

PUBLIC EDUCATION PLAN

Prepared on behalf of:



SAGINAW AREA STORM WATER AUTHORITY

A collaborative effort by the following Authority Members:

AGENCIES:

SAGINAW COUNTY- *Saginaw County Public Works Commissioner (SCPWC)*
SAGINAW COUNTY BOARD OF COMMISSIONERS
SAGINAW COUNTY ROAD COMMISSION

LOCAL MUNICIPALITIES:

BRIDGEPORT CHARTER TOWNSHIP
BUENA VISTA CHARTER TOWNSHIP
TITTABAWASSEE TOWNSHIP & SCHOOL DISTRICT
CARROLLTON TOWNSHIP & SCHOOL DISTRICT
CITY OF SAGINAW
THOMAS TOWNSHIP
SAGINAW CHARTER TOWNSHIP
CITY OF ZILWAUKEE

EDUCATIONAL INSTITUTIONS:

BRIDGEPORT-SPAULDING COMMUNITY SCHOOLS
SAGINAW INTERMEDIATE SCHOOL DISTRICT
SAGINAW TOWNSHIP COMMUNITY SCHOOLS
SWAN VALLEY SCHOOLS
SAGINAW VALLEY STATE UNIVERSITY

Prepared by:



VISION

It is the Vision of Saginaw Area Storm Water Authority (SASWA) to increase the general public and business community's knowledge so residents of Saginaw County become informed stewards of the watersheds in an effort to improve the quality of storm water discharges to surface waters of the county.

INTRODUCTION

Public Education Plan Purpose

It is the vision of the SASWA to increase the general public and business community's knowledge fulfilling the requirements found within the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge of Stormwater to Surface Waters from a Municipal Separate Storm Sewer System (MS4). The purpose of the Public Education Plan (PEP) is to promote and implement a stormwater education program so the public can be well-informed about sources of pollution to stormwater from practices that can be incorporated into daily activities. These actions would protect the coastal water resources and reduce and/or prevent polluted stormwater discharges. In compliance with the NPDES MS4 Individual Stormwater Discharge Permit for the State of Michigan to improve storm water quality discharged into receiving waters, the members of the SASWA intend to promote watershed education in the Urbanized Area as detailed in this Public Education Plan.

The Public Education Plan provides the assessment of the ten (10) required topics found within the MS4 permit application, displayed below in *Table 1. Required Elements of the Public Education Plan (PEP)*. Found within this PEP are current and proposed Best Management Practice (BMP) activities, designed specifically for the SASWA, to meet the membership's permit requirements. It is the SASWA's goal for residents of Saginaw County to become better stewards of the watersheds within Saginaw County and the Saginaw Urbanized Area, to improve storm water quality ultimately discharging to the Saginaw Bay, and to inform and educate the public on reducing and/or preventing stormwater pollution, illicit discharges and spills.

Because this plan is a collaborative commitment, the SASWA, its membership, and any nested jurisdictions of the members are all responsible for ensuring its implementation. Currently, SASWA implements and provides leadership on the majority of the public education activities listed in this plan while its members are responsible for financially supporting, promoting and participating in them. The roles and financial arrangements between SASWA and its members are agreed upon annually at board meetings. Should the current roles or financial arrangements change, it is still the responsibility of this collaborative group to ensure that the activities outlined in this plan are implemented.

It is the goal of this Public Education Plan to raise awareness and knowledge among residents, public employees, businesses, industries, developers, contractors, construction crews and visitors of Saginaw County. The objective of the PEP is to improve, educate, and increase the number of individuals and organizations participating in watershed

education and daily activities that do not impact stormwater quality. To communicate with the public, the following mediums will be used:

- community newsletters
- handouts at municipal buildings
- websites
- presentations to groups, schools, or at public events
- brochures and information sheets
- audio and visual public / commercial media
- survey information gathered

Prioritizing Topics Listed in the PEP

The public education topics A – J listed in Table 1 below are identified in the MS4 permit application.

The procedure for identifying high-priority watershed-wide or targeted topics to reduce pollutants in storm water runoff suited for collaborative public education efforts includes the following:

- A review of pertinent Watershed Management Plans including any established Total Maximum Daily Loads for waterbodies in each watershed;
- A review of the effectiveness of PEP activities implemented prior to this permit cycle;
- Topics identified by permittees at SASWA meetings prior to and throughout the permit cycle; and
- Discussion and input from permittees regarding potential public outreach opportunities, and existing and future programs.

Table 1. Required Elements of the Public Education Plan (PEP)

TOPIC	PUBLIC EDUCATION PLAN TOPIC	PRIORITY RANKING	PAGE NUMBER(S)
A	Promote public responsibility and stewardship in the applicant's watershed(s).	2	6-8
B	Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.	1	6-8
C	Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.	3	6-8
D	Promote preferred materials and procedures for car, pavement, and power washing.	8	6-8
E	Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.	4	6-8
F	Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.	5	6-8

G	Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, and motor vehicle fluids.	7	6-8
H	Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.	9	6-8
I	Educate the public on, and promote benefits of green infrastructure and Low Impact Development.	10	6-8
J	Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to stormwater runoff.	6	6-8

A measurable goal with a measure of evaluation shall be included for each PEP activity and as appropriate, a schedule for implementation (months and years), including interim milestones and the frequency of the BMP. In addition, for topics A - J the PEP shall identify the following:

1. Target audience
2. Key message
3. Delivery mechanism
4. Year and frequency of BMP
5. Responsible party

The PEP shall provide the procedure for evaluating and determining the effectiveness of the overall PEP. The procedure shall include a method for assessing changes in public awareness and behavior resulting from the implementation of the PEP and the process for modifying the PEP to address ineffective implementation.

OVERALL EVALUATION

A variety of mechanisms are described in the “Evaluation” of each of the PEP’s individual activities. Evaluation of accumulated measures of the effectiveness of the PEP’s individual activities can be categorized in terms of output (i.e., effort or activity) that measures short-term goals and milestones. Examples of output measurements include tracking website hits or the number of literature pieces distributed to a target audience.

Additionally, once per permit cycle (*i.e.* 1x/5 years), a survey will be provided to the public to determine behavior changes or perceived impression of pollutant issues. The surveys will be gathered after each permit cycle and added to the collected information from previous permit cycles. Such measures are expected to include public comment and feedback and level of participation in programs and events. These mechanisms can be useful in determining whether the education effort is reaching the audience; however, it is difficult to evaluate behavior change resulting from the education activity using these purely quantitative methods. It is understood and stated by the MDEQ that these surveys do not necessarily need to be statistically validated.

The SASWA will re-evaluate this PEP and make necessary changes that will efficiently utilize resources and available funds. As adjustments are made to the PEP, the regional MDEQ will be notified in writing of the major changes.

The final evaluation method to be used will be an ongoing process at the bi-monthly SASWA General Board meetings. As an agenda item, the PEP activities will be evaluated for effectiveness at least once per year and group discussion will determine effectiveness. If it is determined by the group that a change is needed, the PEP will be revised to reflect the change and the updated PEP will be presented to the group at the next bi-monthly meeting of the SASWA General Board. Future efforts to expand and improve the public education activities will be performed to the maximum extent practicable by the Phase II communities of Saginaw County.

PROGRESS REPORT

By the date indicated on the permits issued to the SASWA members, a Progress Report on the implementation status of their permit and the progress of pollution prevention for the members will be submitted to the MDEQ. This report will include documentation of the PEP efforts, a summary of the evaluation of its effectiveness when appropriate, and any proposed revisions or amendments. The report will incorporate the measurable goals listed and may incorporate any additional quantitative or qualitative goals that the Authority feels are necessary for public education evaluation. Each community / county agency / educational institution will have a section of the progress report specific to their annual activities.

The Saginaw Area Storm Water Authority will address the first required element by attending meetings with existing public involvement programs in our community such as the Saginaw Bay Watershed Initiative Network and the Saginaw Basin Land Conservancy. The SASWA will also review and assess activities such as watershed signage, river watch, river stewards, adopt-a-drain programs, and healthy lawn and garden clinics to determine if they are suitable Best Management Practices for the area. Additionally, efforts will be made to cooperate with other Authorities such as the Mid-Michigan Waste Authority or Northwest Utility Authority, Saginaw County Health Department, the Bay Area Storm Water Authority (BASWA), or the Midland UA that have similar or shared goals within Saginaw, Bay and Midland Counties.

NOTE

It is the SASWA's intent to comply with the NPDES MS4 permit application. However, in this litigious society we maintain the right to not perform activities with volunteers that our insurance carrier deems to have a moderate or high "risk" associated with the activity. Our insurance carrier has asked SASWA to provide sixty (60) days of notice regarding public participation events that have risk potential. If our insurance carrier asks us to cease an activity or not carry it out, we will comply with them and remove the activity from our PEP.

PROPOSED PUBLIC EDUCATION BMPs

The BMP activities to be implemented as part of this PEP are summarized below. Activities will be completed by the responsible parties noted in each activity description. Timelines for implementation of proposed activities extend from year one, when implementation of the PEP begins, to year five, when the permit expires.

Activity #1: Distribute Educational Materials

Delivery Mechanism:	Utilize print and digital materials developed by SASWA, by the Southeast Michigan Council of Governments (SEMCOG), and/or other organizations. Materials will be distributed at municipal offices, events, public locations, and on websites.
Key Messages:	A - J
Target Audience:	Residents, visitors, students, public employees, businesses, industries, construction contractors and developers.
Year & Frequency:	Materials will be disseminated throughout the year for the duration of the permit cycle.
Goal:	50 pieces of materials distributed per year per permittee
Evaluation:	Number of materials distributed; the location materials were distributed; use of surveys.
Responsible Party:	SASWA and members

Activity #2: Provide Content in Newsletters, Websites, Social Media

Delivery Mechanism:	Information will be developed and distributed to watershed stakeholders to keep them informed about ongoing watershed issues, individual actions to protect water resources, and stewardship opportunities. Information on similar topics will also be included in permittee's newsletters and/or other types of notices mailed and/or emailed to watershed residents. Information will also be posted on a collaborative storm water website and/or via social media tools.
Key Messages:	A - J
Target Audience:	Residents, visitors, public employees, schools, businesses, industries, construction contractors and developers.
Year & Frequency:	Developed and distributed throughout the year and for the duration of the permit cycle.
Goal:	3 articles in newsletter/ year; 1,000 hits/year on the SASWA website.
Evaluation:	Frequency and number of articles distributed, the number of newsletters distributed, the content of newsletters, number of website hits, type of social media tools used, content of messages.
Responsible Party:	SASWA and members

Activity #3: Conduct Outreach at Local Fairs and Community Events

Delivery Mechanism:	Participate in and/or promote county-wide environmental education events such as Earth Fair, River Day, Adopt-A-Road and/or Adopt-A-Stream, or other similar water-themed fairs and festivals
Key Messages:	A - J
Target Audience:	Residents, visitors, students, public employees, businesses
Year & Frequency:	Ongoing annually and for the duration of the permit cycle
Goal:	Participate in and/or promote 2 events per year
Evaluation:	Number of participants, number of activities, amount and type of media coverage received, surveys if applicable
Responsible Party:	SASWA and members

Activity #4: Display Water Quality Exhibits

Delivery Mechanism:	Provide water-quality and/or watershed themed exhibits and/or table-top displays at public events and/or public facilities
Key Messages:	A - I
Target Audience:	Residents, visitors, public employees, schools, businesses, and industries
Year & Frequency:	1 display per permit cycle, ongoing annually.
Goal:	SASWA display at 3 events/year; each SASWA member 5x/ permit cycle, each member to display for 2 weeks/yr.
Evaluation:	Period of time exhibit is on display, location exhibit is on display, content of exhibit topics, survey to determine impact.
Responsible Party:	SASWA and members

Activity #5: Promote SASWA Water Quality Hotline

Delivery Mechanism:	Promote SASWA's 24-hour anonymous water quality hotline for reporting illicit discharges and pollution problems.
Key Messages:	C
Target Audience:	Residents, public employees, businesses, industries.
Year & Frequency:	Ongoing throughout the permit cycle
Goal:	Regular maintenance and update of a pollution hotline and record of the complaints per year
Evaluation:	Number of calls to hotline; nature of complaints; follow-up actions; number of illicit discharges/pollution issues cleaned-up/outcome of issues.
Responsible Party:	SASWA and members

Activity #6: Conduct Mass Media Outreach

Delivery Mechanism:	Provide press releases and media materials related to watershed activities to local radio, TV, and newspapers. <i>(This may include PSA's developed by SASWA); videotapes</i>
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	of presentations and workshops described above; other text derived from existing digital materials and articles.
Key messages:	A - J
Target Audience:	Residents, visitors, public employees, businesses, and industries.
Year & Frequency:	Regularly throughout the permit cycle; season dependent; messaging and budget
Goal:	3 published and/or broadcast messages per year.
Evaluation:	Number of times information is aired; period of time; content of material.
Responsible Party:	SASWA and members

Activity #7: Water Quality Presentations

Delivery Mechanism:	Conduct presentations that teach the public about current watershed issues, water pollution sources, and solutions to these impacts. Provide free presentations to civic groups, organizations, schools and service clubs.
Key messages:	A - J
Target Audience:	Residents, students, schools, public employees, businesses, and industries.
Year & Frequency:	Ongoing throughout the permit cycle
Goal:	15 presentations per year
Evaluation:	Number of participants; number of presentations; content of program; participant surveys
Responsible Party:	SASWA and members

Activity #8: Watershed Education

Delivery Mechanism:	Work with area school district educators and develop an activity book for elementary school age children with many activities on watershed stewardship, hygiene, and recycling efforts. <i>(Will be part of the school watershed education effort)</i>
Key messages:	A - G
Target Audience:	Grades 1 through 3
Year & Frequency:	Ongoing throughout permit cycle
Goal:	Complete Activity book by 2016
Evaluation:	Number of activity books handed out per year to member schools.
Responsible Party:	SASWA and school district members

PUBLIC EDUCATION PLAN MEASURABLE GOALS SUMMARY

The measurable goals section of this document does not utilize education or behavioral objectives to a great extent. The reason for this is that the state has not put forth much effort in providing guidance in how this can be effectively accomplished. SASWA will use measurable goals in educational settings as the opportunities present themselves and

will report the results as they are obtained. We wish to maintain flexibility in this area until such time that effective examples for measurable goals are available. Until that time SASWA will utilize the measurable goals in this document, as they are listed and applicable. This document will be revisited for effectiveness annually during the reporting process. At that time the activities will be assessed for future measurable goals that are behavioral or educationally based. Upon identification, the goals will be implemented into the next year's related activities.

Measurement

The measurable goals for this Public Education Plan (PEP) have been listed after each of the activities. The following are **additional measurements** that **may** be utilized when the plan is assessed annually for effectiveness:

- Number of informational articles printed in township newsletters, or in the Saginaw County Road Commission (SCRC) newsletter, related to stormwater per year.
- Number of valid complaints received and investigated within a year timeframe from the “hot line”.
- Number of participants attending training sessions or festivals per year.
- Number of polls or surveys completed annually to determine the effectiveness of the education program or to determine the priority ranking of messages related to stormwater.
- Increase in recycling efforts documented by the Mid-Michigan Waste Authority after an educational effort.
- Increase in amounts or number of cars participating in hazardous household chemicals drop-off after an educational program or advertised drop-off date.

Annual PEP Budget

The SASWA determines its budget every year, beginning in August. A line item and apportionment is prepared and provided to the Executive Committee for consideration at its September Executive meeting. The budget is then provided to all SASWA members at its October General Board Meeting for review and comment. Members are then provided with resolutions to take to their respective governing bodies for approval of the apportionment percentage. The budget is then adopted at the Annual Meeting in December of every year. This process has been in place since the formation of the Authority under PA 233 of 1955 in January of 2003. The procedure is also part of the adopted By Laws of the Authority. Furthermore, all annual budgets and apportionments are available on the SASWA website.