

# PUBLIC EDUCATION PROGRAM (PEP)



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**Wayne County Executive**

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This document establishes procedures and/or outlines the programs that Wayne County is implementing to meet the minimum control measure requirements of the Public Education Program (PEP) within the Municipal Separate Storm Sewer System (MS4) Permit. Wayne County's PEP has been developed and implemented in collaboration with watershed partners including the Alliance of Rouge Communities (ARC), the Alliance of Downriver Watersheds (ADW), Lake St. Clair Direct Drainage Watershed Advisory Group, Friends of the Rouge (FOTR), Friends of the Detroit River (FDR), Huron River Watershed Council (HRWC), Clinton River Watershed Council (CRWC) the Southeast Michigan Council of Governments (SEMCOG), and other interested parties. Wayne County will continue to work with partners and the public as future revisions to the PEP are made. Implementation of this Public Education Program will be coordinated by the Wayne County Department of Public (WCDPS) Water Quality Management Division (WQMD).

## **I. PROCEDURE FOR ASSESSMENT OF HIGH PRIORITY, COMMUNITY-WIDE AND TARGETED ISSUES**

Wayne County has been involved in conducting various public opinion and awareness surveys to gauge the public's knowledge of watershed-related issues and concerns since 1992. This includes two surveys conducted by the Rouge River National Wet Weather Demonstration Project in 1992 and 1999, the SEMCOG regional survey conducted in 2004, the ARC's 2008 survey and the regional on-going survey coordinated by the CRWC (<https://www.surveymonkey.com/s/SEMIPPP>) as part of the Clinton River and Lake St. Clair Direct Drainage MS4 permit application process. Wayne County also worked with the ARC and ADW on their recent public surveys to inform development of the ARC and ADW Collaborative Public Education Plans.

In addition to the public opinion and awareness surveys, public education plan topics were prioritized ("High", "Medium", "Low") by the watershed partners using known target and priority issues within each major watershed area, as shown in Attachment 2, Table 1 for the Rouge River Collaborative PEP priorities and in Attachment 3, Page 7 of 15 in the ADW's Collaborative PEP.

## **II. ACTION STRATEGY AND COLLABORATIVE PEP BMP ACTIVITIES**

Working with the our watershed partners, the WCDPS WQMD will continue to implement our overall action strategy to protect and maintain our water resources, in terms of what is healthy, identify and restore what is degraded, and keep working together to continuously improve environmental conditions across the County. Activities are described in Attachment 1 for the Lake St. Clair Direct Drainage Collaborative PEP and in Attachment 2 (Table 2) for the Rouge River Collaborative PEP. The ADW's Collaborative PEP will be available in April 2017 and will be utilized to further refine PEP activities under the County's MS4 Storm Water Management Program (SWMP).

## **III. PROCEDURE FOR EVALUATING AND DETERMINING EFFECTIVENESS**

The WQMD staff will track and work with all our watershed partners (e.g. ARC, ADW, FOTR, FDR, HRWC, CRWC) to evaluate and determine the effectiveness of our public education efforts. See the "Methods to Report & Determine Effectiveness" column in the Wayne County PEP Activity Summary (Attachment 1).

#### **IV. OTHER**

Any questions on this procedure should be directed to the Wayne County Storm Water Program Manager.

#### **V. PROCESS FOR UPDATING/REVISING THIS PROCEDURE**

This procedure shall be reviewed at least once during the permit cycle by the Wayne County Storm Water Program Manager for any necessary updates.

## **ATTACHMENTS**

Attachment 1	Wayne County PEP Activity Summary
Attachment 2	Rouge River Collaborative Public Education Program
Attachment 3	Alliance of Downriver Watersheds Public Education Program

## **ATTACHMENT 1**

### **WAYNE COUNTY PUBLIC EDUCATION PLAN (PEP) ACTIVITY SUMMARY**

Activity ID	Activity	Required Element Addressed <sup>1</sup>	Procedure/Method of Implementation and Schedule	Method(s) to Report & Determine Effectiveness
<b>PUBLIC EDUCATION PROGRAM ACTIVITIES</b>				
WCPEP1	Support ARC & ADW Collaborative PEP Activities	PEP A-J	See ARC Collaborative PEP See ADW Collaborative PEP	See ARC Collaborative PEP See ADW Collaborative PEP
WCPEP2	Displays - Community/Agency Events or Static Displays	PEP A-J	Wayne County's Water Quality Management Division (WQMD) has various pollution prevention and/or watershed awareness displays available for loan to watershed partners. County staff will work with watershed partners to have these displays set up to be staffed at the local community events or deployed unstaffed in public locations (e.g. libraries). <b>Schedule:</b> unknown, biennial report will summarize display use by display, event/location and duration. <b>Location:</b> County-wide. <b>Audience(s) Addressed:</b> citizens, visitors to the area, businesses, and commercial operations.	# of events where WC displays used, annually. List of pollution prevention topics and messages contained in displays and distributed materials. Feedback from stakeholders and participants.
WCPEP3	WCDPS Environmental Information Line	PEP A-J	Wayne County operates a 24-hour Hotline Number to field and respond to environmental information requests and complaints including illegal dumping and suspicious discharges. Promotional efforts including printing and distribution of 24-Hour Hotline brochure, website posting, WCDOE stationary, # listing in other storm water handouts, etc. <b>Schedule:</b> year round ongoing promotion. <b>Location:</b> County-wide. <b>Audience(s) Addressed:</b> All.	# of info requests annually; summary of efforts to promote Hotline. Effectiveness of Hotline as pollution prevention tool will be assessed and reported as described in the IDEP section of this table.
WCPEP4	Wayne County Green Schools Program	PEP A-J	WQMD will continue to support and coordinate the Michigan Green School Program in Wayne County. <b>Schedule:</b> August-June. <b>Location:</b> County-wide. <b>Audiences:</b> All.	# of participating schools. Summary of efforts to integrate storm water awareness, pollution prevention messages into the program. Feedback from stakeholders and participants
WCPEP5	Workshops and Demonstration Projects	PEP A-J	WQMD will continue to support the implementation of workshops by watershed partners and/or through the County's Green School Program. <b>Schedule:</b> Minimum 4 events per year. <b>Location:</b> Wayne County Green Schools. <b>Audience(s) Addressed:</b> All.	# of workshops held, # of participants. Feedback from stakeholder and participants.
WCPEP6	Volunteer Monitoring - Bug Hunts Rouge Watershed	PEP A-J	Friends of the Rouge (FOTR) coordinates the implementation and promotion of Volunteer Macroinvertebrate Monitoring. Wayne County has contributed financially and with staff support on an annual basis in support of all FOTR education programs; such support to continue as funding is available. <b>Schedule:</b> 3 Bug Hunts per year. <b>Location:</b> various. <b>Audience(s) Addressed:</b> All.	# of sites. # of participants. Annual Report will summarize Wayne County staff involvement. Feedback from stakeholders and information recipients.
WCPEP7	Volunteer Monitoring - Bug Hunts Alliance of Downriver Watersheds	PEP A-J	WQMD in partnership with the ADW, HRWC and local schools will continue macro-invertebrate monitoring in the Combined Downriver, Ecorse Creek and parts of the Lower Huron watersheds and will continue these efforts as funding remains available. <b>Schedule:</b> Spring & Fall Bug Hunts per year. <b>Location:</b> various. <b>Audience(s) Addressed:</b> All.	# of sites. # of participants. Annual Report will summarize Wayne County staff involvement. Feedback from stakeholders and information recipients.
WCPEP8	Disseminate Information through Web Sites	PEP A-J	WQMD will maintain various DPS webpages to include storm water awareness, illicit discharge and pollution prevention information. <b>Schedule:</b> Year round. <b>Location:</b> County-wide <b>Audience(s) Addressed:</b> All.	Record of changes and existing content. User feedback.
WCPEP9	Information dissemination at County Buildings	PEP A-J	WQMD will maintain display racks in the following County buildings include existing public educational / informational printed materials: Wayne County Roads-Main Office (29900 Goddard, Romulus); DOE-WMD, LRMD offices (3600 Commerce Ct, Wayne); Register of Deeds (400 Monroe, Detroit); DPS-Permit Office (Wayne). <b>Schedule:</b> Year round. <b>Location:</b> various, County-wide. <b>Audience(s) Addressed:</b> All.	Summary of restocking efforts. Feedback from stakeholders and information recipients.

Activity ID	Activity	Required Element Addressed <sup>1</sup>	Procedure/Method of Implementation and Schedule	Method(s) to Report & Determine Effectiveness
WCPEP10	Waste Reduction/Resource Recovery Education	PEP A-J	Wayne County's Land Resource Management Division (LRMD) will continue to update and make available listing of appropriate disposal locations via websites, handouts, responses to telephone or email inquiries, for wastes including HHW, RV & Septage. <b>Schedule:</b> Annual review/updates. <b>Location:</b> N/A. <b>Audience(s) Addressed:</b> All.	Information distribution statistics annually. Feedback from stakeholder and information recipients
WCPEP11	Staff education and training	PEP A-J	Continue efforts to educate and involve Wayne County staff in storm water pollution prevention. Efforts include continued preparation and broadcast watershed awareness and pollution prevention messages to County staff via County email system. <b>Schedule:</b> Broadcast email message quarterly. <b>Location:</b> County-wide. <b>Audience(s) Addressed:</b> residents.	# email message broadcast annually. List of pollution prevention topics and messages delivered.
WCPEP12	Signage	PEP A-J	WQMD provides Watershed/River Crossing signs and/or Grow Zone signs at cost through a publication clearinghouse. <b>Location:</b> County-wide. <b>Schedule:</b> Ongoing as requests are received. LRMD: "No Dumping" signs installed as illegal dumping sites are cleaned up under the CLEAN program. <b>Location:</b> Countywide, as identified under the CLEAN program. <b>Schedule:</b> Ongoing as problem areas are identified. DPS-Parks: Continue installing "Don't Feed the Geese" signs. <b>Location:</b> Countywide. <b>Schedule:</b> Ongoing as problem areas are identified. <b>Audience(s) Addressed:</b> All.	Annual Report will summarize # and type of signs deployed.
WCPEP13	Storm Water Public Education via Parks Division Operations	PEP A-J	DPS - Parks will continue educational activities including signage, staff training, information dissemination, operation of the Nankin Mills Interpretive Center and the Nankin Mills & Crosswinds Marsh naturalist programming, staff training and website. <b>Schedule:</b> Year round. Annual Report will summarize. <b>Location:</b> various. <b>Audience(s) Addressed:</b> residents, visitors to the area, businesses.	Summary of efforts, annually. Feedback from stakeholders and participants

<sup>1</sup> Defined in State of Michigan Permit Application for Discharge of Storm Water to Surface Waters of the State from a Municipal Separate Storm Sewer System EQP5993 (Rev. 10/2014)

## **ATTACHMENT 2**

### **ROUGE RIVER COLLABORATIVE PUBLIC EDUCATION PROGRAM (PEP)**



# ROUGE RIVER COLLABORATIVE PUBLIC EDUCATION PROGRAM (PEP)



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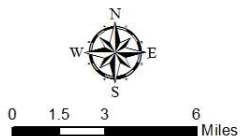
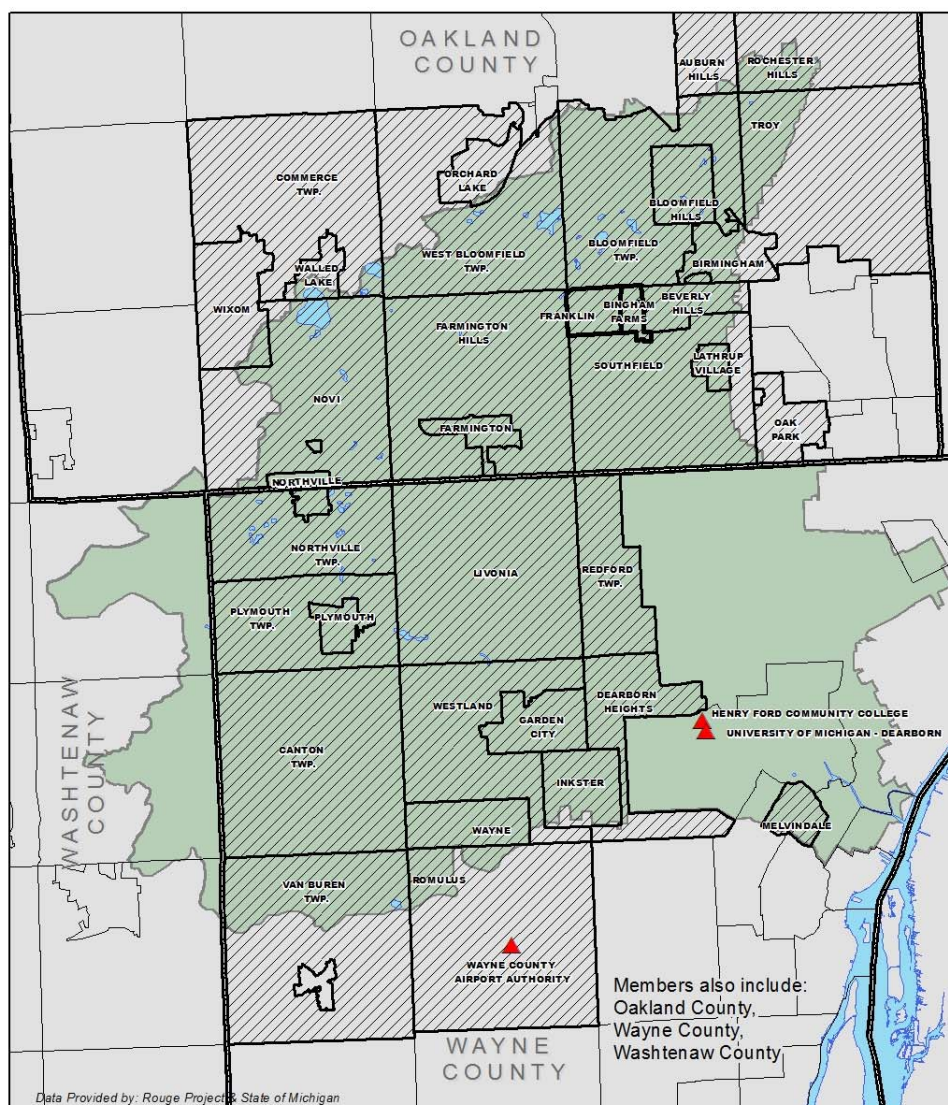
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Attachment A: Responsible Communities

## INTRODUCTION

The Alliance of Rouge Communities (ARC), a 501(c)(3) organization, is a voluntary public watershed entity currently comprised of municipal governments, counties, schools, and cooperating partners (see Figure 1) as authorized by Part 312 (Watershed Alliances) of the Michigan Natural Resources and Environmental Protection Act (MCL 324.101 to 324.90106) as amended by Act No. 517, Public Acts of 2004. The purpose of the ARC is to provide an institutional mechanism to encourage watershed-wide cooperation and mutual support to meet water quality permit requirements and to restore beneficial uses of the Rouge River to the area residents.

**Figure 1: ARC Members**



### ARC Member Communities

February 2017

The two primary goals of the Rouge River Watershed Management Plan (RRWMP) are Protect Public Health and Reduce Stormwater Runoff Impacts. Bacteria is one of the priority pollutants identified in the RRWMP. The ARC's collaborative program presents a watershed-wide plan that is being implemented to effectively and efficiently address *E. coli* levels in the Rouge River watershed caused by discharges from MS4s. This plan consists of existing and planned activities and strategies that members of the Alliance of Rouge Communities (ARC) are individually and collectively implementing.

This plan was developed by the ARC through its Public Involvement and Education Committee (PIE) in coordination with the ARC Technical Committee in response to the findings and recommendations of the RRWMP as well as the Michigan Department of Environmental Quality's (MDEQ) Total Maximum Daily Load (TMDL) assessment for *E. coli* in the Rouge River Watershed. This plan is intended to meet the Public Education Program (PEP) element required by ARC members' NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s). Those entities that are submitting a separate NPDES permit application, in lieu of this collaborative document, will continue to promote and participate in the activities identified in this plan as a member of the ARC.

ARC members and ARC staff continue to participate and collaborate with partners throughout the region, state and nation in an effort to coordinate stormwater permit related public education and other stormwater related initiatives when possible.

This plan will be implemented collaboratively by the ARC participating communities and partners through September 30, 2022 which is the end of the permit cycle for the Rouge River watershed. The list of permittees participating in this Plan can be found in Attachment A.

## **SECTION A – PROCEDURE FOR HIGH-PRIORITY, COMMUNITY-WIDE AND TARGETED ISSUES**

The Rouge River Watershed communities have regularly conducted public opinion surveys to gauge the public's knowledge of watershed-related issues and concerns. Surveys were conducted in 1992 and 1999 by the Rouge River National Wet Weather Demonstration Project and in 2004 by SEMCOG. In 2008, the ARC conducted a survey to assess the public's opinion about the goals for the RRWMP. The survey asked the public:

- To rank the goals in order of importance
- To rank issues, such as flooding, streambank erosion and water quality in order of importance, and
- To discuss any concerns about the river

Using these past surveys, this plan outlines the priority, community-wide and targeted issues that are of most significance to the ARC communities. By focusing on those elements, the ARC will have the greatest impact on public education of watershed issues and will in turn have the greatest behavioral changes to reduce their effects in the Rouge River watershed.

In addition to public awareness, the PEP topics were prioritized based on known targeted issues within the watershed. Table 1 shows the applicable PEP Topics and their priority ranking for the ARC. Table 2 beginning on page 17 summarizes the PEP BMPs.

**Table 1: PEP Topics and Priority**

PEP TOPICS FROM SW DISCHARGE PERMIT APPLICATION	PRIORITY RANKING
A. Promote public responsibility and stewardship in the Rouge River watershed	High
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	High
C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4	High
D. Promote preferred cleaning materials and procedures for car, pavement, and power washing	Medium
E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers	High
F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4	High
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	High
H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure	High
I. Educate the public on, and promote the benefits of, green infrastructure and Low Impact Development	High
J. Identify and educate commercial, industrial, educational and institutional entities likely to contribute pollutants to stormwater runoff	Medium

## SECTION B – ACTION STRATEGY

The ARC's overall action strategy is to protect and maintain what is healthy, identify and restore what is degraded, and keep working together to continuously improve environmental conditions. The ARC will look to use cost-effective outreach methods and maintain the efficiency of activities by using currently available resources when possible and collaborating with other potential partners.

These activities are consistent with and help realize the goals of the RRWMP and address the *E. coli* and biota TMDLs within the Rouge River watershed.

## SECTION C – COLLABORATIVE PEP BMP ACTIVITIES

Each PEP topic from the Stormwater Discharge Permit Application is addressed with various BMP activities and will be implemented collaboratively and parallel to the Collaborative IDEP. These action items are described below and include the target audience, key message, delivery mechanism, year and



frequency implemented, and responsible party (or parties), measurable goal and measures of assessment.

**BMP Identifier:** 1

**BMP Descriptor:** Distribute pollution prevention literature on various topics through brochures, educational materials, and other media

Addresses PEP Topic:

A, B, C, D, E, F, G, H, I, J

Target Audience:

Public

Key Message:

The key message is to educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have and the importance of pollution prevention and watershed restoration and stewardship. It may also educate the public on reporting illicit discharges and improper disposal of materials into the Rouge River Watershed, promoting proper disposal practices, identify and promote facilities for collection or disposal of household hazardous wastes (including travel trailer sanitary wastes, chemicals and motor vehicle fluids). Items may also include information on septic system maintenance and how to recognize system failure and may promote preferred cleaning materials and procedures for car, pavement, and power washing. In addition materials may inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers and the proper disposal practices for grass clippings, leaf litter and animal waste that may enter the Rouge River. Materials may also include the benefits of green infrastructure and Low Impact Development and methods for managing riparian lands to protect water quality. It may also include educating commercial, industrial, educational, and institutional entities likely to contribute pollutants to stormwater runoff.

Delivery Mechanism:

ARC members will be provided copies of materials to be displayed at their facilities or used at community events or will be provided electronic material to use on their community website. With ARC oversight, Wayne County and ARC staff will facilitate the selection, procurement and distribution of various watershed restoration and pollution prevention public education materials to support ARC member public education permit compliance. Other or additional copies of some handout materials are available at cost through the Wayne County Publication Clearinghouse. Materials will also be available to view on the ARC's website. The ARC will also promote its message using electronic media outlets which could include cable TV, social media and billboards.

Year/Frequency BMP Implemented:

Current brochures and materials will be provided to ARC members throughout the permit cycle.

Responsible Party:

- ARC Staff will design/distribute materials and make available on the ARC website and develop ARC facebook posts
- Wayne County will assist with material content when appropriate
- Oakland County will assist with material content when appropriate
- Washtenaw County will assist with material content when appropriate
- ARC members listed in Attachment A will assist with material content when appropriate, distribute materials, link to the ARC's website and promote ARC facebook posts

Measurable Goal:

ARC staff, with input from Wayne, Oakland, and Washtenaw County and ARC members, will create at least two (2) new brochures/materials during the permit cycle. The topic of one of the new brochures/material will educate commercial, industrial, educational and institutional entities likely to contribute pollutants to stormwater runoff. ARC staff will develop at least 24 posts annually during the permit cycle on the ARC Facebook page. ARC Communities will make existing and new brochures and materials available for public events and at facilities such as city/township halls, libraries, etc., and provide a link to the ARC's website on their website.

Measures of Assessment:

- Number of materials distributed, topic, location of distribution and event name annually by the ARC and member communities.
- Number of posts/views on the ARC's website and Facebook.
- Viewer numbers will be requested from electronic media companies when used.

**BMP Identifier:** 2

**BMP Descriptor:** Coordinate and distribute community articles and ad graphics on pollution prevention and watershed restoration and stewardship

Addresses PEP Topic:

A, B, C, D, E, F, G, H, I, J

Target Audience:

Public and businesses

Key Message:

Articles and ad graphics may include the following topics: The connection of the MS4 to area waterbodies and the potential impacts discharges could have. The importance of pollution prevention and watershed restoration and stewardship. Reporting illicit discharges and improper disposal of materials into the Rouge River Watershed, promoting proper disposal practices, identify and promote facilities for collection or disposal of household hazardous wastes (including travel trailer sanitary

wastes, chemicals and motor vehicle fluids). Septic system maintenance and how to recognize system failure and preferred cleaning materials and procedures for car, pavement, and power washing. Proper application and disposal of pesticides, herbicides, and fertilizers and the proper disposal practices for grass clippings, leaf litter and animal waste that may enter the Rouge River. Benefits of green infrastructure and Low Impact Development and methods for managing riparian lands to protect water quality. It may also include educating commercial, industrial, educational, and institutional entities likely to contribute pollutants to stormwater runoff.

#### Delivery Mechanism:

With ARC oversight, ARC staff will facilitate the selection (based on an annual theme) and distribution of various articles and/or ad graphics that support watershed restoration and pollution prevention public education themes. Other existing articles or ad graphics will be made available upon request by ARC members. Articles and ad graphics will also be posted on the ARC's website and through social media. ARC members will repost articles and ad graphics to their own social media outlets.

#### Year/Frequency BMP Implemented:

Five articles will be written during the permit cycle to be promoted on the ARC's website, member websites, social media outlets, and at facilities. Five ad graphics will be created during the permit cycle to be promoted through the ARC's website, member websites, social media outlets, and other means.

#### Responsible Party:

- ARC Staff will coordinate existing material and develop new materials
- Wayne County will assist with material content and coordination when appropriate
- Oakland County will assist with material content and coordination when appropriate
- Washtenaw County will assist with material content and coordination when appropriate
- ARC members listed in Attachment A will assist with material content when appropriate, distribute materials, link to the ARC's website, and promote ARC facebook posts

#### Measurable Goal:

ARC Staff, Wayne, Oakland, and Washtenaw County and ARC member communities will coordinate and distribute existing articles and ad graphics and will develop one (1) new article (total of five (5) during the permit cycle) and one (1) new ad graphic (total of five (5) during the permit cycle) per year that will be distributed by the ARC Staff and ARC member communities through avenues such as newsletters and/or other publications, websites, and social media. The ARC website and facebook page shall show an increase in views annually.

#### Measures of Assessment:

- List of articles/ad graphics with title, topic and date distributed by ARC members listed in Attachment A
- List of articles/ad graphics promoted on the ARC's website and Facebook page
- Number of views on the ARC's website and Facebook page



**BMP Identifier:** 3

**BMP Descriptor:** Provide static displays and posters on pollution prevention and watershed restoration and stewardship

Addresses PEP Topics:

A, B, C, D, E, F, G, H, I

Target Audience:

Public

Key Message:

Displays and posters may include the following topics: The connection of the MS4 to area waterbodies and the potential impacts discharges could have. The importance of pollution prevention and watershed restoration and stewardship. Reporting illicit discharges and improper disposal of materials into the Rouge River Watershed, promoting proper disposal practices, identify and promote facilities for collection or disposal of household hazardous wastes (including travel trailer sanitary wastes, chemicals and motor vehicle fluids). Septic system maintenance and how to recognize system failure and preferred cleaning materials and procedures for car, pavement, and power washing. Proper application and disposal of pesticides, herbicides, and fertilizers and the proper disposal practices for grass clippings, leaf litter and animal waste that may enter the Rouge River. Benefits of green infrastructure, Low Impact Development, and methods for managing riparian lands to protect water quality.

Delivery Mechanism:

Wayne County has various pollution prevention and/or watershed awareness displays available for loan to ARC members. The ARC plans to update existing and/or create new static displays during the permit cycle. The ARC may create new static displays using SEMCOGs "What You Can Do . . ." series or other topic that will be made available for loan to ARC member communities to use at their facilities or community events in each of the subwatersheds. ARC staff may also be requested to staff displays at community events. The ARC Staff may create new displays if a particular topic is deemed necessary. The ARC is also creating seasonal posters covering a variety of the PEP Topics which will be provided to ARC members for display in their facilities.

Year/Frequency BMP Implemented:

Four (4) seasonal posters will be distributed beginning in 2016 to be displayed at ARC member facilities. Static displays will be created upon permit approval. ARC Staff will promote the use of displays at community events and facilities throughout each subwatershed during the permit cycle.

Responsible Party:

- ARC Staff will create posters and update/create static displays

- Wayne County will assist with material content and coordination when appropriate
- Oakland County will assist with material content and coordination when appropriate
- Washtenaw County will assist with material content and coordination when appropriate
- ARC members listed in Attachment A will assist with material content when appropriate and display posters at facilities and promote static displays at watershed events.

Measurable Goal:

ARC staff will make available four (4) distinct seasonal posters (winter, spring, summer and fall) which will be distributed to ARC member communities to post and rotate during each season. ARC member will post and rotate these posters a minimum of three (3) out of the five (5) years during the permit cycle at highly visible locations such as city/township buildings, libraries, etc. ARC staff will review and update as necessary at least three (3) static displays to be displayed at a minimum of 3-4 ARC member community events per year during the permit cycle. The static displays will be rotated at a minimum of two (2) events in each of the seven (7) subwatersheds during the permit cycle.

Measures of Assessment:

- Name of display, date, location and title of events that static displays were used at annually
- Number of posters distributed, location displayed annually by ARC member communities
- Number of static displays created annually during the permit cycle

**BMP Identifier:** 4

**BMP Descriptor:** Promote environmental hotlines to educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4

Addresses PEP Topic:

A, B, C, E, G, J

Target Audience:

Public, municipal employees and businesses

Key Message:

The message will educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have and the importance of pollution prevention and watershed restoration and stewardship. Promote awareness of environmental contaminants and encourage the reporting of observed and/or suspected pollutant sources. It will also include informing the public of collection/disposal sites of household hazardous waste, travel trailer sanitary wastes, chemicals and motor vehicle fluids along with proper disposal practices for grass clippings, leaf litter, and animal wastes.

Delivery Mechanism:

The environmental hotline numbers and collection/disposal information will be advertised by ARC members through available outlets such as the ARC website, county and local community websites, social media, through hotline brochure distribution, as well as being displayed on other topical brochures, distributed at display events and training sessions, electronic media, and other outlets.

Year/Frequency BMP Implemented:

Continuously promoted and distributed annually.

Responsible Party:

- ARC Staff will provide materials promoting hotline and promote hotline on ARC website and facebook page
- Wayne County will distribute materials promoting hotline and link to the ARC's website
- Oakland County will distribute materials promoting hotline and link to the ARC's website
- ARC members listed in Attachment A will distribute materials promoting hotline, link to the ARC's website and promote ARC facebook posts

Measurable Goal:

ARC Staff, Wayne, Oakland, and Washtenaw County, and ARC member communities will distribute materials annually with hotline numbers referenced and promote hotlines on the ARC and ARC member community websites and social media.

Measures of Assessment:

- Number of materials distributed annually with hotline number referenced.
- Number of views on ARC website and Facebook.

**BMP Identifier:** 5

**BMP Descriptor:** Distribution of "homeowner" materials to promote the importance of pollution prevention and watershed restoration and stewardship

Addresses PEP Topics:

A, B, C, D, E, F, G, H, I

Target Audience:

Public

Key Message:

The ARC will distribute an educational brochure for homeowners which will include topics regarding the connection of the MS4 to area waterbodies and the potential impacts discharges could have. The importance of pollution prevention and watershed restoration and stewardship. Reporting illicit

discharges and improper disposal of materials into the Rouge River Watershed, promoting proper disposal practices, identify and promote facilities for collection or disposal of household hazardous wastes (including travel trailer sanitary wastes, chemicals and motor vehicle fluids). Septic system maintenance and how to recognize system failure and preferred cleaning materials and procedures for car, pavement, and power washing. Proper application and disposal of pesticides, herbicides, and fertilizers and the proper disposal practices for grass clippings, leaf litter and animal waste that may enter the Rouge River. Benefits of green infrastructure and Low Impact Development and methods for managing riparian lands to protect water quality.

Delivery Mechanism:

The educational materials will be available to ARC members and the public through the ARC website and the ARC's Facebook. A homeowner educational brochure will be distributed and made available to ARC members to use as part of their welcome to the community new resident packets.

Year/Frequency BMP Implemented:

Homeowner brochure will be distributed annually during the permit cycle.

Responsible Party:

- ARC Staff will develop and distribute materials to ARC member communities
- Wayne County will assist with material content and coordination when appropriate
- Oakland County will assist with material content and coordination when appropriate
- Washtenaw County will assist with material content and coordination when appropriate
- ARC members listed in Attachment A will assist with material content when appropriate, distribute materials, link to the ARC's website, and promote ARC Facebook posts

Measurable Goal:

ARC Staff, Wayne and Oakland County, and ARC member communities will develop homeowner materials, including a homeowners brochure within 1 year of permit approval to be included in ARC member community new resident welcome packets.

Measures of Assessment:

- Completion of brochure
- Number of materials distributed annually to ARC member communities
- Number of materials distributed to new home owners by ARC member communities
- Number of views on ARC website and Facebook

**BMP Identifier:** 6

**BMP Descriptor:** Develop and promote educational workshops and presentations

Addresses PEP Topic:

A, B, C, D, E, F, G, H, I, J

Target Audience:

Public and businesses

Key Message:

The key message of the workshops and presentations could include the connection of the MS4 to area waterbodies and the potential impacts discharges could have. The importance of pollution prevention and watershed restoration and stewardship. Reporting illicit discharges and improper disposal of materials into the Rouge River Watershed, promoting proper disposal practices, identify and promote facilities for collection or disposal of household hazardous wastes (including travel trailer sanitary wastes, chemicals and motor vehicle fluids). Septic system maintenance and how to recognize system failure and preferred cleaning materials and procedures for car, pavement, and power washing. Proper application and disposal of pesticides, herbicides, and fertilizers and the proper disposal practices for grass clippings, leaf litter and animal waste that may enter the Rouge River. Benefits of green infrastructure and Low Impact Development and methods for managing riparian lands to protect water quality. It may also include educating commercial, industrial, and educational institutional entities likely to contribute pollutants to stormwater runoff.

Delivery Mechanism:

With ARC oversight, Friends of the Rouge (FOTR) and ARC staff will determine the topics, coordinate content, and present 6 workshops during the permit cycle. Workshop topics will vary based on annual education themes and/or needs as determined by the ARC . Workshops and presentations to business associations, chamber of commerce, business organizations, and focus groups could also be included. ARC members may host and participate in these workshops and presentations.

Year/Frequency BMP Implemented:

Six (6) workshops and presentations will be hosted during the permit cycle by ARC members.

Responsible Party:

- ARC staff will plan, coordinate and staff workshops and presentations when appropriate. Promote events on the ARC website and Facebook page
- Wayne County will assist in planning and coordinating and promote workshops and presentations when appropriate
- Oakland County will assist in planning and coordinating and promote workshops and presentations when appropriate

- Washtenaw County will assist in planning and coordinating and promote workshops and presentations when appropriate
- Friends of the Rouge will plan, coordinate, promote and staff workshops and presentations
- ARC members listed in Attachment A will assist in planning and coordinating workshops and presentations when appropriate and promote and/or host workshops and presentations

Measurable Goal:

ARC Staff, Wayne, Oakland and Washtenaw County, and FOTR will conduct six (6) workshops and presentations during the permit cycle; one (1) or more per year; and, at least one (1) per sub-watershed. Each workshop and presentation shall average at least 15 participants. ARC member communities will actively promote the events through various means such as their website calendars and social media and/or host the workshops and presentations. One or more workshops will target businesses.

Measures of Assessment:

- Sign-in sheets documenting number of attendees and communities or type of businesses represented at workshops/presentations.
- Number of materials handed out and documentation of topics presented.
- Results of surveys conducted at the end of workshop and presentation.
- Report of ARC member communities that hosted and promoted workshops/presentations.

**BMP Identifier:** 7

**BMP Descriptor:** Promote and support volunteer activities

Addresses PEP Topic:

A, B, C, D, E, F, G, H, I, J

Target Audience:

Public, businesses and schools

Key Message:

Promoting the importance of volunteer activities in the Rouge River Watershed such as River Day, Rouge Rescue, workdays, water festivals, and green schools programs will encourage public responsibility and stewardship in the Rouge River.

Delivery Mechanism:

The ARC members, Wayne, Oakland and Washtenaw County, FOTR and other partners will promote and implement Rouge River awareness and restoration projects such as Rouge Rescue, River Day, workdays, water festivals and green schools programs through websites, social media, distribution of materials and presentations. In addition, four (4) workdays may be organized and coordinated to implement watershed restoration stewardship activities at new or existing green infrastructure project sites during

the permit cycle. ARC members are encouraged to promote FOTR's Rouge Rescue and workdays that are held throughout the watershed.

Year/Frequency BMP Implemented:

ARC members will promote volunteer activities annually. The ARC may host up to 4 workdays during the permit cycle. Communities are encouraged to promote FOTR events in their communities annually.

Responsible Party:

- ARC staff will assist in planning and coordinating volunteer activities when appropriate and promote activities on the ARC website and Facebook page
- Wayne County will assist in planning and coordinating and promote volunteer activities when appropriate
- Oakland County will assist in planning and coordinating and promote volunteer activities when appropriate
- Washtenaw County will assist in planning and coordinating and promote volunteer activities when appropriate
- Friends of the Rouge will plan, coordinate, promote and staff volunteer activities
- ARC members listed in Attachment A will assist in planning and coordinating volunteer activities when appropriate and promote and/or host volunteer activities

Measurable Goal:

ARC Staff, Wayne County and FOTR will coordinate four (4) work days at GI sites during the permit cycle. ARC member communities will promote volunteer and other watershed events. ARC member communities will host, participate or promote volunteer/watershed events.

Measures of Assessment:

- Number of views on ARC website and Facebook annually
- Sign-in sheets showing number of volunteers attending the various events
- Results of surveys conducted at the end of activities
- Report of ARC member communities that hosted/participated/promoted events

**BMP Identifier:** 8

**BMP Descriptor:** Promotion of and support for volunteer monitoring activities within the Rouge River Watershed

Addresses PEP Topics:

A, B, C, I, J

Target Audience:

Public and businesses

Key Message:

Promote the importance of pollution prevention and watershed restoration and stewardship through volunteer monitoring. This monitoring may include general macroinvertebrates, stoneflies, and frogs and toads, and/or fish. Volunteer monitoring will provide education, build stewardship, and provided valuable data for the protection and restoration of the Rouge River.

Delivery Mechanism:

The ARC and Oakland and Washtenaw County will promote and support Wayne County and the Friends of the Rouge to implement a watershed-wide volunteer monitoring program through websites, social media, distribution of materials, and presentations. ARC members will actively promote public and business participation and lend support to FOTR as appropriate. ARC members will host monitoring activities at their facilities when appropriate.

Year/Frequency BMP Implemented:

Annually with one (1) Winter Stonefly Search in the winter and one (1) Bug Hunt in the spring or other like programs, and two (2) other volunteer monitoring training exercises and/or workshops. This monitoring may occur on a rotating basis.

Responsible Party:

- ARC staff will assist with planning and coordinating volunteer monitoring activities and promote on the ARC website and Facebook page
- Wayne County will plan, coordinate, promote and staff monitoring activities
- Oakland County will assist in planning and coordinating and promote monitoring activities when appropriate
- Washtenaw County will assist in planning and coordinating and promote monitoring activities when appropriate
- Friends of the Rouge will plan, coordinate, promote, and staff monitoring activities
- ARC members listed in Attachment A will assist in planning and coordinating monitoring activities when appropriate and promote and/or host monitoring activities

Measurable Goal:

FOTR will annually conduct one (1) Winter Stonefly Search, one (1) Bug Hunt and two (2) other volunteer monitoring training exercises. ARC member communities will host, participate or promote volunteer monitoring/training exercises.

Measures of Assessment:

- Number of views on ARC website and Facebook annually
- Sign-in sheets showing number of volunteers attending the various events
- Results of surveys conducted at the end of activities
- Report showing ARC member communities that hosted/participated/promoted events



**BMP Identifier:** 9

**BMP Descriptor:** Rouge River Watershed signage

Addresses PEP Topic:

A, B, F, I

Target Audience:

Public

Key Message:

Watershed signage will continue to be made available to ARC members including *River/Road Crossing* signs, *Don't Feed the Geese/Waterfowl* signs, and *Grow Zone* signs. ARC Staff will create one new sign and/or sticker for community use during the permit cycle regarding disposal practices of animal waste or other pollution prevention topic. This activity helps to educate and increase public awareness about the interconnectedness of the watershed and the storm sewer system.

Delivery Mechanism:

Passing vehicles, people biking, walking or running will view the signs and stickers when in the watershed.

Year/Frequency BMP Implemented:

Signage will be offered annually. One new sign and/or sticker or other item will be created during the permit cycle and will be provided to ARC members.

Responsible Party:

- ARC Staff will develop new sign/sticker or other item. Survey signage in watershed, create map and recommendations
- Wayne County will assist in development of new sign/sticker or other item and survey of watershed when appropriate
- Oakland County will assist in development of new sign/sticker or other item and survey of watershed when appropriate
- ARC members listed in Attachment A will assist in development of new sign/sticker or other item and survey of watershed when appropriate. Begin implementing high priority maintenance needs and new signage where appropriate

Measurable Goal:

ARC Staff will develop at least one (1) new sign or sticker during the permit cycle. During 2017 and 2018 ARC Staff, with assistance from Wayne County, Oakland County and ARC member communities, will survey the watershed to 1) document current signage to determine if maintenance is needed, and 2) document where future signage placement would be beneficial. A map will be created during the first permit cycle to document type of sign, location, and condition of signs in the watershed. During the first

permit cycle, ARC Staff, Wayne County, Oakland County, and ARC member communities will implement maintenance needs and/or new signage at high-priority locations, consistent with the findings of the survey.

Measures of Assessment:

- Completion of new sticker/sign or other item
- Number of signs/stickers or other item distributed annually
- Survey results, map and recommendations
- Number of signs maintained and new signage installed

## **SECTION D – PROCEDURE FOR EVALUATING AND DETERMINING EFFECTIVENESS**

The ARC will conduct a public awareness survey during the permit cycle and compare it to the previous survey results to evaluate changes in public awareness/behavior. After comparing the results from the surveys, the ARC PIE Committee will determine if any modifications should be made to the PEP to address ineffective implementation.

In addition to analyzing the survey results, the ARC will use the evaluations that are done at all workshops, presentations, workdays, water festivals and other activities hosted by ARC member communities and partners. This will allow the ARC to make any necessary adjustments to the information presented at the ARC supported workshops and presentations during the permit cycle.

Lastly, continued participation in regional partnership activities will allow the ARC Staff to make recommendations if these partnerships provide avenues to assist with implementing and improving the PEP.

## STORM WATER DISCHARGE PERMIT APPLICATION

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

PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal & Measure of Assessment
A B C D E F G H I J	1	Distribute pollution prevention literature on various topics through brochures, educational materials and other media	ARC member communities, counties and cooperative partners	General public, businesses	Educating on public connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing.	Brochures, educational materials and electronic media	Ongoing	Current and new items annually	ARC Staff Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Create at least 2 brochures/materials during permit cycle including one to educate commercial/industrial/educational &amp; institutional entities</li> <li>Develop at least 24 Facebook posts</li> <li>Materials available at ARC member facilities</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Number of materials distributed/topic/location/event name</li> <li>Number of posts/views on ARC Facebook</li> <li>Viewer numbers from electronic media when used</li> </ul>
A B C D E F G H I J	2	Coordinate and distribute community articles and ad graphics on pollution prevention and watershed restoration and stewardship	ARC member communities, counties and cooperative partners	General public, businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing and educate commercial, industrial and educational institutional	Articles and ad graphics	Ongoing	Current items annually; five new articles and/or ad graphics during the permit cycle	ARC Staff Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Coordinate/distribute existing articles/ad graphics</li> <li>Develop 1 new article/1 new ad graphic per year (total of 5 during permit cycle)</li> <li>Increase in ARC website traffic and Facebook views</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>List of articles/ad graphics with title, topic and date</li> <li>List of articles/ad graphics promoted on ARC website/Facebook</li> <li>Number of views on ARC website/Facebook</li> </ul>

PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal & Measure of Assessment
					entities about pollution prevention.					
A B C D E F G H I	3	Provide static displays and posters on pollution prevention and watershed restoration and stewardship	ARC member communities, counties and cooperative partners	General public	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing.	Static displays and posters in each subwatershed	Current displays – ongoing; new posters in 2016 and new displays during the permit cycle	Current displays annually; up to 4 new posters in 2016 and then annually; new static displays annually upon completion	ARC Staff Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Distribute 4 seasonal posters, post &amp; rotate seasonally at least 3 out of 5 years during permit cycle.</li> <li>Update/create at least 3 static displays and used at 3-4 ARC member community events per year during the permit cycle with a minimum of 2 events in each of the 7 subwatersheds during the permit cycle.</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Report of display/date/location and title of events where displays were used</li> <li>Number of posters distributed and location</li> <li>Number of static displays created annually</li> </ul>
A B C E G J	4	Promote environmental hotlines to educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4	ARC member communities, Wayne County, Oakland County, Washtenaw County, State of Michigan	General public, municipal employees and businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, public responsibility and stewardship in the Rouge River watershed, proper disposal of pesticides, herbicides and fertilizers, promote HHHW including trailer, motor vehicle and chemical waste, educate commercial, industrial and educational institutional entities about pollution prevention.	Websites, social media, brochures, electronic media, at events and trainings	Ongoing	Annually	ARC Staff Wayne County Oakland County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Distribute materials annually with hotline referenced</li> <li>Promote on ARC and ARC member community website and Facebook</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Number of materials distributed annually</li> <li>Number of views on ARC website and Facebook</li> </ul>
A B C D E F G H I	5	Development of “homeowner s” materials to promote the importance of pollution prevention and watershed	ARC member communities, counties and cooperative partners	General public	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and	Brochure	During the permit cycle	Annually	ARC Staff Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Develop homeowner materials within 1 year of permit approval</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Completion of brochure</li> <li>Number of materials distributed annually</li> <li>Number of materials distributed to new home</li> </ul>

PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal & Measure of Assessment
		restoration and stewardship			animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, and cleaning materials and proper car, pavement and power washing					owners by ARC member communities <ul style="list-style-type: none"> <li>Number of views on ARC website and Facebook</li> </ul>
A B C D E F G H I J	6	Develop and promote educational workshops and presentations	ARC member communities, Friends of the Rouge and counties and cooperative partners	General public, businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing and educate commercial, industrial and educational institutional entities about pollution prevention.	Workshops and presentations	Ongoing	6 during the permit cycle	ARC Staff Friends of the Rouge Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Conduct six workshops/ presentations during the permit cycle, 1 or more per year and at least 1 per sub-watershed.</li> <li>Each event will average at least 15 participants.</li> <li>ARC member communities will promote and/or host events</li> <li>One or more will target businesses</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Sign-in sheets with number of attendees and type</li> <li>Number and topics of materials handed out and presented</li> <li>Survey results</li> <li>Report of ARC member communities promoting/hosting events</li> </ul>
A B C D E F G H I J	7	Promote and support volunteer activities	ARC member communities, Wayne County, Oakland County, Washtenaw County, Friends of the Rouge, Cranbrook Institute of Science, University of Michigan - Dearborn	General public, businesses and schools	Promoting the importance of volunteer activities in the Rouge River Watershed such as River Day, Rouge Rescue, workdays, water festivals and green schools programs will encourage public responsibility and stewardship in the Rouge River.	Website/social media, materials distributed and presentations and workdays	Ongoing	Promotion of activities will be annually and up to 4 workdays may be hosted during the permit cycle	ARC Staff Friends of the Rouge Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Coordinate 4 work days during permit cycle</li> <li>ARC member communities will promote, participate or host volunteer and other watershed events</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Number of views on ARC website and Facebook annually</li> <li>Sign-in sheets documenting volunteer attendance</li> <li>Survey results</li> <li>Report of ARC member communities that hosted, participated or promoted events</li> </ul>

PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal & Measure of Assessment
A B C I J	8	Promotion and support volunteer monitoring activities within the Rouge River Watershed	ARC member communities, Wayne County, Oakland County, Washtenaw County, Friends of the Rouge	General public and businesses	Promote the importance of pollution prevention and watershed restoration and stewardship through volunteer monitoring. This monitoring may include general macroinvertebrates, stoneflies, and frogs and toads and/or fish. Volunteer monitoring will provide education, build stewardship and provided valuable data for the protection and restoration of the Rouge River.	Website/social media, materials distributed and presentations	Ongoing	Minimum of once during the permit cycle with 1 Winter Stonefly Search and 1 Spring Bug Hunt or other like programs, 1 Fall Bug Hunt and 2 other volunteer monitoring training exercises and/or workshops	ARC Staff Friends of the Rouge Wayne County Oakland County Washtenaw County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Conduct 1 winter stonefly search, 1 bug hunt and 2 other volunteer monitoring training exercises annually</li> <li>ARC member communities will promote, participate or host volunteer events</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Number of views on ARC website and Facebook</li> <li>Sign-in sheets showing number of volunteers</li> <li>Survey results</li> <li>Report of ARC member communities that hosted, participated or promoted events</li> </ul>
A B F I	9	Rouge River Watershed signage	ARC member communities, Wayne County, Oakland County, and Washtenaw County	General public	River/Road Crossing signs, Don't Feed the Geese/Waterfowl signs, and Grow Zone signs and disposal practices of animal waste or other pollution prevention topic. This activity helps to educate and increase public awareness about the interconnectedness of the watershed and the storm sewer system.	Signs and sticker	Ongoing and one new sign and/or bumper sticker during the permit cycle	Annually	ARC Staff Wayne County Oakland County ARC members listed in Attachment A	<u>Goals:</u> <ul style="list-style-type: none"> <li>Develop at least 1 new sign or sticker during permit cycle</li> <li>During first 2 years survey watershed signage for maintenance and future sign needs</li> <li>Create map during permit cycle documenting survey results</li> <li>Implement maintenance and/or new signage at high-priority locations during the first permit cycle</li> </ul> <u>Assessment:</u> <ul style="list-style-type: none"> <li>Complete at least 1 new sign/sticker or other item</li> <li>Number of signs/stickers or other items distributed annually</li> <li>Survey results, map and recommendations</li> <li>Number of signs maintained and new signage installed</li> </ul>

# ATTACHMENT A

## Responsible Communities and Partners

This Collaborative PEP is submitted on behalf of the below listed MS4 permit holders with support from the ARC Staff and its cooperating partners that participate in the Storm Water Education Program facilitated by the Alliance of Rouge Communities (ARC).

RESPONSIBLE PARTY	SPECIFIC BMP IDENTIFIER
<b>ARC Staff (under contract to the ARC)</b>	1, 2, 3, 4, 5, 6, 7, 8, 9
<b>Friends of the Rouge (under contract to the ARC)</b>	6, 7, 8
<b>Communities</b>	
Beverly Hills, Village of	1, 2, 3, 4, 5, 6, 7, 8, 9
Bingham Farms, Village of	1, 2, 3, 4, 5, 6, 7, 8, 9
Birmingham	1, 2, 3, 4, 5, 6, 7, 8, 9
Bloomfield Hills	1, 2, 3, 4, 5, 6, 7, 8, 9
Bloomfield Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
Canton Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
Dearborn Heights	1, 2, 3, 4, 5, 6, 7, 8, 9
Farmington	1, 2, 3, 4, 5, 6, 7, 8, 9
Farmington Hills	1, 2, 3, 4, 5, 6, 7, 8, 9
Franklin, Village of	1, 2, 3, 4, 5, 6, 7, 8, 9
Garden City	1, 2, 3, 4, 5, 6, 7, 8, 9
Inkster	1, 2, 3, 4, 5, 6, 7, 8, 9
Lathrup Village	1, 2, 3, 4, 5, 6, 7, 8, 9
Livonia	1, 2, 3, 4, 5, 6, 7, 8, 9
Melvindale	1, 2, 3, 4, 5, 6, 7, 8, 9
Northville	1, 2, 3, 4, 5, 6, 7, 8, 9
Northville Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
Novi	1, 2, 3, 4, 5, 6, 7, 8, 9
Oak Park	1, 2, 3, 4, 5, 6, 7, 8, 9
Plymouth	1, 2, 3, 4, 5, 6, 7, 8, 9
Plymouth Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
Redford Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
Southfield	1, 2, 3, 4, 5, 6, 7, 8, 9
Troy	1, 2, 3, 4, 5, 6, 7, 8, 9
Walled Lake	1, 2, 3, 4, 5, 6, 7, 8, 9
Wayne	1, 2, 3, 4, 5, 6, 7, 8, 9
Westland	1, 2, 3, 4, 5, 6, 7, 8, 9
West Bloomfield Twp.	1, 2, 3, 4, 5, 6, 7, 8, 9
<b>Counties</b>	
Wayne County	1, 2, 3, 4, 5, 6, 7, 8, 9
Oakland County*	1, 2, 3, 4, 5, 6, 7, 8, 9
Washtenaw County*	1, 2, 3, 5, 6, 7, 8
<b>Schools</b>	
Henry Ford College	1, 2, 3, 4, 5, 6, 7, 8, 9

\*Participating but this plan is not part of their pending permit application.

## **ATTACHMENT 3**

### **ALLIANCE OF DOWNRIVER WATERSHEDS COLLABORATIVE PUBLIC EDUCATION PROGRAM (PEP)**



*Notations/Instructions highlighted in yellow. Please remove highlighting OR notation where appropriate prior to finalizing.*

*The table of contents is automatically generated and must be updated (look in the Microsoft Word References Tab, select "Update Table"). Headings are specifically formatted (Headings styles 1, 2, or 3) to auto-populate the table of contents.*

*Previous PEPs referenced the actual permit for the regulatory language. This PEP references the Stormwater Discharge Permit Application (shown in red). These citations are meant to remain.*

# **STORMWATER DISCHARGE PERMIT APPLICATION COLLABORATIVE PUBLIC EDUCATION PLAN**



## **For the Alliance of Downriver Watersheds MS4s**

**Effective upon NPDES Permit issuance for a period of five (5) years.**

Allen Park	Inkster	Taylor
Belleville	Lincoln Park	Van Buren Township
	Melvindale	Wayne County
Dearborn Heights	Riverview	Westland
Ecorse	Rockwood	Woodhaven
Flat Rock	Romulus	Woodhaven-Brownstown
Gibraltar	Southgate	School District
Grosse Ile Township	Sumpter Township	Wyandotte

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Exhibit A – Table of PEP Tasks by Topic and Activity

## I. INTRODUCTION

### Purpose of Public Education Plan

In accordance with the permit requirements for Federal Phase II Storm Water Regulations, this Public Education Plan (PEP) was prepared to instill within the residents, businesses, and officials of the communities in regulated watersheds a heightened level of awareness of the connection between individual actions and the health of their watershed and water resources. The objective of this plan is to promote, publicize, and facilitate watershed education for the purpose of encouraging the public to reduce the discharge of pollutants in storm water.

### Federal Phase II Storm Water Regulations

A 1987 amendment to the Federal Clean Water Act required the U.S. Environmental Protection Agency (EPA) to develop regulations setting forth National Pollutant Discharge Elimination System (NPDES) permit application requirements for storm water discharges from municipal separate storm sewer systems (MS4s). An MS4 is a drainage system that discharges to waters of the State and is owned or operated by a federal, state, county, city, village, township, district, association or other public body of government. Such drainage systems may include roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels.

Phase I of the NPDES regulations went into effect in 1990, which regulated discharges from communities with populations greater than 100,000. The rules for Phase II of the NPDES regulations were issued in 1999, requiring storm water discharge permits for communities with populations under 100,000 that have MS4s in “urbanized areas” as defined by the U.S. Bureau of the Census.

In Michigan the Michigan Department of Environmental Quality (MDEQ) is administering the federal Phase II permitting process.

This section can be updated to incorporate the current permitting program for Phase II as known.

### Required Public Education Plan Elements

The PEP program is designed to promote, publicize, and facilitate education for the purpose of encouraging the public to reduce the discharge of pollutants in stormwater to the maximum extent practicable. The plan describes current and proposed best management practices (BMPs) to meet the minimum control measure requirements in a Public Education Plan (PEP).

This section can be updated to incorporate the current permitting program for Phase II.

The PEP may involve watershed or regional partners collaborating to combine or coordinate existing programs for public stewardship of water resources. Permittees shall indicate if they are or will be working collaboratively with watershed or regional partners on any or all activities in the PEP during the permit cycle, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

The PEP is designed to implement a sufficient amount of educational activities to ensure that the targeted audiences are reached with the appropriate messages to the maximum extent practicable. The permittee shall identify applicable topics from the topics listed below, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

Each applicable topic shall be prioritized based on a procedure for assessing high-priority community-wide issues and targeted issues to reduce pollutants in stormwater runoff, ([Stormwater Discharge Permit Application, Public Education Program \(PEP\) p. 3](#)).

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

For all applicable topics, the PEP shall identify:

- 1. Target audience.
- 2. Key message.
- 3. Delivery mechanism.
- 4. Year and frequency the BMP will be implemented.
- 5. Responsible party.

**A measurable goal with a measure of assessment shall be included for each BMP** and as appropriate, a schedule for implementation (months and years), including interim milestones and the frequency of the BMP, ([Stormwater Discharge Permit Application, Public Education Program \(PEP\) p. 3](#)).

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, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

## II. COLLABORATION OF WATERSHED PARTNERS

The permittees identified below have elected to meet the PEP requirements by working with each other and other watershed and regional partners to develop, submit, and implement a PEP that includes both collaborative and individual BMPs:

Allen Park	Rockwood
Belleville	Romulus
Dearborn Heights	Southgate
Ecorse	Sumpter Township
Flat Rock	Taylor
Gibraltar	Van Buren Township
Grosse Ile Township	Wayne County
Inkster	Westland
Lincoln Park	Woodhaven
Melvindale	Woodhaven-Brownstown School District
Riverview	Wyandotte

These permittees are members of the Alliance of Downriver Watersheds (ADW). The ADW is a permanent watershed organization in Southeast Michigan, formed under Public Act 517 of the Public Laws of 2004. Its membership consists of 22 public agencies in the Ecorse Creek, Combined Downriver, and Lower Huron River Watersheds within Wayne and Monroe Counties.

The ADW was formed in 2007 to build on its members' ongoing efforts to work together in managing the area's water resources. The ADW is relatively urban in nature consisting of 203.3 square miles and more than 450,000 people (2010 census). Major watercourses within the ADW that drain to the Detroit River and Lake Erie include Ecorse Creek, Sexton Kilfoil Drain, Frank and Poet Drain, Blakely Drain, Brownstown Creek, Huron River, Silver Creek and Woods Creek.

The consortium of agencies that make up the ADW meet on a regular basis and work together to cooperatively manage the rivers, lakes and streams within the watershed. Examples of ADW efforts include long-term water quality monitoring, stormwater permit compliance and reporting to the State of Michigan, submittal of grant applications for water quality improvements, and public education on items such as rain barrel use, phosphorus fertilizer, and proper pet waste management.

The consortium is governed by adopted bylaws that set forth its composition, duties and responsibilities. The member agencies assess themselves annually or bi-annually based on population and land areas within the watershed to establish an operating budget that they use to work toward water quality improvements.

Member agencies designate a person to represent them and vote at ADW meetings. Members can be a township, city, village, county, public school district, public college or university, or any other local or regional public agency that meets the following criteria:

- Has been issued a state permit for a water discharge into waterways within the three ADW watersheds
- Whose legal jurisdiction incorporates areas wholly or partially within the watershed boundaries
- Whose governing body by resolution, voluntarily adopts the ADW Bylaws

The ADW also includes Cooperating Partners, who are non-profit organizations, businesses, residents, etc., who provide their time, services, expertise and resources toward the common goal of protecting and restoring the watershed. Cooperating Partners are recognized as non-voting members.

### III. PROCEDURE FOR IDENTIFYING AND PRIORITIZING APPLICABLE PEP TOPICS

The public education topics A-K listed above in Section II were identified in the permit application. These topics are referred to by their corresponding letter in the Public Education BMPs below as well as on the PEP table.

#### Watershed-Wide Priority Topics

The procedure for identifying high-priority watershed-wide or targeted issues suited for collaborative public education efforts includes:

- A review of Watershed Management Plans for the Ecorse Creek, Combined Downriver and Lower Huron River watersheds including any established Total Maximum Daily Loads for waterbodies in each area.
- A review of data from on-going Wayne County, Huron River Watershed Council and ADW Stream Monitoring and Water Quality Monitoring Programs.
- A review of public opinion surveys on watershed issues and water quality concerns conducted by the Southeast Michigan Council of Governments (SEMCOG) in 2004 and the ADW in 2016.
- Topics identified by permittees at quarterly group meetings, in periodic subcommittee meetings and in permittee opinion surveys prior to and throughout the permit cycle.
- Discussion and input from the permitted entities regarding individual jurisdictional versus watershed-wide needs, potential public outreach opportunities, and existing and future programs.

Any additional procedural steps for identifying high-priority or targeted issues by individual permittees include:

Individual permittees will want to include any additional steps they may have taken to review and identify individual priority topics as part of the procedure here.

The ADW's high priority community-wide issues and targeted issues for collaborative efforts are:

- High yet stable levels of phosphorus in stormwater runoff from most monitored streams indicating broad sources;
- High and increasing *E. coli* counts in most monitored streams;
- High conductivity levels (indicating potential dissolved contaminants) in most monitored streams;
- Moderate to high flashy flows in monitored streams indicating the need for infiltration and storage across the watersheds;

- A need for greater protection of riparian areas to reduce erosion and slow and treat stormwater runoff; and
- Target audience research and public survey results indicating a need for continued education about stormwater pollution and specific residential responsibilities.

The high priority community-wide issues and targeted issues were used to **prioritize** topics A-K for **collaborative efforts**. Existing and Proposed Collaborative Public Education BMPs include in some way all topics, but the emphasis will be on Collaborative High Priority Topics. Individual permittees may have additional or other priorities for individual education efforts as shown below and may address these in Existing and Proposed Individual Public Education BMPs (Section V.):

Individual permittees may rank individual priority topics high/medium/low in the table below or prioritize topics specific to their MS4.

Collaborative Priority Level	Permittee Priority	Topic Letter	Topic Description
High		A	Public responsibility and stewardship in the watershed.
High		B	The connection of the MS4 to area waterbodies and the potential impacts of discharges.
High		C	Illicit discharges and public reporting of illicit discharges and improper disposal of materials.
Med		D	Promote preferred cleaning materials and procedures for car, pavement, and power washing.
High		E	Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
High		F	Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4
High		G	Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
Low		H	Proper septic system care and maintenance, and how to recognize system failure.
Med		I	Benefits of green infrastructure and Low Impact Development.
Med		J	Promote methods for managing riparian lands to protect water quality.
Medium		K	Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.

## IV. EXISTING AND PROPOSED COLLABORATIVE PUBLIC EDUCATION BMPs

To address each of the PEP requirements, the permittee will, individually or collaboratively, implement the following specific activities, which include a description, timeline, evaluation component, and the required topic that the activity meets. Activities will be completed with the involvement of responsible parties as noted in each activity description, and/or in cooperation with identified permitted communities.

DEQ reads this as stating that unless otherwise specified where “permittee” is included in the responsible party all permittees will implement the activity. Please note that some collaborative activities below also require individual permittees to do their part, which may include distributing print and digital materials, providing links on websites, promoting Wayne County’s household hazardous waste collections and environmental hotlines, promoting stream monitoring, installing and maintaining watershed signs, etc. It is expected that permittees will track and report these individual efforts toward collaborative ADW activities in their own annual report to DEQ. The ADW will report on group efforts only.

Time lines for implementation of proposed activities extend from permit issuance (year 1) when implementation of the PEP begins for a period of five (5) years.

### Activity #1: Produce and distribute a printed watershed community calendar and social media-driven photo contest

<b>Delivery Mechanism:</b>	Coordinated by the ADW, permittees will participate in the bulk printing and distribution of a Watershed Community Calendar to residents. The calendar will include a social media-driven photo contest where residents will be encouraged to post and tag photos related to stormwater pollution-reducing behaviors on social media.
<b>Key Messages:</b>	Calendars typically feature a different tip each month for increasing public awareness of watershed issues and improving personal actions affecting the health of their watershed. Topics/messages are likely to include key messages associated with A-J of the PEP topics that are suited for homeowners, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; green infrastructure and LID; and illegal dumping in storm drains.
<b>Target Audience:</b>	Residents.
<b>Year/Frequency:</b>	Biannually (even calendar years).
<b>Goal:</b>	During the permit cycle, the ADW will collaboratively produce a biannual print calendar in even calendar years that permittees will distribute to residents. To promote a calendar-related public photo contest during even calendar years, the ADW will also produce and permittees will distribute monthly social media posts/digital ads/content. The calendar and photo contest will be posted to the ADW website and permittees will provide links from their websites to the ADW website.
<b>Assessment:</b>	Number of calendars distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of photo contest participants.



**Responsible Parties:** Permittees produce calendars and coordinate and run the photo contest collaboratively through the ADW. Permittees distribute calendars individually and help promote the photo contest within their communities.

**Topics Addressed:** A-J

### **Activity #2: Organize and run focused-topic pollution prevention campaigns**

**Delivery Mechanism:** The ADW will organize and run print or digital pollution prevention pledge campaigns that are focused on a single message or topic and that seek commitment from residents for positive action.

**Key Messages:** Campaigns will feature a different topic each year for increasing public awareness of watershed issues and improving personal actions affecting the health of their watershed. Topics/messages are likely to include key messages associated with A-J of the PEP topics that are suited for homeowners, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; green infrastructure and LID; and illegal dumping in storm drains.

**Target Audience:** Residents.

**Year/Frequency:** Biannually (odd calendar years).

**Goal:** Biannually, the ADW will collaboratively host one print or digital single-topic pledge campaign. The ADW and permittees will distribute print and digital campaign materials that include a flyer, an ad graphic, and at least eight social media posts through local venues and customer service locations, newsletters and/or other publications, social media and websites.

**Assessment:** Number of print campaign materials distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of pledges collected.

**Responsible Parties:** ADW to coordinate and run the campaign as a collaborative effort. Permittees to help promote the campaign individually within their communities.

**Topics Addressed:** A-J

### **Activity #3: Provide displays for community venues and outreach activities at events**

**Delivery Mechanism:** The ADW will produce and make available a shared pop-up display and educational posters for use at community venues, regional fairs and events, and community meetings and events. The ADW will host the pop-up display at regional fairs/events with a water, green living or a sustainability focus. Individually, permittees will promote and support stormwater education by displaying posters or the pop-up display at their locations and other key public venues in their community such as municipal libraries, city/township halls, or schools or at community meetings, fairs and/or events.

**Key Messages:** Public awareness of watershed issues and improving personal actions affecting the health of the watershed also including key messages associated with A-K of the PEP topics, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; benefits of native plants; and illegal dumping in storm drains.

**Target Audience:** Residents, visitors, community leaders.

<b>Year/Frequency:</b>	2-3 events annually for the ADW collaboratively. Permittee placement of ADW educational posters or pop-up display in at least 1 permittee location or public venue or meeting or event in the permittee's community per year.
<b>Goal:</b>	The ADW will produce/provide a pop-up display for ADW and permittee use and a set of educational posters for each permittee during the permit cycle. The ADW will collaboratively host the pop-up display at two regional events annually. Permittees will display posters or host the pop-up display in at least one location or at one community event annually.
<b>Assessment:</b>	Name, date and location of event where the ADW hosted the pop-up display; Permittees will also report the location, date and name of meeting/event (if applicable) where they placed posters or hosted the pop-up display in their permittee locations, public venues, meetings/events.
<b>Responsible Parties:</b>	ADW and permittees.
<b>Topics Addressed:</b>	A-J

#### **Activity #4: Support green schools program with incentives to qualifying ADW schools**

<b>Delivery Mechanism:</b>	The ADW supports the Michigan Green Schools Program by providing incentives and recognition to participating schools in the ADW area who strive to earn and maintain Green School status. Past incentives have included trees for planting at school locations and educational materials featuring their stormwater benefits. More recently the ADW provided professionally run, curriculum-based in-school watershed workshops and educational signage for five schools earning the Green School designation. The ADW will continue to offer these incentives and educational opportunities to Green Schools annually throughout the permit cycle.
<b>Key Message:</b>	Watershed awareness and stewardship.
<b>Target Audience:</b>	Wayne county elementary, middle and high school students and teachers
<b>Year/Frequency:</b>	Annually.
<b>Goal:</b>	The ADW will engage at least three Green Schools in the ADW area each year during the permit cycle in incentives and educational opportunities.
<b>Assessment:</b>	ADW will report a list of schools with number of students participating in tree plantings, watershed workshops or other ADW incentives and educational opportunities; List of schools displaying ADW-provided educational signage or distributing ADW materials; Number of schools including water-related activities in their Green Schools applications.
<b>Responsible Parties:</b>	Wayne County (Green Schools program coordinator) and ADW
<b>Topics Addressed:</b>	A, B, I

#### **Activity #5: Support and promote volunteer stream and water quality monitoring**

<b>Delivery Mechanism:</b>	Permittees will support and assist in promoting the volunteer stream and water quality monitoring programs coordinated by the Huron River Watershed Council (HRWC) and others to their residents. The ADW will produce publicity materials including flyers and press releases, seek earned media placement and run digital or print advertising in watershed media outlets. The ADW will also seek help
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	from regional cooperating partners to distribute these materials. Permittees will help promote these programs by distributing materials individually within their communities, providing literature and posting volunteer event opportunities at customer service locations, on web sites, on social media outlets and in newsletters. The ADW will collect and provide information ongoing to permittees on volunteer opportunities prior to events.
<b>Key Messages:</b>	Volunteer monitoring for water quality is conducted spring through fall at stream sites in the ADW waterbodies. Additionally, watershed volunteers and students assess habitat, water quality, and aquatic life via benthic macroinvertebrate monitoring. These programs strive to educate participating watershed residents about their connection to the river and the current conditions. A central goal of the programs is to inspire people to take actions that lead to better river protection at home and in their communities.
<b>Target Audience:</b>	Residents, teachers, students.
<b>Year/Frequency:</b>	Stream monitoring occurs annually at unique events in winter, spring, fall. Water quality monitoring is ongoing spring through fall, with a training in the spring.
<b>Goal:</b>	The ADW and permittees will promote three one-day volunteer macro-invertebrate monitoring events in the Huron River watershed and a seasonal volunteer chemistry and flow monitoring program in the Huron River and ADW area that are coordinated by the Huron River Watershed Council.
<b>Assessment:</b>	Compilation of all promotional efforts by the ADW; Number of people participating in events as recorded by HRWC; Resulting stewardship actions taken as reported by participants through event surveys conducted by HRWC; Permittees will also report individual efforts to distribute promotional event materials.
<b>Responsible Parties:</b>	Permittees, ADW, HRWC.
<b>Topics Addressed:</b>	A in particular, but also B-J

#### **Activity #6: Stream and river crossing road signs**

<b>Description:</b>	Through an ADW program, permittees have previously installed 80 stream crossing and watershed signs along roads where creeks or streams cross as well as at locations near watershed boundaries. Permittees will maintain these existing signs and the ADW will review and promote the placement of additional signs in areas where a need for signage has been identified and not met, coordinating or facilitating sign production for members.
<b>Target Audience:</b>	Visitors, residents.
<b>Year/Frequency:</b>	Ongoing.
<b>Goal:</b>	The ADW has recently completed a baseline survey and map inventory of existing stream crossing and watershed signs documenting location, type and condition. Based on survey results the ADW will advise permittees regarding maintenance and replacement needs and will recommend additional sign locations to increase visibility and public recognition. The ADW will facilitate the production of replacement signs and at least 5 new signs during the permit cycle. Permittees will install and maintain signage.
<b>Assessment:</b>	Survey results, map inventory and recommendations;

Number of new and replacement signs produced by the ADW;  
Permittees will report installation and maintenance activities.

**Responsible Parties:** ADW and local community officials, permittees.

**Topics Addressed:** A

#### **Activity #7: Participate in regional partnership activities**

**Delivery Mechanism:** The ADW and permittees will seek to participate and collaborate with regional partners such as SEMCOG, the Alliance of Rouge Communities, Great Lakes Commission, Friends of the Detroit River, Detroit International Wildlife Refuge and others in activities that further public education on watershed awareness and stormwater issues. The ADW will attend regional partner meetings and report potential opportunities to ADW members.

**Key Messages:** Collaborative efforts are effective at reaching a greater number of target audiences with persuasive messaging that works.

**Target Audience:** Stakeholders of partner organizations.

**Year/Frequency:** 3-4 meetings annually.

**Goal:** The ADW collaboratively will identify opportunities to build upon and improve collaborative public education efforts by seeking out and attending at least three meetings annually with regional groups working on watershed awareness and stormwater issues.

**Assessment:** ADW provided list of meetings with date, location, meeting topic and participating groups and any resulting opportunities identified and reported to permittees.

**Responsible Parties:** ADW and individual permittees.

**Topics Addressed:** A-K

#### **Activity #8: Promote county-wide complaint tracking and response system**

**Delivery Mechanism:** Permittees will educate the public on illicit discharges and work with Wayne County to publicize county-wide public reporting and response system for illicit discharges or improper disposal of materials into local storm drain systems. A 24- Hour Environmental Hotline is in place and administered by the Wayne County Department of Public Services. The County promotes the use of the 24- Hour Environmental Hotline on County web sites. Permittee efforts will include providing public information and promoting the Hotline at their customer service locations, on web sites and social media outlets and in newsletters.

**Key Messages:** Prevention and reporting of illicit discharges and/or improper disposal of materials into MS4s.

**Target Audience:** Residents, visitors, commercial and industrial businesses, local government officials and employees.

**Year/Frequency:** Ongoing promotional efforts.

**Goal:** The ADW and permittees will annually distribute materials with the hotline number referenced and will promote the hotline on the ADW and permittee websites and social media outlets or newsletters.

**Assessment:** Number of materials distributed annually with hotline number referenced reported by ADW for collaborative efforts and reported by permittees for permittee efforts.

**Responsible Parties:** -Number of views on ADW website and social media reported by ADW  
ADW, Wayne County, permittees.  
**Topics Addressed:** B, C, K

#### **Activity #9: Promote water resource protection workshops**

**Delivery Mechanism:** The permittees will promote regional educational workshops and programs for residential, business and municipal target audiences that are organized through agencies such as Wayne County, MSU Extension, SEMCOG, the Michigan Water & Environment Association, the Natural Shorelines Partnership, the Friends of the Detroit River, the Alliance of Rouge Communities, Friends of the Rouge and others. Permittee efforts will include providing public information and promoting workshops at their customer service locations, on web sites and social media outlets and in newsletters.

**Key Messages:** Programs may include the following: Watershed Management Short Course, Master Rain Gardener and Master Composter program, the Michigan Water Stewards program, watershed-friendly golf course management workshop, illicit discharge and connections elimination workshop, road salt BMP/de-icing alternatives workshop, land use/storm water planning workshops, and riparian land management workshops.

**Target Audience:** Residents, government officials and employees, construction contractors, and developers.

**Year/Frequency:** Throughout the permit cycle as workshop dates are established and need for promotional assistance are identified by others.

**Goal:** The ADW and permittees will annually distribute information and promotional materials for at least one regional educational workshop/program through customer service locations websites, social media outlets and newsletters.

**Assessment:** Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts;  
Number of views on ADW website and social media reported by ADW.

**Responsible Parties:** Permittees will promote workshop events as developed by outside agencies.  
**Topics Addressed:** K in particular, but also A-J

#### **Activity #10: Promote county household hazardous waste reduction program**

**Delivery Mechanism:** Permittees will work with Wayne County to publicize residential disposal options for flammable, poisonous, toxic and corrosive materials through community collection events, and informational materials for the public that promote the collection events and proper disposal of household hazardous waste and recycling. Permittee efforts will include providing public information and promoting collection events and information at their customer service locations, on web sites and social media outlets and in newsletters.

**Key Messages:** The program seeks to address the environmental (including water quality) and public health effects resulting from improper handling and disposal of household hazardous waste, and is committed to reducing the use of home toxics and keeping citizens informed about the choices and responsibilities associated with purchasing, handling and disposing of toxic substances.

<b>Target Audience:</b>	Wayne County residents.
<b>Year/Frequency:</b>	Annually. HHW collections are typically held by the Wayne County Department of Public Services 4 times each year in different communities.
<b>Goal:</b>	The ADW and permittees will annually distribute information and promotional materials for all HHW collections scheduled by Wayne County through customer service locations websites, social media outlets and newsletters.
<b>Assessment:</b>	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.
<b>Responsible Parties:</b>	Resource Recovery Guide is produced by Wayne County. Events and informational materials are promoted by Wayne County and permittees.
<b>Topics Addressed:</b>	G

## V. EXISTING AND PROPOSED INDIVIDUAL PUBLIC EDUCATION BMPs

Reported above and as follows:

Individual permittees should fill in details of their individual activities here.

### Activity #X: Description

**Delivery Mechanism:**

**Key Messages:**

**Target Audience:**

**Year and Frequency:**

**Goal:**

**Assessment:**

**Responsible Parties:**

**Topics Addressed:**

## VI. OTHER INVOLVED ORGANIZATIONS

In implementing this Public Education Plan, the permittees will pursue cooperative partnerships plus information and resource sharing with several organizations, including but not limited to:

Organization	Program	Contact If Known
Alliance of Downriver Watersheds	Chairperson Facilitation Team Leader	Jim Gorris, City of Gibraltar Vicki Putala, OHM
Huron-Clinton Metropark Authority, Pointe Mouillée State Game Area (Michigan Department of Natural Resources), Detroit River International Wildlife Refuge, Friends of the Detroit River, Detroit Riverkeeper	Environmental Education and Interpretive Programs	Jennifer Hollenbeck, HCMA; Zach Cooley, Pointe Mouillée State Game Area; Susan White, DRIWR; Robert Burns, Detroit Riverkeeper
Huron River Watershed Council	Water Quality Monitoring Program, Facilitation of Collaborative Permittee Activities, Information and Education Campaign	Ric Lawson Andrea Paine Pam Labadie
Wayne County Department of Public Services, Water Quality Management Division	Workshops, Illicit Discharge & Dumping Response System, water quality monitoring; watershed signs and informational displays; Green Schools program	Noel Mullett Mike Flowers Nancy Gregor
Wayne County Department of Public Services, Land Resource Management Division	Household Hazardous Waste Collection Sites, composting, waste disposal and recycling	John Demerjian
MSU Extension – Wayne County	Horticulture & Natural Resources, Watershed Management, and other programs	Gary Williams, Extension Educator, Natural Resources-Outdoor Education; Mary Bohling, Extension Educator, Sea Grant; Kristine Hahn, Extension Educator, Consumer Horticulture
Michigan Department of Environmental Quality	Water Resources Division, Field Operations Section, MS4 Staff	Lishba Varughese Erica Stevenson
Michigan Water Environment Association	The Michigan Water Network (MWN) information conduit and repository for important news, data, facts, etc. pertaining to the water- related issues of Michigan and the Great Lakes	Allison Wood, Executive Director
Southeast Michigan Council of Governments	Workshops, educational events, and public education materials, SEMCOG Partners for Clean Water	Katherine Grantham



## **VII. EVALUATION OF EFFECTIVENESS**

Evaluation of the overall effectiveness of the PEP will consist of a combination of both the accumulated measures of the effectiveness of the PEP's individual activities and a measure of the effectiveness of the sum of all the activities.

Evaluation of accumulated measures of the effectiveness of the PEP's individual activities success 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 web site hits or the number of literature pieces distributed to a target audience.

When practicable, measurements of outcome (i.e., results that indicate actual behavior change) will be incorporated into BMP activity evaluations. Such measures are expected to include public comment and feedback, level of participation in programs and activities, and tools that measure behavior change. When applicable, these measures will be reasonably coordinated with other communities and organizations and will be designed to supplement or provide comparison to the ADW's 2016 Resident Survey on Water Quality. Results will serve to provide a basis for evaluating PEP activities going forward and will provide an opportunity to benchmark social indicators for subsequent permit cycles.

## **VIII. PERIODIC PROGRESS REPORT**

Permittees will provide documentation of PEP efforts, a summary of the evaluation of its effectiveness when appropriate, and any proposed revisions or amendments to the PEP program in the periodic stormwater reports to the MDEQ. Reporting on PEP efforts will reflect data gathered on a calendar year basis.



**STORMWATER DISCHARGE PERMIT APPLICATION  
COLLABORATIVE PUBLIC EDUCATION PLAN TABLE  
For the Alliance of Downriver Watersheds MS4s**

Public Education Topic	BMP Activity #	BMP Activity Description	Partner Collaboration	Target Audience	Key Message	Delivery Mechanism	Year	Frequency	Responsible Party	Goal	Assessment
A-J	1	Watershed community calendar and social media photo contest	Yes	Residents	A-J	Distributed print calendar and photo contest on social media	Even calendar years	Biannually	ADW/Permittees	During the permit cycle, the ADW will collaboratively produce a biannual print calendar in even calendar years that permittees will distribute to residents. To promote a calendar-related public photo contest during even calendar years, the ADW will also produce and permittees will distribute monthly social media posts/digital ads/content. The calendar and photo contest will be posted to the ADW website and permittees will provide links from their websites to the ADW website.	Number of calendars distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of photo contest participants.
A-J	2	Focused topic pollution prevention pledge campaigns	Yes	Residents	A-J	Digital pollution prevention pledge campaign seeking resident commitment toward a positive action	Odd calendar years	Biannually	ADW/Permittees	Biannually, the ADW will collaboratively host one print or digital single-topic pledge campaign. The ADW and permittees will distribute print and digital campaign materials that include a flyer, an ad graphic, and at least eight social media posts through local venues and customer service locations, newsletters and/or other publications, social media and websites.	Number of print campaign materials distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of pledges collected.
A-J	3	Displays at community venues and outreach activities at events	Yes	Residents, visitors, community leaders	A-J	Pop-up display and educational posters at regional fairs and events and community venues, meetings or events	1-5	2-3 regional fairs and events annually; On-going at community venues	ADW/Permittees	The ADW will produce/provide a pop-up display for ADW and permittee use and a set of educational posters for each permittee during the permit cycle. The ADW will collaboratively host the pop-up display at two regional events annually. Permittees will display posters or host the pop-up display in at least one location or at one community event annually.	Name, date and location of event where the ADW hosted the pop-up display; Permittees will also report the location, date and name of meeting/event (if applicable) where they placed posters or hosted the pop-up display in their permittee locations, public venues, meetings/events.
A, B, I	4	Support county green schools program	Yes	Students, teachers	A, B, I	Incentives, educational opportunities and activities (water-related) for green schools and watershed educational signage	1-5	Annually	Wayne County/ADW	The ADW will engage at least three Green Schools in the ADW area each year during the permit cycle in incentives and educational opportunities.	ADW will report a list of schools with number of students participating in tree plantings, watershed workshops or other ADW incentives and educational opportunities; List of schools displaying ADW-provided educational signage or distributing ADW materials; Number of schools including water-related activities in their Green Schools applications.
A primary, B-K secondary	5	Support/promote volunteer stream and water quality monitoring	Yes	Residents, students, teachers	A, B-K	Permittees promote HRWC volunteer water quality monitoring; and volunteer and student benthic macroinvertebrate monitoring	1-5	Annually spring-fall; annually at unique events winter, spring, fall	HRWC/ADW/Permittees	The ADW and permittees will promote three one-day volunteer macro-invertebrate monitoring events in the Huron River watershed and a seasonal volunteer chemistry and flow monitoring program in the Huron River and ADW area that are coordinated by the Huron River Watershed Council.	Compilation of all promotional efforts by the ADW; Number of people participating in events as recorded by HRWC; Resulting stewardship actions taken as reported by participants through event surveys conducted by HRWC; Permittees will also report individual efforts to distribute promotional event materials.

**STORMWATER DISCHARGE PERMIT APPLICATION  
COLLABORATIVE PUBLIC EDUCATION PLAN TABLE  
For the Alliance of Downriver Watersheds MS4s**

Public Education Topic	BMP Activity #	BMP Activity Description	Partner Collaboration	Target Audience	Key Message	Delivery Mechanism	Year	Frequency	Responsible Party	Goal	Assessment
A, B, C	6	Stream and river crossing road signs	Yes (to install and/or maintain)	Residents, visitors	A	Roadside Signage	1-5	On-going	ADW/local community officials/Permittees	The ADW has recently completed a baseline survey and map inventory of existing stream crossing and watershed signs documenting location, type and condition. Based on survey results the ADW will advise permittees regarding maintenance and replacement needs and will recommend additional sign locations to increase visibility and public recognition. The ADW will facilitate the production of replacement signs and at least 5 new signs during the permit cycle. Permittees will install and maintain signage.	Survey results, map inventory and recommendations; Number of new and replacement signs produced by the ADW; Permittees will report installation and maintenance activities.
J, K	7	Participate in regional partnership activities	Yes	Stakeholders of partner organizations; residents	A-K	Participate with regional partners in activities that that further public education of watershed and stormwater issues	1-5	On-going; identify and attend 3-4 partner meetings annually	ADW/Permittees	The ADW collaboratively will identify opportunities to build upon and improve collaborative public education efforts by seeking out and attending at least three meetings annually with regional groups working on watershed awareness and stormwater issues.	ADW provided list of meetings with date, location, meeting topic and participating groups and any resulting opportunities identified and reported to permittees.
A-K	8	Promote county-wide complaint tracking and response systems	Yes (to promote)	Residents; visitors; commercial and industrial businesses; local govt officials and employees	B, C, K	Permittees will publicize and promote regional reporting lines with print and digital promotional information	1-5	On-going	Wayne County/ADW/Permittees	The ADW and permittees will annually distribute materials with the hotline number referenced and will promote the hotline on the ADW and permittee websites and social media outlets or newsletters.	Number of materials distributed annually with hotline number referenced reported by ADW for collaborative efforts and reported by permittees for permittee efforts.
B, C	9	Promote water resource protection workshops	Yes (to promote)	Residents, local govt officials and employees; construction contractors and developers	A-J	Permittees will publicize and promote regional educational workshops at customer service locations, on websites, social media outlets and/or newsletters	1-5	On-going as workshops are organized	ADW/Permittees	The ADW and permittees will annually distribute information and promotional materials for at least one regional educational workshop/program through customer service locations websites, social media outlets and newsletters.	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.
A, G	10	Promote county household hazardous waste reduction program	Yes (to promote)	Residents	G	Permittees will publicize and promote county collection events and proper disposal of household hazardous waste and recycling with print and digital promotional information	1-5	Annually	Wayne County/ADW/Permittees	The ADW and permittees will annually distribute information and promotional materials for all HHW collections scheduled by Wayne County through customer service locations websites, social media outlets and newsletters.	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.

**Permittees in the Alliance of Downriver Watersheds:**

Allen Park

Belleville

Dearborn Heights

Ecorse

Flat Rock

Gibraltar

Grosse Ile Township

Inkster

Lincoln Park

Melvindale

Riverview

Rockwood

Romulus

Southgate

Sumpter Township

Taylor

Van Buren Township

Wayne County

Westland

Woodhaven

Woodhaven-Brownstown School District

Wyandotte

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Public Education Topic	Key Message
A. Promote public responsibility and stewardship in the applicant(s) watershed.	Watershed definition, location, purpose for protecting, ways to affect, also including recreational and economic benefits of local water resources.
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.	Recognition of and how to locate. Lack of treatment and flow impacts to water quality and water body to which MS4 is connected.
C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.	What it is, promotion of reporting system and how to use, water quality impacts, identification of on-site sewage disposal and symptoms of failure, consequences to water quality.
D. Promote preferred cleaning materials and procedures for car, pavement, and power washing.	Preferred cleaning materials and procedures.
E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.	Proper application and disposal.
F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.	Proper disposal.
G. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.	Identification of household hazardous wastes and proper disposal.
H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.	Proper care and maintenance, recognition of failure, water quality impacts.
I. Educate the public on and promote the benefits of green infrastructure and Low Impact Development.	Benefits of green infrastructure and low impact development and implementing landscaping for water quality in residential applications.
J. Promote methods for managing riparian lands to protect water quality.	Benefits of riparian buffers of native plants, shrubs and trees for preventing erosion and runoff into waterbodies.
K. Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.	Storage of chemicals to prevent exposure to stormwater runoff, proper disposal of grease and waste from food preparation, best practices for kitchen maintenance and recycling to prevent improper disposal.