

ROUGE RIVER COLLABORATIVE PUBLIC EDUCATION PROGRAM (PEP)



Prepared by:



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March, 2017
Revised January, 2020

From: [Hendges, Martin \(EGLE\)](#)
To: [Annette DeMaria](#)
Subject: RE: Updated Rouge IDEP, TMDL and PEP Plans for Approval
Date: Thursday, January 30, 2020 9:03:52 AM

Annette,

I'm OK with the changes to all 3 plans however I think the original plan approval date and the date of the revision should be included at the bottom of each of the 3 plans.

Also, in the IDEP some of the figures and attachments are showing up but maybe that was intentional in this marked up version.

Martin Hendges

Senior Environmental Quality Analyst
Water Resources Division/Warren District Office
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From: Annette DeMaria <ademaria@ectinc.com>
Sent: Tuesday, January 28, 2020 11:43 AM
To: Hendges, Martin (EGLE) <HENDGESM@michigan.gov>
Subject: Updated Rouge IDEP, TMDL and PEP Plans for Approval

Marty, on behalf of the Alliance of Rouge Communities, we are providing for EGLE's approval the updated the IDEP, PEP and TMDL plans to include Schoolcraft College and WCAA-Willow Run as described below. I will incorporate the appendices into the IDEP plan once we receive your approval.

- IDEP Plan – provided with track changes on to facilitate your review:
 - WCAA was added and minor changes were made to the plan to incorporate WCAA into the activities
 - Minor typos were corrected
 - West Bloomfield was added to the facility dye testing BMP (this corrected an inadvertent omission)
- TMDL Plan – provided as a pdf:
 - Schoolcraft College and WCAA-Willow Run were added to Attachment A and page 8 where we added “Other Permittees” to account for WCAA in the metrics reporting. No other changes were made.
- PEP Plan – provided as a pdf:
 - Schoolcraft College and WCAA-Willow Run were added to Attachment A which lists the plan participants. No other changes were made.

Please me know if you have any questions.



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHEAST MICHIGAN DISTRICT OFFICE



C. HEIDI GREETHER
DIRECTOR

March 28, 2017

Via E-Mail and U.S. Mail

Ms. Brandy Siedlaczek
Chair, Alliance of Rouge Communities
Storm Water Manager, City of Southfield
26000 Evergreen Road
Southfield, Michigan 48076

Dear Ms. Siedlaczek:

SUBJECT: Municipal Separate Storm Sewer System (MS4)
National Pollutant Discharge Elimination System (NPDES) Permit Application
Rouge River Collaborative Public Education Plan (PEP)
Rouge River Collaborative Public Participation / Involvement Program (PPP)
PEP / PPP Approval Letter

The Michigan Department of Environmental Quality (DEQ), Water Resources Division (WRD) received the revised Rouge River Collaborative Public Education Plan (PEP) and revised Collaborative Public Participation / Involvement Program (PPP), both dated January 2017. The revised PPP and PEP were submitted in response to our review comments provided by letter dated November 9, 2016. Subsequently, following additional review and comments communicated by conference call with Alliance of Rouge Communities (ARC) staff, we also received a third draft of the PEP revised date March 2017. The PPP and PEP plans were submitted as part of your communities' applications due by April 1, 2016, for reissuance of National Pollutant Discharge Elimination (NPDES) Municipal Separate Storm Sewer System (MS4) permit coverage.

We reviewed the collaborative PEP (revised March 2017) and PPP (revised January 2017) and determined that they meet the requirements of the MS4 Permit Application. The collaborating permittees shall begin implementing the approved PEP and PPP upon reissuance of the MS4 permits.

Please note that this approval letter addresses only the collaborative PEP and PPP documents; it does not address other application attachments submitted individually. Individual application components will be reviewed and, if needed, addressed under separate cover. Additionally, the collaborative PEP and PPP were reviewed giving consideration to BMPs to be implemented for one permit term. The results of the effectiveness of implementing BMPs consistent with these final approved PEP and PPP will be reviewed as part of the permit reissuance process.

March 28, 2017

Thank you for your commitment to protecting and improving the water resources for the State of Michigan. If you have any questions or concerns, please contact me at 586-753-3775; BahrouA@michigan.gov; or MDEQ, WRD, 27700 Donald Court, Warren, MI 48092-2793.

Sincerely,



Andrew Bahrou
Water Resources Division
Southeast Michigan District Office

cc: Mr. Thomas Meszler, Village of Beverly Hills
Ms. Kathryn Hagaman, Village of Bingham Farms
Mr. Paul O'Meara, City of Birmingham
Mr. Jay Craven, City of Bloomfield Hills
Mr. Wayne Domine, Bloomfield Township
Mr. Bob Belair, Canton Township
Mr. William Zimmer, Dearborn Heights
Mr. Charles Eudy, City of Farmington
Ms. Karen Mondora, City of Farmington Hills
Mr. James Creech, Village of Franklin
Mr. Kevin Roney, City of Garden City
Mr. Jerome Bivins, City of Inkster
Ms. Pamela Bratschi, City of Lathrup Village
Mr. Donald Rohraff, City of Livonia
Mr. Rick Browning, City of Melvindale
Mr. James Gallogly, City of Northville
Ms. Jill Rickard, Northville Township
Mr. Aaron Staup, City of Novi
Mr. Kevin Yee, City of Oak Park
Mr. Chris Porman, City of Plymouth
Mr. Patrick Fellrath, Plymouth Township
Mr. John Selmi, Redford Township
Mr. Steve Vandette, City of Troy
Ms. Colleen Coogan, City of Walled Lake
Mr. Michael Buiten, City of Wayne
Mr. Hassan Saab, City of Westland
Mr. Ronald Fadoir, Oakland County
Ms. Jacy Garrison, Oakland County
Mr. James Wineka, Oakland County
Ms. Kelly Cave, Wayne County
Mr. Noel Mullett, Wayne County
Mr. Sam Greco, Henry Ford Community College
Ms. Annette Demaria, ECT
Ms. Meghan Price, ECT
Mr. Cory Borton, HRC
Ms. Elizabeth Thacker, OHM
Ms. Christe Alwin, DEQ-WRD MS4 Specialist
Mr. Martin Hendges, DEQ-WRD
Ms. Melinda Steffler, DEQ-WRD
Ms. Lishba Varughese, DEQ-WRD

Rouge MS4 – PEP/PPP

Page 3

March 28, 2017

Ms. Hae-Jin Yoon, District Supervisor, DEQ-WRD
MS4 File /Collaborating Permittee/ PDF

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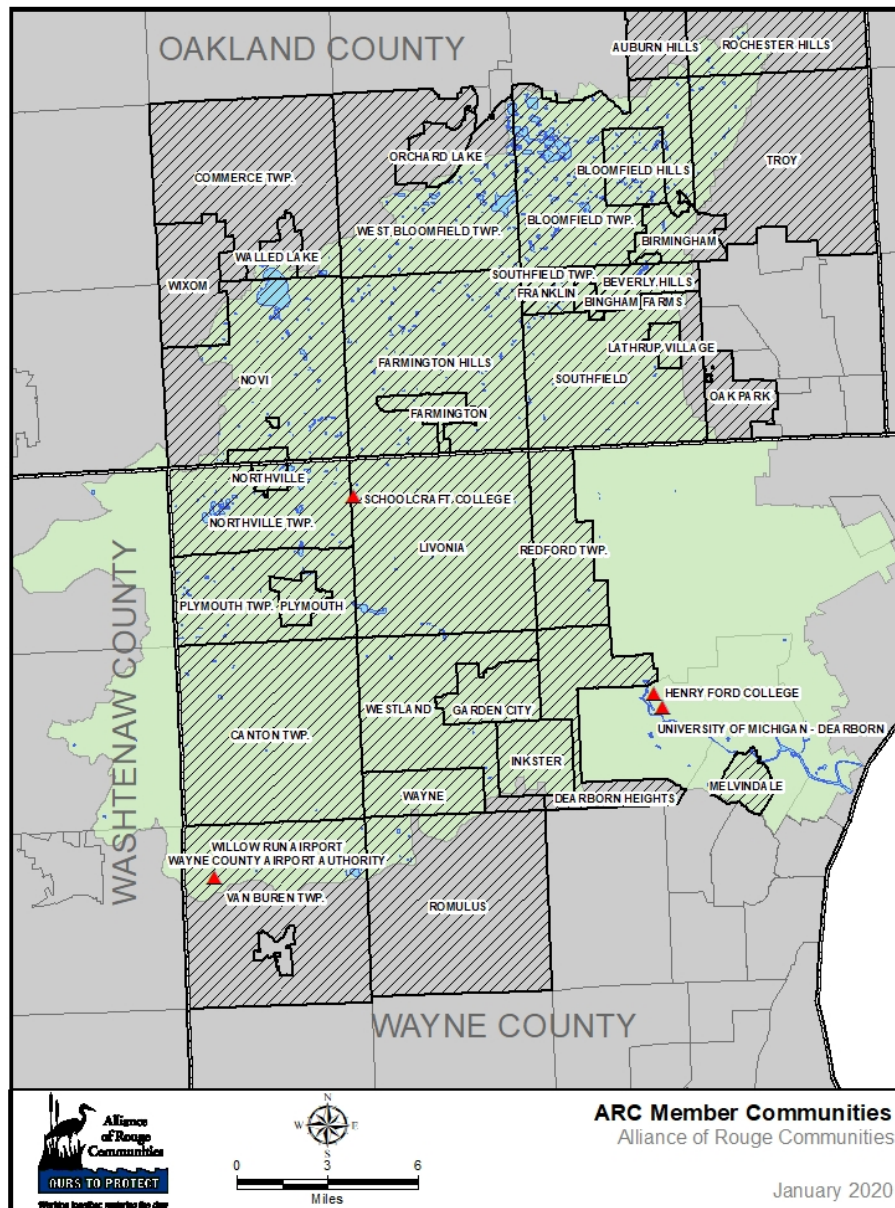
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Attachment A: Responsible Communities

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



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	<p><u>Goals:</u></p> <ul style="list-style-type: none"> • Create at least 2 brochures/materials during permit cycle including one to educate commercial/industrial/educational & institutional entities • Develop at least 24 Facebook posts • Materials available at ARC member facilities <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Number of materials distributed/topic/location/event name • Number of posts/views on ARC Facebook • Viewer numbers from electronic media when used
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	<p><u>Goals:</u></p> <ul style="list-style-type: none"> • Coordinate/distribute existing articles/ad graphics • Develop 1 new article/1 new ad graphic per year (total of 5 during permit cycle) • Increase in ARC website traffic and Facebook views <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • List of articles/ad graphics with title, topic and date • List of articles/ad graphics promoted on ARC website/Facebook • Number of views on ARC website/Facebook

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"> Distribute 4 seasonal posters, post & rotate seasonally at least 3 out of 5 years during permit cycle. 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. <u>Assessment:</u> <ul style="list-style-type: none"> Report of display/date/location and title of events where displays were used Number of posters distributed and location Number of static displays created annually
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"> Distribute materials annually with hotline referenced Promote on ARC and ARC member community website and Facebook <u>Assessment:</u> <ul style="list-style-type: none"> Number of materials distributed annually Number of views on ARC website and Facebook
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"> Develop homeowner materials within 1 year of permit approval <u>Assessment:</u> <ul style="list-style-type: none"> Completion of brochure Number of materials distributed annually Number of materials distributed to new home

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"> Number of views on ARC website and Facebook
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"> Conduct six workshops/presentations during the permit cycle, 1 or more per year and at least 1 per sub-watershed. Each event will average at least 15 participants. ARC member communities will promote and/or host events One or more will target businesses <u>Assessment:</u> <ul style="list-style-type: none"> Sign-in sheets with number of attendees and type Number and topics of materials handed out and presented Survey results Report of ARC member communities promoting/hosting events
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"> Coordinate 4 work days during permit cycle ARC member communities will promote, participate or host volunteer and other watershed events <u>Assessment:</u> <ul style="list-style-type: none"> Number of views on ARC website and Facebook annually Sign-in sheets documenting volunteer attendance Survey results Report of ARC member communities that hosted, participated or promoted events

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	1 Winter Stonefly Search and 1 Bug Hunt or other like programs, and 2 other volunteer monitoring training exercises and/or workshops annually	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"> Conduct 1 winter stonefly search, 1 bug hunt and 2 other volunteer monitoring training exercises annually ARC member communities will promote, participate or host volunteer events <u>Assessment:</u> <ul style="list-style-type: none"> Number of views on ARC website and Facebook Sign-in sheets showing number of volunteers Survey results Report of ARC member communities that hosted, participated or promoted events
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"> Develop at least 1 new sign or sticker during permit cycle During first 2 years survey watershed signage for maintenance and future sign needs Create map during permit cycle documenting survey results Implement maintenance and/or new signage at high-priority locations during the first permit cycle <u>Assessment:</u> <ul style="list-style-type: none"> Complete at least 1 new sign/sticker or other item Number of signs/stickers or other items distributed annually Survey results, map and recommendations Number of signs maintained and new signage installed

ATTACHMENT A

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
ARC Staff (under contract to the ARC)	1, 2, 3, 4, 5, 6, 7, 8, 9
Friends of the Rouge (under contract to the ARC)	6, 7, 8
Communities	
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
Counties	
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
Schools	
Henry Ford College	1, 2, 3, 4, 5, 6, 7, 8, 9
Schoolcraft College	1, 2, 3, 4, 5, 6, 7, 8, 9
Other	
Wayne County Airport Authority – Willow Run Airport	2, 4, 7, 8, 9

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