Tanks (AST)? (If "NO" Skip this section)
			Is each tank clearly labeled with the name of its contents?
			Does each tank appear to be in good condition, free from leaks and corrosion?
			Does the municipality conduct weekly visual inspections of each AST?
✓			Are Calcium Chloride ASTs locked or otherwise secured to prevent accidental discharge?
			Spill Prevention
	✓		Does the municipality store oil in aboveground tanks or drums in quantities equal to or greater than 1,320 gallons?
			If Yes, does the municipality have an up-to-date and P.E.-certified Spill Prevention Plan?

Drainage Systems (SWPPI 6.b.1)		
YES	NO	
	✓	Do you have a floor Drain in any of you building(s)? (If "NO" Skip this section)
		Where do floor drains discharge to: † Public Owned Treatment Works (POTW) † Surface Water † Ground † Other, describe:

POLLUTION PREVENTION			
YES	NO	N/A	Spills/Releases: (310 CMR 40.0000; 40 CFR 300; 40 CFR 355)
	<input checked="" type="checkbox"/>		Have there been any reportable releases of oil and/or hazardous materials by the municipality in the last year?
			If yes, describe event(s) and actions taken, including notifications made. LIST ALL EVENTS

Fertilizers, Pesticides and Herbicides (SWPPI 6.e.1-5)			
YES	NO	N/A	
		<input checked="" type="checkbox"/>	Did the municipality conduct any soil test on its property?
<input checked="" type="checkbox"/>			Was fertilizer applied on any municipal property? <i>If "YES", answer next question?</i>
<input checked="" type="checkbox"/>			Was fertilizer applied as per manufacturer recommendation?
<input checked="" type="checkbox"/>			Were herbicides applied on any municipal property? <i>If "YES", answer next question?</i>
<input checked="" type="checkbox"/>			Were herbicides applied by a licensed individual?
	<input checked="" type="checkbox"/>		Were pesticides applied on any municipal property? <i>If "YES", answer next question?</i>
		<input checked="" type="checkbox"/>	Were pesticides applied by a licensed individual?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Were herbicides, pesticides, and fertilizers stored in on any municipal site? <i>If "YES", answer next question?</i>
		<input checked="" type="checkbox"/>	Were herbicides, pesticides, and fertilizers stored in dry, self-contained areas not connected to the storm water drainage system?

Roadside Issues

Section 6.b.1 of your SWPPI refers to implementing controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, parking lots and storage yards. Even if you do not own any roads, the following also pertains to any parking lots that you own.

ROADSIDE ISSUES (SWPPI 6.b.1)			
How often were municipal streets and <u>parking</u> lots swept on average?			<i>Twice a year</i>
Approximately how many miles of streets were swept?			<i>0</i>
How many tons of sediment were removed from the streets?			<i>0</i>
How many tons of sediment were removed from catch basins?			<i>Very Little</i>
Where is the sediment deposited?			<i>Dumpster Land Fill</i>
Who applies salt/salt alternative to your roads and <u>parking</u> lots (please circle one)			Contactor <input type="checkbox"/> <u>Employee</u> <input checked="" type="checkbox"/>
YES	NO	N/A	
<input checked="" type="checkbox"/>			Do you use salt on municipal roadways/parking lots?
<input checked="" type="checkbox"/>			Do you regularly calibrate your salt dispensing machinery?
		<input checked="" type="checkbox"/>	Do you use a salt alternative to treat your roads for ice?
<input checked="" type="checkbox"/>			If snow is removed from parking lots and roadways is it deposited appropriately (away from waterways & storm drains)

Section 6.a.5 of your SWPPI indicates that any MS4 that you own will be maintained in good repair. **Starting in 2009**, the state expects that all MS4's be inspected and maintained on the following items (where applicable). In the space after each item, indicate whether the facility was inspected or maintained in 2008 and, if actions occurred, what they were. List all actions. Refer to your SWPPI for facilities you show you own.

MS4 Maintenance			
Inspect	Maintain	Facility	Action
✓		Pipes/Culverts	
		Ditches	
✓	✓	Catch Basins	Routine Clean
		Oil-Grit Separators	
✓	✓	Detention (wet/dry)	Senior Center Routine Mowing
		Vaults or tanks	
		Infiltration Basin	
		Rain Gardens	
		Porous Pavement	
		Vegetated Swales	
		Constructed Wetlands	
		Filter strips	

Section 6.A.3. of your SWPPI states that you will make appropriate staff available for training. **Starting in 2009**

ENVIRONMENTAL MANAGEMENT TRAINING (SWPPI 6.A.3)			
YES	NO	N/A	Training Records
	✓		In the last year did the municipality have any of their employees attends any of the following:
			SEMCOG's Phase II Stormwater Regulations - June 19, 2008
			State licensing for individuals to apply either herbicide/pesticide.
			MDEQ, Stormwater operator
			Other _____
✓			Are all Spill prevention and hazardous waste plans documentation up to date?

Goals 1 and 2 of your SWPPI deal with protecting public health and establishing a stewardship ethic in the public respectively. There are public education and participation activities that local permittees should be undertaking. Key activities are:

Public Education and Participation		
YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did your community participate in any of the following events:		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Number of "Simple Steps" tip cards distributed in your community? ?		
Method of distribution of "Simple Steps" tip cards (describe) <i>Left on Hand out table</i>		
Other municipal activities related to storm water in which the public was invited to participate?		

Additional Notes/Comments/Observations:

Please return to
 GCDC-SWM
 4608 Beecher Road
 Flint MI 48532

Return by 10/24/08

