



Saginaw Area Storm Water Authority

2005 Annual Report

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October 15, 2005



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Saginaw Area Storm Water Authority (SASWA)

October 15, 2005

2005 Annual Report for the following NPDES Storm Water Discharge Permits:

MEMBER	NPDES Permit Number
Birch Run Township	MIG 610168
Bridgeport Charter Township	MIG 610181
Bridgeport Spaulding Community Schools	MIG 610180
Buena Vista Charter Twp	MIG 610167
Carrollton Township & School District	MIG 610165
James Township	MIG 610164
Kochville Township	MIG 610162
Saginaw – City of	MIG 610161
Saginaw County Road Commission	MIG 610178
Saginaw County	MIG 610171
Saginaw Charter Twp	MIG 610166
Saginaw Township Community Schools	MIG 610176
Saginaw Intermediate School District	MIG 610183
Saginaw Valley State University	MIG 610179
Spaulding Township	MIG 610169
Swan Valley School District	MIG 610175
Thomas Township	MIG 610174
Tittabawassee Township	MIG 610172
Zilwaukee – City of	MIG 610159

This report will follow the annual progress report guidelines as set forth in the NPDES permit number MIG619000, section B, Watershed Management, Part 3 Annual Progress Report. The report will be submitted to the MDEQ’s Saginaw Bay District Office by October 15, 2005, as stated in each of the permits listed above.

a. Illicit Discharge Elimination Plan (IDEP)

The IDEP program has been implemented in Saginaw County. The dry weather screening began during mid July of 2005 after the ground water level was down. The section of the county where the screening took place was on the west side of the Tittabawassee River in Tittabawassee, Thomas and James Townships. The goal is to screen 25% of the drainage districts in the SASWA watershed area in a year. The following drainage districts were targeted:

Lenz	Trickey
Wolgast	Parker Swamp
Brown & Mills	Branch #1 Vasold
Macomber	Dice
Wiltse	Alney Branch
Hoffman	Liskow
Reinke	Wurtzel
Hagerl	Howberk
Metzler	Companion
Wegner	Garey
Union	Sholtz & O'Hern
Oldenburg	Rushley
Bebel – Br. 1 & 2	Hurzel

To date the following drains have been screened and the outfalls of the drains have had the coordinates obtained:

Hagerl	Hurzel
Hoffman	Hoffman Branch #2
Lenz	Oldenburg
Williams Creek	Wiltse

The reports for the drains and point sources are being processed at this time and will be sent to Saginaw Bay District Office when the technical aspects have been completed. There has been interfacing software problems encountered with the original GPS unit utilized by Spicer Group. We had to reproduce some of the work and are in the process of obtaining a new unit and currently are using a loaner GPS unit and plan on starting screening again in October.

At this time we are completing the maps for each of the drainage districts for the entire SASWA watershed area in order to keep the project moving forward and to have as much preparatory work completed before the field survey is started.

A few sample plans of the drains and report format are in Appendix A.

The Saginaw County Public Works Commissioner and consultant met with the Saginaw County Department of Public Health to review the IDEP program and to

begin access to their records to search for potential illicit connections in areas that we were to investigate. No outstanding reports were found. We advised the Health Department's Environmental Director of the areas we would be investigating and that we would inform them of any suspicious outlets deemed a health hazard or questionable health hazard.

No suspicious outfalls were discovered, therefore, none reported to the Health Department or Saginaw County Public Works Department at this time.

IDEP education:

Two brochures have been printed to educate the residents of Saginaw County about protecting water resources and the storm water pollution hotline. These brochures are distributed to area schools and are handouts at all municipalities that are members of SASWA, they will also be carried by the personnel doing dry weather screening to handout to residents in the area that we are screening outfalls. Copies of the brochures are available in Appendix B; to date approximately 2,000 have been distributed.

The SASWA website's home page provides the general public with the opportunity to report any spills or dumping in the SASWA watershed or the county as a whole. The website provides the public that uses this form of communication and information transfer with the ability to view information on what comprises illicit discharges and how to report them. The ability to report spills or discharges by the website will be communicated to the public during the implementation of the IDEP. As of this date no reports of spills or illicit discharges have occurred via the website.

Proposed County wide Storm Water Quality Ordinance:

Further IDEP education was performed during the development of the proposed countywide storm water quality ordinance. The SASWA trustees were educated on the purpose and goals of the ordinance and its implementation process. The individual municipal trustees then proceeded to educate their respective municipal boards or councils on the ordinance and the difference between water quality and quantity. Based on the information presented at these meetings the municipalities and county road commission all passed resolutions of support for the ordinance with only one "nay" vote.

The Saginaw County Public Works Commissioner will be presenting this ordinance and the resolutions of support to the County Board of Commissioners for approval. The date of this approval process is uncertain at this time but SASWA anticipates passage of the ordinance before the end of 2005.

Spill Response Reports:

To date, there have been three (3) spill responses that have been covered under this program. Each incident was discussed in a SASWA executive committee meeting to provide for a sharing of information and to determine if procedure was followed properly. There was one (1) incident in Taymouth Township reported by the Saginaw County Road Commission; it was a possible fuel spill in the road right of way of 5 – 10 gallons of fuel. None of this product reached the ditch per the report. There was one (1) incident in Thomas Township involving hydraulic fluid in a catch basin; this was investigated by the DPW director. The final report was in Saginaw Charter Township and received by the DPW in the Township and investigated by the SCPWC engineer. The incident involve approximately ½ quart of gas emptied into a catch basin and called in by a neighbor who witnessed the event. The product was gone, no significant petroleum odor remained and there was no need to activate clean up. The reports can be found in Appendix C.

The county has enacted an ordinance to deal with Soil Erosion and Sediment Control issues as civil infractions in 2004. Authorized members of the Saginaw County Public Works Commissioner's office will enforce the ordinance.

b. Public Education Plan (PEP)

The SASWA implemented its PEP during its formation in 2002.

The following relates to the PEP **required element number 1: Watershed Education, Activities 1 and 2:**

Brochures have been developed related to topics on car washing activities, lawn care, proper disposal of household wastes, care of storm sewer systems, care of catch basins on construction sites, and the Top Ten things you can do to Prevent Stormwater Pollution. These brochures were submitted with the 2004 annual report.

The website has continued to be an item that can be used by the general public and SASWA membership.

The site is used by members to provide:

- watershed education by video streaming the MWEA Watershed Education CD to residents on the website,
- information on storm water regulations,
- information on storm water pollution prevention,
- a method to report illicit discharges / connections,
- educational materials for children,
- educational materials for adults,
- resources related to NPDES compliance,
- resources related to administration of SASWA

The website also provides the members with the opportunity to measure the effectiveness of the World Wide Web as a public education venue. The SASWA keeps track of all hits to the website, pages accessed, survey results. The results of the cumulative summary of statistics on the SASWA website from February, 2005 to September, 2005 are available in Appendix E. To view the website and its content go to www.saswa.org.

The following members have linked their websites to the SASWA website to provide the public with education related to storm water and stormwater activities:

- Carrollton Township,
- Saginaw Charter Township,
- Saginaw County,
- Saginaw Valley State University,
- Thomas Township.

A summary of the statistics for the SASWA website are in the following Table:

TABLE 1.

Hits	
Total Hits	23,220
Average Hits per Day	100
Average Hits per visitor	15.54
Cached requests	2,715
Failed requests	463
Page Views	
Total Page Views	13,136
Average Page Views per Day	57
Average Page Views per Visitor	8.79
Visitors	
Total Visitors	1,494
Average Visitors per Day	6
Total Unique IPs	689
Bandwidth	
Total Bandwidth	953.67 MB
Average Bandwidth per Day	4.15 MB
Average Bandwidth per Hit	42.06 KB
Average Bandwidth per Visitor	653.66 KB

Informational Articles developed related to **Activity Number 3** were published in the Spring and Fall of 2005 informing Saginaw Charter and Thomas township residents to stormwater topics. In the spring of 2005 both community newsletters published an article on the public participation process for the watershed management plan. These newsletter articles were coupled with articles in the Saginaw News, however, only one person reported finding out about watershed planning from these news articles. were directed to go to the SASWA website for more information on pollution

prevention. These two township newsletters, The Township Update (Saginaw Charter Township) and Thomas Township Today, are mailed to over 60,000 households and businesses. Currently, the Fall 2005 articles will be mailed, in both townships by the end of October and is related to the grant that SASWA received for its IDEP program. See Appendix F for copies of the community newsletter articles.

Also, contact has been continued with TV-5 weather people who have provided one (1) article related to stormwater education for SASWA.

The Saginaw News has published two (2) of these short articles. The News has a circulation of over 50,000 papers in Northeastern Michigan. See Appendix F for the articles.

Activity number 4 related to watershed education is providing access to the Michigan Water Environment Association’s educational CD on watersheds. This CD was just finalized and made available to the public in late Fall of 2004. SASWA purchased 40 copies of this educational product for distribution to area school districts. SASWA has distributed approximately 5 of these CDs to area schools and is looking into developing a means to distribute the CD and obtain the results from the educational measurements contained in the CD. The final version of the CD is now on the SASWA website. The pre and post viewing evaluation questionnaires will be placed on the website to provide documentation of measurable education goals for this CD, by the end of 2005.

The MWEA watershed CD was used as a lead in to the Watershed Planning meetings for the general public and stakeholders and received a positive response. The pre- and post-tests were administered to 38 people who participated in the initial watershed planning meetings. This CD was used to provide participants with education on what a watershed is and why it is important to maintain the health of a watershed. The participants taking the pre-test before viewing the video averaged 2.15 wrong answers per test. The same participants, after viewing the video averaged less than one wrong answer per test. See the following table for results:

Number of Participants	38	Average
Pre Test Results # Incorrect	82	2.15
Post Test Results # Incorrect	30	0.78

The PowerPoint presentation for watershed education and the water cycle developed for use in local schools is still in use and SASWA is in the process of teaching it at this time in Frankenmuth Schools. The water cycle and watershed class is scheduled for later in October of 2005.

Finally, a 20-minute video on Watershed Management and storm water was provided to the City of Saginaw as a prelude to beginning watershed management planning to peak the public's interest. This video was aired 8 times between December, 2004 and April of 2005 on the City of Saginaw's cable TV network for all residents of the city.

Activity number 5 to develop a database of addresses is on track to begin in late fall of 2005, from this list will be developed a mailing for riparian owners.

Activity number 7 to sponsor three (3) informational workshops or seminars for area contractors, developers, builders, landscapers, and engineering firms has been delayed because of funding issues. SASWA has made contacts with vendors to sponsor and provide SESC and watershed related education to the area and it will be pursued in 2006.

Activity number 8 is related to development of signage indicating where storm drains discharge. Currently, the SASWA is not going to pursue stenciling. Two members, Thomas and Saginaw Charter Township are revising their storm water management ordinances and will require all new construction catch basin castings to have forged lettering "DUMP NO WASTE – DRAINS TO RIVER" which will last the lifetime of the product. Kochville Township is in the process of adopting its own progressive storm water management plan and ordinance and it will adapt the same measure. Spicer Group has adapted the standard inlet detail to reflect using only those castings on storm water structures that have the above statement, other firms are following suit. SASWA will be asking all area firms to do this standard procedure.

In addition to the above castings SASWA is pursuing signage in subdivisions entrances and exits to state that: "The (Subdivision / Condo Development) discharges to the XXXXXX Drain and XXXXXX River". SASWA will do this with those townships with storm water management design standards / ordinances.

Activity number 9 has not started, contact was made with MMWA but no calendar was planned for 2005. We will attempt again for 2006.

Required Element No. 5: Waste Management, Activity number 10: the SASWA has begun distribution of a brochure on proper disposal of sanitary wastewater from recreational vehicles and marine craft. This brochure provides information on proper disposal and locations in Saginaw, Bay, and Midland counties, where sanitary wastes can be pumped out. Phone numbers, addresses, and any associated fees are provided. This brochure was printed in early 2005 for distribution at area recreational vehicle and boat shows. Over 2000 have been distributed to area RV and Marine Dealers and at the RV and Boat shows in the Spring of 2005. Additionally, these pamphlets were distributed at the Freeland Outdoor Show in the spring of 2005. The document has been updated on the SASWA website to reflect an additional marine pump out facility added by the request of the facilities owner. Also, the US Coast Guard Auxiliary is handing out this brochure during their Boating Safety Courses. See Appendix B for the brochure.

Activities numbers 11, 12, and 13 have had their respective messages on watershed hygiene, application, and disposal of pesticides, herbicides, and fertilizers and procedures for residential car washing developed into brochure formats for distribution to the general public. The MWEA watershed education CD also delivers a message related to this information. The SASWA website provides the public with additional links for more education related to these topics.

Required Element No. 9 related to Illicit Discharges and Connections, Activities 14 and 15 has been covered in the IDEP portion of this report.

Required Element No. 10 related to Soil Erosion and Sediment Control, Activity number 16. The SASWA has a PowerPoint presentation on Soil Erosion and Sediment Control. It has been utilized to teach in area schools and 62 fourth grade students from List Elementary in Frankenmuth have partaken in this program this year. The students had to write letters to the instructor on what they learned in this program. We have not received the letters yet, but have been assured that they are coming.

c. New Point Sources of Storm Water Discharges:

The following subdivisions have been approved to discharge storm water in the SASWA watershed area:

Name of Subdivision	Township and Section #	Outlet Drain
Nova Ridge Condos	Saginaw Charter - 11	Universal Drain
Harvest View Farms No. 4	Saginaw Charter – 4	McCarty Rd Br. Universal Drain
Gatehouse Manor No. 4	Saginaw Charter – 7	TKS Drain
Lawndale Farms Phase IV	Saginaw Charter – 5	Kastdorf Drain
Thomas Farms No. 5	Thomas Township – 13	Trinklein Drain
Winchester Farms No. 4	Thomas Township – 4	Hatch Run & Dice Drains
Winding Creek No. 4	Thomas Township - 9	Alney Br. of Wiltse Drain

To date, not all of these storm water conveyance systems have been built, they have been approved through the storm water management plans and ordinances instituted in the respective townships. Once the systems have been built, they will be added to the developing storm water conveyance system GIS layer for the SASWA. The outlets will be positioned appropriately on the developing GIS map with coordinates supplied by GPS during the IDEP program implementation.

d. Storm Water Pollution Prevention Initiative – This program will not be implemented until April, 2006.

SASWA began a trial documentation program with the Saginaw County Road Commission to track its street sweeping, catch basin sump cleaning, and tile jet vacuuming. The SASWA is still working out details on the program, but we are documenting watershed location of cleanout and the quantities of sediment removed by the activities mentioned above. The results from the trial dating from May of 2005 to September, 2005 were the removal and proper disposal of 392 cubic yards of sediment from storm water conveyance systems. Of this total, 43 cubic yards was from the Lower Tittabawassee Watershed. Documentation is located in Appendix D.

e. Other Actions

To ensure completeness of this report and to assure that no items were missed the Agendas and Minutes for the Executive Committee and General Board meetings of SASWA are available on our website: www.saswa.org. The SASWA has taken the position that the website is the format that they will communicate information from the public meetings.

The annual budgets for the SASWA's fiscal years 2005 and proposed 2006 are in Appendix G. These annual budgets are approved by the municipal membership's governing bodies. Each member has a specified or apportioned share of these costs for the project.

f. Nested Drainage System Agreements - None reported for 2005, all known within the Saginaw Urbanized Area are accounted for.



Saginaw Area Storm Water Authority

APPENDIX A

IDEP Drain Report Plans



Saginaw Area Storm Water Authority

APPENDIX B

Public Education Brochures



Saginaw Area Storm Water Authority

APPENDIX C

Spill Response Reports - 2005



Saginaw Area Storm Water Authority

APPENDIX D

Sediment Removal Documentation



Saginaw Area Storm Water Authority

APPENDIX E

Website Statistics

October 2004 to September 2005



Saginaw Area Storm Water Authority

APPENDIX F

**Community Newsletters / News
Articles for 2004/05**



Saginaw Area Storm Water Authority

APPENDIX G

Annual Budget 2005

Proposed Annual Budget 2006